



City Council Meeting Agenda

September 16, 2025
7:00 PM – Regular Meeting
Council Chambers
400 N. Douty St.

Council Members will meet in-person in the Council Chambers. The meeting will also be lived streamed on the City's website: <http://livestream.hanford.city/>

4:00 PM CALL TO ORDER STUDY SESSION AND CLOSED SESSION:

ROLL CALL BY THE CITY CLERK:

PUBLIC COMMENT:

*Study Sessions are considered Special Meetings under the Brown Act. Accordingly, comments from the public are limited to items listed on the agenda (GC 54954.3a). Public Comment will be accepted during each agenda item. A maximum of **three minutes** is allowed for each speaker. Please begin your comments by stating your name and providing your city of residence.*

STUDY SESSION:

- A. Hanford Fire Department Annual Report for calendar year 2024
- B. The Hanford Plunge - Facility evaluation, repairs, improvements, and ongoing maintenance and appropriation from the General Fund Reserve to pay for the needed Plunge repairs for \$237,600.
- C. Civic Park Hardscaping Project — Provide direction on the feasibility of the project, proposed community engagement, project timeline and budget

CLOSED SESSION FOR DISCUSSION OF THE FOLLOWING:

- A. CONFERENCE WITH LEGAL COUNSEL- REAL PROPERTY NEGOTIATIONS (GC 54956.8)

Property: 009-050-046-000 SOC COM Soccer Complex

Agency Negotiators: Chris Tavarez and Ty Mizote

Negotiating Party: Steve Mendoza, Kings Rehabilitation Center

Under Negotiation: Price and Terms

Property: 010-310-004-000 Youth Athletic Complex (YAC)

Agency Negotiators: Chris Tavarez and Ty Mizote

Negotiating Party: Kings County
Under Negotiation: Terms

Property: 010-264-001-000 and 010-271-017-000
Agency Negotiator: Chris Tavaréz and Ty Mizote
Negotiating Party: Kings County
Under Negotiation: Terms

B. CONFERENCE WITH LEGAL COUNSEL-ANTICIPATED LITIGATION (54956.9 (d)(2))

1 Potential Case.

CALL TO ORDER REGULAR SESSION:

ROLL CALL:

INVOCATION:

Pastor Lori Niles

FLAG SALUTE:

CLOSED SESSION ACTION REPORT:

RECOGNITION:

- A. Recognition of the Gymnast from Lee's United Gymnastics for Achieving National Championship Titles and the presentation of a Proclamation Recognizing Lee Pinkstaff for His Exemplary Leadership, Mentorship, and Dedication to Generations of Youth in Hanford and Kings County
- B. Recognition of CMTA Investment Policy Certification Granted to the City of Hanford

PUBLIC COMMENT:

This is the time for citizens to comment on subject matters within the jurisdiction of the Hanford City Council. This is also the public's opportunity to request an item from the Consent Calendar be pulled for discussion purposes or to comment on any item on the agenda. State law does not allow the Council to discuss or take action on issues not on the agenda, except that members of the Council or staff may briefly respond to statements made or questions posed by persons exercising their public testimony rights (Gov. Code sec. 54954.2). A maximum of three minutes is allowed for each speaker. Please begin your comments by stating your name and providing your city of residence.

CONSENT CALENDAR:

Consent Calendar items are considered routine and will be enacted in one motion. There will be no separate discussion of these matters unless a request is made and then the item will be removed from the Consent Calendar to be discussed and voted upon by a separate motion.

- A. Waive reading in full of resolutions and ordinances and approval and adoption of same by reading the title only.
- B. City Clerk: Approval of the Minutes of the August 5, 2025 Meeting
- C. City Clerk: Approval of the Reappointment of Planning Commissioners Dennis Ham and Jim Nelson and Parks and Rec Commissioners Sheldon Blackwell and Judy Scott to serve new full terms.
- D. Public Works: Authorization for City Manager to execute Supplemental Services Agreement #3 with Brandley Engineering for general engineering and consulting

services for \$50,000 and agreement #4 for construction management services for the closure of the underground fuel tank for \$46,000 and an appropriation of \$83,200 from the Airport Operation Fund.

- E. Utilities and Engineering: Award a contract to Archer Civil Construction, LLC of Tulare, CA in the amount of \$1,129,567.05 for the 12th Avenue at Hume Avenue Traffic Signal Project
- F. Utilities and Engineering: Stonehaven Tract 940-Intention to Annex Territory to Community Facilities District No. 2025-1 (Public Safety Services)
- G. Utilities and Engineering: Stonehaven Tract 940-Intention to Annex Territory to Community Facilities District No. 2025-2 (Public Maintenance Services)
- H. Police: Approval of annual contract for fiscal year 2025-2026, with the Hanford Joint Union High School District and the Kings County Office of Education, for their School Resource Officer Program
- I. Police: Approval of the Appropriation of \$93,316.09 from the General Fund for the Purchase of Firearms for the Police Department

PUBLIC HEARING:

- A. Community Development: Public Hearing and approve submission of the Community Development Block Grant (CDBG) Consolidated Annual Performance and Evaluation Report (CAPER) for Program Year 2024 (July 1, 2024, to June 30, 2025) and adopt Resolution 25-55- R Authorizing and Approving the 2024-2025 CAPER.
- B. Community Development: A Public Hearing related to:
 - 1) General Plan Amendment No. 2022-01: a request to change the general plan designation from Highway Commercial to Service Commercial and High-Density Residential on approximately 39.16 acres.
 - 2) Rezone No. 2022-01: a request to change the zoning on 39.16 acres from C-H Highway Commercial to C-S Service Commercial and R-H High-Density Residential with a Planned Unit Development overlay.
 - 3) Planned Unit Development No. 2022-01: a request to allow blended zoning for a master planned medical and mixed-use development, including the future construction of 15 buildings consisting of medical outpatient clinic services, a hotel and conference center, specialized education, retail, medical office, skilled nursing and assisted living, and multi-family residential uses, as well as a bio infiltration basin, associated open space, circulation and parking, and infrastructure improvements.
 - 4) Mitigated Negative Declaration No. 2023-93: a request to certify that the project will have a less than significant impact with the incorporation of mitigation measures.

The project is located between 11th and 12th Avenues along Glendale Drive, north of Highway 198 (APN 011-060-007, 011-060-008, 012-290-040, 012-290-042, and 012-290-054).
- C. Utilities and Engineering: Public Hearing to Consider Approval of an Energy Services Contract with OPTERRA Energy Services for the Design and Construction of certain Energy Conservation-Related Improvements at the City of Hanford's Wastewater Treatment Facility's (WWTF) and Adoption of Necessary Findings under Government Code §4217 up to an estimated not to exceed fee amount of \$63,122,800

GENERAL BUSINESS:

- A. Finance: Adoption of Resolution No 25-53-R a "reimbursement resolution" which allows for, but does not require, the City to reimburse cash expenditures for the public safety facility project with low-cost tax-exempt bonds in the future for an approximate principal amount of \$50 million
- B. Finance: Adoption of Resolution No 25-52-R a "reimbursement resolution" which allows for, but does not require, the City to reimburse cash expenditures for a wastewater treatment plant improvement project, including a solar energy generation component with low-cost tax-exempt bonds in the future for an approximate principal amount of \$75 million.
- C. Public Works: Approval of the purchase of twelve (12) drinking fountains from Most Dependable Fountains, Inc, of Arlington TN, in the amount of \$53,266.83, to be installed at various parks and a landscape assessment district located within the City of Hanford and utilize existing appropriation in Measure H and appropriate landscape assessment district funding of \$4,898.31 from LAD 04-03 (Vineyard)
- D. Fire: Illegal Fireworks update, discussion and direction for the Hanford Fire Department on developing the "It's Not Worth It" Campaign

COUNCIL REPORTS/GENERAL REPORTS:

Brief information-only reports from City Council and/or Staff, including committee reports and reports by City Council related to meetings attended at City expenses (AB1234).

- A. INFORMATION REPORT - AUGUST WARRANT REGISTER

ITEMS FOR FUTURE AGENDAS:

At this time, any Council Member may ask a question for clarification or may request a matter, which is not otherwise scheduled on a City Council agenda, to be placed on a future agenda. The Council Member referring the item shall provide sufficient information as to the nature of the item. The City Council, by concurrence of a majority, may direct the City Manager to put the item on a future agenda. (GOV. CODE SEC. 54954.2)

- A. Council Future Agenda Items
- B. Upcoming Events and Important Dates:
 - October 4 & 5: Renaissance Faire in Civic Park
 - October 7: Regular City Council Meeting
 - October 7: Hanford Night Out 4:00 p.m. in Civic Park
 - October 13: Fire Department Open House at Fire Station 1 10:00 am - 2:00 pm
 - October 21: Regular City Council Meeting

ADJOURNMENT:

Materials related to an item on this Agenda submitted to the City Council after distribution of the agenda packet are available to public inspection in the City Clerk's Office located at 319 N. Douty Street, Hanford, California 93230, during normal business hours. Such agendas are also available at the city's website, www.cityofhanfordca.com subject to staff's ability to post the agenda before the meeting. If you need a disability-related modification or accommodation, including auxiliary aids or services, to participate in this meeting, please contact the City Clerk's office, 559-585-2515, 319 N. Douty Street, Hanford, California 93230, at least 2 days prior to the meeting {28 CFR 35.102.35.104 ADA Title II}



AGENDA STAFF REPORT

MEETING DATE: 9/16/2025

AGENDA SECTION: STUDY SESSION

SUBJECT:

Hanford Fire Department Annual Report for calendar year 2024

RECOMMENDATION:

Recommendation: Staff recommends the City Council receive and file the Hanford Fire Department Annual Report.

BACKGROUND:

Fire Chief Executive Summary

The dedicated staff of the Fire Department have accomplished a great number of seemingly insurmountable tasks within this past short years' time. Collectively, we have embraced a new leadership style and cultivated a true sense of family within our ranks to embark on our next decade of service to the community.

As the department nears its 135th anniversary of service in 2026, it was with a great sense of community that the city received support for a 1% Tax Measure known as Measure H. This transformative civic support will enable the department to address many issues from staffing, equipment and facilities that allow the members of our traditional, value-based organization to serve with great 'community' pride.

From improvements in technology-based equipment (Radios, Thermal Imagers and Geographical Information Systems (GIS) to advances in tried-and-true firefighting tools such as lighter, better and more durable fire-hoses, the resilient members of this fire department are constantly looking for ways to meet their core mission: to "... seek methods to decrease preventable tragedies...".

Although the funds captured in Measure H are significant, the work that remains to be done to bring the Fire Department to nationally recognized and recommended staffing levels as well as provide the ability to mitigate risks throughout the community remains. These risks are known and the key to their successful mitigation is planning, training and successful execution of that plan.

The Hanford Fire Department in 2022, in coordination with industry experts and consultants as well as community stakeholders, developed a comprehensive plan through consensus, known as the Community Risk Assessment and Standards of Response Coverage (CRA/ SORC). Within these documents lie the basis of best practices, nationally aligned standards of professional fire service agencies and the knowledge that each City Council will also develop their plan for the city itself.

This annual report reflects the awareness that the identified areas of improvement for the department must be aligned with the objectives of the City Council. These plans must work in conjunction with each other so that the resultant objectives formulate a cohesive and cogent plan that addresses the wishes of the representatives of the people we serve. This plan has been enacted using specific measurable items in the 5 key Council result areas.

Considering that there are 4 main areas of concentration for the improvement of the Fire Department from the CRA /SORC – the department has taken all 9 items and identified a means to enact both plans through direct action. Therefore, we present our actions and how they align to the wishes of the council and the identified needs of the department.

Thus, it is with great pride that I present the activities as well as the associated plans that caused those actions to be placed into motion in the form of this Hanford Fire Department Annual Report to my fellow citizens of Hanford.

SUPPRESSION / ADMINISTRATION

The Hanford Fire Department is an all-risk fire service organization providing fire suppression, rescue, and non-transport, engine-based Basic Life Support (BLS) Emergency Medical Services (EMS). The department responded to 6,532 emergency calls and 8,250 total service calls, with nearly 55% being EMS-related. Despite increasing medical calls, fire-related incidents remain significant, with 330 fire calls causing \$1.56 million in damages. However, the department's effectiveness is reflected in an 86% property saved rate, with a goal of reaching 90%.

Hanford's consistent annual growth of 1–3% has led to a disproportionate increase in emergency calls, with a 6.1% rise in the past year alone. This demand underscores the urgent need for department expansion, prioritized in Measure H sales tax funding. Planned additions include increased staffing and a fourth fire station to address disparities in meeting the industry standard of 17 personnel per fire incident. Currently, with only 10 firefighters per shift, the department operates at 59% of the required staffing level.

Response times remain a critical issue, with the current average at 7 minutes 30 seconds—significantly above the national metropolitan standard of 4 minutes. The addition of a fourth fire station in Northwest Hanford will help reduce response times. Additionally, eliminating CCEMSA as an intermediary dispatcher will streamline emergency call handling, cutting delays and saving \$260K annually. Technology enhancements such as GIS-based ESRI mapping, Automatic Vehicle Location (AVL) integration via Tablet Command, and Image Trend data software will optimize resource deployment and statistical analysis. To improve communication reliability, the department will upgrade from a VHF radio system to a UHF cross-band-linked system through the Measure H communications initiative.

To enhance service quality, recruitment, and fiscal sustainability, the department will expand training opportunities for both new and tenured personnel. Establishing a dedicated training site within Hanford will allow targeted skills development, enhance fire suppression capabilities, and increase training revenue through partnerships with local community colleges, which have already yielded a 400% increase in returns.

Hosting regional training courses will further strengthen firefighter proficiency and operational efficiency, benefiting both personnel and the public.

These strategic improvements will position the Hanford Fire Department as a premier, mission-driven

fire service organization committed to excellence, efficiency, and community safety.

To best articulate all the initiatives into addressing the identified goals in 2025/ 2026 of the Hanford City Council, the Hanford Fire Department will implement the following actionable items in relation to the identified goals:

- Quality of Life

- Improve Fire Suppression capabilities by 4%.
- Decreased response times by 26% (1:30 sec).
- Increase frequency of Fire / Life Safety Inspections- 5%.
- Increase training to address effectiveness and efficiency of Fire Department Personnel- 5%
6500Hrs. to 6825 Hrs.

- Fiscal Sustainability

- Enacted fee restructuring of all departmental fees and rates to best align with current cost to provide services increased by 27% and instituted a CPI yearly change model.
- Developed programs to efficiently capture untapped revenue streams in Training/ Fire Prevention and Master Mutual Aid Increased Reimbursements by 8% in Out Of County, began charging and billing for Fire Life Safety Inspections.
- Established processes to best analyze overtime and balance impacts of unplanned expenditure: Instituted UKG time cards.
- Realigned communications contract for in-house communications moves to HPD: ended Contract with CCEMSA.

- Outreach and Open Governance

- Increased programs that gave Fire / Life Safety Message to all Hanford Elementary School District students (HESD): Junior Fire Explorer Program and School Visits.
- Refocused Volunteer Programs: revamped Community Emergency Response Team (CERT) and Internship Programs.
- Enacted Computer programs: First Arriving / Image Trend and Tablet Command that will share departmental metrics in a community accessible dashboard on web page.
- Created and Trained a Fire Department Public Information Officer (PIO) to assist the City PIO.

- Customer Service

- Increased awareness of the importance of Smoke Detectors through collaboration with the American Red Cross "Sound the Alarm Campaign".
- Decreased response times and put into motion significant changes in dispatching, awareness of crew response times with electronic in-station leader boards and concentration of reducing response times as a PRIMARY Initiative department wide.
- Automated Vehicle Location, Improved Computer programs, and better data collection and articulation have produced a better product that impacts delivery of emergency services.
- Adopted means to take credit cards as a means of payment and processing of invoices,

increasing the ability of customers to pay at point of sale.

- Employer of Choice
- Adopted better pay scales in line with current regional norms.
- Changed Culture from one of “No” to “Yes”.
- Provided upward mobility and chances for career growth and promotion with growth of the department.
- Improved Wellness and Fitness programs with yearly health screenings have identified two employees with job-related health issues that would not otherwise have been found.
- **2024 Accomplishments:**

Fire Suppression:

- Ran 6532 emergency calls for service a 6 % increase over previous year.
- Total fires were 330 or 5% of all calls.
- Fire loss in dollars: \$1.556 million, property saved in dollars \$10.720 Million or 14% fire loss. Which equates to an 86% effectiveness goal of > 90%.
- Hired (1) New Full-Time 56 Hour Battalion Chief.
- Purchased Two New Fire Engines, one with Grant Funds from the State Assembly, one from Fleet replacement funds — due to be delivered in 2027.
- Placed into service as a new Fire Chief Vehicle — Fleet replacement.
- Hired one additional FF to increase staffing and decrease overtime expenditures.
- Replaced 25% of out of service fire hose.
- Replaced 25% of out of service rescue equipment.
- Purchased Tablet Command Software to enhance Firefighter Safety and offer real-time awareness of vehicle and personnel locations on emergency scenes.

Training:

- Assigned New Battalion Chief as Training Officer.
- Increased training hours by nearly 300% — 2100 increased to 6100.
- Experienced increased collection of revenue of nearly 400% because of increased training hours.
- Revamped and updated Training Room with new tables and chairs.
- Completed a Training Needs Assessment.
- Established a two-year training plan for the entire department.
- Established Plans to develop a Static Training Facility at Station 2.
- Laid groundwork and base layers at the training site for training grounds.
- Purchased 10 Sea-Trains for use in developing functional props on site to train Firefighters.

Administration:

- Performed Assessment of Department and Guiding Documents.
- Brought Guiding Documents to the City Council for eventual adoption.
- Initiated Image Trend data collection software to improve data collection and articulation.
- Put into action electronic leader boards to better communicate response times and critical information to Emergency Response crews.
- Dissolved Contract for Communications dispatching with CCEMSA and came back to HPD for dispatching.
- Planned, Directed and Instituted changes to mapping, Automatic Vehicle Location (AVL)
- Researched, developed and implemented the utilization of GIS based mapping system to be adopted by the department to assist in increasing the efficiency of emergency response data collection and articulation.
- Revamped Command Team structure with Battalion Chiefs.
- Instituted official mentoring/ coaching processes by revamping Captain Meetings to include leadership training.

COMMUNITY RISK REDUCTION: PLANS CHECK, FIRE PREVENTION, AND OUTREACH

The Community Risk Reduction (CRR) Division of the Hanford Fire Department consists of one full-time Fire Marshal, two part-time Fire Inspectors, and a shared Office Technician. The division's primary focus areas include plan checks, inspections, and community outreach.

Plans Check

The Fire Marshal oversees site plan reviews, new construction (four phases), and tenant improvements (three phases). In 2024, the division completed over 900 billable hours on 473 plan reviews, averaging 1.9 hours per plan, with a two-week turnaround—33% faster than previous years.

Fire Life Safety Inspections

Fire Life Safety Inspections are conducted at all businesses, schools, churches, hospitals, jails, and manufacturing facilities, in compliance with California AB 1203. Key areas of focus include exits, electrical hazards, and fire extinguishers. Mandated annual inspections include:

- **State-Mandated:** 230 total (Schools: 22, Churches: 40, Apartments: 160 complexes with 22,000 units)
- **General Inspections:** 1,610 total (jointly conducted by Fire Prevention and Suppression personnel)

Despite improvements, nearly 800 inspections remain incomplete each year, resulting in lost revenue of approximately \$116,000—funds that could support a full-time Fire Prevention Coordinator.

Cost Recovery & Efficiency Efforts

Recent improvements in billing processes now allow for tracking and fee collection for inspections. Future goals include optimizing revenue collection from special hazard use permits (\$515 per permit) and hiring additional staff to increase efficiency.

Weed Abatement

Managing 120 lots requires an average of 75–110 days annually, primarily handled by one part-time inspector. The process involves multiple inspections, paperwork, and contractor coordination, consuming 360 personnel hours. Implementing drones in the upcoming period aims to reduce staff

time required for site inspections.

Fire Investigations & Enforcement

The Fire Marshal leads a Fire Investigation Unit in coordination with regional agencies. In 2024, the unit investigated two suspected arson cases and played a key role in removing 5,200 lbs. of illegal fireworks, issuing 27 citations. Future efforts will expand fireworks enforcement using night-vision drones and additional trained personnel.

Alignment of Departmental Goals to Goals of City Council:

The established goals of the City Council for 2023:

- Quality of Life
- Fiscal Sustainability
- Outreach and Open Governance
- Customer Service
- Employer of Choice

With these goals in mind and to best articulate the spirit of these goals, the Hanford Fire Department specifically addressed the goals in the following manner:

- Quality of Life
 - Increased fireworks enforcement efforts by 75%.
 - Increased frequency of Fire / Life Safety Inspections by 25%.
 - Augmented training to address effectiveness and efficiency of Fire Prevention and Investigations staff by 25%.
- Fiscal Sustainability
 - Enacted fee restructuring of all departmental fees and rates to best align with current cost to provide services.
 - Developed programs to efficiently capture untapped revenue streams in Fire Prevention by 10%.
 - Adjustments to Fire Department Master Fee schedule of 27% Fees had not been adjusted in 10 years.
- Outreach and Open Governance
 - Increase programs that give Fire / Life Safety Message to all Hanford Elementary School District students (HESD) Junior Fire Explorer and School Visits by.
 - Refocused Volunteer Programs to direct energy into Community Emergency Response Team (CERT).
 - Enacted computer programs, Image Trend that will share departmental metrics in a community-accessible dashboard.
 - Created and Trained a Fire Department Public Information Officer (PIO) to assist the City PIO.
- Customer Service
 - Increased awareness of importance of smoke detectors through collaboration with “Sound the Alarm Campaign” Red Cross.

- Adopted means to take credit cards as a means of payment and processing of invoices, increasing the ability of customers to pay at the point of sale.
- Employer of Choice
- Adopted better pay scales in line with current regional norms.
- Provided upward mobility and opportunities for career growth and promotion with growth of department.

Community Risk Reduction 2024 Accomplishments:

- Hired a Full-time Fire Marshal.
- Completed 100% of state-mandated Fire Inspections.
- Completed over 800 fire inspections.
- Completed over 600 hours of plan review.
- Re-instituted inspections by Fire Engine Companies for business and mercantile occupancies.
- Updated Fire Fee Schedule to better align with the cost of performing inspections.
- Refocused Fire Prevention efforts.
- Placed into service Fire Prevention Software.
- Completed over 600 hours of community outreach.
- Gave fire prevention message to 82% of elementary students in the Hanford School District.
- Reinstated Community Emergency Response Team CERT under the Fire Department
- Successful Open House with a record attendance of 700 members of the public.
- Fireworks Enforcement: 22 citations issued over 5500 lbs. of fireworks seized.

FISCAL IMPACT:

None at this time.

ATTACHMENTS:

None



AGENDA STAFF REPORT

MEETING DATE: 9/16/2025

AGENDA SECTION: STUDY SESSION

SUBJECT:

The Hanford Plunge - Facility evaluation, repairs, improvements, and ongoing maintenance and appropriation from the General Fund Reserve to pay for the needed Plunge repairs for \$237,600.

RECOMMENDATION:

Recommendation: Staff recommends an appropriation from the General Fund to pay for the needed Plunge repairs for \$237,600. In addition, the Plunge Capital Reserve Fund of \$187,414 would be exhausted.

Recommended Motion: I move to make an appropriation from the General Fund to pay for the needed Plunge repairs for \$237,600. In addition, the Plunge Capital Reserve Fund of \$187,414 would be exhausted.

BACKGROUND:

Since 1938, the Plunge has been a cherished fixture within the community and the only public pool within Hanford. During the Summer of 2025, the Plunge witnessed over 12,400 visits, 53.9% of which were Hanford residents. While the popularity continues, the mechanical and physical components have become aged and in need of repairs, improvements, and long-range planning.

The purpose of this study session is to provide the Council with information and cost estimates and to receive direction on the path forward.

Critical and Urgent Repairs

On August 3rd, the unexpected sudden closure of the Plunge occurred due to leaks in the circulation pump of the main competition pool, which required the shutdown of the main circulation pump. Knorr Systems International (KSI) was called to assess the needed repairs. Operations of the pool could not continue, and failure to address this incident would cause measurable damage to the circulation system, which is vital for the chemical balance of the water and safe operation of the facility. KSI provided a cost estimate of **\$21,186** for labor and parts to fix this issue. The repairs include removal of pool decking, dismantling of the 8" main drains and pit suction manifold, and replacement of defective parts. The Purchase Order for the critical and urgent repairs has been approved, and we are awaiting KSI to schedule their crew to complete the repairs. The repairs are expected to start within 30-45 days and will take several weeks to complete.

The Slide and Slide Pool Repairs

The Plunge water slide has been a popular attraction for many years. It is classified as an

amusement ride by the California Department of Industrial Relations, Division of Occupational Safety and Health, Amusement Ride Section. As such, it is inspected annually. In May 2024, the slide was inspected, and several repairs were identified. Such as:

- Circulation pump issues are causing a decrease in water flow
- Splash pool filtration motor wiring
- Skimmer and main drain renovation needed
- Corrosion on the sand filters
- Damaged non-skid coating on the entry stairs
- Damaged gel coating
- Need for improved training documentation

As a result, the slide has remained closed to the public for the 2024 and 2025 operating seasons. Staff were hesitant to expend the Plunge capital reserves on the slide repairs as a precaution against the possibility of unforeseen emergency repairs needed, which would force the closure of the main pool.

Whitewater is the manufacturer of the slide. In March 2024, USA Construction provided a quote for materials and repairs. The cost to repair the slide pool is **\$140,967**. The cost to repair the slide is **\$83,861**.

Assessment of the mechanical room, competitive pool, and ongoing maintenance

Unless it is the Council's direction to close the Plunge permanently, additional repairs are required.

In August 2024, KSI assessed the existing mechanical room and competitive pool. At that time, they identified the need to replace:

- The pump control system at a rough estimate of **\$15,000**
- The Heating system **\$25,000**
- 8" valves **\$4,000**
- Variable Frequency Drive (VFD) **\$12,000**
- Pool covers (ThermalGard) **\$18,000**
- Re-plastering of the competition pool **\$105,000**

Total for mechanical and competitive pool - \$179,000

The above repairs are expected to increase the efficiency and the lifespan of the Plunge. However, other unforeseen maintenance may be needed.

Ongoing Maintenance

Over the past several years, the routine maintenance and systems monitoring of the Plunge has been the responsibility of the Parks Division. The city currently has one staff person certified as an Aquatic Facility Operator (AFO) and one certified as a Certified Pool Operator (CPO). At this point, the staff recommends contracting this service to a professional pool maintenance company. This would free up park staff and provide a consistent and dedicated service. The estimated annual cost of contracted pool maintenance is **\$40,000**. It is staff recommendation that professional ongoing maintenance be included within the operational budget during the mid-cycle budget review.

Long Range Planning

As Hanford continues to grow in population and recreational demand, it is imperative to take a critical look at the future and ask ourselves the hard questions.

QUESTION:

- 1) REPAIR: Do we continue to repair the Plunge and hope for the best?
- 2) REHAB: Do we take a serious look at feasibility and funding strategies for a fully rehabilitated Plunge?
- 3) REPLACE: Do we take a look at what a new aquatics center may take to plan and fund?

In 2009, the City of Bakersfield constructed the McMutrey Aquatic Center, featuring a 50-meter competitive pool, double water slide, and interactive wet play equipment for \$6.2 million. If this type of project is of interest, feasibility and funding strategies must be explored. This feasibility and outlook will take more time and possible funding to explore and staff will bring back more information in the future.

Financial Summary**Expenses**

Critical and Urgent Repairs	\$21,186
Slide Pool Repairs	\$140,967
Slide Repairs	\$83,861
Mechanical & Comp Pool	\$179,000
TOTAL EXPENSE	\$425,014

Capital Reserve Account	-\$187,414
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TOTAL REQUEST	\$237,600
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Ongoing Maintenance	<u>\$40,000 (FUTURE CONSIDERATION)</u>
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A delay in performing the needed repairs will cause operational uncertainty and future increased costs. Staff recommends beginning repairs totaling \$425,014 as soon as possible contingent on City Council appropriation.

FISCAL IMPACT:

\$187,414 from the Plunge Capital Reserve Fund will be allocated to the needed repairs. The balance of \$237,600 is requested from the General Fund Reserve to complete the needed repairs.

ATTACHMENTS:

None



AGENDA STAFF REPORT

MEETING DATE: 9/16/2025

AGENDA SECTION: STUDY SESSION

SUBJECT:

Civic Park Hardscaping Project — Provide direction on the feasibility of the project, proposed community engagement, project timeline and budget

RECOMMENDATION:

Recommendation: Council provide direction on the feasibility of this project, proposed community engagement, project timeline and budget.

Recommended Motion: Provide direction to staff on whether to proceed and budget consideration.

BACKGROUND:

Civic Park is undoubtedly the cultural and historical heart of Hanford. It is also the City's busiest outdoor event venue. Significant events, including the Thursday Night Market Place, Winter Wonderland, concerts, and other various community gatherings, attracted over 526,200 visits (*Placer.ai data*) within the past 12 months. These popular events promote economic development, social cohesion, community pride, and a higher quality of life for all who visit. In essence, this project would create the classical town square, and is an opportunity to make a timeless statement and an everlasting tribute to Hanford's storied past by fostering a distinct sense of place, strengthening the identity, and preserving the cultural heritage for future generations.

The Winter Wonderland event has become a successful regional holiday destination. Last year, the City purchased a 60' x 100' portable ice rink that solidifies the financial stability of the event. Placing the ice rink on the natural turf center rectangle completely kills the grass and requires re-sodding at approximately \$8,000 annually. The proposed Civic Park hardscape project will eliminate the need for re-sodding, reduce water consumption (saving 124,640 gallons of water annually), lower maintenance expenses, and provide 4,000 square feet of new, flexible event space. In essence, this project creates a town square where people can gather, enjoy an ice cream, and enjoy Hanford's historic buildings and charm.

The three primary requirements of this project are that the selected surface must be able to withstand heavy vehicles, freezing temperatures, and be universally accessible.

Project Location

The project location is the 40' x 100' center rectangle directly in front of the Civic Auditorium (see attached photos). The area is 4,000 square feet and is currently natural turfgrass.

Project Timeline

A potential project timeline for delivery before next May 2026 is very tight. The Winter Wonderland

event concludes on January 11, 2026, and the event breakdown will take an additional two weeks. The construction of the project would be scheduled to begin in early February and must be completed before the opening of the Thursday Night Marketplace in early May.

September	Community Online survey and in-person engagement Sole source design/construction contractor
October:	Finalize the design concepts City Council Selection
November	Develop the project specifications Release RFB for constuction
December	Close RFB
January	Award bid to selected contractor
February	Construction begins
May	Project complete, ribbon cutting ceremony

The project may need to be constructed in 2026 should this schedule not be achieved, in order not to displace events such as Thursday Night Marketplace.

Community Engagement

Due to the location and importance of this project, community engagement will be a key component of project planning and design. This will provide insights into what matters to the community. The engagement process will include both online and in-person gatherings. Design parameters will be explained, and the public will have the opportunity to choose from various pictures/images and/or draw their preferred design and submit it through the online portal. In addition, one on-site meeting will take place where community members can choose from the same online survey pictures/images and submit their design drawing.

Once the survey concludes, the results will be recorded, and a group of local artists will be chosen to collaborate with the contractor to refine their renderings. The final 2–3 renderings will be presented to the City Council for final approval.

Community Engagement Timeline

September 16th	Council study session to receive direction on the project's feasibility and possible engagement process.
September 22nd	Open the online survey
September 27th	On-site meeting
October 3rd	Survey closes
October 7th	Return to the Council to present final concept designs

Cost Estimates

The cost estimates for this project are dependent on the type of surface selected. As an example:

A. Pavers	\$270,576
B. Concrete	\$443,714
C. Lithocrete	\$700,934

Each of the above surfaces meets the minimum requirements to withstand heavy vehicles and freezing. Each also offers different design options. The final selection is dependent on the level of artistic detail of this treasured project location.

Concepts to be considered for community outreach are welcome at this City Council meeting and will be sought during the community outreach.

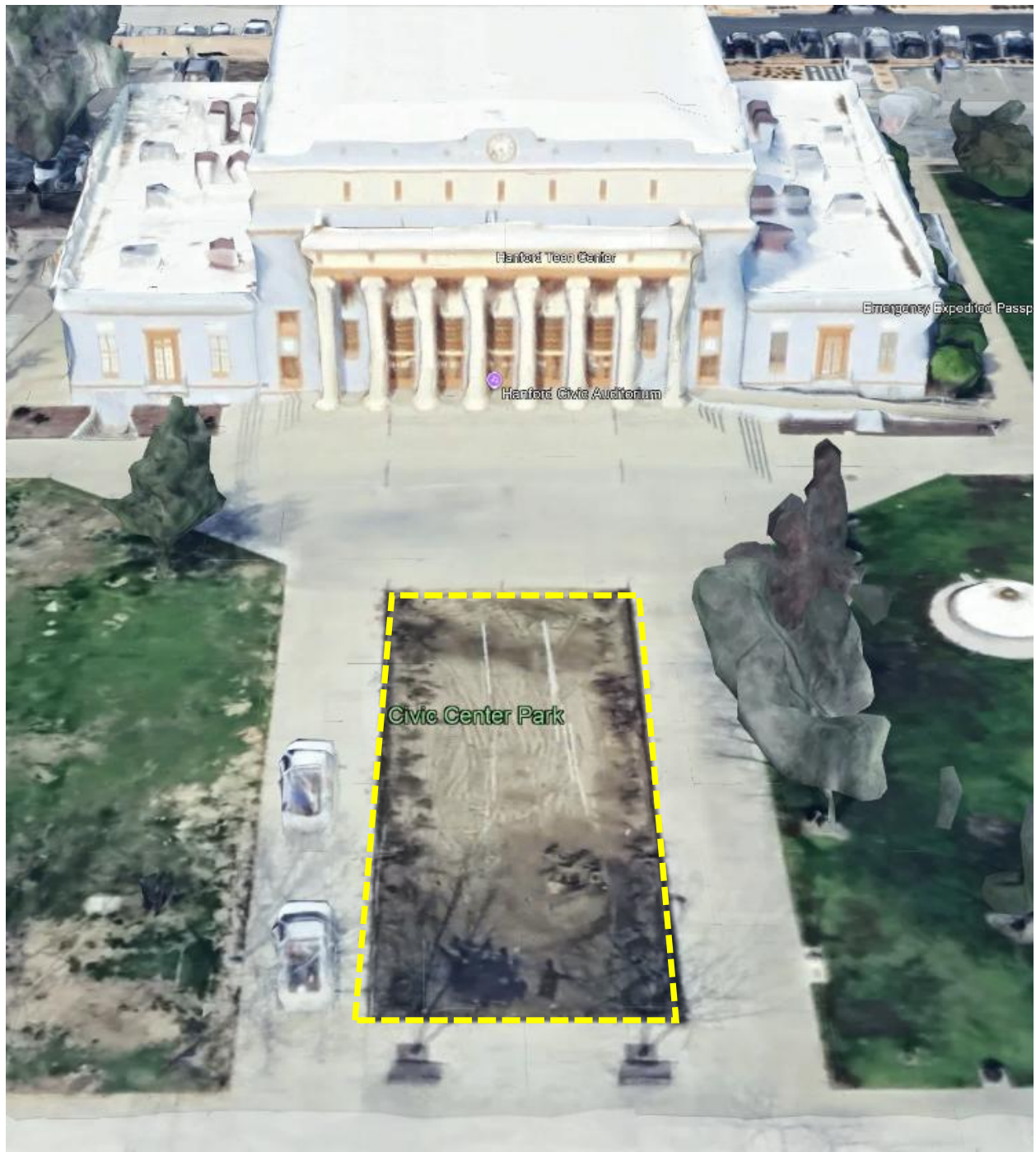
FISCAL IMPACT:

The cost estimates for the Civic Park Hardscaping Project are dependent on the type of surface chosen. Rough estimates range from \$270,576 to \$700,934. Potential funding sources are the General Fund Reserve, Measure H, and the Winter Wonderland net revenue, solely or in combination. The City could also consider paying for this over the next few years from Winter Wonderland new revenue.

ATTACHMENTS:

1. Civic Park Hardscaping Project Pic
2. Civic Park Site Photo

City of Hanford
Civic Park Hardscaping Project



City of Hanford
Civic Park Hardscape Site Photo



California Municipal Treasurers Association



Investment Policy Certification

Issued on 8/27/2025



City of Hanford

The California Municipal Treasurers Association certifies that the investment policy of the City of Hanford complies with the current State statutes governing the investment practices of local government entities located within the State of California.



Nadia Fesser

President

8/27/2025

Date



FOR IMMEDIATE RELEASE

Date: August 27, 2025

For more information contact:
Shaun L. Farrell, Chairperson
CMTA Investment Policy Certification
Phone: 209-712-0428
Email: sfarrell@cityofgalt.org

(Sacramento, California) – The California Municipal Treasurers Association (CMTA) Investment Policy Certification has been granted to the **City of Hanford**.

This Investment Policy Certification recognizes that CMTA has validated that the City of Hanford's Investment Policy adheres with the State of California Government Code and meets the program requirements within 18 different topics areas deemed to be best practices for investment policies. Those topics include: Scope, Prudence, Objective, Delegation of Authority, Ethics and Conflicts of Interest, Authorized Financial Dealers and Institutions, Authorized and Suitable Investments, Review of Investment Portfolio, Investment Pools/Mutual Funds, Collateralization, Safekeeping and Custody, Diversification, Maximum Maturities, Internal Controls, Performance Standards, Reporting, Investment Policy Adoption and Glossary. Once a policy is received by CMTA, it is independently evaluated using a scoring matrix by three separate CMTA professionals. When the agency receives a passing score, the Investment Policy earns the 'Certified' distinction.

To enhance the municipal treasurer's role, CMTA has developed a number of certification programs to reflect best practices and increase an individual's knowledge of fixed income instruments. The Investment Policy Certification program began in 2012 with the support from the California Debt and Investment Advisory Commission. It is open to all government agencies within the State of California including special districts, cities and counties.

CMTA was founded in 1958 by a handful of Municipal Treasurers from both Northern and Southern California whose primary interest was to improve their function in local Government. CMTA is a professional organization governed by active public officials who are representatives of their own local governmental units.



AGENDA STAFF REPORT

MEETING DATE: 9/16/2025	AGENDA SECTION: CONSENT CALENDAR
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SUBJECT:

Approval of the Minutes of the August 5, 2025 Meeting

RECOMMENDATION:

Recommendation: Approve the minutes of the August 5, 2025, meeting.

BACKGROUND:

FISCAL IMPACT:

ATTACHMENTS:

1. Minutes of the August 5, 2025 Meeting



**City Council Regular Meeting
Minutes**

**August 5, 2025 7:00 PM
Council Chambers
400 N. Douty St.**

4:00 PM CALL TO ORDER STUDY SESSION AND CLOSED SESSION:

Mayor Paden called the study session and closed session to order at 4:00 p.m.

ROLL CALL BY THE CITY CLERK:

Present:	Absent:
Council Member Mark Kairis Council Member Travis Paden Council Member Lou Martinez Council Member Kimber Regan Council Member Nancy Howze	

PUBLIC COMMENT:

*Study Sessions are considered Special Meetings under the Brown Act. Accordingly, comments from the public are limited to items listed on the agenda (GC 54954.3a). Public Comment will be accepted during each agenda item. A maximum of **three minutes** is allowed for each speaker. Please begin your comments by stating your name and providing your city of residence.*

Bob Ramos commented on the Transient Occupancy Tax (TOT) ballot measure and shared his concerns. He also shared his suggestions for the East Lacey Corridor Project.

Cheyne Strawn expressed his concerns regarding the timing of the potential tax measure.

Rusty Brookshier spoke in opposition of the Transient Occupancy Tax increase.

Chris Perriera spoke in opposition to a Transient Occupancy Tax increase. He also commented on street medians and the city's setback regulations. Mr. Perriera answered questions from Mr. Kairis regarding a permit for the structure on his property.

Judy Scott spoke in support of the design concept for the East Lacey Corridor Project.

Onan Champi expressed his concerns about the design concept for the East Lacey Corridor Project and stated that the businesses on East Lacey are fenced in and not welcoming businesses.

Whitney Britton commented on her experience with the Planning division. She commented on the city's setback regulations.

STUDY SESSION:

A. Presentation to the City Council regarding the timing of Transient Occupancy Tax (TOT)

ballot measure.

Finance Manager Destiny Borba and Senior Financial Analyst Sarah Wilburn presented the staff report for Council feedback and direction. After some discussion, the Council directed staff to wait until the June election to place the Transient Occupancy Tax measure on the ballot.

B. Update and Presentation to the City Council for adoption of the East Lacey Corridor Project and Design concept.

Utilities and Engineering Director Frank Senteno, City Engineer Lisa Dock, and Assistant Engineer Jaklin Hart presented the East Lacey Corridor project and design concept for Council's review. Ms. Dock outlined the project background and timeline, while Dir. Senteno discussed the design approach and funding. Council Members Howze and Kairis expressed support for the project, and Mayor Paden along with Council Member Regan raised questions about the design, community outreach, and traffic flow. Staff addressed the concerns and confirmed they will reach out to businesses in the project area. No formal action was taken. The next step will be a public workshop before the project returns to the Council for further review.

C. Presentation to City Council and Discussion related to City Setback Regulations

Deputy City Manager Jason Waters explained what setbacks are, why they matter, and how other cities handle them. He also talked about possible changes and the impacts those changes might have. Fire Chief Perkins shared the safety reasons behind setback rules and highlighted requirements from the California Fire Code. Council Member Kairis suggested making the complaint process simpler. The Council gave their input on how setbacks should be measured, and suggested following the approaches used by other cities. The Council suggested continuing the discussion at a future meeting with staff's recommendations for the Council's review and direction.

Mayor Paden adjourned the study session at 6:50 p.m.

CLOSED SESSION FOR DISCUSSION OF THE FOLLOWING:

A. CONFERENCE WITH LEGAL COUNSEL-PROPERTY NEGOTIATIONS (GC 54956.8)

APN: 012-151-001, 012-151-002, 012-151-006, 012-151-008, 012-151-009, 012-151-011, 012-151-014, 012-151-015, 012-162-003, 012-171-001, 012-171-002, 012-171-003

Negotiating Party: Valero Energy Corporation

Agency Negotiators: Chris Tavarez, Jason Waters, and Ty Mizote

B. CONFERENCE WITH LEGAL COUNSEL-ANTICIPATED LITIGATION (54956.9 (d)(2))

1 potential case.

C. PUBLIC EMPLOYMENT (GC 54957)

Title: City Manager

CALL TO ORDER REGULAR SESSION:

Mayor Paden called the meeting to order at 7:30 p.m.

ROLL CALL:

Present:	Absent:
Council Member Mark Kairis Council Member Travis Paden Council Member Lou Martinez Council Member Kimber Regan	

INVOCATION:

During this time, Kanye Walden read a poem.

FLAG SALUTE:

The flag salute was led by Larry Faria.

RECOGNITION:

- A. Badge Pinning Ceremony and Oath of Office for Officer Mathew Novielli and new Sergeants Rolando Jaime and Chad Medeiros.

Police Chief Stephanie Huddleston introduced Officer Mathew Novielli and recognized the new Sergeants, Rolando Jaime and Chad Medeiros. City Clerk Natalie Corral administered the Oath of Office.

CLOSED SESSION ACTION REPORT:

City Attorney Mizote reported that closed session items A, B and C were not discussed during closed session and the Council will go back into closed session at the end of the meeting.

PUBLIC COMMENT:

This is the time for citizens to comment on subject matters within the jurisdiction of the Hanford City Council. This is also the public's opportunity to request an item from the Consent Calendar be pulled for discussion purposes or to comment on any item on the agenda. State law does not allow the Council to discuss or take action on issues not on the agenda, except that members of the Council or staff may briefly respond to statements made or questions posed by persons exercising their public testimony rights (Gov. Code sec. 54954.2). A maximum of three minutes is allowed for each speaker. Please begin your comments by stating your name and providing your city of residence.

Noor Memon commented on the Bastille. He stated that he has an interested buyer.

Chris Perreira asked that Code Enforcement leave him alone until the Council makes a decision on the setback regulations.

Bob Ramos commented on the city's my Hanford app. He also questioned the airport's fuel situation.

Jack Schwartz questioned the MOUs on the consent calendar and requested that they be pulled for separate discussion. He also questioned the public safety building project.

Rusty Brookshire asked about the status of the code enforcement cases for Rick Conway and Onan Champi.

Rodolfo Pinero provided the Council with a letter regarding a code violation. Mayor Paden suggested that Mr. Pinero contact staff regarding his concerns.

Anna Brookshire commented on the public safety building project.

Steven Olivera commented on the feather flag provisions.

CONSENT CALENDAR:

Consent Calendar items are considered routine and will be enacted in one motion. There will be no separate discussion of these matters unless a request is made and then the item will be removed from the Consent Calendar to be discussed and voted upon by a separate motion.

The Council pulled Items F, G, L and N. Motion to approve the consent calendar except for the items pulled for separate discussion.

RESULT:	Passed (UNANIMOUS)
MOVER:	Council Member Mark Kairis

SECONDER: Council Member Nancy Howze
AYES: Mark Kairis, Travis Paden, Lou Martinez, Kimber Regan, Nancy Howze

- A. Waive reading in full of resolutions and ordinances and approval and adoption of same by reading the title only.
- B. City Clerk: Approval of the Minutes of the June 4, 2025, Special Meeting
- C. City Clerk: Approval of the Minutes of the June 17, 2025 Meeting
- D. City Clerk: Approval of the Minutes of the June 19, 2025, Special Meeting
- E. City Clerk: Approval of the Minutes of the July 1, 2025, Meeting
- F. Community Development: Approval of mural No. 0005-25, a request by Ladies Room Beauty Parlor to paint a mural onto the existing west-facing exterior wall of the Ladies Room Beauty Parlor. The property is located at 109 1/2 W. Eighth St. (APN 012-053-004).
- G. Community Development: Approval of the Second reading and Adoption of Ordinance 25-03, approving Prezone No. 0014-25 a request to prezone Annexation 166 as a combination of R-L-12 Low-Density Residential (12,000 sq. ft. minimum lot size) and R-L-5 Low-Density Residential (5,000 sq. ft. minimum lot size) consistent with the Low-Density Residential designation on the 2035 Hanford General Plan Land Use Map. The site is a substantially surrounded county island, totaling 93.56 acres, generally located south of Fargo Avenue, north of Leland Way, west of 9 ¼ Ave.
- H. Public Works: Approval of a sole source purchase of 36 Carmanah R920-MX rapid flashing beacons (RFB), from JAM Services, for pedestrian safety improvements in the amount of \$274,738.50
- I. Public Works: Approval a sole source purchase of sixteen (16) Carmanah solar-powered radar feedback signs from JAM Services of Livermore, CA in the amount of \$94,827.
- J. Public Works: Approval of the purchase of thirty (30) video detection systems for \$721,465.95, purchase of thirty (30) Cobalt controllers for \$136,326.38 and the purchase of thirty-five (35) Zinc Blue battery backups for \$328,522.86 from Econolite of Anaheim, CA in an effort to upgrade signalized intersections in the City of Hanford, for a grand total of \$1,186,315.19
- K. Fire: Approval to purchase a replacement Battalion Chief Pick-up Truck from Keller Ford (Hanford, CA) and upfitting in the amount of \$110,210.37, and appropriation of an additional \$30,210.37 from the Fleet Replacement Reserve to cover the total cost.
- L. Police: Authorization to accept the Homeland Security Grant, which was awarded through the County of Kings, in the amount of \$39,500, amend the budget to recognize the grant, appropriate this amount in the General Fund for the Police Department, and authorize the City Manager to execute the grant agreement.

- M. Police: Approval of a 47-month contract with Axon Enterprises, Inc. for \$148,568.32 to purchase (8) TASER 10s, (8) body-worn cameras, licensing for Axon software and Evidence.com and ongoing support and maintenance for new police officer positions funded through Measure H.
- N. Finance: Adoption of Resolution Nos. 25-46-R and 25-47-R to update the authorized signatories on City bank checking accounts and investment accounts

PULLED CONSENT ITEMS:

- A. Human Resources: Approval of Memorandum of Understanding (MOU) with the Hanford Professional Firefighters Local 3898, IAFF Professional Firefighters Unit with changes to wages, benefits, and other working conditions, effective July 1, 2025 through June 30, 2027.

[Item F]

Pulled during public comment.

Interim City Manager Chris Tavaréz addressed the questions during public comment.

Motion to Approve.

RESULT:	Passed (UNANIMOUS)
MOVER:	Council Member Nancy Howze
SECONDER:	Council Member Lou Martinez
AYES:	Mark Kairis, Travis Paden, Lou Martinez, Kimber Regan, Nancy Howze

- B. Human Resources: Approval of Memorandum of Understanding (MOU) with the Hanford Police Officers Association with the changes to wages, benefits, and other working conditions, effective July 1, 2025, through June 30, 2027.

[Item G]

Pulled during public comment.

Interim City Manager Chris Tavaréz addressed the questions during public comment.

Motion to Approve.

RESULT:	Passed (UNANIMOUS)
MOVER:	Council Member Nancy Howze
SECONDER:	Council Member Mark Kairis
AYES:	Mark Kairis, Travis Paden, Lou Martinez, Kimber Regan, Nancy Howze

- C. Public Works: Approval of the purchase of ten (10) drinking fountains from Ferguson Enterprises LLC of Fresno CA, in the amount of \$80,789.66, to be installed at various parks and a landscape assessment district located within the City of Hanford and utilize existing appropriation in Measure H and appropriate landscape assessment district funding of \$8,079 from LAD 0403 (Vineyard)

[Item L]

Pulled by Council Member Martinez.

Public Works Director Russ Sterling responded to questions from the Council. Mr. Martinez requested fountains at Coe Park and Lacey Park and raised concerns about the existing fountains at those locations. Mayor Paden questioned the design of the proposed fountains. By consensus, the Council directed staff to table the purchase to allow additional time

for planning and budgeting. The item will be brought back at a later date for Council review and approval.

- D. Public Works: Approval of the purchase of twenty-four (24) Internally Illuminated Street Signs (IIS) from JAM Services of Livermore, CA for the amount of \$58,666.09.

[Item N]

Pulled by Council Member Regan.

Public Works Director Russ Sterling provided a background of the project and responded to questions from Council Member Regan.

Motion to Approve.

RESULT:	Passed (UNANIMOUS)
MOVER:	Council Member Kimber Regan
SECONDER:	Council Member Nancy Howze
AYES:	Mark Kairis, Travis Paden, Lou Martinez, Kimber Regan, Nancy Howze

GENERAL BUSINESS:

- A. Utilities and Engineering: Approval of a professional services agreement with Darden Architects Inc (Fresno, CA) for the full design of the City’s new Public Safety Building in the amount of \$6,850,615, plus approval of a 10% contingency in the amount of \$685,062 using Measure H Funds, and approval of a purchase order in the amount of \$1,689,187 to begin Phase I for Planning and Project Assessment.

Utilities and Engineering Director Frank Senteno provided background of the project, and Assistant Engineer Jaklin Hart presented the scope, purpose, and overview. Staff also recommended changes to expand the scope, and outlined what was added. Ms. Hart also discussed the City Council’s role in the project’s success, the anticipated timeline, and the fiscal impact. The Council thanked staff for the presentation.

Motion to Approve.

RESULT:	Passed (UNANIMOUS)
MOVER:	Council Member Mark Kairis
SECONDER:	Council Member Lou Martinez
AYES:	Mark Kairis, Travis Paden, Lou Martinez, Kimber Regan, Nancy Howze

- B. Community Development: Review and Discussion of Proposed Amendments to Feather Flag Provisions in the Sign Ordinance and Direction from Council as appropriate.

Deputy City Manager Jason Waters presented the proposed amendments and the process requirements for the Council’s review and direction. After much discussion, the Council provided their input and direction to move forward with a municipal code amendment.

The Council returned to closed session at 9:29 p.m.

COUNCIL REPORTS/GENERAL REPORTS:

Brief information-only reports from City Council and/or Staff, including committee reports and reports by City Council related to meetings attended at City expenses (AB1234).

ITEMS FOR FUTURE AGENDAS:

At this time, any Council Member may ask a question for clarification or may request a matter, which is not otherwise scheduled on a City Council agenda, to be placed on a future agenda. The Council Member referring the item shall provide sufficient information as to the nature of the item. The City Council, by concurrence of a majority, may direct the City Manager to put the item on a future agenda. (GOV. CODE SEC. 54954.2)

None.

A. Council Future Agenda Items

Two downtown businesses regarding the expectations of the landscaping and trees. Direction to staff to inform

Chris Announcement - Acting Finance Director.

B. Upcoming Events and Important Dates:

August 19: Regular City Council Meeting

September 1: City offices closed in observance of Labor Day

September 2: Canceled Regular City Council Meeting

September 16: Regular City Council Meeting

ADJOURNMENT:

Materials related to an item on this Agenda submitted to the City Council after distribution of the agenda packet are available to public inspection in the City Clerk's Office located at 319 N. Douty Street, Hanford, California 93230, during normal business hours. Such agendas are also available at the city's website, www.cityofhanfordca.com subject to staff's ability to post the agenda before the meeting. If you need a disability-related modification or accommodation, including auxiliary aids or services, to participate in this meeting, please contact the City Clerk's office, 559-585-2515, 319 N. Douty Street, Hanford, California 93230, at least 2 days prior to the meeting {28 CFR 35.102.35.104 ADA Title II}

Closed Session Action Report: None.

Mayor Paden adjourned the meeting at 9:57 p.m.

Respectfully submitted,

Natalie Corral
City Clerk



AGENDA STAFF REPORT

MEETING DATE: 9/16/2025

AGENDA SECTION: CONSENT CALENDAR

SUBJECT:

Approval of the Reappointment of Planning Commissioners Dennis Ham and Jim Nelson and Parks and Rec Commissioners Sheldon Blackwell and Judy Scott to serve new full terms.

RECOMMENDATION:

Recommendation: Approve the appointment of Dennis Ham and Jim Nelson to the Planning Commission, and Sheldon Blackwell and Judy Scott to the Parks and Rec Commission, to serve new full terms ending December 31, 2028.

Recommended Motion: I move to approve the appointment of Dennis Ham and Jim Nelson to the Planning Commission, and Sheldon Blackwell and Judy Scott to the Parks and Rec Commission to serve a new full terms ending December 31, 2028.

BACKGROUND:

Section 2.20.030 of the City of Hanford Municipal Code states:

"At the first City Council meeting in January of each year, the Mayor shall endeavor to appoint members to commissions and committees to fill vacancies caused by the regular expiration of terms of membership. All such appointments shall be approved by a majority of the members of the City Council."

Section 2.20.040 of the City of Hanford Municipal Code states:

"Upon expiration of a member's term, the member shall, however, continue to serve until his or her replacement is appointed in accordance with Section 2.20.030."

Historically, when commissioner terms expired, the City Council considered staff recommendations to reappoint eligible commissioners who had not yet served two full terms.

At the time the most recent reappointment process was scheduled to occur, staff did not receive clear direction from the City Manager, Mayor, or Vice Mayor regarding whether to:

1. Proceed with the reappointment of eligible commissioners; or
2. Open the process to new applicants

During this period, the former Vice Mayor and former City Manager discussed potential revisions to the reappointment process. Specifically, their conversations focused on whether the City Council

should continue the practice of automatically reappointing eligible commissioners, as well as issues related to commissioner attendance and participation conflicts.

Because no final direction was established at that time, staff delayed presenting the reappointment recommendations to the City Council pending further guidance. Recently, the City Manager and staff reviewed the commissioners' attendance and participation and authorized the City Clerk to bring the recommendations to the Council for approval.

Commissioner	Date of Appointment	Total Meetings	Absences	Attendance (%)
Judy Scott	*3/21/2023	21	1	95
Sheldon Blackwell	*3/21/2023	21	2	90
Jim Nelson	*5/7/2024	8	4	50
Dennis Ham	*6/23/2022	14	3	78

*Appointed to fill an unexpired term.

Additionally, several commission vacancies are anticipated at the end of the year. If the Council wishes to revise the current practice of recommending the reappointment of eligible commissioners, the Council may consider adopting a new appointment process before year-end.

Recommended Alternative actions:

A. Council may consider opening up applications and conducting an interview process with the City Council or a portion of the City Council/Staff for the current expired terms for the Planning Commission and/or Parks and Rec Commission.

B. Council may waive this reappointment process and continue the existing appointments until other member terms are expired and consider a) reappointment at that time or b) an interview process with City Council or a portion of City Council/Staff for the current expired terms for the Planning Commission and/or Parks and Rec Commission.

FISCAL IMPACT:

None

ATTACHMENTS:

1. Appointing commission members. - Terms and reappointments

§ 2.20.030. Appointing commission members.

Members of all commissions shall be appointed by the mayor with the approval of a majority of the members of the city council.

At the first city council meeting in January of each year, the mayor shall endeavor to appoint members to commissions and committees, to fill vacancies caused by the regular expiration of terms of membership. All such appointments shall be approved by a majority of the members of the city council.

Vacancies occurring due to resignation or other cause, shall be noticed as required by state law and appointment made by the mayor at the earliest date possible. All such appointments shall be approved by a majority of the members of the city council.

All vacancies shall be advertised so that any interested citizen may apply. City residency shall be required for all commission members and shall be confirmed by each applicant and each member under penalty of perjury. The city may require a member to confirm his or her residency throughout the member's term.

(Prior code § 2-8.03; Ord. 21-05 § 3, 2021)

§ 2.20.040. Terms and reappointments.

Terms of commission members shall be four years. Upon expiration of a member's term, the member shall, however, continue to serve until his or her replacement is appointed in accordance with Section 2.20.030. Upon the expiration of the first term of any member, the mayor with the approval of a majority of the members of the council may reappoint such member; however, in no event shall any one member serve more than two consecutive terms on any one commission, exclusive of appointments to fill unexpired terms.

No individual, having served the maximum allowable number of terms, on a commission, may be reappointed to that commission, for at least one year from the last date served.

No individual may serve on more than one commission at any one time. This shall not preclude any member of a commission from also serving on a special ad hoc committee established by the city council for a specific purpose.

Members serve at the pleasure of the city council and may be removed for cause or no-cause. Members may be removed by the city council for cause for various reasons, including three consecutive absences or a member attends less than 30% of the meetings held over a 12 month period, unless extenuating circumstances apply and are noted for the record.

(Prior code § 2-8.04; Ord. 16-10 § 1, 2016; Ord. 21-05 § 3, 2021)



AGENDA STAFF REPORT

MEETING DATE: 9/16/2025

AGENDA SECTION: CONSENT CALENDAR

SUBJECT:

Authorization for City Manager to execute Supplemental Services Agreement #3 with Brandley Engineering for general engineering and consulting services for \$50,000 and agreement #4 for construction management services for the closure of the underground fuel tank for \$46,000 and an appropriation of \$83,200 from the Airport Operation Fund.

RECOMMENDATION:

Recommendation:

That the City Council, by motion authorize City Manager to execute Supplemental Services Agreement #3 with Brandley Engineering for general engineering and consulting services for \$50,000 and agreement #4 for construction management services for the closure of the underground fuel tank for \$46,000 and an appropriation of \$83,200 from the Airport Operation Fund.

Recommended Motion:

I move to authorize City Manager to execute Supplemental Services Agreement #3 with Brandley Engineering for general engineering and consulting services for \$50,000 and agreement #4 for construction management services for the closure of the underground fuel tank for \$46,000 and an appropriation of \$83,200 from the Airport Operation Fund.

BACKGROUND:

On September 19, 2023, the City of Hanford awarded a 5-year Professional Services Contract to Brandley Engineering, the on-call engineering consultant, to perform a variety of airport-related projects. This contract allows the City to efficiently engage specialized airport engineering services on an as-needed basis.

SSA #3 was for engineering services that do not relate to specific contracts for the Hanford Municipal Airport. Scope includes general engineering and consulting services, preparation of annual Airport Capital Improvement Program (ACIP), federal grant applications, etc. The agreement was executed June 27th 2024 but was inadvertently not presented to Council for approval. The amount was for \$50,000 in which \$12,800 was already spent in 2024 for preparation of Categorical Exclusions (Cat Ex) and other environmental documents. Therefore, only a remaining balance of \$37,200 is being requested for appropriation in FY26.

SSA #4 is necessary to address regulatory and environmental compliance associated with the closure of an underground fuel tank located at the airport. Federal and state laws require closure and abandonment of unused underground storage tanks to be performed under engineering oversight to ensure environmental safety and must be completed by December 31, 2025.

These agreements are considered vital to maintain requirements and long-term operations.

FISCAL IMPACT:

Total cost and appropriation from Airport Operation Fund is \$83,200.

ATTACHMENTS:

1. Supplemental Services Agreement 4- Construction Management
2. Supplemental Services Agreement 3- On-Call Services
3. Staff Report- 5 year Contract

SUPPLEMENTAL SERVICES AGREEMENT NO. 4
Professional, Planning, Architectural and Design/Engineering Services
associated with Airport Development Projects for the Hanford Municipal Airport

This Agreement, entered into this _____ day of September, 2025, by and between the City of Hanford, hereinafter referred to as the "CITY", and Brandley Engineering, Inc. as the "CONSULTANT". hereinafter referred to as the "CONSULTANT."

W I T N E S S E T H

WHEREAS, CITY entered into a Professional Services Agreement for Professional, Planning, Architectural and Design/Engineering Services associated with Airport Development Projects for the Hanford Municipal Airport with the CONSULTANT dated the 8th day of November 2023, and

WHEREAS, the CITY has the desire to secure certain technical and professional services to assist in the engineering during construction and resident engineering, testing, and inspection of Closure of Existing Underground Fuel Storage Tank as described as "Scope of Work" in Exhibit "A", and hereinafter referred to as the "PROJECT"; and

WHEREAS, the CONSULTANT represents it is licensed, qualified and willing to provide such services pursuant to terms and conditions of this Agreement.

NOW, THEREFORE, CITY and CONSULTANT agree as follows:

This agreement supplements said Professional Services Agreement, and the terms of said Agreement apply hereto.

I. SERVICES TO BE PERFORMED BY THE CONSULTANT

Authorized Scope of Work: The CONSULTANT agrees to perform all work necessary to complete in a manner satisfactory to the CITY those tasks described in Exhibit "A" - Scope of Work, for the cost identified in Exhibit "B" – Breakdown of Engineering Fees.

II. TIME OF PERFORMANCE

The CONSULTANT shall commence performance of this Agreement within five (5) days following receipt of fully executed Agreement and Notice to Proceed and shall complete the work within six (6) months unless otherwise extended in writing by CITY, in its sole discretion (to be altered if negotiated timeframes).

If the CONSULTANT fails to complete the PROJECT within the time specified, plus any extensions of time which may be granted, the CITY shall determine the percent of each work item completed and shall pay the CONSULTANT on that basis.

CONSULTANT shall not be responsible for delays which are due to causes beyond the CONSULTANT's reasonable control. In the case of any such delay, the time of completion shall be extended accordingly in a writing signed by both parties.

III. COMPENSATION

- A. Total Compensation: For services performed pursuant to this Agreement, the CITY agrees to pay and the CONSULTANT agrees to accept, as payment in full, a sum not to exceed Fourty six thousand dollars (\$46,000.00).

This amount shall constitute complete compensation, including document production and out-of-pocket expenses for all services for the work and PROJECT identified in each Supplemental Services Agreement.

- B. Payment of Compensation: The CONSULTANT shall be compensated according to Exhibit "B" upon completion of percentage of each noted phase. The CONSULTANT shall be paid no later than thirty (30) days following submission of a written, verified billing to the CITY. Said billing shall include the percentage of each task completed to date and since the date of the preceding billing, if any.

IV. AUTHORIZED REPRESENTATIVE

- A. CITY: The City Manager shall represent the CITY in all matters pertaining to the services to be rendered under this Agreement, except where approval of the City Council of the City of Hanford is specifically required.
- B. CONSULTANT: Melissa Brandley and R. Damon Brandley shall represent and act as principles for CONSULTANT in all matters pertaining to the services to be rendered by it under this Agreement.

IN WITNESS WHEREOF, this Agreement is executed on the day and year first above written.

CITY OF HANFORD

CONSULTANT

Mario Cifuentez, City Manager

Melissa Brandley, Secretary, CFO

Attachments: Exhibit "A" – Scope of Work'
Exhibit "B" – Breakdown of Engineering Fees

Exhibit “A”: Scope of Work

The complete and detailed engineering design of the Fuel Island and Tanks will be prepared that includes two major phases as listed below:

Phase 1 – Engineering Design During Construction and Final Project Closeout

- Participate in a pre-construction conference.
- Provide engineering surveillance of all construction operations, including
 - a. General schedule, project management, and regulatory agency coordination
 - b. Responding to RFIs
 - c. review of all contractor submittals,
 - d. Review of contractor certified payrolls
 - e. attendance at one weekly construction meeting,
 - f. preparation of any change orders required,
 - g. preparation of contractor pay estimates,
 - h. preparation of final as-constructed drawings and final engineer's report.

Phase 2 – Resident Engineering, Testing , and Inspection

The Contractor will be required to furnish material submittals for all materials proposed for use on the project and meet all requirements of the plans and specifications.

Airport Manager will oversee construction activities that do not affect the airport pavement.

The Engineer will provide all Quality Assurance Testing and Inspection, which will include the following:

- Furnish qualified Resident Engineer to review and monitor all construction activities related to airfield pavement (assumes 7 days of inspection).
- Provide all testing and inspection required for airfield pavement as included in the quality assurance program including providing technicians and inspectors as required.

EXHIBIT B

HANFORD MUNICIPAL AIRPORT
HANFORD, CALIFORNIA

BREAKDOWN OF ENGINEERING FEES

Closure of Existing Underground Fuel Storage Tank - Construction Management

Phase 1 - Engineering Design During Construction and Project Closeout

Principal Engineer	35.0	Hrs @	\$ 300.00	\$ 10,500.00
Senior Engineer	5.0	Hrs @	180.00	900.00
Project Administrator	5.0	Hrs @	100.00	500.00
Clerical	10.0	Hrs @	85.00	850.00
Mileage	1,000.0	Miles @	0.700	700.00
Fuel Subconsultant				6,000.00
Subconsultant Markup				600.00
<i>Total - Engineering During Construction</i>				\$ 20,050.00
				Use \$ 21,000.00

Phase 2 - Resident Engineering, Testing, and Inspection

Resident Engineer				
Regular Hours	72.0	Hrs @	\$ 190.00	\$ 13,680.00
Overtime Hours	14.0	Hrs @	285.00	3,990.00
Apprentice				
Regular Hours	11.0	Hrs @	95.00	1,045.00
Overtime Hours	3.0	Hrs @	142.50	427.50
Vehicle Rental	7.0	Days @	50.00	350.00
Mileage	1,000.0	Miles @	0.700	700.00
Per Diem	5.0	Days @	230.00	1,150.00
Concrete or Asphalt Testing				3,000.00
<i>Total - Resident Engineering</i>				24,342.50
				Use 25,000.00
<i>Total Engineering Services</i>				<u>\$ 46,000.00</u>

SUPPLEMENTAL SERVICES AGREEMENT NO. 3
Professional, Planning, Architectural and Design/Engineering Services
associated with Airport Development Projects for the Hanford Municipal Airport

This Agreement, entered into this 27th day of June, 2024, by and between the City of Hanford, hereinafter referred to as the "CITY", and Brandley Engineering, Inc. as the "CONSULTANT", hereinafter referred to as the "CONSULTANT."

W I T N E S S E T H

WHEREAS, CITY entered into a Professional Services Agreement for Professional, Planning, Architectural and Design/Engineering Services associated with Airport Development Projects for the Hanford Municipal Airport with the CONSULTANT dated the 8th day of November 2023, and

WHEREAS, the CITY has the desire to secure certain technical and professional services for Miscellaneous On-Call Items as described as "Scope of Work" in Exhibit "A", and hereinafter referred to as the "PROJECT"; and

WHEREAS, the CONSULTANT represents it is licensed, qualified and willing to provide such services pursuant to terms and conditions of this Agreement.

NOW, THEREFORE, CITY and CONSULTANT agree as follows:

This agreement supplements said Professional Services Agreement, and the terms of said Agreement apply hereto.

I. SERVICES TO BE PERFORMED BY THE CONSULTANT

Authorized Scope of Work: The CONSULTANT agrees to perform all work necessary to complete in a manner satisfactory to the CITY those tasks described in Exhibit "A" - Scope of Work, for the cost identified in Exhibit "B" – Breakdown of Engineering Fees.

II. TIME OF PERFORMANCE

The CONSULTANT shall commence performance of on-call assignments under this Agreement immediately upon receiving authorization to proceed from the CITY and shall complete each assignment within the timeframe given.

If the CONSULTANT fails to complete the PROJECT within the time specified, plus any extensions of time which may be granted, the CITY shall determine the percent of each work item completed and shall pay the CONSULTANT on that basis.

CONSULTANT shall not be responsible for delays which are due to causes beyond the CONSULTANT's reasonable control. In the case of any such delay, the time of completion shall be extended accordingly in a writing signed by both parties.

III. COMPENSATION

- A. Total Compensation: For services performed pursuant to this Agreement, the CITY agrees to pay and the CONSULTANT agrees to accept, as payment in full, a sum not to exceed Fifty thousand dollars (\$50,000).

This amount shall constitute complete compensation, including document production and out-of-pocket expenses for all services for the work and PROJECT identified in each Supplemental Services Agreement.

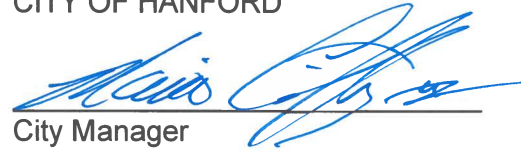
- B. Payment of Compensation: The CONSULTANT shall be compensated according to Exhibit "B" upon completion of percentage of each noted phase. The CONSULTANT shall be paid no later than thirty (30) days following submission of a written, verified billing to the CITY. Said billing shall include the percentage of each task completed to date and since the date of the preceding billing, if any.

IV. AUTHORIZED REPRESENTATIVE

- A. CITY: The City Manager shall represent the CITY in all matters pertaining to the services to be rendered under this Agreement, except where approval of the City Council of the City of Hanford is specifically required.
- B. CONSULTANT: Melissa Brandley and R. Damon Brandley shall represent and act as principles for CONSULTANT in all matters pertaining to the services to be rendered by it under this Agreement.

IN WITNESS WHEREOF, this Agreement is executed on the day and year first above written.

CITY OF HANFORD


City Manager

CONSULTANT


Melissa Brandley, Secretary, CFO

Attachments: Exhibit "A" – Scope of Work'
Exhibit "B" – Breakdown of Engineering Fees

Exhibit "A": Scope of Work

The scope of services is as follows:

Occasionally the City of Hanford requires engineering services that do not relate to the specific contracts for the Hanford Municipal Airport. These services include, but are not limited to:

- General Engineering & Consulting Services
- Preparation of annual Airport Capital Improvement Program (ACIP)
- Preparation of Applications for Federal Assistance for funding of specific projects
- Preparation of Categorical Exclusions (Cat Ex) and other environmental documents for specific projects
- Engineering review of private improvements at the Hanford Municipal Airport.
- Special project consultation and site visits as needed by City

Exhibit "B": Compensation

- a. Total Compensation. The total obligation of City under this Contract shall not exceed Fifty thousand dollars (\$50,000).
- b. Basis for Payment. Payment(s) to Consultant for services performed under this Contract shall be made at the following standard hourly rates:

Personnel

Principal Engineer	\$300.00/Hour
Senior Engineer	\$180.00/Hour
Junior Engineer	\$120.00/Hour
Senior Drafter.....	\$120.00/Hour
Junior Drafter	\$100.00/Hour
Laboratory Technician	\$90.00/Hour
Laboratory Apprentice	\$50.00/Hour
Project Administrator	\$100.00/Hour
Clerical	\$85.00/Hour
Resident Engineer.....	\$190.00/Hour
Senior Inspector.....	\$180.00/Hour
Apprentice	\$95.00/Hour

Travel and Equipment Rental

Per Diem	\$195/Day
Vehicle Rental	\$50.00/Day + \$0.655/Mile

Subconsultants

Consulting Services, Testing Services	Cost + 10%
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AGENDA STAFF REPORT

MEETING DATE: 9/19/2023	AGENDA SECTION: CONSENT CALENDAR
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SUBJECT:

Approval of a 5-year contract with Brandley Engineering, of Loomis, California, to provide Airport Engineering, Planning and Construction Management Services for State and Federally funded Airport Improvement Projects.

RECOMMENDATION:

Recommendation: That the City Council, by motion, approve the award of a 5-year contract with Brandley Engineering, of Loomis, California, to provide Airport Engineering, Planning and Construction Management Services for State and Federally funded Airport Improvement Projects.

BACKGROUND:

In accordance with the requirements of the Federal Aviation Administration (FAA), a Request for Qualifications was issued in order to seek Statements of Qualifications from any and all firms interested in providing consulting, engineering, planning and construction management services for the next five (5) years. The FAA encourages sponsors (the City accepting the grant) to keep a firm under contract, as opposed to a project by project basis, because the federal funding process for Airport Improvement Projects is typically a 2 year process which includes the project submission for initial consideration, filling of an application and a tentative allocation issued by the FAA. This contract secures the services of the firm and then individual Supplemental Services Agreements will be approved by Council in the future and then executed for each project, which will include the FAA-approved fees for their work on that project.

The RFQ process began earlier this year. Once the RFQ was issued, a consultant selection committee was established that reviewed three (3) proposals that were received in response to the Request for Statement of Qualifications for a multi-year contract for engineering design services for the Hanford Airport. The three (3) firms that responded to the RFQ were:

- Mead & Hunt, Santa Rosa, CA
- Tartaglia Engineering, Atascadero, CA
- Brandley Engineering, Loomis, CA

All of the three (3) firms were invited for an interview, based on a review and evaluation of their written Statements of Qualifications. Mead & Hunt chose to withdraw from the process prior to the interviews. The firms were rated on the merit of their proposals, their knowledge and expertise in both airport projects and AIP funded grant programs. Additionally, they were rated on the record of past performance with other airports as well as any knowledge of local conditions that were exhibited in the proposals and interviews.

Interviews were conducted by a panel including the City Manager, Deputy City Manager and the Airport Manager. The panel ranked the firms based on experience with FAA funded projects and expertise in designing and overseeing the types of projects included in the attached Hanford Airport's federal Airport Capital Improvement Program (ACIP). Brandley Engineering ranked the highest in the interview process. Additionally, Brandley Engineering has worked at other valley airports for over 25 years and is familiar with the area. During that time, they have overseen a variety of airport's capital program, developed airport layout plans, and written grant applications that have resulted in the airport sponsors being offered over \$20 million in AIP grant funding. While the Hanford Airport receives an annual Entitlement Grant of \$150,000, the airport can also qualify for discretionary funding. FAA grants are not "competitive" per se, but the method in which the narrative is written and the ability to phase projects always helps the FAA in their decision on where the discretionary funding gets allocated.

Brandley Engineering has over 70 years of experience in airport design and FAA funded programs. They specialize in pavement and infrastructure projects, with a strong geotechnical background. Given that the Hanford Airport has mostly paving and sealing projects projected for the next 5 years, their proposal rated very strongly. Because the fee structure is provided by the FAA, price is not a deciding factor in this process.

It has been almost 20 years since the airport issued a request for Statements of Qualifications for engineering design services. FAA regulations require airport sponsors to go through a consultant selection process every 5-10 years. Accordingly, the FAA requested that the airport do so after our most recent grant agreement was closed. Staff timed the RFQ and subsequent review process to allow for a new contract period to commence with the new FAA project cycle, which begins each October (Federal Fiscal Year).

Work to be done under this contract will be accomplished over the course of several grant projects and services will be limited to projects which are expected to be initiated within five (5) years of the date of contract execution. The Scope of Work will require the consultant to provide professional services which are generally of an architectural, civil, geotechnical, structural, mechanical and electrical engineering nature. The basic services which will be required of the consultant are usually conducted in four distinct and sequential phases:

- (a) Preliminary Phase – Activities required for defining the scope of a project, such as: (1) conferring with the City and the FAA; (2) planning and procuring the necessary surveys and studies required for preliminary design considerations; and (3) developing design schematics, preliminary layouts and cost estimates.
- (b) Design Phase – Activities required to undertake and accomplish a full and complete project, such as: (1) conducting and attending meetings and design conferences; (2) collecting engineering data and undertaking field investigations; (3) performing geotechnical engineering studies and special environmental studies; (4) preparing necessary engineering reports and recommendations; (5) preparing detailed plans, specifications and cost estimates; and (6) printing and providing copies of engineering drawings and contract specifications.
- (c) Bidding or Negotiation Phase – Assist the City in advertising and securing bids, negotiating for services, analyzing bid results, furnishing recommendations on award of contracts and preparing contract documents.
- (d) Construction Phase – Basic services rendered after the award of a construction contract,

including: (1) providing consultation and advice to the City during all phases of construction; (2) attending pre-construction conferences; (3) inspecting work in progress and providing appropriate reports to the City; (4) reviewing and approving shop drawings for compliance with design concepts; (5) preparing and negotiating change orders; (6) determining amounts owed to contractors; and (7) making final inspections.

In addition to the above requirements, the consultant would be required to participate in the preparation of application documents for FAA grants. The consultant will also act as an extension of City staff and be responsible for the tracking of grants, preparation of Grant Drawdown documents, and all close-out documents and grant compliance.

Proposed projects to be included under the contract include, but are not limited to:

YEAR	PROJECT DESCRIPTION	ESTIMATED COST
2024	Pavement Maintenance Management Plan	\$165,000
2024	Design & Construct – New Fuel Island and Storage Tanks	\$1,890,570
2025	Design & Construct – Relocated Segmented Circle and Windcone	\$241,000

These projects are all part of the airport's 5 year planned Airport Capital Program. Projects will be submitted to the FAA annually for consideration and the FAA will issue a grant offer for those projects that rate the highest on the funding matrix and then qualify for sufficient funding for the project. The year list above is simply for planning purposes. The actual year of funding will depend on when the FAA issues the grant for that particular project. All of the projects will be funded 95% by the FAA, with the local match coming from money budgeted in the Airport Enterprise Fund for capital improvements.

FISCAL IMPACT:

Brandley Engineering will be paid a negotiated fee, based on the value of the projects designed and in accordance with a fee schedule approved by the FAA. All fees are AIP eligible and covered under the individual Federal AIP Grants and the CalTrans Airport Matching Grant program.

ATTACHMENTS:

1. 2023.09.01 Brandley PROFESSIONAL SERVICES AGREEMENT (redline for consultant)
2. Exhibit C combined-federal-contract-provisions Jan 2023
3. Brandley SOQ - Hanford, CA - Engineering3-signed
4. Brandley SOQ - Hanford, CA - Planning3-signed
5. Brandley SOQ - Hanford, CA - ConstMgmt3-signed
6. Hanford Airport - 2024-29 ACIP FINAL



AGENDA STAFF REPORT

MEETING DATE: 9/16/2025

AGENDA SECTION: CONSENT CALENDAR

SUBJECT:

Award a contract to Archer Civil Construction, LLC of Tulare, CA in the amount of \$1,129,567.05 for the 12th Avenue at Hume Avenue Traffic Signal Project

RECOMMENDATION:;

Recommendation:

Staff recommend that the City Council, by motion:

1. Authorize the City Manager to award a contract to Archer Civil Construction, LLC of Tulare, CA in the amount of \$1,129,567.05;
2. Establish a construction contingency of \$169,435;
3. Authorize the City Manager to approve change orders to the project within the project budget;
4. Authorization for a reallocation of appropriation in the amount of \$796,738 from the Transportation Impact Fees fund (TIF) 0181 to CMAQ 0055.

Recommended Motion:

I move to authorize the City Manager to:

1. Award the construction contract to Archer Civil Construction, LLC of Tulare, CA, for the 12th Avenue at Hume Avenue Traffic Signal Project, in the amount of \$1,129,567.05;
2. Establish a construction contingency of \$169,435;
3. Authorize the City Manager to approve change orders to the project within the project budget;
4. Authorization for a reallocation of appropriation in the amount of \$796,738 from the Transportation Impact Fees fund (TIF) 0181 to CMAQ 0055.

BACKGROUND:

As part of the FY 2019/20 Council Adopted Budget, the Council approved the installation of a traffic signal at the intersection of 12th Avenue at Hume Avenue project. With development in this area of our community increasing, there are additional demands on our transportation system. This project will increase traffic flow efficiency, provide safety for vehicles at the intersection, and reduce intersection congestion by allowing more free flow traffic movements through the intersection. The project will also provide air quality benefits by reducing vehicle idling times. The existing intersection

is a two-way stop on Hume Avenue. This project is funded majority by federal grant funds with the remainder from city transportation impact fees.

Bids were opened on June 24, 2025, for the 12th Avenue at Hume Avenue Traffic Signal Installation project. A total of (5) bids were received, ranging from the low bid of \$1,129,567.05 from Archer Civil Construction LLC to a high bid of \$1,428,343 per the following bids received:

Contractor	Location	Bid Amount
Archer Civil Construction, LLC	Tulare, CA	\$1,129,567.05
Dawson-Mauldin, LLC	Selma, CA	\$1,190,623
Terra West Construction, inc.	Clovis, CA	\$1,263,320
Cal VALley Construction	Fresno, CA	\$1,366,176
Granite Construction Company	Fresno, CA	\$1,428,943

Staff examined the bids and determined that Archer Civil Construction, LLC of Tulare, CA, was the lowest responsive and responsible bidder, with relevant experience in signalization projects. Staff validated the lowest bidder's contractor's license status and verified the contractor is in good standing. Therefore, staff is recommending that Council authorize the City Manager to award and execute the contract with the low bidder, Archer Civil Construction, LLC in the amount of \$1,129,567.05. Attached for Council review is the Bid Schedule showing all proposers' bids.

PROJECT SCHEDULE:

If approved, the contractor, in coordination with City staff, will submit a project schedule within 15 calendar days after contract award, with work to be completed within 90 consecutive calendar days (excluding holidays) from the notice to proceed date. Construction is estimated to begin in November 2025, with work hours between 7:00 AM–5:00 PM, Monday–Friday, and the estimated completion will be January 2025.

FISCAL IMPACT:

A portion of the construction, staff management, inspection, and materials testing for this project will be funded through the Congestion Mitigated Air Quality (CMAQ) Federal funding, with additional funding from City Transportation Impact Fees fund. The initial CMAQ construction funding provided \$357,000.00 for the project construction. After bid opening, staff was able to obtain an additional \$789,080.00 of federal CMAQ grant funding to maximize the funding for the project. Staff is requesting authorization for a reallocation of appropriation in the amount of \$796,738 from the Transportation Impact Fees fund (TIF) 0181 to CMAQ 0055 for the project budget.

The table below shows the budget summary for the project:

Project Funding Summary

Original CMAQ Federal Funds – approved funding from programming phase 2019/2020	\$357,000
Additional CMAQ Federal Funds approved after bid opening	\$789,080
Transportation Impact Fees Funds	<u>\$349,428.05</u>
Total Funds	\$1,495,508.05

Estimate Project Costs

Contractor (Archer Civil Construction):	\$1,129,567.05
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Building Permit Fees (estimated):	\$500
Materials Testing (1%):	\$11,295
City Surveying:	\$22,500
City Construction Management & Inspection	\$39,500
Misc. Expenses (Postage/Media/Clerical):	\$1,205
Construction Contingency (15%):	\$169,435
City Provided Materials (signal poles and mast arms, meter pedestal, lighted street name signs)	\$121,506
Total Estimated Project Costs:	\$1,495,508.05

ATTACHMENTS:

1. Bid Opening Schedule
2. CMAQ Funding Finance Letter

26720000-820644

DIST - 06 CO-KNG RTE-0 PM-0 AGENCY-CITY OF HANFORD
CML 5091(065)

Bid Opening 6/24/25 at 2:00 pm - (BidNet)

12th Avenue at Hume Avenue Traffic Signal Installation

NON FEDERAL PARTICIPATING = NP				Engineers Estimate		1 - ARCHER CIVIL CONSTRUCTION, LLC DIR 2000005874		2 - DAWSON-MAULDIN, LLC DIR 1000060481		3 - TERRA WEST CONSTRUCTION, INC. DIR 1000712658		4 - CAL VALLEY CONSTRUCTION, INC. DIR 1000009471		5 - GRANITE CONSTRUCTION COMPANY DIR 1000000085	
ITEM	QUANTITY	UNIT	Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal	
1 Site Preparation, Mobilization, Demolition and Misc. Facilities	1	LS	\$127,050.00	\$127,050.00	\$70,354.00	\$70,354.00	\$45,000.00	\$45,000.00	\$50,967.00	\$50,967.00	\$128,000.00	\$128,000.00	\$130,000.00	\$130,000.00	
2 Traffic Control System	1	LS	\$91,476.00	\$91,476.00	\$92,134.00	\$92,134.00	\$55,000.00	\$55,000.00	\$50,175.00	\$50,175.00	\$237,000.00	\$237,000.00	\$155,000.00	\$155,000.00	
3 Storm Water Pollution Prevention Plan Preparation and Implementation	1	LS	\$10,164.00	\$10,164.00	\$5,000.00	\$5,000.00	\$7,500.00	\$7,500.00	\$6,018.00	\$6,018.00	\$1,700.00	\$1,700.00	\$5,000.00	\$5,000.00	
4 Saw Cut Existing Pavement Roadway Excavation	1,198	LF	\$4.07	\$4,875.86	\$3.21	\$3,845.58	\$5.00	\$5,990.00	\$2.50	\$2,995.00	\$4.00	\$4,792.00	\$3.00	\$3,594.00	
5 Roadway Excavation	1,743	CY	\$60.98	\$106,288.14	\$21.48	\$37,439.64	\$50.00	\$87,150.00	\$27.00	\$47,061.00	\$41.00	\$71,463.00	\$60.00	\$104,580.00	
6 Prepare Pavement Subgrade for Aggregate Base, Fine Grading, and 12” Compaction to 95% rel. comp.)	4,354	SY	\$60.98	\$265,506.92	\$6.69	\$29,128.26	\$7.00	\$30,478.00	\$12.00	\$52,248.00	\$5.00	\$21,770.00	\$12.00	\$52,248.00	
7 Class 2 Aggregate Base	1,225	CY	\$50.82	\$62,254.50	\$57.50	\$70,437.50	\$90.00	\$110,250.00	\$113.00	\$138,425.00	\$85.00	\$104,125.00	\$100.00	\$122,500.00	
8 Asphalt Concrete, (Type B, ¾” Maximum, Medium Grade PG 64-10)	1,415	TON	\$132.13	\$186,963.95	\$125.67	\$177,823.05	\$135.00	\$191,025.00	\$198.00	\$280,170.00	\$140.00	\$198,100.00	\$125.00	\$176,875.00	
9 Construct 30’ radius curb returns with ADA Ramp and landing. (CO-21 Modified)	2	EA	\$9,655.80	\$19,311.60	\$8,500.00	\$17,000.00	\$10,000.00	\$20,000.00	\$10,650.00	\$21,300.00	\$5,600.00	\$11,200.00	\$9,500.00	\$19,000.00	
10 Construct ADA Ramp and Landing at Existing 30' radius curb return	1	EA	\$7,114.80	\$7,114.80	\$8,500.00	\$8,500.00	\$8,000.00	\$8,000.00	\$11,150.00	\$11,150.00	\$6,300.00	\$6,300.00	\$13,000.00	\$13,000.00	
11 Construct City Std. Sidewalk (CO-14)	120	SF	\$11.81	\$1,417.20	\$7.15	\$858.00	\$13.00	\$1,560.00	\$28.50	\$3,420.00	\$9.00	\$1,080.00	\$17.00	\$2,040.00	
12 Construct Median Island Curb (CO-17)	910	LF	\$40.66	\$37,000.60	\$22.00	\$20,020.00	\$46.00	\$41,860.00	\$37.00	\$33,670.00	\$33.00	\$30,030.00	\$45.00	\$40,950.00	
13 Construct Stamped Concrete in Median	1,018	SF	\$15.25	\$15,524.50	\$8.84	\$8,999.12	\$20.00	\$20,360.00	\$20.00	\$20,360.00	\$12.00	\$12,216.00	\$19.00	\$19,342.00	
14 Adjust Existing Manhole to Finished Grade	NP	2	EA	\$1,219.68	\$2,439.36	\$1,390.00	\$2,780.00	\$1,500.00	\$3,000.00	\$1,892.00	\$3,784.00	\$1,900.00	\$3,800.00	\$1,500.00	\$3,000.00
15 Adjust Existing Valves to Finish Grade	NP	4	EA	\$1,219.68	\$4,878.72	\$701.00	\$2,804.00	\$1,300.00	\$5,200.00	\$946.00	\$3,784.00	\$1,700.00	\$6,800.00	\$1,300.00	\$5,200.00
16 Install Survey Monument (GE-14)		1	EA	\$762.30	\$762.30	\$750.00	\$750.00	\$1,300.00	\$1,300.00	\$5,059.00	\$5,059.00	\$1,500.00	\$1,500.00	\$1,300.00	\$1,300.00
17 Install 12” Water Main	NP	150	LF	\$177.87	\$26,680.50	\$310.48	\$46,572.00	\$215.00	\$32,250.00	\$320.00	\$48,000.00	\$200.00	\$30,000.00	\$400.00	\$60,000.00
18 Install 12” Water Fittings (45 degree bends)	NP	2	EA	\$3,811.50	\$7,623.00	\$1,500.00	\$3,000.00	\$1,000.00	\$2,000.00	\$2,500.00	\$5,000.00	\$1,600.00	\$3,200.00	\$900.00	\$1,800.00
19 Install 12” Water Blowoff Valve	NP	1	EA	\$2,541.00	\$2,541.00	\$2,000.00	\$2,000.00	\$4,500.00	\$4,500.00	\$2,500.00	\$2,500.00	\$23,000.00	\$23,000.00	\$1,800.00	\$1,800.00
20 Traffic Striping, Signing, Delineators, and Pavement Markers		1	LS	\$30,492.00	\$30,492.00	\$37,090.90	\$37,090.90	\$42,000.00	\$42,000.00	\$33,719.00	\$33,719.00	\$35,000.00	\$35,000.00	\$24,514.00	\$24,514.00
21 System		1	EA	\$12,196.80	\$12,196.80	\$11,027.50	\$11,027.50	\$12,000.00	\$12,000.00	\$10,260.00	\$10,260.00	\$5,100.00	\$5,100.00	\$11,700.00	\$11,700.00
22 Install Traffic Signal and Lighting System, including Rule 20 installation (poles and mast arms provided by city)		1	LS	\$355,933.12	\$355,933.12	\$482,003.50	\$482,003.50	\$464,200.00	\$464,200.00	\$433,255.00	\$433,255.00	\$430,000.00	\$430,000.00	\$475,500.00	\$475,500.00
TOTAL BID			\$1,378,494.87		\$1,129,567.05		\$1,190,623.00		\$1,263,320.00		\$1,366,176.00		\$1,428,943.00		
Total written in Bid if discrepancy exists										\$1,253,320.00					

FINANCE LETTER

Date: 07/24/2025
D_CO_RT: 06-KIN-0-HAN
Project No: CML-5091(065)
Adv. Project Id: 0620000121
Project End Date: 06/30/2029

EA No:

To: City of Hanford

Est Tot Proj Costs: \$1,665,401

FINANCE ITEMS	PRO RATA OR LUMP SUM	TOTAL COST OF WORK	FEDERAL PART. COST	FED. REIMB %	FEDERAL FUNDS	FEDERAL	LOCAL FUNDS
					Z400	Y400	
Agency Preliminary Engineering	Lump Sum	\$154,328.00	\$154,328.00	28.51%	\$44,000.00	\$0.00	\$110,328.00
Right of Way	Lump Sum	\$95,000.00	\$95,000.00	46.53%	\$44,200.00	\$0.00	\$50,800.00
Contract Items: \$1,129,567 Contingencies: \$90,000 Agency Furn. Mat.: \$121,506 Total: \$1,341,073							
Construction	Lump Sum	\$1,341,073.05	\$1,283,917.05	87.71%	\$0.00	\$1,126,080.00	\$214,993.05
Agency Construction Engineering	Lump Sum	\$75,000.00	\$75,000.00	26.67%	\$0.00	\$20,000.00	\$55,000.00
Totals:		\$1,665,401.05	\$1,608,245.05		\$88,200.00	\$1,146,080.00	\$431,121.05

Participation Ratio: 96.57% This Finance Letter was created based on specific financial information provided by the responsible local agency. The following encumbrance history is prepared by Local Assistance Accounting Office and is provided here for local agency's information and action.

Signature: Mrudang Shah
Title: HQ Sr. AREA ENGINEER

Printed Name: MRUDANG SHAH
Telephone No: (916) 539-9296

Remarks: SEQ 6: Construction contract award adjustment based on the award package. Additional funds via post programming.

ACCOUNTING INFORMATION										Cooperative Work Agreement	
ADV. PROJECT ID	APPROP. UNIT	STATE PROG.	FED/ STATE	ENCUMBRANCE AMOUNT	APPROP YEAR	EXPENDITURE AMOUNT	ENCUMBRANCE BALANCE	REVERSION DATE*		APPROVED AMOUNT	EXPIRATION DATE
0620000121	24102F	2030010820	F	\$357,000.00	2324	\$287.79	\$356,712.21	06/30/2029			
0620000121	22102F	2030010820	F	\$44,200.00	2122	\$36,707.60	\$7,492.40	06/30/2027			
0620000121	20102F	2030010820	F	\$44,000.00	1920	\$44,000.00	\$0.00	06/30/2025			

*Please submit invoices to the appropriate Districts by April 1st to avoid funds lapsing on the June 30th reversion date listed above and to allow sufficient time for Accounting and SCO year-end closing procedures.



**AGENDA
STAFF REPORT**

MEETING DATE: 9/16/2025	AGENDA SECTION: CONSENT CALENDAR
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SUBJECT:

Stonehaven Tract 940-Intention to Annex Territory to Community Facilities District No. 2025-1 (Public Safety Services)

RECOMMENDATION:

Recommendation: Adopt Resolution No. 2025-50-R Declaring its Intention to Annex Territory (Stonehaven Subdivision) to Community Facilities District No. 2025-1 (Public Safety Services) and Authorizing the Levy of Special Taxes Therein for Annexation No. 1.

Recommended Motion:I motion to adopt Resolution No. 2025-50-R Declaring its Intention to Annex Territory (Stonehaven Subdivision) to Community Facilities District No. 2025-1 (Public Safety Services) and Authorizing the Levy of Special Taxes Therein for Annexation No. 1.

BACKGROUND:

The attached resolution will begin the proceedings for the annexation of certain property, known as the Stonehaven Subdivision, to Community Facilities District 2025-1 (Public Safety Services) (“CFD 2025-1”). CFD 2025-1 was established as an annexable district to provide funding to offset the increased cost of public safety services created due to new development for police and fire protection services.

The property proposed for annexation is currently owned by D.R. Horton Ca3 Inc. and is located south of Hanford-Armona Road between 12th and 13th Avenues within the boundary of assessor’s parcel number (APN) 011-040-030-000, as depicted on Exhibit A. The development on the property will be 82 single-family lots. Development of this property will change the property’s characteristics and manner in which the property will be used, thereby creating a need for more services funded by CFD 2025-1.

The City contracts with Willdan Financial Services for the preparation of the necessary resolutions and balloting procedures for the annexation process.

The Resolution of Intention is the first step to annex this property to CFD 2025-1. This will be the 1st annexation to CFD 2025-1. The resolution also establishes October 21, 2025 as the public hearing date for the final consideration of the annexation of the property to CFD 2025-1. Once the annexation is complete, the property owners will be required to pay annual special taxes for CFD 2025-1, beginning the fiscal year after they are issued a building permit, as itemized on their property tax bill,

in accordance with the rate set forth in the Rate and Method of Apportionment of Special Tax (RMA).

FISCAL IMPACT:

The estimated annual revenue received by the City for this development will be \$13,448 which is based on the maximum special tax rate of \$164 per unit for Fiscal Year 2025/26 for an estimated 82 detached single family residential parcels. The special tax for CFD 2025-1 includes an annual escalation factor as defined in the RMA. The process for the annexation is funded by the developer and no General Fund monies are used for this effort.

ATTACHMENTS:

1. Resolution 25-50-R

RESOLUTION NO. 25-50-R

A RESOLUTION OF THE CITY COUNCIL OF HANFORD DECLARING ITS INTENTION TO ANNEX TERRITORY (STONEHAVEN SUBDIVISION) INTO COMMUNITY FACILITIES DISTRICT NO. 2025-1 (PUBLIC SAFETY SERVICES) AND TO AUTHORIZE THE LEVY SPECIAL TAXES THEREIN FOR ANNEXATION NO. 1

WHEREAS, the CITY COUNCIL of the CITY OF HANFORD, CALIFORNIA (the “City Council”) has conducted proceedings to establish Community Facilities District No. 2025-1 (Public Safety Services) (CFD 2025-1) pursuant to the Mello-Roos Community Facilities Act of 1982, as amended (Act), Chapter 2.5 of Part 1 of Division 2 of Title 5, commencing at Section 53311, of the California Government Code; and

WHEREAS, under the Act, the City Council, as the legislative body for the CFD, is empowered with the authority to annex territory to the CFD, and now desires to undertake proceedings to annex territory to the CFD.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Hanford as follows:

Section 1. Recitals Correct. The foregoing recitals are true and correct.

Section 2. Necessity. The council hereby finds and determines that public convenience and necessity require that territory be added to the CFD.

Section 3. Name of the District. The name of the existing CFD is “Community Facilities District No. 2025-1 (Public Safety Services)”.

Section 4. Boundaries of the District. The territory included in the existing CFD is shown on the map of the CFD recorded on May 27, 2025 at Book 2, Page 3 Document No. 2506809 which has been filed in the Office of the County Recorder for the County of Kings, State of California.

The territory now proposed to be annexed to the CFD is as shown on the Annexation Map No. 1, on file with the city clerk, a copy of which is attached hereto as Exhibit A and made a part hereof, the boundaries of which territory are hereby preliminarily approved. The city clerk is hereby directed to cause the recordation of said Annexation Map No. 1 to the CFD, showing the territory to be annexed, in the Office of the County Recorder for the County of Kings within 15 days of this resolution's adoption date.

Section 5. Description of Services. The types of public safety services financed by the CFD and pursuant to the Act consist of those services (Services) described in Exhibit A to Resolution No. 2025-19-R adopted by the council on the 1st day of July 2025, (Resolution of Formation). It is presently intended that the Services will be shared, without preference or priority, by the existing territory in the CFD and the territory proposed to be annexed to the CFD. It has been determined that this project will intensify the use of the property, creating a need for more services under this CFD.

Section 6. Special Tax.

- a. Except to the extent that funds are otherwise available to the CFD to pay for the Services and/or the principal and interest as it becomes due on bonds of the CFD issued to finance the Services, a special tax sufficient to pay the costs thereof is intended to be levied annually within the CFD and collected in the same manner as ordinary ad valorem property taxes.
- b. The proposed rate and method of apportionment of the special tax among the parcels of real property within the CFD, as now in existence and following the annexation proposed herein, and in sufficient detail to allow each landowner within the territory proposed to be annexed to the CFD to estimate the maximum amount such owner will have to pay, is described in Exhibit B, which is hereby incorporated by this reference.

Section 7. Public Hearing. Notice is given that on October 21, 2025, at 7:00 p.m., in the regular meeting place of the council at the Civic Auditorium, located at 400 North Douty Street, Hanford, California, the council, as legislative body for the CFD, will conduct a public hearing on the annexation of territory to the CFD and consider and finally determine whether the public interest, convenience and necessity require said annexation of territory to the CFD and the levy of said special tax therein.

Section 8. Notice of Public Hearing. The city clerk is hereby directed to cause notice of said public hearing to be given by publication one time in a newspaper of general circulation in the area of the CFD. The publication of said notice shall be completed at least seven days before the date herein set for said hearing. Said notice shall be substantially in the form specified in Section 53339.4 of the Act.

PASSED, ADOPTED AND APPROVED at a regular meeting of the City Council of the City of Hanford duly called and held on the _____ day of _____, 2025, by the following vote:

AYES: _____

NOES: _____

ABSTAIN: _____

ABSENT: _____

Travis Paden
MAYOR of the City of Hanford

ATTEST:

Natalie Corral
City Clerk

State of California)
County of Kings) ss
City of Hanford)

I, Natalie Corral, City Clerk of the City of Hanford, do hereby certify the foregoing Resolution was duly passed and adopted at a regular meeting of the City Council of the City of Hanford held on the day of _____, 2025.

Date: _____ City Clerk _____

Exhibit A

Community Facilities District No. 2025-1 (Public Safety Services) Annexation Map No. 1 Boundary Map

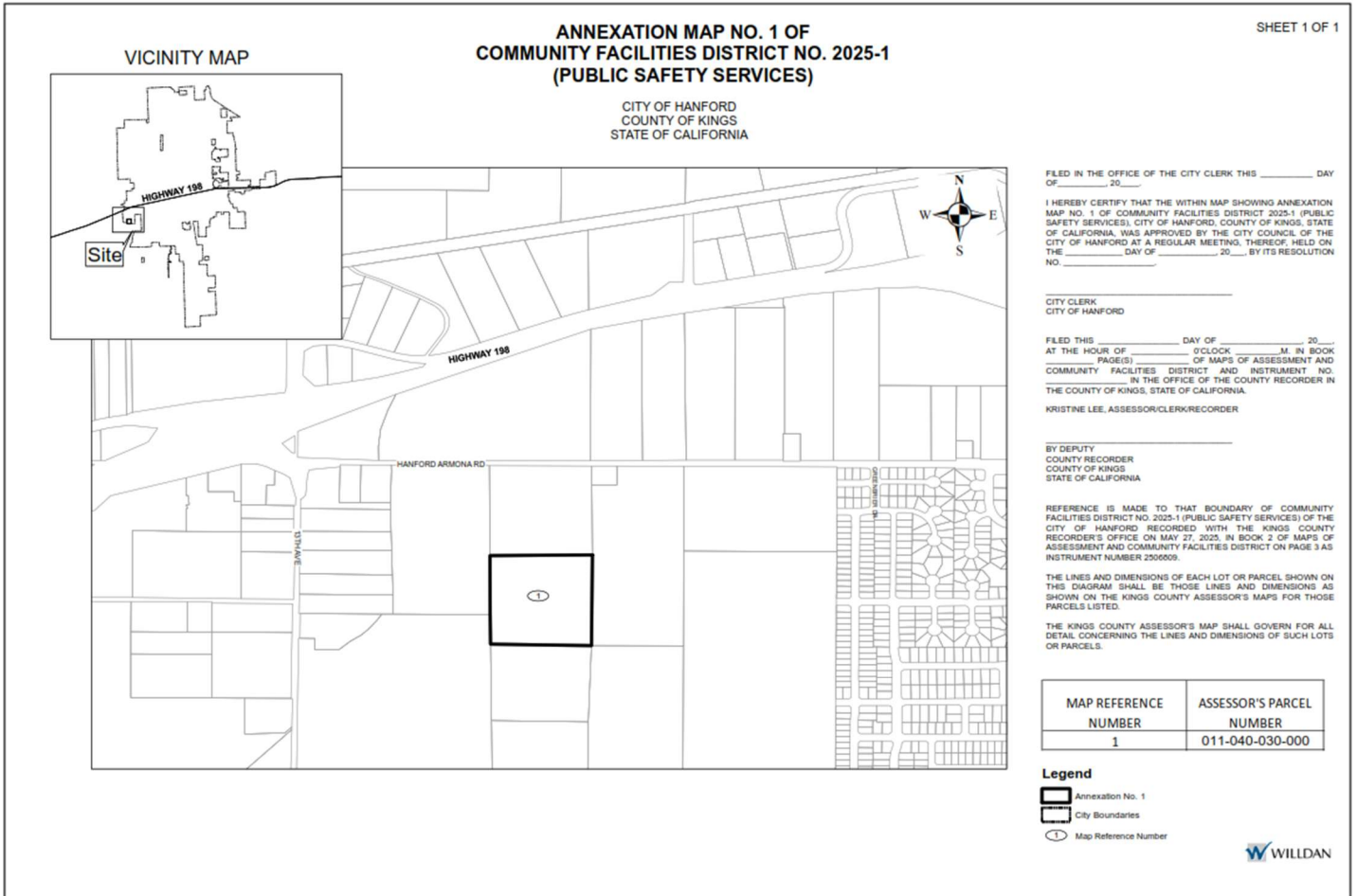


Exhibit B

City of Hanford Community Facilities District No. 2025-1 (Public Safety Services) Rate and Method of Apportionment

A Special Tax of City of Hanford Community Facilities District No. 2025-1 (Public Safety Services) ("CFD") shall be levied on all Assessor's Parcels within the CFD and collected each Fiscal Year commencing in Fiscal Year 2025/26 in an amount determined by the Special Tax Administrator through the application of the rate and method of apportionment of the Special Tax set forth below. All of the real property in the CFD, unless exempted by law or by the provisions hereof, shall be taxed for the purposes, to the extent and in the manner herein provided.

A. DEFINITIONS

The terms hereinafter set forth have the following meanings:

"Act" means the Mello-Roos Community Facilities Act of 1982, being Chapter 2.5, Part 1, Division 2 of Title 5 of the Government Code of the State of California, as amended.

"Administrative Expenses" means the following actual or reasonably estimated costs incurred by the City as administrator of the CFD, provided that such costs are directly related to administration of the CFD: costs to determine, levy and collect the Special Taxes, including an allocable share of the salaries and benefits of City employees, the fees of consultants, and legal counsel; the costs of collecting installments of the Special Taxes upon the general tax rolls, including any charges levied by County departments; and the preparation of required reports and any other costs required to administer the CFD in accordance with the Act, as determined by the City.

"Annual Escalation Factor" means the greater of (i) four percent (4%) or (ii) the annual percentage increase in the Consumer Price Index for All Urban Consumers for San Francisco-Oakland-San Jose Area as determined by the Bureau of Labor Statistics. If said index is discontinued, then an alternative index may be used as determined by the Special Tax Administrator.

"Assessor's Parcel" means a Lot or parcel of land shown on an Assessor's Parcel Map with a parcel number assigned by the Assessor of the County that corresponds to a number shown on the County Assessor's roll.

"Assessor's Parcel Map" means an official map of the Assessor of the County designating parcels by Assessor's Parcel number.

"Attached Residential" means an Assessor's Parcel of Developed Property, within the CFD for which a Building Permit has been issued for purposes of constructing a residential structure or structures sharing common walls and/or common spaces, qualified as Attached Residential at the City's discretion, consisting of two or more Dwelling Units, including, but not limited to duplexes, triplexes, and apartment units, as of June 30th preceding the Fiscal Year in which the Special Tax is being levied.

"Base Year" means Fiscal Year 2025/26.

"Building Permit" means a permit issued for new construction of a residential or non-residential structure following the formation of the CFD. For purposes of this definition, "Building Permit" shall not include permits issued solely for grading, utility improvements, or other such improvements that are constructed and installed and are not intended for human occupancy.

"CFD" means City of Hanford Community Facilities District No. 2025-1 (Public Safety Services).

"City" means the City of Hanford.

"City Clerk" means the City Clerk for the City or his or her designee.

"Commercial Property" means, in any Fiscal Year, all Developed Property for which a Building Permit was issued on or prior to June 30th preceding the Fiscal Year in which the Special Tax is being levied for a commercial establishment which includes, but is not limited to, retail stores, clothing stores, book stores, drug stores, professional services (i.e., barber shops, dry cleaners), non-warehouse public storage facilities, restaurants, supermarkets, hospitals, movie theaters, appliance and electronic stores, home supply stores, auto parts stores, and other businesses providing such products and services. The City shall make the determination as to whether a Parcel is Commercial Property.

"Council" means the City Council of the City, acting as the legislative body of the CFD.

"County" means the County of Kings, California.

"Detached Residential" means an Assessors' Parcel of Developed Property within the CFD, for which a Building Permit has been issued for purposes of constructing a residential structure consisting of one single-family detached Dwelling Unit, including Mobile Homes, as of June 30th preceding the Fiscal Year in which the Special Tax is being levied.

"Developed Property" means, for Detached Residential or Attached Residential, an Assessor's Parcel within the CFD for which a Building Permit was issued on or prior to June 30th preceding the Fiscal Year in which the Special Tax is being levied, based on the number of Dwelling Units or Building Square Footage, as applicable, per City or County records for that Assessor's Parcel.

"Dwelling Unit" means each separate residential unit that comprises an independent facility capable of conveyance or rental separate from adjacent residential units, in which a person or persons may live, which comprises an independent facility and is not considered to be for non-residential use only, and as defined in the City of Hanford's Municipal Code.

"Exempt Property" means for each Fiscal Year, an Assessor's Parcel within the CFD not subject to the Special Tax. Exempt Property includes: (i) Public Property, (ii) Property Owner Association Property, (iii) Assessor's Parcels with public or utility easements making impractical their utilization for other than the purposes set forth in the easement such as railroad parcels, roads and landscape lots, (iv) Undeveloped Property (v) property reasonably designated by the City or Special Tax Administrator as Exempt Property due to deed restrictions, conservation easement, or similar factors that may make development of such property impractical for human occupancy, and (vi) Welfare Exemption Property.

"Final Map" means an Assessor's Parcel Map, a Final Subdivision Map, parcel map, condominium plan, or any other map functionally considered to be an equivalent development map that has been recorded in the Office of the County Recorder.

"Fire Protection Services Requirement" means for any Fiscal Year in which the Special Taxes are levied, the amount equal to the budgeted costs for providing fire protection services, including but not limited to (i) the costs of contracting for fire personnel, (ii) the salaries and benefits of City staff, if the City directly provides fire protection services, (iii) the expense related to equipment, apparatus, and supplies related to these services and authorized by the Act, and (iv) City overhead costs associated with providing such services within the CFD.

"Fiscal Year" means the period starting July 1 and ending on the following June 30.

"Industrial Property" means, in any Fiscal Year, all Developed Property for which a Building Permit was issued on or prior to June 30th preceding the Fiscal Year in which the Special Tax is being levied for construction of an

industrial, manufacturing, or warehousing structure. The City shall make the determination as to whether a Parcel is Industrial Property.

"Institutional Property" means, in any Fiscal Year, all Developed Property for which a Building Permit was issued on or prior to June 30th preceding the Fiscal Year in which the Special Tax is being levied for construction of an institutional property, including but not limited to private schools, educational centers, child daycares, convalescent centers, hospice care centers, and property used for religious purposes. The City shall make the determination as to whether a Parcel is Institutional Property.

"Land Use Class" means any of the classes listed in Table 1 and defined herein.

"Lot" means an individual legal lot created by an Assessor's Parcel Map or Final Map.

"Maximum Special Tax" means the maximum Special Tax, determined in accordance with Section C below, that can be levied by the CFD in any Fiscal Year on any Assessor's Parcel.

"Mobile Home" means a vehicle designed and equipped for human habitation as defined by the California Health & Safety Code § 18008.

"Police Services Requirement" means, for any Fiscal Year in which the Special Taxes are levied, the amount equal to the budgeted costs for providing police services within, or associated with the CFD, including but not limited to (i) the costs of contracting for police, (ii) the salaries and benefits of City staff, if the City directly provides police services, (iii) the expense related to equipment, apparatus, and supplies related to these services and authorized by the Act, and (iv) City overhead costs associated with providing such services within the CFD.

"Property Owner Association Property" means, for each Fiscal Year, any property within the CFD that is owned by, or irrevocably dedicated as indicated in an instrument recorded with the County Recorder, to a property owner association, including any master or sub-association, which consists of property owned in common by owners of surrounding properties and it is intended for use for community purposes.

"Proportionately" means, for Developed Property, that the ratio of the actual Special Tax levied per Assessor's Parcel of Developed Property to the Maximum Special Tax per Assessor's Parcel of Developed Property is equal for all Assessor's Parcels of Developed Property. "Proportionately" means, for Undeveloped Property, that the ratio of the actual Special Tax levied per Assessor's Parcel of Undeveloped Property to the Maximum Special Tax per Assessor's Parcel of Undeveloped Property is equal for all Assessor's Parcels of Undeveloped Property.

"Public Property" means, in any Fiscal Year: (i) all Parcels within the boundaries of the CFD that are owned by or irrevocably offered for dedication to the federal government, the State of California, the City or any other public agency; provided, however, that Taxable City Property shall not be categorized as Public Property, and any property leased by a public agency to a private entity and subject to taxation under Section 53340.1 of the Act (as such section may be amended or replaced) shall be taxed and classified in accordance with its use; and (ii) all Parcels within the boundaries of the CFD that are encumbered by an unmanned utility easement making impractical its utilization for other than the purpose set forth in the easement.

"Reserve Fund" means a fund that shall be created and maintained for the CFD for each Fiscal Year to provide necessary cash flow to cover maintenance and operational cost overruns, and delinquencies in the payment of Special Taxes.

"Special Tax" means the Special Tax to be levied in each Fiscal Year on each Assessor's Parcel of Taxable Property to fund the Special Tax Requirement, and shall include Special Taxes levied or to be levied under Sections C and D, below.

"Special Tax Administrator" means an official of the City, or designee thereof, responsible for determining the Special Tax Requirement and providing for the levy and collection of the Special Taxes.

“Special Tax Requirement” means the sum of (i) Police Services Requirement, (ii) Fire Protection Services Requirement (iii) Administrative Expenses of the CFD, and (iv) and any amounts required to establish or replenish a Reserve Fund for that Fiscal Year.

“State” means the State of California.

“Taxable Property” means all Assessor’s Parcels of Developed Property and Undeveloped Property within the CFD that are not Exempt from the Special Tax pursuant to law or as defined herein.

“Undeveloped Property” means, for each Fiscal Year, an Assessor’s Parcel within the CFD for which a Building Permit has not been issued on or prior to June 30th preceding the Fiscal Year in which the Special Tax is being levied and is not classified as Exempt Property.

“Welfare Exemption Property” means, in any Fiscal Year, any Parcels that have received a welfare exemption under subdivision (g) of Section 214 of the Revenue and Taxation Code and for which such welfare exemption is still in place.

B. ASSIGNMENT TO LAND USE CATEGORIES

For each Fiscal Year, commencing with Fiscal Year 2025/26, using the definitions above, each Assessor’s Parcel within the CFD shall be classified as Taxable Property or Exempt Property. In addition, each Fiscal Year, beginning with Fiscal Year 2025/26, Taxable Property shall be further classified as Attached Residential, Detached Residential, Commercial Property, Industrial Property, Institutional Property, or Mixed-use Property.

C. MAXIMUM SPECIAL TAX RATE

1. Developed Property

**Table 1
Maximum Special Tax for Developed Property
Community Facilities District No. 2025-1 (Public Safety Services)
Fiscal Year 2025/26**

Land Use Class	Description	Maximum Special Tax
1	Detached Residential	\$164 per Dwelling Unit
2	Attached Residential	\$107 per Dwelling Unit
3	Commercial Property	\$0.148 per square foot of Non-Residential Floor Area
4	Industrial	\$0.191 per square foot of Non-Residential Floor Area
5	Institutional	\$0.106 per square foot of Non-Residential Floor Area
6	Mixed-Use Property	Sum of Maximum Special Tax for each applicable Land Use Class

For each Fiscal Year following the Base Year, the Maximum Special Tax rates in Table 1 shall be increased by the Annual Escalation Factor. Additional Land Use Classes, and the corresponding Maximum Special Tax of each new Land Use Class, may be added to Table 1 as a result of future annexations or if future annexations involve a new Land Use Class.

2. Exempt Property

No Special Tax shall be levied on Exempt Property as defined in Section A.

For each Fiscal Year, if the use or ownership of an Assessor's Parcel of Exempt Property changes so that such Assessor's Parcel is no longer classified as one of the uses set forth in Section A, therefore making such Assessor's Parcel no longer eligible to be classified as Exempt Property, such Assessor's Parcel shall be deemed to be Taxable Property and shall be taxed pursuant to the provisions of Section C.1. and the definitions herein.

D. METHOD OF APPORTIONMENT OF THE SPECIAL TAX

Commencing with Fiscal Year 2025/26, and for each subsequent Fiscal Year, the Special Tax Administrator shall calculate the Special Tax Requirement based on the definitions in Section A and levy the Special Tax as follows until the amount of the Special Tax levied equals the Special Tax Requirement:

The Special Tax shall be Proportionately levied each Fiscal Year on each Assessor's Parcel of Developed Property up to 100% of the applicable Maximum Special Tax. The applicable Maximum Special Tax shall be based on the Developed Property's classification as Detached Residential, Attached Residential, Commercial Property, Industrial Property, Institutional Property, or Mixed-use Property.

E. APPEALS

Any property owner who pays the Special Tax and believes that the amount of the Special Tax levied on their Assessor's Parcel is in error shall first consult with the Special Tax Administrator regarding such error. If following such consultation, the Special Tax Administrator determines that an error has occurred, the Special Tax Administrator may amend the amount of the Special Tax levied on such Assessor's Parcel. If following such consultation and action, if any, the landowner believes such error still exists, such person may file a written notice with the City Clerk of the City appealing the amount of the Special Tax levied on such Assessor's Parcel. Upon the receipt of any such written notice, the City Clerk shall forward a copy of such notice to the City Finance Director, who shall either (1) refer the matter to the City's existing hearing board for administrative appeals; or (2) establish as part of the proceedings and administration of the CFD, a special three-member Review/Appeal Committee. The Review/Appeal Committee may establish such procedures, as it deems necessary to undertake the review of any such appeal. The hearing board or Review/Appeal Committee shall interpret this Rate and Method of Apportionment and make determinations relative to the annual administration of the Special Tax and any property owner appeals, as herein specified. The decision of the hearing board or Review/Appeal Committee shall be final and binding to all persons.

F. MANNER OF COLLECTION

Special Taxes levied pursuant to Section D above shall be collected in the same manner and at the same time as ordinary ad valorem property taxes, provided however that (i) the CFD may directly bill the Special Tax, and (ii) the CFD may collect Special Taxes at a different time or in a different manner if necessary to meet the financial obligations of the CFD or as otherwise determined appropriate by the City Council.

G. TERM OF SPECIAL TAX

Taxable Property in the CFD shall remain subject to the Special Tax in perpetuity or until the City Council takes appropriate actions to terminate the Special Tax pursuant to the Act.



AGENDA STAFF REPORT

MEETING DATE: 9/16/2025

AGENDA SECTION: CONSENT CALENDAR

SUBJECT:

Stonehaven Tract 940-Intention to Annex Territory to Community Facilities District No. 2025-2 (Public Maintenance Services)

RECOMMENDATION:

Recommendation :Adopt Resolution No. 2025-51-R Declaring its Intention to Annex Territory (Stonehaven Subdivision) to Community Facilities District No. 2025-2 (Public Maintenance Services) and Authorizing the Levy of Special Taxes Therein for Annexation No. 1.

Recommended Motion: I motion to adopt Resolution No. 2025-51-R Declaring its Intention to Annex Territory (Stonehaven Subdivision) to Community Facilities District No. 2025-2 (Public Maintenance Services) and Authorizing the Levy of Special Taxes Therein for Annexation No. 1.

BACKGROUND:

The attached resolution will begin the proceedings for the annexation of certain property, known as the Stonehaven Subdivision, to Community Facilities District 2025-2 (Public Maintenance Services) ("CFD 2025-2"). CFD 2025-2 was established as an annexable district to provide funding to offset the increased cost of public maintenance services created due to new development for landscaping and lighting maintenance, park maintenance, drainage maintenance, and street maintenance.

The property proposed for annexation is currently owned by D.R. Horton Ca3 Inc. and is located south of Hanford-Armona Road between 12th and 13th Avenues within the boundary of assessor's parcel number (APN) 011-040-030-000, as depicted on Exhibit A. The development on the property will be 82 single-family lots. Development of this property will change the property's characteristics and manner in which the property will be used, thereby creating a need for more services funded by CFD 2025-2.

The City contracts with Willdan Financial Services for the preparation of the necessary resolutions and balloting procedures for the annexation process.

The Resolution of Intention is the first step to annex this property to CFD 2025-2. This will be the 1st annexation to CFD 2025-2. The resolution also establishes October 21, 2025 as the public hearing date for the final consideration of the annexation of the property to CFD 2025-2. Once the annexation is complete, the property owners will be required to pay annual special taxes for CFD 2025-2, beginning the fiscal year after they are issued a building permit, as itemized on their property tax bill, in accordance with the rate set forth in the Rate and Method of Apportionment of Special Tax (RMA).

FISCAL IMPACT:

The estimated annual revenue received by the City for this development will be \$44,362.00 which is based on the maximum special tax rate of \$541.00 per unit for Fiscal Year 2025/26 for an estimated 82 detached single family residential parcels. The special tax for CFD 2025-2 includes an annual escalation factor as defined in the RMA. The process for the annexation is funded by the developer and no General Fund monies are used for this effort.

ATTACHMENTS:

1. Resolution 25-51-R

RESOLUTION NO. 25-51-R

A RESOLUTION OF THE CITY COUNCIL OF HANFORD DECLARING ITS INTENTION TO ANNEX TERRITORY (STONEHAVEN SUBDIVISION) INTO COMMUNITY FACILITIES DISTRICT NO. 2025-2 (PUBLIC MAINTENANCE SERVICES) AND TO AUTHORIZE THE LEVY SPECIAL TAXES THEREIN FOR ANNEXATION NO. 1

WHEREAS, the CITY COUNCIL of the CITY OF HANFORD, CALIFORNIA (the “City Council”) has conducted proceedings to establish Community Facilities District No. 2025-2 (Public Maintenance Services) (CFD) pursuant to the Mello-Roos Community Facilities Act of 1982, as amended (Act), Chapter 2.5 of Part 1 of Division 2 of Title 5, commencing at Section 53311, of the California Government Code; and

WHEREAS, under the Act, the council, as the legislative body for the CFD, is empowered with the authority to annex territory to the CFD, and now desires to undertake proceedings to annex territory to the CFD.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Hanford as follows:

Section 1. Recitals Correct. The foregoing recitals are true and correct.

Section 2. Necessity. The council hereby finds and determines that public convenience and necessity require that territory be added to the CFD.

Section 3. Name of the District. The name of the existing CFD is “Community Facilities District No. 2025-2 (Public Maintenance Services)”.

Section 4. Boundaries of the District. The territory included in the existing CFD is shown on the map of the CFD recorded on May 27, 2025 at Book 2, Page 4 Document No. 2506810 which has been filed in the Office of the County Recorder for the County of Kings, State of California.

The territory now proposed to be annexed to the CFD is as shown on the Annexation Map No. 1 in Exhibit A to the CFD, on file with the city clerk, a copy of which is attached hereto as Exhibit A and made a part hereof, the boundaries of which territory are hereby preliminarily approved. The city clerk is hereby directed to cause the recordation of said Annexation Map No. 1 to the CFD, showing the territory to be annexed, in the Office of the County Recorder for the County of Kings within 15 days of this resolution's adoption date.

Section 5. Description of Services. The types of public maintenance services financed by the CFD and pursuant to the Act consist of those services (Services) described in Exhibit A to Resolution No. 2025-22-R adopted by the council on the 1st day of July 2025, (Resolution of Formation). It is presently intended that the Services will be shared, without preference or priority, by the existing territory in the CFD and the territory proposed to be annexed to the CFD. It has been determined that this project will intensify the use of the property, creating a need for more services under this CFD.

Section 6. Special Tax.

- a. Except to the extent that funds are otherwise available to the CFD to pay for the Services and/or the principal and interest as it becomes due on bonds of the CFD issued to finance the Services, a special tax sufficient to pay the costs thereof is intended to be levied annually within the CFD and collected in the same manner as ordinary ad valorem property taxes.
- b. The proposed rate and method of apportionment of the special tax among the parcels of real property within the CFD, as now in existence and following the annexation proposed herein, and in sufficient detail to allow each landowner within the territory proposed to be annexed to the CFD to estimate the maximum amount such owner will have to pay, is described in Exhibit B, which is hereby incorporated by this reference.

Section 7. Public Hearing. Notice is given that on October 21, 2025, at 7:00 p.m., in the regular meeting place of the council at the Hanford Civic Auditorium, located at 400 North Douty Street, Hanford, California, the council, as legislative body for the CFD, will conduct a public hearing on the annexation of territory to the CFD and consider and finally determine whether the public interest, convenience and necessity require said annexation of territory to the CFD and the levy of said special tax therein.

Section 8. Notice of Public Hearing. The city clerk is hereby directed to cause notice of said public hearing to be given by publication one time in a newspaper of general circulation in the area of the CFD. The publication of said notice shall be completed at least seven days before the date herein set for said hearing. Said notice shall be substantially in the form specified in Section 53339.4 of the Act.

PASSED, ADOPTED AND APPROVED at a regular meeting of the City Council of the City of Hanford duly called and held on the _____ day of _____, 2025, by the following vote:

AYES: _____

NOES: _____

ABSTAIN: _____

ABSENT: _____

Travis Paden
MAYOR of the City of Hanford

ATTEST:

Natalie Corral
City Clerk

State of California)
County of Kings) ss
City of Hanford)

I, Natalie Corral, City Clerk of the City of Hanford, do hereby certify the foregoing Resolution was duly passed and adopted at a regular meeting of the City Council of the City of Hanford held on the day of _____, 2025.

Date: _____ City Clerk _____

Exhibit A

Community Facilities District No. 2025-2 (Public Maintenance Services) Annexation Map No. 1 Boundary Map

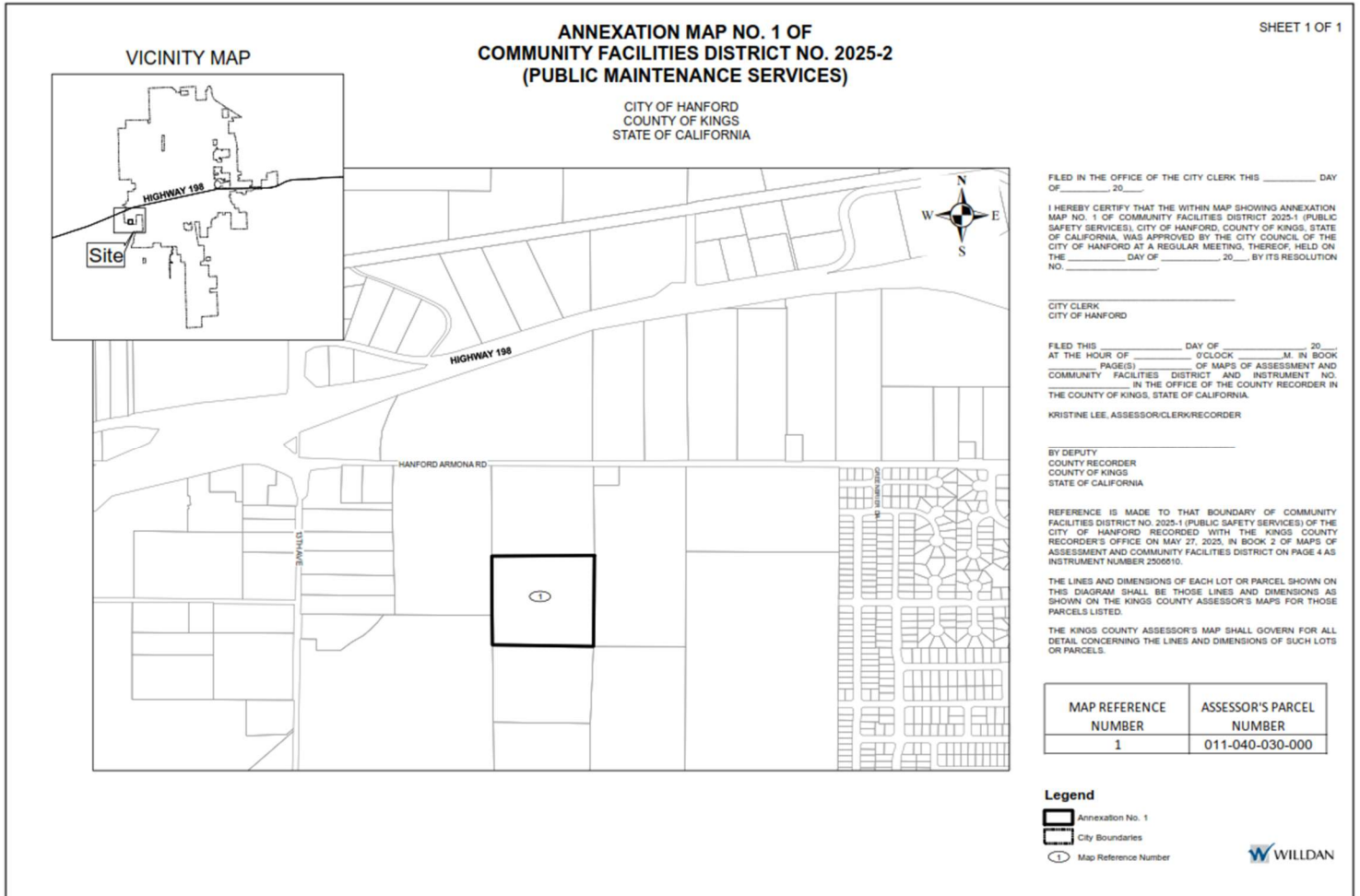


Exhibit B

City of Hanford Community Facilities District No. 2025-2 (Public Maintenance Services) Rate and Method of Apportionment

A Special Tax of City of Hanford Community Facilities District No. 2025-2 (Public Maintenance Services) ("CFD") shall be levied on all Assessor's Parcels within the CFD and collected each Fiscal Year commencing in Fiscal Year 2025/26 in an amount determined by the Special Tax Administrator through the application of the rate and method of apportionment of the Special Tax set forth below. All of the real property in the CFD, unless exempted by law or by the provisions hereof, shall be taxed for the purposes, to the extent and in the manner herein provided.

A. DEFINITIONS

The terms hereinafter set forth have the following meanings:

"Act" means the Mello-Roos Community Facilities Act of 1982, being Chapter 2.5, Part 1, Division 2 of Title 5 of the Government Code of the State of California, as amended.

"Administrative Expenses" means the following actual or reasonably estimated costs incurred by the City as administrator of the CFD, provided that such costs are directly related to administration of the CFD: costs to determine, levy and collect the Special Taxes, including an allocable share of the salaries and benefits of City employees, the fees of consultants, and legal counsel; the costs of collecting installments of the Special Taxes upon the general tax rolls, including any charges levied by County departments; and the preparation of required reports and any other costs required to administer the CFD in accordance with the Act, as determined by the City.

"Annual Escalation Factor" means the greater of (i) four percent (4%) or (ii) the annual percentage increase in the Consumer Price Index for All Urban Consumers for San Francisco-Oakland-San Jose Area as determined by the Bureau of Labor Statistics. If said index is discontinued, then an alternative index may be used as determined by the Special Tax Administrator.

"Assessor's Parcel" means a Lot or parcel of land shown on an Assessor's Parcel Map with a parcel number assigned by the Assessor of the County that corresponds to a number shown on the County Assessor's roll.

"Assessor's Parcel Map" means an official map of the Assessor of the County designating parcels by Assessor's Parcel number.

"Attached Residential" means an Assessor's Parcel of Developed Property, within the CFD for which a Building Permit has been issued for purposes of constructing a residential

structure or structures sharing common walls and/or common spaces, qualified as Attached Residential at the City's discretion, consisting of two or more Dwelling Units, including, but not limited to duplexes, triplexes, and apartment units, as of June 30th preceding the Fiscal Year in which the Special Tax is being levied.

"Base Year" means Fiscal Year 2025/26.

"Building Permit" means a permit issued for new construction of a residential or non-residential structure following the formation of the CFD. For purposes of this definition, "Building Permit" shall not include permits issued solely for grading, utility improvements, or other such improvements that are constructed and installed and are not intended for human occupancy.

"CFD" means City of Hanford Community Facilities District No. 2025-2 (Public Maintenance Services).

"City" means the City of Hanford.

"City Clerk" means the City Clerk for the City or his or her designee.

"Commercial Property" means, in any Fiscal Year, all Developed Property for which a Building Permit was issued on or prior to June 30th preceding the Fiscal Year in which the Special Tax is being levied for a commercial establishment which includes, but is not limited to, retail stores, clothing stores, book stores, drug stores, professional services (i.e., barber shops, dry cleaners), non-warehouse public storage facilities, restaurants, supermarkets, hospitals, movie theaters, appliance and electronic stores, home supply stores, auto parts stores, and other businesses providing such products and services. The City shall make the determination as to whether a Parcel is Commercial Property.

"Council" means the City Council of the City, acting as the legislative body of the CFD.

"County" means the County of Kings, California.

"Detached Residential" means an Assessors' Parcel of Developed Property within the CFD, for which a Building Permit has been issued for purposes of constructing a residential structure consisting of one single-family detached Dwelling Unit, including Mobile Homes, as of June 30th preceding the Fiscal Year in which the Special Tax is being levied.

"Developed Property" means, for Detached Residential or Attached Residential, an Assessor's Parcel within the CFD for which a Building Permit was issued on or prior to June 30th preceding the Fiscal Year in which the Special Tax is being levied, based on the number of Dwelling Units or Building Square Footage, as applicable, per City or County records for that Assessor's Parcel.

"Drainage Maintenance Requirement" means for any Fiscal Year in which the Special Taxes are levied, the amount equal to the budgeted costs for providing the labor, material, testing, reporting, remediation, permitting, general administration, personnel, equipment and utilities

necessary to maintain public drainage improvements for, within, or associated with the CFD, including drain inlets, filters, detention basin, storm drain pipeline, and associated appurtenant facilities located within, or associated with, the CFD.

“Dwelling Unit” means each separate residential unit that comprises an independent facility capable of conveyance or rental separate from adjacent residential units, in which a person or persons may live, which comprises an independent facility and is not considered to be for non-residential use only, and as defined in the City of Hanford's Municipal Code.

“Exempt Property” means for each Fiscal Year, an Assessor's Parcel within the CFD not subject to the Special Tax. Exempt Property includes: (i) Public Property, (ii) Property Owner Association Property, (iii) Assessor's Parcels with public or utility easements making impractical their utilization for other than the purposes set forth in the easement such as railroad parcels, roads and landscape lots, (iv) property reasonably designated by the City or Special Tax Administrator as Exempt Property due to deed restrictions, conservation easement, or similar factors that may make development of such property impractical for human occupancy, and (v) Welfare Exemption Property.

“Final Map” means an Assessor's Parcel Map, a Final Subdivision Map, parcel map, condominium plan, or any other map functionally considered to be an equivalent development map that has been recorded in the Office of the County Recorder.

“Fiscal Year” means the period starting July 1 and ending on the following June 30.

"Industrial Property" means, in any Fiscal Year, all Developed Property for which a Building Permit was issued on or prior to June 30th preceding the Fiscal Year in which the Special Tax is being levied for construction of an industrial, manufacturing, or warehousing structure. The City shall make the determination as to whether a Parcel is Industrial Property.

"Institutional Property" means, in any Fiscal Year, all Developed Property for which a Building Permit was issued on or prior to June 30th preceding the Fiscal Year in which the Special Tax is being levied for construction of an institutional property, including but not limited to private schools, educational centers, child daycares, convalescent centers, hospice care centers, and property used for religious purposes. The City shall make the determination as to whether a Parcel is Institutional Property.

“Landscaping and Lighting Maintenance Requirement” means for any Fiscal Year in which the Special Taxes are levied, the amount equal to the budgeted costs for providing landscaping and lighting maintenance within, or associated with the CFD, including the labor, material, administration, personnel, equipment and utilities (i.e., water and power) necessary to maintain public landscaping and lighting improvements for, within, or associated with the CFD, including trees, turf, ground cover, shrubs, weed removal, irrigation systems, sidewalk, drainage facilities, lighting, signs, monuments, graffiti removal, walkways, and associated appurtenant facilities located within, or associated with, the CFD.

“Land Use Class” means any of the classes listed in Table 1 and defined herein.

“Lot” means an individual legal lot created by an Assessor’s Parcel Map or Final Map.

“Maximum Special Tax” means the maximum Special Tax, determined in accordance with Section C below, that can be levied by the CFD in any Fiscal Year on any Assessor’s Parcel.

“Mobile Home” means a vehicle designed and equipped for human habitation as defined by the California Health & Safety Code § 18008.

“Park” means a public park, open space, trail, dog park dedicated to and/or managed by the City of Hanford.

“Park Maintenance Requirement” means, for any Fiscal Year in which the Special Taxes are levied, the amount equal to the budgeted costs for providing park maintenance services within, or associated with the City or the CFD, including but not limited to (i) the costs of contracting for park maintenance services, including trees, plant material, restrooms, irrigation systems, sidewalks, drainage facilities, weed control, lighting, and parking lot maintenance, (ii) the salaries and benefits of City staff, including maintenance staff, that directly provide park maintenance services, (iii) the expense related to equipment, apparatus, and supplies related to these services and authorized by the Act, (iv) utility costs such as water, sewer, lighting and power and (v) City overhead costs associated with providing such services.

“Property Owner Association Property” means, for each Fiscal Year, any property within the CFD that is owned by, or irrevocably dedicated as indicated in an instrument recorded with the County Recorder, to a property owner association, including any master or sub-association, which consists of property owned in common by owners of surrounding properties and it is intended for use for community purposes.

“Proportionately” means, for Developed Property, that the ratio of the actual Special Tax levied per Assessor’s Parcel of Developed Property to the Maximum Special Tax per Assessor’s Parcel of Developed Property is equal for all Assessor’s Parcels of Developed Property. “Proportionately” means, for Undeveloped Property, that the ratio of the actual Special Tax levied per Assessor’s Parcel of Undeveloped Property to the Maximum Special Tax per Assessor’s Parcel of Undeveloped Property is equal for all Assessor’s Parcels of Undeveloped Property.

“Public Property” means, in any Fiscal Year: (i) all Parcels within the boundaries of the CFD that are owned by or irrevocably offered for dedication to the federal government, the State of California, the City or any other public agency; provided, however, that Taxable City Property shall not be categorized as Public Property, and any property leased by a public agency to a private entity and subject to taxation under Section 53340.1 of the Act (as such section may be amended or replaced) shall be taxed and classified in accordance with its use; and (ii) all Parcels within the boundaries of the CFD that are encumbered by an unmanned utility easement making impractical its utilization for other than the purpose set forth in the easement.

“Reserve Fund” means a fund that shall be created and maintained for the CFD for each Fiscal Year to provide necessary cash flow to cover maintenance and operational cost overruns, and delinquencies in the payment of Special Taxes.

“Special Tax” means the Special Tax to be levied in each Fiscal Year on each Assessor’s Parcel of Taxable Property to fund the Special Tax Requirement, and shall include Special Taxes levied or to be levied under Sections C and D, below.

“Special Tax Administrator” means an official of the City, or designee thereof, responsible for determining the Special Tax Requirement and providing for the levy and collection of the Special Taxes.

“Special Tax Requirement” means the sum of (i) Streetscape and Landscape Maintenance Requirement, (ii) Administrative Expenses of the CFD, and (iii) and any amounts required to establish or replenish a Reserve Fund for that Fiscal Year.

“State” means the State of California.

“Street Maintenance Requirement” means, for any Fiscal Year in which the Special Taxes are levied, the amount equal to the budgeted costs for providing the labor, material, administration, personnel, equipment and utilities necessary to maintain public streets, streetlights and associated appurtenant facilities for, within, or associated with the CFD, including City overhead costs associated with providing such services within the CFD.

“Streetscape and Landscape Maintenance Requirement” means the sum of the Landscaping and Lighting Maintenance Requirement, the Park Maintenance Requirement, the Street Maintenance Requirement, and the Drainage Maintenance Requirement.

“Taxable Property” means all Assessor’s Parcels of Developed Property and Undeveloped Property within the CFD that are not Exempt from the Special Tax pursuant to law or as defined herein.

“Undeveloped Property” means, for each Fiscal Year, an Assessor’s Parcel within the CFD for which a Building Permit has not been issued on or prior to June 30th preceding the Fiscal Year in which the Special Tax is being levied and is not classified as Exempt Property.

“Welfare Exemption Property” means, in any Fiscal Year, any Parcels that have received a welfare exemption under subdivision (g) of Section 214 of the Revenue and Taxation Code and for which such welfare exemption is still in place.

B. ASSIGNMENT TO LAND USE CATEGORIES

For each Fiscal Year, commencing with Fiscal Year 2025/26, using the definitions above, each Assessor’s Parcel within the CFD shall be classified as Taxable Property or Exempt Property. In addition, each Fiscal Year, beginning with Fiscal Year 2025/26, Taxable Property shall be further classified as Attached Residential, Detached Residential, Commercial

Property, Industrial Property, Institutional Property, Mixed-use Property or Undeveloped Property.

C. MAXIMUM SPECIAL TAX RATE

1. Taxable Property

Table 1
Maximum Special Tax for Taxable Property
Community Facilities District No. 2025-2 (Public Maintenance Services)
Fiscal Year 2025/26

Land Use Class	Description	Maximum Special Tax
1	Detached Residential	\$541 per Dwelling Unit
2	Attached Residential	\$352 per Dwelling Unit
3	Commercial Property	\$0.489 per square foot of Non-Residential Floor Area
4	Industrial Property	\$0.629 per square foot of Non-Residential Floor Area
5	Institutional Property	\$0.349 per square foot of Non-Residential Floor Area
6	Mixed-Use Property	Sum of Maximum Special Tax for each applicable Land Use Class
7	Undeveloped Property	\$2,426 per Lot Acre

For each Fiscal Year following the Base Year, the Maximum Special Tax rates in Table 1 shall be increased by the Annual Escalation Factor. Additional Land Use Classes, and the corresponding Maximum Special Tax of each new Land Use Class, may be added to Table 1 as a result of future annexations or if future annexations involve a new Land Use Class.

2. Exempt Property

No Special Tax shall be levied on Exempt Property as defined in Section A.

For each Fiscal Year, if the use or ownership of an Assessor's Parcel of Exempt Property changes so that such Assessor's Parcel is no longer classified as one of the uses set forth in Section A, therefore making such Assessor's Parcel no longer eligible to be classified as Exempt Property, such Assessor's Parcel shall be deemed to be Taxable Property and shall be taxed pursuant to the provisions of Section C.1. and the definitions herein.

D. METHOD OF APPORTIONMENT OF THE SPECIAL TAX

Commencing Fiscal Year 2025/26, and for each subsequent Fiscal Year, the Special Tax Administrator shall calculate the Special Tax Requirement based on the definitions in Section A and levy the Special Tax as follows until the amount of the Special Tax levied equals the Special Tax Requirement:

Step 1: The Special Tax shall be Proportionately levied each Fiscal Year on each Assessor's Parcel of Developed Property up to 100% of the applicable Maximum Special Tax to meet the Special Tax Requirement. The applicable Maximum Special Tax shall be based on the Developed Property's classification as Detached Residential, Attached Residential, Commercial, Industrial, Institutional or Mixed-Use.

Step 2: If after applying the method of apportionment in Step 1, if additional funds are needed to satisfy the Special Tax Requirement, the Special Tax shall be Proportionately levied each Fiscal Year on each Assessor's Parcel of Undeveloped Property up to 100% of the applicable Maximum Special Tax to meet the remainder of the Special Tax Requirement needed.

E. APPEALS

Any landowner who pays the Special Tax and believes that the amount of the Special Tax levied on their Assessor's Parcel is in error shall first consult with the Special Tax Administrator regarding such error. If following such consultation, the Special Tax Administrator determines that an error has occurred, the Special Tax Administrator may amend the amount of the Special Tax levied on such Assessor's Parcel. If following such consultation and action, if any, the landowner believes such error still exists, such person may file a written notice with the City Clerk of the City appealing the amount of the Special Tax levied on such Assessor's Parcel. Upon the receipt of any such written notice, the City Clerk shall forward a copy of such notice to the City Finance Director, who shall either (1) refer the matter to the City's existing hearing board for administrative appeals; or (2) establish as part of the proceedings and administration of the CFD, a special three-member Review/Appeal Committee. The Review/Appeal Committee may establish such procedures, as it deems necessary to undertake the review of any such appeal. The hearing board or Review/Appeal Committee shall interpret this Rate and Method of Apportionment and make determinations relative to the annual administration of the Special Tax and any landowner appeals, as herein specified. The decision of the hearing board or Review/Appeal Committee shall be final and binding to all persons.

F. MANNER OF COLLECTION

Special Taxes levied pursuant to Section D above shall be collected in the same manner and at the same time as ordinary ad valorem property taxes, provided however that (i) the CFD may directly bill the Special Tax, and (ii) the CFD may collect Special Taxes at a different time or in a different manner if necessary to meet the financial obligations of the CFD or as otherwise determined appropriate by the City Council.

G. *TERM OF SPECIAL TAX*

Taxable Property in the CFD shall remain subject to the Special Tax in perpetuity or until the City Council takes appropriate actions to terminate the Special Tax pursuant to the Act.



AGENDA STAFF REPORT

MEETING DATE: 9/16/2025

AGENDA SECTION: CONSENT CALENDAR

SUBJECT:

Approval of annual contract for fiscal year 2025-2026, with the Hanford Joint Union High School District and the Kings County Office of Education, for their School Resource Officer Program

RECOMMENDATION:

Recommendation: That the City Council, by motion, approve the contract between the City of Hanford and the Kings County Office of Education and Hanford Joint Union High School Districts for School Resource Officer services rendered.

Recommended Motion: I move to approve the contract between the City of Hanford and the Kings County Office of Education and Hanford Joint Union High School Districts for School Resource Officer services rendered.

BACKGROUND:

The Kings County Office of Education and the Hanford Police Department currently have a contract for 40 hours per week of School Resource Officer services per school year at a cost of \$98,000 per year. This cost to the Kings County Office of Education is proposed to stay the same for the 2025-2026 school year which is in line with other existing SRO agreements for the fiscal year.

The Hanford Joint Union High School District and the Hanford Police Department currently have a contract to staff 4 School Resource Officers. The officers are staffed at Hanford High School, Hanford West High School, Sierra Pacific High School, and Alternative Education sites. The current contracted cost to the Hanford Joint Union High School District is \$98,000 per officer for a total of \$392,000 per year. This cost is proposed to stay the same for the Hanford Joint Union High School District for the 2025-2026 school year.

Both these contracts align with contracts previously approved by council with Pioneer Union Elementary School District and Hanford Elementary School District as it relates to cost and scope of work.

A copy of the proposed contracts have been attached. The Superintendents of Kings County Office of Education and Hanford Joint Union High School District have signed their respective contracts and they have both been approved by their governing boards.

FISCAL IMPACT:

This will bring in \$392,000 annually to offset a portion of SRO costs. Future year agreements will need to be adjusted to account for cost increases.

ATTACHMENTS:

1. NEW HJUHSD SRO Contract 2025-26 Signed by school district
2. NEW SRO Contract KCOE 2025-2026 NEW Signed 08052025

**HANFORD JOINT UNION HIGH SCHOOL DISTRICT
SCHOOL RESOURCE OFFICER PROGRAM
STARTING
FISCAL YEAR 2025-2026**

This Agreement is made by and between the Hanford Joint Union High School District (“District”) and the Hanford Police Department, (“Department,”) and replaces all prior agreements and understandings between the District and the Department on the subject of school resource officers (“SRO”) as is dated for reference purposes as of Fiscal year 2025-2026.

Recitals

- A. The District and Department desire to set forth the duties and responsibilities of the parties with respect to the SRO program.
- B. The District and Department desire to create an atmosphere of cooperation toward the common goals of providing a safe learning environment for students and staff.
- C. The District and Department desire to promote positive relationships between the school, police, and the community.

The District and Department agree as follows:

- 1. **Term of Agreement.** This Agreement shall be effective upon ratification by the District’s Superintendent and approval by the Hanford City Manager and shall remain in effect until modified by mutual written agreement or terminated by either party with thirty (30) days advance written notice.
- 2. **Scope of Service.** The Department agrees to assign four full time sworn police officer to serve as the SRO’s at the Districts schools during the school year. The SRO will be assigned to primarily work at Hanford High, Hanford West, Sierra Pacific and Alternative Educations sites or any other District locations as directed by the District Superintendent. The SRO will wear the regulation police uniform and operate a marked police patrol vehicle while on duty, unless otherwise authorized by a supervisor for a specific purpose. The SRO’s duties shall include but not be limited to:
 - 2.1. SRO will provide law enforcement expertise to assist the school staff in maintaining safety at school sites.
 - 2.2. The SRO’s investigation and questioning of students at school shall be limited to offenses related to the operation of the school or occurring at the school, except in situations where a delay in investigation or questioning may result in danger to any person, flight from the jurisdiction by the person suspected of a crime, or destruction of evidence.

- 2.3. The SRO shall notify the school principal as soon as practical of any significant law enforcement actions taken by an SRO or other officer.
- 2.4. The SRO shall not become involved in school administrative searches unless specifically requested by the principal in order to provide security or to handle contraband. School administrative searches will be at the direction and control of the school principal and will be based upon reasonable suspicion.
- 2.5. The SRO shall be responsible for monitoring the social and cultural environment around District schools to identify existing or emerging youth gangs. Gang prevention and early intervention strategies shall be coordinated between the Department and the District.
- 2.6. The SRO may become involved, through the school principal, with the school's curriculum and provide instructional presentations that enhance the students' understanding of the police mission and the responsibilities of citizenship.
- 2.7. The SRO will work to prevent juvenile delinquency and campus violence through close contact and positive relationships with students. The SRO will serve as a positive role model to students.
- 2.8. At the request of the school principal, the SRO shall attend suspension and expulsion hearings. The SRO shall be prepared to provide testimony on any actions taken by the officer and on any personally observed conduct witnessed by the officer. The SRO shall also make available at expulsion hearings any physical evidence that has been seized by law enforcement and is held by the Department.
- 2.9. The SRO shall disseminate to school administrators and staff information on crime trends and changes in laws to assist them in establishing and maintaining safe school environments.
- 2.10. The SRO will work to establish and maintain a collaborative partnership with the school administration to provide a safe school environment. The SRO will regularly communicate with the school administration in an effort to share information and discuss issues and concerns of mutual interest.
- 2.11. The SRO will work to increase communication between law enforcement, students, school staff, and the community. The SRO will work to build positive working relationships with the school staff and parents. When appropriate, such as times in which school resumes after a break, communication to the public such as guidance and warnings should be a joint effort between the school district and HPD.

3. **Student Discipline.** The certificated administrators of each school shall be responsible for student discipline and shall make all decisions regarding the imposition of discipline for students enrolled at their campus.
4. **Hours of Employment.** The SRO will work full time during the school year, except for annual leave allowances, during the normal school year schedule.
5. **Selection of Law Enforcement Personnel.** The Department will be responsible for selecting which Department employee will serve as the SRO, or the acting SRO for days when the designated SRO may be on leave, absent for training, or otherwise not available. The District may provide input regarding the selection of the SRO.
6. **Program Criteria.** The District and Department will work collaboratively to be responsive to evolving school and law enforcement requirements.
7. **Training and Supervision.** The SRO shall receive SRO's work assignments from the Department and shall be supervised in the performance of SRO's duties by the Chief of the Department or designee. The Department shall be responsible for training the SRO according to applicable law enforcement standards. The Superintendent of the District or designee will provide the Chief of the Department with information to assist in evaluating the SRO. Any disciplinary problems or alleged improprieties involving the SRO shall be brought to the attention of the Chief of the Department or designee. Communication regarding evaluation input or disciplinary input from the district shall be in writing to the appropriate HPD lead. The School Resource Officers will be released to attend 40 hours of formal training related to investigator orientation and juvenile law enforcement each fiscal year. The department will be responsible for the officers' travel, lodging and meals.
8. **Employment.** The SRO is an employee of the Department, and is not an employee or agent of the District. The SRO shall be subject to the administration, supervision, and control of the Department. The SRO shall be subject to all personnel policies and practices of the Department.
9. **Student Records.**
 - 9.1. The parties agree that the SRO shall be deemed to be a "school official" for the performance on SRO's duties on behalf of District. The SRO shall therefore be allowed access to student records but the District is in direct control of the use, maintenance, and disclosure of student records in accordance with Education Code section 49076 and other applicable provisions of law. School officials shall allow the SRO to inspect and copy any student records maintained by the school for which the SRO has a "legitimate educational interest" within the scope of the SRO's service

under this Agreement. This includes access to student directory information to the extent permitted by District policy, classroom assignments, attendance records, and discipline files. However, the SRO may not inspect or copy confidential student records outside the scope of the SRO's service, except as allowed by law.

- 9.2. If confidential student record information is needed in an emergency to protect the health or safety of a student or others, the District may disclose to the SRO information that is needed to respond to the emergency situation based on the seriousness of the threat to someone's health or safety, the need of the information to meet the emergency situation, and the extent to which time is of the essence.
 - 9.3. If confidential student record information is needed by the SRO but no emergency situation exists, unless section 9.4 applies, the information may be released only upon the issuance of a subpoena, a court order or written authorization of the parent/guardian.
 - 9.4. Pursuant to Education Code section 48902, the principal or designee shall notify the SRO of any acts of a student that may violate specified provisions of the Penal Code and Education Code. This may require the disclosure of the student's name or other identifying information to the SRO, along with information related to the underlying offence.
10. **Law Enforcement Records and Juvenile Case File Information.** Pursuant to Welfare and Institutions Code sections 827, 828.1 and 828.3, certain law enforcement records, probation reports and juvenile case file information may be provided to the District Superintendent or his/her designee. In addition to providing such information directly to the District Superintendent, the SRO may provide such information to the Principal of the school in which a minor student is enrolled and the Principal shall be a designee of the Superintendent for the receipt of such information.
 11. **Costs.** In exchange for the provision of SRO services, the District shall pay the Department \$98,000.00 annually per School Resource Officer for a total of \$392,000 for four (4) Officers. SRO services during summer school may be provided to the district at a cost of \$498.00 per officer, per day for the duration of the summer school session. Contracted days for summer school must be consecutive days.

Overtime expenditures for school-related events such as sports games, dances, graduation, etc. will be covered by the Hanford Joint Union High School District. For these additional services, the Hanford Police Department will charge the District an hourly rate of \$81.75. Official Requests for additional SRO coverage must be submitted to the SRO unit supervisor in writing.

Contract extensions and inflation increases to SRO rates will be discussed annually in May.

11. **Feedback and Evaluation.** The District and Department agree on the importance of evaluating the SRO program. The District and Department will work together to develop and implement procedures to provide periodic feedback and evaluation data for the purpose of measuring the program's effectiveness.
12. **Nondiscrimination.** SROs shall not discriminate against or treat any person differently on the basis race, color, ancestry, nationality, national origin, immigration status, ethnic group identification, ethnicity, age, religion, marital status, pregnancy, parental status, physical or mental disability, sex, sexual orientation, gender, gender identity, gender expression, or genetic information; a perception of one or more of such characteristics; or association with a person or group with one or more of these actual or perceived characteristics.

The Superintendent or designee shall periodically report to the Board disaggregated data on student interactions with SROs to evaluate the appropriateness of such interactions and ensure compliance with nondiscrimination policies and practices. Such reports may include the number of arrests and referrals for prosecution, the number of reports provided to the school or district regarding student misconduct, or other actions taken by SROs with respect to individual students or others on campus.

As necessary, the Superintendent or designee shall develop and implement practices to prevent disproportionality of student interactions with SROs based on student characteristics and to minimize the potential for referrals of students into the juvenile justice system.

13. **Indemnification.**
 - 14.1 The District shall indemnify, defend, and hold harmless the Department, its officers, agents and employees from and against any and all claims, losses, liabilities or damages, demands and actions, including payment of reasonable attorney's fees, arising out of or resulting from the performance of this Agreement, caused in whole by any negligent or willful act or omission of the District, its officers, agents, employees, or anyone directly or indirectly acting on behalf of the District.
 - 14.2 The Department shall indemnify, defend, and hold harmless the District, its officers, agents and employees from and against any and all claims, losses, liabilities or damages, demands and actions, including payment of reasonable attorney's fees, arising out of or resulting from the performance of this Agreement, caused in whole by any negligent or

willful act or omission of the Department, its officers, agents, employees, or anyone directly or indirectly acting on behalf of the Department.

- 14.3 It is the intention of the District and Department that, where fault is determined to have been contributory, principles of comparative fault will be followed and each party shall bear the proportionate cost of any damage attributable to the fault of that party, its officers, directors, agents, employees, volunteers, subcontractors, and governing board.
- 14.4 Each party shall immediately notify the other party of any claims or legal actions arising out of the performance of this Agreement.
15. **Applicable Laws.** Department shall provide the services specified in this Agreement in accordance with any applicable federal and state statutes, regulations, and directives.
16. **Amendments.** No modification, amendment or addendum to this Agreement shall be valid unless it is set forth in writing and is signed by the parties.
17. **Entire Agreement.** This Agreement constitutes the entire agreement between the District and Department regarding the subject matter of this contract and supersedes all previous SRO agreements.
18. **Severability.** If any term or provision of this Agreement is determined to be unlawful or in conflict with any law of the State of California, the validity of the remaining portions or provisions shall not be affected. Each term or provision of the Agreement shall be valid and enforced as written to the fullest extent permitted by law.
19. **Notices.** All notices concerning this Agreement shall be deemed to have been served when delivered via electronic mail to the District Superintendent or Chief of Police.

The parties have executed this Agreement on the date written below.

Hanford Joint Union High School District

By: 
Victor Rosa
Superintendent

Date: 5/21/25

Hanford Police Department

By: _____
Stephanie Huddleston, Chief of Police

Date: _____

City of Hanford

By: _____
Chris Tavaréz, Interim City Manager

Date: _____

**KINGS COUNTY OFFICE OF EDUCATION
SCHOOL RESOURCE OFFICER PROGRAM
FISCAL YEAR 2025-2026**

This Agreement is made by and between the Kings County Office of Education ("District") and the Hanford Police Department, ("Department,") and replaces all prior agreements and understandings between the District and the Department on the subject of school resource officers ("SRO") as is dated for reference purposes as of Fiscal year 2025-2026.

Recitals

- A. The District and Department desire to set forth the duties and responsibilities of the parties with respect to the SRO program.
- B. The District and Department desire to create an atmosphere of cooperation toward the common goals of providing a safe learning environment for students and staff.
- C. The District and Department desire to promote positive relationships between the school, police, and the community.

The District and Department agree as follows:

- 1. **Term of Agreement.** This Agreement shall be effective upon ratification by the District's Superintendent and approval by the Hanford City Manager and shall remain in effect until modified by mutual written agreement or terminated by either party with thirty (30) days advance written notice.
- 2. **Scope of Service.** The Department agrees to assign one full time sworn police officer to serve as the SRO at the KCOE's schools during the school year. The SRO will be assigned to primarily work at Shelly Baird or other District Schools as directed by the District Superintendent. The SRO will wear the regulation police uniform and operate a marked police patrol vehicle while on duty, unless otherwise authorized by a supervisor for a specific purpose. The SRO's duties shall include but not be limited to:
 - 2.1. SRO will provide law enforcement expertise to assist the school staff in maintaining safety at school sites.
 - 2.2. The SRO's investigation and questioning of students at school shall be limited to offenses related to the operation of the school or occurring at the school, except in situations where a delay in investigation or questioning may result in danger to any person, flight from the jurisdiction by the person suspected of a crime, or destruction of evidence.

- 2.3. The SRO shall notify the school principal as soon as practical of any significant law enforcement actions taken by an SRO or other officer.
- 2.4. The SRO shall not become involved in school administrative searches unless specifically requested by the principal in order to provide security or to handle contraband. School administrative searches will be at the direction and control of the school principal and will be based upon reasonable suspicion.
- 2.5. The SRO shall be responsible for monitoring the social and cultural environment around District schools to identify existing or emerging youth gangs. Gang prevention and early intervention strategies shall be coordinated between the Department and the District.
- 2.6. The SRO may become involved, through the school principal, with the school's curriculum and provide instructional presentations that enhance the students' understanding of the police mission and the responsibilities of citizenship.
- 2.7. The SRO will work to prevent juvenile delinquency and campus violence through close contact and positive relationships with students. The SRO will serve as a positive role model to students.
- 2.8. At the request of the school principal, the SRO shall attend suspension and expulsion hearings. The SRO shall be prepared to provide testimony on any actions taken by the officer and on any personally observed conduct witnessed by the officer. The SRO shall also make available at expulsion hearings any physical evidence that has been seized by law enforcement and is held by the Department.
- 2.9. The SRO shall disseminate to school administrators and staff information on crime trends and changes in laws to assist them in establishing and maintaining safe school environments.
- 2.10. The SRO will work to establish and maintain a collaborative partnership with the school administration to provide a safe school environment. The SRO will regularly communicate with the school administration in an effort to share information and discuss issues and concerns of mutual interest.
- 2.11. The SRO will work to increase communication between law enforcement, students, school staff, and the community. The SRO will work to build positive working relationships with the school staff and parents.

3. **Student Discipline.** The certificated administrators of each school shall be responsible for student discipline and shall make all decisions regarding the imposition of discipline for students enrolled at their campus.
4. **Hours of Employment.** The SRO will work full time during the school year, except for annual leave allowances, during the normal school year schedule (180 days).
5. **Selection of Law Enforcement Personnel.** The Department will be responsible for selecting which Department employee will serve as the SRO, or the acting SRO for days when the designated SRO may be on leave, absent for training, or otherwise not available. The District may provide input regarding the selection of the SRO.
6. **Program Criteria.** The District and Department will work collaboratively to be responsive to evolving school and law enforcement requirements.
7. **Training and Supervision.** The SRO shall receive SRO's work assignments from the Department and shall be supervised in the performance of SRO's duties by the Chief of the Department or designee. The Department shall be responsible for training the SRO according to applicable law enforcement standards. The Superintendent of the District or designee will provide the Chief of the Department with information to assist in evaluating the SRO. Any disciplinary problems or alleged improprieties involving the SRO shall be brought to the attention of the Chief of the Department or designee. The School Resource Officers will be released to attend 40 hours of formal training related to investigator orientation and juvenile law enforcement each fiscal year. The department will be responsible for the officers' travel, lodging and meals.
8. **Employment.** The SRO is an employee of the Department and is not an employee or agent of the District. The SRO shall be subject to the administration, supervision, and control of the Department. The SRO shall be subject to all personnel policies and practices of the Department.
9. **Student Records.**
 - 9.1. The parties agree that the SRO shall be deemed to be a "school official" for the performance on SRO's duties on behalf of District. The SRO shall therefore be allowed access to student records but the District is in direct control of the use, maintenance, and disclosure of student records in accordance with Education Code section 49076 and other applicable provisions of law. School officials shall allow the SRO to inspect and copy any student records maintained by the school for which the SRO has a "legitimate educational interest" within the scope of the SRO's service under this Agreement. This includes access to student directory

information to the extent permitted by District policy, classroom assignments, attendance records, and discipline files. However, the SRO may not inspect or copy confidential student records outside the scope of the SRO's service, except as allowed by law.

- 9.2. If confidential student record information is needed in an emergency to protect the health or safety of a student or others, the District may disclose to the SRO information that is needed to respond to the emergency situation based on the seriousness of the threat to someone's health or safety, the need of the information to meet the emergency situation, and the extent to which time is of the essence.
 - 9.3. If confidential student record information is needed by the SRO but no emergency situation exists, unless section 9.4 applies, the information may be released only upon the issuance of a subpoena, a court order or written authorization of the parent/guardian.
 - 9.4. Pursuant to Education Code section 48902, the principal or designee shall notify the SRO of any acts of a student that may violate specified provisions of the Penal Code and Education Code. This may require the disclosure of the student's name or other identifying information to the SRO, along with information related to the underlying offence.
10. **Law Enforcement Records and Juvenile Case File Information.** Pursuant to Welfare and Institutions Code sections 827, 828.1 and 828.3, certain law enforcement records, probation reports and juvenile case file information may be provided to the District Superintendent or his/her designee. In addition to providing such information directly to the District Superintendent, the SRO may provide such information to the Principal of the school in which a minor student is enrolled and the Principal shall be a designee of the Superintendent for the receipt of such information.
11. **Costs.** In exchange for the provision of SRO services, the District shall pay the Department \$98,000.00 annually. SRO services during summer school may be provided to the district at a cost of \$498.00 per day for the duration of the summer school session. The contracted days for summer school must be consecutive days.
- Overtime expenditures for school-related events will be paid for by the Kings County Office of Education. For these additional services, the Hanford Police Department will charge the District an hourly rate of \$81.75. Contract extensions and inflation increases to the flat rate will be discussed annually in May.
12. **Feedback and Evaluation.** The District and Department agree on the importance of evaluating the SRO program. The District and Department will work together to develop and implement procedures to provide periodic feedback and evaluation data for the purpose of measuring the program's effectiveness.

13. **Discrimination.** Neither the District nor the Department shall discriminate because of race, religion, color, national origin, disability, marital status, age, or sex against any person by refusing any person or privilege offered to or engaged by the general public.
14. **Indemnification.**
- 14.1 The District shall indemnify, defend, and hold harmless the Department, its officers, agents and employees from and against any and all claims, losses, liabilities or damages, demands and actions, including payment of reasonable attorney's fees, arising out of or resulting from the performance of this Agreement, caused in whole by any negligent or willful act or omission of the District, its officers, agents, employees, or anyone directly or indirectly acting on behalf of the District.
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- 14.3 It is the intention of the District and Department that, where fault is determined to have been contributory, principles of comparative fault will be followed and each party shall bear the proportionate cost of any damage attributable to the fault of that party, its officers, directors, agents, employees, volunteers, subcontractors, and governing board.
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18. **Severability.** If any term or provision of this Agreement is determined to be unlawful or in conflict with any law of the State of California, the validity of the

remaining portions or provisions shall not be affected. Each term or provision of the Agreement shall be valid and enforced as written to the fullest extent permitted by law.

19. **Notices.** All notices concerning this Agreement shall be deemed to have been served when delivered via electronic mail to the District Superintendent or Chief of Police.

The parties have executed this Agreement on the date written below.

Kings County Office of Education

By: 
Todd Barlow
Superintendent

Date: 8/5/2025

Hanford Police Department

By: _____
Stephanie Huddleston, Chief of Police

Date: _____

City of Hanford

By: _____
Chris Tavaréz, Interim City Manager

Date: _____



AGENDA STAFF REPORT

MEETING DATE: 9/16/2025

AGENDA SECTION: CONSENT CALENDAR

SUBJECT:

Approval of the Appropriation of \$93,316.09 from the General Fund for the Purchase of Firearms for the Police Department

RECOMMENDATION:

Recommendation: That the Council, by motion to appropriate \$93,316.09 from the General Fund for the purchase of 90 Glock 45 duty firearms with all necessary sights, magazines, and holsters for immediate replacement of duty Sig Sauer P320 firearms.

Recommended Motion: I move to appropriate \$93,316.09 from the General Fund for the purchase of 90 Glock 45 duty firearms with all necessary sights, magazines, and holsters to immediately replace duty Sig Sauer P320 firearms.

BACKGROUND:

Officers of the Hanford Police Department are currently issued the Sig Sauer P320 firearm for duty carry. There is an immediate need to replace these department-issued firearms, which have recently been prohibited in the Kings County Superior Court, Kings County Jail (KCJ) booking area, and Kings County Sheriff's Office facilities.

This prohibition stems from documented negligent discharge incidents involving this firearm model in other jurisdictions. HPD personnel's inability to enter these critical facilities while armed with the current duty weapon directly impacts officer safety, operational readiness, and the ability to perform required duties. At present, officers must check out loaner weapons while on Kings County premises. Transitioning to a firearm with a proven record of reliability, enhanced safety features, and full approval within all Kings County law enforcement facilities is necessary.

After evaluating suitable alternatives, the **Glock Model 45, 9mm handgun**, equipped with upgraded sights, has been determined to be the most appropriate replacement for the department. This firearm is already in use, or scheduled for issuance, by every other law enforcement agency in Kings County, ensuring compatibility, interoperability, and consistency in training and equipment.

The City obtained pricing from the two authorized Glock law enforcement vendors in California: LC Action Police Supply and ProForce Police Supply. LC Action Police Supply submitted the lowest bid, which is reflected in the purchase amount of \$93,316.09. Vendor quotes include the firearms, upgraded sights, four magazines per weapon, and compatible holsters. The total cost reflects a

trade-in credit of \$3,750 for the current P320 pistols, calculated at \$50.00 per firearm.

On August 13th, the City Manager authorized an emergency purchase of \$93,316.09, as outlined in the attached vendor quote. This emergency purchase was determined to be necessary to safeguard life, health, and property. The acquisition will eliminate existing safety and liability risks, restore full operational access to all necessary facilities, and uphold the highest standards of safety, readiness, and professionalism within the Hanford Police Department.

FISCAL IMPACT:

This purchase was authorized as an emergency and is not currently offset in the budget. To maintain balance at fiscal year-end, General Fund revenues would need to exceed budget or expenditures under budget.

ATTACHMENTS:

1. LC Action Police Supply Quotation



LC ACTION POLICE SUPPLY
1088 N FIRST STREET
SAN JOSE CA 95112
TEL: 408 294-2677 • FAX 408 294-6444
EMAIL: Kyle@LCAction.com

QUOTATION

Date Aug-13-2025

STATE OF CA SBE CERTIFICATION # 1017260

To:
JUSTIN VALLIN
HANFORD POLICE DEPT
EM: jvallin@hanfordca.gov
PH: 559-585-2535

Ship To:

CUST#	QUOTED BY	EST. DELIVERY	F.O.B.	TERMS	
	KYLE MILLER	CAN SHIP IMMEDIATELY		NET 30	
QTY.	DESCRIPTION			PRICE	TOTAL
90	GLOCK G45 MOS FXD 9MM PISTOL PA455S202MOS (3) 17RD			429.00	38610.00
90	HOLOSUN 509T LEM MODEL RED W/ GLOCK MOS PLATE HE509T-RD X2 LEM			323.30	29097.00
90	Ameriglo GL-329 XL co-witness sights WHITE PAINT 3-DOT TRITIUM			65.41	5886.90
80	Safariland 6360RDS BW STX Level 3 duty holster for gun+optic+light			135.33	10826.40
15	Safariland 6304RDS DROP-RIG TAC HOLSTER STX TAC			185.12	2776.80
6	Safariland 6378RDS PADDLE & BELT LOOP HOLSTER BLACK			81.89	491.34
90	GLOCK G45 17RD 9MM MAGAZINE			22.00	1980.00
2	GLOCK ARMORER TRAINING CLASS SEAT			0.00	0.00
1	SALES TAX ON NEW ITEMS @ 8.25%			7397.65	7397.65
					0.00
75	*TRADE IN SIG SAUER P320 9MM PISTOL W/ ROMEO OPTIC & 3 MAGS EACH			-50.00	-3750.00
					0.00
	*Due to evolving circumstances with the P320, trade-in prices are subject to change at any time.				0.00
					0.00
	Glock COA pistol model price is \$732.00 each, lead time is 120 days ARO				0.00
					0.00
					0.00
					0.00
					0.00
					0.00
SUBTOTAL					\$93,316.09
Notes:					
SHIPPING					0.00
TOTAL					\$93,316.09



AGENDA STAFF REPORT

MEETING DATE: 9/16/2025

AGENDA SECTION: PUBLIC HEARING

SUBJECT:

Public Hearing and approve submission of the Community Development Block Grant (CDBG) Consolidated Annual Performance and Evaluation Report (CAPER) for Program Year 2024 (July 1, 2024, to June 30, 2025) and adopt Resolution 25-55- R Authorizing and Approving the 2024-2025 CAPER.

RECOMMENDATION:

Recommendation:

That the Hanford City Council:

1. Open the public hearing and accept comments regarding the Program Year 2024 Community Development Block Grant (CDBG) Consolidated Annual Performance and Evaluation Report (CAPER).
2. Adopt Resolution 25-55- R Authorizing and Approving the 2024-2025 CAPER.

Recommended Motion:

I move to approve submitting the Program Year 2024 Community Development Block Grant CAPER and adopt Resolution 25-55- R Authorizing and Approving the 2024-2025 CAPER.

BACKGROUND:

The Consolidated Annual Performance and Evaluation Report (CAPER) is required of all jurisdictions that receive Community Development Block Grant (CDBG) entitlement funds from the U.S. Department of Housing and Urban Development (HUD).

This report outlines the City's progress in utilizing Community Development Block Grant (CDBG) funds during Program Year (PY) 2024, which spans from July 1, 2024, to June 30, 2025. During this period, the City expended an estimated **\$531,855** in CDBG entitlement funds and an additional **\$384,769** in CDBG program income, primarily generated from the repayment of prior loans. Expenditure amounts will be finalized before submission to HUD.

Report Components

The CAPER includes the following key components:

1. **Narrative Summary**

This section details the activities carried out during the 2024–2025 fiscal year. It evaluates their alignment with the objectives and priorities established in the City’s Annual Action Plan and the five-year Consolidated Plan.

2. Summary of Specific Annual Goals and Objectives

This section provides a breakdown of each program activity, including budgeted amounts, expenditures, and program outcomes.

(Refer to Attachment A-1, Table 1 – Accomplishments)

3. Financial Summary

This section summarizes the financial performance of the CDBG program for the fiscal year.

Most sections of the CAPER—except the narrative—are generated through HUD’s Integrated Disbursement and Information System (IDIS). Throughout the program year, City staff input data into IDIS to monitor expenditures and track progress toward program goals. HUD requires all CDBG entitlement communities to annually assess and publicly report on their performance in implementing the Action Plan.

In accordance with HUD regulations and the City’s Citizen Participation Plan (CPP), staff facilitated public engagement by publishing a bilingual public notice announcing both the public review period and the public hearing.

Public Review and Comment Period:

Draft copies of the proposed CAPER were made available for public review and comment for 15 days, from August 29 to September 15, 2025. As of the date of this report, no public comments have been received.

The final CAPER must be submitted to HUD by September 30, 2025, which is 90 days after the end of the program year (June 30, 2025).

FISCAL IMPACT:

Submitting this report in compliance with HUD requirements ensures the City remains eligible to receive continued CDBG grant funding.

ATTACHMENTS:

1. 2024 CAPER FOR CC.09.16.2025
2. Resolution 25-55-R CDBG CAPER AP24



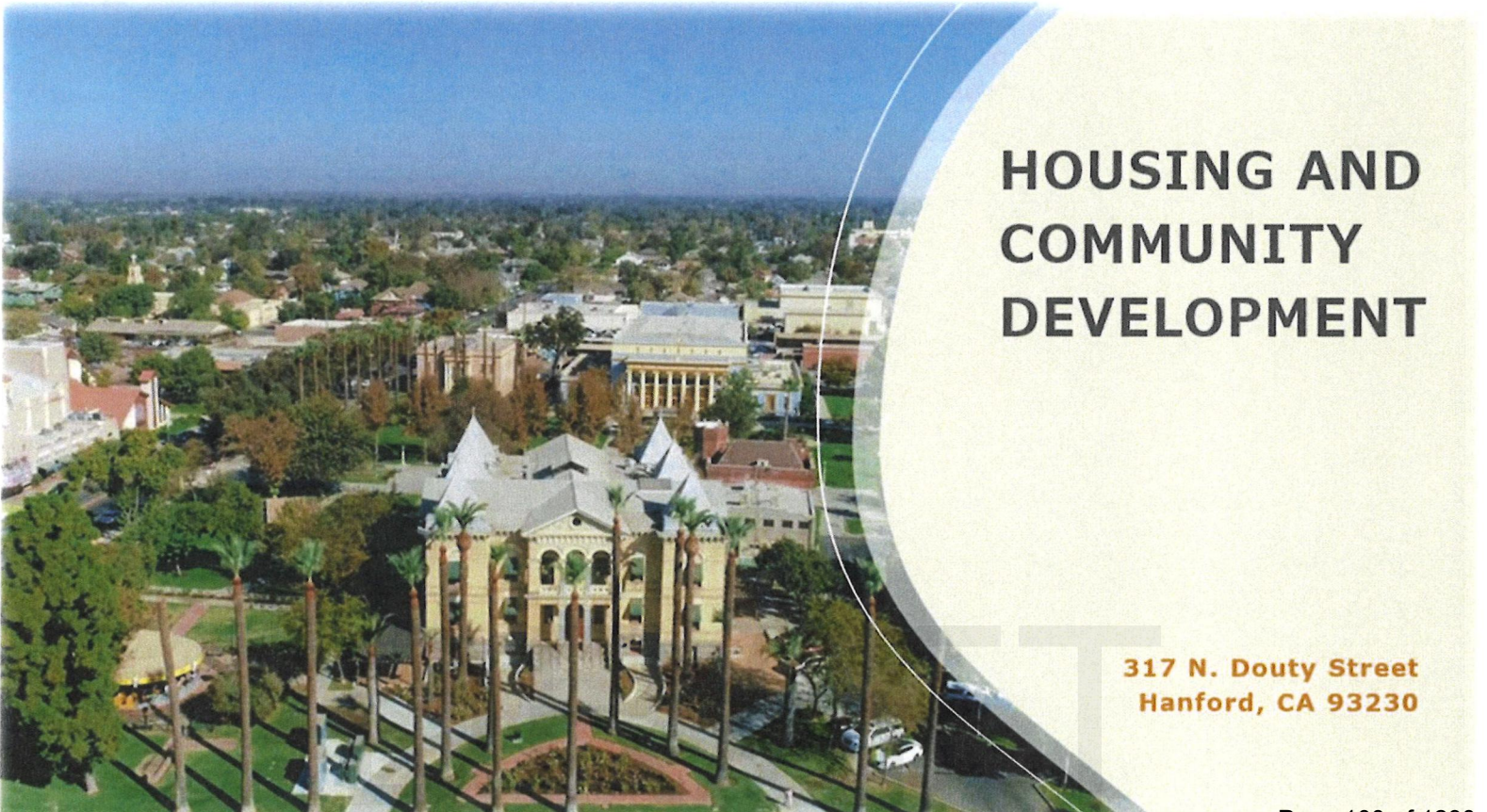
HANFORD

CALIFORNIA

WHERE TRADITION MEETS TOMORROW

PROGRAM YEAR 2024/25

DRAFT CONSOLIDATED ANNUAL PERFORMANCE AND EVALUATION REPORT (CAPER)



**HOUSING AND
COMMUNITY
DEVELOPMENT**

**317 N. Douty Street
Hanford, CA 93230**

TABLE OF CONTENTS:

CR-05 - GOALS AND OUTCOMES.....	3
CR-05 - GOALS AND OUTCOMES.....	4
CR-10 – RACIAL AND ETHNIC	11
CR-15 - RESOURCES AND INVESTMENTS 91.520(A)	12
CR-20 - AFFORDABLE HOUSING 91.520(B)	17
CR-25 - HOMELESS AND OTHER SPECIAL NEEDS 91.220(D, E); 91.320(D, E); 91.520(C)	19
CR-30 - PUBLIC HOUSING 91.220(H); 91.320(J)	22
CR-35 - OTHER ACTIONS 91.220(J)-(K); 91.320(I)-(J)	23
CR-40 - MONITORING 91.220 AND 91.230	31
CR-45 - CDBG 91.520(c)	32
ATTACHMENT A: ACCOMPLISHMENTS	33
ATTACHMENT B: CITIZEN PARTICIPATION	34
ATTACHMENT C: CONTINUUM OF CARE REPORTS	35
ATTACHMENT D: FINANCIAL REPORTS.....	36
ATTACHMENT E: LMI CENSUS TRACT & BLOCK GROUPS	37

DRAFT

INTRODUCTION

The Consolidated Annual Performance and Evaluation Report (CAPER) for the City of Hanford covers the period from July 1, 2024, to June 30, 2025

The City's Five-Year Consolidated Plan outlines housing, homelessness, community, and economic development needs and resources. This plan creates a Strategic Plan for the City to meet those needs. The Strategic Plan consists of three parts: needs assessment, a housing market analysis, and long-term strategies to address priority needs. The Annual Action Plan describes the projects and activities the City will undertake in the coming year using its CDBG funds. The Action Plan also includes certifications that the City will meet requirements, such as furthering fair housing.

The CAPER assesses the City's performance for all HUD formula grant programs, specifically the Community Development Block Grant (CDBG).

It evaluates if the City has met the objectives and goals established in the Five-Year Consolidated and Annual Action Plan.

PY 2024-2025 is the first year of the Five-Year Consolidated Planning Period (Program Years 2024-2028).

DRAFT

CR-05 - GOALS AND OUTCOMES

Progress has been made in the jurisdiction's strategic plan and action plan. 91.520(a)

This overview could include major initiatives and highlights proposed and executed throughout the program year.

The Consolidated Annual Performance Evaluation Report (CAPER) reports the City's success in meeting the goals contained in the Consolidated Plan and assesses the City's progress in conducting priorities of assistance identified in the 2024-2025 Annual Action Plan (Annual Plan)

As a Community Development Block Grant (CDBG) entitlement community, the City of Hanford is required to submit an annual CAPER. While not directly receiving HOME funds, the City had active HOME program income funds. During this reporting period, the HOME grant provided mortgage assistance to one first-time homebuyer.

In 2024-25, the City was allocated \$544,484 in CDBG entitlement funds and received an additional \$582,753 in Program Income CDBG funds, totaling \$1,127,237.

The first year's Annual Action Plan prioritized goals and projects, including creating a sustainable living environment and providing decent housing and services to low- and moderate-income residents.

A comparison of the proposed versus actual outcomes for each outcome measure is submitted with the consolidated plan, and, if applicable, the reasons for not making progress toward meeting goals and objectives are explained. 91.520(g)

The required information for each grantee's program year goals includes categories, priority levels, funding sources and amounts, outcomes, goal outcome indicators, units of measure, targets, actual results, and percentage completion.

DRAFT

Assess how the jurisdiction's use of funds, particularly CDBG, aligns with the priorities and specific objectives identified in the plan, with special attention to the highest-priority activities.

The City's goal is to continue addressing the priority needs and specific objectives of the Consolidated Plan. Through community input, the city has identified the following as "High" priority needs in the community:

- Affordable Housing
- Public Facilities
- Public Services
- Public Improvements
- Economic Development

As an entitlement grantee for the U.S. Department of Housing and Urban Development (HUD) formula CDBG program, the City of Hanford must prepare a CAPER to analyze and summarize program accomplishments of the preceding program year.

The CAPER reports meeting overall five-year Consolidated Plan goals and priorities (July 1, 2024-June 30, 2028). It identifies areas for improvement resulting from annual self-evaluations and HUD performance reviews.

The City of Hanford was consistent with its goal of providing housing opportunities for Hanford's low- to moderate-income families and preserving the existing housing stock.

The city remains committed to providing a full range of housing opportunities throughout the community and intends to support the development of housing opportunities in the town. As such, the city will engage in programs that further improve the supply of lower-income housing. Below are the programmed activities for PY 2024, along with the accomplishments associated with each activity.

During the fifth year of the Consolidated Plan, the City of Hanford was consistent with its goal of providing housing opportunities for Hanford's low- to moderate-income families and preserving the existing housing stock.

DRAFT

Housing Rehabilitation-Emergency Repair Program:

The Emergency Repair Program (ERP) in Hanford provides prompt financial assistance to homeowners facing urgent repair needs that pose health and safety risks. The program offers grant funding to low- and moderate-income households to address these critical issues.

In the most recent fiscal year, ERP supported 18 households. During the 2024 program year, staff coordinated:

- 8 roof replacements
- 2 HVAC system replacements
- 1 plumbing repair
- Exterior repainting for seven homes
- Lead-based paint remediation in 2 homes

These repairs help ensure that residents in need have safe and livable conditions.

- Public Facility Improvements- Rehabilitation of Motel for Housing Conversion Project:
- Stardust Kings Tulare Homeless Alliance (KTHA) LLC
- 22 Unit - Sunrise Apartments Project, formerly the Stardust Motel –

On December 1, 2020, the Council allocated \$238,702 in CDBG CARES Act funding. In May 2022, an additional \$188,000 was allocated through the 2023 Action Plan, bringing the total to \$426,702. These funds were designated for Kings County Human Services to support the rehabilitation and conversion of the Stardust Motel. To help expedite the project and ensure timely use of the funds, Kings County Human Services later requested that the City redirect the funding to Stardust KTHA, LLC, for completion of the Sunrise project.

DRAFT

The bulk of the conversion to permanent housing was completed in 2024. Unit upgrades include installing kitchens, removing and replacing existing drywall and flooring, upgrading MEP systems throughout each unit and the building, and making ADA upgrades throughout the units and property. A backorder on the switchgear required to electrify the apartment complex put the project on hold for months.

Kings Community Action Organization (KCAO) will take over the operations and the ownership of the complex as it begins to fill with tenants. Not all the units have a resident, and the requirements for individuals to reside in the Sunrise Apartments include having been homeless for a year or more and being afflicted with a disability. Sunrise Apartments, which will house up to 22 individuals struggling with homelessness. As of the date of this report 17 units have been occupied.

Fair Housing:

CSET continued to promote and implement its Fair Housing education program through social media outreach and partnerships with community agencies. Activities included two public presentations and the distribution of comprehensive Fair Housing information at events such as the Kings County Fair and the Senior Health Fair. The program met its goal of assisting 478 individuals through one-on-one interactions, educational presentations, and outreach events.

LLAVES DE TU CASA

HOMEOWNERSHIP INITIATIVE

Register:

https://nahrep_fresno_llaves_de_tu_casa.eventbrite.com

Via Zoom

DOWNPAYMENT ASSISTANCE & GRANTS!

UP TO \$125,000

The Llaves de tu Casa Initiative is a comprehensive program designed to raise awareness and dispel the myths of purchasing a home in the Greater Fresno Region. The initiative is designed with a high level of comprehensive Home Buyer Education & Counseling, Financial Literacy, First Time Home Buyer Workshops, Down payment Assistance Programs & Grants, and Flexible Mortgage Products/Programs for the neighborhood communities of Greater Fresno. The purpose of this innovative initiative is designed to increase the homeownership rate for Low To- Moderate First Time Home Buyers in the Greater Fresno Region.

FOR MORE INFORMATION ATTEND ONE OF THE MONTHLY WORKSHOPS

January 25, 2025 Saturday 10:00 AM to 12:00 PM	February 22, 2025 Saturday 10:00 AM to 12:00 PM	March 29, 2025 Saturday 10:00 AM to 12:00 PM
---	--	---

Confirmation upon registration via email from Eventbrite

ONEFRESNO

Self-Help

tri counties bank

PEOPLES

real

ENVISION

RECOVERY

CORE

LLAVES DE TU CASA

INICIATIVA DE VIVIENDA

Register:

https://nahrep_fresno_llaves_de_tu_casa.eventbrite.com

Via Zoom

ASISTENCIA PARA EL PAGO INICIAL!

ESTA \$125,000

La Iniciativa Llaves de tu Casa es un programa integral diseñado para crear conciencia y disipar los mitos de comprar una casa en la región de Fresno. La iniciativa está diseñada con un alto nivel de educación y asesoramiento integral para compradores de vivienda, conocimientos financieros, talleres para compradores de vivienda por primera vez, programas y subvenciones de asistencia para el pago inicial y productos/programas hipotecarios flexibles para las comunidades del área metropolitana de Fresno. El propósito de esta iniciativa innovadora está diseñado para aumentar la tasa de propiedad de vivienda para compradores de vivienda por primera vez de bajo a moderado ingresos en la región de Fresno.

PARA MÁS INFORMACIÓN ASISTA A UNO DE LOS TALLERES MENSUALES

Enero 25, 2025 Sábado 10:00 AM to 12:00 PM	Febrero 22, 2025 Sábado 10:00 AM to 12:00 PM	Marzo 29, 2025 Sábado 10:00 AM to 12:00 PM
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Confirmación al registrarse por correo electrónico de Eventbrite

ONEFRESNO

Self-Help

tri counties bank

PEOPLES

real

ENVISION

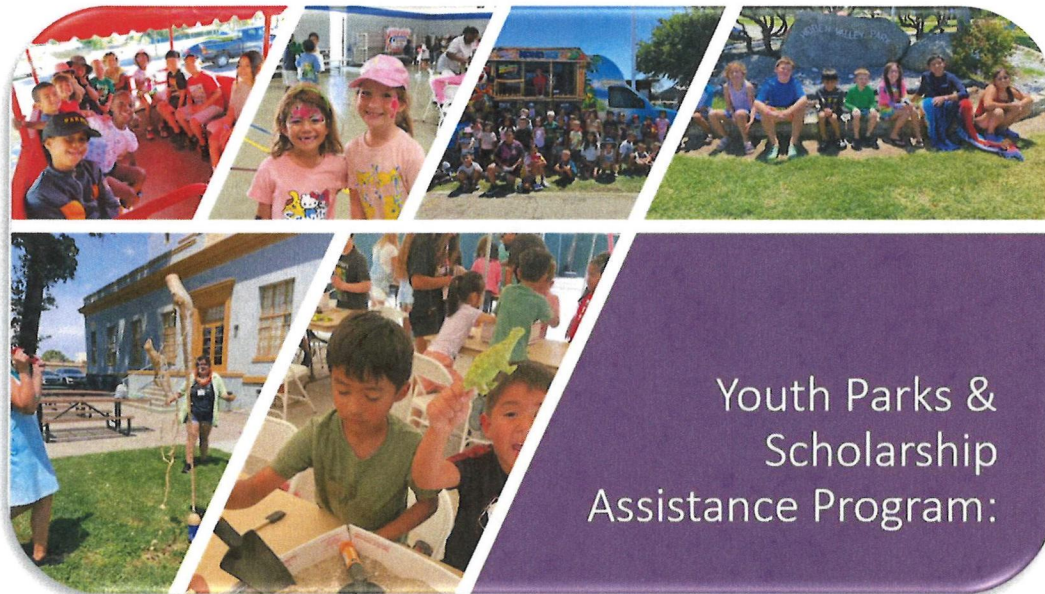
RECOVERY

CORE

The Kings/Tulare Homeless Alliance is a consortium of partners that includes homeless service providers, advocacy groups, government agencies, and homeless individuals working together to end homelessness in the San Joaquin Valley. The City of Hanford has partnered with the Kings/Tulare COC to address homeless issues in Hanford. CDBG funds will be used to help fund various activities, including, but not limited to, the Point-in-Time census.

Youth Parks & Scholarship Assistance Program:

The City of Hanford Parks and Community Services Department offers seasonal day camps for youth ages 5 to 12, along with a variety of recreational activities for youth ages 5 to 17. These camps are designed to provide enrichment, recreation, and social engagement during school breaks throughout the year. The standard fee begins at \$100 per child per week. During the reporting period, 17 families received assistance through our Scholarship Assistance Program. We aim to expand these opportunities for Hanford residents during the upcoming winter and spring camps.



DRAFT

Senior Meal Program- Kings Commission on Aging

The meal program provided seven nutritious and balanced meals five days

per week throughout the year, excluding holidays. During the 2024 program year, 12,029 unduplicated meals were served. The meals program delivers seven nutritious meals, fresh fruits, and vegetables once per week to qualified homebound seniors. Overall, the program served 360 unduplicated seniors.

The program provides meal delivery services to homebound seniors and individuals with disabilities residing in both the city and unincorporated areas. It is designed to support individuals who are unable to leave their homes or prepare meals independently. The Kings County Commission on Aging administers this program, offering essential nutritional support to seniors who face challenges with accessing or preparing adequate meals.



CR-10 – RACIAL AND ETHNIC
The composition of families assisted.

Describe the families assisted (including the racial and ethnic status of families assisted).
91.520(a)

Preliminary numbers will be updated in the final draft.

Ethnicity	CDBG
White	358
Black or African American	89
Asian	7
American Indian or American Native	14
Native Hawaiian or Other Pacific Islander	1
American Alaskan Native & White	1
Asian White	7
Other multi-racial	23
Total:	411
Hispanic	367
Not Hispanic	411

Table 1 – Table of assistance to racial and ethnic populations by source of funds

Narrative:

The City identified priority needs and continues to offer services and programs to eligible households regardless of race or ethnicity. Population data excludes Low-Moderate Area benefit data for Public Improvement and Infrastructure Improvements.

DRAFT

CR-15 - RESOURCES AND INVESTMENTS 91.520(A)

Identify the resources made available.

Source of Funds	Source	Resources Made Available	Amount Expended During Program Year
CDBG	Public-Federal	\$544,484	\$531,854.94
CDBG	Program Income	\$582,753	\$384,768.53

Table 2 - Resources Made Available

Narrative:

This total, as of June 30, 2024, is based on a preliminary expenditure report.

During the 2024-25 program year, an estimated \$996,714 in CDBG funds was expended across all projects.

In addition to annual entitlement funds, the City utilizes program income from previously funded CDBG and HOME projects, as well as uncommitted carryover funds, for new projects.

Identify the geographic distribution and location of investments.

Target Area	Planned Percentage of Allocation	Actual Percentage of Allocation	Narrative Description
CITY OF HANFORD	100	100	Citywide

Table 3 – Identify the geographic distribution and location of investments.

DRAFT

IDIS Low/Mod Census Tracts (eligible CDBG Target Areas)

Low-Mod Income (LMI) concentration is defined as census tracts where at least 51% of the median household income is 80% or less of the area's median household income. The City's FY 2024-25 CDBG includes the boundaries indicated on the CDBG Low-Mod target area maps. (See Attachment E)

Narrative:

Continuation from above:

The target area for all goals is Citywide. All assistance is provided to households within the city limits of Hanford.

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Leveraging:

Explain how federal funds leveraged additional resources (private, state, and local funds), including how matching requirements were satisfied and how any publicly owned land or property located within the jurisdiction was used to address the needs identified in the plan.

Private resources, combined with Federal resources, consist of first mortgages issued to qualifying first-time homebuyers from lenders participating in the City's First Time Home Buyer Program. The City also continues to leverage its First-Time Home Buyer Program and other housing programs with Revolving Loan Program Income Funds derived from the repayment of CDBG and State grants, such as HOME and CalHome loans.

CDBG and HOME allocations are leveraged through the City's partnerships. For example, CDBG public service dollars leverage state and other federal funding for homeless grant funding obtained by local nonprofit agencies through the State of California and HUD, including the Continuum of Care.

Additionally, they will seek to leverage other sources, including, but not limited to, those listed below.

- State Low-Income Housing Tax Credit Program
- Permanent Local Housing Allocation (PLHA)
- CDBG-CV2
- HOME Key
- Roomkey/CARES
- Private Contributions
- City Housing Funds

DRAFT

The city has partnered with the following agencies, Self-help, Up Holdings, Kings Tulare Homeless Alliance LLC, and Human Services Agency – Kings County, for the following projects:

NorthStar Courts:

The City of Hanford's Permanent Local Housing Allocation (PLHA) funds are for developing the proposed 72-unit project. The city committed \$306,561 in PLHA funding annually. Over the five-year PLHA term of the Plan, it is estimated that Hanford will receive an allocation of not more than \$1,532,808.

As of the time of this report's preparation, the funds have been spent and have passed through the city.



NORTHSTAR COURTS APARTMENTS

664-682 Northstar Dr, Hanford, CA 93230

DRAFT

Sunrise Apartments:

(Conversion of the 22-unit motel for permanent supportive housing) Project Home Key awarded Kings County \$2,200,000 as a Tier 1 applicant. Tier 1 required immediate occupancy and a commitment to convert to permanent housing. The City of Hanford was awarded \$238,702 in CDBG-CV3 funds. Additionally, the state has approved an application for \$1,100,000 in CDBG-CV2 funds to convert the units.



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CR-20 - AFFORDABLE HOUSING 91.520(B)

Evaluation of the jurisdiction's progress in providing affordable housing, including the number and types of families served and the number of low-income, moderate-income, and middle-income persons served.

Table 4 – Number of Households

Types Provided	One-Year Goal	Actual
Number of Homeless households to be provided with affordable housing units	22	17
Number of Non-Homeless households to be provided with affordable housing units	72	72
Number of Special-Needs households to be provided with affordable housing units	0	0
Total:	94	89

Types Supported	One-Year Goal	Actual
Number of households supported through Rental Assistance	0	0
Number of households supported through The Production of New Units	0	0
Number of households supported through Rehab of Existing Units	18	18
Number of households supported through Acquisition of Existing Units	0	0
Total:	18	18

Table 4 – Number of Households Supported

DRAFT

Discuss the difference between goals and outcomes, as well as the problems encountered in meeting these goals.

The City's Emergency Repair Program (ERP) is designed to provide immediate financial assistance to Hanford homeowners for emergency repair situations. The priority is the elimination of health and safety hazards. This program makes up to \$24,999 in grant funds available (per household). All funds shall benefit very low- to moderate-income households. Fourteen (14) households received assistance through the Emergency Repair Program (ERP), utilizing CDBG funding from the previous year's action plans during the fiscal year.

Discuss how these outcomes will impact future annual action plans.

The City of Hanford will continue to evaluate its programs and adjust, as necessary, in the future One-Year Action Plans. Based on the City's experience with CDBG, the current goals and objectives will remain in place, and no significant changes are anticipated.

Include the number of low-income and moderate-income people served by each activity where information on income by family size is required to determine the activity's eligibility. Number of Households Served	CDBG Actual	HOME Actual
Acutely Low	338	0
Extremely Low-income	200	0
Low-income	104	0
Moderate-income	57	0
Total:	699	0

Table 5 – Number of Households Served

IDIS Low/Mod Census Tracts (eligible CDBG Target Areas)

Low-Mod Income (LMI) concentration is defined as census tracts where at least 51% of the median household income is 80% or less than the jurisdiction's median household income. The City's FY 2024-25 CDBG boundaries are shown in the attached CDBG Low-Mod target area maps.

CR-25 - HOMELESS AND OTHER SPECIAL NEEDS 91.220(D, E); 91.320(D, E); 91.520(C)

Evaluate the jurisdiction's progress in meeting its specific objectives for reducing and ending homelessness through:

Reaching out to homeless people (especially unsheltered people) and assessing their individual needs

The City of Hanford, in partnership with the Kings/Tulare Homeless Alliance (KTHA), diligently addresses homelessness within the city.

KTHA, the local Continuum of Care, coordinates efforts amongst service providers, faith-based partners, governmental agencies, and other key stakeholders. KTHA hosts multiple monthly meetings, such as the Case Management Roundtable, Membership Meetings (Executive, Community/Stakeholder, and Training), and the Kings County Homeless Services Partnership Meeting.

Outreach efforts have been a critical focus. The Kings View PATH team, Hanford Police Department HART (Homeless Assistance Resource Team), Champions Outreach team, Kings Community Action Organization outreach team, and KTHA Housing Navigators conduct ongoing outreach to connect people who are least likely to access resources. Since July 2020, 1625, people experiencing homelessness have been assessed for housing. During this fiscal year 24/25, a total of 375 individuals and families experiencing homelessness enrolled in Coordinated Entry were referred to permanent housing, and 79 families were placed into housing.

In 2024, with the help of outreach teams and service providers, KTHA's Coordinate Entry Systems referred 22 individuals and families experiencing homelessness to housing at Northstar Courts, an affordable housing complex. In 2025, KTHA referred 22 individuals experiencing homelessness to the new Sunrise Homekey project that is currently operated and owned by KCAO.

In 2023, Champions was awarded HHAP 4 funds to establish an outreach team and purchase a shower unit, providing showers to individuals experiencing homelessness. Champions has started parking the shower unit at different locations. The project was expanded in 2024 through HHAP 5 to include rapid rehousing rental assistance for individuals experiencing homelessness in Kings County. All Champions Rapid Rehousing program referrals will go through the Coordinated Entry System.

The Coordinated Entry System, operated by KTHA, includes virtually all homeless service providers within the City of Hanford. In addition to Every Door Open approach, people experiencing homelessness can have an assessment completed by contacting 2-1-1.

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Addressing the emergency shelter and transitional housing needs of homeless people

Within the City of Hanford, the following programs provide emergency shelter and transitional housing for people experiencing homelessness:

Program Type	Organization Name	Program Name	Year-Round Beds
ES	Kings Community Action Organization	Barbara Saville Shelter	38
ES	Behavioral Health	Bridge Housing	27
ES	Kings County HSA	Temporary Housing	20
TH	King's Gospel Mission	Men's Overnight Shelter	16
TH	King's Gospel Mission	Women's Overnight Shelter	10
TH	King's Gospel Mission	New Song Academy	6

ES=Emergency Shelter

TH=Transitional Housing

The emergency shelters that opened because of COVID-19's Project Roomkey program have shut down, resulting in the closure of the temporary shelters Sunrise (22 beds) and Holiday Lodge (59 beds). Both facilities are currently undergoing conversion to affordable permanent housing.

Helping low-income individuals and families avoid becoming homeless, especially highly low-income individuals and families and those who are likely to become homeless after being discharged from publicly funded institutions and systems of care (such as health care facilities, mental health facilities, foster care, and other youth facilities, and corrections programs and institutions); and, receiving assistance from public or private agencies that address housing, health, social services, employment, education, or youth needs.

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Helping homeless persons (especially chronically homeless individuals and families, families with children, veterans and their families, and unaccompanied youth) make the transition to permanent housing and independent living, including shortening the period that individuals and families experience homelessness, facilitating access for homeless individuals and families to affordable housing units, and preventing individuals and families who were recently homeless from becoming homeless again.

The Alliance continues to utilize the Landlord Mitigation Fund to increase the inventory of landlords and property managers willing to lease units to people experiencing homelessness. The fund is designed to incentivize Landlords to relax screening criteria for people who are experiencing homelessness and who may have barriers that prevent them from securing housing on their own, such as poor credit and past evictions. By offering a Fund to mitigate Landlord exposure to the increased costs of renting to individuals experiencing homelessness, including excess damage and unpaid rent, a strong relationship can be established with Landlords who may otherwise be hesitant to lease to these individuals and families.

The Alliance works closely on CalAIM's integration into the homeless response system. CalAIM services include housing tenancy and housing support, which provides funds to help people secure housing (such as arrears, security deposits, etc.), as well as case management and support once someone is housed. This can decrease the length of time someone experiences homelessness and the rate at which people return to homelessness once housed.

The Coordinated Entry System collaborates with the top five households of each intervention type on the Housing Priority List to ensure they are document-ready. This focus has reduced the time people spend on the streets waiting to be placed once a unit becomes available.

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CR-30 - PUBLIC HOUSING 91.220(H); 91.320(J)

Actions taken to address the needs of public housing

Kings County Housing Authority provides public housing. The provision of public housing is a function of county government; therefore, the City will not supply funding for this segment. The Housing Authority provides low-income families with decent, safe, sanitary, affordable rental housing. Additionally, the Housing Authority offers rental assistance to individuals and families through Section 8 Housing Choice Vouchers and affordable housing programs.

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CR-35 - OTHER ACTIONS 91.220(J)-(K); 91.320(I)-(J)

Actions taken to remove or lessen the negative effects of public policies that serve as barriers to affordable housing include land use controls, tax policies affecting land, zoning ordinances, building codes, fees and charges, growth limitations, and policies affecting the return on residential investment. 91.220 (j); 91.320 (i)

The City of Hanford adopted the 2035 General Plan on April 24, 2017. Zoning ordinance changes were made during the updating process, and all policies and procedures were reviewed to determine whether they should be updated, removed, or otherwise amended.

The City's Housing Element requires each city and county to identify existing and projected housing needs within the jurisdiction and prepare goals and policies.

The City has instituted several policies and programs that encourage the development and preservation of affordable housing, including the development of new affordable housing, the clearance of blighted properties for reuse as new housing, and the rehabilitation of existing houses.

Actions taken to address obstacles to meeting underserved needs. 91.220(k); 91.320(j)

The City of Hanford will continue to support the efforts of local agencies that serve special populations, such as the elderly, frail elderly, homeless persons, female heads of households, persons with disabilities, drug/alcohol addiction, farm workers, and persons with HIV/AIDS. These agencies have an established support system in Kings County to serve these populations. Programs that the city offers that assist special populations and people experiencing homelessness in transition to permanent housing include:

- First-time homebuyer programs.
- Housing rehabilitation.
- Habitat for Humanity.
- A multi-family low-income complex funded through HOME and low-income Housing Tax Credits.

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Achievements in the fiscal year to provide affordable housing include, but are not limited to, the following:

Here's a revised and professionally polished version of your bullet points to improve clarity, consistency, and tone:

- Administered a **first-time homebuyer** program designed to provide mortgage assistance to two eligible buyers to support housing affordability. Although approximately **\$2,000,000 in HOME Program Income (PI)** was allocated for Program Year 2024–2025, no assistance was provided due to the program being placed on hold by the **California Department of Housing and Community Development**.
- Managed a **housing rehabilitation** program offering grants for **essential health and safety repairs**, with a total allocation of **\$270,616** for this activity.
- Provided **abatement services** through the **Code Compliance Program**, enhancing the quality of life for **low- to moderate-income homeowners** through the correction of code violations and property maintenance issues.
- Continued collaboration and funding support for the **Kings/Tulare Continuum of Care**, allocating **\$10,000** toward **homelessness prevention efforts**.

Actions taken to reduce lead-based paint hazards. 91.220(k); 91.320(j)

Lead is a highly toxic metal that may cause various health problems, especially in young children. When lead is absorbed into the body, it can cause damage to the brain and other vital organs, such as the kidneys, nerves, and blood. Lead-based paint was banned for residential use in 1978; therefore, housing built before 1978 is considered at risk of having lead-based paint. In Hanford, twenty-three percent (23%) of the City's housing stock is 30 years old or more. The City implemented the following strategies to reduce the presence of lead-based paint:

- Implemented the lead-based paint regulations of 24 CFR Part 92 in all federally assisted City housing programs, ensuring the safety of our residents.
- Enforced federal laws through the permit process and code enforcement services by requiring contractors to be certified, ensuring the highest safety standards in our housing programs.
- Provided 'Renovate Right' pamphlets to homeowners, homebuyers, and contractors, equipping them with the necessary knowledge to tackle lead-based paint Hazards.
- For PY 2024-25, the City assisted **two** homeowners with lead abatement.

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Actions were taken to reduce the number of families living in poverty. 91.220(k); 91.320(j)

In cooperative efforts, the city continues to work with Continuum of Care, its partnering towns, and non-profit agencies to identify resources available to reduce the number of persons living below the poverty level and address the community's needs.

The city has also engaged with housing, service, and faith-based organizations to encourage partnerships and collaborate on addressing high-priority needs identified in the 10-year Homeless Plan. Subgroup committees were formed to improve the 2-1-1 program, housing opportunities, and services.

Actions taken to develop institutional structure. 91.220(k); 91.320(j)

There is still much work to be done in achieving ADA compliance. Still, staff will continue to work diligently to address any monitoring and transition plan findings and recommendations to ensure that our programs comply with the applicable HUD regulations.

The Community Development Department oversees the City's CDBG Program. This staff has worked diligently to improve policies, procedures, and practices, ensuring the City's program complies with CDBG regulations. While much more work is still needed, the City's program has shown improvement. The staff is confident about the recent activities selected and how funding has been expended.

Certification of Consistency:

The city assisted three agencies with the certification of consistency.

Actions taken to enhance coordination between public and private housing and social service agencies. 91.220(k); 91.320(j)

The city continues to coordinate regional services through the Kings Tulare Homeless Alliance, Habitat for Humanity, Self-Help Enterprises, Kings County Health Services, and other networking opportunities.

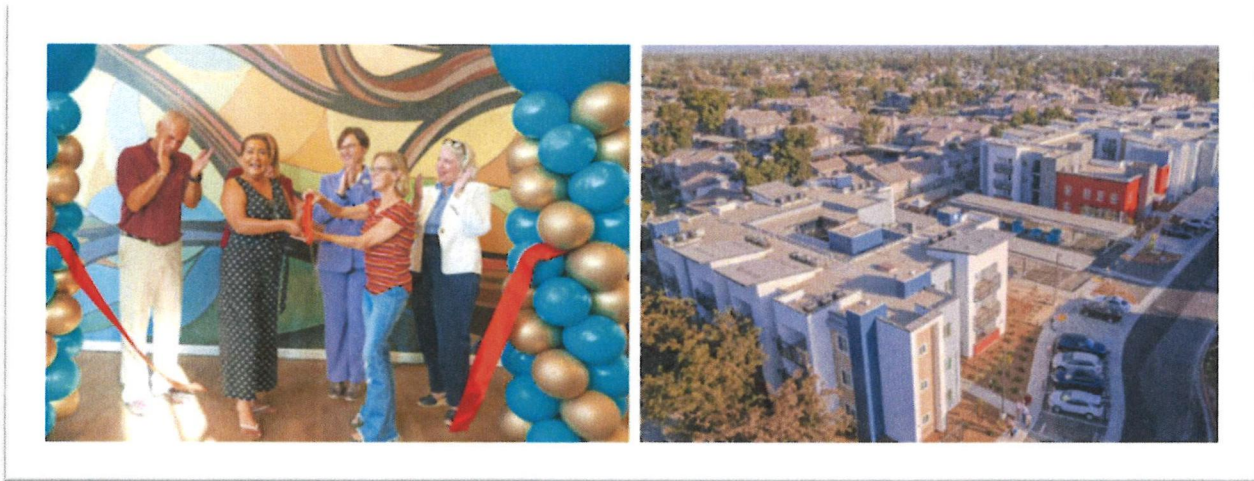
- ❖ Stardust Kings Tulare Homeless Alliance (KTHA) LLC
- ❖ Sunrise Apartments Project, formerly the Stardust Motel

DRAFT

On December 1, 2020, the Council allocated \$238,702 in May 2022 and an additional \$188,000 in the 2023 Action Plan to Kings County Human Services for the Stardust Motel rehab conversion project. Since then, to oblige the funding and expedite the project, Kings County Human Services has requested that the City redirect the funds to Stardust KTHA, LLC, to complete the Sunrise project.

NorthStar Apartments

On October 3, 2024, we celebrated the grand opening of Northstar Courts, a vital addition to our community, which provides 72 units of permanent, affordable housing in Hanford. The event drew over 100 community members who gathered in the property's community room for a celebration that included guest speakers, a ribbon-cutting ceremony, and family-friendly activities.



Northstar Courts features one-, two-, and three-bedroom apartments designed for individuals and families, with some units reserved for households including farm workers, individuals with disabilities, and those transitioning out of homelessness. The units are income-restricted based on household size, ensuring that families in need can access this critical resource. The development is not only about providing shelter but fostering a supportive community, equipped with amenities such as onsite management, a large community room, a playground, outdoor seating, and access to behavioral health resources.

"This beautiful complex offers more than a safe home; it is a life change," wrote Northstar resident Sylvia Moreno in a letter that was read during the ceremony. "It is the foundation of a new and positive life. Northstar also offers behavioral health resources that are available on-site. It is truly a blessing to be living here."

This project would not have been possible without the support of key funding partners, including the California Debt Limit Allocation Committee, the California Tax Credit Allocation Committee, the California Department of Housing and Community Development, the City of Hanford, Kings County, Walker Dunlop, and Key Bank.

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The project is funded through 4% Low-Income Housing Tax Credits, soft funding from the Department of Housing and Community Development through competitive No Place Like Home funds, City of Hanford PLHA funds, Kings County Whole Person Care pilot, King County Human Services Agency's HHAP funds, private investment, and private financing.

Self-Help Enterprises – Idlewood & Parkside Infill Development Update

- As of the date of this report, six infill homes have been completed in Hanford. The City has provided down payment assistance to two of the families.
- **Parkside Single-Family Development** – Three new single-family homes have been completed.
- **Idlewood Single-Family Development** – Three new single-family homes have also been completed.
- A recent first-time homebuyer success story highlights the impact of the program. In March 2025, two families received the keys to their new homes, made possible by program income from loan payoffs.
- The six homes were part of the Hanford Infill Construction Homes initiative, a collaborative effort between Self-Help Enterprises, NMTC Financing, The Housing Partnership Network, Inc., partner Smith NMTC Associates, LLC, and the City of Hanford. One family expressed their heartfelt joy and gratitude upon receiving the keys to their new home. (see attached flyer)



Self-Help Enterprises – Idlewood
& Parkside Infill Development

Video Links - [Hanford Buyers Video #1](#), [Hanford Buyers Video #2](#),

DRAFT

Identify actions taken to overcome the effects of any impediments identified in the jurisdiction's analysis of impediments to fair housing choice. 91.520(a)

An Analysis of Impediments (AI) to Fair Housing Choice, 2024-2028, was updated.

The local government can play a crucial role in providing a diverse range of housing types and ensuring housing availability that meets the needs of all sectors of the public. The City of Hanford offers affordable housing assistance programs and implements several fair housing-related policies. The city does not have a formally established fair housing policy. Still, it is committed to collaborating with community stakeholders and local advocacy partners to create a comprehensive and fair housing system and to implement similar fair housing procedures. In addition, the city will continue to work with regional public transit providers to identify any opportunities to improve public transit serving low-income households and special-needs populations (including older people and persons with disabilities). The city will pay particular attention to the transit needs of areas where housing is affordable for low-income households and individuals with special needs.

As an entitlement grantee, the City of Hanford is required to ensure that its programs affirmatively further access to fair housing and that its policies and procedures do not discriminate against individuals based on any protected class, which would deny the opportunity to participate in access or benefit from the programs and activities carried out as part of the CDBG Program. As an entitlement grantee, the City of Hanford is required to ensure that its programs affirmatively further access to fair housing and that its policies and procedures do not discriminate against individuals based on any protected class, which would deny the opportunity to participate in access or benefit from the programs and activities carried out as part of the CDBG Program. The City has partnered with the City of Porterville and jointly solicited proposals from qualified organizations to develop, implement, and administer a Fair Housing Program, which has been implemented. The agency has been offering workshops in our community.

In cases of alleged discrimination, residents are provided with information regarding fair housing law, a HUD discrimination complaint form, and referrals to legal services, the State Department of Fair Housing and Employment, and other relevant agencies.

The City has partnered with a HUD-approved housing counseling agency (Community Services Employment Training, Inc.) to provide homebuyer education; this agreement was entered before the new HUD mandate. The foreclosure education and referral process has had a positive impact on helping homeowners facing foreclosure with options that could prevent foreclosure and provide the public with important housing information.

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Affirmative Outreach to Applicants and Participants

The City will continue collecting data on race, ethnicity, national origin, disability, and the gender of the head of household for applicants, participants, and beneficiaries of funded programs to identify any underrepresented protected class groups. Staff will analyze the data annually and adjust outreach strategies as needed. Additionally, the City will continue to conduct outreach at community events and via community partners who serve low- to moderate-income households and LEP clients, providing materials in both English and Spanish.

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Fair Housing Services

Hanford collaborates with federal, state, and regional agencies to promote open housing choices and equal housing opportunity. Depending on the nature of the complaints, the City of Hanford currently refers complaints regarding housing discrimination to the CSET, the Fair Housing Council of Central California, Legal Aid of Central California, California Rural Legal Aid, the Fresno County Housing Authority (Fair Housing Unit), and the State Department of Fair Employment and Housing. The City has an agreement with CSET to provide Fair Housing education for Hanford residents.

Additionally, service agencies were available to provide free legal advice on renter and homeowner rights, Housing Counseling, Section 8 program information, Employment Services, Domestic violence, and Homeless programs.

Whenever the City has a booth at community events promoting housing programs, fair housing information is provided in English and Spanish.

As previously discussed in CR-05, the City also allocates entitlement funds to provide Fair Housing education services. The City believes that the review of strategies used to overcome or eliminate impediments to fair housing choice demonstrates progress in meeting the approach developed in the AI over the year.

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CR-40 - MONITORING 91.220 AND 91.230

Describe the standards and procedures used to monitor activities conducted in furtherance of the plan and used to ensure long-term compliance with requirements of the programs involved, including minority business outreach and the comprehensive planning requirements.

The City of Hanford's staff provides ongoing technical assistance and monitors each subrecipient. City staff conducted desktop monitoring for all sub-recipient sub-grantee agencies to ensure compliance.

Staff monitors other programs daily and as needed for capital projects. This review will include, but is not limited to, environmental assessment, contract supervision, prevailing wage compliance, reporting, reimbursement request review, and processing.

The city takes an initiative-taking approach and continually evaluates programs and activities to ensure they meet targeted goals and align with current funding levels. When funds are moving slowly, it is recommended to consider another project or program.

Citizen Participation Plan 91.105(d); 91.115(d) Describe the efforts to provide citizens with reasonable notice and an opportunity to comment on performance reports.

Before submitting the CAPER to HUD, a notice soliciting public comment is published in English and Spanish in the *Hanford Sentinel*. Publication of the information allows for a 15-day comment period (August 29, 2025, through September 15, 2025) and time to prepare a summary of comments. In addition, copies of the CAPER are available for public review at the City Hall Community Development Department's counter and on the City's website.

The CAPER requires a public hearing before the City Council for approval of the document before submitting it to HUD. Community hearings are held in a community space, considering the convenience to beneficiaries of the entitlement program resources. A Public Hearing is scheduled for **September 16, 2025, at 7:00 p.m.**, located in the Council Chambers, 400 N. Douty Street, Hanford, CA 93230.

Copies of the report are available at the City of Hanford Community Development Department and on the City of Hanford website.

A copy was also placed at the Hanford Branch Library located at 401 N Douty St, Hanford, CA 93230.

Public Comments: The comments received will be included in the final document at the end of the public review period and public hearing.

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CR-45 - CDBG 91.520(C)

Please specify the nature and reasons for any changes in the jurisdiction's program objectives and indicate how the jurisdiction would change its programs based on its experiences.

The 2024-25 program year was the first year of implementation in the City of Hanford's 2024-28 five-year Consolidated Plan. The Consolidated Plan outlines the priority needs and goals for the CDBG program over five years, from July 1, 2024, to June 30, 2028, encompassing five program years.

The city continues to take an initiative-taking approach. It continually evaluates programs, projects, policies, and activities to meet targeted goals and align with current funding levels. Based on experience, challenging and strategic recommendations are made to the City Council. For example, an alternate priority project or program is recommended when funding is moving slowly.

- Emergency Rental Assistance
- Home Delivered Meals for Homebound Seniors
- Small Business Assistance
- Food Service Center
- Homeowner Rehabilitation

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SUMMARY OF ACCOMPLISHMENTS



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ATTACHMENT A: Accomplishments

- **Attachment A-1: Table #1 Expenditures & Accomplishments**
- **Attachment A-2: Infill Homeownership Project Accomplishment**

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Attachment A-1: Table #1 Expenditures & Accomplishments

EXHIBIT 1- TABLE 1- CAPER 2024-City of Hanford

Comparison of the proposed versus actual outcomes for each outcome measure submitted with the consolidated plan and explain, if applicable, why progress was not made toward meeting goals and objectives. 91.520(g)

Categories, priority levels, funding sources and amounts, outcomes/objectives, goal outcome indicators, units of measure, targets, actual outcomes/outputs, and percentage completed for each grantee's program year goals.

	Goal	Category	Source / Amount	Indicator	Unit of Measure	5-Year ConPLAN Goals			1-Year Action Plan Goals		
						Expected Strategic Plan	Actual Strategic Plan	Percent Completed	Expected Program Year	Actual Program Year	Percent Completed
1	Community Development Enhancement Public Improvements Food Service Center	Non-Housing Community Development	CDBG: \$200,000	Public Facility or Infrastructure Activities other than Low/Moderate Income Housing Benefit	Facility	1	0	0.00%	1	0	0.00%
2	Affordable Housing	Affordable Housing and Homeless	CDBG: \$270,616	Homeowner Housing Rehabilitation	Households Assisted	50	18	 36%	15	18	 120%
3	Affordable Housing	Affordable Housing and Homeless	CDBG: \$188,925	Direct Financial Assistance to Homebuyers	Household Housing Unit	2	2	 100%	2	2	 100%
4	Support special needs programs and services	Homeless Non-Homeless Special Needs Food Relief Program.	CDBG \$145,857	Public service activities other than Low/Moderate Income Housing Benefit	Persons Assisted	15300	743	 5%	655	743	 113%
5	Public Facilities Building Improvements	Housing - creation of affordable housing opportunities	CDBG-CV: \$238,702	Public service activities for Low/Moderate Income Housing Benefit	Households Assisted	21	17	 81%	21	17	80.95%
8	Planning	Planning and Administration	CDBG \$199,780	Other	Other	N/A	N/A	0	N/A	N/A	0

Table 1 - Accomplishments – Program Year & Strategic Plan to Date

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Attachment A-2: Infill Homeownership Project Accomplishment



NMTC Coalition
1155 15th Street, NW, Suite 400, Washington, DC 20005
(202) 393-5225, nmtccoalition.org

California



Self-Help Enterprises San Joaquin Valley Infill Homeownership Project

Hanford and Fresno, CA (2024)

FINANCING

NMTC Financing: The Housing Partnership Network, Inc., in collaboration with its partner Smith NMTC Associates, LLC: \$8 million
Equity Investor: U.S. Bancorp Impact Finance
Total Project Cost: \$8.2 million

IMPACT

- 7 construction jobs
- 1.5 permanent jobs
- 19 homes in Hanford and Fresno, CA. Self-Help also provides financial counseling and homebuyer education and assistance.

COMMUNITY

- Poverty rates ranging from 27% to 60.2%
- Hanford homeownership rate: 50.8%
- Fresno homeownership rate: 28%

"The New Markets Tax Credits closed a critical gap in funding for the project, which in fact made the endeavor feasible. The result is both an affordable housing success and wealth building opportunity for buyers of color who have traditionally been left out of the homeownership market."

-Tom Collishaw, President/CEO, Self-Help Enterprises

A nationally recognized California community development organization, Self-Help Enterprises (SHE), works with low-income families, often in rural areas to build and sustain healthy homes and communities. Since 1965, SHE has served over 65,000 families, many of whom are the Latino farmworkers who provide our food but are unable to find decent affordable housing, including lack of water and sewer services, for their families. There is a critical housing shortage in the area and affordable for-sale housing stock, in particular.

NMTC enables 19 low- and very low-income BIPOC families attain the dream of homeownership

The Fresno sites are part of a previous redevelopment area and are also complementary to SHE's nearby mutual self-help housing program development. Both sites are located near grocery stores, jobs, and public transport. SHE focused on providing homeownership opportunities for low-income families because homeownership is the single most powerful economic tool to break the cycle of poverty, create wealth and equitable opportunity in formerly marginalized communities who have not previously had access to homeownership and financial counseling, homebuyer services including realtors, and mortgages.

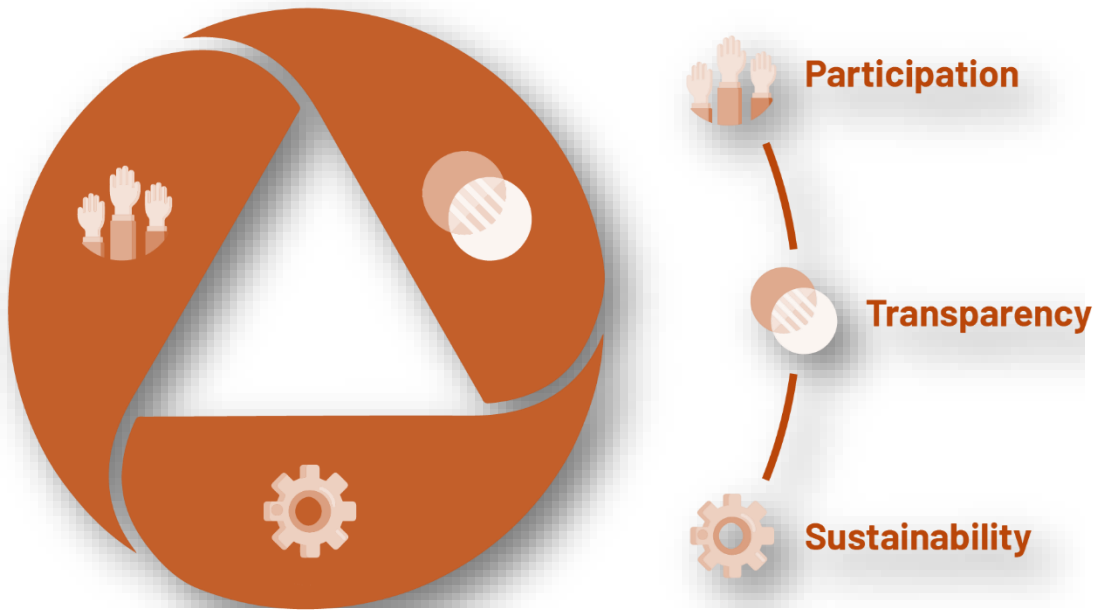
In addition to quality new affordable homes, SHE provides all of its buyers with wraparound services such as multiple types and levels of homebuyer education, financial counseling and budget management courses. SHE also provides secondary loans through numerous homeownership programs and loans for water well drilling or replacement.

The NMTC financing will enable additional low-income families who cannot qualify for the self-help housing program to purchase a home. SHE used NMTC financing to subsidize the difference between the cost to construct and the affordable \$290,000 purchase price. Without the financing, SHE would have had to delay the project.

Nonprofit affordable homeownership developers lack access to affordable capital due to misconceptions about the risk of developing homes and selling to low- to moderate- income homebuyers in underserved communities. NMTCs are the only federal tax credit available to help fill that gap. This project resulted in 19 low-income families purchasing a home in which they already have substantial equity. This is an investment in the community, families, and their descendants for generations to come.



CITIZEN PARTICIPATION



DRAFT

Attachment B: Citizen Participation

- Attachment-B1: Proof of Publication Public Notice English
- Attachment-B2: Proof of Publication Public Notice Spanish
- Attachment-B3: Public Notice English
- Attachment-B4: Public Notice English
- Attachment-B5: City Website – Public Notice Page
- Attachment-B6: City of Hanford Website Notice
- Attachment-B7: City Participation Summary

DRAFT

THE SENTINEL

PROOF OF PUBLICATION

The Sentinel
SM California News Media Inc
P.O. Box 9
Hanford, CA 93232
Phone (559) 582-0471
billing@hanfordsentinel.com

Sheila Martinez
315 N Douty St
Hanford CA 93230

ORDER NUMBER 508452
Publication- The Hanford Sentinel

State of Florida, County of Orange, ss:

Anjana Bhadoriya, being first duly sworn, deposes and says: That (s)he is a duly authorized signatory of Column Software, PBC, duly authorized agent of The Hanford Sentinel, a newspaper printed and published in the City of Hanford, County of Kings, State of California, and which newspaper has been adjudged a newspaper of general circulation by the superior court of the County of Kings, State of California, under the date of October 23, 1951, case number 11623.

That I know from my own personal knowledge the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspapers and not in any supplement thereof on the following dates, to wit:

Section: Legals
Category: 201 Public Notices
PUBLISHED ON:
Aug. 29, 2025

TOTAL AD COST: 330.26
FILED ON: 8/29/2025

I certify under penalty of perjury under the laws of the State of California that the foregoing is true and correct

Anjana Bhadoriya

(Signed)

VERIFICATION

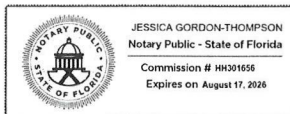
State of Florida
County of Orange

Subscribed in my presence and sworn to before me on this: 08/29/2025

J. Thompson

Notary Public

Notarized remotely online using communication technology via Proof.



Public Notice: Request for Review & Comment and Public Hearing on the City of Hanford's 2024 CAPER (Consolidated Annual Performance and Evaluation Report) for the Community Development Block Grant Program (CDBG)

The City of Hanford will submit its Consolidated Annual Performance and Evaluation Report (CAPER) for Program Year 2024 (July 1, 2024 - June 30, 2025) to the United States Department of Housing and Urban Development (HUD), no later than September 30, 2025. The CAPER is an annual report that describes the performance in meeting its goal with the use of the Community Development Block Grant (CDBG) received from HUD. The City uses this grant to provide decent, clean, safe, and affordable housing, create a suitable living environment, and expand economic opportunities, principally for people of low and moderate income. The Annual Action Plan identifies projects and programs that were previously reviewed and adopted by the City Council to meet these objectives as identified in the five-year Consolidated Plan Community Needs Assessment.

The 2024 CAPER (draft available for public review on the City's website at <https://www.cityofhanfordca.com>). Citizens may submit written comments during the public review and comment period by mail or in person, postmarked no later than September 15, 2025, to the following address:

City of Hanford - Housing Division
Attention: Sandra Lerma, Housing Analyst
317 N. Douty Street
Hanford, CA 93230

Staff invite you to attend a community meeting and/or public hearing for the 2024 CAPER. If you are unable to attend, you may submit your comments in writing to City of Hanford Housing Division at housing@hanfordca.gov.

The Public Hearing will be held at the following location and time:
City Council - Public Hearing
Tuesday, September 16 at 7:00 p.m.
City Council Chambers 400 N. Douty St. Hanford, CA 93230

If you have any questions or need a translator or special services, please call the City Clerk at (559) 585-2515 or (559) 585-4766 at least five (5) days before the meeting to plan.

The City of Hanford does not discriminate in employment and housing program opportunities or practices based on race, color, religion, national origin, age, sex, sexual orientation, marital status, disability, or any other characteristic protected by law.

Publishing date: August 29, 2025

Aviso Público: Solicitud de Revisión y Comentarios y Audiencia Pública sobre el CAPER 2024 (Informe Consolidado Anual de Desempeño y Evaluación) de la Ciudad de Hanford para

**el Programa de Subvenciones
en Bloque para el Desarrollo
Comunitario (CDBG)**

característica protegida por la ley.
Publish: August 29, 2025

Ad# 508452

La Ciudad de Hanford presentará su Informe Anual Consolidado de Desempeño y Evaluación (CAPER) para el Año del Programa 2024 (1 de julio de 2024 - 30 de junio de 2025) al Departamento de Vivienda y Desarrollo Urbano de los Estados Unidos (HUD), a más tardar el 30 de septiembre de 2025. El CAPER es un informe anual que describe el desempeño en el cumplimiento de su objetivo con la Subvención en Bloque para el Desarrollo Comunitario (CDBG) recibida del HUD. La Ciudad utiliza esta subvención para proporcionar viviendas dignas, limpias, seguras y asequibles, crear un entorno de vida adecuado y ampliar las oportunidades económicas, principalmente para personas de ingresos bajos y moderados. El Plan de Acción Anual identifica los proyectos y programas que fueron previamente revisados y adoptados por el Ayuntamiento para alcanzar estos objetivos, según lo identificado en la Evaluación de Necesidades Comunitarias del Plan Consolidado quinquenal.

El Ayuntamiento de Hanford y el Departamento de Vivienda están sumamente interesados en mejorar y aumentar la comunicación con los ciudadanos de Hanford en materia de vivienda, comunidad y desarrollo económico. El CAPER 25-26 (copia preliminar) está disponible para revisión pública en el sitio web de la Ciudad en: <https://www.cityofhanfordca.com>. Los ciudadanos pueden enviar comentarios por escrito durante el periodo de revisión y comentarios públicos por correo o en persona, con matasellos no posterior al 15 de septiembre de 2025, a la siguiente dirección:

Ciudad de Hanford - División de Vivienda Atención: Sandra Lerma, Analista de Vivienda 317 N. Calle Douty Hanford, CA 93230

El personal le invita a asistir a una reunión comunitaria o audiencia pública para el CAPER 2024. Si no puede asistir, puede enviar sus comentarios por escrito a la División de Vivienda de la Ciudad de Hanford a housing@hanfordca.gov.

La audiencia pública se llevará a cabo en el siguiente lugar y horario:

Concejo Municipal - Audiencia Pública
Martes, 16 de septiembre de 2025,
a las 7:00 de la tarde.
Cámaras del Concejo Municipal 400
N. Douty St. Hanford, CA 93230

Si tiene alguna pregunta o necesita un traductor o servicios especiales, llame a la secretaria Municipal al (559) 585-2515 (559) 585-4766 al menos (5) cinco días antes de la reunión para hacer arreglos.

La ciudad de Hanford no discrimina en las oportunidades o prácticas de los programas de empleo y vivienda por motivos de raza, color, religión, origen nacional, edad, sexo, orientación sexual, estado civil, discapacidad o cualquier otra

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Publishing date: August 29, 2025

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Aviso Público: Solicitud de Revisión y Comentarios y Audiencia Pública sobre el CAPER 2024 (Informe Consolidado Anual de Desempeño y Evaluación) de la Ciudad de Hanford para el Programa de Subvenciones en Bloque para el Desarrollo Comunitario (CDBG)

La Ciudad de Hanford presentará su Informe Anual Consolidado de Desempeño y Evaluación (CAPER) para el Año del Programa 2024 (1 de julio de 2024 - 30 de junio de 2025) al Departamento de Vivienda y Desarrollo Urbano de los Estados Unidos (HUD), a más tardar el 30 de septiembre de 2025. El CAPER es un informe anual que describe el desempeño en el cumplimiento de su objetivo con la Subvención en Bloque para el Desarrollo Comunitario (CDBG) recibida del HUD. La Ciudad utiliza esta subvención para proporcionar viviendas dignas, limpias, seguras y asequibles, crear un entorno de vida adecuado y ampliar las oportunidades económicas, principalmente para personas de ingresos bajos y moderados. El Plan de Acción Anual identifica los proyectos y programas que fueron previamente revisados y adoptados por el Ayuntamiento para alcanzar estos objetivos, según lo identificado en la Evaluación de Necesidades Comunitarias del Plan Consolidado quinquenal.

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Attachment-B5: City Website - Public Notice Page

Housing and Community Development Block Grant (CDBG) Services

Fair Housing Protection

Foreclosure Prevention

Lender's Corner

Notices of Funding Availability (NOFAs)

Other Related Resources

Public Notices

[Home](#) > [Government](#) > [Departments](#) > [Community Development](#) > [Housing](#) > Public Notices

Public Notices

2024 CDBG Consolidated Annual Performance and Evaluation Report (CAPER)

Public Review and Comment Period: August 29 – September 15, 2025

Each year, the City of Hanford is required to submit a Consolidated Annual Performance and Evaluation Report (CAPER) to the U.S. Department of Housing and Urban Development (HUD), reporting on the performance of its Community Development Block Grant (CDBG) program.

The 2024 CAPER summarizes the City's progress toward meeting both its annual and five-year goals, highlighting outcomes across a variety of program areas, including:

- Primary activities and funded programs
- Use of CDBG resources and investments
- Affordable housing efforts
- Services for individuals experiencing homelessness and other special needs
- Fair housing initiatives and actions taken to address impediments
- Lead-based paint hazard reduction
- Institutional coordination and monitoring

Public Review and Participation

In accordance with the City's CDBG Citizen Participation Plan, the draft CAPER is available for a 15-day public review and comment period from August 29 through September 15, 2025.

[Review the draft CAPER \(PDF\).](#)

Printed copies are also available upon request by:

- Contacting the City's Housing Administrative Analyst at (559) 585-4766
- Visiting the Kings County Library at 401 N. Douty Street, Hanford
- Visiting the Community Development Department at 317 N. Douty Street, Hanford, CA 93230

Submit Your Comments

You are encouraged to share your feedback. If you are unable to attend the public hearing (details below), you may submit written comments by email to the [Housing Division](#) or deliver them in person to the Housing Division at the address above.

Public Hearing Information

The City of Hanford will hold a public hearing to receive comments on the CAPER:

Hanford City Council – Public Hearing
Tuesday, September 16, 2025
7:00 p.m.
City Council Chambers
400 N. Douty Street, Hanford, CA 93230

<https://www.cityofhanfordca.com/1596/Public-Notices>

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Attachment-B6: City of Hanford Website Notice

City of Hanford

Website Notice

2024 CDBG Consolidated Annual Performance and Evaluation Report (CAPER)

Public Review and Comment Period: August 29 – September 15, 2025

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 Tuesday, September 16, 2025

 7:00 p.m.

 City Council Chambers
400 N. Douty Street, Hanford, CA 93230

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Attachment-B7: City Participation Summary

- Public comments will be included following the public comment period.

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CONTINUUM OF CARE REPORTS



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Attachment C: Continuum of Care Reports

- Attachment-C1:Point in Time Survey Report
- Attachment-C2: Project Homeless Connect Report

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Kings and Tulare Counties

2025

Point-In-Time Report

August 5, 2025



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Table of Contents

Summary.....	01
Methodology.....	02
Overview of Results.....	03
Kings and Tulare Counties.....	04
Kings County.....	07
Tulare County.....	10
City of Hanford.....	13
City of Porterville.....	16
City of Tulare.....	19
City of Visalia.....	22
Point in Time Survey.....	25
Survey Results.....	29
Report Book.....	45

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Acknowledgements

The considerable efforts and talents of many individuals helped to ensure the success of the Point in Time count in Kings and Tulare Counties. The Kings/Tulare Homeless Alliance would like to thank the U.S. Department of Housing and Urban Development and the Cities of Hanford, Porterville, Tulare, and Visalia for their ongoing support. The Kings/Tulare Homeless Alliance would like to thank jurisdiction staff, community members, and service providers, who facilitated the process of outreach and distributing surveys. Finally, the Kings/Tulare Homeless Alliance would like to express gratitude to the survey respondents and recognize the significance of their contribution to understanding the state of homelessness in the community.



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Summary

Each year, the Kings/Tulare Homeless Alliance conducts a Point in Time (PIT) count of the number of people experiencing sheltered and unsheltered homelessness within Kings and Tulare Counties. Information and data gathered through the PIT count are used by the Alliance and partner agencies to better understand the issues associated with homelessness including causes, service gaps, unmet housing needs, and homeless trends.

The Kings/Tulare Homeless Alliance is the local Continuum of Care on Homelessness and reports the findings of the Point in Time Count annually to the U.S Department of Housing and Urban Development (HUD). HUD requires all Continuum of Care on Homelessness (CoCs) to conduct a Point in Time Count.

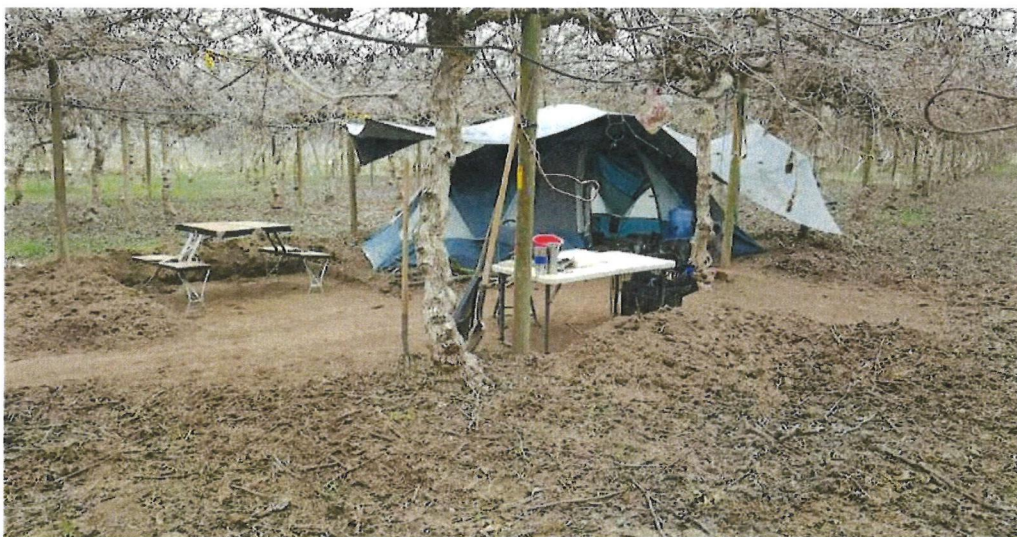


Methodology

Kings and Tulare Counties conducted their 2025 Point in Time (PIT) count on the night of January 26-27. Volunteers from local jurisdictions, law enforcement, the faith-based community, nonprofit partners, and community stakeholders came together to conduct short surveys with people who meet the United States Department of Housing and Urban Development's (HUD) definition of homeless. Volunteers canvassed locations where people experiencing homelessness tend to congregate including encampments, libraries, food distribution sites, etc. The PIT Report provides a snapshot of the people experiencing homelessness in Kings and Tulare Counties.

There were over 100 volunteers who participated in conducting surveys with people experiencing homeless in the 2025 PIT count. Some communities (Hanford, Porterville, and Visalia) did utilize regularly scheduled drop-in navigation centers to facilitate the count.

The Kings/Tulare Homeless Alliance led multiple meetings and trainings to plan the PIT count beginning in November of 2024. The Cities of Porterville, Tulare, and Visalia, as well as Kings County, each had their own PIT subcommittee led by two or three people knowledgeable about homelessness in the region. Decisions on canvassing/mapping, incentives, and overall approach were made by each subcommittee and supported by the Kings/Tulare Homeless Alliance.



Overview of Results

The 2025 PIT count saw a decrease of 200 individuals (1,672 people in 2024 vs. 1,472 people in 2025) or a 12% decrease in the number of people experiencing sheltered and unsheltered homelessness in Kings and Tulare Counties.

The number of people experiencing chronic homelessness increased by 48 individuals (468 people in 2024 vs. 516 in 2025), or a 10% increase.

Chronic homelessness is defined by HUD as an individual with one or more disabling conditions, or a family with a head of household with a disabling condition, who:

- Has been continuously homeless for one year or more and/or,
- Has experienced four or more episodes totaling 12 months or more of homelessness within the past three years.

There were 14 more people accessing emergency shelter beds in 2025 (237 individuals) than in 2024 (223 individuals), which is a 6% increase.

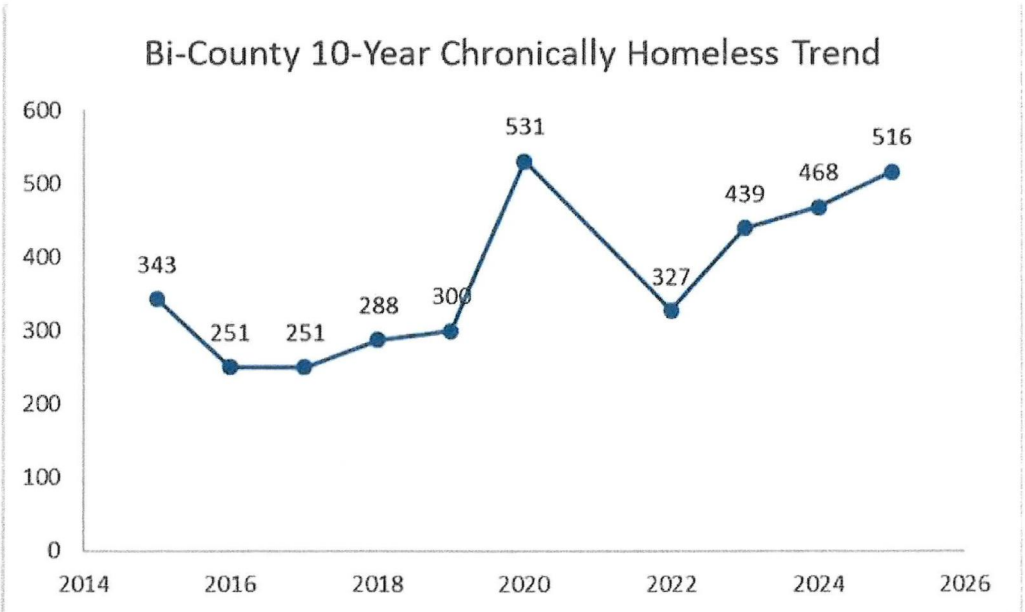
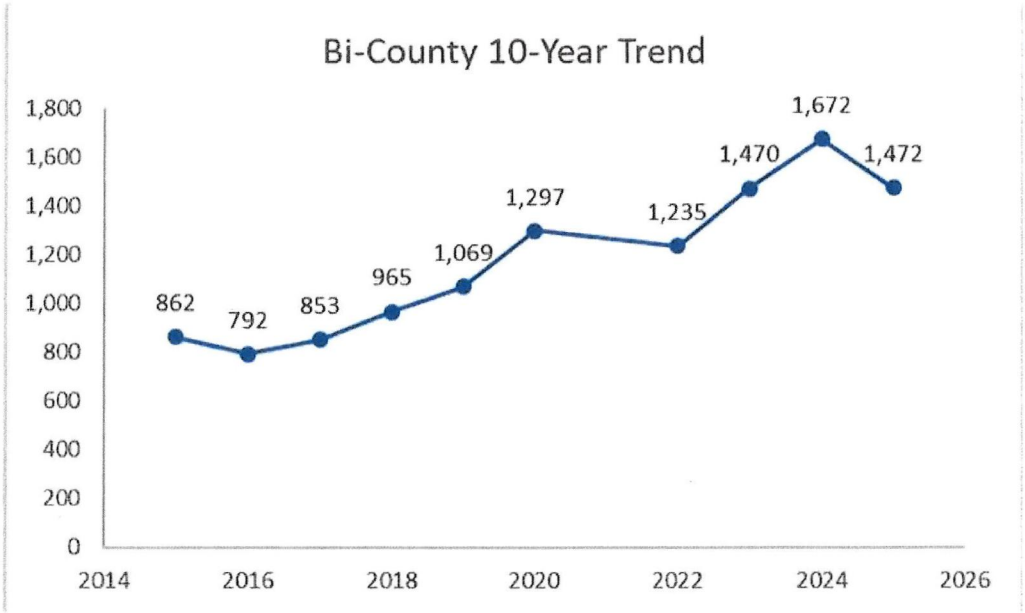
In the 2024 Point-in-Time (PIT) count, the City of Hanford recorded 371 individuals, compared to 280 in 2025, showing a decrease of 25%. The City of Porterville also saw a decline, from 309 individuals in 2024 to 267 in 2025, down 14% from the previous year. The City of Tulare experienced an increase of 7%, with 302 individuals in 2024 rising to 324 in 2025. The City of Visalia recorded 587 individuals in 2024 and 513 in 2025, reflecting a decrease of 13%.

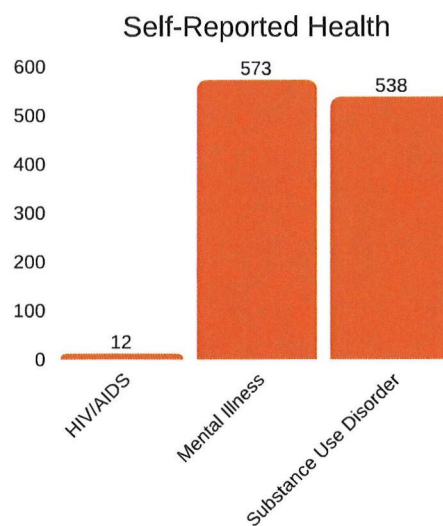
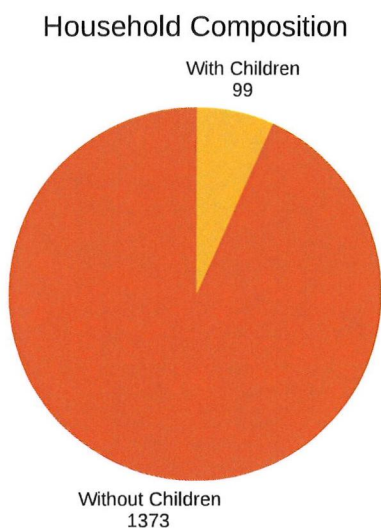
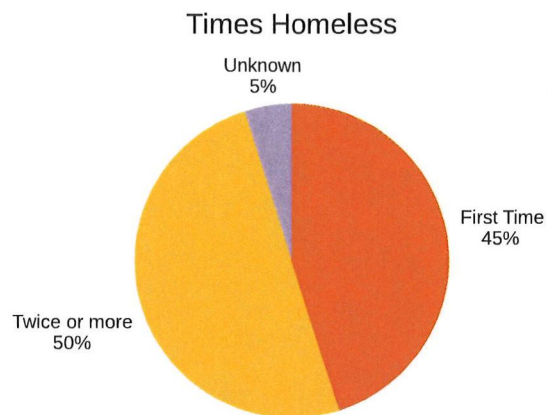
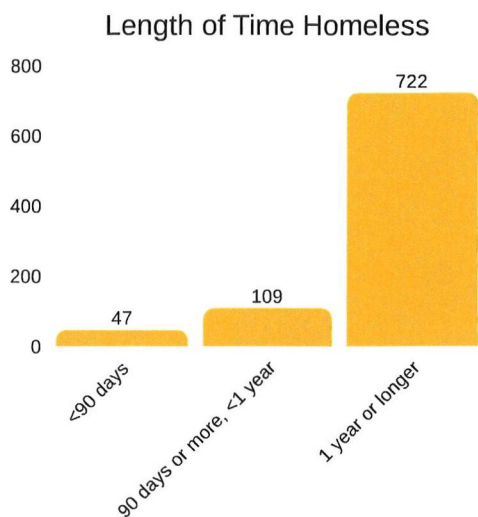
All efforts were made to uniformly support each community to conduct the PIT count and each was completed as accurately as possible

Kings and Tulare Counties

1,472 people experiencing homelessness

516 people are chronically homeless





1,135

People slept in an unsheltered location



57

People are veterans



237

People slept in an emergency shelter



607

People reported a disability



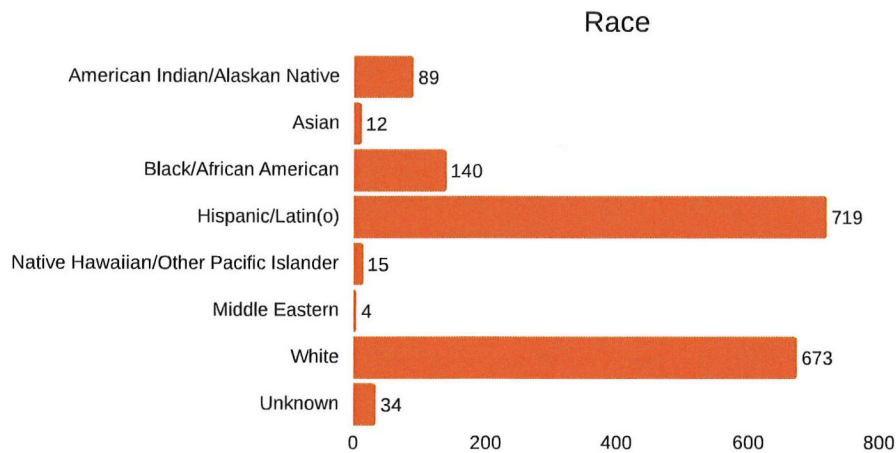
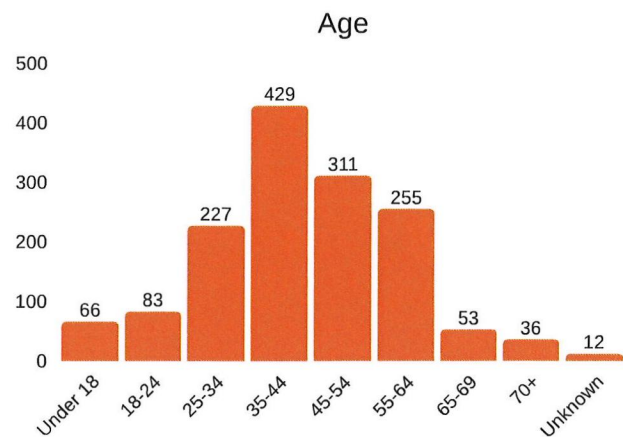
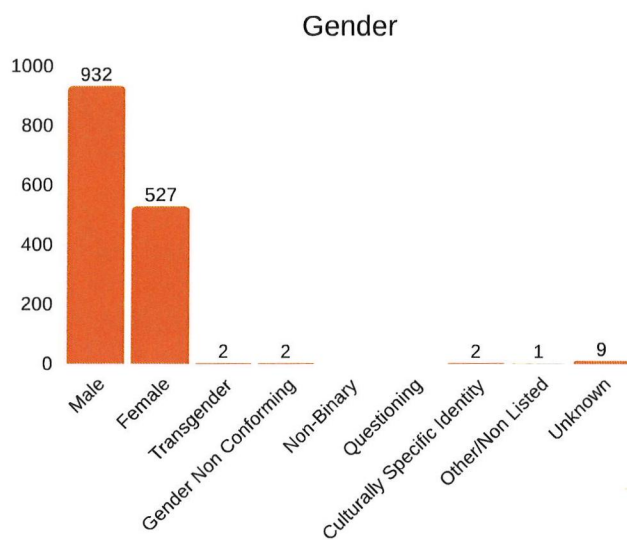
100

People slept in transitional housing



78

Unaccompanied youth



Services Currently Accessing



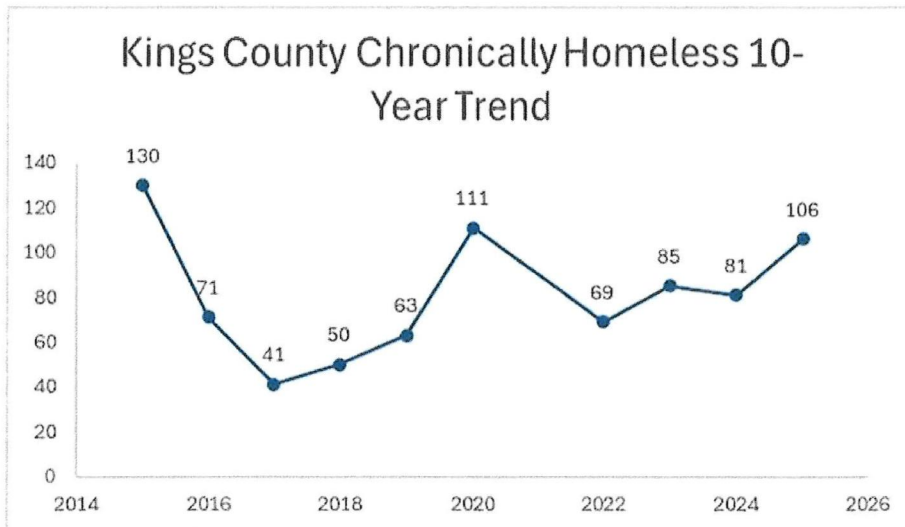
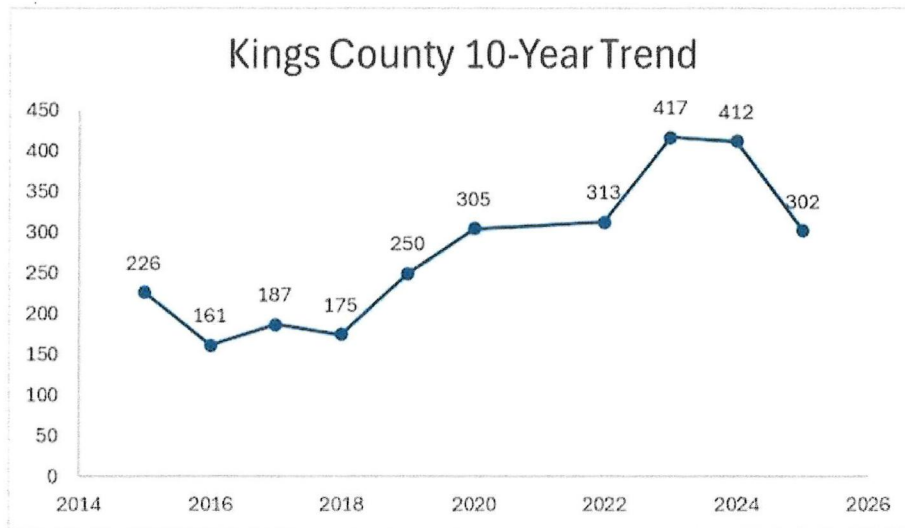
Primary Reasons for Homelessness

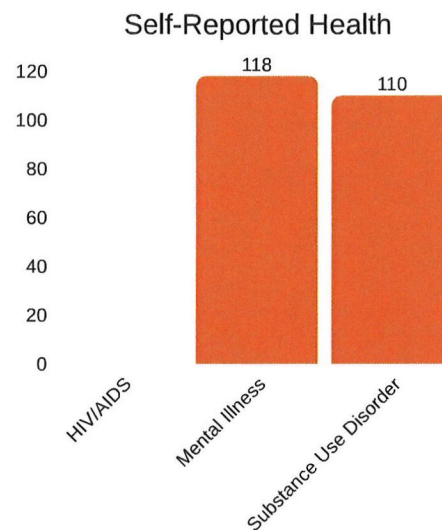
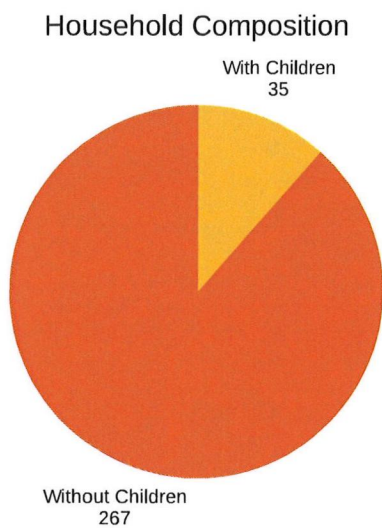
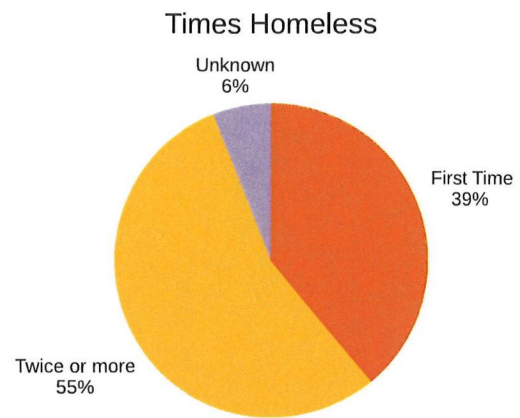


Kings County

302 people experiencing homelessness

106 people are chronically homeless





245

People slept in an unsheltered location



14

People are veterans



36

People slept in an emergency shelter



124

People reported a disability



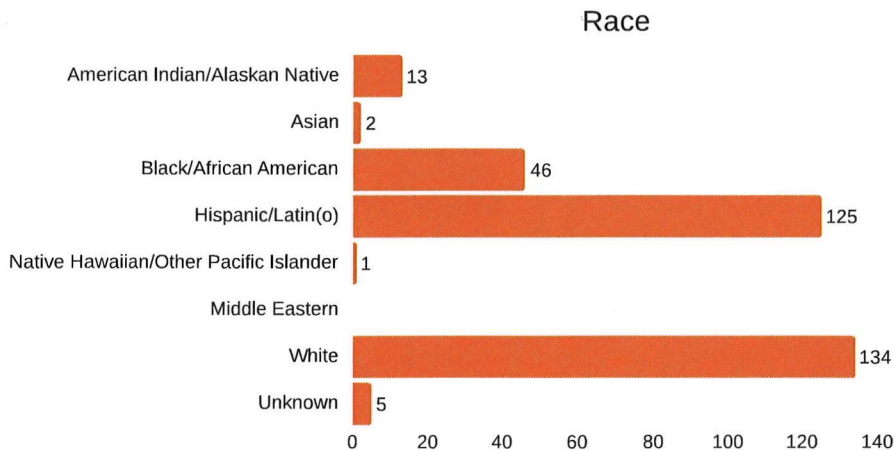
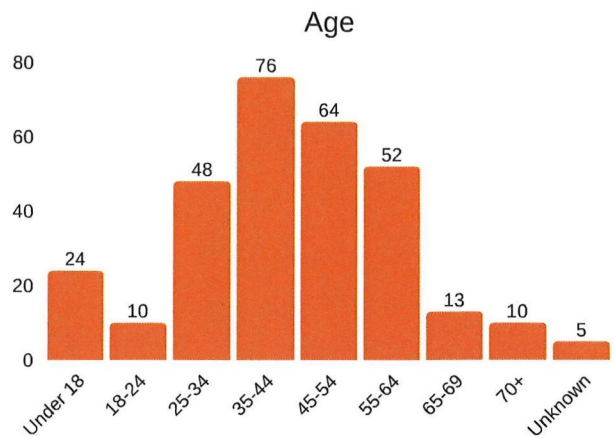
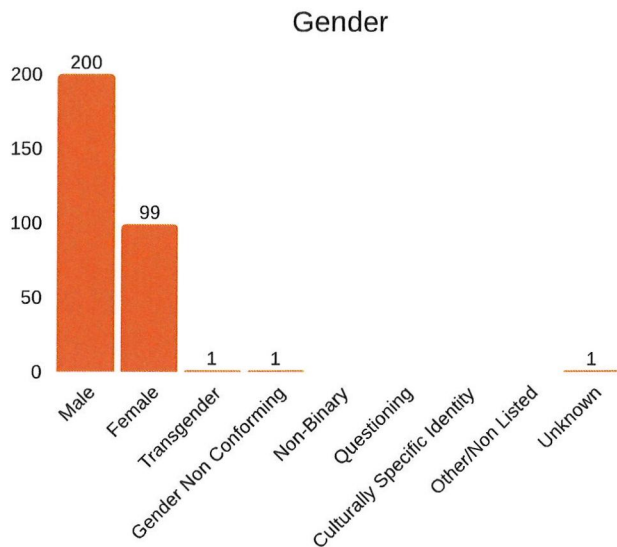
21

People slept in transitional housing



9

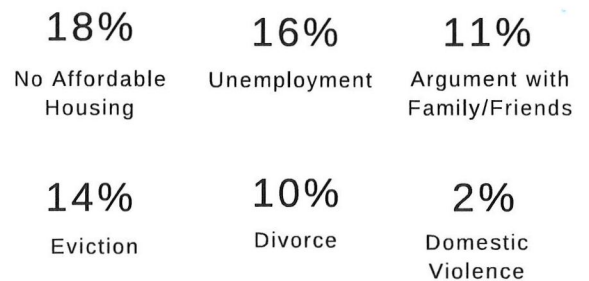
Unaccompanied youth



Services Currently Accessing



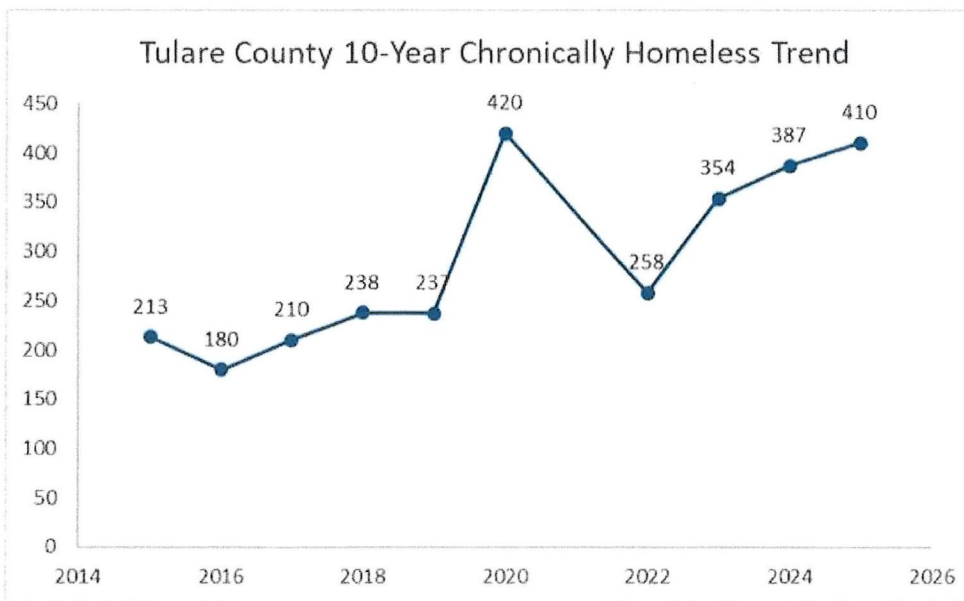
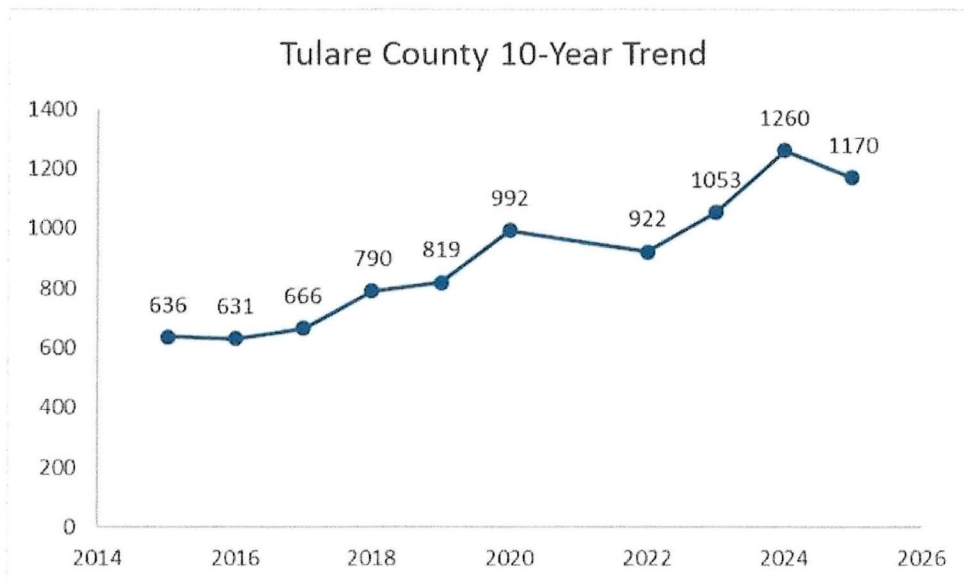
Primary Reasons for Homelessness

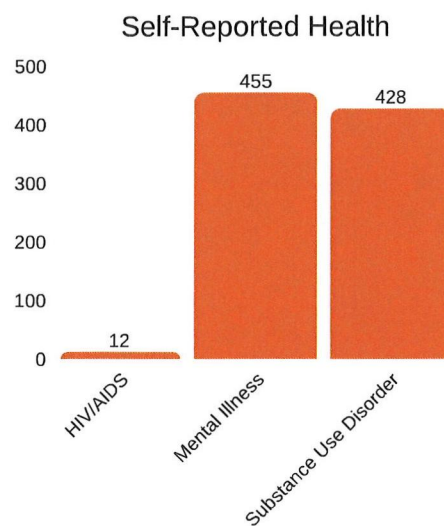
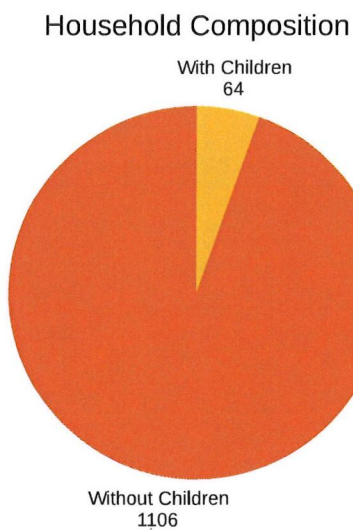
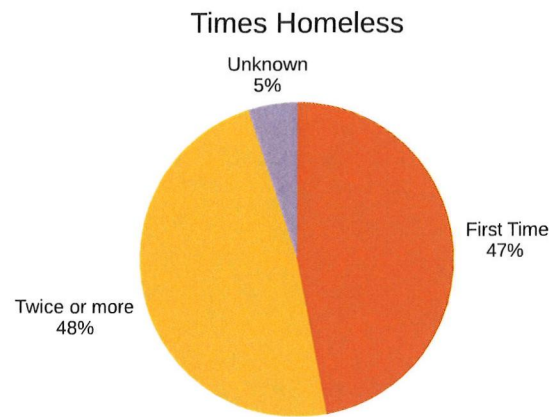
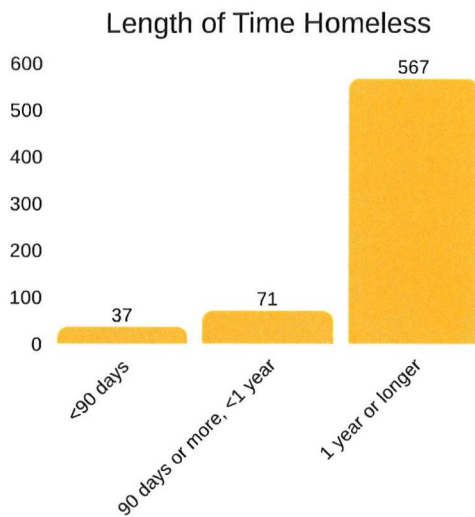


Tulare County

1,170 people experiencing homelessness

410 people are chronically homeless





890

People slept in an unsheltered location



43

People are veterans



201

People slept in an emergency shelter



483

People reported a disability



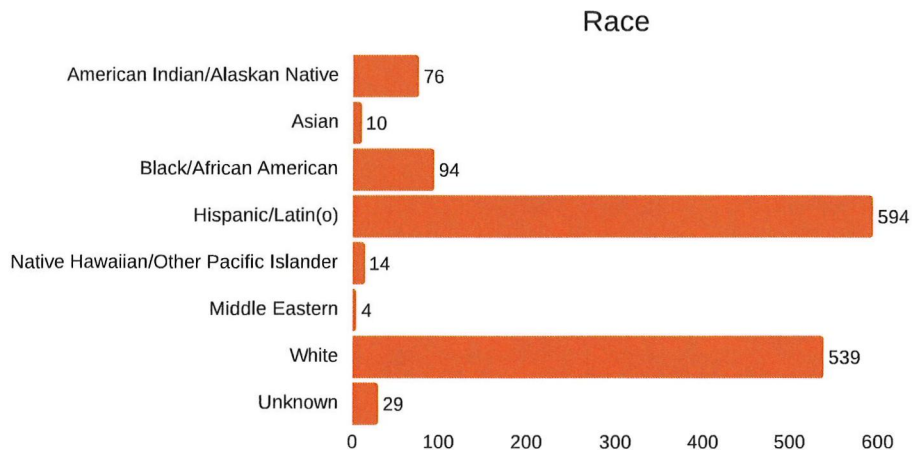
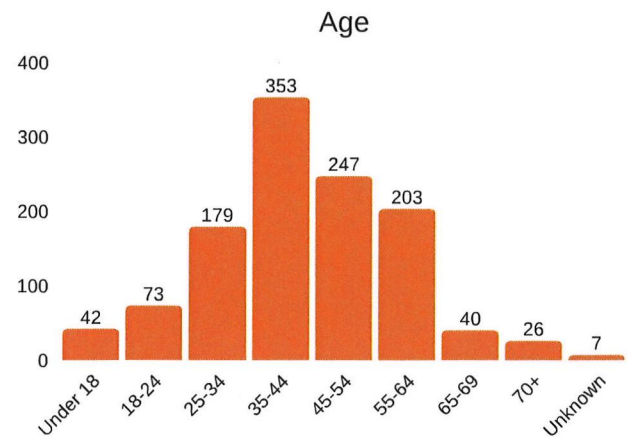
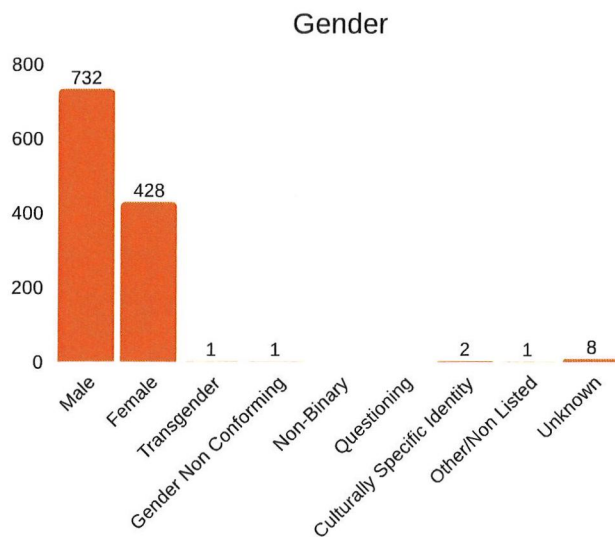
79

People slept in transitional housing



69

Unaccompanied youth



Services Currently Accessing



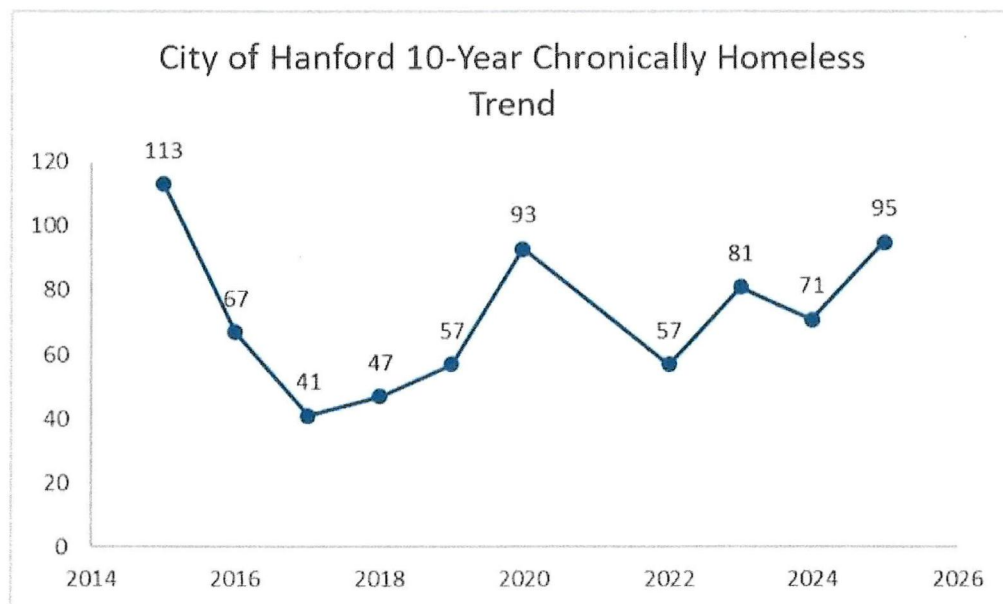
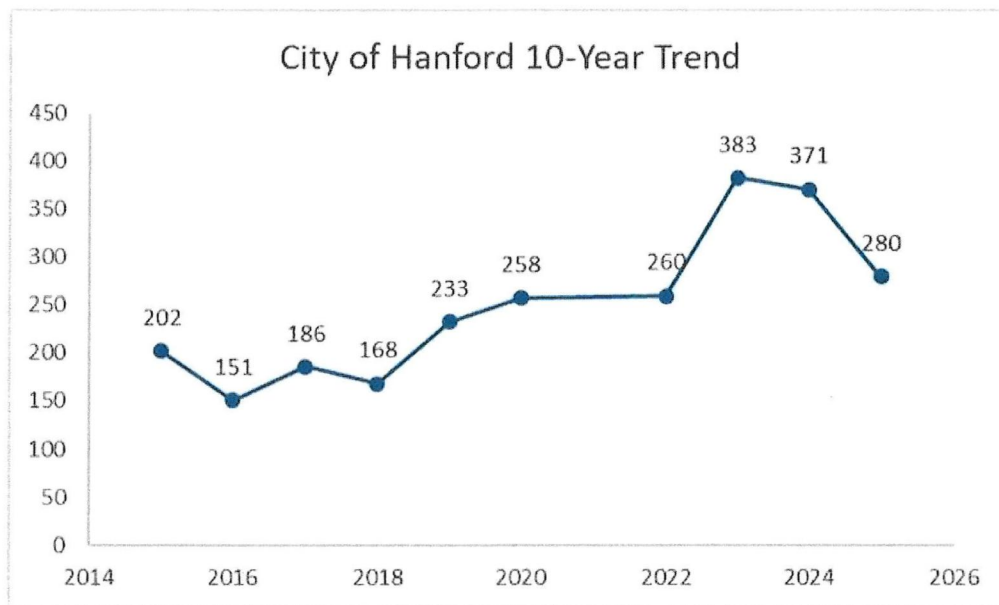
Primary Reasons for Homelessness

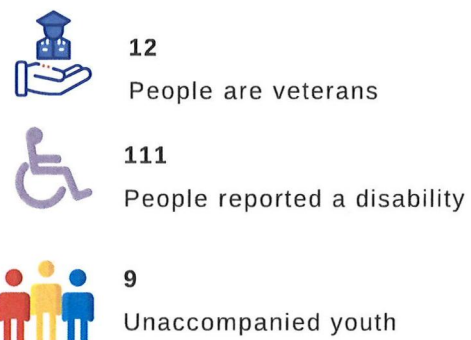
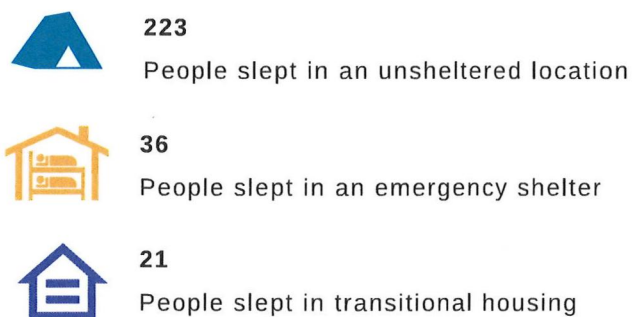
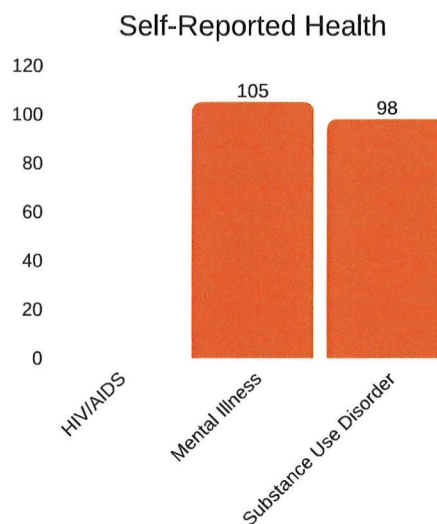
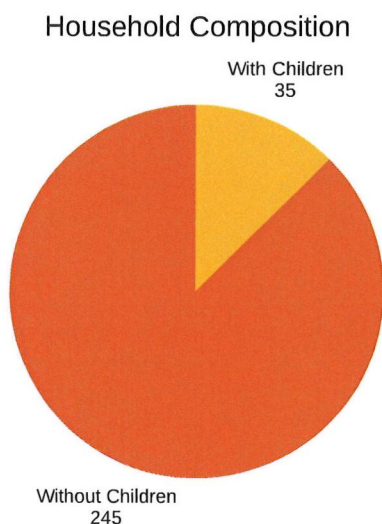
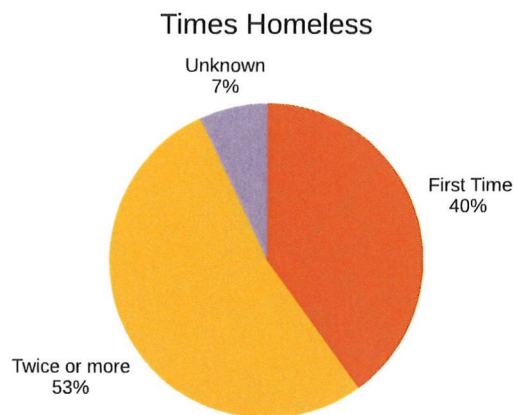
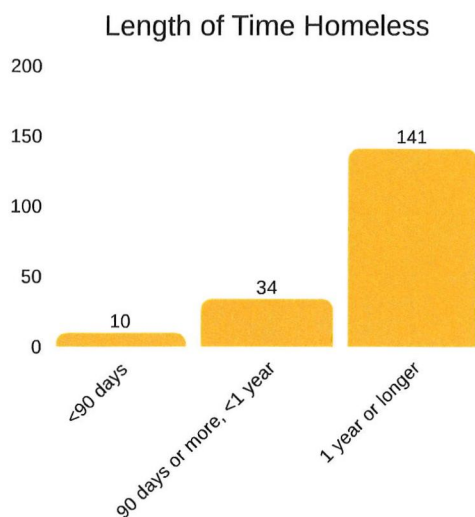


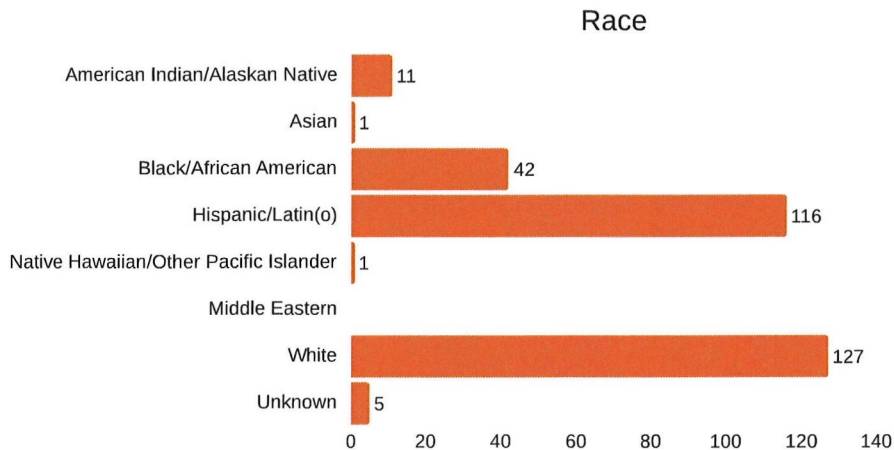
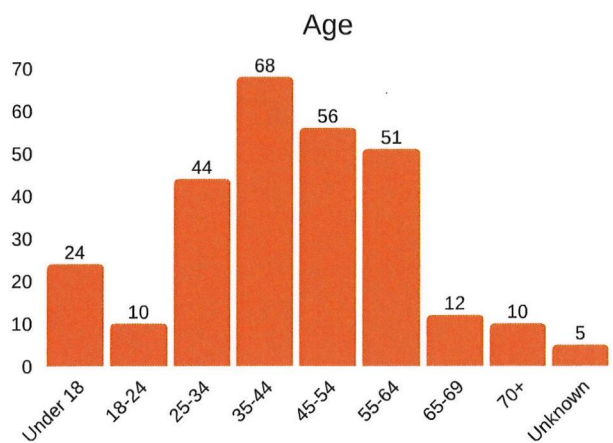
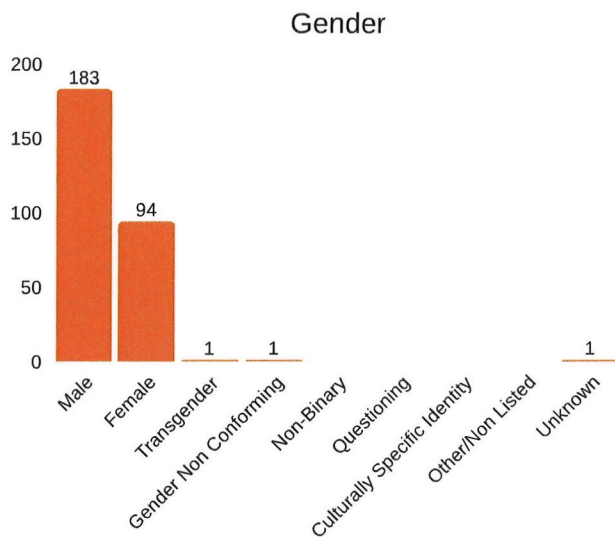
City of Hanford

280 people experiencing homelessness

95 people are chronically homeless



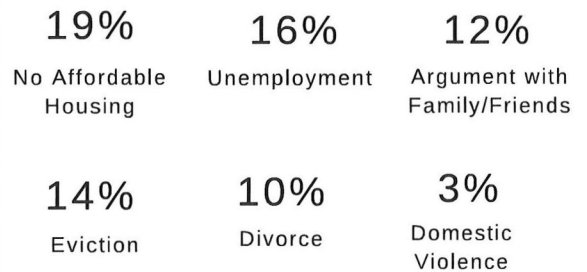




Services Currently Accessing



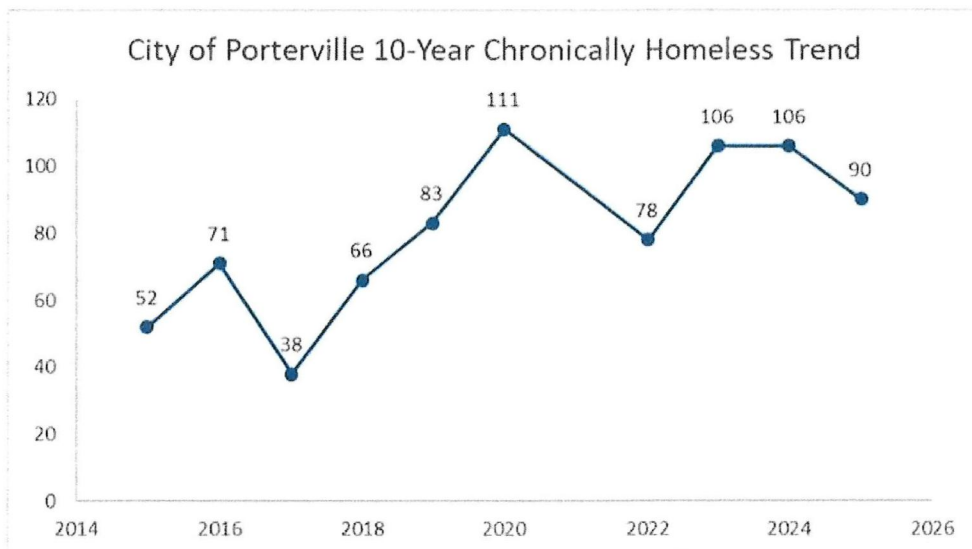
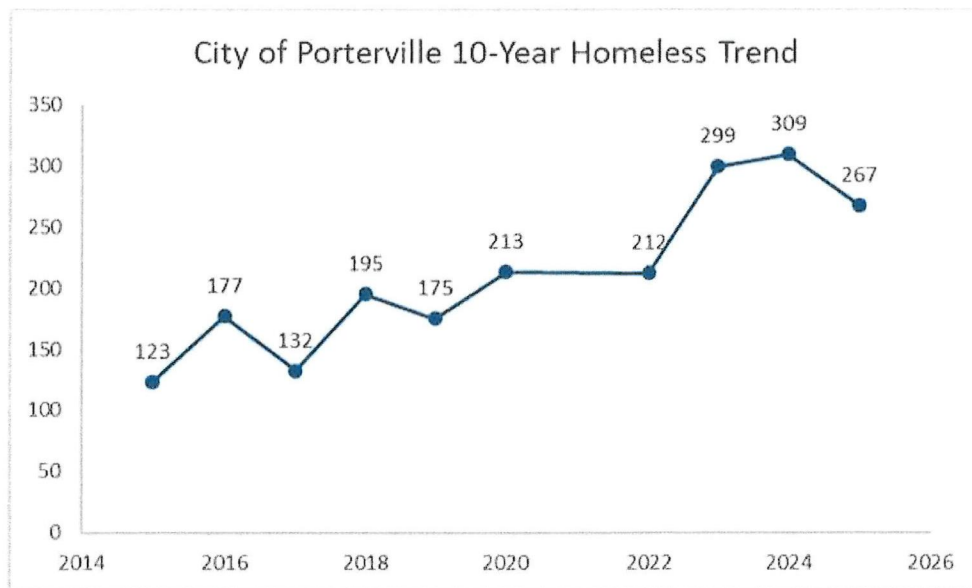
Primary Reasons for Homelessness

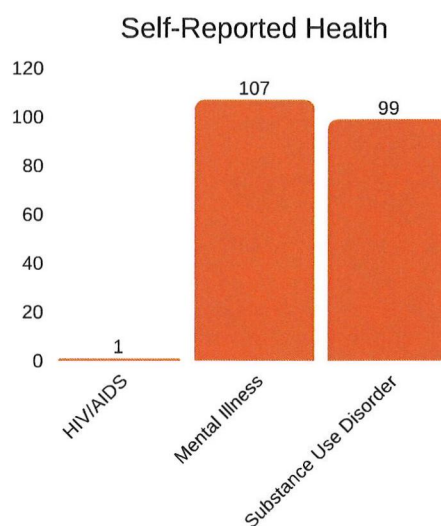
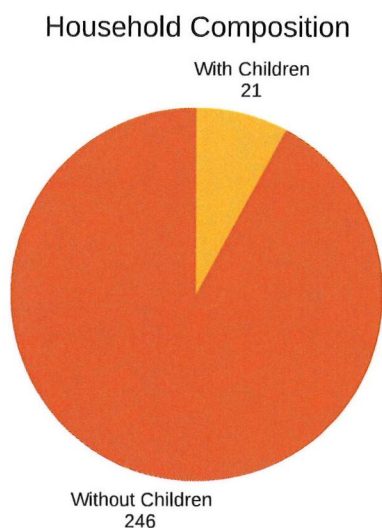
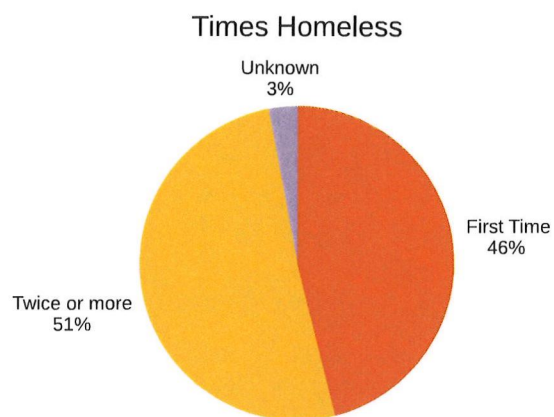
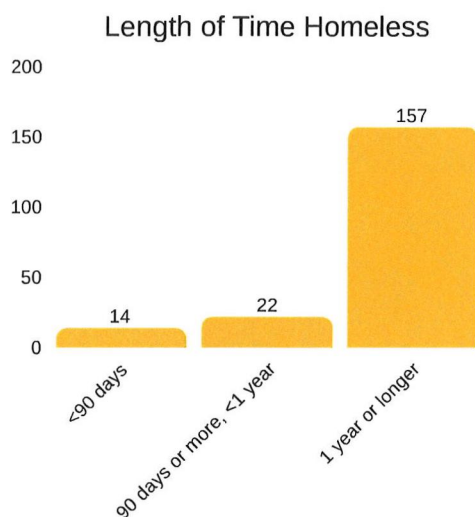


City of Porterville

267 people experiencing homelessness

90 people are chronically homeless





203

People slept in an unsheltered location



6

People are veterans



52

People slept in an emergency shelter



125

People reported a disability



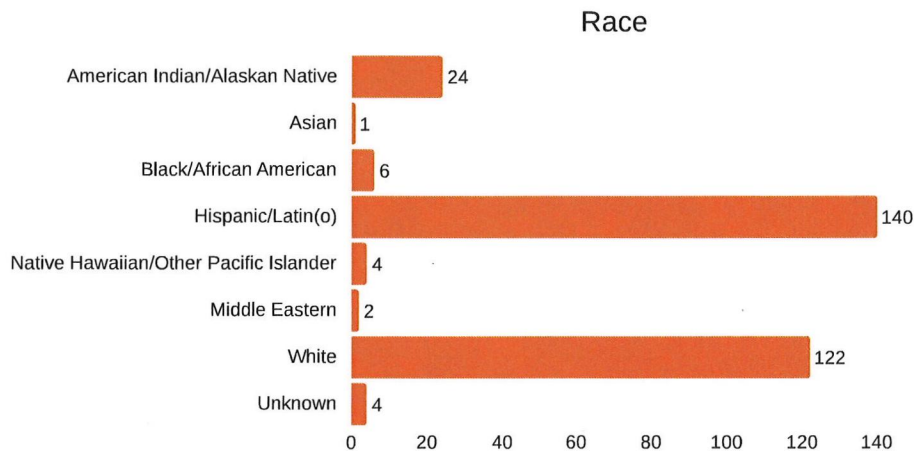
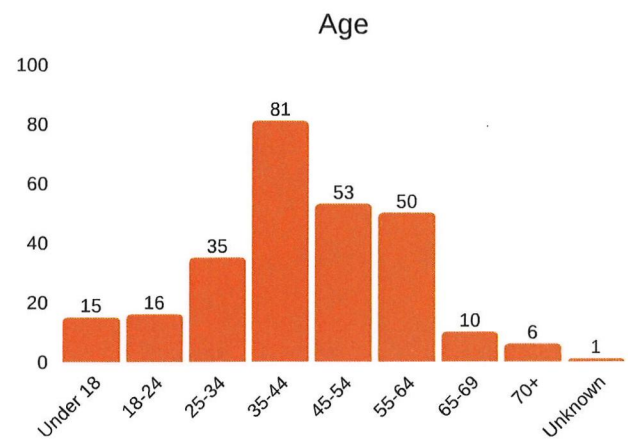
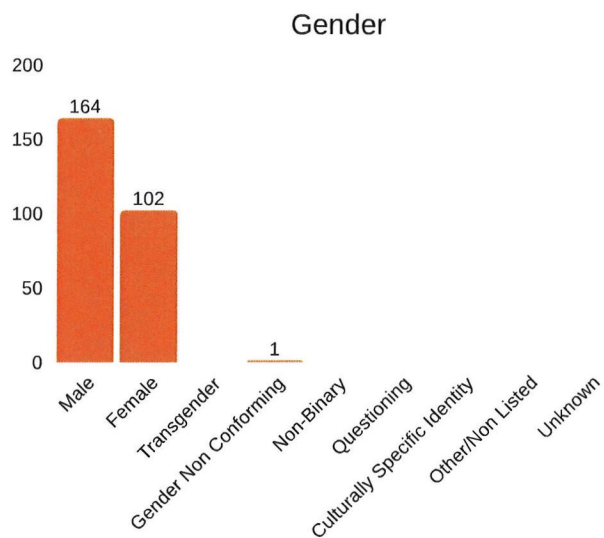
12

People slept in transitional housing



15

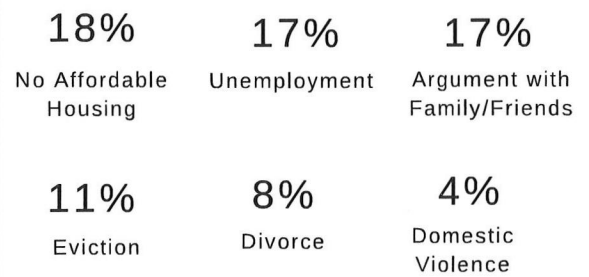
Unaccompanied youth



Services Currently Accessing



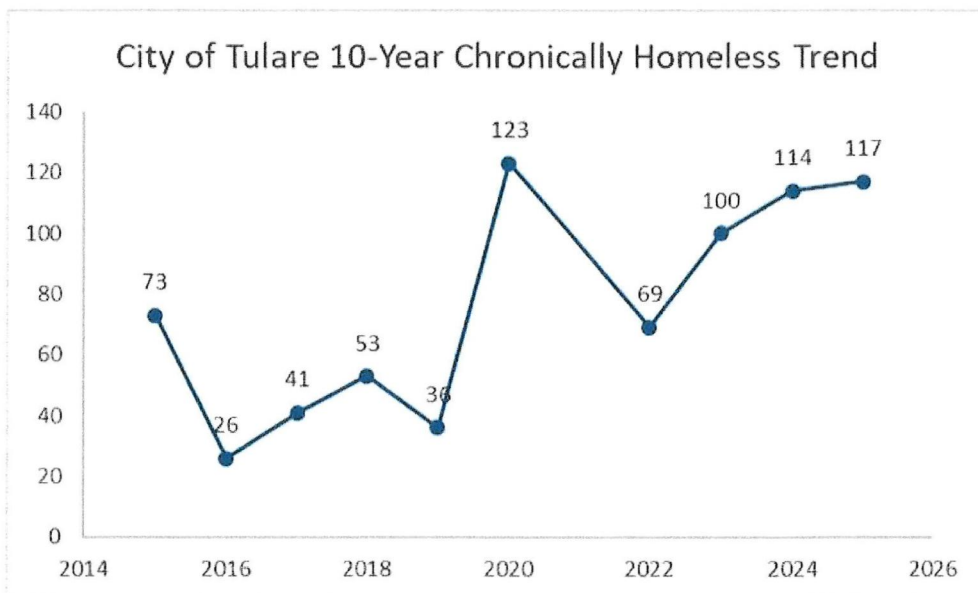
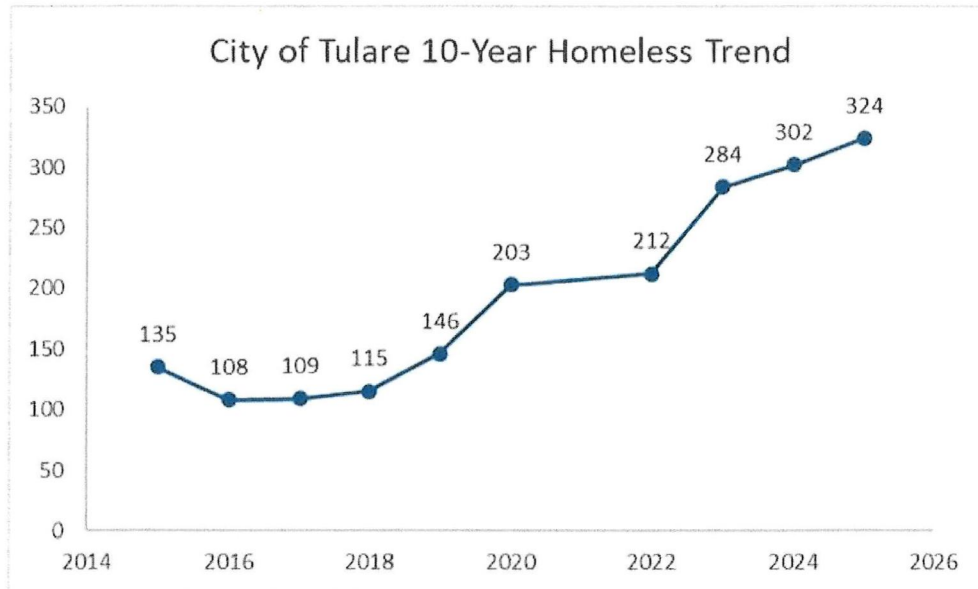
Primary Reasons for Homelessness

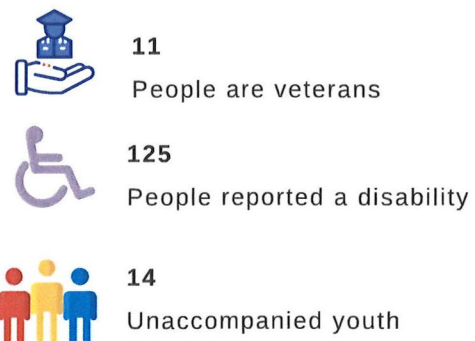
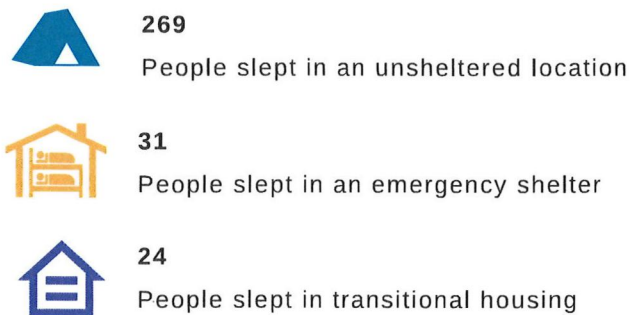
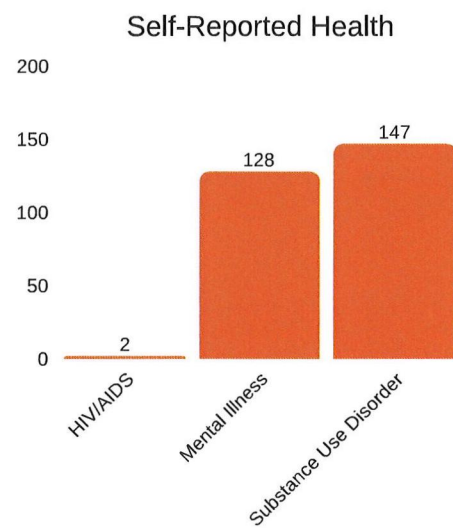
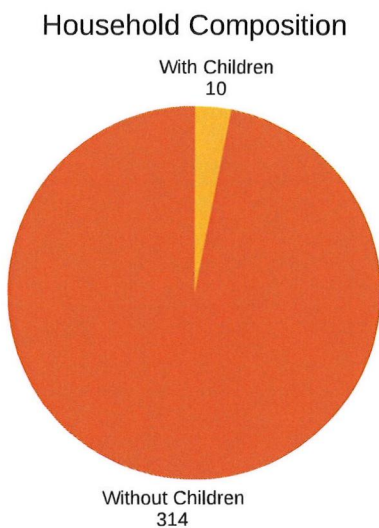
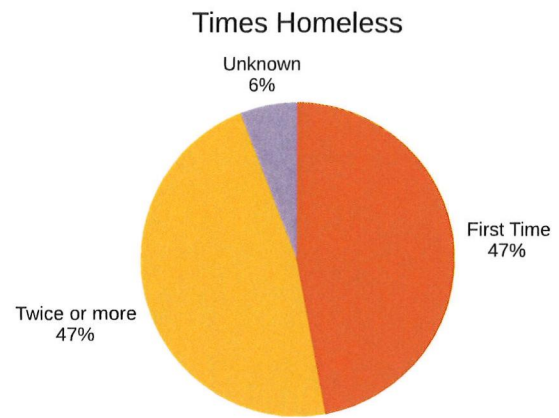
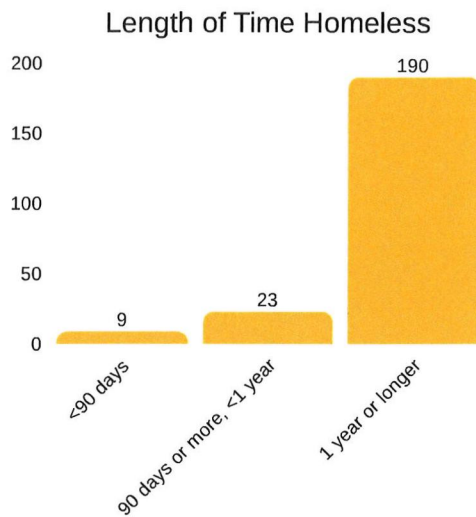


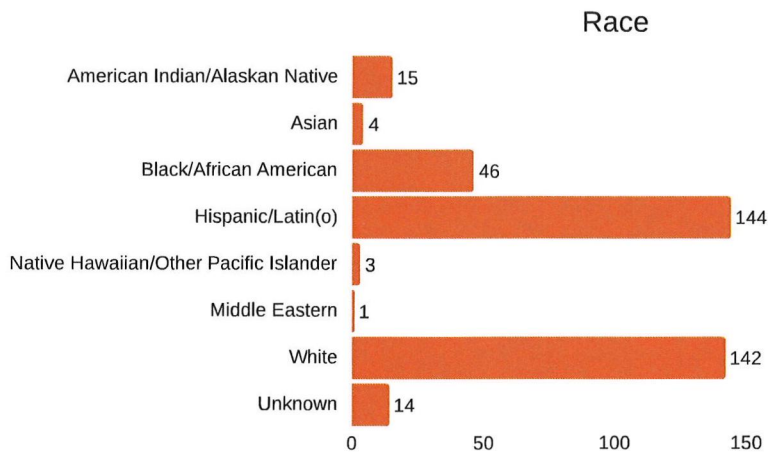
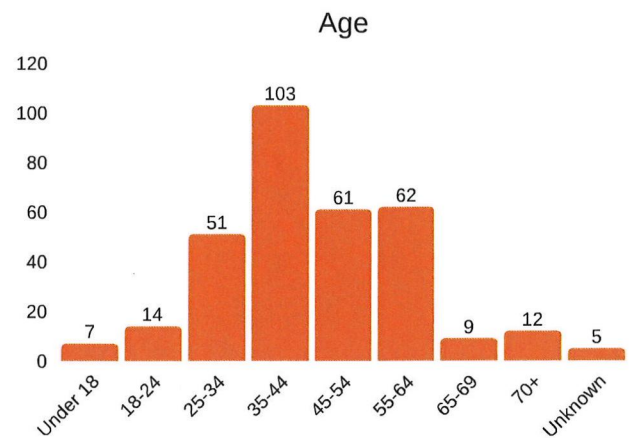
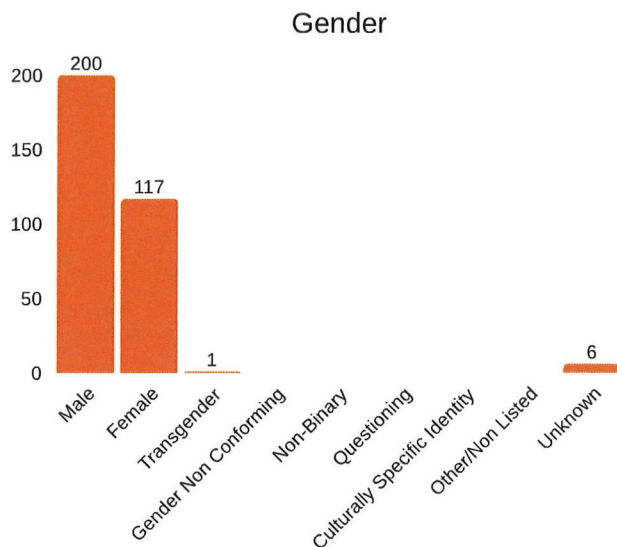
City of Tulare

324 people experiencing homelessness

117 people are chronically homeless







Services Currently Accessing



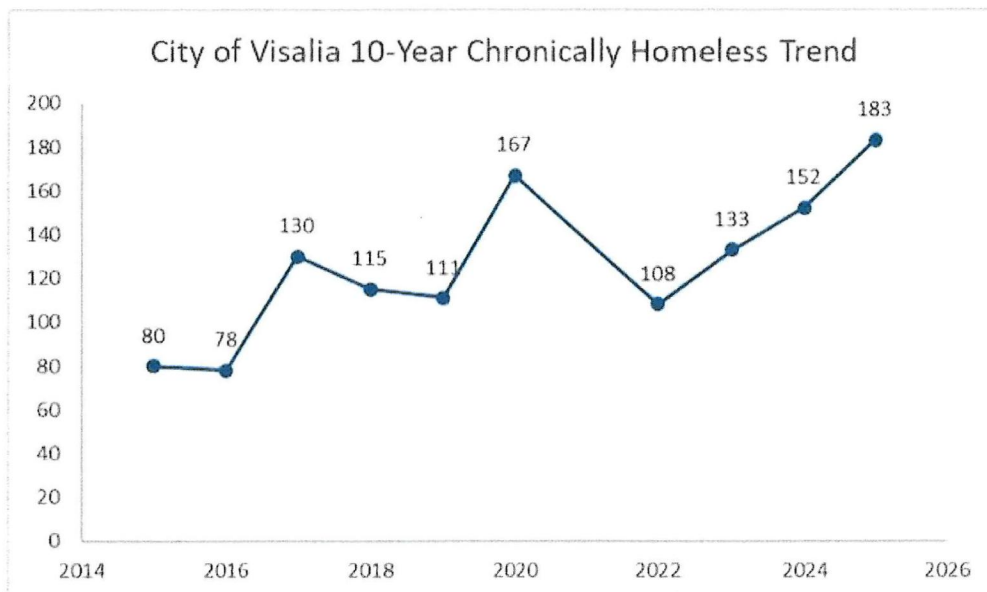
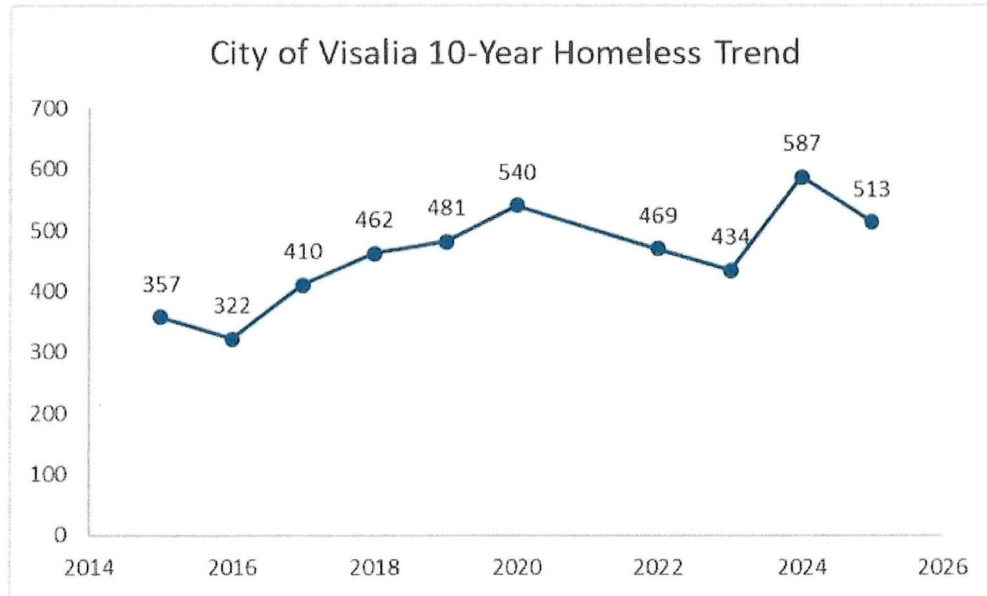
Primary Reasons for Homelessness

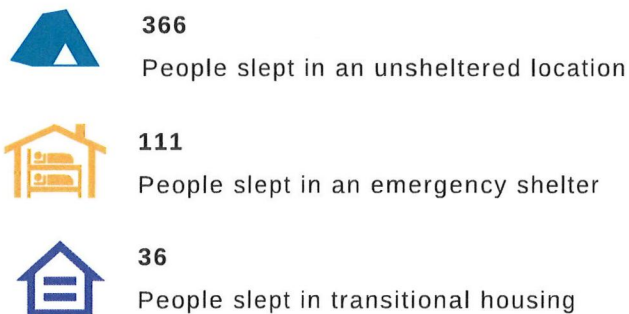
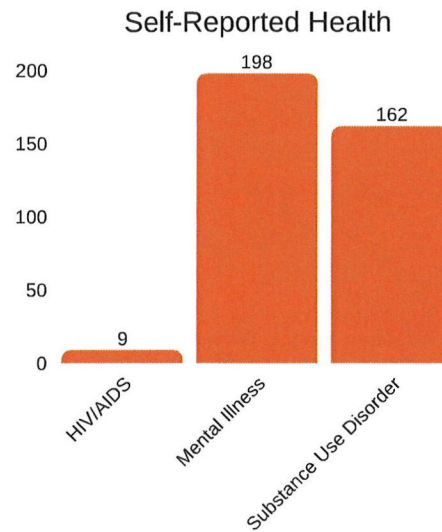
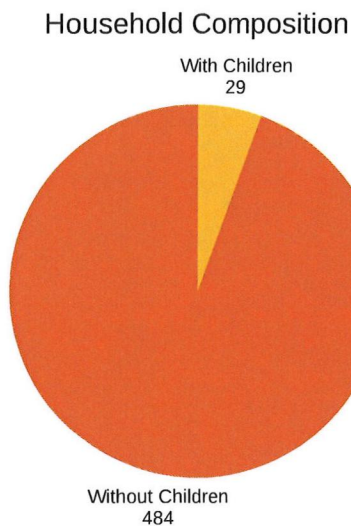
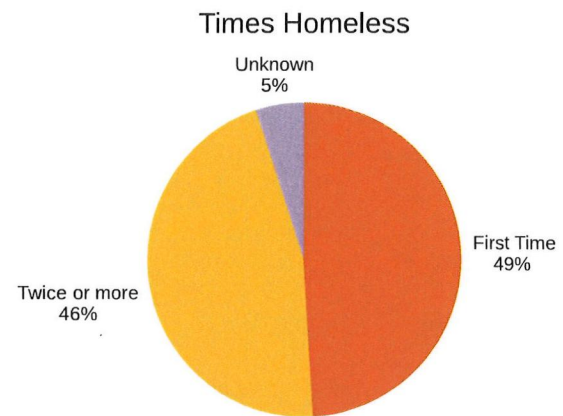


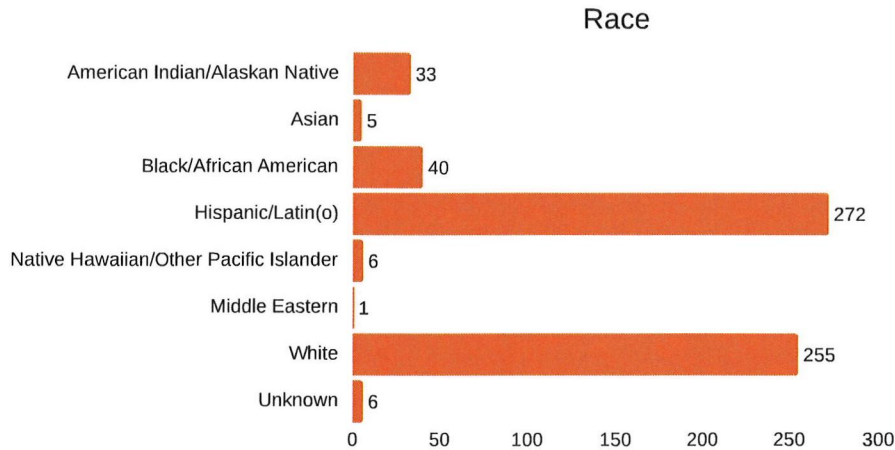
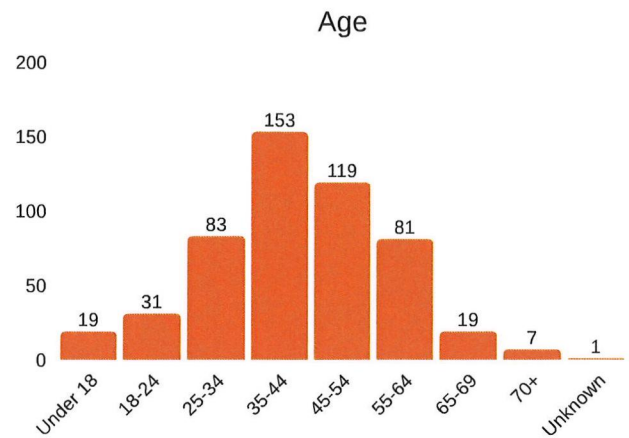
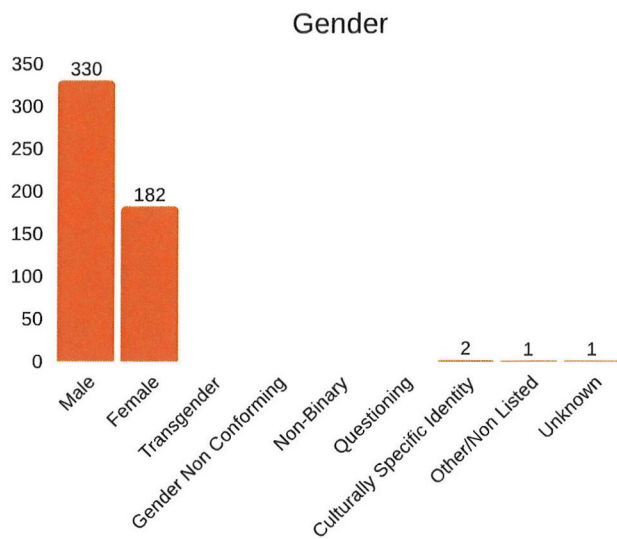
City of Visalia

513 people experiencing homelessness

183 people are chronically homeless







Services Currently Accessing



Primary Reasons for Homelessness



Survey Results, by Location

Kings and Tulare Counties: Sheltered and Unsheltered

Kings and Tulare Counties: Sheltered

Kings and Tulare Counties: Unsheltered

Kings County: Sheltered and Unsheltered

Kings County: Sheltered

Kings County: Unsheltered

Kings County: City of Hanford

Kings County: Balance of County

Tulare County: Sheltered and Unsheltered

Tulare County: Sheltered

Tulare County: Unsheltered

Tulare County: City of Porterville

Tulare County: City of Tulare

Tulare County: City of Visalia

Tulare County: Balance of County



Hello, my name is _____ and I'm a volunteer for the Kings Tulare Homeless Alliance. We are conducting a survey to count homeless people to provide better programs and services to them. Your participation is voluntary and your responses to questions will not be shared with anyone outside of our team. I need to read each question all the way through. Can I have about 10 minutes of your time?

1. Have you completed this survey earlier today or earlier this week?

☐ Yes (Discontinue Survey) ☐ No (continue with Q2)

2. Where did you/Person [2-4] sleep on Sunday night? [DO NOT READ CATEGORIES. SELECT ONLY ONE CATEGORY.]

☐ Place not meant for habitation (Street or Sidewalk, car, van, RV, truck, Park, Abandoned Building, Bus, train station)

[CONTINUE TO Q3]

☐ Emergency shelter

☐ Transitional housing

☐ At Risk/Other (hotel, house/apartment, jail, hospital, treatment program, nursing home)

[DISCONTINUE SURVEY, HOUSEHOLD NOT UNSHELTERED HOMELESS]

3. Which city are you currently staying in?

4. What are the names of the people in your household from oldest to youngest, including yourself?

Person 1

Person 2

Person 3

Person 4

First Name and Last Name

First Name and Last Name

First Name and Last Name

First Name and Last Name

How is [state name] related to you/Person 1?

Self

☐ Child

☐ Spouse

☐ Other Family

☐ Non-Married Partner

☐ Other, Non-Family

☐ Child

☐ Spouse

☐ Other Family

☐ Non-Married Partner

☐ Other, Non-Family

☐ Child

☐ Spouse

☐ Other Family

☐ Non-Married Partner

☐ Other, Non-Family

5. What is your/Person [2-4] Date of Birth?
[If DOB is unknown, enter age]

____/____/____

____/____/____

____/____/____

____/____/____

6. What is your/Person [2-4] Age?

7. What is your/Person [2-4] last four of SSN?

☐ Not Sure/Refused

☐ Not Sure/Refused

☐ Not Sure/Refused

☐ Not Sure/Refused

DRAFT

8. What is your/Person [2-4] gender? [SELECT ALL THAT APPLY]	☐ Man (boy if child) ☐ Woman (girl if child) ☐ Non-Binary ☐ Transgender ☐ Questioning ☐ Culturally Specific Identity (e.g. two-spirit) ☐ Different Identity ☐ Not Sure/Refused	☐ Man (boy if child) ☐ Woman (girl if child) ☐ Non-Binary ☐ Transgender ☐ Questioning ☐ Culturally Specific Identity (e.g. two-spirit) ☐ Different Identity ☐ Not Sure/Refused	☐ Man (boy if child) ☐ Woman (girl if child) ☐ Non-Binary ☐ Transgender ☐ Questioning ☐ Culturally Specific Identity (e.g. two-spirit) ☐ Different Identity ☐ Not Sure/Refused	☐ Man (boy if child) ☐ Woman (girl if child) ☐ Non-Binary ☐ Transgender ☐ Questioning ☐ Culturally Specific Identity (e.g. two-spirit) ☐ Different Identity ☐ Not Sure/Refused
9. What is your/Person [2-4] sexual orientation?	☐ Straight/Heterosexual ☐ Gay ☐ Lesbian ☐ Bisexual ☐ Two Spirit ☐ Questioning ☐ Queer ☐ Other/Not listed ☐ Not Sure/Refused	☐ Straight/Heterosexual ☐ Gay ☐ Lesbian ☐ Bisexual ☐ Two Spirit ☐ Questioning ☐ Queer ☐ Other/Not listed ☐ Not Sure/Refused	☐ Straight/Heterosexual ☐ Gay ☐ Lesbian ☐ Bisexual ☐ Two Spirit ☐ Questioning ☐ Queer ☐ Other/Not listed ☐ Not Sure/Refused	☐ Straight/Heterosexual ☐ Gay ☐ Lesbian ☐ Bisexual ☐ Two Spirit ☐ Questioning ☐ Queer ☐ Other/Not listed ☐ Not Sure/Refused
10. What is your/Person [2-4] Race? [SELECT ALL THAT APPLY]	☐ American Indian, Alaska Native, or Indigenous ☐ Asian/Asian American ☐ Black/African American/African ☐ Native Hawaiian or Pacific Islander ☐ White ☐ Middle Eastern/North African ☐ Hispanic/Latina/e/o ☐ Not Sure/Refused	☐ American Indian, Alaska Native, or Indigenous ☐ Asian/Asian American ☐ Black/African American/African ☐ Native Hawaiian or Pacific Islander ☐ White ☐ Middle Eastern/North African ☐ Hispanic/Latina/e/o ☐ Not Sure/Refused	☐ American Indian, Alaska Native, or Indigenous ☐ Asian/Asian American ☐ Black/African American/African ☐ Native Hawaiian or Pacific Islander ☐ White ☐ Middle Eastern/North African ☐ Hispanic/Latina/e/o ☐ Not Sure/Refused	☐ American Indian, Alaska Native, or Indigenous ☐ Asian/Asian American ☐ Black/African American/African ☐ Native Hawaiian or Pacific Islander ☐ White ☐ Middle Eastern/North African ☐ Hispanic/Latina/e/o ☐ Not Sure/Refused
11. Are you affiliated with a Tribal Nation?	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No

DRAFT

If yes to Q11, Name of Tribe:	_____	_____	_____	_____
12. Do you currently have a disability that is of long and indefinite duration? (This could include any situation listed below that keeps you from holding a job or living in stable housing.)	☐ Yes ☐ No ☐ Not Sure/Refused	☐ Yes ☐ No ☐ Not Sure/Refused	☐ Yes ☐ No ☐ Not Sure/Refused	☐ Yes ☐ No ☐ Not Sure/Refused
13. Have you/Person [2-4] served on active Duty in the US Military? [ADULTS ONLY]	☐ Yes ☐ No ☐ Not Sure/Refused	☐ Yes ☐ No ☐ Not Sure/Refused	☐ Yes ☐ No ☐ Not Sure/Refused	☐ Yes ☐ No ☐ Not Sure/Refused
14. If yes to Q13] What is the Discharge Status on your/Person [2-4] DD214? [ADULTS ONLY]	_____	_____	_____	_____
15. [If yes to Q13] Have you/Person [2-4] ever received health care or benefits from a Veterans Administration medical center? [ADULTS ONLY]	☐ Yes ☐ No ☐ Not Sure/Refused	☐ Yes ☐ No ☐ Not Sure/Refused	☐ Yes ☐ No ☐ Not Sure/Refused	☐ Yes ☐ No ☐ Not Sure/Refused
16. How long have you /Person [2-4] been in this episode of homelessness?	☐ One night or less ☐ 2-6 nights ☐ > 1 week, less than 1 month ☐ > 1 month, less than 90 days ☐ >= 90 days, less than 1 year ☐ 1 year or longer ☐ Not Sure/Refused	☐ One night or less ☐ 2-6 nights ☐ > 1 week, less than 1 month ☐ > 1 month, less than 90 days ☐ >= 90 days, less than 1 year ☐ 1 year or longer ☐ Not Sure/Refused	☐ One night or less ☐ 2-6 nights ☐ > 1 week, less than 1 month ☐ > 1 month, less than 90 days ☐ >= 90 days, less than 1 year ☐ 1 year or longer ☐ Not Sure/Refused	☐ One night or less ☐ 2-6 nights ☐ > 1 week, less than 1 month ☐ > 1 month, less than 90 days ☐ >= 90 days, less than 1 year ☐ 1 year or longer ☐ Not Sure/Refused
17. Approximate Date this episode of Homelessness Started for you/Person [2-4]?	____/____/____	____/____/____	____/____/____	____/____/____
18. How many times have you/Person [2-4] been homeless on the streets, emergency shelter, or safe haven in the past 3 years, including today?	☐ One Time ☐ Two Times ☐ Three Times ☐ Four or More Times ☐ Not Sure/Refused	☐ One Time ☐ Two Times ☐ Three Times ☐ Four or More Times ☐ Not Sure/Refused	☐ One Time ☐ Two Times ☐ Three Times ☐ Four or More Times ☐ Not Sure/Refused	☐ One Time ☐ Two Times ☐ Three Times ☐ Four or More Times ☐ Not Sure/Refused
19. How many months have you/Person [2-4] been homeless in the past 3 years?	☐ This is the 1 st mo. ☐ 2-12 mo. (#____) ☐ More than 12 mo. ☐ Not Sure/Refused	☐ This is the 1 st mo. ☐ 2-12 mo. (#____) ☐ More than 12 mo. ☐ Not Sure/Refused	☐ This is the 1 st mo. ☐ 2-12 mo. (#____) ☐ More than 12 mo. ☐ Not Sure/Refused	☐ This is the 1 st mo. ☐ 2-12 mo. (#____) ☐ More than 12 mo. ☐ Not Sure/Refused

DRAFT

[ONLY ASK Q20 – Q23 TO PERSONS AGE 18 AND OLDER & YOUTH HEAD OF HOUSEHOLDS]

20. Do you/Does Person [2-4] drink alcohol or use drugs (illegal or prescription for non-medical reasons)?	☐ No ☐ Alcohol ☐ Drugs ☐ Not Sure/Refused	☐ No ☐ Alcohol ☐ Drugs ☐ Not Sure/Refused	☐ No ☐ Alcohol ☐ Drugs ☐ Not Sure/Refused	☐ No ☐ Alcohol ☐ Drugs ☐ Not Sure/Refused
21. Do you/Does Person [2-4] have psychiatric or emotional conditions such as depression or schizophrenia?	☐ Yes ☐ No ☐ Not Sure/Refused	☐ Yes ☐ No ☐ Not Sure/Refused	☐ Yes ☐ No ☐ Not Sure/Refused	☐ Yes ☐ No ☐ Not Sure/Refused
22. Do you/Does Person [2-4] have AIDS or an HIV-related illness?	☐ Yes ☐ No ☐ Not Sure/Refused	☐ Yes ☐ No ☐ Not Sure/Refused	☐ Yes ☐ No ☐ Not Sure/Refused	☐ Yes ☐ No ☐ Not Sure/Refused
23. Are you/Is Person [2-4] experiencing homelessness because you are currently fleeing domestic violence, dating violence, sexual assault, or stalking? [IF YES, ASK IF IN IMMINENT THREAT OF HARM. IF YES, CONTACT AUTHORITIES IMMEDIATELY.]	☐ Yes ☐ No ☐ Not Sure/Refused	☐ Yes ☐ No ☐ Not Sure/Refused	☐ Yes ☐ No ☐ Not Sure/Refused	☐ Yes ☐ No ☐ Not Sure/Refused
24. What is your household's primary reason for being homeless? [SELECT ONLY ONE REASON]	☐ Alcohol/Drug use ☐ Medical condition ☐ Mental health condition ☐ Argument with family /friends ☐ Domestic violence ☐ Hospital discharge ☐ Jail/Prison discharge ☐ Divorce/Separation ☐ Eviction ☐ Foreclosure ☐ No affordable housing ☐ Substandard housing ☐ Aged out of foster care ☐ Lost public assistance/benefits ☐ Unemployment/loss of income ☐ Pets not allowed ☐ Other: _____ ☐ Not Sure/Refused			
25. Do you/Does Person [2-4] receive any of the following income/public benefits? [SELECT ALL THAT APPLY]	☐ Earned Income ☐ Unemployment ☐ SSI ☐ SSDI ☐ VA Service-Connected Disability Comp ☐ VA Non-Service-Connected Disability Comp ☐ Private Disability Insurance ☐ Worker's Compensation ☐ TANF ☐ General Assistance ☐ Retirement Income from Social Security ☐ Pension or Retirement from a Former Job ☐ Child Support ☐ Alimony or Other Spousal Support ☐ Food Stamps ☐ Medi-Cal ☐ Other Source _____ ☐ No Benefits Received ☐ Not Sure/Refused		26. In your opinion, what do you need to end your homelessness?	

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2025 POINT IN TIME REPORT

Survey Results, by Location

Kings and Tulare Counties: Sheltered and Unsheltered

Kings and Tulare Counties: Sheltered

Kings and Tulare Counties: Unsheltered

Kings County: Sheltered and Unsheltered

Kings County: Sheltered

Kings County: Unsheltered

Kings County: City of Hanford

Kings County: Balance of County

Tulare County: Sheltered and Unsheltered

Tulare County: Sheltered

Tulare County: Unsheltered

Tulare County: City of Porterville

Tulare County: City of Tulare

Tulare County: City of Visalia

Tulare County: Balance of County

2025 Kings and Tulare Counties: Sheltered and Unsheltered

	Clients		% of Clients
Total Count	Adults	1406	96%
	Children	66	4%
	Unknown	0	0%
	Grand Total	1472	
Household Composition	Households		Clients
	Without Children	1354	1373
	With Children and Adults	40	99
Unaccompanied/ Parenting Youth (up to age 24)	Households		Clients
	Unaccompanied youth	78	78
	Parenting youth	2	2
Chronically Homeless	Households		Clients
	No	864	927
	Yes	501	516
Gender*	Clients		% of Clients
	Male	932	63%
	Female	527	36%
	Transgender	2	0%
	Gender Non-Conforming	2	0%
	Non-Binary	0	0%
	Questioning	0	0%
	Culturally Specific Identity	2	0%
	Other/Not Listed	1	0%
Age Group	Clients		% of Clients
	0-17	66	4%
	18-24	83	6%
	25-34	227	15%
	35-44	429	29%
	45-54	311	21%
	55-64	255	17%
	65-69	53	4%
	70+	36	2%
Race*	Clients		% of Clients
	American Indian/ Alaskan Native	89	6%
	Asian	12	1%
	Black/African American	140	10%
	Hispanic/Latino	719	49%
	Native Hawaiian/Other Pacific Islander	15	1%
	Middle Eastern	4	0%
	White	673	46%
	Unknown	34	2%
Tribal Affiliation (Street Survey/Adults Only)	Clients		% of Clients
	No	842	92%
Currently Fleeing Domestic Violence (Adults Only)	Clients		% of Clients
	Yes	103	7%
Sexual Orientation (Street Survey/Adults Only)	Clients		% of Clients
	Unknown	483	34%
	Bisexual	27	3%
	Gay	15	2%
	Lesbian	11	1%
	Questioning	1	0%
	Straight/Heterosexual	825	90%
	Two Spirit	1	0%
	Other/Not Listed	7	1%
	Unknown	28	3%

	Clients		% of Clients
Place Slept Last Night	Emergency Shelter	237	16%
	Transitional Housing	100	7%
	Street	1135	77%
Location (County)	Clients		% of Clients
	Within Kings County	302	21%
Veteran (Adults Only)	Clients		% of Clients
	Yes	57	4%
Times Homeless (Street Survey/Adults Only)	Clients		% of Clients
	Once/First Time	412	45%
Disabling Condition	Clients		% of Clients
	No	771	52%
Barriers	Clients		% of Clients
	Yes	607	41%
Reason for Homeless (Street Survey/Adults Only)	Clients		% of Clients
	Unknown	94	6%
Reason for Homeless (Street Survey/Adults Only)	Clients		% of Clients
	HIV/AIDS	12	1%
	Mental Illness	573	39%
	Substance Abuse	538	37%
	Aged out of Foster Care	4	0%
	Argument	127	14%
	Divorce	76	8%
	Domestic Violence	39	4%
	Drugs or Alcohol	48	5%
	Eviction	103	11%
	Foreclosure	6	1%
	Hospital Discharge	3	0%
	Jail or Prison	42	5%
	Lost Benefits	4	0%
	Medical Condition	30	3%
	Mental Health	50	5%
	No Affordable Housing	170	19%
	Pets Not Allowed	2	0%
Benefits* (Adults Only)	Clients		% of Clients
	Substandard Housing	4	0%
	Unemployment	143	16%
	Other	0	0%
	Refused	64	7%
	SNAP	805	57%
	SSI	142	10%
	SSDI	49	3%
	GA	28	2%
	Earned Income	76	5%
	TANF	46	3%
	Social Security	8	1%
	Pension	3	0%
	Child Support	4	0%
	VA Disability Service	13	1%
	Medi-Cal	759	54%
	Unemployment	9	1%
	Workers Compensation	3	0%
	Other	35	2%
	Alimony	0	0%
	None	123	9%
	Refused/Unknown	261	19%

*can identify with one or more response

2025 Kings and Tulare Counties: Sheltered

	Clients	% of Clients
Total Count	Adults	281 83%
	Children	56 17%
	Unknown	0 0%
	Grand Total	337
	Households	Clients
Household Composition	Without Children	249 253
	With Children and Adults	35 84
	With Only Children	0 0
	Households	Clients
Unaccompanied/ Parenting Youth (up to age 24)	Unaccompanied youth	40 40
	Parenting youth	2 2
	Child of youth parent	3
	Households	Clients
Chronically Homeless	No	212 261
	Yes	70 74
	Unknown	2 2
	Clients	% of Clients
Gender*	Male	183 54%
	Female	154 46%
	Transgender	0 0%
	Gender Non-Conforming	0 0%
	Non-Binary	0 0%
	Questioning	0 0%
	Culturally Specific Identity	1 0%
	Other/Not Listed	0 0%
	Unknown	0 0%
	Clients	% of Clients
Age Group	0-17	56 17%
	18-24	45 13%
	25-34	49 15%
	35-44	69 20%
	45-54	54 16%
	55-64	51 15%
	65-69	8 2%
	70+	5 1%
	Unknown	0 0%
	Clients	% of Clients
Race*	American Indian/ Alaskan Native	20 6%
	Asian	3 1%
	Black/African American	27 8%
	Hispanic/Latino	188 56%
	Native Hawaiian/Other Pacific Islander	4 1%
	Middle Eastern	0 0%
	White	174 52%
	Unknown	0 0%
	Clients	% of Clients
Tribal Affiliation (Street Survey/Adults Only)	No	0%
	Yes	0%
	Clients	% of Clients
Currently Fleeing Domestic Violence (Adults Only)	No	42 15%
	Yes	8 3%
	Unknown	231 82%
	Clients	% of Clients
Sexual Orientation (Street Survey/Adults Only)	Bisexual	0%
	Gay	0%
	Lesbian	0%
	Questioning	0%
	Straight/Heterosexual	0%
	Two Spirit	0%
	Other/Not Listed	0%
	Unknown	0%

	Clients	% of Clients
Place Slept Last Night	Emergency Shelter	237 70%
	Transitional Housing	100 30%
	Street	0 0%
	Clients	% of Clients
Location (County)	Within Kings County	57 17%
	Within Tulare County	280 83%
	Clients	% of Clients
Veteran (Adults Only)	Yes	7 2%
	No	271 96%
	Unknown	3 1%
	Clients	% of Clients
Times Homeless (Street Survey/Adults Only)	Once/First Time	0%
	Twice or More	0%
	Unknown	0%
	Clients	% of Clients
Disabling Condition	No	200 59%
	Yes	109 32%
	Unknown	28 8%
	Clients	% of Clients
Barriers	HIV/AIDS	0 0%
	Mental Illness	70 21%
	Substance Abuse	37 11%
	Clients	% of Clients
Reason for Homeless (Street Survey/Adults Only)	Aged out of Foster Care	0%
	Argument	0%
	Divorce	0%
	Domestic Violence	0%
	Drugs or Alcohol	0%
	Eviction	0%
	Foreclosure	0%
	Hospital Discharge	0%
	Jail or Prison	0%
	Lost Benefits	0%
	Medical Condition	0%
	Mental Health	0%
	No Affordable Housing	0%
	Pets Not Allowed	0%
	Substandard Housing	0%
	Unemployment	0%
	Other	0%
	Refused	0%
	Clients	% of Clients
Benefits* (Adults Only)	SNAP	133 47%
	SSI	21 7%
	SSDI	8 3%
	GA	4 1%
	Earned Income	41 15%
	TANF	15 5%
	Social Security	1 0%
	Pension	0 0%
	Child Support	1 0%
	VA Disability Service	2 1%
	Medi-Cal	144 51%
	Unemployment	3 1%
	Workers Compensation	1 0%
	Other	17 6%
	Alimony	0 0%
	None	0 0%
	Refused/Unknown	108 38%

*can identify with one or more response

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2025 Kings and Tulare Counties: Unsheltered

	Clients	% of Clients
Total Count	1125	99%
Adults	10	1%
Children	0	0%
Unknown	1135	
Grand Total	1135	
	Households	Clients
Household Composition	1105	1120
Without Children	5	15
With Children and Adults	0	0
With Only Children		
	Households	Clients
Unaccompanied/ Parenting Youth (up to age 24)	38	38
Unaccompanied youth	0	0
Parenting youth	0	0
Child of youth parent		
	Households	Clients
Chronically Homeless	652	666
No	431	442
Yes	27	27
Unknown		
	Clients	% of Clients
Gender*	749	66%
Male	373	33%
Female	2	0%
Transgender	2	0%
Gender Non-Conforming	0	0%
Non-Binary	0	0%
Questioning	1	0%
Culturally Specific Identity	1	0%
Other/Not Listed	9	1%
Unknown		
	Clients	% of Clients
Age Group	10	1%
0-17	38	3%
18-24	178	16%
25-34	360	32%
35-44	257	23%
45-54	204	18%
55-64	45	4%
65-69	31	3%
70+	12	1%
Unknown		
	Clients	% of Clients
Race*	69	6%
American Indian/ Alaskan Native	9	1%
Asian	113	10%
Black/African American	531	47%
Hispanic/Latino	11	1%
Native Hawaiian/Other Pacific Islander	4	0%
Middle Eastern	499	44%
White	34	3%
Unknown		
	Clients	% of Clients
Tribal Affiliation (Street Survey/Adults Only)	842	92%
No	73	8%
Yes		
	Clients	% of Clients
Currently Fleeing Domestic Violence (Adults Only)	778	69%
No	95	8%
Yes	252	22%
Unknown		
	Clients	% of Clients
Sexual Orientation (Street Survey/Adults Only)	27	3%
Bisexual	15	2%
Gay	11	1%
Lesbian	1	0%
Questioning	825	90%
Straight/Heterosexual	1	0%
Two Spirit	7	1%
Other/Not Listed	28	3%
Unknown		

	Clients	% of Clients
Place Slept Last Night	0	0%
Emergency Shelter	0	0%
Transitional Housing	1135	100%
Street		
	Clients	% of Clients
Location (County)	245	22%
Within Kings County	890	78%
Within Tulare County		
	Clients	% of Clients
Veteran (Adults Only)	50	4%
Yes	1045	93%
No	30	3%
Unknown		
	Clients	% of Clients
Times Homeless (Street Survey/Adults Only)	412	45%
Once/First Time	454	50%
Twice or More	49	5%
Unknown		
	Clients	% of Clients
Disabling Condition	571	50%
No	498	44%
Yes	66	6%
Unknown		
	Clients	% of Clients
Barriers	12	1%
HIV/AIDS	503	44%
Mental Illness	501	44%
Substance Abuse		
	Clients	% of Clients
Reason for Homeless (Street Survey/Adults Only)	4	0%
Aged out of Foster Care	127	14%
Argument	76	8%
Divorce	39	4%
Domestic Violence	48	5%
Drugs or Alcohol	103	11%
Eviction	6	1%
Foreclosure	3	0%
Hospital Discharge	42	5%
Jail or Prison	4	0%
Lost Benefits	30	3%
Medical Condition	50	5%
Mental Health	170	19%
No Affordable Housing	2	0%
Pets Not Allowed	4	0%
Substandard Housing	143	16%
Unemployment	0	0%
Other	64	7%
Refused		
	Clients	% of Clients
Benefits* (Adults Only)	672	60%
SNAP	121	11%
SSI	41	4%
SSDI	24	2%
GA	35	3%
Earned Income	31	3%
TANF	7	1%
Social Security	3	0%
Pension	3	0%
Child Support	11	1%
VA Disability Service	615	55%
Medi-Cal	6	1%
Unemployment	2	0%
Workers Compensation	18	2%
Other	0	0%
Alimony	123	11%
None	153	14%
Refused/Unknown		

*can identify with one or more response

2025 Kings County: Sheltered and Unsheltered

	Clients	% of Clients
Total Count	Adults 278	92%
	Children 24	8%
	Unknown 0	0%
	Grand Total 302	
	Households	Clients
Household Composition	Without Children 259	267
	With Children and Adults 10	35
	With Only Children 0	0
	Households	Clients
Unaccompanied/ Parenting Youth (up to age 24)	Unaccompanied youth 9	9
	Parenting youth 0	0
	Child of youth parent 0	0
	Households	Clients
Chronically Homeless	No 165	193
	Yes 101	106
	Unknown 3	3
	Clients	% of Clients
Gender*	Male 200	66%
	Female 99	33%
	Transgender 1	0%
	Gender Non-Conforming 1	0%
	Non-Binary 0	0%
	Questioning 0	0%
	Culturally Specific Identity 0	0%
	Other/Not Listed 0	0%
	Unknown 1	0%
	Clients	% of Clients
Age Group	0-17 24	8%
	18-24 10	3%
	25-34 48	16%
	35-44 76	25%
	45-54 64	21%
	55-64 52	17%
	65-69 13	4%
	70+ 10	3%
	Unknown 5	2%
	Clients	% of Clients
Race*	American Indian/ Alaskan Native 13	4%
	Asian 2	1%
	Black/African American 46	15%
	Hispanic/Latino 125	41%
	Native Hawaiian/Other Pacific Islander 1	0%
	Middle Eastern 0	0%
	White 134	44%
	Unknown 5	2%
	Clients	% of Clients
Tribal Affiliation (Street Survey/Adults Only)	No 198	92%
	Yes 18	8%
	Clients	% of Clients
Currently Fleeing Domestic Violence (Adults Only)	No 188	68%
	Yes 23	8%
	Unknown 67	24%
	Clients	% of Clients
Sexual Orientation (Street Survey/Adults Only)	Bisexual 7	3%
	Gay 2	1%
	Lesbian 3	1%
	Questioning 0	0%
	Straight/Heterosexual 196	91%
	Two Spirit 1	0%
	Other/Not Listed 2	1%
	Unknown 5	2%

	Clients	% of Clients
Place Slept Last Night	Emergency Shelter 36	12%
	Transitional Housing 21	7%
	Street 245	81%
	Clients	% of Clients
Location (County)	Within Kings County 302	100%
	Within Tulare County 0	0%
	Clients	% of Clients
Veteran (Adults Only)	Yes 14	5%
	No 256	92%
	Unknown 8	3%
	Clients	% of Clients
Times Homeless (Street Survey/Adults Only)	Once/First Time 84	39%
	Twice or More 118	55%
	Unknown 14	6%
	Clients	% of Clients
Disabling Condition	No 167	55%
	Yes 124	41%
	Unknown 11	4%
	Clients	% of Clients
Barriers	HIV/AIDS 0	0%
	Mental Illness 118	39%
	Substance Abuse 110	36%
	Clients	% of Clients
Reason for Homeless (Street Survey/Adults Only)	Aged out of Foster Care 2	1%
	Argument 24	11%
	Divorce 22	10%
	Domestic Violence 5	2%
	Drugs or Alcohol 15	7%
	Eviction 30	14%
	Foreclosure 2	1%
	Hospital Discharge 0	0%
	Jail or Prison 12	6%
	Lost Benefits 0	0%
	Medical Condition 3	1%
	Mental Health 11	5%
	No Affordable Housing 39	18%
	Pets Not Allowed 2	1%
	Substandard Housing 0	0%
	Unemployment 34	16%
	Other 0	0%
	Refused 15	7%
	Clients	% of Clients
Benefits* (Adults Only)	SNAP 165	59%
	SSI 31	11%
	SSDI 8	3%
	GA 3	1%
	Earned Income 7	3%
	TANF 18	6%
	Social Security 1	0%
	Pension 2	1%
	Child Support 1	0%
	VA Disability Service 5	2%
	Medi-Cal 156	56%
	Unemployment 3	1%
	Workers Compensation 1	0%
	Other 0	0%
	Alimony 0	0%
	None 25	9%
	Refused/Unknown 48	17%

*can identify with one or more response

2025 Kings County: Sheltered

	Clients	% of Clients
Total Count	Adults	38 67%
	Children	19 33%
	Unknown	0 0%
	Grand Total	57
	Households	Clients
Household Composition	Without Children	29 30
	With Children and Adults	7 27
	With Only Children	0 0
	Households	Clients
Unaccompanied/ Parenting Youth (up to age 24)	Unaccompanied youth	3 3
	Parenting youth	0 0
	Child of youth parent	0 0
	Households	Clients
Chronically Homeless	No	24 44
	Yes	12 13
	Unknown	0 0
	Clients	% of Clients
Gender*	Male	32 56%
	Female	25 44%
	Transgender	0 0%
	Gender Non-Conforming	0 0%
	Non-Binary	0 0%
	Questioning	0 0%
	Culturally Specific Identity	0 0%
	Other/Not Listed	0 0%
	Unknown	0 0%
	Clients	% of Clients
Age Group	0-17	19 33%
	18-24	4 7%
	25-34	10 18%
	35-44	6 11%
	45-54	8 14%
	55-64	6 11%
	65-69	2 4%
	70+	2 4%
	Unknown	0 0%
	Clients	% of Clients
Race*	American Indian/ Alaskan Native	0 0%
	Asian	0 0%
	Black/African American	2 4%
	Hispanic/Latino	23 40%
	Native Hawaiian/Other Pacific Islander	0 0%
	Middle Eastern	0 0%
	White	39 68%
	Unknown	0 0%
	Clients	% of Clients
Tribal Affiliation (Street Survey/Adults Only)	No	0%
	Yes	0%
	Clients	% of Clients
Currently Fleeing Domestic Violence (Adults Only)	No	2 5%
	Yes	2 5%
	Unknown	34 89%
	Clients	% of Clients
Sexual Orientation (Street Survey/Adults Only)	Bisexual	0%
	Gay	0%
	Lesbian	0%
	Questioning	0%
	Straight/Heterosexual	0%
	Two Spirit	0%
	Other/Not Listed	0%
	Unknown	0%

	Clients	% of Clients
Place Slept Last Night	Emergency Shelter	36 63%
	Transitional Housing	21 37%
	Street	0 0%
	Clients	% of Clients
Location (County)	Within Kings County	57 100%
	Within Tulare County	0 0%
	Clients	% of Clients
Veteran (Adults Only)	Yes	2 5%
	No	33 87%
	Unknown	3 8%
	Clients	% of Clients
Times Homeless (Street Survey/Adults Only)	Once/First Time	0%
	Twice or More	0%
	Unknown	0%
	Clients	% of Clients
Disabling Condition	No	36 63%
	Yes	20 35%
	Unknown	1 2%
	Clients	% of Clients
Barriers	HIV/AIDS	0 0%
	Mental illness	8 14%
	Substance Abuse	2 4%
	Clients	% of Clients
Reason for Homeless (Street Survey/Adults Only)	Aged out of Foster Care	0%
	Argument	0%
	Divorce	0%
	Domestic Violence	0%
	Drugs or Alcohol	0%
	Eviction	0%
	Foreclosure	0%
	Hospital Discharge	0%
	Jail or Prison	0%
	Lost Benefits	0%
	Medical Condition	0%
	Mental Health	0%
	No Affordable Housing	0%
	Pets Not Allowed	0%
	Substandard Housing	0%
	Unemployment	0%
	Other	0%
	Refused	0%
	Clients	% of Clients
Benefits* (Adults Only)	SNAP	13 34%
	SSI	1 3%
	SSDI	2 5%
	GA	1 3%
	Earned Income	2 5%
	TANF	6 16%
	Social Security	0 0%
	Pension	0 0%
	Child Support	0 0%
	VA Disability Service	1 3%
	Medi-Cal	13 34%
	Unemployment	1 3%
	Workers Compensation	0 0%
	Other	0 0%
	Alimony	0 0%
	None	0 0%
	Refused/Unknown	21 55%

*can identify with one or more response

2025 Kings County: Unsheltered

	Clients	% of Clients
Total Count	240	98%
Children	5	2%
Unknown	0	0%
Grand Total	245	
	Households	Clients
Household Composition	230	237
Without Children	3	8
With Children and Adults	0	0
With Only Children		
	Households	Clients
Unaccompanied/ Parenting Youth (up to age 24)	6	6
Parenting youth	0	0
Child of youth parent		0
	Households	Clients
Chronically Homeless	141	149
No	89	93
Yes	3	3
Unknown		
	Clients	% of Clients
Gender*	168	69%
Male	74	30%
Female	1	0%
Transgender	1	0%
Gender Non-Conforming	0	0%
Non-Binary	0	0%
Questioning	0	0%
Culturally Specific Identity	0	0%
Other/Not Listed	0	0%
Unknown	1	0%
	Clients	% of Clients
Age Group	5	2%
0-17	6	2%
18-24	38	16%
25-34	70	29%
35-44	56	23%
45-54	46	19%
55-64	11	4%
65-69	8	3%
70+	5	2%
Unknown		
	Clients	% of Clients
Race*	13	5%
American Indian/ Alaskan Native	2	1%
Asian	44	18%
Black/African American	102	42%
Hispanic/Latino	1	0%
Native Hawaiian/Other Pacific Islander	0	0%
Middle Eastern	95	39%
White	5	2%
Unknown		
	Clients	% of Clients
Tribal Affiliation (Street Survey/Adults Only)	198	92%
No	18	8%
Yes		
	Clients	% of Clients
Currently Fleeing Domestic Violence (Adults Only)	186	78%
No	21	9%
Yes	33	14%
Unknown		
	Clients	% of Clients
Sexual Orientation (Street Survey/Adults Only)	7	3%
Bisexual	2	1%
Gay	3	1%
Lesbian	0	0%
Questioning	196	91%
Straight/Heterosexual	1	0%
Two Spirit	2	1%
Other/Not Listed	5	2%
Unknown		

	Clients	% of Clients
Place Slept Last Night	0	0%
Emergency Shelter	0	0%
Transitional Housing	245	100%
Street		
	Clients	% of Clients
Location (County)	245	100%
Within Kings County	0	0%
Within Tulare County		
	Clients	% of Clients
Veteran (Adults Only)	12	5%
Yes	223	93%
No	5	2%
Unknown		
	Clients	% of Clients
Times Homeless (Street Survey/Adults Only)	84	39%
Once/First Time	118	55%
Twice or More	14	6%
Unknown		
	Clients	% of Clients
Disabling Condition	131	53%
No	104	42%
Yes	10	4%
Unknown		
	Clients	% of Clients
Barriers	0	0%
HIV/AIDS	110	45%
Mental Illness	108	44%
Substance Abuse		
	Clients	% of Clients
Reason for Homeless (Street Survey/Adults Only)	2	1%
Aged out of Foster Care	24	11%
Argument	22	10%
Divorce	5	2%
Domestic Violence	15	7%
Drugs or Alcohol	30	14%
Eviction	2	1%
Foreclosure	0	0%
Hospital Discharge	12	6%
Jail or Prison	0	0%
Lost Benefits	3	1%
Medical Condition	11	5%
Mental Health	39	18%
No Affordable Housing	2	1%
Pets Not Allowed	0	0%
Substandard Housing	34	16%
Unemployment	0	0%
Other	15	7%
Refused		
	Clients	% of Clients
Benefits* (Adults Only)	152	63%
SNAP	30	13%
SSI	6	3%
SSDI	2	1%
GA	5	2%
Earned Income	12	5%
TANF	1	0%
Social Security	2	1%
Pension	1	0%
Child Support	4	2%
VA Disability Service	143	60%
Medi-Cal	2	1%
Unemployment	1	0%
Workers Compensation	0	0%
Other	0	0%
Alimony	0	0%
None	25	10%
Refused/Unknown	27	11%

*can identify with one or more response

2025 Kings County: Hanford

	Clients	% of Clients
Total Count	Adults	256 91%
	Children	24 9%
	Unknown	0 0%
	Grand Total	280
	Households	Clients
Household Composition	Without Children	238 245
	With Children and Adults	10 35
	With Only Children	0 0
	Households	Clients
Unaccompanied/ Parenting Youth (up to age 24)	Unaccompanied youth	9 9
	Parenting youth	0 0
	Child of youth parent	0 0
	Households	Clients
Chronically Homeless	No	156 183
	Yes	90 95
	Unknown	2 2
	Clients	% of Clients
Gender*	Male	183 65%
	Female	94 34%
	Transgender	1 0%
	Gender Non-Conforming	1 0%
	Non-Binary	0 0%
	Questioning	0 0%
	Culturally Specific Identity	0 0%
	Other/Not Listed	0 0%
	Unknown	1 0%
	Clients	% of Clients
Age Group	0-17	24 9%
	18-24	10 4%
	25-34	44 16%
	35-44	68 24%
	45-54	56 20%
	55-64	51 18%
	65-69	12 4%
	70+	10 4%
	Unknown	5 2%
	Clients	% of Clients
Race*	American Indian/ Alaskan Native	11 4%
	Asian	1 0%
	Black/African American	42 15%
	Hispanic/Latino	116 41%
	Native Hawaiian/Other Pacific Islander	1 0%
	Middle Eastern	0 0%
	White	127 45%
	Unknown	5 2%
	Clients	% of Clients
Tribal Affiliation (Street Survey/Adults Only)	No	182 92%
	Yes	15 8%
	Clients	% of Clients
Currently Fleeing Domestic Violence (Adults Only)	No	170 66%
	Yes	22 9%
	Unknown	64 25%
	Clients	% of Clients
Sexual Orientation (Street Survey/Adults Only)	Bisexual	6 3%
	Gay	2 1%
	Lesbian	3 2%
	Questioning	0 0%
	Straight/Heterosexual	178 90%
	Two Spirit	1 1%
	Other/Not Listed	2 1%
	Unknown	5 3%

	Clients	% of Clients
Place Slept Last Night	Emergency Shelter	36 13%
	Transitional Housing	21 8%
	Street	223 80%
	Clients	% of Clients
Location (County)	Within Kings County	280 100%
	Within Tulare County	0 0%
	Clients	% of Clients
Veteran (Adults Only)	Yes	12 5%
	No	236 92%
	Unknown	8 3%
	Clients	% of Clients
Times Homeless (Street Survey/Adults Only)	Once/First Time	78 40%
	Twice or More	105 53%
	Unknown	14 7%
	Clients	% of Clients
Disabling Condition	No	158 56%
	Yes	111 40%
	Unknown	11 4%
	Clients	% of Clients
Barriers	HIV/AIDS	0 0%
	Mental Illness	105 38%
	Substance Abuse	98 35%
	Clients	% of Clients
Reason for Homeless (Street Survey/Adults Only)	Aged out of Foster Care	2 1%
	Argument	23 12%
	Divorce	19 10%
	Domestic Violence	5 3%
	Drugs or Alcohol	12 6%
	Eviction	27 14%
	Foreclosure	2 1%
	Hospital Discharge	0 0%
	Jail or Prison	12 6%
	Lost Benefits	0 0%
	Medical Condition	3 2%
	Mental Health	9 5%
	No Affordable Housing	37 19%
	Pets Not Allowed	2 1%
	Substandard Housing	0 0%
	Unemployment	31 16%
	Other	0 0%
	Refused	13 7%
	Clients	% of Clients
Benefits* (Adults Only)	SNAP	154 60%
	SSI	27 11%
	SSDI	8 3%
	GA	2 1%
	Earned Income	6 2%
	TANF	18 7%
	Social Security	1 0%
	Pension	2 1%
	Child Support	1 0%
	VA Disability Service	5 2%
	Medi-Cal	142 55%
	Unemployment	2 1%
	Workers Compensation	1 0%
	Other	0 0%
	Alimony	0 0%
	None	23 9%
	Refused/Unknown	44 17%

*can identify with one or more response

2025 Kings County: Balance of CoC

	Clients	% of Clients
Total Count	22	100%
Adults	0	0%
Children	0	0%
Unknown	0	0%
Grand Total	22	
	Households	Clients
Household Composition	21	22
Without Children	0	0
With Children and Adults	0	0
With Only Children	0	0
	Households	Clients
Unaccompanied/ Parenting Youth (up to age 24)	0	0
Unaccompanied youth	0	0
Parenting youth	0	0
Child of youth parent	0	0
	Households	Clients
Chronically Homeless	9	10
No	11	11
Yes	1	1
Unknown		
	Clients	% of Clients
Gender*	17	77%
Male	5	23%
Female	0	0%
Transgender	0	0%
Gender Non-Conforming	0	0%
Non-Binary	0	0%
Questioning	0	0%
Culturally Specific Identity	0	0%
Other/Not Listed	0	0%
Unknown	0	0%
	Clients	% of Clients
Age Group	0	0%
0-17	0	0%
18-24	0	0%
25-34	4	18%
35-44	8	36%
45-54	8	36%
55-64	1	5%
65-69	1	5%
70+	0	0%
Unknown	0	0%
	Clients	% of Clients
Race*	2	9%
American Indian/ Alaskan Native	1	5%
Asian	4	18%
Black/African American	9	41%
Hispanic/Latino	0	0%
Native Hawaiian/Other Pacific Islander	0	0%
Middle Eastern	0	0%
White	7	32%
Unknown	0	0%
	Clients	% of Clients
Tribal Affiliation (Street Survey/Adults Only)	16	84%
No	3	16%
Yes		
	Clients	% of Clients
Currently Fleeing Domestic Violence (Adults Only)	18	82%
No	1	5%
Yes	3	14%
Unknown		
	Clients	% of Clients
Sexual Orientation (Street Survey/Adults Only)	1	5%
Bisexual	0	0%
Gay	0	0%
Lesbian	0	0%
Questioning	0	0%
Straight/Heterosexual	18	95%
Two Spirit	0	0%
Other/Not Listed	0	0%
Unknown	0	0%

	Clients	% of Clients
Place Slept Last Night	0	0%
Emergency Shelter	0	0%
Transitional Housing	22	100%
Street		
	Clients	% of Clients
Location (County)	22	100%
Within Kings County	0	0%
Within Tulare County		
	Clients	% of Clients
Veteran (Adults Only)	2	9%
Yes	20	91%
No	0	0%
Unknown		
	Clients	% of Clients
Times Homeless (Street Survey/Adults Only)	6	32%
Once/First Time	13	68%
Twice or More	0	0%
Unknown		
	Clients	% of Clients
Disabling Condition	9	41%
No	13	59%
Yes	0	0%
Unknown		
	Clients	% of Clients
Barriers	0	0%
HIV/AIDS	13	59%
Mental Illness	12	55%
Substance Abuse		
	Clients	% of Clients
Reason for Homeless (Street Survey/Adults Only)	0	0%
Aged out of Foster Care	1	5%
Argument	3	16%
Divorce	0	0%
Domestic Violence	3	16%
Drugs or Alcohol	3	16%
Eviction	0	0%
Foreclosure	0	0%
Hospital Discharge	0	0%
Jail or Prison	0	0%
Lost Benefits	0	0%
Medical Condition	0	0%
Mental Health	2	11%
No Affordable Housing	2	11%
Pets Not Allowed	0	0%
Substandard Housing	0	0%
Unemployment	3	16%
Other	0	0%
Refused	2	11%
	Clients	% of Clients
Benefits* (Adults Only)	11	50%
SNAP	4	18%
SSI	0	0%
SSDI	1	5%
GA	1	5%
Earned Income	0	0%
TANF	0	0%
Social Security	0	0%
Pension	0	0%
Child Support	0	0%
VA Disability Service	0	0%
Medi-Cal	14	64%
Unemployment	1	5%
Workers Compensation	0	0%
Other	0	0%
Alimony	0	0%
None	2	9%
Refused	4	18%

*can identify with one or more response

2025 Tulare County: Sheltered and Unsheltered

	Clients	% of Clients
Total Count	1128	96%
Children	42	4%
Unknown	0	0%
Grand Total	1170	
	Households	Clients
Household Composition	1095	1106
Without Children	30	64
With Children and Adults	0	0
With Only Children		
	Households	Clients
Unaccompanied/ Parenting Youth (up to age 24)	69	69
Parenting youth	2	2
Child of youth parent		3
	Households	Clients
Chronically Homeless	699	734
No	400	410
Yes	26	26
Unknown		
	Clients	% of Clients
Gender*	732	63%
Male	428	37%
Female	1	0%
Transgender	1	0%
Gender Non-Conforming	0	0%
Non-Binary	0	0%
Questioning	2	0%
Culturally Specific Identity	1	0%
Other/Not Listed	8	1%
Unknown		
	Clients	% of Clients
Age Group	42	4%
0-17	73	6%
18-24	179	15%
25-34	353	30%
35-44	247	21%
45-54	203	17%
55-64	40	3%
65-69	26	2%
70+	7	1%
Unknown		
	Clients	% of Clients
Race*	76	6%
American Indian/ Alaskan Native	10	1%
Asian	94	8%
Black/African American	594	51%
Hispanic/Latino	14	1%
Native Hawaiian/Other Pacific Islander	4	0%
Middle Eastern	539	46%
White	29	2%
Unknown		
	Clients	% of Clients
Tribal Affiliation (Street Survey/Adults Only)	644	92%
No	55	8%
Yes		
	Clients	% of Clients
Currently Fleeing Domestic Violence (Adults Only)	632	56%
No	80	7%
Yes	416	37%
Unknown		
	Clients	% of Clients
Sexual Orientation (Street Survey/Adults Only)	20	3%
Bisexual	13	2%
Gay	8	1%
Lesbian	1	0%
Questioning	629	90%
Straight/Heterosexual	0	0%
Two Spirit	5	1%
Other/Not Listed	23	3%
Unknown		

	Clients	% of Clients
Place Slept Last Night	201	17%
Emergency Shelter	79	7%
Transitional Housing	890	76%
Street		
	Clients	% of Clients
Location (County)	0	0%
Within Kings County	1170	100%
Within Tulare County		
	Clients	% of Clients
Veteran (Adults Only)	43	4%
Yes	1060	94%
No	25	2%
Unknown		
	Clients	% of Clients
Times Homeless (Street Survey/Adults Only)	328	47%
Once/First Time	336	48%
Twice or More	35	5%
Unknown		
	Clients	% of Clients
Disabling Condition	604	52%
No	483	41%
Yes	83	7%
Unknown		
	Clients	% of Clients
Barriers	12	1%
HIV/AIDS	455	39%
Mental Illness	428	37%
Substance Abuse		
	Clients	% of Clients
Reason for Homeless (Street Survey/Adults Only)	2	0%
Aged out of Foster Care	103	15%
Argument	54	8%
Divorce	34	5%
Domestic Violence	33	5%
Drugs or Alcohol	73	10%
Eviction	4	1%
Foreclosure	3	0%
Hospital Discharge	30	4%
Jail or Prison	4	1%
Lost Benefits	27	4%
Medical Condition	39	6%
Mental Health	131	19%
No Affordable Housing	0	0%
Pets Not Allowed	4	1%
Substandard Housing	109	16%
Unemployment	0	0%
Other	49	7%
Refused		
	Clients	% of Clients
Benefits* (Adults Only)	640	57%
SNAP	111	10%
SSI	41	4%
SSDI	25	2%
GA	69	6%
Earned Income	28	2%
TANF	7	1%
Social Security	1	0%
Pension	3	0%
Child Support	8	1%
VA Disability Service	603	53%
Medi-Cal	6	1%
Unemployment	2	0%
Workers Compensation	35	3%
Other	0	0%
Alimony	98	9%
None	213	19%
Refused/Unknown		

*can identify with one or more response

2025 Tulare County: Sheltered

	Clients	% of Clients
Total Count	Adults 243	87%
	Children 37	13%
	Unknown 0	0%
	Grand Total 280	
	Households	Clients
Household Composition	Without Children 220	223
	With Children and Adults 28	57
	With Only Children 0	0
	Households	Clients
Unaccompanied/ Parenting Youth (up to age 24)	Unaccompanied youth 37	37
	Parenting youth 2	2
	Child of youth parent 3	3
	Households	Clients
Chronically Homeless	No 188	217
	Yes 58	61
	Unknown 2	2
	Clients	% of Clients
Gender*	Male 151	54%
	Female 129	46%
	Transgender 0	0%
	Gender Non-Conforming 0	0%
	Non-Binary 0	0%
	Questioning 0	0%
	Culturally Specific Identity 1	0%
	Other/Not Listed 0	0%
	Unknown 0	0%
	Clients	% of Clients
Age Group	0-17 37	13%
	18-24 41	15%
	25-34 39	14%
	35-44 63	23%
	45-54 46	16%
	55-64 45	16%
	65-69 6	2%
	70+ 3	1%
	Unknown 0	0%
	Clients	% of Clients
Race*	American Indian/ Alaskan Native 20	7%
	Asian 3	1%
	Black/African American 25	9%
	Hispanic/Latino 165	59%
	Native Hawaiian/Other Pacific Islander 4	1%
	Middle Eastern 0	0%
	White 135	48%
	Unknown 0	0%
	Clients	% of Clients
Tribal Affiliation (Street Survey/Adults Only)	No 0	0%
	Yes 0	0%
	Clients	% of Clients
Currently Fleeing Domestic Violence (Adults Only)	No 40	16%
	Yes 6	2%
	Unknown 197	81%
	Clients	% of Clients
Sexual Orientation (Street Survey/Adults Only)	Bisexual 0	0%
	Gay 0	0%
	Lesbian 0	0%
	Questioning 0	0%
	Straight/Heterosexual 0	0%
	Two Spirit 0	0%
	Other/Not Listed 0	0%
	Unknown 0	0%

	Clients	% of Clients
Place Slept Last Night	Emergency Shelter 201	72%
	Transitional Housing 79	28%
	Street 0	0%
	Clients	% of Clients
Location (County)	Within Kings County 0	0%
	Within Tulare County 280	100%
	Clients	% of Clients
Veteran (Adults Only)	Yes 5	2%
	No 238	98%
	Unknown 0	0%
	Clients	% of Clients
Times Homeless (Street Survey/Adults Only)	Once/First Time 0	0%
	Twice or More 0	0%
	Unknown 0	0%
	Clients	% of Clients
Disabling Condition	No 164	59%
	Yes 89	32%
	Unknown 27	10%
	Clients	% of Clients
Barriers	HIV/AIDS 0	0%
	Mental Illness 62	22%
	Substance Abuse 35	13%
	Clients	% of Clients
Reason for Homeless (Street Survey/Adults Only)	Aged out of Foster Care 0	0%
	Argument 0	0%
	Divorce 0	0%
	Domestic Violence 0	0%
	Drugs or Alcohol 0	0%
	Eviction 0	0%
	Foreclosure 0	0%
	Hospital Discharge 0	0%
	Jail or Prison 0	0%
	Lost Benefits 0	0%
	Medical Condition 0	0%
	Mental Health 0	0%
	No Affordable Housing 0	0%
	Pets Not Allowed 0	0%
	Substandard Housing 0	0%
	Unemployment 0	0%
	Other 0	0%
	Refused 0	0%
	Clients	% of Clients
Benefits* (Adults Only)	SNAP 120	49%
	SSI 20	8%
	SSDI 6	2%
	GA 3	1%
	Earned Income 39	16%
	TANF 9	4%
	Social Security 1	0%
	Pension 0	0%
	Child Support 1	0%
	VA Disability Service 1	0%
	Medi-Cal 131	54%
	Unemployment 2	1%
	Workers Compensation 1	0%
	Other 17	7%
	Alimony 0	0%
	None 0	0%
	Refused/Unknown 87	36%

*can identify with one or more response

2025 Tulare County: Unsheltered

	Clients		% of Clients	
Total Count	Adults	885	99%	
	Children	5	1%	
	Unknown	0	0%	
	Grand Total	890		
Household Composition	Households		Clients	
	Without Children	875	883	
	With Children and Adults	2	7	
Unaccompanied/ Parenting Youth (up to age 24)	Households		Clients	
	Unaccompanied youth	32	32	
	Parenting youth	0	0	
Chronically Homeless	Households		Clients	
	No	511	517	
	Yes	342	349	
Gender*	Clients		% of Clients	
	Male	581	65%	
	Female	299	34%	
	Transgender	1	0%	
	Gender Non-Conforming	1	0%	
	Non-Binary	0	0%	
	Questioning	0	0%	
	Culturally Specific Identity	1	0%	
Age Group	Clients		% of Clients	
	0-17	5	1%	
	18-24	32	4%	
	25-34	140	16%	
	35-44	290	33%	
	45-54	201	23%	
	55-64	158	18%	
	65-69	34	4%	
Race*	Clients		% of Clients	
	American Indian/ Alaskan Native	56	6%	
	Asian	7	1%	
	Black/African American	69	8%	
	Hispanic/Latino	429	48%	
	Native Hawaiian/Other Pacific Islander	10	1%	
	Middle Eastern	4	0%	
	White	404	45%	
Tribal Affiliation (Street Survey/Adults Only)	Clients		% of Clients	
	No	644	92%	
Currently Fleeing Domestic Violence (Adults Only)	Clients		% of Clients	
	Yes	55	8%	
Sexual Orientation (Street Survey/Adults Only)	Clients		% of Clients	
	Bisexual	20	3%	
	Gay	13	2%	
	Lesbian	8	1%	
	Questioning	1	0%	
	Straight/Heterosexual	629	90%	
	Two Spirit	0	0%	
	Other/Not Listed	5	1%	
Unknown	Clients		% of Clients	
	Unknown	23	3%	

	Clients		% of Clients	
Place Slept Last Night	Emergency Shelter	0	0%	
	Transitional Housing	0	0%	
	Street	890	100%	
Location (County)	Clients		% of Clients	
	Within Kings County	0	0%	
	Within Tulare County	890	100%	
Veteran (Adults Only)	Clients		% of Clients	
	Yes	38	4%	
Times Homeless (Street Survey/Adults Only)	Clients		% of Clients	
	Once/First Time	328	47%	
Disabling Condition	Clients		% of Clients	
	No	440	49%	
Barriers	Clients		% of Clients	
	Yes	394	44%	
Reason for Homeless (Street Survey/Adults Only)	Clients		% of Clients	
	Unknown	56	6%	
Reason for Homeless (Street Survey/Adults Only)	Clients		% of Clients	
	HIV/AIDS	12	1%	
	Mental Illness	393	44%	
	Substance Abuse	393	44%	
	Aged out of Foster Care	2	0%	
	Argument	103	15%	
	Divorce	54	8%	
	Domestic Violence	34	5%	
	Drugs or Alcohol	33	5%	
	Eviction	73	10%	
	Foreclosure	4	1%	
	Hospital Discharge	3	0%	
	Jail or Prison	30	4%	
	Lost Benefits	4	1%	
	Medical Condition	27	4%	
	Mental Health	39	6%	
	No Affordable Housing	131	19%	
	Pets Not Allowed	0	0%	
	Substandard Housing	4	1%	
Benefits* (Adults Only)	Clients		% of Clients	
	Unemployment	109	16%	
	Other	0	0%	
	Refused	49	7%	
	SNAP	520	59%	
	SSI	91	10%	
	SSDI	35	4%	
	GA	22	2%	
	Earned Income	30	3%	
	TANF	19	2%	
	Social Security	6	1%	
	Pension	1	0%	
	Child Support	2	0%	
	VA Disability Service	7	1%	
	Medi-Cal	472	53%	
	Unemployment	4	0%	
	Workers Compensation	1	0%	
	Other	18	2%	
	Alimony	0	0%	
	None	98	11%	
	Refused/Unknown	126	14%	

*can identify with one or more response

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2025 Tulare County: Porterville

	Clients	% of Clients
Total Count	Adults	252 94%
	Children	15 6%
	Unknown	0 0%
	Grand Total	267
	Households	Clients
Household Composition	Without Children	245 246
	With Children and Adults	6 21
	With Only Children	0 0
	Households	Clients
Unaccompanied/ Parenting Youth (up to age 24)	Unaccompanied youth	15 15
	Parenting youth	1 1
	Child of youth parent	2 2
	Households	Clients
Chronically Homeless	No	160 175
	Yes	89 90
	Unknown	2 2
	Clients	% of Clients
Gender*	Male	164 61%
	Female	102 38%
	Transgender	0 0%
	Gender Non-Conforming	1 0%
	Non-Binary	0 0%
	Questioning	0 0%
	Culturally Specific Identity	0 0%
	Other/Not Listed	0 0%
	Unknown	0 0%
	Clients	% of Clients
Age Group	0-17	15 6%
	18-24	16 6%
	25-34	35 13%
	35-44	81 30%
	45-54	53 20%
	55-64	50 19%
	65-69	10 4%
	70+	6 2%
	Unknown	1 0%
	Clients	% of Clients
Race*	American Indian/ Alaskan Native	24 9%
	Asian	1 0%
	Black/African American	6 2%
	Hispanic/Latino	140 52%
	Native Hawaiian/Other Pacific Islander	4 1%
	Middle Eastern	2 1%
	White	122 46%
	Unknown	4 1%
	Clients	% of Clients
Tribal Affiliation (Street Survey/Adults Only)	No	173 89%
	Yes	22 11%
	Clients	% of Clients
Currently Fleeing Domestic Violence (Adults Only)	No	178 71%
	Yes	28 11%
	Unknown	46 18%
	Clients	% of Clients
Sexual Orientation (Street Survey/Adults Only)	Bisexual	4 2%
	Gay	4 2%
	Lesbian	1 1%
	Questioning	0 0%
	Straight/Heterosexual	183 94%
	Two Spirit	0 0%
	Other/Not Listed	2 1%
	Unknown	1 1%

	Clients	% of Clients
Place Slept Last Night	Emergency Shelter	52 19%
	Transitional Housing	12 4%
	Street	203 76%
	Clients	% of Clients
Location (County)	Within Kings County	0 0%
	Within Tulare County	267 100%
	Clients	% of Clients
Veteran (Adults Only)	Yes	6 2%
	No	244 97%
	Unknown	2 1%
	Clients	% of Clients
Times Homeless (Street Survey/Adults Only)	Once/First Time	90 46%
	Twice or More	100 51%
	Unknown	5 3%
	Clients	% of Clients
Disabling Condition	No	121 45%
	Yes	125 47%
	Unknown	21 8%
	Clients	% of Clients
Barriers	HIV/AIDS	1 0%
	Mental Illness	107 40%
	Substance Abuse	99 37%
	Clients	% of Clients
Reason for Homeless (Street Survey/Adults Only)	Aged out of Foster Care	0 0%
	Argument	33 17%
	Divorce	16 8%
	Domestic Violence	8 4%
	Drugs or Alcohol	7 4%
	Eviction	21 11%
	Foreclosure	3 2%
	Hospital Discharge	1 1%
	Jail or Prison	6 3%
	Lost Benefits	1 1%
	Medical Condition	8 4%
	Mental Health	9 5%
	No Affordable Housing	36 18%
	Pets Not Allowed	0 0%
	Substandard Housing	2 1%
	Unemployment	33 17%
	Other	0 0%
	Refused	11 6%
	Clients	% of Clients
Benefits* (Adults Only)	SNAP	142 56%
	SSI	31 12%
	SSDI	13 5%
	GA	6 2%
	Earned Income	8 3%
	TANF	9 4%
	Social Security	3 1%
	Pension	1 0%
	Child Support	2 1%
	VA Disability Service	1 0%
	Medi-Cal	145 58%
	Unemployment	2 1%
	Workers Compensation	1 0%
	Other	9 4%
	Alimony	0 0%
	None	34 13%
	Refused/Unknown	17 7%

*can identify with one or more response

DRAFT

2025 Tulare County: Tulare

	Clients	% of Clients
Total Count	317	98%
Children	7	2%
Unknown	0	0%
Grand Total	324	
	Households	Clients
Household Composition	311	314
Without Children	3	10
With Children and Adults	0	0
With Only Children		
	Households	Clients
Unaccompanied/ Parenting Youth (up to age 24)	14	14
Unaccompanied youth	0	0
Parenting youth		
Child of youth parent		
	Households	Clients
Chronically Homeless	190	198
No	115	117
Yes	9	9
Unknown		
	Clients	% of Clients
Gender*	200	62%
Male	117	36%
Female	1	0%
Transgender	0	0%
Gender Non-Conforming	0	0%
Non-Binary	0	0%
Questioning	0	0%
Culturally Specific Identity	0	0%
Other/Not Listed	0	0%
Unknown	6	2%
	Clients	% of Clients
Age Group	7	2%
0-17	14	4%
18-24	51	16%
25-34	103	32%
35-44	61	19%
45-54	62	19%
55-64	9	3%
65-69	12	4%
70+	5	2%
Unknown		
	Clients	% of Clients
Race*	15	5%
American Indian/ Alaskan Native	4	1%
Asian	46	14%
Black/African American	144	44%
Hispanic/Latino	3	1%
Native Hawaiian/Other Pacific Islander	1	0%
Middle Eastern	142	44%
White	14	4%
Unknown		
	Clients	% of Clients
Tribal Affiliation (Street Survey/Adults Only)	218	94%
No	13	6%
Yes		
	Clients	% of Clients
Currently Fleeing Domestic Violence (Adults Only)	193	84%
No	27	12%
Yes	97	42%
Unknown		
	Clients	% of Clients
Sexual Orientation (Street Survey/Adults Only)	11	5%
Bisexual	4	2%
Gay	1	0%
Lesbian	1	0%
Questioning	1	0%
Straight/Heterosexual	203	88%
Two Spirit	0	0%
Other/Not Listed	2	1%
Unknown	9	4%

	Clients	% of Clients	
Place Slept Last Night	Emergency Shelter	31	10%
	Transitional Housing	24	7%
	Street	269	83%
Location (County)	Clients	% of Clients	
	Within Kings County	0	0%
	Within Tulare County	324	100%
Veteran (Adults Only)	Clients	% of Clients	
	Yes	11	3%
	No	296	93%
	Unknown	10	3%
Times Homeless (Street Survey/Adults Only)	Clients	% of Clients	
	Once/First Time	109	47%
	Twice or More	109	47%
	Unknown	13	6%
Disabling Condition	Clients	% of Clients	
	No	170	52%
	Yes	125	39%
	Unknown	29	9%
Barriers	% of Clients		
	HIV/AIDS	2	1%
	Mental Illness	128	40%
	Substance Abuse	147	45%
Reason for Homeless (Street Survey/Adults Only)	Clients	% of Clients	
	Aged out of Foster Care	1	0%
	Argument	33	14%
	Divorce	19	8%
	Domestic Violence	16	7%
	Drugs or Alcohol	8	3%
	Eviction	22	10%
	Foreclosure	1	0%
	Hospital Discharge	1	0%
	Jail or Prison	16	7%
	Lost Benefits	0	0%
	Medical Condition	8	3%
	Mental Health	12	5%
	No Affordable Housing	44	19%
	Pets Not Allowed	0	0%
	Substandard Housing	0	0%
	Unemployment	35	15%
	Other	0	0%
	Refused	15	6%
	Benefits* (Adults Only)	Clients	% of Clients
SNAP		188	59%
SSI		37	12%
SSDI		10	3%
GA		4	1%
Earned Income		21	7%
TANF		8	3%
Social Security		2	1%
Pension		0	0%
Child Support		0	0%
VA Disability Service		0	0%
Medi-Cal		164	52%
Unemployment		2	1%
Workers Compensation		0	0%
Other		2	1%
Alimony		0	0%
None		28	9%
Refused/Unknown		64	20%

*can identify with one or more response

2025 Tulare County: Visalia

	Clients	% of Clients
Total Count	494	96%
Children	19	4%
Unknown	0	0%
Grand Total	513	
	Households	Clients
Household Composition	478	484
Without Children	20	29
With Children and Adults	0	0
With Only Children		
	Households	Clients
Unaccompanied/ Parenting Youth (up to age 24)	30	30
Unaccompanied youth	1	1
Parenting youth		
Child of youth parent		
	Households	Clients
Chronically Homeless	307	315
No	176	183
Yes	15	15
Unknown		
	Clients	% of Clients
Gender*	330	64%
Male	182	35%
Female	0	0%
Transgender	0	0%
Gender Non-Conforming	0	0%
Non-Binary	0	0%
Questioning	0	0%
Culturally Specific Identity	2	0%
Other/Not Listed	1	0%
Unknown	1	0%
	Clients	% of Clients
Age Group	19	4%
0-17	31	6%
18-24	83	16%
25-34	153	30%
35-44	119	23%
45-54	81	16%
55-64	19	4%
65-69	7	1%
70+	1	0%
Unknown		
	Clients	% of Clients
Race*	33	6%
American Indian/ Alaskan Native	5	1%
Asian	40	8%
Black/African American	272	53%
Hispanic/Latino	6	1%
Native Hawaiian/Other Pacific Islander	1	0%
Middle Eastern	255	50%
White	6	1%
Unknown		
	Clients	% of Clients
Tribal Affiliation (Street Survey/Adults Only)	213	92%
No	18	8%
Yes		
	Clients	% of Clients
Currently Fleeing Domestic Violence (Adults Only)	227	46%
No	22	4%
Yes	245	50%
Unknown		
	Clients	% of Clients
Sexual Orientation (Street Survey/Adults Only)	4	2%
Bisexual	3	1%
Gay	6	3%
Lesbian	0	0%
Questioning	208	90%
Straight/Heterosexual	0	0%
Two Spirit	0	0%
Other/Not Listed	1	0%
Unknown	9	4%

	Clients	% of Clients
Place Slept Last Night	111	22%
Emergency Shelter	36	7%
Transitional Housing	366	71%
Street		
	Clients	% of Clients
Location (County)	0	0%
Within Kings County	513	100%
Within Tulare County		
	Clients	% of Clients
Veteran (Adults Only)	26	5%
Yes	461	93%
No	7	1%
Unknown		
	Clients	% of Clients
Times Homeless (Street Survey/Adults Only)	113	49%
Once/First Time	107	46%
Twice or More	11	5%
Unknown		
	Clients	% of Clients
Disabling Condition	278	54%
No	208	41%
Yes	27	5%
Unknown		
	Clients	% of Clients
Barriers	9	2%
HIV/AIDS	198	39%
Mental Illness	162	32%
Substance Abuse		
	Clients	% of Clients
Reason for Homeless (Street Survey/Adults Only)	1	0%
Aged out of Foster Care	28	12%
Argument	16	7%
Divorce	9	4%
Domestic Violence	17	7%
Drugs or Alcohol	23	10%
Eviction	0	0%
Foreclosure	0	0%
Hospital Discharge	0	0%
Jail or Prison	7	3%
Lost Benefits	3	1%
Medical Condition	11	5%
Mental Health	16	7%
No Affordable Housing	46	20%
Pets Not Allowed	0	0%
Substandard Housing	1	0%
Unemployment	37	16%
Other	0	0%
Refused	16	7%
	Clients	% of Clients
Benefits* (Adults Only)	277	56%
SNAP	40	8%
SSI	17	3%
SSDI	11	2%
GA	36	7%
Earned Income	11	2%
TANF	2	0%
Social Security	0	0%
Pension	0	0%
Child Support	0	0%
VA Disability Service	7	1%
Medi-Cal	255	52%
Unemployment	2	0%
Workers Compensation	1	0%
Other	22	4%
Alimony	0	0%
None	32	6%
Refused/Unknown	116	23%

*can identify with one or more response

2025 Tulare County: Balance of CoC

	Clients % of Clients	
	Clients	% of Clients
Total Count	Adults	65 98%
	Children	1 2%
	Unknown	0 0%
	Grand Total	66
Household Composition	Households Clients	
	Households	Clients
	Without Children	61 62
	With Children and Adults	1 4
Unaccompanied/ Parenting Youth (up to age 24)	Households Clients	
	Households	Clients
	Unaccompanied youth	10 10
	Parenting youth	0 0
Chronically Homeless	Households Clients	
	Households	Clients
	No	42 46
	Yes	20 20
Gender*	Clients % of Clients	
	Clients	% of Clients
	Male	38 58%
	Female	27 41%
	Transgender	0 0%
	Gender Non-Conforming	0 0%
	Non-Binary	0 0%
	Questioning	0 0%
	Culturally Specific Identity	0 0%
	Other/Not Listed	0 0%
Age Group	Clients % of Clients	
	Clients	% of Clients
	0-17	1 2%
	18-24	12 18%
	25-34	10 15%
	35-44	16 24%
	45-54	14 21%
	55-64	10 15%
	65-69	2 3%
	70+	1 2%
Race*	Clients % of Clients	
	Clients	% of Clients
	American Indian/ Alaskan Native	4 6%
	Asian	0 0%
	Black/African American	2 3%
	Hispanic/Latino	38 58%
	Native Hawaiian/Other Pacific Islander	1 2%
	Middle Eastern	0 0%
	White	20 30%
	Unknown	5 8%
Tribal Affiliation (Street Survey/Adults Only)	Clients % of Clients	
	Clients	% of Clients
Currently Fleeing Domestic Violence (Adults Only)	Clients % of Clients	
	Clients	% of Clients
	No	34 52%
	Yes	3 5%
Sexual Orientation (Street Survey/Adults Only)	Clients % of Clients	
	Clients	% of Clients
	Bisexual	1 2%
	Gay	2 5%
	Lesbian	0 0%
	Questioning	0 0%
	Straight/Heterosexual	35 83%
	Two Spirit	0 0%
	Other/Not Listed	0 0%
	Unknown	4 10%

	Clients % of Clients	
	Clients	% of Clients
Place Slept Last Night	Emergency Shelter	7 11%
	Transitional Housing	7 11%
	Street	52 79%
Location (County)	Clients % of Clients	
	Clients	% of Clients
	Within Kings County	0 0%
Veteran (Adults Only)	Clients % of Clients	
	Clients	% of Clients
	Yes	0 0%
Times Homeless (Street Survey/Adults Only)	Clients % of Clients	
	Clients	% of Clients
	Once/First Time	16 38%
Disabling Condition	Clients % of Clients	
	Clients	% of Clients
	No	35 53%
Barriers	Clients % of Clients	
	Clients	% of Clients
	HIV/AIDS	0 0%
Reason for Homeless (Street Survey/Adults Only)	Clients % of Clients	
	Clients	% of Clients
	Aged out of Foster Care	0 0%
	Argument	9 21%
	Divorce	3 7%
	Domestic Violence	1 2%
	Drugs or Alcohol	1 2%
	Eviction	7 17%
	Foreclosure	0 0%
	Hospital Discharge	1 2%
	Jail or Prison	1 2%
	Lost Benefits	0 0%
	Medical Condition	0 0%
	Mental Health	2 5%
	No Affordable Housing	5 12%
	Pets Not Allowed	0 0%
	Substandard Housing	1 2%
	Unemployment	4 10%
	Other	0 0%
	Refused	7 17%
Benefits* (Adults Only)	Clients % of Clients	
	Clients	% of Clients
	SNAP	33 51%
	SSI	3 5%
	SSDI	1 2%
	GA	4 6%
	Earned Income	4 6%
	TANF	0 0%
	Social Security	0 0%
	Pension	0 0%
	Child Support	1 2%
	VA Disability Service	0 0%
	Medi-Cal	39 60%
	Unemployment	0 0%
	Workers Compensation	0 0%
	Other	2 3%
	Alimony	0 0%
	None	4 6%
	Refused/Unknown	16 25%

*can identify with one or more response

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FINANCIAL REPORTS



DRAFT

Attachment D: Financial Reports

To be included in the final document.

- Attachment-D1: Summary of Consolidated Plan Projects
- Attachment-D2: PR23: Summary of Accomplishments
- Attachment-D3: PR26 – CDBG Financial Summary
- Attachment-D4: PR26 – CDBG-CV Financial Summary

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MAPS



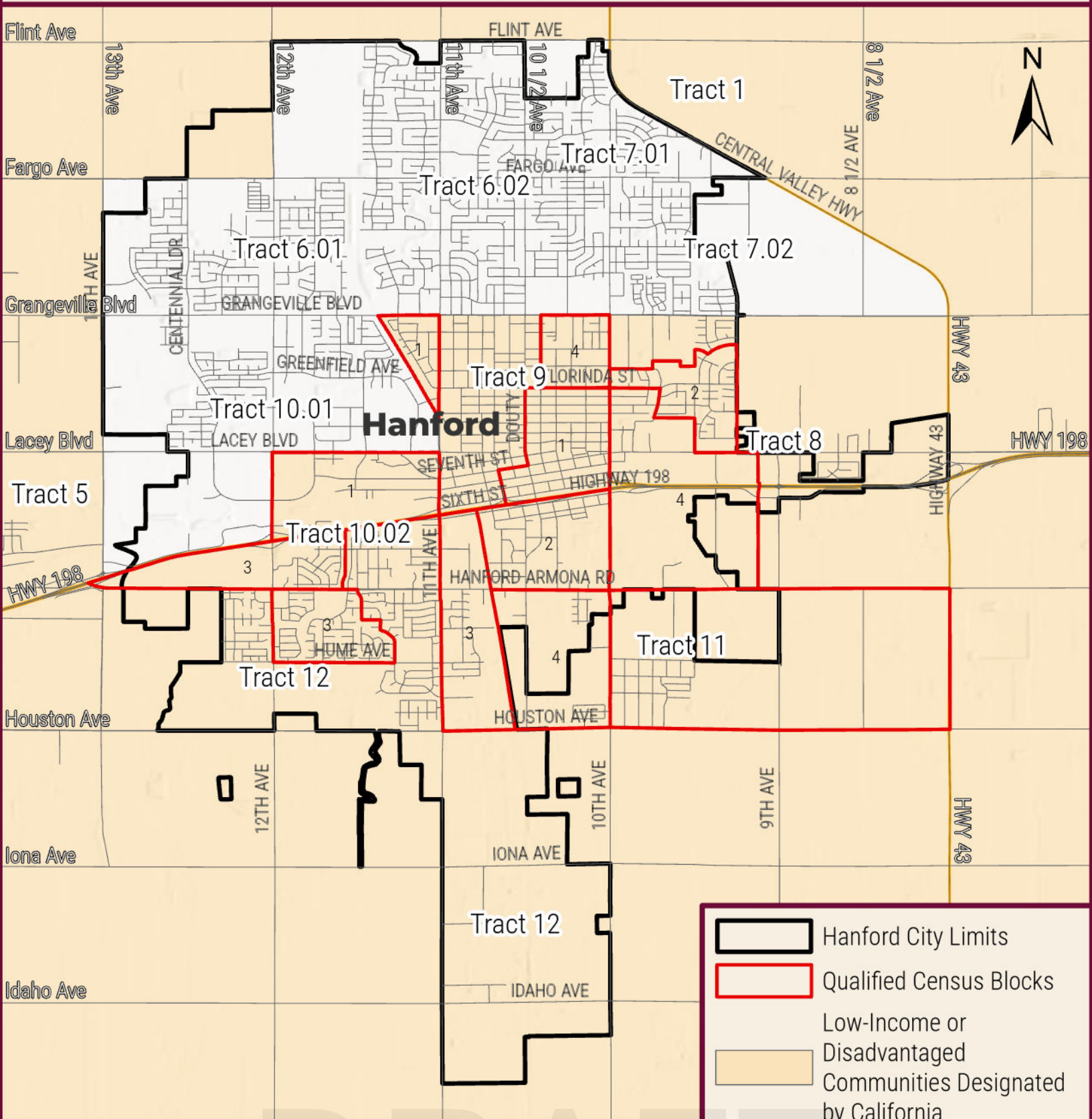
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ATTACHMENT E: LMI CENSUS TRACT & BLOCK GROUP

- **Attachment E-1: LMI Census Tracts & Block Groups City of Hanford, 2025**

DRAFT

LMI Census Tracts & Block Groups City of Hanford, 2025



Map Prepared by Maddison Faria
September 10, 2025
317 N Douty St
Hanford, Ca 93230

0 0.5 1 2 Miles



-  Hanford City Limits
-  Qualified Census Blocks
-  Low-Income or Disadvantaged Communities Designated by California
-  Census Tracts
-  Major Highways
-  Streets

RESOLUTION NO. ____

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF HANFORD
APPROVING THE COMMUNITY DEVELOPMENT BLOCK GRANT
CONSOLIDATED ANNUAL PERFORMANCE AND EVALUATION REPORT
FOR FY 2024-2025**

At a regular meeting of the City Council of the City of Hanford duly called and held September 16, 2025 upon motion of Council Member _____, and seconded by Council Member _____, and carried, the following resolution was adopted:

WHEREAS, the City of Hanford opted to become an Entitlement Community within the Community Development Block Grant (CDBG) Program in November 2003, allowing the City to receive an allocation directly from the U.S. Department of Housing and Urban Development (HUD) each year; and

WHEREAS, the \$544,484 in annual funds are to be used to benefit low to moderate-income households and neighborhoods in the elimination or prevention of slum and blight for such programs as housing rehabilitation, affordable homeownership assistance, neighborhood improvement, community services, as well as community development activities such as the construction or rehabilitation of community infrastructure and facilities and economic development; and

WHEREAS, the Consolidated Plan serves as the City's application for CDBG funds and sets forth the priorities and strategies to address the needs

of primarily low and moderate-income persons and areas in the City over five years; and

WHEREAS, the annual Action Plan allocates one year's funding (entitlement and program income) to specific projects and activities for the CDBG program and

WHEREAS, the Consolidated Annual Performance and Evaluation Report is an end-of-year report prepared to assess the success of meeting the goals and objectives stated in the annual Action Plan and Consolidated Plan.

NOW, THEREFORE, BE IT RESOLVED that the City Council adopt the Community Development Block Grant Consolidated Annual Performance and Evaluation Report for Program Year 2024-2025 (Exhibit A).

PASSED AND ADOPTED at a regular meeting of the City Council of the City of Hanford, duly called and held on the 16th day of September 2025 by the following votes:

AYES: COUNCIL MEMBER _____

NOES: COUNCIL MEMBER _____

ABSTAIN: COUNCIL MEMBER _____

ABSENT: COUNCIL MEMBER _____

APPROVED: _____

Mayor

Attest: _____
City Clerk

STATE OF CALIFORNIA)
COUNTY OF KINGS) ss
CITY OF HANFORD)

I, NATALIE CORRAL, City Clerk of the City of Hanford, do hereby certify the foregoing Resolution was duly passed and adopted by the City Council of the City of Hanford at a regular meeting thereof held on the 16th day of September 16 2025.

Dated: _____

Natale Corral, City Clerk



AGENDA STAFF REPORT

MEETING DATE: 9/16/2025

AGENDA SECTION: PUBLIC HEARING

SUBJECT:

A Public Hearing related to:

- 1) General Plan Amendment No. 2022-01: a request to change the general plan designation from Highway Commercial to Service Commercial and High-Density Residential on approximately 39.16 acres.
- 2) Rezone No. 2022-01: a request to change the zoning on 39.16 acres from C-H Highway Commercial to C-S Service Commercial and R-H High-Density Residential with a Planned Unit Development overlay.
- 3) Planned Unit Development No. 2022-01: a request to allow blended zoning for a master planned medical and mixed-use development, including the future construction of 15 buildings consisting of medical outpatient clinic services, a hotel and conference center, specialized education, retail, medical office, skilled nursing and assisted living, and multi-family residential uses, as well as a bio infiltration basin, associated open space, circulation and parking, and infrastructure improvements.
- 4) Mitigated Negative Declaration No. 2023-93: a request to certify that the project will have a less than significant impact with the incorporation of mitigation measures.

The project is located between 11th and 12th Avenues along Glendale Drive, north of Highway 198 (APN 011-060-007, 011-060-008, 012-290-040, 012-290-042, and 012-290-054).

RECOMMENDATION:

1. Certify Mitigated Negative Declaration No. 2023-93 for the project.
2. Adopt Resolution No. 25-48-R, approving General Plan Amendment No. 2022-01.
3. Introduce and waive the first reading of Ordinance No. 25-06, approving Rezone No. 2022-01.
4. Adopt Resolution No. 25-49-R, approving Planned Unit Development No. 2022-01.

RECOMMENDED MOTION

1. I move to certify Mitigated Negative Declaration No. 2023-93 for the project.
2. I move to adopt Resolution No. 25-48-R, approving General Plan Amendment No. 2022-01.
3. I move to introduce and waive the first reading of Ordinance No. 25-06, approving Rezone No. 2022-01.
4. I move to adopt Resolution No. 25-49-R, approving Planned Unit Development No. 2022-01.

BACKGROUND:

PROJECT DESCRIPTION

The project is a request to develop Hanford Place, a medical and mixed-use development, totaling 39.16 acres. The Hanford Place Master Plan includes the future construction of 15 buildings consisting of medical outpatient clinic services, a hotel and conference center, specialized education, retail, medical office, skilled nursing and assisted living, and multi-family residential uses, as well as a

bio infiltration basin, associated open space, circulation and parking, and infrastructure improvements, as shown in the Hanford Place Master Plan - Attachment 1.

Location

The project is located between 11th and 12th Avenues along Glendale Drive, north of Highway 198 (APN 011-060-007, 011-060-008, 012-290-040, 012-290-042, and 012-290-054). as shown in Figure 1.

Figure 1: Project Location

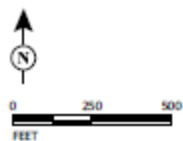


LSA

LEGEND

Project Site

FIGURE 2



SOURCE: Google Aerial Imagery (2020).

*Hanford Place Project
Hanford, Kings County, California
Project Location*

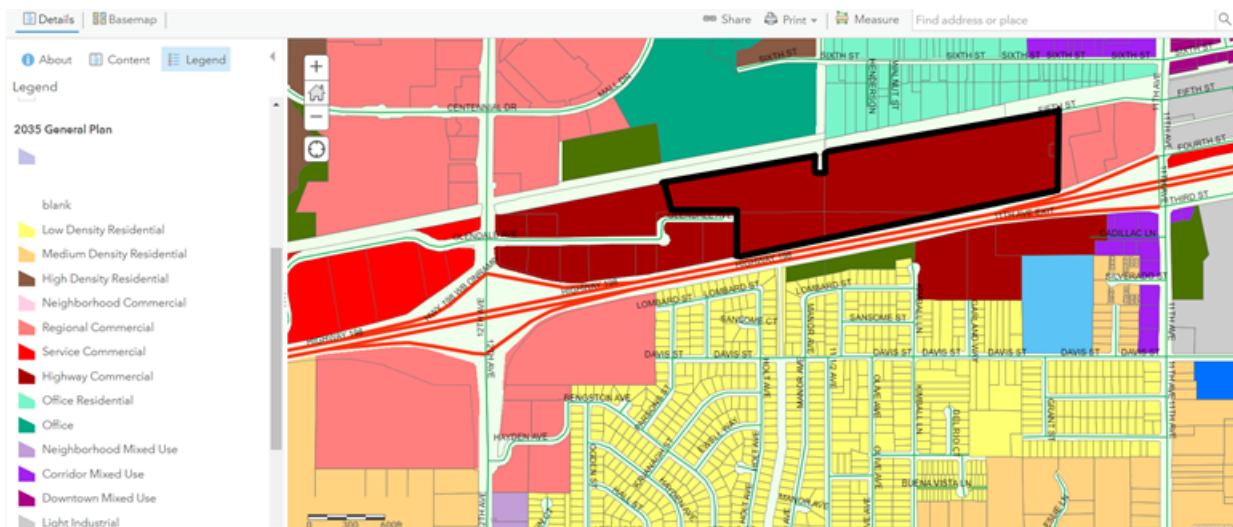
General Plan Designation

The project site is designated as Highway Commercial by the General Plan, see Figure 2. According to General Plan Policy L56, the purpose of the Highway Commercial Land Use Designation is to provide areas for commercial establishments that offer accommodations, supplies, services, or recreational opportunities primarily to the traveling public. According to Policy L57, typical uses in the Highway

Commercial Land Use Designation include businesses that support the recreation and tourism industry and prevent the intrusion of incompatible, non-tourist related uses which would be overly disruptive or would directly compete with shopping areas of nearby communities. Typical uses include full-service hotels, motels, eating establishments, tourist-oriented retail goods, entertainment, and services, automobile related service and repair, and car washes.

As proposed, the project is incompatible with the present land use designation, since it proposes the construction of a mixed-use medical development, which is not designed to provide services primarily to the traveling public. The project includes a request to change the land use designation from Highway Commercial to a combination of Service Commercial and High-Density Residential.

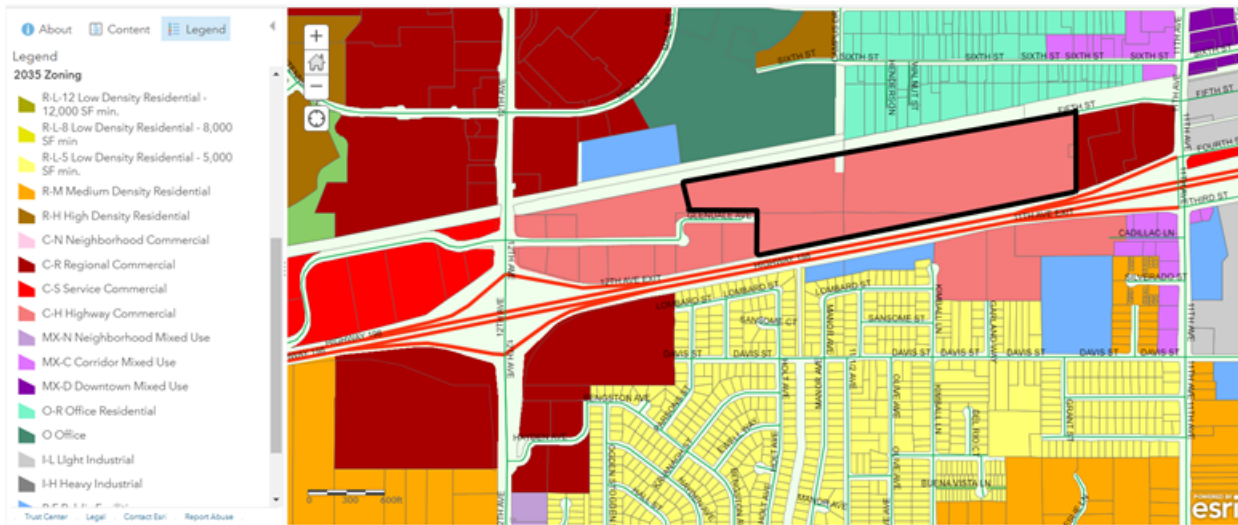
Figure 2: General Plan Designation (outlined in bold)
Highway Commercial



Zoning

The project site is zoned C-H Highway Commercial, in accordance with the General Plan Designation, Highway Commercial. See Figure 3. The project is incompatible with the present zoning, since it proposes land uses that are not permitted in the C-H Highway Commercial zone district, including medical and professional offices, urgent care clinics, a nursing college or other satellite campus, and multi-family residential. The project includes a request to change the zoning on the property from C-H Highway Commercial to a combination of C-S Service Commercial and R-H Highway Commercial.

Figure 3: Zoning (outlined in bold)
C-H Highway Commercial



**Figure 4: Zone Use Table
Education, Religious, and Assembly Uses**

Commercial, Office, and Industrial Zone Use Table																
P = Use Is Permitted by Right C = Use Requires Conditional Use Permit																
A = Use Requires Administrative Use Permit T = Use Requires Temporary Use Permit																
Blank = Use Is Not Allowed																
Land Uses		Commercial Zones				Mixed Use Zones			Industrial and Office Zones				Other Zones			Specific Land Use Standards (See Identified Section)
		C-N	C-R	C-S	C-H	MX-N	MX-C	MX-D	O-R	O	I-L	I-H	AP	PF	CO	
C	Education, Religious and Assembly Uses															
C5	College or university, public or private		C	C			C	C						P		
C13	School; charter, trade, vocational, art, business, or professional		C	P			C	C	C	C	C			P		

**Figure 5: Zone Use Table
Office and Medical Uses**

Commercial, Office, and Industrial Zone Use Table P = Use Is Permitted by Right C = Use Requires Conditional Use Permit A = Use Requires Administrative Use Permit T = Use Requires Temporary Use Permit Blank = Use Is Not Allowed																
Land Uses		Commercial Zones				Mixed Use Zones			Industrial and Office Zones				Other Zones			Specific Land Use Standards (See Identified Section)
		C-N	C-R	C-S	C-H	MX-N	MX-C	MX-D	O-R	O	I-L	I-H	AP	PF	CO	
E	Office and Medical Uses															
E4	Laboratory; general, medical or dental		C	P	C		P	C		P	C					
E5	Hospital, general or psychiatric									P				P		
E6	Office; medical, dental, or optometry															
	Under 2,000 sq. ft.	P	P	P		P	P	P	P	P						
	2,000 – 6,000 sq. ft.	P	C	P		P	P	P	P	P						
	Over 6,000 sq. ft.	P		P		P	P	P	P	P						
E7	Office; professional or commercial															
	Under 2,000 sq. ft.	P	P	P		P	P	P	P	P						
	2,000 – 6,000 sq. ft.	P	C	P		P	P	P	P	P						
	Over 6,000 sq. ft.	P		P		P	P	P	P	P						
E8	Pharmacy	P	P	P		P	P	P		P						
E9	Urgent care center or other walk-in clinic	P	C	C		P	P	P		P						

Figure 6: Zone Use Table
Residential Uses

Commercial, Office, and Industrial Zone Use Table P = Use Is Permitted by Right C = Use Requires Conditional Use Permit A = Use Requires Administrative Use Permit T = Use Requires Temporary Use Permit Blank = Use Is Not Allowed																
Land Uses		Commercial Zones				Mixed Use Zones			Industrial and Office Zones				Other Zones			Specific Land Use Standards (See Identified Section)
		C-N	C-R	C-S	C-H	MX-N	MX-C	MX-D	O-R	O	I-L	I-H	AP	PF	CO	
H	Residential Uses															
H1	Assisted living, skilled nursing, or hospice facility					C	C	C	C							
H6	Hotel or motel		C	C	P		P	P								
H7	Live/work facility			P		P	P	P	P							
H8	Mobile home park															17.60.100
H9	Multifamily dwelling, 2 units per building (duplex)					P	P	P	P							
H10	Multifamily dwelling, 3 or 4 units per building (triplex or fourplex)					P	P	P	C							
H11	Multifamily dwelling, 5 or more units per building					P	P	P								

Required Entitlements

As presented above, the project is inconsistent with the present land use and zoning designation. As such, the project involves a general plan amendment, rezone, and planned unit development/master plan. Future development will require site plan reviews for physical development.

General Plan Amendment No. 2022-01

A General Plan Amendment is required for the project, in order to change the General Plan designation of the subject site from Highway Commercial to a combination of Service Commercial and High-Density Residential.

Rezone 2022-01

A rezone is required for the project, in order to change the zoning from C-H Highway Commercial to a combination of C-S Service Commercial and R-H High-Density Residential with a Planned Unit Development overlay.

Planned Unit Development No. 2022-01/Master Plan

As described above, the project involves a request to allow a mixed-use medical development, spanning 39.16 acres. A planned unit development is required in order to establish project-specific design criteria, allow a blending of uses regardless of zoning, and allow cross-access, shared parking, shared landscaping, and shared lighting.

Surrounding Uses

As referenced in the table below, the project site is surrounded by commercial uses to the south and east, vacant land to the west, and a parking lot to the north. The properties to the north and east are planned and zoned for mixed use development and the properties south and west are planned and zoned for service commercial.

Direction	Existing Land Use	General Plan Designation	Zone District
North	Railroad; Adventist Health Medical Center; single-family residential	Office; Office Residential	O Office; O-R Office Residential
South	CA-198; car dealership; basin; single-family residential	Highway Commercial, Open Space, Low-Density Residential	C-H Highway Commercial, PF Public Facility, R-L-5 Low-Density Residential
East	Integrate shopping center – grocery, retail, gym, restaurant	Regional Commercial	C-R Regional Commercial
West	Veterinary hospital, mini-storage, California Highway Patrol, hotel	Highway Commercial	C-H Highway Commercial

Access and Circulation

Vehicular access to the site is proposed to be provided by Glendale Avenue, Fifth Street, and Campus Drive. The extension of these roadways would be constructed to City standards and would be dedicated as public right-of-way. The proposed project would also construct a roundabout, which will also be dedicated as public right-of-way and would be constructed to Caltrans or City-approved standards. As part of the project, Glendale Avenue would be realigned at the northwest corner of the Hanford Veterinary Hospital development. The existing knuckle will be removed, and Glendale Avenue will be realigned using speed-specific design curves. Any new portions of Glendale Avenue will be dedicated as public right-of-way and any portion of existing right of way not used would be abandoned. Fifth Street would be extended starting at the existing alignment before realigning to the roundabout. In addition, the proposed project proposes to provide 1,466 parking spaces throughout the project site.

Utilities

Utilities required to serve the proposed project include water, sanitary sewer, storm water drainage, electricity, natural gas, and telecommunications infrastructure. Water service, sewage disposal, and refuse collection will be provided by the City. In addition, all City utilities (i.e., water, sewer, and storm drain) would be constructed within the proposed right-of-way. Storm drainage is proposed to be collected by an underground conveyance system and delivered to the onsite bio infiltration basin. The basin would be privately held by the owners and would collect both the proposed project and the City right-of-way. All storm drain facilities will be required to be designed to City standards.

The proposed project also proposes to convert the Peoples Ditch to a 66-inch-diameter below-ground pipeline where the ditch currently exists and would terminate approximately 20 feet short of the existing pipeline that runs under SR-198. The depth of the below-ground pipeline will be between two and six feet.

The proposed project will also require electrical, natural gas, telephone, and cable improvements.

Electricity will be provided by Southern California Edison; natural gas will be provided by Southern California Gas; and telephone services will be provided by AT&T. The extent of work required for utilities and gas will be determined during final project design.

Construction

The proposed project is proposed to be constructed in three phases. Construction is anticipated to last approximately three years. The proposed project will comply with City standards, including the City's current building code, landscape standards, and lighting standards. In addition, the proposed project would be graded similar to other developments throughout the City.

PROJECT EVALUATION

General Plan Amendment No. 2022-01

General Plan Amendment No. 2022-01 is a request to change the land use designation from Highway Commercial to a combination of Service Commercial and High-Density Residential, due to incompatibility with the Hanford Place Master Plan and the existing Highway Commercial land use designation.

3.5.4 Highway Commercial

Policy L56 Purpose of Highway Commercial Land Use Designation

Establish the Highway Commercial land use designation to provide areas for commercial establishments that offer accommodations, supplies, services, or recreational opportunities primarily to the traveling public.

Policy L57 Typical Uses in Highway Commercial Land Use Designation

Define the uses allowed in the Highway Commercial land use designation to include businesses that support the recreation and tourism industry and to prevent the intrusion of incompatible, non-tourist related uses which would be overly disruptive or would directly compete with shopping areas of nearby communities. Typical uses include full-service hotels, motels, eating establishments, tourist-oriented retail goods, entertainment, and services, automobile related service and repair, and car washes.

Analysis: The Hanford Place Master Plan proposes to develop a mixed-use medical complex with uses such as medical offices, clinics, psychiatric health facility, a hotel and conference center, nursing college, strip retail, a skilled nursing facility, memory care facility, assisted living, and multi-family residential. The uses proposed to be located within the Hanford Place Medical and Mixed-Use development are inconsistent with the uses typical of the Highway Commercial Land Use Development.

Policy L58 Design of the Highway Commercial Land Use Designation

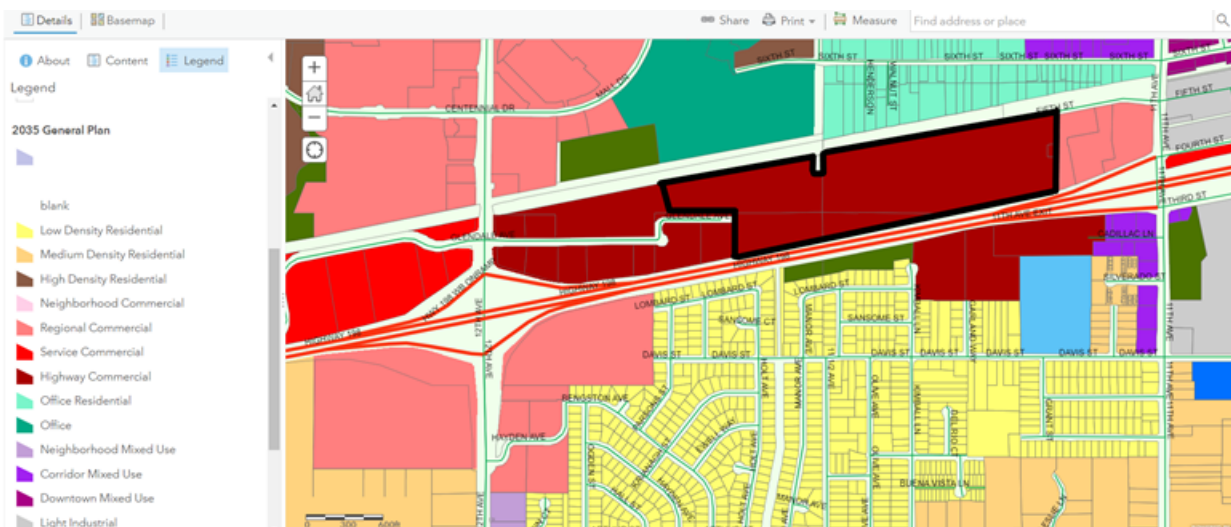
Require that new development projects and major site reconfigurations in the Highway Commercial land use designation provide site layouts, landscaping, and screening so that the site appears aesthetically pleasing from the public street.

Policy L59 Location and Size of Highway Commercial Land Use Designation

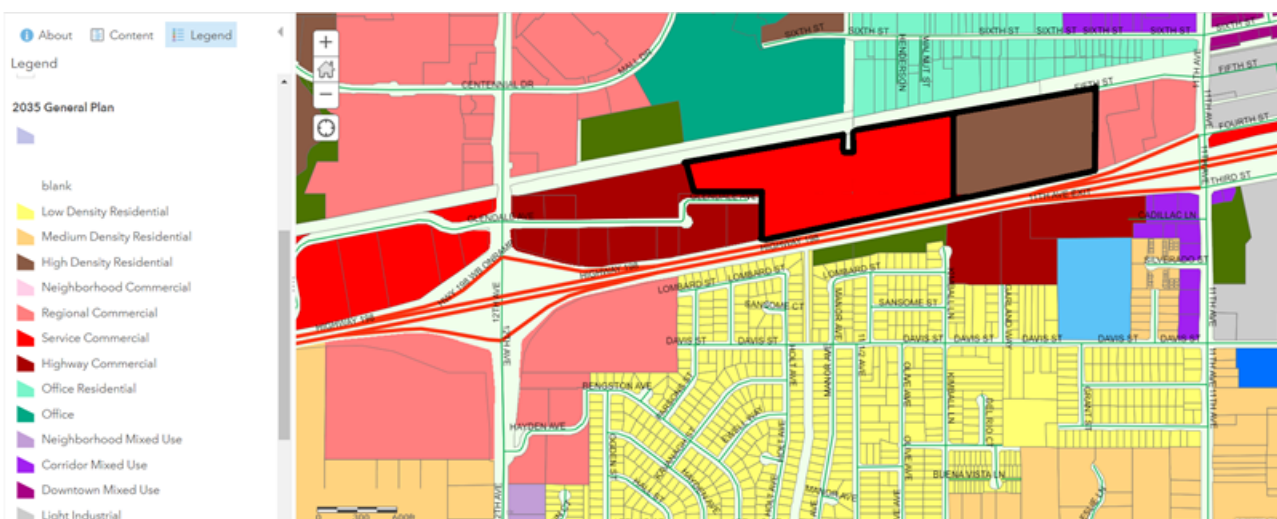
Locate Highway Commercial land use designations in areas that have nearby access to Highway 198 or Highway 43.

Analysis: As proposed, the project is incompatible with the present land use designation, since it proposes the construction of a mixed-use medical development, which is not designed to provide services primarily to the traveling public. General Plan Amendment No. 2022-01 proposes to change the land use designation from Highway Commercial to a combination of Service Commercial and High-Density Residential.

Figure 7: Existing General Plan Designation Highway Commercial



**Figure 8: Proposed General Plan Designation
Service Commercial and High-Density Residential**



Service Commercial

Policy L51 Purpose of Service Commercial Land Use Designation

Establish the Service Commercial land use designation to provide for establishments that engage in servicing equipment, materials, products and related sales and travel conveniences, but which do not require the manufacturing, assembly, packaging or processing of articles or merchandise for distribution.

Policy L52 Typical Uses in Service Commercial Land Use Designation

Define the uses allowed in the Service Commercial land use designation to include a broad range of commercial activities such as businesses which have both retail and service components. Among these are uses such as vehicle sales and service; auto rental and equipment rental; motels; restaurants (including fast food); service stations; car washes; building material supply; warehousing; wholesale trade; contractors, suppliers, small equipment yards; and other similar uses.

Analysis: The development proposed within Hanford Place does not require the manufacturing, assembly, packaging, or processing of articles of merchandise for distribution. The uses proposed

are mostly medical-related. Although the Service Commercial designation is generally engaged in servicing and related sales, the designation permits a multitude of medical uses, including medical offices of any size and clinics/urgent cares, proposed within the Hanford Place development. The proposed development does not propose any use prohibited by the Service Commercial land use designation.

Policy L53 Existing Service Commercial Designations

Encourage existing service commercial centers to expand or adapt to market changes through reuse, rehabilitation, and infill development.

Analysis: The Hanford Place development does not constitute an existing Service Commercial development.

Policy L54 Design of the Service Commercial Land Use Designation

Require that new development projects and major site reconfigurations in the Service Commercial land use designation provide site layouts, landscaping, and screening so that the site appears aesthetically pleasing from the public street.

Analysis: The proposed development is designed with landscaping and screening which is aesthetically pleasing from the public street.

Policy L55 Location and Size of Service Commercial Land Use Designation

Locate Service Commercial land use designations along Highway 198 and where they can serve as a buffer land use, such as between residential areas and railroad corridors. Require new development projects to be a minimum of one acre.

Analysis: The Service Commercial land use designation will be located along Highway 198 and the Southern Pacific Railroad, as required. The Service Commercial land use designation will encompass approximately 30 acres of the development area.

High Density Residential

The expected density range for High Density Residential is 14 to 29 units per gross acre with an expected typical density of 16 units per gross acre.

Analysis: The development proposes a 40-unit memory care facility, 40-unit assisted living facility and 90-multi-family units for a combined total of 170 residential units over approximately 10 acres (15 acres minus the five-acre storm drainage basin). The proposed density within the development is approximately 17 units per acre, which is within the prescribed density range of the high-density residential zone district. At this time, the plan is conceptual, density will be verified during site plan review.

Policy L38 Purpose of the High-Density Residential Land Use Designation

Establish the High-Density Residential land use designation primarily for multi-family apartment and condominium development in proximity to Arterial streets, commercial and recreational facilities, and employment centers.

Analysis: The Hanford Place Development proposes to develop multi-family apartments and assisted living multi-family units within the plan area. The multi-family units will be proximal to employment opportunities within the Hanford Place Development, as well as the Adventist Health Hospital. The

development is located 0.38 miles from the nearest arterial street, 12th Avenue.

Policy L39 Typical Uses in the High-Density Residential Land Use Designation

Define the uses allowed in the High-Density Residential land use designation to include multi-family residential dwellings in apartment buildings complexes.

Analysis: Multi-family residential dwellings are proposed within an apartment building complex in the development.

Policy L40 Design of the High-Density Residential Land Use Designation

Develop and enforce design policies and/or ordinances for High Density Residential developments that ensure high quality construction, design, open space amenities, safety and security, overall compatibility with the rest of the neighborhood.

Analysis: Development of the High-Density Residential land use within the Hanford Place Master Plan will be regulated through compliance with Section 17.14 of the Hanford Municipal Code, except where modified through development standards for the Hanford Place Master Plan.

Policy L41 Location and Size of the High-Density Residential Land Use Designation

Locate High Density Residential land use designations in close proximity to Arterial streets, commercial centers, recreational facilities, and employment centers.

Analysis: The High-Density Residential land use designation is proposed to be located along Glendale Avenue, between 11th and 12th Avenues, both of which are designed arterials. The designation will be located within the Hanford Place Mixed Use development, which provides employment opportunities for medical-related uses. The designation is also proximal to the Adventist Health Hospital, which is a large employment center for the City of Hanford.

The General Plan Amendment to change the land use designation from Highway Commercial to a combination of Service Commercial and High-Density Residential is consistent with the General Plan policy.

Additional Applicable Goals and Policies

Economic Development and Employment Goals

Goal E1: A diverse and robust local economy capable of providing employment for all residents desiring to work in the city.

Analysis: The proposed Hanford Place supports Goal E1 by providing medical-related employment opportunities for residents desiring to work in the City of Hanford.

Policy P80 Health Care Services

Support hospitals, clinics, shelters, and other medical services that meet the health care needs of Hanford's residents.

Analysis: The proposed Hanford Place development supports Policy P80 by supporting medical uses

to meet the health care needs of Hanford's residents.

Growth Management Goals

Goal L2: Development preference of vacant and underutilized properties.

Goal L3: Limitation of urban sprawl-style development patterns in new growth areas

Policy L11 Infill Development

Support, encourage, and incentivize, to the extent possible, infill development projects that can effectively utilize existing transportation and utility infrastructure.

Policy L107 Revitalization and Redevelopment

Encourage property owners to revitalize or redevelop abandoned, obsolete, or underutilized properties to accommodate growth.

An infill development site is defined as any parcel or group of parcels that are vacant or underdeveloped and surrounded by development on at least 75% of its perimeter. Infill sites may include previously developed sites that may/will be redeveloped. Examples include:

- Mixed use development in the Downtown and/or in areas within walking distance to transit, employment centers, and commercial services where the environmental impacts of the development would be minimized.
- Targeted residential infill development that addresses the needs of seniors, lower income households, single households and empty nesters, young professionals, and other special needs groups.

Policy L135 Infill Development Support

Support, encourage and, to the extent possible, incentivize infill development projects that can effectively utilize existing transportation and utility infrastructure.

Policy L137 Creative Design Solutions

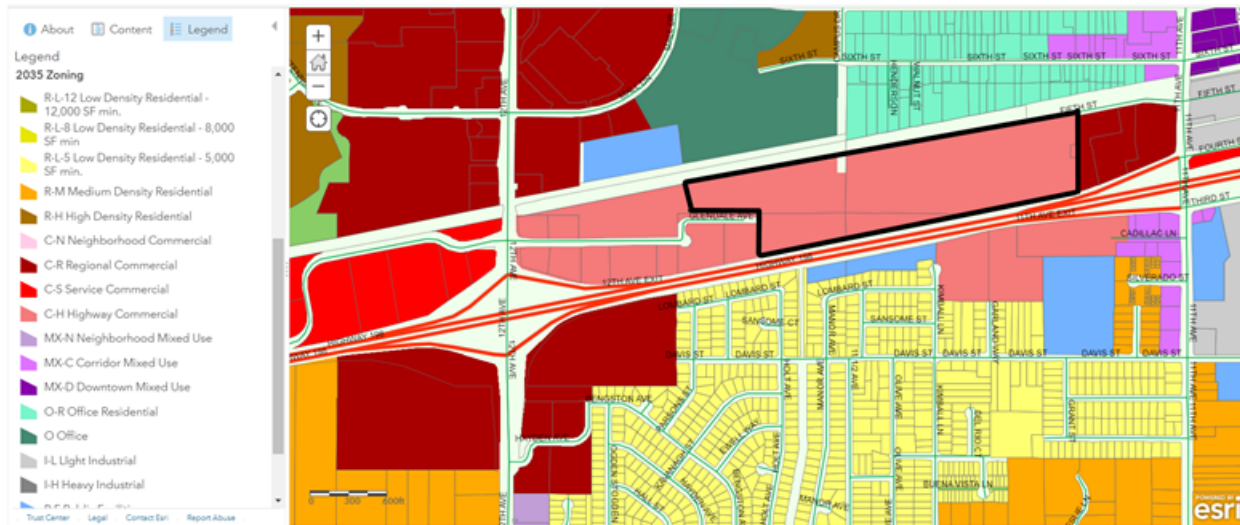
Allow unique, diverse, and creative design solutions for infill development that are compatible with and enhance surrounding land uses.

Analysis: The Hanford Place Development represents creative design solution to an in-fill development area. Development of this area gives preference to a vacant, underutilized property and limits growth to a new area. The project provides residential opportunities in proximity to existing and planned employment hubs. The project also proposes infill development that addresses the needs of seniors, such as memory care facilities and assisted living opportunities.

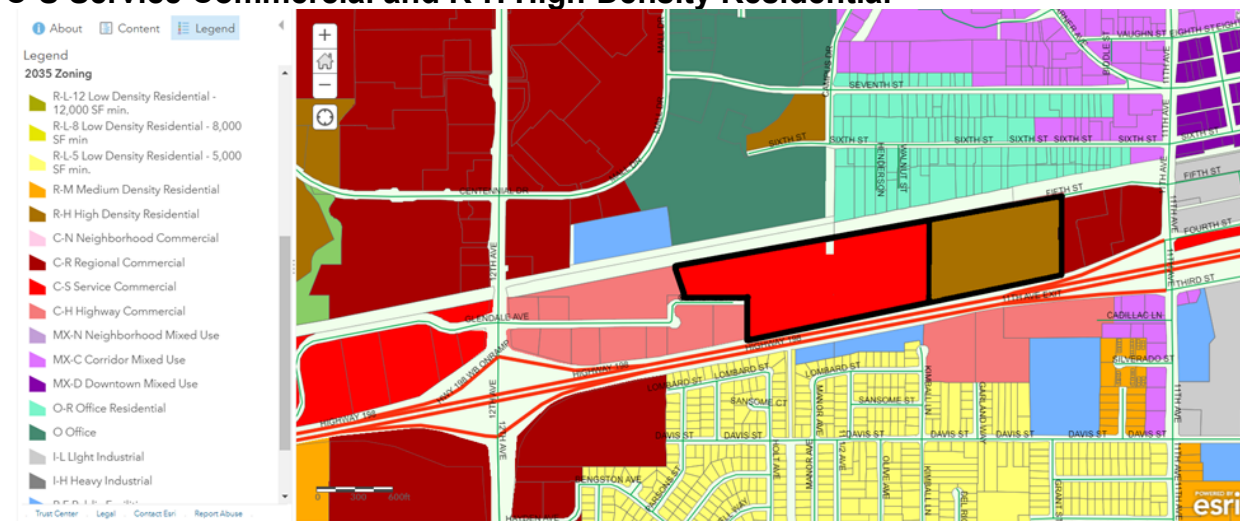
Rezone No. 2022-01

Rezone No. 2022-01 is a request to change the zoning from C-H Highway Commercial to a combination of C-S Service Commercial and R-H High-Density Residential, due to incompatibility with the Hanford Place Master Plan and the existing C-H Highway Commercial zoning.

**Figure 9: Existing Zoning
C-H Highway Commercial**



**Figure 10: Proposed Zoning
C-S Service Commercial and R-H High-Density Residential**



The project is incompatible with the present zoning, since it proposes land uses that are not permitted in the C-H Highway Commercial zone district, including medical and professional offices, urgent care clinics, a nursing college or other satellite campus, and multi-family residential. (See Figures 4-6).

The uses proposed within the Hanford Place Master Plan are permitted in the C-S Service Commercial and R-H High-Density Residential zone district, as demonstrated in the Land Use tables, below.

**Figure 11: Zone Use Table
Education, Religious, and Assembly Uses**

Commercial, Office, and Industrial Zone Use Table P = Use Is Permitted by Right C = Use Requires Conditional Use Permit A = Use Requires Administrative Use Permit T = Use Requires Temporary Use Permit Blank = Use Is Not Allowed																
Land Uses		Commercial Zones				Mixed Use Zones			Industrial and Office Zones				Other Zones			Specific Land Use Standards (See Identified Section)
		C-N	C-R	C-S	C-H	MX-N	MX-C	MX-D	O-R	O	I-L	I-H	AP	PF	CO	
C	Education, Religious and Assembly Uses															
C5	College or university, public or private		C	C			C	C						P		
C13	School; charter, trade, vocational, art, business, or professional		C	P			C	C	C	C	C			P		

**Figure 12: Zone Use Table
Office and Medical Uses**

Commercial, Office, and Industrial Zone Use Table P = Use Is Permitted by Right C = Use Requires Conditional Use Permit A = Use Requires Administrative Use Permit T = Use Requires Temporary Use Permit Blank = Use Is Not Allowed																
Land Uses		Commercial Zones				Mixed Use Zones			Industrial and Office Zones				Other Zones			Specific Land Use Standards (See Identified Section)
		C-N	C-R	C-S	C-H	MX-N	MX-C	MX-D	O-R	O	I-L	I-H	AP	PF	CO	
E	Office and Medical Uses															
E4	Laboratory; general, medical or dental		C	P	C		P	C		P	C					
E5	Hospital, general or psychiatric									P				P		
E6	Office; medical, dental, or optometry															
	Under 2,000 sq. ft.	P	P	P		P	P	P	P	P						
	2,000 – 6,000 sq. ft.	P	C	P		P	P	P	P	P						
	Over 6,000 sq. ft.	P		P		P	P	P	P	P						
E7	Office; professional or commercial															
	Under 2,000 sq. ft.	P	P	P		P	P	P	P	P						
	2,000 – 6,000 sq. ft.	P	C	P		P	P	P	P	P						
	Over 6,000 sq. ft.	P		P		P	P	P	P	P						
E8	Pharmacy	P	P	P		P	P	P		P						
E9	Urgent care center or other walk-in clinic	P	C	C		P	P	P		P						

**Figure 13: Zone Use Table
Residential Uses**

Commercial, Office, and Industrial Zone Use Table P = Use Is Permitted by Right C = Use Requires Conditional Use Permit A = Use Requires Administrative Use Permit T = Use Requires Temporary Use Permit Blank = Use Is Not Allowed																
Land Uses		Commercial Zones				Mixed Use Zones			Industrial and Office Zones				Other Zones			Specific Land Use Standards (See Identified Section)
		C-N	C-R	C-S	C-H	MX-N	MX-C	MX-D	O-R	O	I-L	I-H	AP	PF	CO	
H	Residential Uses															
H1	Assisted living, skilled nursing, or hospice facility					C	C	C	C							
H6	Hotel or motel		C	C	P		P	P								
H7	Live/work facility			P		P	P	P	P							
H8	Mobile home park															17.60.100
H9	Multifamily dwelling, 2 units per building (duplex)					P	P	P	P							
H10	Multifamily dwelling, 3 or 4 units per building (triplex or fourplex)					P	P	P	C							
H11	Multifamily dwelling, 5 or more units per building					P	P	P								

Figure 14: Residential Zone Use Table

Residential Zone Use Table P = Use Is Permitted by Right C = Use Requires Conditional Use Permit A = Use Requires Administrative Use Permit T = Use Requires Temporary Use Permit Blank = Use Is Not Allowed						
Land Uses		Single-Family Residential Zones			Multifamily Residential Zones	
		R-L-12	R-L-8	R-L-5	R-M	R-H
1	Residential Uses					
1	Assisted living, skilled nursing, or hospice facility	C	C	C	C	C
10	Multifamily dwelling, 2 units per building (duplex)			C	P	P
11	Multifamily dwelling, 3 or 4 units per building (triplex or fourplex)			C	P	P
12	Multifamily dwelling, 5 or more units per building				P	P

Pursuant to HMC 17.06.060 Zone Changes, changes to the zoning map shall be approved by ordinance of the City Council, in accordance with Chapter 17.86. Chapter 17.86 of the Municipal Code describes the process for consideration of a Rezone.

The reviewing authority is required to make the required findings below:

1. That the amendment is internally consistent with the goals, objectives, and policies of the General Plan and the Municipal Code.

Analysis: That Rezone No. 2022-01 is internally consistent with the goals, objectives, and policies of the General Plan, specifically consistent with Goals E1, L2, and L3, and Policies L38-41, L51-55, L11, L107, L135, L137 and P80 (as described in the General Plan Amendment section, above). All regulations pertaining to C-S – Service Commercial and R-H High-Density Residential zone district

will be enforced as development occurs through the Site Plan Review process, except as expressly modified by the Hanford Place Development Master Plan.

2. The amendment would not be detrimental to the public health, safety, or welfare of the community.

Analysis: That this application has been reviewed by County departments, utility companies, City Fire Department, City Building Department, and other involved departments. Any mitigation required for public health and safety were applied to the proposal and required in the mitigation monitoring and reporting program.

3. The amendment would maintain the appropriate balance of land uses within the City.

Analysis: That jobs-housing balance is achieved by increasing opportunities for people to work and live in close proximity. The ratio is expressed as the number of jobs divided by the number of housing units. The jobs-housing balance is a general tool for analyzing where people work, where they live, and how effectively they can travel between the two. In the planning area, the jobs-housing balance ratio in 2013-2014 was 1.17. It is estimated that the implementation of the General Plan would increase the jobs-housing balance by 0.45 to 1.62, which would make the planning area a jobs-rich area. The proposal to change the designation from Highway Commercial to a combination of Service Commercial and High-Density Residential will impact the job-housing balance projected by increasing the number of residential units in the area. The addition of the residential units to the formerly commercial designation will not affect the City's ability to maintain an appropriate balance of land uses within the City, as the increase in housing will bring more residential units to the jobs-rich planning area.

4. The anticipated land uses on the subject site would be compatible with existing and future surrounding uses.

Analysis: That the Hanford Place Master Plan proposes the development of a medical and mixed-use development on property proposed to be zoned C-S Service Commercial and R-H High-Density Residential. The land uses within the Hanford Place development are compatible with the surrounding land uses and compatible with future surrounding lands uses.

Direction	Existing Land Use	General Plan Designation	Zone District
North	Railroad; Adventist Health Medical Center; single-family residential	Office; Office Residential	O Office; O-R Office Residential
South	CA-198; car dealership; basin; single-family residential	Highway Commercial, Open Space, Low-Density Residential	C-H Highway Commercial, PF Public Facility, R-L-5 Low-Density Residential
East	Integrate shopping center – grocery, retail, gym, restaurant	Regional Commercial	C-R Regional Commercial
West	Veterinary hospital, mini-	Highway Commercial	C-H Highway Commercial

The project will be developed in conformance with the C-S Service Commercial and R-H High-Density Residential zone district regulations, except where expressly modified by the Hanford Place Master Plan (PUD).

Planned Unit Development No. 2023-01

Planned Unit Development No. 2023-01 proposes the development of the Hanford Place Master Plan. The proposed Hanford Place Master Plan is attached as **Attachment 1**.

Planned Unit Development

17.82.010 Purpose

Planned unit developments (PUDs) are encouraged to achieve a more functional, aesthetically pleasing, and harmonious living and working environment within the City that otherwise might not be possible by strict adherence to the provisions of this title. In certain instances, the objectives of this title may be achieved by development that does not conform in all respects with the land use pattern designated on the zoning map or in the zone districts prescribed by this title.

A planned unit development may be utilized to achieve one (1) or more of the following objectives *(the objectives sought by this PUD application are denoted by a check mark)*

- ✓ A. To permit a site within more than one (1) zone district to mix the permitted or conditionally permitted land uses of both zones within the site without regard to the zone district boundary.
- B. To permit development intensity greater than would otherwise be permitted by the implementation of the standards of the zone district in which the site is located.
- ✓ C. To permit the lot patterns on size, shape, and layout that would otherwise not be permitted by the standards of the zone district in which the site is located.
- ✓ D. To modify the required building setbacks, distances between structures, and landscaped areas that would otherwise be required by this title.
- E. To permit variations to the standard local street cross-sections.
- F. To permit private streets and gated neighborhoods.
- G. To permit the implementation of the mixed-use provisions in the MX-N, MX-C, or MX-D zone districts; and
- ✓ H. To reduce the amount of required parking spaces when spaces are shared among multiple land uses.

17.82.040 Prohibited Planned Unit Developments

A planned unit development is prohibited from being used to achieve one (1) or more of the following:

1. To add land uses that are not otherwise permitted in the zone district in which the PUD is located.

Analysis: With the proposal to change the land use designation and zoning from C-H Highway Commercial to C-S Service Commercial and R-H High-Density Residential, the Master Plan does not propose to add land uses that are not otherwise permitted in the zone district in which the PUD will be located. All uses proposed are consistent with the uses permitted in the C-S Service Commercial

an R-H High-Density Residential land use.

2. To increase residential densities beyond the maximum allowed by the General Plan.

Analysis: The residential densities proposed within the Hanford Place Master Plan are consistent with the allowable density in the High-Density Residential land use designation, which is the land use sought through General Plan Amendment No. 2022-01.

3. To modify sign standards or provisions in Chapter 17.56; or

Analysis: The applicant proposes to develop a Sign Program, consistent with the standards set forth in 17.56.220.

4. To modify parking and loading standards or provisions in Chapter 17.54, except as stated in Section 17.82.030.

Analysis: Parking is proposed as follows within the Hanford Place Master Plan:

1. motel or hotel - 1 space per guest room plus 1 space per employee.
2. assisted living, skilled nursing facility, or hospice - 1 space for every 4 beds.
3. multifamily dwellings - at least 50% of spaces shall be covered
 1. one-bedroom - 1.5 spaces per dwelling unit
 2. two-bedroom - 1.75 spaces per dwelling unit
 3. three or more bedrooms - 2 spaces per dwelling unit
4. all other allowed uses - 1 space per 350 square feet of building space.

The Hanford Place Master Plan does not seek to allow any of the specified prohibited objectives.

17.82.050 Site Area

1. The minimum site area for a planned unit development shall be five (5) acres, except that there shall be no minimum site area requirements if the site is an infill development site.
2. The site area may be made up of more than one (1) parcel, however all parcels in the site area shall be contiguous.

Analysis: The Hanford Place Master Plan encompasses 39.16 acres.

17.82.060 Findings

Before a planned unit development (PUD) permit can be approved, all of the following findings shall be made by the reviewing authority identified in Chapter 17.70:

A. The location and design of the PUD is in accordance with the purpose of this title.

1. The PUD is being proposed to achieve one (1) or more of the objectives identified in Section 17.82.030.
2. The location and design of the PUD and the conditions under which it would be operated or maintained will not be detrimental to the public health, safety or welfare of the community to properties or improvements in the vicinity.
3. The location and design of the PUD will not generate more traffic than the streets in the vicinity can carry without congestion and will not overload utilities.
4. That PUD's population density, site area and dimensions, site coverage, yard spaces, height

of structures, distances between structures, off-street parking and off-street loading facilities, landscaped areas and street design will produce an environment of stable and desirable character consistent with the purpose of this title.

5. The combination of different dwelling types, architectural appearance, and/or varieties of land uses in the development will complement each other and will harmonize with the existing and proposed land uses in the vicinity; and

B. A PUD may be denied if the reviewing authority finds one (1) or more of the findings in this section cannot be made.

Analysis: The required findings are able to be supported, as demonstrated in the Findings of Approval section.

Conformance with the standards of the C-S – Service Commercial and R-H High-Density Residential Zone Districts

17.20.030 Service Commercial Site Area

In the C-S – Service Commercial zone district, the minimum site area shall be 5,000 square feet.

17.14.030 High-Density Residential Lot Area

In the R-H High-Density Residential zone district, the minimum lot area shall be 5,000 square feet, however existing lots of less than 5,000 square feet may be developed in accordance with the specifications of Section 17.14.

Analysis: The project site encompasses a total of 39.16 acres. The C-S Service Commercial portion of the development is 25.9 acres. The R-H High-Density Residential portion of the development is approximately 10 acres. *The remaining acreage represents right-of-way dedication.*

17.20.040 Service Commercial Lot Dimensions

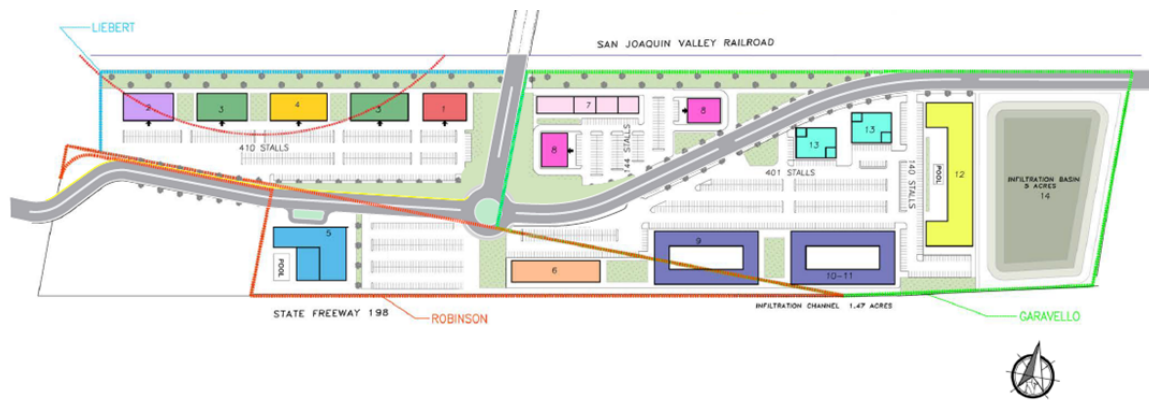
In the C-S – Service Commercial zone district, the minimum lot frontage shall be forty (40) feet, unless a reciprocal use agreement for shared common access and parking areas is recorded with the Kings County recorder's office.

17.14.040 High-Density Residential Lot Dimensions

In the R-H High-Density Residential zone district:

- a. The minimum lot frontage shall be forty (40) feet.
- b. The minimum lot width shall be fifty (50) feet for interior lots and sixty (60) feet for corner lots.
- c. The minimum lot depth shall be ninety (90) feet.
- d. Lots developed adjacent to an arterial or collector street are to be designed as walled or fenced back-on or side-on lots with a minimum five (5) and maximum ten (10) foot wide landscape easement continuous and adjacent to the street right-of-way line. The minimum lot dimensions are to be exclusive of the landscape easement area. The wall or fence shall be located in the landscape easement area adjacent to the easement line.

Analysis: The entire project site is formed by four parcels. Each parcel will have street frontage when Glendale Avenue and Campus Drive are extended, as shown below.



The Hanford Place Master Plan shows future pad development; however, parcel division is not proposed at this time. Future division will be evaluated through the Tentative Parcel Map process, subject to Planning Commission review.

17.14.050 High-Density Residential Site Area Per Dwelling Unit

In the R-H High-Density Residential zone district, the minimum site area per dwelling unit shall be fifteen hundred (1,500) square feet. 170 multi-family units are proposed throughout the Hanford Place Master Planned Development. The 170 units are a combination of multi-family units, assisted living units, and a memory care facility. The entire Hanford Place Master Plan encompasses 39.16 acres (1,705,810 square feet). The number of units proposed does not exceed the square footage required per unit.

The Hanford Place Master Plan is conceptual. Future development of residential units will be evaluated to ensure the number of units per site area does not exceed the prescribed requirement.

17.20.050 Service Commercial Coverage

In the C-S – Service Commercial zone district, the maximum coverage of a lot shall be determined by the combined building setback area requirements, open space requirements, and off-street parking and loading requirements.

17.14.060 High-Density Residential Coverage

In the R-H High-Density Residential zone district, the maximum coverage of a lot shall be determined by the combined building setback area requirements, accessory structure limitations, open space requirements, and off-street parking requirements.

All required building setbacks, landscaping, off-street parking and loading requirements will be evaluated and mandated as part of the site plan review process, upon physical development.

17.20.060 Service Commercial Building Setback Areas

In the C-S – Service Commercial zone district, no structure shall be placed within a building setback area.

Front:

The front building setback area shall be a minimum of 15 feet, except that in C-S zones bounded by State Route 198, 10th Avenue, 11th Avenue, and Sixth Street there is no minimum front building setback area requirement. The project site is bounded by State Route 198 to the south.

Rear:

The rear building setback may be zero (0) feet from the rear lot line, except where the rear lot line abuts a public street in an R-L, R-M, R-H, OR, O, PF, AP, or CO zone district then the rear building setback shall be fifteen (15) feet.

Side:

The side building setback area shall be zero (0) feet, except that where the side lot line abuts a public street or an R-L, R-M, R-H, OR, O, PF, AP, or CO zone district the side building setback area shall be 15 feet.

17.14.070 High-Density Residential Building Setback Areas

In the R-H High-Density Residential zone district, no structure shall be placed within a building setback area.

Front:

The front building setback area shall be fifteen (15) feet from the front lot line for livable building space and twenty (20) feet for garages, carports, and other non-livable building space.

Rear:

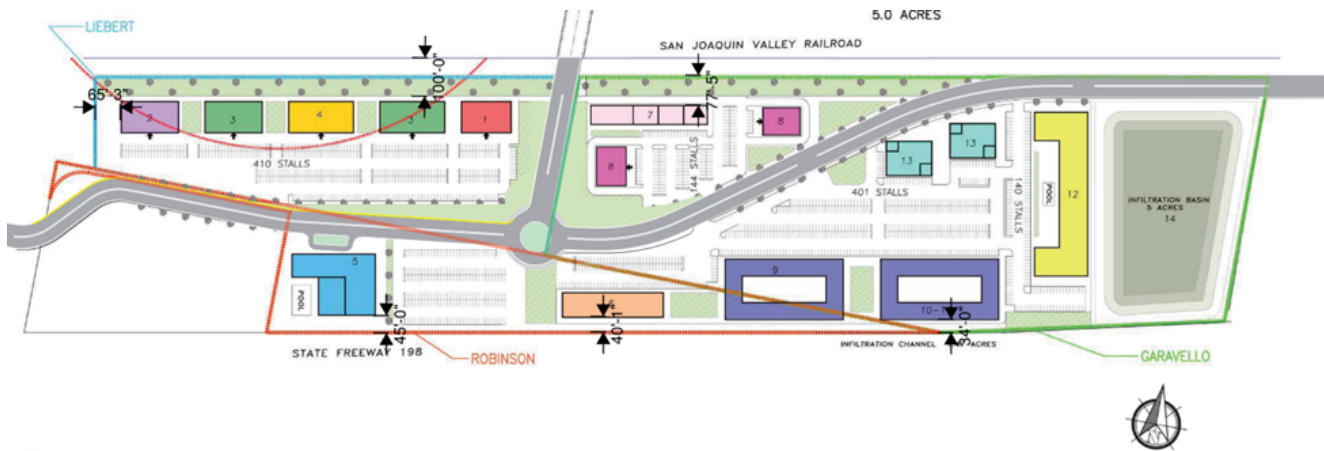
The rear building setback shall be fifteen (15) feet from the rear lot line, except where there is a landscape easement with a wall or fence on the rear of the lot then the rear building setback shall be twenty (20) feet. The rear building setback area shall be increased by ten (10) feet for buildings over one story high.

Side:

The side building setback area shall be five (5) feet from an interior side lot line and ten (10) feet from a street side property line. Where there is a landscape easement with a wall or fence on the street side of the lot the side yard setback area shall be measured from the easement area instead of the side lot line.

Analysis: As part of the Hanford Place Master Plan, project-specific setbacks have been identified in the Design Conditions (p. 5 of the Master Plan), as follows:

- Additional building setbacks are not required between the two zones within the PUD plan area. The C-S zone required setbacks shall apply to the entire PUD plan area.



The conceptual site plan shown in the Hanford Place Master Plan shows buildings setback approximately 77 feet from the northern most property boundary, 65 feet from the western property boundary, and a minimum of 34 feet from the southern property boundary.

The following setbacks will be enforced during Site Plan Review for the Hanford Place Master Plan

Direction	Setback (measured in feet)
Front Setback	15 feet; No minimum for lots bounded by State Route 198 (0)
Rear Setback	No minimum required (0)
Side Setback	No minimum required (0)
Street-Side Setback	15 feet

17.20.070 Service Commercial Distances Between Structures

In the C-S – Service Commercial zone district, the minimum distance between a structure used solely for residential purposes and another structure shall be 10 feet, except as provided by the building code.

17.14.080 High-Density Residential Distances Between Structures

In the R-H High-Density Residential zone district, the minimum distance between structures shall be ten (10) feet, except as provided by the building code.

Analysis: As required, the minimum distance between structures within the Hanford Place Master Plan will be 10 feet, except as provided by building code.

17.20.080 Service Commercial Height of Structures

In the C-S – Service Commercial zone district, the maximum structure height shall be 50 feet.

17.14.090 High-Density Residential Height of Structures.

The maximum structure height shall be thirty-five (35) feet.

Analysis: As part of the Hanford Place Master Plan, project-specific height limitations have been identified in the Design Conditions (p. 5 of the Master Plan), as follows:

- The maximum building height for the PUD area shall be per the C-S zone, which is 50 feet.

The requested height is able to be supported. There is no conflict with the height proposed and the Airport Land Use Compatibility Plan, as the project area is located outside of the Airport Protection Zone.

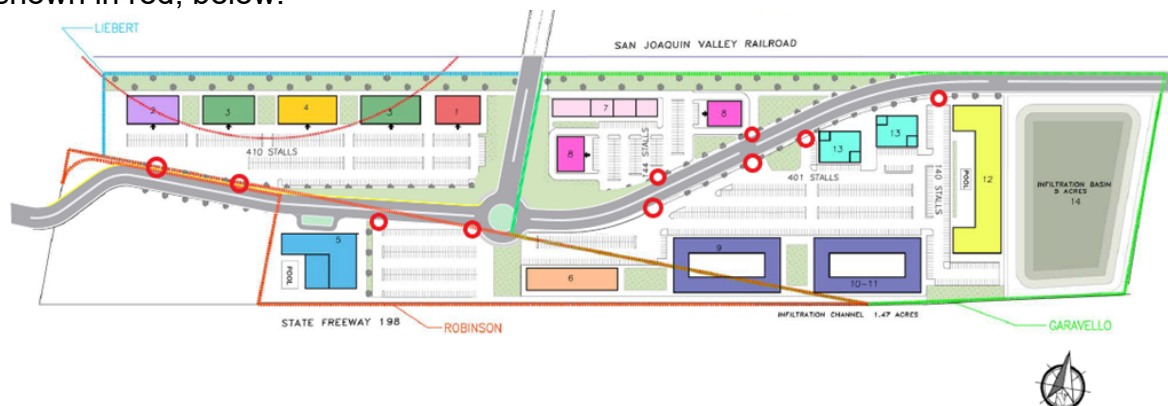
17.20.090 Service Commercial Driveways

In the C-S – Service Commercial zone district, wherever possible developments shall share driveways to minimize the number of driveways on public streets. New driveways near street corners shall be located a minimum 100 feet from the radius curve of the curb, unless otherwise specifically approved by the City Engineer. Sites with alleys should utilize alley access to minimize driveways on streets to the greatest extent possible.

17.14.100 High-Density Residential Driveways

In the R-H High-Density Residential zone district, the width of a driveway and any paved area shall not cumulatively exceed forty percent (40%) of the width of the lot's street frontage on which the driveway and any paved area faces. In the case of "L" or "U" shaped driveways or other configurations besides perpendicular driveways the paved area of these driveways shall not exceed fifty percent (50%) of the front building setback area. On corner lots, the driveway shall be located on the side of the lot adjacent to the interior lot line. On key lots the driveway shall be located on the side of the lot which is not adjacent to the rear lot line of the adjacent reverse corner lot.

Analysis: The Hanford Place Master Plan proposes to develop shared driveways and establish cross-access throughout the Master Planned development. Access will be generally located as shown in red, below:



The location of driveways will be proposed and reviewed by the City Engineer and Fire Department during Site Plan Review when physical, site-specific development is proposed.

17.20.100 Service Commercial Off-Street Parking

Off-street parking and off-street loading facilities shall be provided on the site for each use as prescribed in Chapter 17.54. In the C-S Service Commercial zone district, parking areas shall not be closer than five (5) feet to any front or street side lot line. The area between the lot line and parking area shall be landscaped. New parking areas should be located behind or to the side of buildings, not between buildings and the street.

17.14.130 High-Density Residential Off-Street Parking

In the R-H High-Density Residential zone district, off-street parking and off-street loading facilities shall be provided on the site for each use as prescribed in Chapter 17.54, and as follows:

- A. Required parking spaces may not be provided in any front, side, or rear building setback area.
- B. The minimum parking space dimensions shall be nine (9) feet wide by eighteen and one-half (18.5) feet long.
- C. No recreation vehicle, including without limitation camping trailer, boat trailer, utility trailer, boat, pickup camper, motor home, dune buggy, or similar vehicle/trailer shall be stored or parked, except within an enclosed side or rear yard or within a garage or carport except if a side or rear yard is not accessible due to existing legal permanent structures, a recreational vehicle or trailer may be parked in a driveway or adjacent to a driveway if it does not create a nuisance or safety problem as determined by the Community Development Director.
- D. All recreational vehicles or trailers parked in a location visible from the street are to be clean and maintained so as not to detract from the neighborhood. Also, see Chapter 10.76 of the Hanford Municipal Code.
- E. No recreational vehicle or trailer shall be used as a residence.
- F. All motor vehicles incapable of movement under their own power, other than in cases of emergency, shall be stored in an entirely enclosed space, garage, or carport. Vehicles with custom fitted covers may be stored in an open area when it does not create a nuisance or safety problem as determined by the Community Development Director, cause complaints from neighbors or violate any section of this code.
- G. Repair of vehicles owned by the resident of the property and storage of parts shall be within an enclosed garage or carport, if no garage exists. Repair of vehicles not owned by the resident of the property is prohibited. Vehicle repair and storage of parts are prohibited in a driveway and the front or street side building setback areas.
- H. Garages and carports are to be primarily used for the parking of four-wheeled vehicles. The use of garages or carports for general storage, recreation activities or other uses that prevent the use of the garage or carport for the parking of at least one four-wheeled vehicle is prohibited.
- I. Except for driveways allowed in the front building setback area, all additional parking for residential uses shall be to the rear or side of the dwelling. No parking shall occur in the front or street side building setback areas.

Analysis: The Hanford Place Master Plan proposes parking to adhere to the following prescribed ratios:

- 1. motel or hotel - 1 space per guest room plus 1 space per employee.
- 2. assisted living, skilled nursing facility, or hospice - 1 space for every 4 beds.
- 3. multifamily dwellings - at least 50% of spaces shall be covered.
 - one-bedroom - 1.5 spaces per dwelling unit
 - two-bedroom - 1.75 spaces per dwelling unit
 - three or more bedrooms - 2 spaces per dwelling unit
- 4. all other allowed uses - 1 space per 350 square feet of building space.

Parking will be required to be located outside of any required setback area, at a minimum of five feet from any front or street-side lot line. Although the C-S Service Commercial zone district specifies that parking shall not be located between buildings and the street, this is not required within the Hanford Place Master Plan. A deviation will be allowed through the Planned Unit Development process.

Parking will be further evaluated during the site plan review process to ensure compliance with the requirements set forth.

17.20.110 Service Commercial Usable Open Space

There is no minimum requirement for usable open space in the C-S – Service Commercial zone district.

17.14.140 High-Density Residential Usable Open Space

In the R-H High-Density Residential zone district, lots with four (4) or less dwelling units shall provide for a usable open space area of a minimum three hundred (300) square feet per dwelling unit. The open space shall be a minimum fifteen (15) feet wide. Lots with five (5) or more dwelling units shall provide for a usable open space area equal to five percent (5%) of the lot area. Where multiple lots that together make up a single development site, the required open space may be combined into common open space areas that are accessible to all residents of the site.

Analysis: Per the conceptual site plan provided within the Master Plan, a swimming pool is proposed to serve as the common open space in the multi-family development. Swimming pools are permitted as common open space, as described in Section 17.98.020 Definition of Terms.

“Open space, common usable” means recreational or leisure space for the shared use of residents of a multi-unit development with no dimension less than twenty (20) feet and may include gardens, playgrounds, courtyards, swimming pools, sitting areas, court games, recreation rooms, exercise rooms or gyms, spas, community rooms, lawn/turf used for open play, ponds, fountains, atriums, picnic areas, rooftop gardens or green roofs, or similar uses or facilities.

Open space will be required to be provided in an area equivalent to five percent of the total site area associated with the multi-family use. Open space is not required to be provided within the C-S Service Commercial portion of the plan.

17.14.110 High-Density Residential Accessory Structures

In accordance with the R-H High-Density Residential zone district standards, accessory structures may be located with a required rear or side building setback area subject to all of the following:

- A. The floor area shall be a maximum one hundred twenty (120) square feet.
- B. The walls shall be at least three (3) feet from rear and side lot lines.
- C. The roof eaves shall be at least two (2) feet from rear and side lot lines.
- D. The accessory structure shall be separated from other structures by a minimum of ten (10) feet.
- E. The plate line height shall be a maximum seven (7) feet high.
- F. The roof pitch shall be a maximum 4:12.
- G. The roof ridge peak height shall be a maximum of ten (10) feet.

Analysis: Accessory structures are not proposed at this time; future proposal of accessory structures will be required to adhere to the above standards within the R-H High-Density Residential portion of the plan.

17.14.120 High-Density Residential Other Setback Standards

The following setback standards shall apply to mechanical equipment, garages and carports, swimming pools, decks, balconies, and other types of platforms.

- A. Mechanical equipment shall be located a minimum of five (5) feet from a side lot line that adjoins a neighboring side lot line.
- B. Garages or carports opening onto an alley shall be set back twenty-five (25) feet from the far side of the alley, provided that the structure, including roof overhang, shall not extend into the alley right-of-way. (No alleys proposed within the development)
- C. Above or below ground swimming pools shall be set back five (5) feet from all lot lines.
- D. Decks, balconies, and other types of platforms with a floor height over two (2) feet high shall be set back five (5) feet from the rear and interior side lot lines and ten (10) feet from the street side lot line.
- E. Garages and carports opening on the street side lot line of a corner lot shall be set back twenty (20) feet from the street side lot line. (Ord. 17-04, 2017)

Analysis: Mechanical equipment, garages and carports, swimming pools, decks, balconies and other platforms will be evaluated and required to adhere to the above standards within the R-H High-Density Residential portion of the Master Plan area.

17.20.120 Service Commercial Landscaping

In the C-S – Service Commercial zone district, landscaping shall be provided and permanently maintained in a setback area not less than 15 feet from a lot line adjoining a street, except where the setback area is covered by structures, parking, or driveways.

17.14.150 High-Density Residential Landscaping

In the R-H High-Density Residential zone district, except for driveways and approved parking areas all yard areas and setback areas visible from the street(s) shall be landscaped with live plant materials and ornamentation common to the Hanford Area or up to 100 percent of the yard and setback area may be landscaped with artificial turf and other permeable surfaces.

Analysis: The conceptual site plan within the Master Plan shows landscape areas within all areas not used for parking, structures, or driveways and specifies that landscaping design shall be consistent between the sites in the PUD plan area. As required, during the site plan review process, the Site Plan Review Committee will require all areas not covered by structures, parking, or driveway shall be landscaped with live plant material, artificial turf, or other permeable surfaces, consistent with State law.

17.20.130 Service Commercial Screening, Fences, and Walls

In the C-S – Service Commercial zone district, a block wall with a minimum height of seven (7) feet shall be provided along any side or rear lot line that abuts an R-L, R-M, R-H, OR, PF, AP, or CO zone district. No fence or wall shall be placed in front of or within any landscaped area located next to a street.

17.14.160 High-Density Residential Screening, Fences, and Walls

In the R-H High-Density Residential zone district, all fences and walls shall be provided on the site for each use in accordance with Section 17.50.120, which requires:

Fences and walls in the R-L, R-M, R-H, OR O and PF zone districts shall be constructed or installed in accordance with the following:

- A. Along a rear lot line not exceeding seven (7) feet in height.
- B. Along an interior side lot line not exceeding seven (7) feet in height beginning at ten (10) feet from the front lot line.
- C. On a corner lot along the street side lot line not exceeding seven (7) feet in height beginning at twenty-five (25) feet from the front lot line. On a reverse corner lot, the fence or wall is to be set back from the street side lot line five (5) feet. On a reverse corner lot, the rear lot line fence is not to extend beyond the five (5) foot street side building setback area.
- D. On a corner lot when a residence is constructed with its front access facing the street side lot line of a corner lot, a six (6) foot high fence is to be placed ten (10) feet behind the front property line. The street corner forty-five (45) degree angle line of sight is to be maintained as described in subsection H of this section. When the front of the house fronts the street side lot line a fence exceeding three (3) or four (4) feet in height as described in subsections E and F of this section is to be set back ten (10) feet from the street side lot line.
- E. Along a front lot line not exceeding three (3) feet in height.
- F. Along a front lot line not exceeding four (4) feet in height when the upper one (1) foot is fifty percent (50%) or more open.
- G. Along a front lot line an open chain link fence up to seven (7) feet in height may be located in conjunction with a public or quasi-public playground or park use.
- H. A six (6) foot fence or wall may be located in a front building setback area when set back ten (10) feet from the front lot line. Except in the case of a corner lot, the fence wall shall begin a forty-five (45) degree angle at a point twenty-five (25) feet from the front lot line located on the street side lot line.

Analysis: As identified in the initial study, six-and-a-half foot-high sound walls would mitigate noise impacts for outdoor uses, such as the swimming pools within the hotel and multi-family units. Aside from the sound walls proposed to reduce noise impacts, fencing and walls are not proposed within the Hanford Place Master Plan.

As part of the Hanford Place Master Plan, project-specific fencing and walls have been identified in the Design Conditions (p. 5 of the Master Plan), as follows:

- A block wall is not required within the PUD plan area between the zones.

Requests for placement of walls will be reviewed and required as part of the Site Plan Review process.

17.20.140 Service Commercial Signs

Signs placed in the C-S – Service Commercial zone district shall be subject to the requirements and

standards prescribed in Chapter 17.56.

17.14.170 High-Density Residential Signs

Signs placed in the R-H High-Density Residential zone district shall be subject to the requirements and standards prescribed in Chapter 17.56.

Analysis: No signage is proposed at this time. The applicant proposes the development of a Master Sign Program for the Hanford Place Master Plan area, as described in the Design Conditions (p. 5 of the Master Plan):

- A sign program shall be established prior to building permit approval for the first office or commercial use. The sign program would not apply to residential, and hotel/motel uses, which would follow sign standards in the Zoning Ordinance.

Establishment of a sign program for a project requiring Planning Commission review, requires approval by the Planning Commission, as described in Section 17.56.220 of the Hanford Municipal Code:

17.56.220 Master Sign Program

1. The purpose of the master sign program provisions is to provide a coordinated and flexible design approach to signage for Hanford's commercial shopping districts and office parks. A master sign program is required for any site that contains more than three (3) commercial establishments.
2. A master sign program shall be reviewed by the Community Development Director as an administrative use permit. The Planning Commission shall approve a master sign program when it is proposed with a development project that requires a conditional use permit.
3. A master sign program shall not be used to grant of a special privilege nor provide more visibility or exposure than is available to similarly situated properties.
4. Master sign programs shall feature a unified and coordinated approach to the materials, color, size, type, placement and general design of signs proposed for a project or property.
5. Reasonable conditions of approval may be imposed to achieve the purposes of this section and ensure internal sign design consistency on the site.
6. After approval of a master sign program, no sign shall be erected, placed, painted, or maintained, except in conformance with such program, and such program shall be enforced in the same way as any provision in this section.
7. The master sign program and all conditions of approval shall be attached to the lease agreements for all leasable space subject to the master sign program.
8. Approval of a master sign program does not waive the permit requirements for individual signs

that are subject to the program.

The Community Development Director may approve minor amendments to a master sign program that are in substantial conformance with the original approval. All other amendments, including amendments to conditions of approval, shall be processed as a new application. Proposed amendments shall include written concurrence by the property owner.

The Master Sign Program will apply to all uses in the C-S Service Commercial portion of the plan, except for the hotel.

The hotel will be subject to the following sign standards, established by the Municipal Code for the C-S Service Commercial zone district.

Table [17.56.090\(A\)](#)

Number and Size of Permanent Signs by Zone		
Zone District	Building Signs	Freestanding Signs
C-N, C-R, C-S, C-H, MX-N, MX-C, and O zones	No limit to number of signs per business establishment. Allowed square footage per building frontage is cumulative. Establishments with primary building frontage less than 300 feet: 2 sq. ft. per 1 lineal foot up to a maximum 350 sq. ft. along primary frontage. 50 sq. ft. allowed regardless of frontage length. Secondary building frontage: 1 sq. ft. per lineal foot up to a maximum 200 sq. ft. per secondary frontage. 35 sq. ft. allowed regardless of frontage length. Sites within 100 feet of State Route 198 may count the frontage facing State Route 198 as their primary frontage for the purpose of calculating maximum sign size.	1 sign per establishment maximum. 40 sq. ft. maximum sign face size. 6 feet high maximum if set back 10 feet from property line. 5 feet high maximum if set back 5 feet from property line. 4 feet high maximum if set back 0 feet from property line. Sites with an integrated shopping center: 1 additional freestanding sign up to 350 sq. ft. Maximum height not greater than 1.5 times the average

		height of the building.
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The uses proposed within the R-H High-Density Residential portion of the plan will be subject to the following sign standards, established by the Municipal Code:

Table [17.56.090\(A\)](#)

Number and Size of Permanent Signs by Zone		
Zone District	Building Signs	Freestanding Signs
AP, R-L, R-M, and R-H zones with 4 or less residences per site	1 sign per residence maximum. 4 sq. ft. maximum size per sign. Placement a maximum 8 feet high. External illumination only.	None allowed.
AP, R-M, and R-H zones with 5 or more residences per site or with non-residential uses on site	1 sign per street frontage maximum. 30 sq. ft. maximum size per sign. Placement a minimum 5 feet below roofline. External illumination only.	1 sign per site maximum. 20 sq. ft. maximum size. 6 feet high maximum. External illumination only.

17.20.150 Service Commercial General Provisions and Standards

No business, service, or processes that is not a part of the main use of the site shall be conducted outside a completely enclosed permanently fixed structure, except where specifically permitted by this title. Mechanical equipment shall be located a minimum of five (5) feet from a rear or side lot line that abuts an R-L, R-M, R-H, OR, O, PF, AP, or CO zone district.

17.14.180 High-Density Residential General Provisions and Standards

In accordance with the R-H High-Density Residential zone district standards, structures and the use of structures or land shall be subject to the requirements and standards prescribed in Chapter 17.50.

Analysis: The Hanford Place Development will be developed consistent with the General Provisions set forth for the C-S Service Commercial and R-H High-Density Residential zone district.

PLANNING COMMISSION

The item was presented to the Planning Commission on January 14, 2025. The related items were approved unanimously. A copy of the minutes of the January 14, 2025 Planning Commission meeting are attached – **Attachment 9**.

Following the staff report presentation, three persons spoke in favor of the project during public comment:

- Steve Brandt, with QK (engineers for the project), thanked City staff and encouraged approval of the project.
- Jennifer Sheldon, with Adventist Health, stated that they are in favor of the project.
- Rhett Swasey was in favor of this development of the property and expressed total support.

No persons spoke in opposition.

Following the close of the public hearing, the Planning Commission voted 5,0 to:

1. Recommend certification of Mitigated Negative Declaration No. 2023-93 for the project to the City Council.
2. Adopt Resolution No. 2025-04, recommending approval of General Plan Amendment No. 2022-01 to the City Council.
3. Adopt Resolution No. 2025-05, recommending approval of Rezone No. 2022-01 to the City Council.
4. Adopt Resolution No. 2025-07, recommending approval of Planned Unit development No. 2022-01 to the City Council.

FINDINGS FOR APPROVAL

General Plan Amendment No. 2022-01

In accordance with HMC Section 17.88.040, before a general plan amendment may be approved, all of the following findings shall be made by the reviewing authority:

1. That the amendment is internally consistent with the goals, objectives, and policies of the General Plan and the Municipal Code.

Analysis: That Rezone No. 2022-01 is internally consistent with the goals, objectives, and policies of the General Plan, specifically consistent with Goals E1, L2, and L3, and Policies L38-41, L51-55, L11, L107, L135, L137 and P80 (as described in the General Plan Amendment section, above). All regulations pertaining to C-S – Service Commercial and R-H High-Density Residential zone district will be enforced as development occurs through the Site Plan Review process, except as expressly modified by the Hanford Place Development Master Plan.

2. The amendment would not be detrimental to the public health, safety, or welfare of the community.

Analysis: That this application has been reviewed by County departments, utility companies, City Fire Department, City Building Department, and other involved departments. Any mitigation required for public health and safety were applied to the proposal and required in the mitigation monitoring and reporting program.

3. The amendment would maintain the appropriate balance of land uses within the City;

Analysis: That jobs-housing balance is achieved by increasing opportunities for people to work and live in close proximity. The ratio is expressed as the number of jobs divided by the number of housing units. The jobs-housing balance is a general tool for analyzing where people work, where they live, and how effectively they can travel between the two. In the planning area, the jobs-housing balance ratio in 2013-2014 was 1.17. It is estimated that the implementation of the General Plan would increase the jobs-housing balance by 0.45 to 1.62, which would make the planning area a jobs-rich area. The proposal to change the designation from Highway Commercial to a combination of Service Commercial and High-Density Residential will impact the job-housing balance projected by increasing the number of residential units in the area. The addition of the residential units to the

formerly commercial designation will not affect the City's ability to maintain an appropriate balance of land uses within the City, as the increase in housing will bring more residential units to the jobs-rich planning area.

4. The anticipated land uses on the subject site would be compatible with existing and future surrounding uses.

Analysis: That the Hanford Place Master Plan proposes the development of a medical and mixed-use development on property proposed to be zoned C-S Service Commercial and R-H High-Density Residential. The land uses within the Hanford Place development are compatible with the surrounding land uses and compatible with future surrounding lands uses.

Direction	Existing Land Use	General Plan Designation	Zone District
North	Railroad; Adventist Health Medical Center; single-family residential	Office; Office Residential	O Office; O-R Office Residential
South	CA-198; car dealership; basin; single-family residential	Highway Commercial, Open Space, Low-Density Residential	C-H Highway Commercial, PF Public Facility, R-L-5 Low-Density Residential
East	Integrate shopping center – grocery, retail, gym, restaurant	Regional Commercial	C-R Regional Commercial
West	Veterinary hospital, mini-storage, California Highway Patrol, hotel	Highway Commercial	C-H Highway Commercial

The project will be developed in conformance with the C-S Service Commercial and R-H High-Density Residential zone district regulations, except where expressly modified by the Hanford Place Master Plan (PUD).

Rezone No. 2022-01

In accordance with HMC Section 17.86.030, before a zone change may be approved, all of the following findings shall be made by the reviewing authority: (Note: the required findings to support the rezone application are the same as the findings used to support the General Plan Amendment).

1. That the amendment is internally consistent with the goals, objectives, and policies of the General Plan and the Municipal Code.

Analysis: That Rezone No. 2022-01 is internally consistent with the goals, objectives, and policies of the General Plan, specifically consistent with Goals E1, L2, and L3, and Policies L38-41, L51-55, L11, L107, L135, L137 and P80. All regulations pertaining to C-S – Service Commercial and R-H High-Density Residential zone district will be enforced as development occurs through the Site Plan Review process, except as expressly modified by the Hanford Place Development Master Plan.

2. The amendment would not be detrimental to the public health, safety, or welfare of the community.

Analysis: That this application has been reviewed by County departments, utility companies, City Fire Department, City Building Department, and other involved departments. Any mitigation required for public health and safety were applied to the proposal and required in the mitigation monitoring and reporting program.

3. The amendment would maintain the appropriate balance of land uses within the City;

Analysis: That jobs-housing balance is achieved by increasing opportunities for people to work and live in close proximity. The ratio is expressed as the number of jobs divided by the number of housing units. The jobs-housing balance is a general tool for analyzing where people work, where they live, and how effectively they can travel between the two. In the planning area, the jobs-housing balance ratio in 2013-2014 was 1.17. It is estimated that the implementation of the General Plan would increase the jobs-housing balance by 0.45 to 1.62, which would make the planning area a jobs-rich area. The proposal to change the designation from Highway Commercial to a combination of Service

Commercial and High-Density Residential will impact the job-housing balance projected by increasing the number of residential units in the area. The addition of the residential units to the formerly commercial designation will not affect the City's ability to maintain an appropriate balance of land uses within the city, as the increase in housing will bring more residential units to the jobs-rich planning area.

4. The anticipated land uses on the subject site would be compatible with existing and future surrounding uses.

Analysis: That the Hanford Place Master Plan proposes the development of a medical and mixed-use development on property proposed to be zoned C-S Service Commercial and R-H High-Density Residential. The land uses within the Hanford Place development are compatible with the surrounding land uses and compatible with future surrounding lands uses.

Direction	Existing Land Use	General Plan Designation	Zone District
North	Railroad; Adventist Health Medical Center; single-family residential	Office; Office Residential	O Office; O-R Office Residential
South	CA-198; car dealership; basin; single-family residential	Highway Commercial, Open Space, Low-Density Residential	C-H Highway Commercial, PF Public Facility, R-L-5 Low-Density Residential
East	Integrate shopping center – grocery, retail, gym, restaurant	Regional Commercial	C-R Regional Commercial
West	Veterinary hospital, mini-storage, California Highway Patrol, hotel	Highway Commercial	C-H Highway Commercial

The project will be developed in conformance with the C-S Service Commercial and R-H High-Density Residential zone district regulations, except where expressly modified by the Hanford Place Master Plan (PUD).

Planned Unit Development No. 2022-01 (Hanford Place Master Plan)

Pursuant to Section 17.82.060 of the Hanford Municipal Code, six findings must be made before approval of the planned unit development application:

1. That the location and design of the planned unit development is in accordance with the purpose of this title.

Analysis: Location - That in accordance with Section 17.82.050 of the Hanford Municipal Code, a planned unit development shall be a minimum five-acre site area, except that there shall be no minimum site area requirements if the site is an infill development site. The planned unit development pertains to a 39.16-acre development, which exceeds the minimum site area for a planned unit development.

Design and Purpose - That planned unit developments are encouraged to achieve a more functional, aesthetically pleasing, and harmonious living and working environment within the City, that otherwise might not be possible by strict adherence to the provisions of the municipal code. In certain instances, the objectives of the municipal code may be achieved by development that does not conform in all respects with the land use pattern designated on the zoning map or in the zone district prescribed. The planned unit development seeks to:

- ✓ A. To permit a site within more than one (1) zone district to mix the permitted or conditionally permitted land uses of both zones within the site without regard to the zone district boundary.
- ✓ C. To permit the lot patterns on size, shape, and layout that would otherwise not be permitted by the standards of the zone district in which the site is located.
- ✓ D. To modify the required building setbacks, distances between structures, and landscaped areas that would otherwise be required by this title.

✓ E. To reduce the amount of required parking spaces when spaces are shared among multiple land uses.

The design of Planned Unit Development No. 2022-01 is consistent with the objectives of Section 17.82.

2. That the planned unit development is being proposed to achieve one or more of the objectives identified in Section 17.82.030.

Analysis: That the planned unit development is requested, in order to achieve the following objectives identified in Section 17.82.030:

✓ A. To permit a site within more than one (1) zone district to mix the permitted or conditionally permitted land uses of both zones within the site without regard to the zone district boundary.

✓ C. To permit the lot patterns on size, shape, and layout that would otherwise not be permitted by the standards of the zone district in which the site is located.

✓ D. To modify the required building setbacks, distances between structures, and landscaped areas that would otherwise be required by this title.

✓ E. To reduce the amount of required parking spaces when spaces are shared among multiple land uses.

The design of Planned Unit Development No. 2022-01 is consistent with the objectives of Section 17.82.

3. That the location and design of the planned unit development and the conditions under which it would be operated or maintained will not be detrimental to the public health, safety, or welfare of the community to properties or improvements in the vicinity.

Analysis: Location - That in accordance with Section 17.82.050 of the Hanford Municipal Code, a planned unit development shall be a minimum five-acre site area, except that there shall be no minimum site area requirements if the site is an infill development site. The planned unit development pertains to a 39.16-acre development, which exceeds the minimum site area for a planned unit development.

Design and Purpose - That planned unit developments are encouraged to achieve a more functional, aesthetically pleasing, and harmonious living and working environment within the City, that otherwise might not be possible by strict adherence to the provisions of the municipal code. In certain instances, the objectives of the municipal code may be achieved by development that does not conform in all respects with the land use pattern designated on the zoning map or in the zone district prescribed. The planned unit development seeks to:

✓ A. To permit a site within more than one (1) zone district to mix the permitted or conditionally permitted land uses of both zones within the site without regard to the zone district boundary.

✓ C. To permit the lot patterns on size, shape, and layout that would otherwise not be permitted by the standards of the zone district in which the site is located.

✓ D. To modify the required building setbacks, distances between structures, and landscaped areas that would otherwise be required by this title.

✓ E. To reduce the amount of required parking spaces when spaces are shared among multiple land uses.

Conditions of Operation – The Hanford Place Master Plan will function, as described in the Master Plan (Attachment 1).

Main objectives of the Master Plan include:

Zoning and Allowed Uses

Through the Planned Unit Development, the following uses shall be allowed by right. This would apply to all locations on the site and would not be limited by the conceptual site plan:

- All uses listed as permitted or conditionally permitted in the R-H High Density Residential Zone
- All uses listed as permitted or conditionally permitted in the C-S Service Commercial Zone
- Assisted living, skilled nursing, hospice.
- College/university satellite campus

- Hotel
- Residence in the same building as a commercial or office use
- Urgent care clinic

The overall intensity of the total site would be limited by the intensity analyzed in the CEQA document. A higher intensity than that would require an amendment to the PUD. Land use locations are flexible and may change from the conceptual plan. The roadway alignments and ponding basin location would not change.

The included conceptual layout for the site has been prepared by Langdon Wilson Intl. Architecture. Individual sites may be developed independently of the Master Plan, allowing for building size, placement, and use to vary from the character in the illustrations.

Revised layout plans would be followed up with specific site plans and parcel maps that would create the public right-of-way.

Design Conditions

In order for Hanford Place to have a consistent theme and to operate as a cohesive group of uses, the following design conditions are incorporated into the PUD:

1. Establish that cross-access and shared parking agreements are required for adjacent parcels as they are created prior to, or in conjunction with, parcel map or lot line adjustment approval.
2. Landscaping and lighting design shall be consistent between the sites in the PUD plan area.
3. Uses are not required to obey the zone boundary in the PUD plan area. Uses within the PUD plan area can be from either of the zones within the PUD plan area.
4. A block wall is not required within the PUD plan area between the zones.
5. Additional building setbacks are not required between the two zones within the PUD plan area. The C-S zone required setbacks shall apply to the entire PUD plan area.
6. The maximum building height for the PUD area shall be permit the C-S zone, which is 50 feet.
7. Buildings within the PUD plan area shall have a uniform/cohesive design type, with the exception of standalone residential or hotel buildings, which are not required to have similar design, but shall have compatible colors and design elements. Elevation plans shall be submitted with site plans to confirm compliance. Standards shall be set by the first development in the PUD plan area for succeeding developments.
8. The number of on-site parking spaces shall be as follows:
 - a. Motel or hotel – 1 space per guest room plus 1 space per employee
 - b. Assisted living, skilled nursing facility, or hospice – 1 space for every 4 beds.
 - c. multifamily dwellings - at least 50% of spaces shall be covered.
 - ii. one-bedroom - 1.5 spaces per dwelling unit
 - iii. two-bedroom - 1.75 spaces per dwelling unit
 - iv. three or more bedrooms - 2 spaces per dwelling unit
 - d. all other allowed uses - 1 space per 350 square feet of building space.
9. A sign program shall be established prior to building permit approval for the first office or commercial use. The sign program would not apply to residential, and hotel/motel uses, which would follow sign standards in the Zoning Ordinance.

All development will be reviewed during the Site Plan Review process when physical development is proposed.

4. That the location and design of the planned unit development will not generate more traffic than the streets in the vicinity can carry without congestion and will not overload utilities.

Analysis: The project has been reviewed in an initial study, for which a traffic impact study (TIS) was conducted.

The study area for the TIS included the following study intersections and roadway segments.

Intersections

1. 12th Avenue/Glendale Avenue
2. 12th Avenue/SR-198 westbound (WB) Ramps
3. 12th Avenue/SR-198 eastbound (EB) Ramps

4. Campus Drive/Lacey Boulevard
5. Campus Drive/7th Street
6. Campus Drive/6th Street
7. 11th Avenue/Lacey Boulevard
8. 11th Avenue /7th Street
9. 11th Avenue/6th Street
10. 11th Avenue/5th Street
11. 11th Avenue/4th Street-SR-198 WB On Ramp
12. 11th Avenue/3rd Street-SR-198 EB Off Ramp

Segments

1. Lacey Boulevard
 - 12th Avenue to Campus Drive
 - Campus Drive to 11th Avenue
 - 7th Street
 - Campus Drive to 11th Avenue
2. 6th Street
 - Campus Drive to 11th Avenue
3. Glendale Avenue
 - East of 12th Avenue
4. 5th Avenue
 - West of 11th Avenue
 - E. Campus Drive
 - Lacey Boulevard to Glendale Avenue

The TIS includes the LOS analysis for the following traffic scenarios:

- Existing Conditions
- Existing Plus Project
- Near-Term Plus Project
- Cumulative Year 2042 Without Project
- Cumulative Year 2042 Plus Project

The TIS concluded that the impact on traffic would be less than significant.

5. That the planned unit development's population density, site area and dimensions, site coverage, yard spaces, height of structures, distances between structures, off-street parking and off-street loading facilities, landscaped areas and street design will produce an environment of stable and desired character consistent with the purpose of this title.

Analysis: That the project has been evaluated for consistency with the requirements of Section 17.14 High-Density Residential zone district and 17.20 C-S Service Commercial zone district. All requirements for density, site area, dimensions, site coverage, open space, height of structures, distance between structures, off-street parking and loading facilities, and landscaped areas have been satisfied, except where expressly modified by the Hanford Place Master Plan (PUD 2022-01). The modifications proposed through the Hanford Place Master Plan will produce a cohesive design and an environment of stable and desired character consistent with the purpose of this title. The

implementation of medical and mixed-use developments achieves several goals and policies of the General Plan, specifically Goals E1, L2, and L3, and Policies L38-41, L51-55, L11, L107, L135, L137 and P80.

6. That the combination of different dwelling types, architectural appearance, and/or varieties of land uses in the development will complement each other and harmonize with the existing and proposed land uses in the vicinity.

Analysis: The Hanford Place Master Plan proposes a medical and mixed-use development on an underutilized, infill parcel, proposed to be designated as C-S Service Commercial and R-H High-Density Residential. Through cohesive design, comprehensive design criteria, and medical-focused uses, with supportive residential, educational, and commercial uses, the Planned Unit Development proposes a design and combination of uses that will complement and harmonize across the zone districts proposed and achieve a goal of the General Plan to promote horizontal mixed-use development. The implementation of medical and mixed-use developments achieves several goals and policies of the General Plan, specifically Goals E1, L2, and L3, and Policies L38-41, L51-55, L11, L107, L135, L137 and P80.

CONSULTATION

Early Consultation

Early consultation to agencies outside of the City of Hanford (pursuant to CEQA Guidelines Section 15082) was conducted for the project.

Early consultation was received from:

- Pacific Gas and Electric Company – November 3, 2022 (Reflecting no comments) – **Attachment 3.**
- San Joaquin Valley Air Pollution Control District – November 8, 2022 – **Attachment 4.**
- Santa Rosa Rancheria Tachi-Yokut Tribe – November 9, 2022 – **Attachment 5.**

Early consultation letters are included and analyzed in the initial study.

Consultation

In accordance with Section 15073 of the California Environmental Quality Act Guidelines, a Notice of Intent to Adopt a Mitigated Negative Declaration was sent to the concerned agencies, mailed to residents within 300 feet of the project site, and posted on CEQANet on December 11, 2024 to January 10, 2025. Notice was mailed again for a 10-day period prior to the City Council hearing on August 26, 2025. No comments have been received as of the date of preparation of this report.

ENVIRONMENTAL ASSESSMENT

Mitigated Negative Declaration No. 2023-93 (SCH Number 2023070011) is recommended for the project based on the following: In accordance with the California Environmental Quality Act (CEQA), General Plan Amendment No. 2022-01, Rezone No. 2022-01, and Planned Unit Development No. 2022-01 were evaluated in an Environmental Assessment/Initial Study. Based on the review, it was determined that the proposed project would not result in a significant adverse impact on the environment with the incorporation of mitigation measures, therefore Mitigated Negative Declaration

No. 2023-93 has been prepared, attached as **Attachment 2**.

PUBLIC COMMENTS

Notice of Public Hearing for the proposed projects was published in the Hanford Sentinel, posted on the Office of Planning and Research (OPR) CEQANet website, and mailed to property owners within 300 ft. of the project site on July 6, 2023. During that time, one comment letter was received:

Adventist Health Systems Comment Letter – **Attachment 6**. The letter details concerns related to the environmental document prepared for the project.

Following receipt of the letter, the applicant conducted various meetings with the Adventist Health team to reach consensus and address the concerns presented within the letter.

The attached letter was received on behalf of Adventist Health Systems on November 12, 2024, indicating project support – **Attachment 7**.

Due to the continuation of the original Planning Commission public hearing, renoticing and recirculation of the Notice of Intent to Adopt a Mitigated Negative Declaration was required. Notice of the Public Hearing was published in the Hanford Sentinel and mailed to property owners within 300 feet of the project site on December 11, 2024.

One additional comment was received on January 9, 2025, from Rhett Swasey. Mr. Swasey is a partner in business at Hanford Veterinary Hospital and has concerns regarding construction impacts of the project and the redesign of Glendale Avenue – full letter attached, **Attachment 8**.

Notice was published and mailed again for a 10-day period prior to the City Council hearing on August 26, 2025. No comments have been received as of the date of preparation of this report.

FISCAL IMPACT:

There is no direct fiscal impact with these actions.

ATTACHMENTS:

1. 25-48-R (GPA)
2. Ord. 06-25 Rezone
3. 25-49-R Planned Unit Development No. 2022-01
4. Hanford Place Master Plan
5. ISMND - Hanford Place
6. PG&E No_Impact_Response_11-3-2022
7. SJVAPCD
8. Tachi Yokut Comments
9. Adventist Health Systems Comment Letter
10. Adventist Health - Jason Wells
11. Rhett Swasey Comment Letter
12. 01-14-25 Planning Commission Minutes

RESOLUTION NO. 25-48-R

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF HANFORD APPROVING AN AMENDMENT TO THE LAND USE ELEMENT OF THE GENERAL PLAN.

2022-01: A REQUEST TO CHANGE THE GENERAL PLAN DESIGNATION ON 39.16 ACRES FROM HIGHWAY COMMERCIAL TO A COMBINATION SERVICE COMMERCIAL AND HIGH-DENSITY RESIDENTIAL.

THE PROJECT IS LOCATED BETWEEN 11TH AND 12TH AVENUES ALONG GLENDALE DRIVE, NORTH OF HIGHWAY 198 (APN 011-060-007, 011-060-008, 012-290-042, AND 012-290-054).

At a regular meeting of the City Council of the City of Hanford, duly called to order and held on September 16, 2025 at 7:00 p.m., it was moved by Council Member _____, and seconded by Council Member _____, and duly carried that the following resolution be adopted:

WHEREAS, General Plan Amendment No. 2022-01, proposes to amend the land use designation of certain real property as follows:

General Plan Amendment No. 2022-01

Approximately 39.14 acres from Highway Commercial to a combination of Service Commercial and High-Density Residential, as shown in attached **Exhibit A**; and

WHEREAS, the proposed general plan amendment was presented to the Planning Commission of the City of Hanford; and

WHEREAS, the City of Hanford Planning Commission, at its regularly scheduled meeting on January 14, 2025 held a public hearing and received testimony and evidence for and against the proposed general plan amendment. After closing the public hearing, the Planning Commission, by resolution, recommended that the City Council of the City of Hanford approve General Plan Amendment No. 2022-01; and

WHEREAS, the City Council of the City of Hanford, at its regularly scheduled meeting on September 16, 2025, held a public hearing and received testimony and evidence regarding proposed General Plan Amendment No. 2022-01; and

WHEREAS, the City Council of the City of Hanford considered the evidence presented in the staff report and testimony presented during the public hearing; and

WHEREAS, the City Council of the City of Hanford finds that no significant environmental impacts would result from the proposed project with the incorporation of mitigations, as presented in the Mitigation Monitoring and Reporting Program, attached as **Exhibit B**; and

WHEREAS, Mitigated Negative Declaration No. 2023-93 (SCH# 2023070011) was prepared and adopted; and,

WHEREAS, on the basis of the application for the amendment to the general plan, the documentation and information provided in the staff report, and the evidence and testimony submitted at the public hearing, the City Council of the City of Hanford hereby makes the following findings in accordance with Section 17.88.040 of the Hanford Municipal Code:

General Plan Amendment No.2022-01

1. That the amendment is internally consistent with the goals, objectives, and policies of the General Plan and the Municipal Code.

Analysis: That Rezone No. 2022-01 is internally consistent with the goals, objectives, and policies of the General Plan, specifically consistent with Goals E1, L2, and L3, and Policies L38-41, L51-55, L11, L107, L135, L137 and P80. All regulations pertaining to C-S – Service Commercial and R-H High-Density Residential zone district will be enforced as development occurs through the Site Plan Review process, except as expressly modified by the Hanford Place Development Master Plan.

2. The amendment would not be detrimental to the public health, safety, or welfare of the community.

Analysis: That this application has been reviewed by County departments, utility companies, City Fire Department, City Building Department, and other involved departments. Any mitigation required for public health and safety were applied to the proposal and required in the mitigation monitoring and reporting program.

3. The amendment would maintain the appropriate balance of land uses within the City;

Analysis: That jobs-housing balance is achieved by increasing opportunities for people to work and live in close proximity. The ratio is expressed as the number of jobs divided by the number of housing units. The jobs-housing balance is a general tool for analyzing where people work, where they live, and how effectively they can travel between the two. In the planning area, the jobs-housing balance ratio in 2013-2014 was 1.17. It is estimated that the implementation of the General Plan would increase the jobs-housing balance by 0.45 to 1.62, which would make the planning area a jobs-rich area. The proposal to change the designation from Highway Commercial to a combination of Service Commercial and High-Density Residential will impact the job-housing balance projected by increasing the number of residential units in the area. The addition of the residential units to the formerly commercial designation will not affect the City's ability to maintain an appropriate balance of land uses within the City, as the increase in housing will bring more residential units to the jobs-rich planning area.

4. The anticipated land uses on the subject site would be compatible with existing and future surrounding uses.

Analysis: That the Hanford Place Master Plan proposes the development of a medical and mixed-use development on property proposed to be zoned C-S Service Commercial and R-H High-Density Residential. The land uses within the Hanford Place development are compatible with the surrounding land uses and compatible with future surrounding lands uses.

Direction	Existing Land Use	General Plan Designation	Zone District
North	Railroad; Adventist Health Medical Center; single-family residential	Office; Office Residential	O Office; O-R Office Residential
South	CA-198; car dealership; basin; single-family residential	Highway Commercial, Open Space, Low-Density Residential	C-H Highway Commercial, PF Public Facility, R-L-5 Low-Density Residential
East	Integrate shopping center – grocery, retail, gym, restaurant	Regional Commercial	C-R Regional Commercial

West	Veterinary hospital, mini-storage, California Highway Patrol, hotel	Highway Commercial	C-H Highway Commercial
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The project will be developed in conformance with the C-S Service Commercial and R-H High-Density Residential zone district regulations, except where expressly modified by the Hanford Place Master Plan (PUD 2022-01).

NOW, THEREFORE, BE IT RESOLVED, that the City Council of the City of Hanford hereby approves General Plan Amendment No. 2022-01, subject to the following condition(s):

ADMINISTRATION DEPARTMENT

Contact the City Attorneys' Office: (559) 584-6656

Concerning questions that you may have on the conditions listed below:

Defense and Indemnification Provisions:

1. That the applicant shall defend, indemnify, and hold harmless the City of Hanford ("City"), its officials, officers, employees, representatives, agents and attorneys, from and against all claims, damages, losses, judgments, liabilities, expenses and other costs, including litigation costs and attorney's fees, arising out of, resulting from, or in connection with, the City's act or acts leading up to and including approval of any environmental document and/or granting of any approvals relating to the Project. Applicant's obligation to defend, indemnify and hold the City harmless specifically includes, but is not limited to, any suit or challenge by any third party against the City which challenges or seeks to set aside, void or annul the legality or adequacy of any environmental document approved by the City or any approval related to the Project.

Passed and adopted at a regular meeting of the City Council of the City of Hanford, duly called and held on September 16, 2025, by the following vote:

AYES: _____

NOES: _____

ABSTAIN: _____

ABSENT: _____

TRAVIS PADEN
MAYOR of the City of Hanford

Attest:

NATALIE CORRAL
CITY CLERK

STATE OF CALIFORNIA)
COUNTY OF KINGS) ss
CITY OF HANFORD)

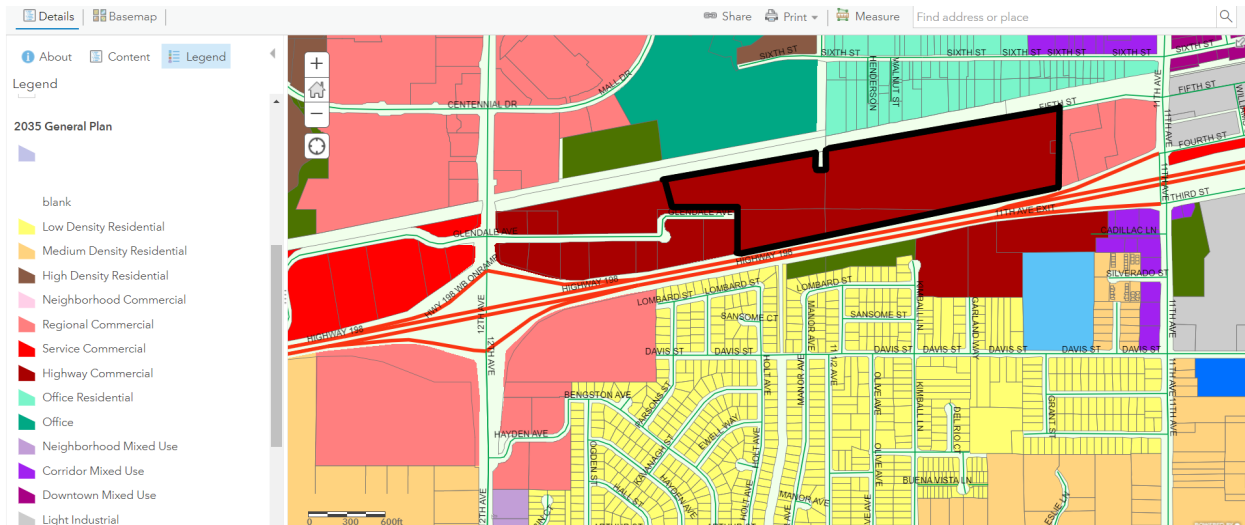
I, Natalie Corral, City Clerk of the City of Hanford, do hereby certify the foregoing Resolution was duly passed and adopted at a regular meeting of the City Council of the City of Hanford held on the ___ day of _____, 2025.

Date: _____

City Clerk

Exhibit A
Current and Proposed General Plan Land Use Designation

**Existing General Plan Designation
Highway Commercial**



**Figure 8: Proposed General Plan Designation
Service Commercial and High-Density Residential**

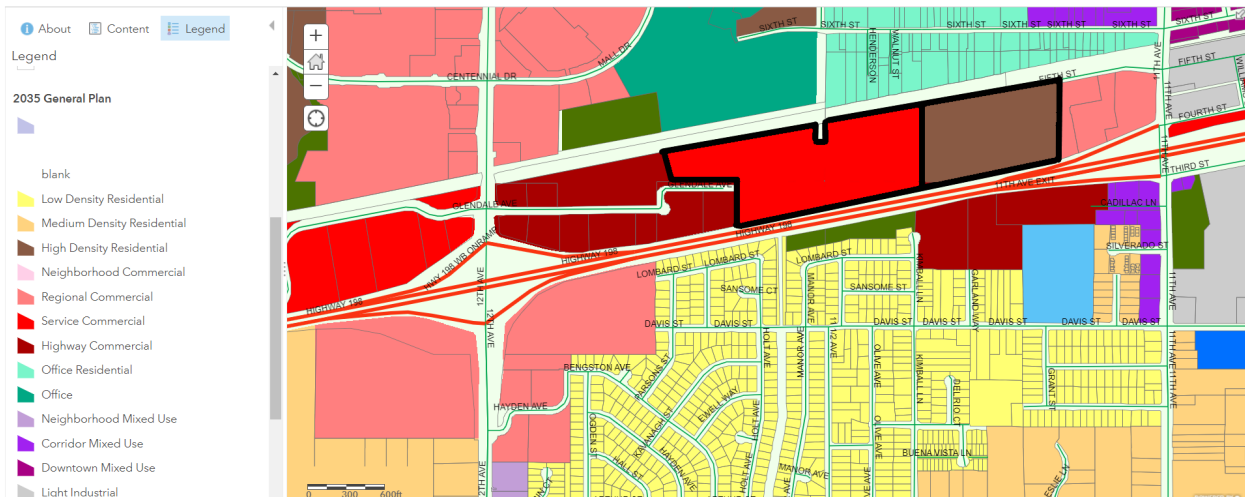


Exhibit B
Mitigation Monitoring and Reporting Program

Biological Resources
<i>Will the project:</i>
Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?
Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
Mitigation Measures
Mitigation Measure BIO-1 Conduct Preconstruction Clearance Surveys for San Joaquin Kit Fox and Burrowing Owl. A preconstruction clearance survey is required for San Joaquin kit fox and burrowing owl no more than 30 calendar days prior to initiation of project activities. All survey results must be delivered to the United States Fish and Wildlife Service's (USFWS), the California Department of Fish and Wildlife (CDFW), and the City. If the survey results find an active burrow of one or both of these species on the project site, the applicant must coordinate with the applicable resource agencies (CDFW for burrowing owl, CDFW and USFWS for kit fox) to obtain applicable agency approval(s)/permit(s) prior to any ground disturbance activities on the site. Specific avoidance, den excavation, passive relocation, and compensatory mitigation activities shall be performed as required by the applicable agency. Appropriate provisions of the CDFW Staff Report on Burrowing Owl Mitigation and USFWS Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox shall be adhered to.
Mitigation Measure BIO-2 Worker Environmental Awareness Training. Prior to initial groundbreaking, Worker Environmental Awareness Training shall be conducted by a qualified biologist to educate all construction personnel on the relevant federal, state, and local laws related to potentially occurring special-status species at the site. The tailgate session shall include training on identification of species that may be found on the project site, the status of those species, and any legal protection afforded to those species. Personnel will be advised to report any special-status species encountered promptly. A fact sheet conveying this information will be prepared for display or for distribution to anyone who may enter the project site.
Mitigation Measure BIO-3 Construction Site Housekeeping and Operational Requirements.

Habitat subject to permanent and temporary construction disturbances and other types of ongoing project-related disturbance activities shall be minimized by adhering to the following USFWS Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox:

- a) To minimize temporary disturbances, all project-related vehicle traffic shall be restricted to established roads, construction areas, and other designated areas. These areas shall also be included in preconstruction surveys and, to the extent possible, shall be established in locations disturbed by previous activities to prevent further impacts.
- b) Project-related vehicles shall observe a daytime speed limit of 20-mph throughout the site in all project sites, except on county roads and state and federal highways; this is particularly important at night when kit foxes are most active. Night-time construction shall be minimized to the extent possible. However, if it does occur, then the speed limit shall be reduced to 10-mph. Off-road traffic outside of designated project sites shall be prohibited.
- c) To prevent inadvertent entrapment of kit foxes or other animals during the construction phase of a project, all excavated, steepwalled holes or trenches more than 2-feet deep shall be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks shall be installed. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped animals. If at any time a trapped or injured kit fox is discovered, the USFWS and the CDFW shall be contacted.
- d) Kit foxes are attracted to den-like structures such as pipes and may enter stored pipes and become trapped or injured. All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored at a construction site for one or more overnight periods shall be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe shall not be moved until the USFWS and CDFW have been consulted. If necessary, and under the direct supervision of a qualified biologist, the pipe may be moved only once to remove it from the path of construction activity, until the fox has escaped. In the case of trapped animals, escape ramps or structures shall be installed immediately to allow the animal(s) to escape, or the USFWS and CDFW should be contacted for further guidance.
- e) All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in securely closed containers and removed at least once a week from a construction or project site.
- f) Pets, such as dogs or cats, shall not be permitted on the project site to prevent harassment, mortality of kit foxes, or destruction of dens.
- g) Use of rodenticides and herbicides in project sites shall be restricted. This is necessary to prevent primary or secondary poisoning of kit foxes and the depletion of prey populations on which they depend.

All uses of such compounds shall observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other state and federal legislation. If rodent control must be conducted, zinc phosphide should be used because of a proven lower risk to kit fox.

Mitigation Measure BIO-4 Nesting Bird Surveys and Avoidance. If vegetation removal, construction, or grading activities are planned to occur within the active nesting bird season (February 15 through September 15), a qualified biologist shall conduct a preconstruction nesting bird survey no more than 5 days prior to the start of such activities. The nesting bird survey shall include the project site and areas immediately adjacent to the site that could potentially be affected by project-related activities such as noise, vibration, increased human activity, and dust, etc. For any active nest(s) identified, the qualified biologist shall establish an appropriate buffer zone around the active nest(s). The appropriate buffer shall be determined by the qualified biologist based on species, location, and the nature of the proposed activities. Project activities shall be avoided within the buffer zone until the nest is deemed no longer active by the qualified biologist.

Mitigation Measure BIO-5 Agency Coordination for Peoples Ditch. Prior to any modifications to Peoples Ditch, it is recommended to consult with the United States Army Corps of Engineers (USACE), CDFW, and Regional Water Quality Control Board (RWQCB) to verify the feature's jurisdictional status and obtain applicable permit(s) and/or authorization(s). A notification of streambed alteration should be submitted to the CDFW in accordance with Section 1602 of the California Fish and Game Code. Unless categorically excluded under effective definitions or existing documentation confirms that no permit is needed, the Central Valley RWQCB and Sacramento District of the USACE should be consulted regarding potential permitting needs under the California Water Code and federal Clean Water Act, respectively, associated with the proposed Peoples Ditch modifications.

Cultural Resources

Will the project:

Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Disturb any human remains, including those interred outside of formal cemeteries?

Mitigation Measures

Mitigation Measure CULT-1 Because of the very high sensitivity of the soil type in the project area, the possibility exists that buried archaeological deposits within the project site. Therefore, archaeological monitoring must be conducted during ground-disturbing construction activities in native soil, including clearing and grubbing. Monitoring should occur on a full-time basis during all excavation activities until the Project Archaeologist, based on the archaeological monitor's observations, is satisfied that there is little likelihood of encountering intact archaeological deposits. The Project Archaeologist may also determine it is appropriate to reduce monitoring to spot-checking or on a part-time basis. Upon

completion of the monitoring and, if necessary, mitigation, the archaeologist should prepare a report to document the methods and results of the monitoring. The final report should be submitted to the SSJVIC.
Mitigation Measure CULT-2 Additional mapping and subsurface testing of AE-4167-01 shall be conducted to evaluate its eligibility for inclusion in the California Register of Historical Resources, pursuant to California Public Resources Code (PRC) 5024.1. Additional focused subsurface testing in areas not previously disturbed by historic-era activities must be conducted to confirm presence/absence of high-sensitivity paleosols that may include intact prehistoric cultural deposits. If intact prehistoric cultural deposits are encountered during subsurface presence/absence testing, further investigation must be conducted to determine if the deposit retains integrity and is eligible for inclusion in the California Register of Historical Resources. The methods and findings of the additional studies would be presented as an addendum to the Cultural Resource Inventory for the Hanford Place Medical and Mixed-Use Property Project and would include cultural resource management recommendations to guide mitigation of potential adverse effects to any identified historical resources within the project area.
Mitigation Measure CULT-3 Any human remains encountered during project-related ground disturbing activities shall be treated in accordance with California Health and Safety Code Section 7050.5. The project sponsor shall inform all contractor(s) performing excavation of the sensitivity of the project site for human remains and include the following directive in the appropriate contract documents: If human remains are uncovered, all work within 50 feet of the discovery shall be halted and the Kings County Coroner notified immediately. At the same time, the on-site monitoring archaeologist shall assess the situation and consult with agencies as appropriate. Project personnel shall not collect or move any human remains or associated materials. If the human remains are of Native American origin, the Coroner must notify the California State Native American Heritage Commission (NAHC) within 24 hours of this identification. The NAHC will formally identify a Native American Most Likely Descendant (MLD)—if one is not already on-site—to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods. Such recommendations shall be carried out to the satisfaction of the NAHC prior to work resuming within 50 feet of the discovered remains.
Mitigation Measure CULT-4 A Burial Treatment Plan shall be entered into by the project applicant/property owner prior to any ground disturbing activities.
Geology and Soils
<i>Will the project:</i>
b. Result in substantial soil erosion or the loss of topsoil?
f. Directly or indirectly destroy a unique paleontological
Mitigation Measures
Mitigation Measure GEO-1 To reduce the potential for soil erosion during construction of the proposed project, an Erosion Control Plan shall be prepared for the project in conformance with the California

Storm Water Best Management Practice Handbook for Construction Activity, prior to the start of grading.
Mitigation Measure GEO-2 The project applicant shall inform its contractor(s) of the sensitivity of the project area for paleontological resources. Should paleontological resources be encountered during project subsurface construction activities, all ground-disturbing activities within 25 feet shall be redirected and a qualified paleontologist contacted to assess the situation, consult with agencies as appropriate, and make recommendations for the treatment of the discovery. If found to be significant, and project activities cannot avoid the paleontological resources, adverse effects to paleontological resources shall be mitigated. Mitigation may include monitoring, recording the fossil locality, data recovery and analysis, a final report, and accessioning the fossil material and technical report to a paleontological repository. Public educational outreach may also be appropriate. Upon completion of the assessment, a report documenting methods, findings, and recommendations shall be prepared and submitted to the City for review, and (if paleontological materials are recovered) a paleontological repository, such as the University of California Museum of Paleontology (UCMP). The City shall verify that the above directive has been included in the appropriate contract documents.
Greenhouse Gas Emissions
<i>Will the project:</i>
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
Mitigation Measures
Mitigation Measure GHG-1 In order to meet the 2022 Scoping Plan greenhouse gas (GHG) requirements, consistent with State GHG reduction and equity prioritization goals, the proposed project shall provide electric vehicle charging capabilities that meet the most ambitious voluntary standard in the California Green Building Standards Code at the time of project approval as part of the final project design.
Hydrology and Water Quality
<i>Will the project:</i>
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality? c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: i. Result in substantial erosion or siltation on- or off-site; ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite

iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or iv. Impede or redirect flood flows?
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?
Mitigation Measures
Mitigation Measure HYDRO-1 To minimize any potential short-term water quality effects from project-related construction activities, the project contractor shall implement Best Management Practices (BMPs) in conformance with the California Storm Water Best Management Practice Handbook for Construction Activity. In addition, the proposed project shall be in compliance with existing regulatory requirements, including the Water Pollution Control Preparation (WPCP) Manual. In addition, implementation of a Storm Water Pollution Prevention Plan (SWPPP) would be required under the National Pollutant Discharge Elimination System (NPDES) to regulate water quality associated with construction activities.
Mitigation Measure HYDRO-2 To reduce the potential for degradation of surface water quality during project operation, a Storm Water Management Plan (SWMP) shall be prepared for the proposed project. The SWMP shall describe specific programs to minimize storm water pollution resulting from the proposed project. Specifically, the SWMP shall identify and describe source control measures, treatment controls, and BMP maintenance requirements to ensure that the project complies with post-construction storm water management requirements of the Regional Water Quality Control Board (RWQCB).
Noise
<i>Will the Project?</i>
a. Cause generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
Mitigation Measure
Mitigation Measure NOI-1 Truck Movements. All truck movements occurring during nighttime hours of 10:00 p.m. to 7:00 a.m. shall be required to use the Glendale Avenue access point only.

Mitigation Measure NOI-2 The project contractor shall implement the following measures during construction of the project:

- Per the City of Hanford Municipal Code, construction activities should not occur outside the hours of 7:00 a.m. to 8:00 p.m.
- All construction equipment shall be properly maintained and muffled as to minimize noise generation at the source.
- Noise-producing equipment shall not be operating, running, or idling while not in immediate use by a construction contractor.
- All noise-producing construction equipment shall be located and operated, to the extent possible, at the greatest possible distance from any noise-sensitive land uses.
- Locate construction staging areas, to the extent possible, at the greatest possible distances from any noise-sensitive land uses.
- Signs shall be posted at the construction site and near adjacent sensitive receptors displaying hours of construction activities and providing the contact phone number of a designated noise disturbance coordinator.

Mitigation Measure NOI-3 Exterior Noise Levels. The final design shall include a minimum 6.5- foot above-ground level sound wall around outdoor activity areas associated with the proposed hotel and apartment land uses to mitigate exterior noise levels to below 65 dB Ldn within these outdoor activity areas.

Mitigation Measure NOI-4 Interior Noise Levels. Once building-specific construction plans become available, interior noise levels should be reviewed and calculated by a qualified acoustical consultant to determine if additional noise attenuation mitigation measures are required to comply with interior noise level standards.

Tribal Cultural Resources

Will the project:

a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)? Or
- ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Mitigation Measures

See Mitigation Measures CULT-1 through CULT-4,

Utilities and Service System
<i>Will the project:</i>
Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?
Mitigation Measures
See Mitigation Measure HYDRO-1

ORDINANCE NO. 06-25

REZONE NO. 2022-01

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF HANFORD REZONING PROPERTY FROM C-H HIGHWAY COMMERCIAL TO A COMBINATION OF C-S SERVICE COMMERCIAL AND R-H HIGH-DENSITY RESIDENTIAL ON 39.16 ACRES, IN ACCORDANCE WITH GENERAL PLAN AMENDMENT NO. 2022-01. THE PROJECT IS LOCATED BETWEEN 11TH AND 12TH AVENUES ALONG GLENDALE DRIVE, NORTH OF HIGHWAY 198 (APN 011-060-007, 011-060-008, 012-290-040, 012-290-042, AND 012-290-054).

The City Council of the City of Hanford does ordain as follows:

Section 1: The following described territory situated in the City of Hanford is hereby rezoned under the terms of Chapter 17.86 of the Hanford Municipal Code:

Rezone No. 2022-01

FROM: City zoning C-H Highway Commercial
TO: A combination of City zoning C-S Service Commercial and R-H Highway Commercial

On property located between 11th and 12th Avenues, along Glendale Drive, North of Highway 198 (APN 011-060-007, 011-060-008, 012-290-040, 012-290-042, AND 012-290-054), containing approximately 39.16 acres, as depicted in attached **Exhibit A**; and

Section 2: The Council does hereby find as a fact that this Ordinance has been recommended for passage by the Planning Commission of the City of Hanford after public hearing before the Planning Commission after notice required by Section 17.70.100 of the Hanford Municipal Code and Government Code Section 65854. The City Council finds that Mitigated Negative Declaration No. 2023-93 is approved, in conformance with the California Environmental Quality Act, with the incorporation of the mitigations set forth in the Mitigation Monitoring and Reporting Program, attached as **Exhibit B**. The City Council hereby finds that the rezoning is required to achieve the objectives of the zoning regulations as set forth in Section 17.06.010 of the Hanford Municipal Code, and that this Ordinance has been introduced by the City Council after public hearing held on the 16th day of September 2025 at 7:00 p.m. of said day after notice required under the provisions of Section 65856 of the Government Code.

1. That the amendment is internally consistent with the goals, objectives, and policies of the General Plan and the Municipal Code.

Analysis: That Rezone No. 2022-01 is internally consistent with the goals, objectives, and policies of the General Plan, specifically consistent with Goals E1, L2, and L3, and Policies L38-41, L51-55, L11, L107, L135, L137 and P80. All regulations pertaining to C-S – Service Commercial and R-H High-Density Residential zone district will be enforced as development occurs through the Site Plan Review process, except as expressly modified by the Hanford Place Development Master Plan.

2. The amendment would not be detrimental to the public health, safety, or welfare of the community.

Analysis: That this application has been reviewed by County departments, utility companies, City Fire Department, City Building Department, and other involved departments. Any mitigation required for public health and safety were applied to the proposal and required in the mitigation monitoring and reporting program.

3. The amendment would maintain the appropriate balance of land uses within the City;

Analysis: That jobs-housing balance is achieved by increasing opportunities for people to work and live in close proximity. The ratio is expressed as the number of jobs divided by the number of housing units. The jobs-housing balance is a general tool for analyzing where people work, where they live, and how effectively they can travel between the two. In the planning area, the jobs-housing balance ratio in 2013-2014 was 1.17. It is estimated that the implementation of the General Plan would increase the jobs-housing balance by 0.45 to 1.62, which would make the planning area a jobs-rich area. The proposal to change the designation from Highway Commercial to a combination of Service Commercial and High-Density Residential will impact the job-housing balance projected by increasing the number of residential units in the area. The addition of the residential units to the formerly commercial designation will not affect the City's ability to maintain an appropriate balance of land uses within the City, as the increase in housing will bring more residential units to the jobs-rich planning area.

4. The anticipated land uses on the subject site would be compatible with existing and future surrounding uses.

Analysis: That the Hanford Place Master Plan proposes the development of a medical and mixed-use development on property proposed to be zoned C-S Service Commercial and R-H High-Density Residential. The land uses within the Hanford Place development are compatible with the surrounding land uses and compatible with future surrounding lands uses.

Direction	Existing Land Use	General Plan Designation	Zone District
North	Railroad; Adventist Health Medical Center; single-family residential	Office; Office Residential	O Office; O-R Office Residential
South	CA-198; car dealership; basin; single-family residential	Highway Commercial, Open Space, Low-Density Residential	C-H Highway Commercial, PF Public Facility, R-L-5 Low-Density Residential
East	Integrate shopping center – grocery, retail, gym, restaurant	Regional Commercial	C-R Regional Commercial
West	Veterinary hospital, mini-storage, California Highway Patrol, hotel	Highway Commercial	C-H Highway Commercial

The project will be developed in conformance with the C-S Service Commercial and R-H High-Density Residential zone district regulations, except where expressly modified by the Hanford Place Master Plan (PUD).

Section 3: This Ordinance shall take effect thirty (30) days after its passage, and shall be published once in the Hanford Sentinel within fifteen (15) days after its passage, and the zoning will apply to such property in the event of subsequent annexation to the City under the provisions of Section 65859 of the Government Code.

Passed and adopted at a regular meeting of the City Council of the City of Hanford duly called and held on the ____ day of _____, by the following roll call vote:

AYES:

Council Member

NOES:

Council Member

ABSTAIN:

Council Member

ABSENT:

Council Member

ATTEST:

Natalie Corral

APPROVED

MAYOR of the City of Hanford

CITY CLERK

STATE OF CALIFORNIA)
COUNTY OF KINGS) ss
CITY OF HANFORD)

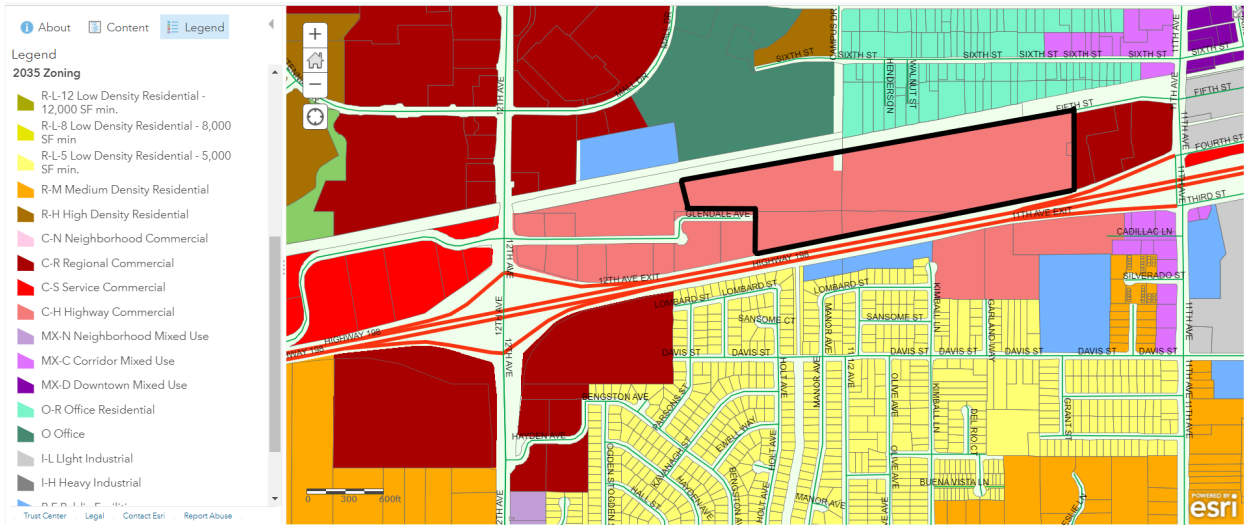
I, NATALIE CORRAL, City Clerk of the City of Hanford, do hereby certify the foregoing ordinance was duly introduced at a regular meeting of the City Council of the City of Hanford on the 16th day of September 2025 and it was duly passed and adopted at a regular meeting of the City Council of the City of Hanford held on the _____ day of _____, 2025.

Dated: _____

Natalie Corral
City Clerk

Exhibit A
Current and Proposed Zone District

Existing Zoning
C-H Highway Commercial



Proposed Zoning
C-S Service Commercial and R-H High-Density Residential

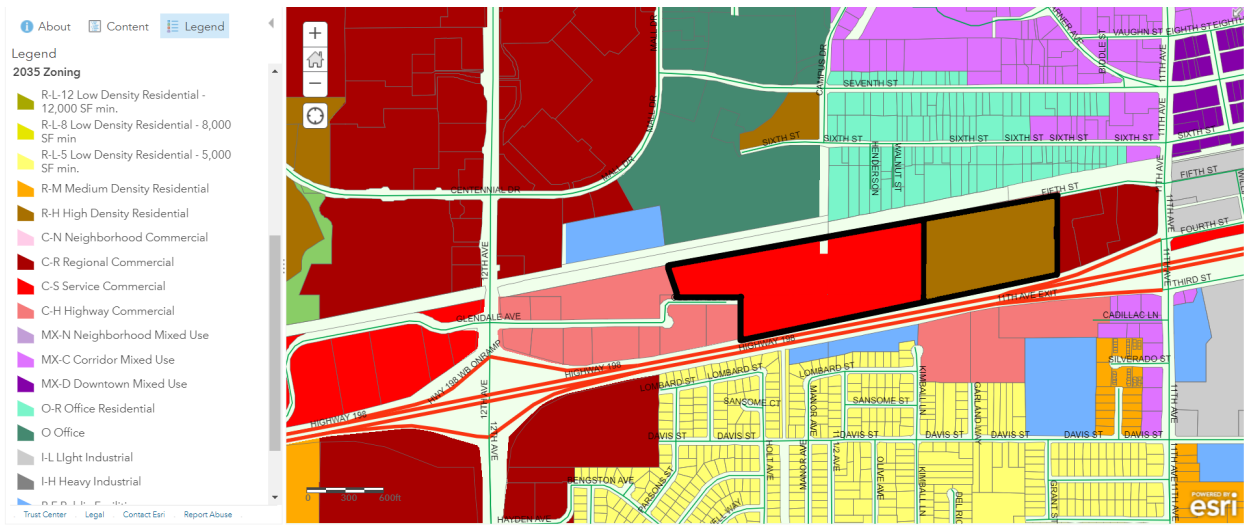


Exhibit B
Mitigation Monitoring and Reporting Program

Biological Resources
<i>Will the project:</i>
Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?
Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
Mitigation Measures
Mitigation Measure BIO-1 Conduct Preconstruction Clearance Surveys for San Joaquin Kit Fox and Burrowing Owl. A preconstruction clearance survey is required for San Joaquin kit fox and burrowing owl no more than 30 calendar days prior to initiation of project activities. All survey results must be delivered to the United States Fish and Wildlife Service's (USFWS), the California Department of Fish and Wildlife (CDFW), and the City. If the survey results find an active burrow of one or both of these species on the project site, the applicant must coordinate with the applicable resource agencies (CDFW for burrowing owl, CDFW and USFWS for kit fox) to obtain applicable agency approval(s)/permit(s) prior to any ground disturbance activities on the site. Specific avoidance, den excavation, passive relocation, and compensatory mitigation activities shall be performed as required by the applicable agency. Appropriate provisions of the CDFW Staff Report on Burrowing Owl Mitigation and USFWS Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox shall be adhered to.
Mitigation Measure BIO-2 Worker Environmental Awareness Training. Prior to initial groundbreaking, Worker Environmental Awareness Training shall be conducted by a qualified biologist to educate all construction personnel on the relevant federal, state, and local laws related to potentially occurring special-status species at the site. The tailgate session shall include training on identification of species that may be found on the project site, the status of those species, and any legal protection afforded to those species. Personnel will be advised to report any special-status species encountered promptly. A fact sheet conveying this information will be prepared for display or for distribution to anyone who may enter the project site.
Mitigation Measure BIO-3 Construction Site Housekeeping and Operational Requirements. Habitat subject to permanent and temporary construction disturbances and other types of ongoing project-related disturbance activities shall be minimized by adhering to the following USFWS Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox: a) To minimize temporary disturbances, all project-related vehicle traffic shall be restricted to established roads, construction areas, and other designated areas. These areas shall also be included in preconstruction surveys and, to the extent possible, shall be established in locations disturbed by previous activities to prevent further impacts.

b) Project-related vehicles shall observe a daytime speed limit of 20-mph throughout the site in all project sites, except on county roads and state and federal highways; this is particularly important at night when kit foxes are most active. Night-time construction shall be minimized to the extent possible. However, if it does occur, then the speed limit shall be reduced to 10-mph. Off-road traffic outside of designated project sites shall be prohibited.

c) To prevent inadvertent entrapment of kit foxes or other animals during the construction phase of a project, all excavated, steepwalled holes or trenches more than 2-feet deep shall be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks shall be installed. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped animals. If at any time a trapped or injured kit fox is discovered, the USFWS and the CDFW shall be contacted.

d) Kit foxes are attracted to den-like structures such as pipes and may enter stored pipes and become trapped or injured. All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored at a construction site for one or more overnight periods shall be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe shall not be moved until the USFWS and CDFW have been consulted. If necessary, and under the direct supervision of a qualified biologist, the pipe may be moved only once to remove it from the path of construction activity, until the fox has escaped. In the case of trapped animals, escape ramps or structures shall be installed immediately to allow the animal(s) to escape, or the USFWS and CDFW should be contacted for further guidance.

e) All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in securely closed containers and removed at least once a week from a construction or project site.

f) Pets, such as dogs or cats, shall not be permitted on the project site to prevent harassment, mortality of kit foxes, or destruction of dens.

g) Use of rodenticides and herbicides in project sites shall be restricted. This is necessary to prevent primary or secondary poisoning of kit foxes and the depletion of prey populations on which they depend. All uses of such compounds shall observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other state and federal legislation. If rodent control must be conducted, zinc phosphide should be used because of a proven lower risk to kit fox.

Mitigation Measure BIO-4 Nesting Bird Surveys and Avoidance. If vegetation removal, construction, or grading activities are planned to occur within the active nesting bird season (February 15 through September 15), a qualified biologist shall conduct a preconstruction nesting bird survey no more than 5 days prior to the start of such activities. The nesting bird survey shall include the project site and areas immediately adjacent to the site that could potentially be affected by project-related activities such as noise, vibration, increased human activity, and dust, etc. For any active nest(s) identified, the qualified biologist shall establish an appropriate buffer zone around the active nest(s). The appropriate buffer shall be determined by the qualified biologist based on species, location, and the nature of the proposed activities. Project activities shall be avoided within the buffer zone until the nest is deemed no longer active by the qualified biologist.

Mitigation Measure BIO-5 Agency Coordination for Peoples Ditch. Prior to any modifications to Peoples Ditch, it is recommended to consult with the United States Army Corps of Engineers (USACE), CDFW, and Regional Water Quality Control Board (RWQCB) to verify the feature's jurisdictional status and obtain applicable permit(s) and/or authorization(s). A notification of streambed alteration should be submitted to the CDFW in accordance with Section 1602 of the California Fish and Game Code. Unless categorically excluded under effective definitions or existing documentation confirms that no permit is needed, the Central Valley RWQCB and Sacramento District of the USACE should be consulted regarding potential permitting needs under the California Water Code and federal Clean Water Act, respectively, associated with the proposed Peoples Ditch modifications.

Cultural Resources

Will the project:

Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Disturb any human remains, including those interred outside of formal cemeteries?

Mitigation Measures

Mitigation Measure CULT-1 Because of the very high sensitivity of the soil type in the project area, the possibility exists that buried archaeological deposits within the project site. Therefore, archaeological monitoring must be conducted during ground-disturbing construction activities in native soil, including clearing and grubbing. Monitoring should occur on a full-time basis during all excavation activities until the Project Archaeologist, based on the archaeological monitor's observations, is satisfied that there is little likelihood of encountering intact archaeological deposits. The Project Archaeologist may also determine it is appropriate to reduce monitoring to spot-checking or on a part-time basis. Upon completion of the monitoring and, if necessary, mitigation, the archaeologist should prepare a report to document the methods and results of the monitoring. The final report should be submitted to the SSJVIC.

Mitigation Measure CULT-2 Additional mapping and subsurface testing of AE-4167-01 shall be conducted to evaluate its eligibility for inclusion in the California Register of Historical Resources, pursuant to California Public Resources Code (PRC) 5024.1. Additional focused subsurface testing in areas not previously disturbed by historic-era activities must be conducted to confirm presence/absence of high-sensitivity paleosols that may include intact prehistoric cultural deposits. If intact prehistoric cultural deposits are encountered during subsurface presence/absence testing, further investigation must be conducted to determine if the deposit retains integrity and is eligible for inclusion in the California Register of Historical Resources. The methods and findings of the additional studies would be presented as an addendum to the Cultural Resource Inventory for the Hanford Place Medical and Mixed-Use Property Project and would include cultural resource management recommendations to guide mitigation of potential adverse effects to any identified historical resources within the project area.

Mitigation Measure CULT-3 Any human remains encountered during project-related ground disturbing activities shall be treated in accordance with California Health and Safety Code Section 7050.5. The project sponsor shall inform all contractor(s) performing excavation of the sensitivity of the project site for human remains and include the following directive in the appropriate contract documents: If human remains are uncovered, all work within 50 feet of the discovery shall be halted and the Kings County Coroner notified immediately. At the same time, the on-site monitoring archaeologist shall assess the situation and consult with agencies as appropriate.

Project personnel shall not collect or move any human remains or associated materials. If the human remains are of Native American origin, the Coroner must notify the California State Native American Heritage Commission (NAHC) within 24 hours of this identification. The NAHC will formally identify a Native American Most Likely Descendant (MLD)—if one is not already on-site—to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods. Such recommendations shall be carried out to the satisfaction of the NAHC prior to work resuming within 50 feet of the discovered remains.
Mitigation Measure CULT-4 A Burial Treatment Plan shall be entered into by the project applicant/property owner prior to any ground disturbing activities.
Geology and Soils
<i>Will the project:</i>
b. Result in substantial soil erosion or the loss of topsoil?
f. Directly or indirectly destroy a unique paleontological
Mitigation Measures
Mitigation Measure GEO-1 To reduce the potential for soil erosion during construction of the proposed project, an Erosion Control Plan shall be prepared for the project in conformance with the California Storm Water Best Management Practice Handbook for Construction Activity, prior to the start of grading.
Mitigation Measure GEO-2 The project applicant shall inform its contractor(s) of the sensitivity of the project area for paleontological resources. Should paleontological resources be encountered during project subsurface construction activities, all ground-disturbing activities within 25 feet shall be redirected and a qualified paleontologist contacted to assess the situation, consult with agencies as appropriate, and make recommendations for the treatment of the discovery. If found to be significant, and project activities cannot avoid the paleontological resources, adverse effects to paleontological resources shall be mitigated. Mitigation may include monitoring, recording the fossil locality, data recovery and analysis, a final report, and accessioning the fossil material and technical report to a paleontological repository. Public educational outreach may also be appropriate. Upon completion of the assessment, a report documenting methods, findings, and recommendations shall be prepared and submitted to the City for review, and (if paleontological materials are recovered) a paleontological repository, such as the University of California Museum of Paleontology (UCMP). The City shall verify that the above directive has been included in the appropriate contract documents.
Greenhouse Gas Emissions
<i>Will the project:</i>
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
Mitigation Measures
Mitigation Measure GHG-1 In order to meet the 2022 Scoping Plan greenhouse gas (GHG) requirements, consistent with State GHG reduction and equity prioritization goals, the proposed project shall provide electric vehicle charging capabilities that meet the most ambitious voluntary standard in the California Green Building Standards Code at the time of project approval as part of the final project design.
Hydrology and Water Quality
<i>Will the project:</i>
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: i. Result in substantial erosion or siltation on- or off-site; ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or iv. Impede or redirect flood flows?
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?
Mitigation Measures
Mitigation Measure HYDRO-1 To minimize any potential short-term water quality effects from project-related construction activities, the project contractor shall implement Best Management Practices (BMPs) in conformance with the California Storm Water Best Management Practice Handbook for Construction Activity. In addition, the proposed project shall be in compliance with existing regulatory requirements, including the Water Pollution Control Preparation (WPCP) Manual. In addition, implementation of a Storm Water Pollution Prevention Plan (SWPPP) would be required under the National Pollutant Discharge Elimination System (NPDES) to regulate water quality associated with construction activities.
Mitigation Measure HYDRO-2 To reduce the potential for degradation of surface water quality during project operation, a Storm Water Management Plan (SWMP) shall be prepared for the proposed project. The SWMP shall describe specific programs to minimize storm water pollution resulting from the proposed project. Specifically, the SWMP shall identify and describe source control measures, treatment controls, and BMP maintenance requirements to ensure that the project complies with post-construction storm water management requirements of the Regional Water Quality Control Board (RWQCB).
Noise
<i>Will the Project?</i>
a. Cause generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
Mitigation Measure
Mitigation Measure NOI-1 Truck Movements. All truck movements occurring during nighttime hours of 10:00 p.m. to 7:00 a.m. shall be required to use the Glendale Avenue access point only.

Mitigation Measure NOI-2 The project contractor shall implement the following measures during construction of the project:

- Per the City of Hanford Municipal Code, construction activities should not occur outside the hours of 7:00 a.m. to 8:00 p.m.
- All construction equipment shall be properly maintained and muffled as to minimize noise generation at the source.
- Noise-producing equipment shall not be operating, running, or idling while not in immediate use by a construction contractor.
- All noise-producing construction equipment shall be located and operated, to the extent possible, at the greatest possible distance from any noise-sensitive land uses.
- Locate construction staging areas, to the extent possible, at the greatest possible distances from any noise-sensitive land uses.
- Signs shall be posted at the construction site and near adjacent sensitive receptors displaying hours of construction activities and providing the contact phone number of a designated noise disturbance coordinator.

Mitigation Measure NOI-3 Exterior Noise Levels. The final design shall include a minimum 6.5- foot above-ground level sound wall around outdoor activity areas associated with the proposed hotel and apartment land uses to mitigate exterior noise levels to below 65 dB Ldn within these outdoor activity areas.

Mitigation Measure NOI-4 Interior Noise Levels. Once building-specific construction plans become available, interior noise levels should be reviewed and calculated by a qualified acoustical consultant to determine if additional noise attenuation mitigation measures are required to comply with interior noise level standards.

Tribal Cultural Resources

Will the project:

a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?
Or
- ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Mitigation Measures

See Mitigation Measures CULT-1 through CULT-4,

Utilities and Service System

Will the project:

Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Mitigation Measures
See Mitigation Measure HYDRO-1

RESOLUTION 25-49-R

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF HANFORD PERTAINING TO PLANNED UNIT DEVELOPMENT NO. 2022-01, PLANNED UNIT DEVELOPMENT NO. 2022-01: A REQUEST TO ALLOW BLENDED ZONING FOR A MASTER PLANNED MEDICAL AND MIXED-USE DEVELOPMENT, INCLUDING THE FUTURE CONSTRUCTION OF 15 BUILDINGS CONSISTING OF MEDICAL OUTPATIENT CLINIC SERVICES, A HOTEL AND CONFERENCE CENTER, SPECIALIZED EDUCATION, RETAIL, MEDICAL OFFICE, SKILLED NURSING AND ASSISTED LIVING, AND MULTI-FAMILY RESIDENTIAL USES, AS WELL AS A BIO INFILTRATION BASIN, ASSOCIATED OPEN SPACE, CIRCULATION AND PARKING, AND INFRASTRUCTURE IMPROVEMENTS. THE PROJECT IS LOCATED BETWEEN 11TH AND 12TH AVENUES ALONG GLENDALE DRIVE, NORTH OF HIGHWAY 198 (APN 011-060-007, 011-060-008, 012-290-042, AND 012-290-054).

At a regular meeting of the City Council of the City of Hanford duly called and held on September 16, 2025, by motion of Councilmember _____, and seconded by Councilmember _____, and duly carried, the following resolution was adopted:

WHEREAS, Planned Unit Development No. 2022-01, a request to allow blended zoning for a master planned medical and mixed-use development, including the future construction of 15 buildings consisting of medical outpatient clinic services, a hotel and conference center, specialized education, retail, medical office, skilled nursing and assisted living, and multi-family residential uses, as well as a bio infiltration basin, associated open space, circulation and parking, and infrastructure improvements, as shown in **Exhibit A**, has been reviewed by the Planning Commission of the City of Hanford in accordance with Title 17.82 of the Hanford Municipal Code; and

WHEREAS, the project is located between 11th and 12th Avenues along Glendale Drive, north of Highway 198 (APN 011-060-007, 011-060-008, 012-290-042, and 012-290-054); and

WHEREAS, the various governmental department agencies, staff, and the Planning Commission have given careful consideration to this tentative subdivision map and have made recommendations thereon; and

WHEREAS, the Initial Study, Mitigated Negative Declaration No. 2023-93, and all notices related thereto were prepared in compliance with the California Environmental Quality Act (CEQA) and the City of Hanford Municipal Code and Policies; and

NOW THEREFORE, BE IT RESOLVED, that the City Council finds that no significant environmental impacts would result from the proposed project with the incorporation of mitigation

measures, adopt a Mitigation and Monitoring Reporting Program, attached as **Exhibit B**, and certify that Mitigated Negative Declaration No. 2023-93 was prepared consistent with CEQA and City of Hanford Environmental Guidelines.

THEREFORE, BE IT RESOLVED, on the basis of the facts and evidence provided in the staff report and the written and oral evidence presented at the public hearing, the City Council hereby makes the following findings pursuant to Section 17.82.060 of the Hanford Municipal Code:

1. That the location and design of the planned unit development is in accordance with the purpose of this title.

Analysis: Location - That in accordance with Section 17.82.050 of the Hanford Municipal Code, a planned unit development shall be a minimum five-acre site area, except that there shall be no minimum site area requirements if the site is an infill development site. The planned unit development pertains to a 39.16-acre development, which exceeds the minimum site area for a planned unit development.

Design and Purpose - That planned unit developments are encouraged to achieve a more functional, aesthetically pleasing, and harmonious living and working environment within the City, that otherwise might not be possible by strict adherence to the provisions of the municipal code. In certain instances, the objectives of the municipal code may be achieved by development that does not conform in all respects with the land use pattern designated on the zoning map or in the zone district prescribed. The planned unit development seeks to:

- ✓ A. To permit a site within more than one (1) zone district to mix the permitted or conditionally permitted land uses of both zones within the site without regard to the zone district boundary.
- ✓ C. To permit the lot patterns on size, shape, and layout that would otherwise not be permitted by the standards of the zone district in which the site is located;
- ✓ D. To modify the required building setbacks, distances between structures, and landscaped areas that would otherwise be required by this title
- ✓ E. To reduce the amount of required parking spaces when spaces are shared among multiple land uses.

The design of Planned Unit Development No. 2022-01 is consistent with the objectives of Section 17.82.

2. That the planned unit development is being proposed to achieve one or more of the objectives identified in Section 17.82.030.

Analysis: That the planned unit development is requested, in order to achieve the following objectives identified in Section 17.82.030:

- ✓ A. To permit a site within more than one (1) zone district to mix the permitted or conditionally permitted land uses of both zones within the site without regard to the zone district boundary.
- ✓ C. To permit the lot patterns on size, shape, and layout that would otherwise not be permitted by the standards of the zone district in which the site is located;
- ✓ D. To modify the required building setbacks, distances between structures, and landscaped areas that would otherwise be required by this title
- ✓ E. To reduce the amount of required parking spaces when spaces are shared among multiple land uses.

The design of Planned Unit Development No. 2022-01 is consistent with the objectives of Section 17.82.

3. That the location and design of the planned unit development and the conditions under which it would be operated or maintained will not be detrimental to the public health, safety, or welfare of the community to properties or improvements in the vicinity.

Analysis: Location - That in accordance with Section 17.82.050 of the Hanford Municipal Code, a planned unit development shall be a minimum five-acre site area, except that there shall be no minimum site area requirements if the site is an infill development site. The planned unit development pertains to a 39.16-acre development, which exceeds the minimum site area for a planned unit development.

Design and Purpose - That planned unit developments are encouraged to achieve a more functional, aesthetically pleasing, and harmonious living and working environment within the City, that otherwise might not be possible by strict adherence to the provisions of the municipal code. In certain instances, the objectives of the municipal code may be achieved by development that does not conform in all respects with the land use pattern designated on the zoning map or in the zone district prescribed. The planned unit development seeks to:

- ✓ A. To permit a site within more than one (1) zone district to mix the permitted or conditionally permitted land uses of both zones within the site without regard to the zone district boundary.
- ✓ C. To permit the lot patterns on size, shape, and layout that would otherwise not be permitted by the standards of the zone district in which the site is located;
- ✓ D. To modify the required building setbacks, distances between structures, and landscaped areas that would otherwise be required by this title
- ✓ E. To reduce the amount of required parking spaces when spaces are shared among multiple land uses.

Conditions of Operation – The Hanford Place Master Plan will function, as described in the Master Plan (**Attachment 1**).

Main objectives of the Master Plan include:

Zoning and Allowed Uses

Through the Planned Unit Development, the following uses shall be allowed by right. This would apply to all locations on the site and would not be limited by the conceptual site plan:

- All uses listed as permitted or conditionally permitted in the R-H High Density Residential Zone
- All uses listed as permitted or conditionally permitted in the C-S Service Commercial Zone
- Assisted living, skilled nursing, hospice
- College/university satellite campus

- Hotel
- Residence in the same building as a commercial or office use
- Urgent care clinic

The overall intensity of the total site would be limited by the intensity analyzed in the CEQA document. A higher intensity than that would require an amendment to the PUD. Land use locations are flexible and may change from the conceptual plan. The roadway alignments and ponding basin location would not change.

The included conceptual layout for the site has been prepared by Langdon Wilson Intl. Architecture. Individual sites may be developed independently of the Master Plan, allowing for building size, placement, and use to vary from the character in the illustrations.

Revised layout plans would be followed up with specific site plans and parcel maps that would create the public right-of-way

Design Conditions

In order for Hanford Place to have a consistent theme and to operate as a cohesive group of uses, the following design conditions are incorporated into the PUD:

1. Establish that cross-access and shared parking agreements are required for adjacent parcels as they are created prior to, or in conjunction with, parcel map or lot line adjustment approval;
2. Landscaping and lighting design shall be consistent between the sites in the PUD plan area;
3. Uses are not required to obey the zone boundary in the PUD plan area. Uses within the PUD plan area can be from either of the zones within the PUD plan area;
4. A block wall is not required within the PUD plan area between the zones.
5. Additional building setbacks are not required between the two zones within the PUD plan area. The C-S zone required setbacks shall apply to the entire PUD plan area.
6. The maximum building height for the PUD area shall be permit the C-S zone, which is 50 feet.
7. Buildings within the PUD plan area shall have a uniform/cohesive design type, with the exception of standalone residential or hotel buildings, which are not required to have similar design, but shall have compatible colors ad design elements. Elevation plans shall be submitted with site plans to confirm compliance. Standards shall be set by the first development in the PUD plan are for succeeding developments.

8. The number of on-site parking spaces shall be as follows:
 - a. Motel or hotel – 1 space per guest room plus 1 space per employee
 - b. Assisted living, skilled nursing facility, or hospice – 1 space for every 4 beds
 - c. c. multifamily dwellings - at least 50% of spaces shall be covered
 - ii. one-bedroom - 1.5 spaces per dwelling unit
 - iii. two-bedroom - 1.75 spaces per dwelling unit
 - iv. three or more bedrooms - 2 spaces per dwelling unit
 - d. d. all other allowed uses - 1 space per 350 square feet of building space
9. A sign program shall be established prior to building permit approval for the first office or commercial use. The sign program would not apply to residential and hotel/motel uses, which would follow sign standards in the Zoning Ordinance.

All development will be reviewed during the Site Plan Review process when physical development is proposed.

4. That the location and design of the planned unit development will not generate more traffic than the streets in the vicinity can carry without congestion and will not overload utilities.

Analysis: The project has been reviewed in an initial study, for which a traffic impact study (TIS) was conducted.

The study area for the TIS included the following study intersections and roadway segments.

Intersections

1. 12th Avenue/Glendale Avenue
2. 12th Avenue/SR-198 westbound (WB) Ramps
3. 12th Avenue/SR-198 eastbound (EB) Ramps
4. Campus Drive/Lacey Boulevard
5. Campus Drive/7th Street
6. Campus Drive/6th Street
7. 11th Avenue/Lacey Boulevard
8. 11th Avenue /7th Street
9. 11th Avenue/6th Street
10. 11th Avenue/5th Street
11. 11th Avenue/4th Street-SR-198 WB On Ramp
12. 11th Avenue/3rd Street-SR-198 EB Off Ramp

Segments

1. Lacey Boulevard

- 12th Avenue to Campus Drive
- Campus Drive to 11th Avenue
- 7th Street
- Campus Drive to 11th Avenue

2. 6th Street

- Campus Drive to 11th Avenue

3. Glendale Avenue

- East of 12th Avenue

4. 5th Avenue

- West of 11th Avenue

B. Campus Drive

- Lacey Boulevard to Glendale Avenue

The TIS includes the LOS analysis for the following traffic scenarios:

- Existing Conditions
- Existing Plus Project
- Near-Term Plus Project
- Cumulative Year 2042 Without Project
- Cumulative Year 2042 Plus Project

The TIS concluded that the impact on traffic would be less than significant.

5. That the planned unit development's population density, site area and dimensions, site coverage, yard spaces, height of structures, distances between structures, off-street parking and off-street loading facilities, landscaped areas and street design will produce an environment of stable and desired character consistent with the purpose of this title.

Analysis: That the project has been evaluated for consistency with the requirements of Section 17.14 High-Density Residential zone district and 17.20 C-S Service Commercial zone district. All requirements for density, site area, dimensions, site coverage, open space, height of structures, distance between structures, off-street parking and loading facilities, and landscaped areas have been satisfied, except where expressly modified by the Hanford Place Master Plan (PUD 2022-01). The modifications

proposed through the Hanford Place Master Plan will produce a cohesive design and an environment of stable and desired character consistent with the purpose of this title. The implementation of medical and mixed-use developments achieves several goals and policies of the General Plan, specifically Goals E1, L2, and L3, and Policies L38-41, L51-55, L11, L107, L135, L137 and P80.

6. That the combination of different dwelling types, architectural appearance, and/or varieties of land uses in the development will complement each other and harmonize with the existing and proposed land uses in the vicinity.

Analysis: The Hanford Place Master Plan proposes a medical and mixed-use development on an underutilized, infill parcel, proposed to be designated as C-S Service Commercial and R-H High-Density Residential. Through cohesive design, comprehensive design criteria, and medical-focused uses, with supportive residential, educational, and commercial uses, the Planned Unit Development proposes a design and combination of uses that will complement and harmonize across the zone districts proposed and achieve a goal of the General Plan to promote horizontal mixed-use development. The implementation of medical and mixed-use developments achieves several goals and policies of the General Plan, specifically Goals E1, L2, and L3, and Policies L38-41, L51-55, L11, L107, L135, L137 and P80.

THEREFORE, BE IT FURTHER RESOLVED that the City Council of the City of Hanford hereby approves Planned Unit Development 2022-01, subject to the conditions of approval, attached as **Exhibit C**, and the following:

1. This Planned Unit Development permit shall become null and void two (2) years after the effective date of approval, unless, prior to the expiration, either a building permit is issued by the building official, and construction is commenced and diligently pursued toward completion on the property that was the subject of the approved permit or the use for which the permit was approved has commenced. When any planned unit development permit that is approved in conjunction with a tentative subdivision map or parcel map pursuant to Title 16, the planned unit development shall not expire unless the tentative subdivision map or parcel map also expires, and an extension of the tentative subdivision map or parcel map shall be deemed to be an extension of the planned unit development permit. Prior to expiration of a permit, a person having authority to file an application may file a written request with the Community Development Director for extension of a permit that may otherwise expire.

PASSED AND ADOPTED at a regular meeting of the City Council of the City of Hanford held on the 16th day of September 2025 by the following vote:

AYES: Council Member _____

NOES: Council Member _____

ABSTAIN: Council Member _____

ABSENT: Council Member _____

MAYOR

STATE OF CALIFORNIA)

COUNTY OF KINGS)

CITY OF HANFORD) SS

I, **Natalie Corral**, City Clerk of the City of Hanford, do hereby certify that the foregoing Resolution was duly passed and adopted by the City Council of the City of Hanford at a regular meeting thereof held on the 16th day of September 2025.

Dated: _____

City Clerk

Exhibit A
Planned Unit Development No. 2022-01
Hanford Place Master Plan

OWNER:
THE HANFORD GROUP

HANFORD PLACE

MEDICAL AND MIXED-USE PROPERTY



LANGDON WILSON
INTERNATIONAL

PROJECT INTRODUCTION

The Hanford Group property is formed by three parcels:

Garavello Parcel	23.35 Acres
Liebert Parcel	8.79 Acres
Robinson Parcel	7.02 Acres

The proposed program is for structures that will cover Medical outpatient clinic services, Hospitality, Specialized Education, Retail, Medical Office, Skilled Nursing and Assisted Living, and Multi-family.



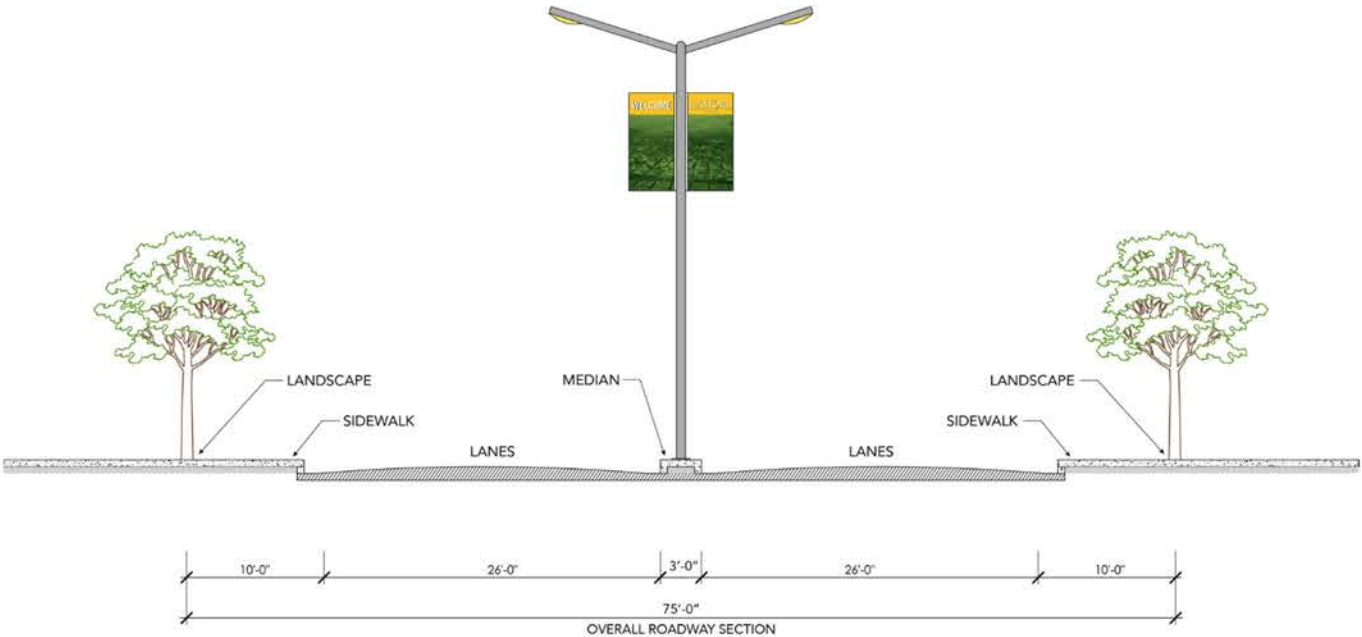
SITE CONTEXT

The site is bound by highway 198 and the SJV railroad. There is a 50 foot setback from the centerline of the railroad to the proposed buildings. 5th Street cuts across the property in an East West direction. Campus Drive creates an entry directly into the site. Adventist Health is to the northwest of the site. The People Ditch runs through this property and must maintain required setbacks and Hwy 198 makes up the southern boundary of the project.



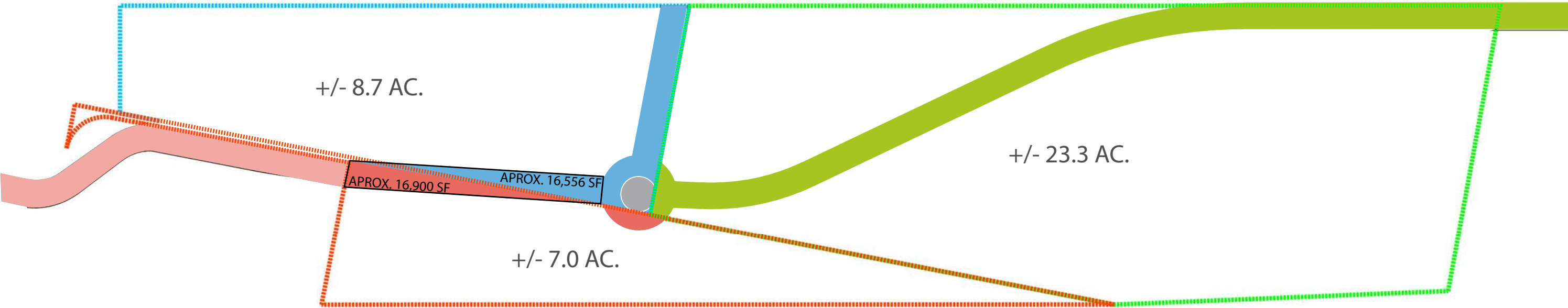
ROADWAY NETWORK

The proposed extension of Glendale Ave, 5th St. and Campus Dr. will be constructed to City standards and will be dedicated as public right of way. The proposed round a bout will also be public right of way and will be designed per Caltrans, or similar City approved, design standards. Typical City utilities (water, sewer and storm drain) will be constructed within the proposed right of way. As part of this proposal, Glendale Ave will be realigned at the northwest corner of the Hanford Veterinary Hospital development. The existing knuckle will be removed and Glendale will be realigned using speed specific design curves. Any new portion of Glendale Ave will be dedicated as public right of way and any portion of existing right of way not used will be abandoned. 5th St. will be extended starting on the existing alignment before realigning to the round a bout.



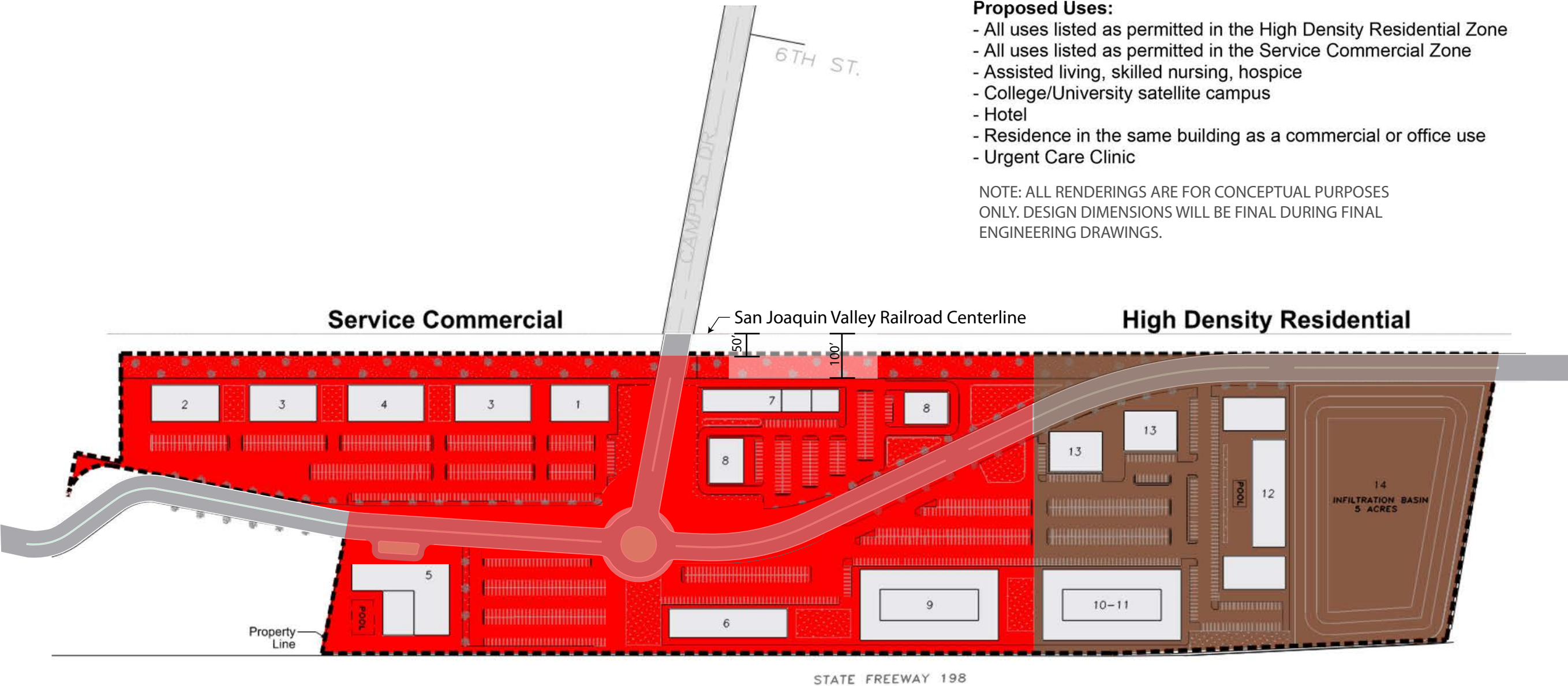
- BG ROAD
- SL RAOD
- ROB ROAD
- OFFSITE BG ROAD
- OFFSITE ROB ROAD

NOTE: ALL RENDERINGS ARE FOR CONCEPTUAL PURPOSES ONLY. DESIGN DIMENSIONS WILL BE FINAL DURING FINAL ENGINEERING DRAWINGS.



VISUALS - SITE PLAN





- Proposed Uses:**
- All uses listed as permitted in the High Density Residential Zone
 - All uses listed as permitted in the Service Commercial Zone
 - Assisted living, skilled nursing, hospice
 - College/University satellite campus
 - Hotel
 - Residence in the same building as a commercial or office use
 - Urgent Care Clinic

NOTE: ALL RENDERINGS ARE FOR CONCEPTUAL PURPOSES ONLY. DESIGN DIMENSIONS WILL BE FINAL DURING FINAL ENGINEERING DRAWINGS.

LEGEND

1. AMBULATORY SURGERY CENTER 2 LEVELS - 22,525 SF 4:1000	5. HOTEL & CONFERENCE CENTER 4 LEVELS - 100,000 SF -105 KEYS, PARKING 1:ROOM + 1 PER EMPLOYEE	7. STRIP RETAIL 1 LEVEL-4 UNITS - 15,500 SF 1:300	11. ALF - ASSISTED LIVING FACILITY 1 LEVEL-34,380 SF 1:UNIT
2. SPECIALTY CLINIC 1 LEVEL - 12,445 SF 4:1000	6. NURSING COLLEGE 2 LEVELS - 35,000 SF PARKING 1 PER EMPLOYEE+ 10 PER	8. RETAIL/DRIVE THRU/MEDICAL COMMERCIAL 1 LEVEL- 2UNITS - 15,000 SF 1:300	12. MULTIFAMILY APARTMENT 3 LEVELS - 1 BLOCKS - 90 TOTAL UNITS
3. MOB - MEDICAL OFFICE BUILDING 1 LEVEL - 12,445 SF/BLDG (2) 4:1000	CLASSROOM(8-10 CLASSROOMS)	9. SNF - SKILLED NURSING FACILITY 2 LEVELS - 54,611 SF - 59 UNITS 1:4 BEDS	13. MEDICAL/COMMERCIAL 1 LEVEL-2 BLDGS - 11,000 SF 4:1000 PER BLDG
4. PHF - PSYCHIATRIC HEALTH FACILITY 1 LEVEL - 12,445 SF 1:4000		10. MEMORY CARE 1 LEVEL - 34,380 SF - 40 UNITS 1:4 BED	14. BIO INFILTRATION BASIN 5.0 ACRES



ZONING AND ALLOWED USES

- The Zoning would change from existing Highway Commercial (C-H) to High Density Residential (R-H) and Service Commercial (C-S). (See map on previous page.)
- Through the Planned Unit Development (PUD), the following uses shall be allowed by right. This would apply to all locations on the site and would not be limited by the conceptual site plan.
 - All uses listed as permitted or conditionally permitted in the High Density Residential Zone R-H).
 - All uses listed as permitted or conditionally permitted in the Service Commercial Zone (C-S).
 - Assisted living, skilled nursing, hospice.
 - College/University satellite campus.
 - Hotel.
 - Residence in the same building as a commercial or office use.
 - Urgent Care Clinic.
- The overall intensity of the total site would be limited by the intensity analyzed in the CEQA document. A higher intensity than that would require an amendment to the PUD. Land use locations are flexible and may change from the conceptual plan. The roadway alignments and ponding basin location would not change.
- The included conceptual layout for the site has been prepared by Langdon Wilson Intl. Architecture. Individual sites may be developed independently of the Master Plan, allowing for building size, placement, and use to vary from the character in the illustrations.
- Revised layout plans would be followed up with specific site plans and parcel maps that would create the public ROW.

DESIGN CONDITIONS

In order for Hanford Place to have a consistent theme and to operate as a cohesive group of uses, the following design conditions are incorporated into the PUD:

1. Establish that cross access and shared parking agreements are required for adjacent parcels as they are created prior to, or in conjunction with, parcel map or lot line adjustment approval.
2. Landscaping and lighting design shall be consistent between the sites in the PUD plan area.
3. Uses are not required to obey the zone boundary in the PUD plan area. Uses within the PUD plan area can be from either of the zones within the PUD plan area.
4. A block wall is not required within the PUD plan area between the zones.
5. Additional building setbacks are not required between the two zones within the PUD plan area. The C-S zone required setbacks shall apply to the entire PUD plan area.
6. The maximum building height for the PUD area shall be per the C-S zone, which is 50 feet.
7. Buildings within the PUD plan area shall have a uniform/cohesive design type, with the exception of standalone residential or hotel buildings, which are not required to have similar design but shall have compatible colors and design elements. Elevation plans shall be submitted with site plans to confirm compliance. Standards shall be set by the first development in the PUD plan area for succeeding developments.
8. The number of on-site parking spaces shall be as follows:
 - a. motel or hotel - 1 space per guest room plus 1 space per employee
 - b. assisted living, skilled nursing facility, or hospice - 1 space for every 4 beds
 - c. multifamily dwellings - at least 50% of spaces shall be covered
 - i. one-bedroom - 1.5 spaces per dwelling unit
 - ii. two-bedroom - 1.75 spaces per dwelling unit
 - iii. three or more bedrooms - 2 spaces per dwelling unit
 - d. all other allowed uses - 1 space per 350 square feet of building space
9. A sign program shall be established prior to building permit approval for the first office or commercial use. The sign program would not apply to residential and hotel/motel uses, which would follow sign standards in the Zoning Ordinance.

VISUALS KEY PLAN

The following visuals are an example of the architecture and a conceptual artist's take on the look and feel of the development. They are not intended to be final Design and are merely to represent scale of the development.



CAMPUS ENTRY – VIEW 07



3 WAY ROUNDABOUT INTERSECTION AT CAMPUS AND 5TH



VIEW 08

VIEW 14



BIRDSEYE VEIW 10 LOOKING EAST FROM MEDICAL OFFICE AND CLINIC PARCELS



VEIW 11 LOOKING EAST FROM MEDICAL OFFICE AND CLINIC PARCELS



VEIW 11 LOOKING WEST TO MEDICAL OFFICE AND CLINIC PARCELS



EYE LEVEL VIEW 23 LOOKING WEST TO PHF BUILDING



EYE LEVEL VIEW 17 LOOKING WEST TO AMBULATORY SURGERY CENTER BUILDING



VEIW 21 LOOKING EAST FROM HOTEL PARKING



BIRDSEYE VIEW 09 LOOKING EAST TO ROUNDABOUT FROM HOTEL



EYE LEVEL VIEW 20 OF HOTEL



BIRDSEYE VIEW 01 LOOKING NORTH OVER ALF TO MEDICAL COMMERCIAL



BIRDSEYEE VIEW 02 LOOKING WEST TO SNF AND MEDICAL COMMERCIAL



EYE LEVEL VIEW 08 LOOKING WEST FROM ALF TO HOTEL



EYE LEVEL VIEW 25 MEDICAL COMMERCIAL



EYE LEVEL VIEW 22 LOOKING SOUTHWEST TO MULTIFAMILY



BIRDSEYE VIEW 04 LOOKING WEST TO RETAIL



BIRDSEYE VIEW 04 LOOKING WEST TO RETAIL



EYE LEVEL VIEW 13 OF RETAIL



EYE LEVEL VIEWS 16 AND 03 LOOKING WEST TO RETAIL



Exhibit B
Mitigation Monitoring and Reporting Program

Biological Resources
<i>Will the project:</i>
Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?
Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
Mitigation Measures
Mitigation Measure BIO-1 Conduct Preconstruction Clearance Surveys for San Joaquin Kit Fox and Burrowing Owl. A preconstruction clearance survey is required for San Joaquin kit fox and burrowing owl no more than 30 calendar days prior to initiation of project activities. All survey results must be delivered to the United States Fish and Wildlife Service's (USFWS), the California Department of Fish and Wildlife (CDFW), and the City. If the survey results find an active burrow of one or both of these species on the project site, the applicant must coordinate with the applicable resource agencies (CDFW for burrowing owl, CDFW and USFWS for kit fox) to obtain applicable agency approval(s)/permit(s) prior to any ground disturbance activities on the site. Specific avoidance, den excavation, passive relocation, and compensatory mitigation activities shall be performed as required by the applicable agency. Appropriate provisions of the CDFW Staff Report on Burrowing Owl Mitigation and USFWS Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox shall be adhered to.
Mitigation Measure BIO-2 Worker Environmental Awareness Training. Prior to initial groundbreaking, Worker Environmental Awareness Training shall be conducted by a qualified biologist to educate all construction personnel on the relevant federal, state, and local laws related to potentially occurring special-status species at the site. The tailgate session shall include training on identification of species that may be found on the project site, the status of those species, and any legal protection afforded to those species. Personnel will be advised to report any special-status species encountered promptly. A fact sheet conveying this information will be prepared for display or for distribution to anyone who may enter the project site.
Mitigation Measure BIO-3 Construction Site Housekeeping and Operational Requirements. Habitat subject to permanent and temporary construction disturbances and other types of ongoing project-related disturbance activities shall be minimized by adhering to the following USFWS Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox: a) To minimize temporary disturbances, all project-related vehicle traffic shall be restricted to established roads, construction areas, and other designated areas. These areas shall also be included in preconstruction surveys and, to the extent possible, shall be established in locations disturbed by previous activities to prevent further impacts.

b) Project-related vehicles shall observe a daytime speed limit of 20-mph throughout the site in all project sites, except on county roads and state and federal highways; this is particularly important at night when kit foxes are most active. Night-time construction shall be minimized to the extent possible. However, if it does occur, then the speed limit shall be reduced to 10-mph. Off-road traffic outside of designated project sites shall be prohibited.

c) To prevent inadvertent entrapment of kit foxes or other animals during the construction phase of a project, all excavated, steepwalled holes or trenches more than 2-feet deep shall be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks shall be installed. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped animals. If at any time a trapped or injured kit fox is discovered, the USFWS and the CDFW shall be contacted.

d) Kit foxes are attracted to den-like structures such as pipes and may enter stored pipes and become trapped or injured. All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored at a construction site for one or more overnight periods shall be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe shall not be moved until the USFWS and CDFW have been consulted. If necessary, and under the direct supervision of a qualified biologist, the pipe may be moved only once to remove it from the path of construction activity, until the fox has escaped. In the case of trapped animals, escape ramps or structures shall be installed immediately to allow the animal(s) to escape, or the USFWS and CDFW should be contacted for further guidance.

e) All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in securely closed containers and removed at least once a week from a construction or project site.

f) Pets, such as dogs or cats, shall not be permitted on the project site to prevent harassment, mortality of kit foxes, or destruction of dens.

g) Use of rodenticides and herbicides in project sites shall be restricted. This is necessary to prevent primary or secondary poisoning of kit foxes and the depletion of prey populations on which they depend. All uses of such compounds shall observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other state and federal legislation. If rodent control must be conducted, zinc phosphide should be used because of a proven lower risk to kit fox.

Mitigation Measure BIO-4 Nesting Bird Surveys and Avoidance. If vegetation removal, construction, or grading activities are planned to occur within the active nesting bird season (February 15 through September 15), a qualified biologist shall conduct a preconstruction nesting bird survey no more than 5 days prior to the start of such activities. The nesting bird survey shall include the project site and areas immediately adjacent to the site that could potentially be affected by project-related activities such as noise, vibration, increased human activity, and dust, etc. For any active nest(s) identified, the qualified biologist shall establish an appropriate buffer zone around the active nest(s). The appropriate buffer shall be determined by the qualified biologist based on species, location, and the nature of the proposed activities. Project activities shall be avoided within the buffer zone until the nest is deemed no longer active by the qualified biologist.

Mitigation Measure BIO-5 Agency Coordination for Peoples Ditch. Prior to any modifications to Peoples Ditch, it is recommended to consult with the United States Army Corps of Engineers (USACE), CDFW, and Regional Water Quality Control Board (RWQCB) to verify the feature's jurisdictional status and obtain applicable permit(s) and/or authorization(s). A notification of streambed alteration should be submitted to the CDFW in accordance with Section 1602 of the California Fish and Game Code. Unless categorically excluded under effective definitions or existing documentation confirms that no permit is needed, the Central Valley RWQCB and Sacramento District of the USACE should be consulted regarding potential permitting needs under the California Water Code and federal Clean Water Act, respectively, associated with the proposed Peoples Ditch modifications.

Cultural Resources

Will the project:

Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Disturb any human remains, including those interred outside of formal cemeteries?

Mitigation Measures

Mitigation Measure CULT-1 Because of the very high sensitivity of the soil type in the project area, the possibility exists that buried archaeological deposits within the project site. Therefore, archaeological monitoring must be conducted during ground-disturbing construction activities in native soil, including clearing and grubbing. Monitoring should occur on a full-time basis during all excavation activities until the Project Archaeologist, based on the archaeological monitor's observations, is satisfied that there is little likelihood of encountering intact archaeological deposits. The Project Archaeologist may also determine it is appropriate to reduce monitoring to spot-checking or on a part-time basis. Upon completion of the monitoring and, if necessary, mitigation, the archaeologist should prepare a report to document the methods and results of the monitoring. The final report should be submitted to the SSJVIC.

Mitigation Measure CULT-2 Additional mapping and subsurface testing of AE-4167-01 shall be conducted to evaluate its eligibility for inclusion in the California Register of Historical Resources, pursuant to California Public Resources Code (PRC) 5024.1. Additional focused subsurface testing in areas not previously disturbed by historic-era activities must be conducted to confirm presence/absence of high-sensitivity paleosols that may include intact prehistoric cultural deposits. If intact prehistoric cultural deposits are encountered during subsurface presence/absence testing, further investigation must be conducted to determine if the deposit retains integrity and is eligible for inclusion in the California Register of Historical Resources. The methods and findings of the additional studies would be presented as an addendum to the Cultural Resource Inventory for the Hanford Place Medical and Mixed-Use Property Project and would include cultural resource management recommendations to guide mitigation of potential adverse effects to any identified historical resources within the project area.

Mitigation Measure CULT-3 Any human remains encountered during project-related ground disturbing activities shall be treated in accordance with California Health and Safety Code Section 7050.5. The project sponsor shall inform all contractor(s) performing excavation of the sensitivity of the project site for human remains and include the following directive in the appropriate contract documents: If human remains are uncovered, all work within 50 feet of the discovery shall be halted and the Kings County Coroner notified immediately. At the same time, the on-site monitoring archaeologist shall assess the situation and consult with agencies as appropriate.

Project personnel shall not collect or move any human remains or associated materials. If the human remains are of Native American origin, the Coroner must notify the California State Native American Heritage Commission (NAHC) within 24 hours of this identification. The NAHC will formally identify a Native American Most Likely Descendant (MLD)—if one is not already on-site—to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods. Such recommendations shall be carried out to the satisfaction of the NAHC prior to work resuming within 50 feet of the discovered remains.
Mitigation Measure CULT-4 A Burial Treatment Plan shall be entered into by the project applicant/property owner prior to any ground disturbing activities.
Geology and Soils
<i>Will the project:</i>
b. Result in substantial soil erosion or the loss of topsoil?
f. Directly or indirectly destroy a unique paleontological
Mitigation Measures
Mitigation Measure GEO-1 To reduce the potential for soil erosion during construction of the proposed project, an Erosion Control Plan shall be prepared for the project in conformance with the California Storm Water Best Management Practice Handbook for Construction Activity, prior to the start of grading.
Mitigation Measure GEO-2 The project applicant shall inform its contractor(s) of the sensitivity of the project area for paleontological resources. Should paleontological resources be encountered during project subsurface construction activities, all ground-disturbing activities within 25 feet shall be redirected and a qualified paleontologist contacted to assess the situation, consult with agencies as appropriate, and make recommendations for the treatment of the discovery. If found to be significant, and project activities cannot avoid the paleontological resources, adverse effects to paleontological resources shall be mitigated. Mitigation may include monitoring, recording the fossil locality, data recovery and analysis, a final report, and accessioning the fossil material and technical report to a paleontological repository. Public educational outreach may also be appropriate. Upon completion of the assessment, a report documenting methods, findings, and recommendations shall be prepared and submitted to the City for review, and (if paleontological materials are recovered) a paleontological repository, such as the University of California Museum of Paleontology (UCMP). The City shall verify that the above directive has been included in the appropriate contract documents.
Greenhouse Gas Emissions
<i>Will the project:</i>
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
Mitigation Measures
Mitigation Measure GHG-1 In order to meet the 2022 Scoping Plan greenhouse gas (GHG) requirements, consistent with State GHG reduction and equity prioritization goals, the proposed project shall provide electric vehicle charging capabilities that meet the most ambitious voluntary standard in the California Green Building Standards Code at the time of project approval as part of the final project design.
Hydrology and Water Quality
<i>Will the project:</i>
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: i. Result in substantial erosion or siltation on- or off-site; ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or iv. Impede or redirect flood flows?
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?
Mitigation Measures
Mitigation Measure HYDRO-1 To minimize any potential short-term water quality effects from project-related construction activities, the project contractor shall implement Best Management Practices (BMPs) in conformance with the California Storm Water Best Management Practice Handbook for Construction Activity. In addition, the proposed project shall be in compliance with existing regulatory requirements, including the Water Pollution Control Preparation (WPCP) Manual. In addition, implementation of a Storm Water Pollution Prevention Plan (SWPPP) would be required under the National Pollutant Discharge Elimination System (NPDES) to regulate water quality associated with construction activities.
Mitigation Measure HYDRO-2 To reduce the potential for degradation of surface water quality during project operation, a Storm Water Management Plan (SWMP) shall be prepared for the proposed project. The SWMP shall describe specific programs to minimize storm water pollution resulting from the proposed project. Specifically, the SWMP shall identify and describe source control measures, treatment controls, and BMP maintenance requirements to ensure that the project complies with post-construction storm water management requirements of the Regional Water Quality Control Board (RWQCB).
Noise
<i>Will the Project?</i>
a. Cause generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
Mitigation Measure
Mitigation Measure NOI-1 Truck Movements. All truck movements occurring during nighttime hours of 10:00 p.m. to 7:00 a.m. shall be required to use the Glendale Avenue access point only.

Mitigation Measure NOI-2 The project contractor shall implement the following measures during construction of the project:

- Per the City of Hanford Municipal Code, construction activities should not occur outside the hours of 7:00 a.m. to 8:00 p.m.
- All construction equipment shall be properly maintained and muffled as to minimize noise generation at the source.
- Noise-producing equipment shall not be operating, running, or idling while not in immediate use by a construction contractor.
- All noise-producing construction equipment shall be located and operated, to the extent possible, at the greatest possible distance from any noise-sensitive land uses.
- Locate construction staging areas, to the extent possible, at the greatest possible distances from any noise-sensitive land uses.
- Signs shall be posted at the construction site and near adjacent sensitive receptors displaying hours of construction activities and providing the contact phone number of a designated noise disturbance coordinator.

Mitigation Measure NOI-3 Exterior Noise Levels. The final design shall include a minimum 6.5- foot above-ground level sound wall around outdoor activity areas associated with the proposed hotel and apartment land uses to mitigate exterior noise levels to below 65 dB Ldn within these outdoor activity areas.

Mitigation Measure NOI-4 Interior Noise Levels. Once building-specific construction plans become available, interior noise levels should be reviewed and calculated by a qualified acoustical consultant to determine if additional noise attenuation mitigation measures are required to comply with interior noise level standards.

Tribal Cultural Resources

Will the project:

a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?
Or
- ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Mitigation Measures

See Mitigation Measures CULT-1 through CULT-4,

Utilities and Service System

Will the project:

Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Mitigation Measures
See Mitigation Measure HYDRO-1

Exhibit C
Conditions of Approval

ADMINISTRATION DEPARTMENT

Contact the City Attorneys' Office: (559) 584-6656

Concerning questions that you may have on the conditions listed below:

Defense and Indemnification Provisions:

1. That the applicant shall defend, indemnify, and hold harmless the City of Hanford ("City"), its officials, officers, employees, representatives, agents and attorneys, from and against all claims, damages, losses, judgments, liabilities, expenses and other costs, including litigation costs and attorney's fees, arising out of, resulting from, or in connection with, the City's act or acts leading up to and including approval of any environmental document and/or granting of any approvals relating to the Project. Applicant's obligation to defend, indemnify and hold the City harmless specifically includes, but is not limited to, any suit or challenge by any third party against the City which challenges or seeks to set aside, void or annul the legality or adequacy of any environmental document approved by the City or any approval related to the Project.

PLANNING DIVISION

SITE PLAN NUMBER: PUD 2022-01; CUP0019-23

CONTACT: Gabrielle Myers, Senior Planner (559) 585-2578

General Plan Designation: Highway Commercial; Service Commercial and High-Density Residential proposed

Zoning: C-H Highway Commercial; C-S Service Commercial and R-H High-Density Residential proposed

Other Special Districts: Hanford Place Master Plan

Required Entitlements:

1. General Plan Amendment
2. Rezone
3. Planned Unit Development (Master Plan)
4. Tentative Parcel Map (future) – Any future land divisions will require a Tentative Parcel Map application
5. Site Plan Review (future) – future development proposals will be evaluated through site plan review. Each site plan will be evaluated for consistency with the Hanford Place Master Plan and C-S or R-H standards where the plan is silent.

General Requirements:

1. That approval of this project does not exempt compliance with all applicable sections of the Zoning Ordinance, Public Works Improvement Standards, fees, or other City Ordinances.
2. That all approved proposals of the applicant be conditions of development, if not mentioned herein.

3. That no expansion of the use which would tend to increase the projected scale of operations beyond the scope and nature described in this tentative tract shall be permitted except upon application for, and approval of, modification of this application according to all procedures and requirements thereof.
4. That if cultural resources are discovered during construction or related activities, all work shall be halted and a qualified archeologist and the City of Hanford shall be notified. The find shall be properly investigated and appropriate measures are to be taken before construction may continue.

General:

- ☒ That uses shall be permitted or not permitted, conditionally permitted, administratively permitted, or temporarily permitted as described on page 5 of the Hanford Place Master Plan and the land use tables in Sections [17.08.020](#) and [17.08.030](#) based on the base zone district, in which the use is located.
- ☒ That development conform to Hanford Place Master Plan and all applicable regulations of:
 - Section 17.14 for the High-Density Residential zone district; and
 - Section 17.18 for the Service Commercial zone district;

R-H High-Density Residential Zone Requirements (all checked shall apply)

Dwelling Units per Lot (Section 17.14.050)

- ☒ That the minimum site area per dwelling unit shall be 1,500 square feet.

Coverage (Section 17.14.060)

- ☒ That the maximum coverage of a lot shall be determined by the combined building setback area requirements, accessory structure limitations, open space requirements, and off-street parking.

Building Setback Area (Section 17.14.070) **modified by Master Plan, follow Master Plan Design Regulations**

- ☒ That no structure shall be placed within a building setback area.
- ☒ The front building setback area shall be 15 feet from the front lot line for livable space and 20 feet for garages, carports, and other non-livable building space.
- ☒ That the rear building setback shall be 15 feet from the rear lot line, except where there is a landscape easement with a wall or fence on the rear of the lot, then the rear building setback shall be 20 feet.
 - ☒ The rear building setback area shall be increased by 10 feet for buildings over one-story high.

- ☒ That where there is a landscape easement with a wall or fence on the street side of the lot the side yard setback area shall be measured from the easement area instead of the side lot line.

Distances between Structures: (Section 17.14.080)

- ☒ That the minimum distance between structures shall be 10 feet, except as provided by the building code.

Height of Structures (Section 17.14.090) **modified by Master Plan, follow Master Plan Design Regulations**

- ☒ That the maximum structure height shall be 35 feet.
- ☒ Exceptions to height limitations: penthouses or roof structures for the housing of elevators, stairways, tanks, ventilating fans, air-conditioning equipment, or similar equipment required to operate and maintain buildings, and fire and parapet walls, skylights, towers, spires, cupolas, road signs (where permitted), flagpoles, chimneys, smokestacks, televising and radio masts, or similar structures may be erected above the height limit, but shall not be allowed for the purpose of providing additional floor space.

Usable Open Space (Section 17.14.150)

- ☒ That lots with four or less dwelling units shall provide for a usable open space area of a minimum 300 square feet per dwelling unit. The open space shall be a minimum of 15 feet side.
- ☒ That lots with five or more dwelling units shall provide for a usable open space area equal to five percent of the lot area. Where multiple lots that together make up a single development site, the required open space may be combined into common open space areas that are accessible to all residents of the site.

Off Street Parking: (Section 17.54). **modified by Master Plan, follow Master Plan Design Regulations**

That the applicant shall provide **x (undetermined)** parking stalls on site (minimum), as shown on the approved site plan. Per the Hanford Municipal Code Section 17.54.040, parking shall be provided, as follows:

Unit Type	Parking Space Requirement	Measuring unit	# of Stalls Required	Total Covered
Studio	1 space			
1-bedroom unit	1.5 spaces; 50% covered			
2-bedroom unit	1.75 spaces; 50% covered			
3-bedroom unit	2 spaces; 50% covered			

Community Space	1 space per 300 sq. ft.			
Total				

- ☒ That a minimum of **x (undetermined)** stalls shall be covered parking stalls.
- ☒ That the standard parking space shall not be less than 18.5 feet in length and nine feet in width, exclusive of aisles and access drives (Section 17.54.110 A).
- ☒ That the maximum number of compact-car parking spaces is limited to 30 percent of the total parking spaces required. A compact parking space shall not be less than 16 feet in length and 8 feet in width, and **marked for compact cars** (Section 17.54.110 B. and C).
- ☒ That there shall be no more than four compact spaces adjacent to each other.
- ☒ That parking for bicycles and low-emission vehicles shall be provided in accordance with the latest adopted version of the California Building Code (Section 17.54.190).
- ☒ That the required parking spaces may not be provided within any front, side, or rear building setback area.

Signage: (Section 17.56).

- ☒ That any/all signs proposed for this development shall be subject to the requirements and standards prescribed in Chapter 17.56 of the Hanford Municipal Code. **A separate application is required.**

Fencing and Walls: (Section 17.50.110 and 17.50.120). **modified by Master Plan, follow Master Plan Design Regulations**

- ☒ That fences and walls in the R-H zone district shall be constructed or installed in accordance with the following:
 - ☒ Along a rear lot line not exceeding seven feet in height
 - ☒ Along an interior side lot line not exceeding seven feet in height beginning at 10 feet from the front lot line.
- ☒ That any proposed fencing on the site be maintained in good repair.
- ☒ That no fence or wall shall be placed within the public right-of-way.
- ☒ That a masonry fence exceeding three (3) feet in height shall require engineered footings and a building permit. All other fencing exceeding seven (7) feet in height shall require engineered post footings and a building permit.
- ☒ That no hedge, shrub, fence, or wall exceeding the three (3) feet in height, or four (4) feet in height if the upper one (1) foot is fifty (50) percent or more open shall be planted, placed, or maintained within the twenty-five (25) feet corner sight triangle of a corner lot, or along a front

or street side property line where the hedge, shrub, fence, or wall creates a traffic or pedestrian hazard as determined by the Community Development Director.

Landscaping: (Section 17.52.060).

- ☒ General Design Standards: the following features shall be incorporated into the design of the proposed landscape and shown on the required landscape plans:
 - ☒ Publicly maintained landscape areas shall be separated from privately maintained landscape areas with, at a minimum, a four (4) inch wide concrete mow strip.
 - ☒ Pedestrian access to sidewalks and structures shall be integrated with the design of landscaped areas.
 - ☒ Landscape adjacent to driveways and parking areas shall be protected from vehicle damage through the provision of a minimum six (6) inch high and six (6) inch wide concrete curb.
 - ☒ Concrete mow strips, when used, shall be a minimum of four (4) inches in width.
 - ☒ Trees and shrubs shall be planted so that at maturity they do not interfere with utility lines and traffic safety sight areas.
 - ☒ Trees and shrubs shall be planted and maintained in a manner that protects the basic rights of adjacent property owners, particularly the right to solar access.
 - ☒ Trees planted within five (5) feet of sidewalks or curbs shall have an eighteen (18) inch by ten (10) foot long linear root barrier placed at each edge of the sidewalk or face of curb, centered on the tree.
- ☒ Plant materials. Plant materials shall be selected and installed in accordance with the following requirements:
 - ☒ The size of ten (10) percent of the trees to be planted shall be twenty-four (24) inch box or larger. The remaining trees shall be sized fifteen (15) gallons or larger.
 - ☒ The size of seventy (70) percent of plants and shrubs shall be at five (5) gallon or larger. The remaining plants and shrubs shall be sized one (1) gallon or larger.
 - ☒ The size of groundcover at planting shall be one (1) gallon or larger.
 - ☒ Groundcover shall be designed to have one hundred (100) percent coverage within two (2) years.
 - ☒ Drought tolerant plant material and climate appropriate species shall be emphasized in the design.
- ☒ That the landscaped area shall be planted with live and healthy plant materials suitable for screening/or ornamenting the site. Landscaped areas shall be watered by automatic systems and designed and developed in accordance with Chapter 12.08 and the most recent State Model Water Efficient Landscaped Ordinance.

- ☒ That no fence, hedge, or shrub shall be installed, planted, or maintained along a street frontage, which creates a traffic or pedestrian hazard.
- ☒ That all building setback areas and open space areas required which are visible from the public right-of-way shall be landscaped.

Trash Collection Areas (Section 17.50.090).

- ☒ That a suitable area shall be provided on-site for collection of trash and recyclable materials for all multi-family residential, mixed-use, commercial, office, and industrial uses. Refuse storage areas shall be adequately screened from view. The refuse area enclosure shall be designed to meet the minimum recommended dimensional standards as determined by the City Engineer.
- ☒ That all uses shall be in compliance with the provisions of Chapter 13.12 of the Municipal Code.
- ☒ That if fireplaces are proposed in the residential units, natural gas fireplaces or EPA-certified wood-burning fireplaces/stoves are to be installed in every unit that has a fireplace. Conventional open-hearth fireplaces are not allowed.
- ☒ That natural gas lines and electrical outlets be installed in backyards or patios to encourage use of gas and/or electric barbecues.
- ☒ That electrical outlets be installed around the exterior of the residential units to encourage use of electric lawn mowers, edgers, etc.

Noise:

- ☒ That construction equipment is muffled and construction activities be limited to the hours between 7:00 a.m. to 10:00 p.m., Monday through Friday, unless the construction is within the enclosed structure or approved by the Community Development Department.
- ☒ That noise from fixed mechanical equipment, when measured at the property line, meets the standard of the Hanford Noise Element.

Rooftop Equipment (Section 17.50.100)

- ☒ That all elevator housing and mechanical equipment located on the roof of any building shall be screened from adjacent views and contained within a completely enclosed penthouse or portion of the same building having walls and roofs with construction and appearance similar to the building.

Outdoor Lighting Standards (Section 17.50.140)

- ☒ That all lights and light fixtures, except public street lights, shall be located, aimed or shielded so as to minimize light trespassing across property boundaries or skyward.
- ☒ That no lights or light fixtures shall flash, revolve, blink or otherwise resemble a traffic control signal or operate in such a fashion to create a hazard for passing traffic.

- ☒ That building mounted lighting fixtures shall be attached only to the walls of the building. The top of a light fixture attached to a building wall shall not be higher than the top of the building parapet or the top of the roof eave, whichever is lower.
- ☒ That canopy ceiling light fixtures shall be recessed or the sides of the lens area shall be shielded in order to eliminate emission of horizontal light.
- ☒ That mercury vapor lamps shall be a fully shielded fixture with all light directed on-site.
- ☒ That freestanding light fixtures shall not exceed eighteen (18) feet in height measured from the top of a light fixture to the adjacent grade at the base of the support for that light fixture.

Tents, Tarps, and Other Coverings (Section 17.50.130)

- ☒ That no front or side building setback area shall be covered by tents, tarps, cloth, fabric, or a wood or metal covering or structure except for the following:
 - ☒ Standard window and door awnings
 - ☒ Ornamental covers, such as a sidewalk or entry awning trellis, or other similar improvement intended as an improved passageway or for aesthetic purposes providing architectural integrity with the building to which it is attached. Supports shall be ninety (90) percent open and shall not be enclosed.

Dust Control:

- ☒ That the appropriate dust-control practices of the San Joaquin Valley Air Pollution Control District shall be implemented.
- ☒ That the any necessary permits be obtained through the San Joaquin Valley Air Pollution Control District.

The below are considered draft comments until final approval of the site plan
C-S Service Commercial Checklist: (all checked shall apply)

General:

- ☒ That approval of this project does not exempt compliance with all applicable sections of the Zoning Ordinance, Public Works Improvement Standards, fees, or other City Ordinances.
- ☒ That all approved proposals of the applicant be conditions of development, if not mentioned herein.
- ☒ That the site be developed according to the approved site plan, titled Site Plan Review No. 2018-06 with minor modifications to be approved by the Community Development Department.
- ☒ That no expansion of the use which would tend to increase the projected scale of operations beyond the scope and nature described in this Site Plan Review shall be permitted except upon application for, and approval of, modification of this application according to all procedures and requirements thereof.

Cultural Resources:

- ☒ That if cultural resources are discovered during construction or related activities, all work shall be halted and a qualified archeologist and the City of Hanford shall be notified. The find shall be properly investigated and appropriate measures are to be taken before construction may continue.

Building Setback Areas (17.20.060) modified by Master Plan, follow Master Plan Design Regulations

- ☒ That the appropriate setbacks be maintained, as follows:
 - ☒ The front building setback area shall be 15 feet, **except that in C-S zones bounded by SR 198, 10th Avenue, 11th Avenue, and Sixth Street there is no minimum front building setback requirement.**
 - ☒ The rear building setback shall be 15 feet, as the property abuts a PF zone district.
 - ☒ The side building setback shall be 15 along the north interior side property line, as the property abuts a PF zone district. **Since the building is existing, no change is required.**
 - ☐ The street side building setback shall be 15 feet.

Off Street Parking: (Section 17.54). modified by Master Plan, follow Master Plan Design Regulations

- ☒ That the standard parking space shall not be less than 18.5 feet in length and nine feet in width, exclusive of aisles and access drives (Section 17.54.110 A).
- ☒ That the maximum number of compact-car parking spaces is limited to 30 percent of the total parking spaces required. A compact parking space shall not be less than 16 feet in length and 8 feet in width, and marked for compact cars (Section 17.54.110 B. and C).
- ☒ There shall be no more than four compact spaces adjacent to each other.
- ☒ That parking for bicycles and low-emission vehicles shall be provided in accordance with the latest adopted version of the California Building Code (Section 17.54.190).
- ☒ In the commercial zone district, not less than five percent of the interior square footage of a parking area shall be landscaped with trees and other plant materials suitable for ornamentation. **Parking areas are to have one tree placed at every four lineal parking stalls.**

Signage: (Section 17.56). modified by Master Plan, follow Master Plan Design Regulations

- ☒ That any/all signs proposed for this development shall be subject to the requirements and prescribed in Chapter 17.56 of the Hanford Municipal Code. A separate application is required.

Fencing and Walls: (Section 17.20.130) **modified by Master Plan, follow Master Plan Design Regulations**

- ☒ That a block wall with a minimum height of seven feet shall be provided along any side or rear lot line that abuts an R-H, R-M, R-L, O, OR, PF zone district.
- ☒ That no fence or wall shall be placed in front of or within any landscaped area located next to a street.
- ☒ That the open storage of materials and equipment attendant to a use shall be permitted only within an area surrounded or screened by a solid wall or fence seven feet minimum in height.
- ☒ That any proposed fencing on the site be maintained in good repair.
- ☒ That no fence or wall shall be placed within the public right-of-way.
- ☒ That a masonry fence exceeding three (3) feet in height shall require engineered footings and a building permit. All other fencing exceeding seven (7) feet in height shall require engineered post footings and a building permit.
- ☒ That no hedge, shrub, fence, or wall exceeding the three (3) feet in height, or four (4) feet in height if the upper one (1) foot is fifty (50) percent or more open shall be planted, placed, or maintained within the twenty-five (25) feet corner sight triangle of a corner lot, or along a front or street side property line where the hedge, shrub, fence, or wall creates a traffic or pedestrian hazard as determined by the Community Development Director.

Landscaping: (Section 17.20.120 and 17.52).

- ☒ Landscaping shall be provided and permanently maintained in a setback area not less than 15 feet from a lot line adjoining a street, except where the setback area is covered by structures, parking, or driveways.
- ☒ General Design Standards: the following features shall be incorporated into the design of the proposed landscape and shown on the required landscape plans:
 - ☒ Publicly maintained landscape areas shall be separated from privately maintained landscape areas with, at a minimum, a four (4) inch wide concrete mow strip.
 - ☒ Pedestrian access to sidewalks and structures shall be integrated with the design of landscaped areas.
 - ☒ Landscape adjacent to driveways and parking areas shall be protected from vehicle damage through the provision of a minimum six (6) inch high and six (6) inch wide concrete curb.
 - ☒ Concrete mow strips, when used, shall be a minimum of four (4) inches in width.

- ☒ Trees and shrubs shall be planted so that at maturity they do not interfere with utility lines and traffic safety sight areas.
- ☒ Trees and shrubs shall be planted and maintained in a manner that protects the basic rights of adjacent property owners, particularly the right to solar access.
- ☒ Trees planted within five (5) feet of sidewalks or curbs shall have an eighteen (18) inch by ten (10) foot long linear root barrier placed at each edge of the sidewalk or face of curb, centered on the tree.
- ☒ Plant materials. Plant materials shall be selected and installed in accordance with the following requirements:
 - ☒ The size of ten (10) percent of the trees to be planted shall be twenty-four (24) inch box or larger. The remaining trees shall be sized fifteen (15) gallons or larger.
 - ☒ The size of seventy (70) percent of plants and shrubs shall be at five (5) gallon or larger. The remaining plants and shrubs shall be sized one (1) gallon or larger.
 - ☒ The size of groundcover at planting shall be one (1) gallon or larger.
 - ☒ Groundcover shall be designed to have one hundred (100) percent coverage within two (2) years.
 - ☒ Drought tolerant plant material and climate appropriate species shall be emphasized in the design.
- ☒ That the landscaped area shall be planted with live and healthy plant materials suitable for screening/or ornamenting the site. Landscaped areas shall be watered by automatic systems and designed and developed in accordance with Chapter 12.08 and the most recent State Model Water Efficient Landscaped Ordinance.
- ☒ That no fence, hedge, or shrub shall be installed, planted, or maintained along a street frontage, which creates a traffic or pedestrian hazard.

Outdoor Lighting Standards (Section 17.50.140)

- ☒ That all lights and light fixtures, except public street lights, shall be located, aimed or shielded so as to minimize light trespassing across property boundaries or skyward.
- ☒ That building mounted lighting fixtures shall be attached only to the walls of the building. The top of a light fixture attached to a building wall shall not be higher than the top of the building parapet or the top of the roof eave, whichever is lower.
- ☒ That the canopy ceiling light fixtures shall be recessed or the sides of the lens area shall be shielded, in order to eliminate emission of horizontal light.
- ☒ That the height of freestanding light fixtures, including freestanding parking lot fixtures, shall be measured from the top of a light fixture to the adjacent grade at the base of the support for that light fixture and shall not exceed 50 feet.

Dust Control:

- ☒ That the appropriate dust-control practices of the San Joaquin Valley Air Pollution Control District shall be implemented.
- ☒ That the any necessary permits be obtained through the San Joaquin Valley Air Pollution Control District.

OWNER:
THE HANFORD GROUP

HANFORD PLACE

MEDICAL AND MIXED-USE PROPERTY



LANGDON WILSON
INTERNATIONAL

PROJECT INTRODUCTION

The Hanford Group property is formed by three parcels:

Garavello Parcel	23.35 Acres
Liebert Parcel	8.79 Acres
Robinson Parcel	7.02 Acres

The proposed program is for structures that will cover Medical outpatient clinic services, Hospitality, Specialized Education, Retail, Medical Office, Skilled Nursing and Assisted Living, and Multi-family.



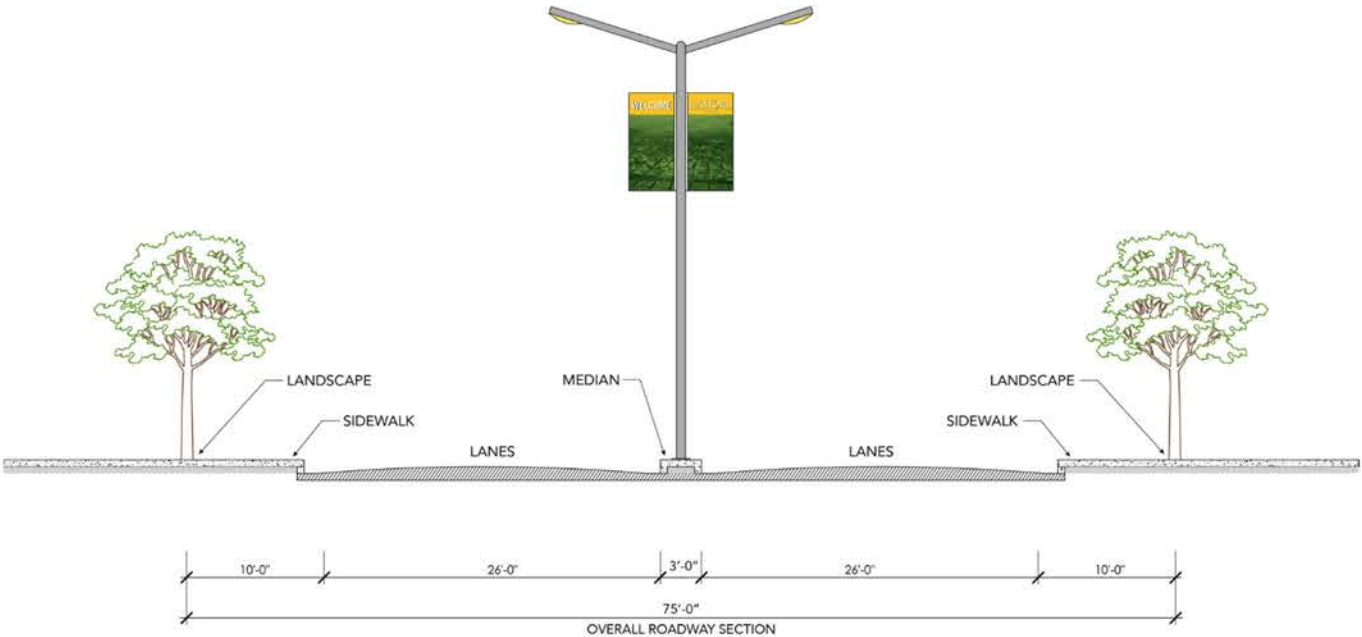
SITE CONTEXT

The site is bound by highway 198 and the SJV railroad. There is a 50 foot setback from the centerline of the railroad to the proposed buildings. 5th Street cuts across the property in an East West direction. Campus Drive creates an entry directly into the site. Adventist Health is to the northwest of the site. The People Ditch runs through this property and must maintain required setbacks and Hwy 198 makes up the southern boundary of the project.



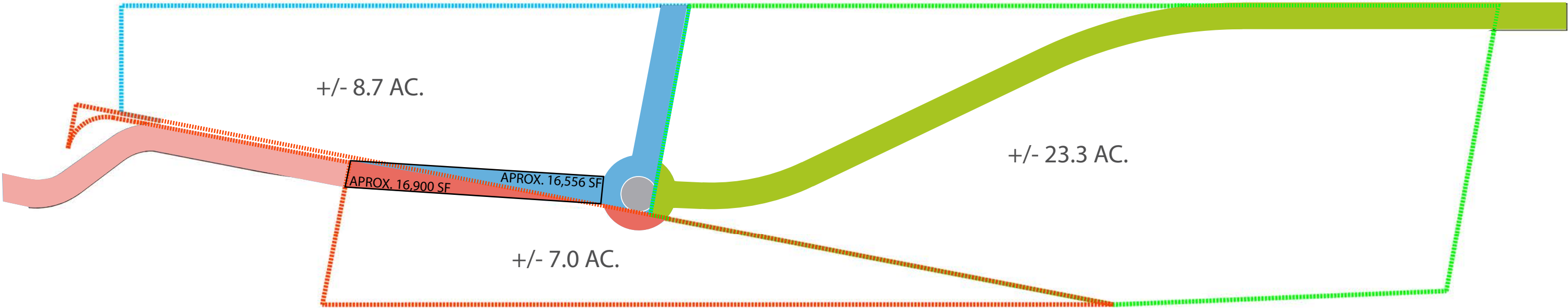
ROADWAY NETWORK

The proposed extension of Glendale Ave, 5th St. and Campus Dr. will be constructed to City standards and will be dedicated as public right of way. The proposed round a bout will also be public right of way and will be designed per Caltrans, or similar City approved, design standards. Typical City utilities (water, sewer and storm drain) will be constructed within the proposed right of way. As part of this proposal, Glendale Ave will be realigned at the northwest corner of the Hanford Veterinary Hospital development. The existing knuckle will be removed and Glendale will be realigned using speed specific design curves. Any new portion of Glendale Ave will be dedicated as public right of way and any portion of existing right of way not used will be abandoned. 5th St. will be extended starting on the existing alignment before realigning to the round a bout.



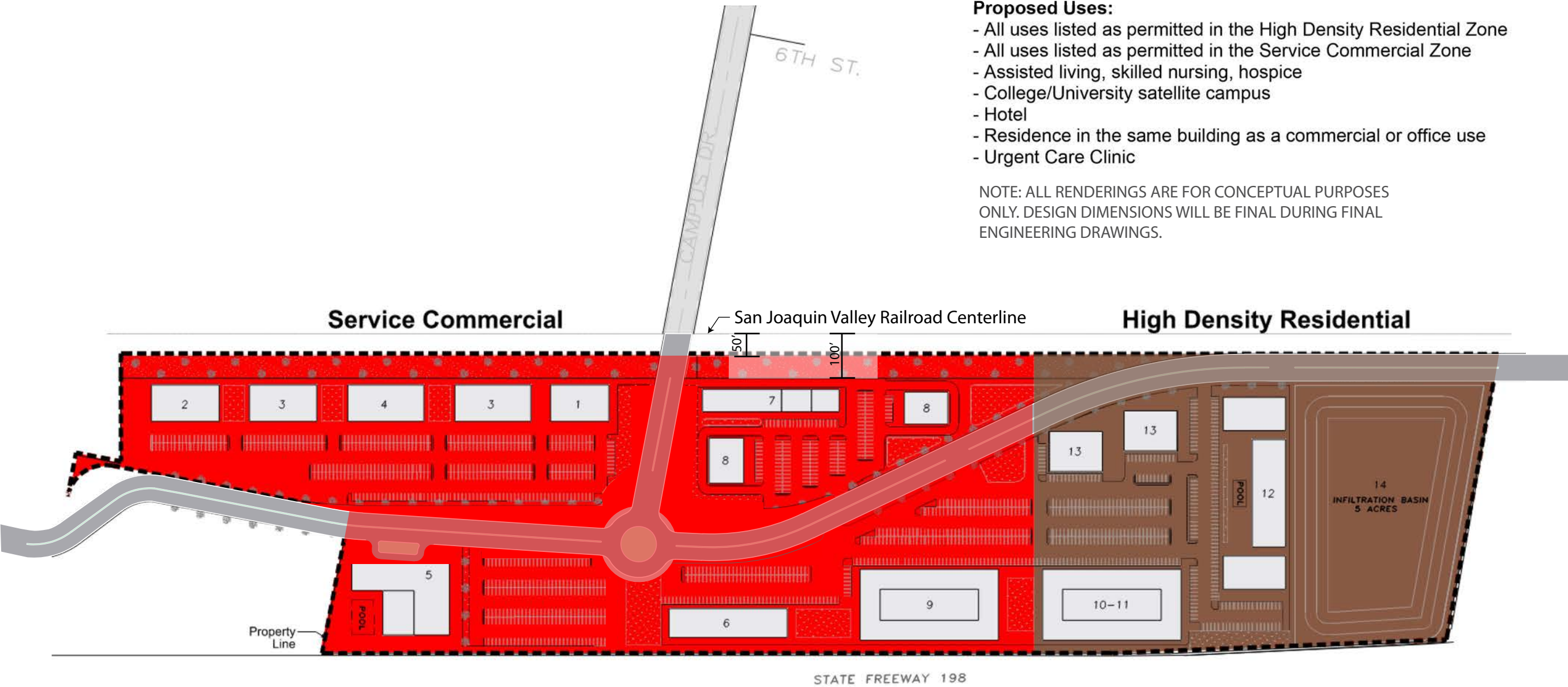
- BG ROAD
- SL RAOD
- ROB ROAD
- OFFSITE BG ROAD
- OFFSITE ROB ROAD

NOTE: ALL RENDERINGS ARE FOR CONCEPTUAL PURPOSES ONLY. DESIGN DIMENSIONS WILL BE FINAL DURING FINAL ENGINEERING DRAWINGS.



VISUALS - SITE PLAN





- Proposed Uses:**
- All uses listed as permitted in the High Density Residential Zone
 - All uses listed as permitted in the Service Commercial Zone
 - Assisted living, skilled nursing, hospice
 - College/University satellite campus
 - Hotel
 - Residence in the same building as a commercial or office use
 - Urgent Care Clinic

NOTE: ALL RENDERINGS ARE FOR CONCEPTUAL PURPOSES ONLY. DESIGN DIMENSIONS WILL BE FINAL DURING FINAL ENGINEERING DRAWINGS.

LEGEND

1. AMBULATORY SURGERY CENTER 2 LEVELS - 22,525 SF 4:1000	5. HOTEL & CONFERENCE CENTER 4 LEVELS - 100,000 SF -105 KEYS, PARKING 1:ROOM + 1 PER EMPLOYEE	7. STRIP RETAIL 1 LEVEL-4 UNITS - 15,500 SF 1:300	11. ALF - ASSISTED LIVING FACILITY 1 LEVEL-34,380 SF 1:UNIT
2. SPECIALTY CLINIC 1 LEVEL - 12,445 SF 4:1000	6. NURSING COLLEGE 2 LEVELS - 35,000 SF PARKING 1 PER EMPLOYEE+ 10 PER	8. RETAIL/DRIVE THRU/MEDICAL COMMERCIAL 1 LEVEL- 2UNITS - 15,000 SF 1:300	12. MULTIFAMILY APARTMENT 3 LEVELS - 1 BLOCKS - 90 TOTAL UNITS
3. MOB - MEDICAL OFFICE BUILDING 1 LEVEL - 12,445 SF/BLDG (2) 4:1000	CLASSROOM(8-10 CLASSROOMS)	9. SNF - SKILLED NURSING FACILITY 2 LEVELS - 54,611 SF - 59 UNITS 1:4 BEDS	13. MEDICAL/COMMERCIAL 1 LEVEL-2 BLDGS - 11,000 SF 4:1000 PER BLDG
4. PHF - PSYCHIATRIC HEALTH FACILITY 1 LEVEL - 12,445 SF 1:4000		10. MEMORY CARE 1 LEVEL - 34,380 SF - 40 UNITS 1:4 BED	14. BIO INFILTRATION BASIN 5.0 ACRES



ZONING AND ALLOWED USES

- The Zoning would change from existing Highway Commercial (C-H) to High Density Residential (R-H) and Service Commercial (C-S). (See map on previous page.)
- Through the Planned Unit Development (PUD), the following uses shall be allowed by right. This would apply to all locations on the site and would not be limited by the conceptual site plan.
 - All uses listed as permitted or conditionally permitted in the High Density Residential Zone R-H).
 - All uses listed as permitted or conditionally permitted in the Service Commercial Zone (C-S).
 - Assisted living, skilled nursing, hospice.
 - College/University satellite campus.
 - Hotel.
 - Residence in the same building as a commercial or office use.
 - Urgent Care Clinic.
- The overall intensity of the total site would be limited by the intensity analyzed in the CEQA document. A higher intensity than that would require an amendment to the PUD. Land use locations are flexible and may change from the conceptual plan. The roadway alignments and ponding basin location would not change.
- The included conceptual layout for the site has been prepared by Langdon Wilson Intl. Architecture. Individual sites may be developed independently of the Master Plan, allowing for building size, placement, and use to vary from the character in the illustrations.
- Revised layout plans would be followed up with specific site plans and parcel maps that would create the public ROW.

DESIGN CONDITIONS

In order for Hanford Place to have a consistent theme and to operate as a cohesive group of uses, the following design conditions are incorporated into the PUD:

1. Establish that cross access and shared parking agreements are required for adjacent parcels as they are created prior to, or in conjunction with, parcel map or lot line adjustment approval.
2. Landscaping and lighting design shall be consistent between the sites in the PUD plan area.
3. Uses are not required to obey the zone boundary in the PUD plan area. Uses within the PUD plan area can be from either of the zones within the PUD plan area.
4. A block wall is not required within the PUD plan area between the zones.
5. Additional building setbacks are not required between the two zones within the PUD plan area. The C-S zone required setbacks shall apply to the entire PUD plan area.
6. The maximum building height for the PUD area shall be per the C-S zone, which is 50 feet.
7. Buildings within the PUD plan area shall have a uniform/cohesive design type, with the exception of standalone residential or hotel buildings, which are not required to have similar design but shall have compatible colors and design elements. Elevation plans shall be submitted with site plans to confirm compliance. Standards shall be set by the first development in the PUD plan area for succeeding developments.
8. The number of on-site parking spaces shall be as follows:
 - a. motel or hotel - 1 space per guest room plus 1 space per employee
 - b. assisted living, skilled nursing facility, or hospice - 1 space for every 4 beds
 - c. multifamily dwellings - at least 50% of spaces shall be covered
 - i. one-bedroom - 1.5 spaces per dwelling unit
 - ii. two-bedroom - 1.75 spaces per dwelling unit
 - iii. three or more bedrooms - 2 spaces per dwelling unit
 - d. all other allowed uses - 1 space per 350 square feet of building space
9. A sign program shall be established prior to building permit approval for the first office or commercial use. The sign program would not apply to residential and hotel/motel uses, which would follow sign standards in the Zoning Ordinance.

VISUALS KEY PLAN

The following visuals are an example of the architecture and a conceptual artist's take on the look and feel of the development. They are not intended to be final Design and are merely to represent scale of the development.



CAMPUS ENTRY – VIEW 07



3 WAY ROUNDABOUT INTERSECTION AT CAMPUS AND 5TH



VIEW 08

VIEW 14



BIRDSEYE VEIW 10 LOOKING EAST FROM MEDICAL OFFICE AND CLINIC PARCELS



VEIW 11 LOOKING EAST FROM MEDICAL OFFICE AND CLINIC PARCELS



VEIW 11 LOOKING WEST TO MEDICAL OFFICE AND CLINIC PARCELS



EYE LEVEL VIEW 23 LOOKING WEST TO PHF BUILDING



EYE LEVEL VIEW 17 LOOKING WEST TO AMBULATORY SURGERY CENTER BUILDING



VEIW 21 LOOKING EAST FROM HOTEL PARKING



BIRDSEYE VIEW 09 LOOKING EAST TO ROUNDABOUT FROM HOTEL



EYE LEVEL VIEW 20 OF HOTEL



BIRDSEYE VIEW 01 LOOKING NORTH OVER ALF TO MEDICAL COMMERCIAL



BIRDSEYEE VIEW 02 LOOKING WEST TO SNF AND MEDICAL COMMERCIAL



EYE LEVEL VIEW 08 LOOKING WEST FROM ALF TO HOTEL



EYE LEVEL VIEW 25 MEDICAL COMMERCIAL



EYE LEVEL VIEW 22 LOOKING SOUTHWEST TO MULTIFAMILY



BIRDSEYE VIEW 04 LOOKING WEST TO RETAIL



BIRDSEYE VIEW 04 LOOKING WEST TO RETAIL



EYE LEVEL VIEW 13 OF RETAIL



EYE LEVEL VIEWS 16 AND 03 LOOKING WEST TO RETAIL



ADMINISTRATIVE DRAFT

**INITIAL STUDY/
MITIGATED NEGATIVE DECLARATION**

**HANFORD PLACE PROJECT
CITY OF HANFORD, CALIFORNIA**



LSA

March 2023

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ADMINISTRATIVE DRAFT

**INITIAL STUDY/
MITIGATED NEGATIVE DECLARATION**

**HANFORD PLACE PROJECT
CITY OF HANFORD, CALIFORNIA**

Submitted to:

QK
907 East Main Street
Visalia, California 93292

Prepared for:

City of Hanford
317 N. Douty Street
Hanford, California 93230

Prepared by:

LSA
2656 Alluvial Avenue, Suite 172
Clovis, California 93611
(559) 490-1210

Project No. 20230872



March 2023

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TABLE OF CONTENTS

1.0 PROJECT INFORMATION	1-1
2.0 PROJECT DESCRIPTION	2-1
2.1 Project Site	2-1
2.2 Proposed Project	2-1
3.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED.....	3-1
3.1 Determination	3-1
4.0 CEQA ENVIRONMENTAL CHECKLIST	4-1
4.1 Aesthetics	4-1
4.2 Agriculture and Forestry Resources	4-4
4.3 Air Quality	4-6
4.4 Biological Resources.....	4-19
4.5 Cultural Resources	4-29
4.6 Energy.....	4-33
4.7 Geology and Soils	4-37
4.8 Greenhouse Gas Emissions	4-42
4.9 Hazards and Hazardous Materials	4-50
4.10 Hydrology and Water Quality	4-53
4.11 Land Use and Planning	4-59
4.12 Mineral Resources.....	4-63
4.13 Noise.....	4-64
4.14 Population and Housing	4-77
4.15 Public Services	4-79
4.16 Recreation	4-82
4.17 Transportation	4-83
4.18 Tribal Cultural Resources	4-94
4.19 Utilities and Service Systems.....	4-96
4.20 Wildfire.....	4-102
4.21 Mandatory Findings of Significance	4-104
5.0 LIST OF PREPARERS	5-1
6.0 REFERENCES	6-1

APPENDICES

- A: CALEEMOD OUTPUTS
- B: BIOLOGICAL RESOURCES ASSESSMENT
- C: CULTURAL RESOURCE INVENTORY
- D: PRELIMINARY GEOTECHNICAL INVESTIGATION AND GEOLOGIC AND SEISMIC HAZARDS
EVALUATION REPORT
- E: ACOUSTICAL ANALYSIS
- F: TRAFFIC IMPACT STUDY

G: HANFORD PLACE MEDICAL MIXED-USE DEVELOPMENT PROJECT VEHICLE MILES TRAVELED
(VMT) ANALYSIS MEMORANDUM

FIGURES AND TABLES

FIGURES

Figure 1: Regional Location.....	2-3
Figure 2: Project Location	2-5
Figure 3: Site Plan.....	2-7

TABLES

Table 2.A: Building Characteristics.....	2-2
Table 4.A: SJVAB Air Quality Attainment Status	4-7
Table 4.B: Project Construction Emissions.....	4-10
Table 4.C: Project Operation Emissions	4-12
Table 4.D: Maximum Daily Air Pollutant Emissions during Construction	4-16
Table 4.E: Maximum Daily Air Pollutant Emissions during Operations	4-16
Table 4.F: Estimated Annual Energy Use of Proposed Project	4-34
Table 4.G: Project Construction GHG Emissions.....	4-43
Table 4.H: Operational GHG Emissions.....	4-44
Table 4.I: Project Consistency with the 2022 Scoping Plan Key Residential and Mixed-Use Project Attributes that Reduce GHGs	4-46
Table 4.J: Consistency with the Regional Climate Action Plan	4-48
Table 4.K: Maximum Allowable Noise Exposure Transportation Noise Sources.....	4-65
Table 4.L: Noise-Level Performance Standards for New Projects Affected by or Including Non-Transportation (Stationary) Noise Sources.....	4-66
Table 4.M: Ambient Noise Monitoring Results (dBA).....	4-67
Table 4.N: Project Contribution to Traffic Noise (dB L _{dn}).....	4-68
Table 4.O: Typical Construction Equipment Maximum Noise Levels (dBA)	4-72
Table 4.P: Typical Vibration Levels During Construction	4-75
Table 4.Q: Project Trip Generation	4-86
Table 4.R: Relationship of Delay to Level of Service	4-86
Table 4.S: Intersection Operations	4-87
Table 4.T: Intersection Operations with Improvements.....	4-89
Table 4.U: Peak Hour Two-Way Volumes	4-89
Table 4.V: Segment Operations	4-90
Table 4.W: Segment Operations with Improvements	4-91
Table 4.X: Project VMT Metrics and Regional Threshold Comparison	4-92

LIST OF ABBREVIATIONS AND ACRONYMS

AAQS	Ambient Air Quality Standard
AB	Assembly Bill
BAAQMD	Bay Area Air Quality Management District
Basin Plan	Water Quality Control Plan
BMP	Best Management Practices
C-H	Highway Commercial
C-S	Service Commercial
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards Code
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CARB	California Air Resource Board
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CH ₄	methane
City	City of Hanford
CNPS	California Native Plant Society
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	CO ₂ equivalents
County	Kings County
CRPR	California Rare Plant Rank
dB	decibel
DCP	Dust Control Plan
FHWA	Federal Highway Administration
GAMAQI	Guidance for Assessing and Mitigating Air Quality Impacts
GHG	Greenhouse gas
GWP	Global Warming Potential

HCM	Highway Capacity Manual
HFCs	Hydrofluorocarbons
IS/MND	Initial Study/Mitigated Negative Declaration
ITE	Institute of Transportation Engineers
L_{dn}	day-night average level
LEED	Leadership in Energy and Environmental Design
L_{eq}	equivalent continuous sound level
LOS	Level of Service
MLD	Most Likely Descendant
mpg	miles per gallon
N_2O	Nitrous oxide
NAAQS	National Air Quality Standards
NO_2	nitrogen dioxide
NO_x	nitrogen oxide
NPDES	National Pollutant Discharge Elimination System
NWIC	Northwest Information Center
O	Office Zoning
O_3	ozone
Pb	lead
PFCs	perfluorocarbons
PM_{10}	respirable particulate matter
$PM_{2.5}$	fine particulate matter
PPV	peak particle velocity
proposed project	Hanford Place Project
PUD	Planned Unit Development
R-H	High-Density Residential Zoning
ROG	reactive organic gases
RPS	State of California Renewable Portfolio Standards
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SF_6	sulfur hexafluoride

SJVAB	San Joaquin Valley Air Basin
SJVAPCD	San Joaquin Valley Air Pollution Control
SO ₂	sulfur dioxide
SR-198	State Route 198
SRA	State responsibility area
State	State of California
SWPPP	Storm Water Pollution Prevention Plan
TACs	toxic air contaminants
UCMP	University of California Museum of Paleontology
USGS	United States Geological Survey
UWMP	Urban Water Management Plan
VMT	vehicle miles traveled
ZE	zero emission

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1.0 PROJECT INFORMATION

1. Project Title:

Hanford Place Project

2. Lead Agency Name and Address:

City of Hanford
317 N. Douty Street
Hanford, CA 93230

3. Contact Person and Phone Number:

Gabrielle Myers, Senior Planner
City of Hanford Community Development, Planning Division
(559) 585-2578

4. Project Location:

The project site is located between State Route 198 (SR-198) and the San Joaquin Valley Railroad in the City of Hanford (City), in Kings County (County). 5th Street cuts through the project site in an east/west direction and Campus Drive cuts through the project in a north/south direction. In addition, the Peoples Ditch runs through the project site.

5. Project Sponsor's Name and Address:

Steve Brandt
QK
901 East Main Street
Visalia, CA 93292

6. General Plan Designation:

Highway Commercial (C-H)

7. Zoning:

Highway Commercial (C-H)

8. Description of Project:

The proposed project would develop a medical and mixed-use development including the construction of 15 buildings consisting of medical outpatient clinic services, a hotel and conference center, specialized education, retail, medical office, skilled nursing and assisted living, and multi-family residential uses, as well as a bio infiltration basin, associated open space, circulation and parking, and infrastructure improvements.

9. Surrounding Land Uses and Setting:

The project site is located in an area with a mix of land uses, including residential, commercial, and medical uses. Adjacent parcels consist mostly of low-density residential and commercial uses, with several undeveloped lots located north of the project site.

10. Other Public Agencies Whose Approval is Required (e.g., permits, financial approval, or participation agreements):

The proposed project would include, but not be limited to, the following regulatory requirements:

- City (e.g., approval of General Plan Amendment, Zone Change, and building permits)
- Central Valley Regional Water Quality Control Board Storm Water Pollution Prevention Plan
- San Joaquin Valley Air Pollution Control District (e.g., Dust Control Plan Approval letter and compliance with Rule 9510 – Indirect Source Review)
- California Department of Fish and Wildlife Notification of Streambed Alteration pursuant to Section 1602 of the California Fish and Game Code

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resource Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

California Native American tribes traditionally and culturally affiliated with the project site and area were notified of the proposed project on August 5, 2020. Follow-up contact by email and telephone was completed on August 13, 2020. No responses have been received to date.

2.0 PROJECT DESCRIPTION

The following describes the proposed Hanford Place Project (proposed project). This section includes a summary description of the project location and existing site characteristics, required approvals, and entitlements. The City is the lead agency for review of the project under the California Environmental Quality Act (CEQA).

2.1 PROJECT SITE

The following section describes the location and characteristics of the project site. This section also provides a brief overview of the existing land uses within the vicinity of the project site.

2.1.1 Location

The 39.23-acre vacant project site is comprised of four parcels and is located between State Route 198 (SR-198) and the San Joaquin Valley Railroad in the City, in Kings County (County). 5th Street cuts through the project site in an east/west direction and Campus Drive cuts through the project in a north/south direction. In addition, the Peoples Ditch runs through the project site.

The project site is generally bound to the north by the San Joaquin Valley Railroad and existing mixed-use structures, including commercial, medical, retail, and some residential uses, to the east by commercial land uses, to the south by SR-198, and to the west by commercial land uses. Regional access to the site is provided by SR-198, which is located adjacent to the southern border of the project site. Figure 1 shows the site's regional and local context. Figure 2 depicts an aerial photograph of the project site and surrounding land uses.

2.1.2 Existing Setting

The project site is primarily flat and is fallow and disturbed with no existing structures. The project site was previously used for agriculture, consistent with many of the surrounding lands in the region. The project site is located in an area with a mix of land uses, including residential, commercial, and medical uses. Adjacent parcels consist mostly of low-density residential and commercial uses, with several undeveloped lots located north of the project site.

The General Plan designation for the project site is currently C-H and the current zoning designation for the project site is C-H.

2.2 PROPOSED PROJECT

This section provides a description of the proposed project as identified in the project applicant's proposal materials and site plan, dated September 30, 2019.¹ The proposed project would develop a medical and mixed-use development and would construct 15 buildings consisting of medical outpatient clinic services, a hotel and conference center, specialized education, retail, medical

¹ The Hanford Group. 2019. *Hanford Place Medical and Mixed Use-Property Proposal*.

office, skilled nursing and assisted living, and multi-family residential uses, as well as a bio infiltration basin, associated open space, circulation and parking, and infrastructure improvements.

The proposed project would include the extension of Glendale Avenue, 5th Street, and Campus Drive, which would be dedicated as public right of way. The proposed project would also construct a roundabout, which would also be dedicated as public right of way. As part of the project, Glendale Avenue would also be realigned and any portion of existing right of way not used would be abandoned. In addition, the proposed project would convert the Peoples Ditch to an underground pipeline. Individual project components are further described below.

2.2.1 Project Characteristics

The proposed project would include the following: a 22,525-square-foot ambulatory surgery center; a 12,445-square-foot specialty clinic; two 12,445-square-foot medical office buildings; a 12,445-square-foot psychiatric health facility; a 100,000-square-foot, a four-story 105-room hotel with a conference center and pool; a 35,000-square-foot nursing college; a 54,611-square-foot skilled nursing facility; a 34,480-square-foot memory care facility; a 34,380-square-foot assisted living facility; a three-story 90-unit multi-family apartment; 41,500 square feet of medical/commercial uses; and a 5-acre bio infiltration basin. Table 2.A depicts the proposed buildings and their characteristics. Figure 3 shows the project site plan.

Table 2.A: Building Characteristics

Building	Total Square Feet	Number of Units	Stories
Ambulatory Surgery Center	22,525	-	2
Specialty Clinic	12,445	-	1
Medical Office Building	24,890	2 buildings	1
Psychiatric Health Facility	12,445	-	1
Hotel and Conference Center	100,000	105 rooms	4
Nursing College	35,000	8-10 classrooms	2
Skilled Nursing Facility	54,611	59 units	2
Memory Care	34,480	40 units	1
Assisted Living Facility	34,380	-	1
Multi-Family Apartment	76,500	90 units	3
Medical/Commercial	41,500	-	1

Source: The Hanford Group (2019).

As identified above, the proposed project would include a total of 90 residential units (approximately 76,500 square feet). Units would average 850 square feet, with 72 two-bedroom, two-bathroom units (80 percent of units), 14 one-bedroom, one-bathroom units (15 percent), and 4 three-bedroom, two-bathroom units (5 percent). In addition, the proposed project would provide outdoor space and amenities, including a dog park and a pool.

The proposed project would comply with the latest CALGreen standard building measures and Title 24 standards with some buildings being constructed to meet Leadership in Energy and Environmental Design (LEED) certifications. In addition, approximately 35 to 40 percent of the project's square footage would be covered by solar.

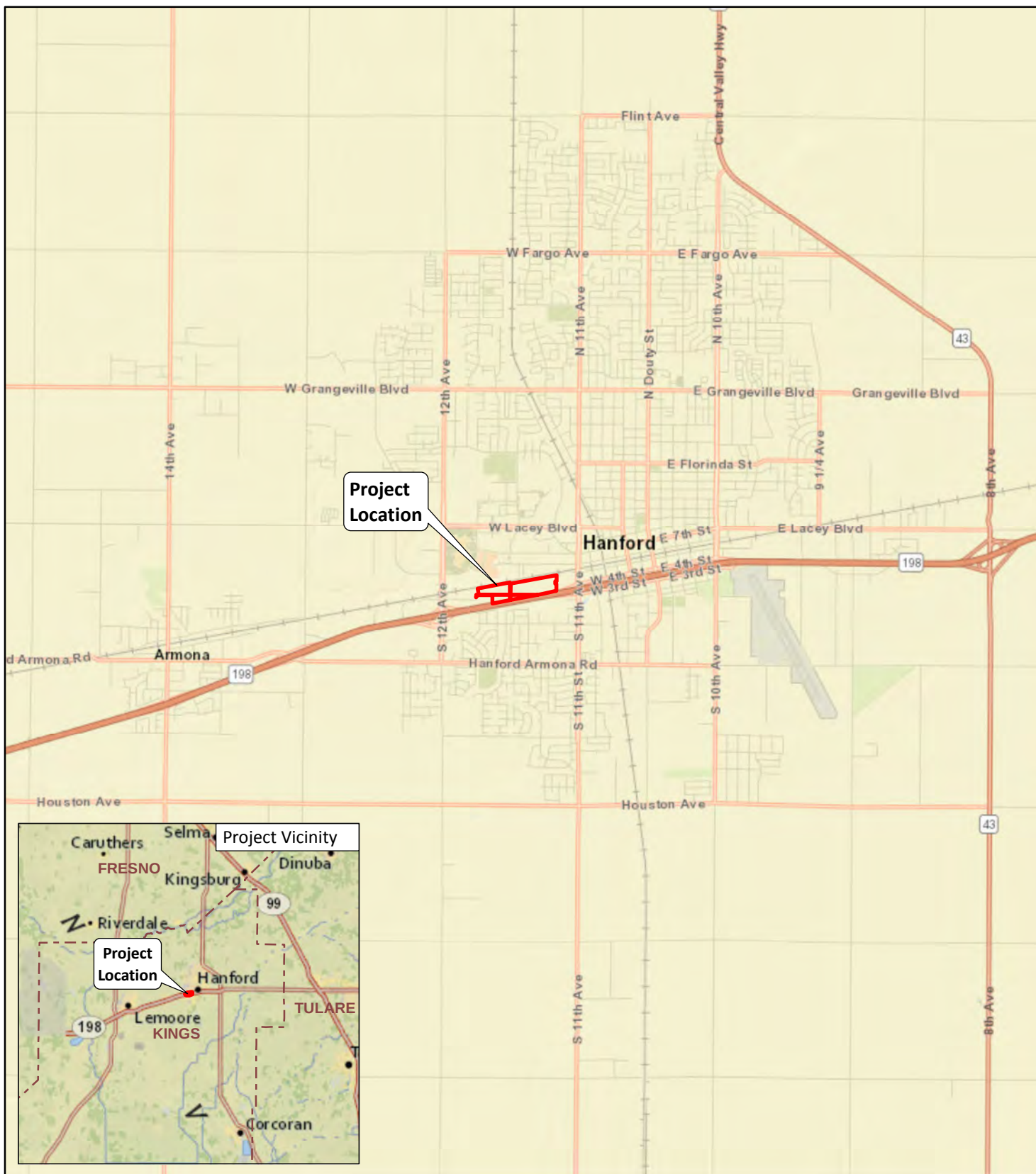


FIGURE 1

LSA

LEGEND

Project Site



0 0.5 1
MILES

SOURCE: Esri World Street Map (2020); National Geographic (2020).

I:\EPI2001\GIS\Maps\Figure 1_Regional Location.mxd (4/13/2020)

Hanford Place Project
Hanford, Kings County, California
Regional Location

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LSA

LEGEND

Project Site



0 250 500
FEET

SOURCE: Google Aerial Imagery (2020).

I:\EPI2001\GIS\Maps\Figure 2_Project Location.mxd (5/11/2020)

FIGURE 2

Hanford Place Project
Hanford, Kings County, California
Project Location

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FIGURE 3

LSA



SOURCE: LANGDON WILSON INTERNATIONAL, 2020.

FRE10\P:\EPI2001 Hanford Place\PRODUCTS\Figure_3.ai (4/22/2020)

Hanford Place Project
Hanford, Kings County, California
Site Plan

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2.2.2 General Plan and Zoning Designation

The General Plan designation for the project site is currently Highway Commercial; however, the project would amend the General Plan to Service Commercial and High-Density Residential. In addition, the current zoning designation for the project site is C-H; however, the project would require a rezone to Service Commercial (C-S) and High-Density Residential (R-H) with a Planned Unit Development (PUD) overlay that would allow uses allowed on the entire project site. This zoning designation and PUD would allow uses from both zones to be constructed anywhere on the project site, which could result in location changes of buildings shown on Figure 3.

2.2.3 Access and Circulation

Vehicular access to the site would be provided by Glendale Avenue, 5th Street, and Campus Drive. The extension of these roadways would be constructed to City standards and would be dedicated as public right of way. The proposed project would also construct a roundabout, which would also be dedicated as public right of way and would be constructed to Caltrans or City-approved standards. As part of the project, Glendale Avenue would be realigned at the northwest corner of the Hanford Veterinary Hospital development. The existing knuckle would be removed, and Glendale Avenue would be realigned using speed-specific design curves. Any new portions of Glendale Avenue would be dedicated as public right of way and any portion of existing right of way not used would be abandoned. 5th Street would be extended starting at the existing alignment before realigning to the roundabout. In addition, the proposed project would provide 1,466 parking spaces throughout the project site.

2.2.4 Open Space and Landscaping

Consistent with City requirements, open space and drought-tolerant landscaping would be provided throughout the project site.

2.2.5 Utilities

Utilities required to serve the proposed project would include water, sanitary sewer, storm water drainage, electricity, natural gas, and telecommunications infrastructure. Water service, sewage disposal, and refuse collection would be provided by the City. In addition, all City utilities (i.e., water, sewer, and storm drain) would be constructed within the proposed right of way. Storm drainage would be collected by an underground conveyance system and delivered to the onsite bio infiltration basin. The basin would be privately held by the owners and would collect both the proposed project and the City right of way. All storm drain facilities would be designed to City standards.

The proposed project would also convert the Peoples Ditch to a 66-inch-diameter below-ground pipeline where the ditch currently exists and would terminate approximately 20 feet short of the existing pipeline that runs under SR-198. The depth of the below-ground pipeline would be between two and six feet.

The proposed project would also require electrical, natural gas, telephone, and cable improvements. Electricity would be provided by Southern California Edison; natural gas would be provided by

Southern California Gas; and telephone services would be provided by AT&T. The extent of work required for utilities and gas would be determined during final project design.

2.2.6 Construction

The proposed project would be constructed in three phases and is anticipated to begin March 2024. Construction is anticipated to last approximately 3 years. The proposed project would comply with City standards, including the City's current building code, landscape standards, and lighting standards. In addition, the proposed project would be graded similar to other developments throughout the City. The proposed project would require between 50,000 to 90,000 cubic yards of soil moved throughout the site and may require re-compaction in place and over excavation. Over excavation would be between 30,000 and 60,000 cubic yards of soil.

3.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist in Chapter 3.0.

- | | | |
|--|---|---|
| ☐ Aesthetics | ☐ Agriculture and Forestry Resources | ☐ Air Quality |
| ☐ Biological Resources | ☐ Cultural Resources | ☐ Energy |
| ☐ Geology/Soils | ☐ Greenhouse Gas Emissions | ☐ Hazards & Hazardous Materials |
| ☐ Hydrology/Water Quality | ☐ Land Use/Planning | ☐ Mineral Resources |
| ☐ Noise | ☐ Population/Housing | ☐ Public Services |
| ☐ Recreation | ☐ Transportation | ☐ Tribal Cultural Resources |
| ☐ Utilities/Service Systems | ☐ Wildfire | ☐ Mandatory Findings of Significance |

3.1 DETERMINATION

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a “Potentially Significant Impact” or “Potentially Significant Unless Mitigated” impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☒ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Date

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4.0 CEQA ENVIRONMENTAL CHECKLIST

4.1 AESTHETICS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway	☐	☐	☐	☒
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

a. Would the project have a substantial effect on a scenic vista?

The vacant, undeveloped project site is located in an area with a mix of land uses, including residential, commercial, and medical uses. Adjacent parcels consist mostly of low-density residential and commercial uses, with several undeveloped lots located north of the project site. The Peoples Ditch, an irrigation canal dug in the 1870s, runs through the project site. There are no significant trees, rock outcroppings, and/or historic buildings located on the subject property that have been identified as important scenic resources. Therefore, the proposed project would not diminish the scenic views of the project area and would likewise not block or impede surrounding views. Therefore, the proposed project would not result in a substantial adverse effect on a scenic vista. This impact would be less than significant, and no mitigation is required.

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

The California Department of Transportation (Caltrans) manages the State Scenic Highway Program. The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been officially designated. No officially designated State scenic highways are located in the City. The nearest State scenic highway to the City is SR-198 east of SR-99.² Although the project site is located adjacent to SR-198, the portion that is designated as a State scenic highway is located approximately 3.2 miles east of the project site. The project site would not

² California Department of Transportation (Caltrans). 2017. *California Scenic Highways*. February. Website: www.arcgis.com/home/webmap/viewer.html?useExisting=1&layers=f0259b1ad0fe4093a5604c9b838a486a (accessed March 2023).

be visible from this scenic roadway. Therefore, implementation of the proposed project would not affect scenic resources within view of a State or local scenic highway, and there would be no impact, and no mitigation is required.

- c. In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

The proposed project would develop a medical and mixed-use development and would construct 15 buildings consisting of medical outpatient clinic services, hotel and conference center, specialized education, retail, medical office, skilled nursing and assisted living, and multi-family residential uses, as well as a bio infiltration basin, associated open space, circulation and parking, and infrastructure improvements.

The Land Use and Community Design Element of the City's General Plan³ states that through community design, the City can build and sustain an urban fabric that strengthens its assets and strives to bring coherence and an ongoing identity to this growing community. High-quality design contributes to memorable, vibrant places where people enjoy spending time. Engaging buildings and public spaces include pedestrian-friendly walkways and entries, open spaces, attractive streets, and efficient parking. In addition, the Land Use and Community Design Element states that the General Plan directs growth toward walkable and mixed-use areas that are planned to integrate housing with regional transit, employment, services, and amenities. The proposed project would develop a mixed-use, infill development consistent with the goals of the Land Use and Community Design Element.

The proposed project would require a rezone from C-H to C-S and R-H. Although the proposed project would require a General Plan Amendment and a Zone Change, the proposed uses would be consistent with the proposed General Plan designations and zones. Therefore, the proposed project would not substantially degrade the existing visual character or quality of the site and its surroundings and would not conflict with applicable zoning and other regulations governing scenic quality. This impact would be less than significant, and no mitigation is required.

- d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

Glare is the result of improperly aimed or blocked lighting sources that are visible against a dark background such as the night sky. Glare may also refer to the sensation experienced looking into an excessively bright light source that causes a reduction in the ability to see or causes discomfort. Glare generally does not result in illumination of off-site locations but results in a visible source of light viewable from a distance.

³ Hanford, City of. 2017. *General Plan – City of Hanford, California*. April. Website: cms6.revize.com/revize/hanfordca/document_center/Planning/General%20Plan/2035%20General%20Plan%20Policy%20Document.pdf (accessed March 2023).

Implementation of the proposed project would create new lighting sources on the project site associated with the new buildings, street and parking lot lighting, and security lighting. All project lighting is required to meet all applicable lighting standards in the City's Municipal Code. As required by Section 17.50.140 of the Municipal Code, all lights and light fixtures, except public streetlights, shall be located, aimed or shielded so as to minimize light trespassing across property boundaries or skyward and no lights shall flash, revolve, blink or otherwise resemble a traffic control signal or operate in such a fashion to create a hazard for passing traffic. Building mounted lighting fixtures shall be attached only to the walls of the building. The top of a light fixture attached to a building wall shall not be higher than the top of the building parapet or the top of the roof eave, whichever is lower and canopy ceiling light fixtures shall be recessed or the sides of the lens area shall be shielded in order to eliminate emission of horizontal light. In addition, mercury vapor lamps shall be a fully shielded fixture with all light directed on-site and freestanding light fixtures shall not exceed 18 feet in height.

Although the proposed project would increase the overall intensity of on-site land uses and associated lighting, the increase in lighting would not result in substantial increases in light intensity at off-site locations. In addition, light intensity diminishes rapidly as an observer moves away from the light source. As such, the intensity of project-related lighting would be concentrated on site with little potential to create perceptible changes in ambient lighting intensity at off-site, light-sensitive locations.

Daytime glare can result from natural sunlight reflecting from a shiny surface that would interfere with the performance of an off-site activity, such as the operation of a motor vehicle. Reflective surfaces can be associated with window glass, polished surfaces, and solar panels. The design of the proposed buildings, parking lot, and solar panels would be designed to be consistent with the City's standards to avoid the creation of intrusive glare within the immediate project area.

Nighttime lighting and glare sources from the proposed project could also include lighting from interior and exterior building lighting, security lighting, signage, parking lot lighting, and vehicle headlights. The nighttime glare produced by these sources would be similar to the existing nighttime glare produced by surrounding residential, commercial, and medical uses and would not result in enough glare to be considered substantial or affect nighttime views because lighting would be designed to be consistent with the development regulations outlined in the Municipal Code.

For these reasons, the proposed project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the surrounding urban area, and project impacts would be less than significant. No mitigation is required.

4.2 AGRICULTURE AND FORESTRY RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

a. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

The project site is classified as Grazing Land.⁴ The project site is not zoned for agricultural uses and is not enrolled in a Williamson Act Contract. The State Department of Conservation classifies the project site as Non-Enrolled Land. The project site is not located on land that is designated as Prime Farmland or Farmland of State Importance. In addition, the project site is currently vacant and is not zoned for agricultural uses. Therefore, implementation of the proposed project would not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the California Important Farmland Map, to a non-agricultural use. There would be no impact, and no mitigation is required.

b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

The General Plan designation for the project site is currently Highway Commercial; however, the project would amend the General Plan to Service Commercial and High-Density Residential. In addition, the current zoning designation for the project site is C-H; however, the project would require a rezone to C-S and R-H. The project site is classified as Grazing Land and the land is not enrolled in a Williamson Act contract. Therefore, the proposed project would have no impact on

⁴ California Department of Conservation. 2016. *California Important Farmland Finder*. Website: maps.conservation.ca.gov/DLRP/CIFF/ (accessed March 2023).

zoning designations for agricultural and farmland use or land currently under a Williamson Act contract, and no mitigation is required.

- c. Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?*

The project site is not zoned for, nor would it require the rezoning of, any existing parcels or land use designations, including forest land or timberland uses. In addition, there is no forest land or timberland subject to the Public Resources Code within the vicinity of the project site. Therefore, the proposed project would have no impact to forestland or timberland, and no mitigation is required.

- d. Would the project result in the loss of forest land or conversion of forestland to non-forest use?*

See Response 4.2.c. The proposed project would not convert forest land to non-forest use and would not result in the loss or conversion of forest land to a non-forest use, and no mitigation is required.

- e. Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?*

As stated previously, the project site is currently vacant, and therefore would not convert farmland to a non-agricultural use. In addition, the project site would not contribute to environmental changes that could result in conversion of farmland to non-agricultural use. Therefore, no impacts to farmland or forest land would occur, and no mitigation is required.

4.3 AIR QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

The proposed project is located within the City of Hanford. Hanford is part of the San Joaquin Valley Air Basin (SJVAB), which is within the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD). The SJVAPCD is responsible for air quality regulation within the eight county San Joaquin Valley region.

Both the State of California (State) and the federal government have established health-based Ambient Air Quality Standards (AAQS) for six criteria air pollutants: carbon monoxide (CO), ozone (O₃), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), lead (Pb), and suspended particulate matter (PM_{2.5} and PM₁₀). The SJVAB is designated as non-attainment for O₃ and PM_{2.5} for federal standards and non-attainment for O₃, PM₁₀, and PM_{2.5} for State standards.

Air quality monitoring stations are located throughout the nation and maintained by the local air districts and State air quality regulating agencies. Data collected at permanent monitoring stations are used by the USEPA to identify regions as “attainment” or “nonattainment” depending on whether the regions meet the requirements stated in the applicable National Air Quality Standards (NAAQS). Nonattainment areas are imposed with additional restrictions as required by the USEPA. In addition, different classifications of attainment, such as marginal, moderate, serious, severe, and extreme, are used to classify each air basin in the State on a pollutant-by-pollutant basis. The classifications are used as a foundation to create air quality management strategies to improve air quality and comply with the NAAQS. The SJVAB attainment statuses for each of the criteria pollutants are listed in Table 4.A.

Table 4.A: SJVAB Air Quality Attainment Status

Pollutant	Federal	State
Ozone (1-hour)	No Federal Standard	Nonattainment/Severe
Ozone (8-hour)	Nonattainment/Extreme	Nonattainment
PM ₁₀	Attainment	Nonattainment
PM _{2.5}	Nonattainment	Nonattainment
Carbon Monoxide	Attainment/Unclassified	Attainment/Unclassified
Nitrogen Dioxide	Attainment/Unclassified	Attainment
Lead	No Designation/Classification	Attainment
Sulfur Dioxide	Attainment/Unclassified	Attainment
Sulfates	No Federal Standard	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified

Source: San Joaquin Valley Air Pollution Control District (2016).

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

An air quality plan describes air pollution control strategies to be implemented by a city, county, or region classified as a non-attainment area. The main purpose of the air quality plan is to bring the area into compliance with the requirements of the federal and State air quality standards. The SJVAPCD *Guidance for Assessing and Mitigating Air Quality Impacts* (GAMAQI)⁵ indicates that projects that do not exceed regional criteria pollutant emission thresholds would not conflict or obstruct the implementation plan.

This analysis used two tests to determine if the project conflicts or obstructs the applicable air quality plans. First, if the project would result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay timely attainment of air quality standards or the interim emission reductions specified in the air quality plans. Second, if the project would comply with applicable control measures in the air quality plans.

Contribution to Air Quality Violations. A measure for determining if the project is consistent with the air quality plans is if the project would not result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the air quality plans. Regional air quality impacts and attainment of standards are the result of the cumulative impacts of all emission sources within the air basin. Individual projects are generally not large enough to contribute measurably to an existing violation of air quality standards. Therefore, the cumulative impact of the project is based on its cumulative contribution. Because of the region's nonattainment status for O₃, PM_{2.5}, and PM₁₀—if project-generated emissions of either of the O₃ precursor pollutants (nitrogen oxides [NO_x], reactive organic gases [ROG]), PM₁₀, or PM_{2.5} would exceed SJVAPCD significance thresholds—then the project would be considered to contribute to violations of the applicable standards and conflict with the attainment plans.

⁵ San Joaquin Valley Air Pollution Control District. 2015. CEQA, Guidance/Policies/Rules, Guidance for Assessing and Mitigating Air Quality Impacts. March 19. Website: www.valleyair.org/transportation/ceqa_idx.htm (accessed March 2023).

As discussed in Response 4.3.b below, emissions of ROG, NO_x, CO, PM₁₀, and PM_{2.5} associated with construction and operation of the proposed project would not exceed SJVAPCD significance thresholds. In addition, the proposed project would not result in CO hotspots that would violate CO standards. Therefore, the proposed project would not contribute to air quality violations.

Compliance with Applicable Control Measures. A description of rules and regulations that apply to this project is provided below.

Rule 9510 (Indirect Source Review) is a control measure in the 2006 PM₁₀ Plan that requires NO_x and PM₁₀ emission reductions from development projects in the SJVAB. The NO_x emission reductions help reduce the secondary formation of PM₁₀ in the atmosphere (and also reduce the formation of ozone. Reductions in directly emitted PM₁₀ reduce particles such as dust, soot, and aerosols. Rule 9510 is also a control measure in the 2022 Plan for the 2015 8-Hour Ozone Standard. Developers of projects subject to Rule 9510 must reduce emissions occurring during construction and operational phases through on-site measures or pay off-site mitigation fees. The proposed project is required to comply with Rule 9510.

Regulation VIII (Fugitive PM₁₀ Prohibitions) is a control measure that is one main strategies from the 2006 PM₁₀ Plan for reducing the PM₁₀ emissions that are part of fugitive dust. Projects over 10 acres are required to file a Dust Control Plan (DCP) containing dust control practices sufficient to comply with Regulation VIII. The proposed project is required to prepare a DCP to comply with Regulation VIII.

Other control measures that apply to the proposed project are Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operation) that requires reductions in volatile organic compounds (VOC) during paving and Rule 4601 (Architectural Coatings) that limits the VOC content of all types of paints and coatings sold in the SJVAB. These regulations are enforced at the manufacturing level and at point of sale, not at the project level.

The proposed project would comply with all applicable SJVAPCD rules and regulations. Therefore, the proposed project would comply with this criterion and would not conflict with or obstruct implementation of the applicable air quality attainment plan.

Conclusion. The proposed project's emissions would be less than significant for all criteria pollutants and would not result in inconsistency with applicable air quality plans. The proposed project would comply with applicable air quality plan control measures and would not conflict with or obstruct their implementation; therefore, the proposed project is consistent with the applicable air quality plans, and the impact would be less than significant.

b. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

The SJVAB is designated as non-attainment for O₃ and PM_{2.5} for federal standards and non-attainment for O₃, PM₁₀, and PM_{2.5} for State standards. SJVAPCD nonattainment status is attributed to the region's development history. Past, present, and future development projects contribute to

the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant.

In developing thresholds of significance for air pollutants, the SJVAPCD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions.

To result in a less than significant impact, the following criteria must be true: 1) regional analysis: emissions of nonattainment pollutants must be below SJVAPCD regional significance thresholds; 2) summary of projections: the project must be consistent with current air quality attainment plans including control measures and regulations; and 3) cumulative health impacts: the project must result in less than significant cumulative health effects from the nonattainment pollutants. The following analysis assesses the potential project-level construction- and operation-related air quality impacts.

Short-Term Construction Emissions. During construction, short-term degradation of air quality may occur due to the release of particulate matter emissions (i.e., fugitive dust) generated by grading, hauling, and other activities. Emissions from construction equipment are also anticipated and would include CO, NO_x, ROG, directly-emitted particulate matter (PM_{2.5} and PM₁₀), and toxic air contaminants (TACs) such as diesel exhaust particulate matter.

Site preparation and project construction would involve grading, paving, and other activities. Construction-related effects on air quality from the proposed project would be greatest during the site preparation phase due to the disturbance of soils. If not properly controlled, these activities would temporarily generate particulate emissions. Sources of fugitive dust would include disturbed soils at the construction site. Unless properly controlled, vehicles leaving the site would deposit dirt and mud on local streets, which could be an additional source of airborne dust after it dries. PM₁₀ emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM₁₀ emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of operating equipment. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

Water or other soil stabilizers can be used to control dust, resulting in emission reductions of 50 percent or more. SJVAPCD Regulation VIII is designed to reduce PM₁₀ emissions generated by human activity. The SJVAPCD has established Regulation VIII measures for reducing fugitive dust emissions (PM₁₀). With the implementation of Regulation VIII measures, fugitive dust emissions from construction activities would not result in adverse air quality impacts.

In addition to dust-related PM₁₀ emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO₂, NO_x, ROGs and some soot particulate (PM_{2.5}

and PM₁₀) in exhaust emissions. If construction activities were to increase traffic congestion in the area, CO and other emissions from traffic would increase slightly while those vehicles are delayed. These emissions would be temporary and limited to the immediate area surrounding the construction site.

Construction emissions were estimated for the project using the California Emissions Estimator Model, version 2022.1 (CalEEMod) as recommended by the SJVAPCD. The project was assumed to begin construction March 2024 and last approximately 3 years. The proposed project would require between 50,000 to 90,000 cubic yards of soil moved throughout the site and may require re-compaction in place and over excavation. Over excavation would be between 30,000 and 60,000 cubic yards of soil; as such, this analysis assumes that 60,000 cubic yards of soil would be off-hauled. This analysis also assumes the use of Tier 2 construction equipment. Other construction details are not yet known; therefore, default assumptions (e.g., construction fleet activities and worker and vendor trips) from CalEEMod were used.

Construction-related emissions for each year of construction are presented in Table 4.B. CalEEMod output sheets are included in Appendix A.

Table 4.B: Project Construction Emissions

Year	Emissions (tons per year)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Construction 2024	0.2	3.7	3.3	0.5	0.2
Construction 2025	0.2	2.8	3.3	0.4	0.2
Construction 2026	0.3	2.5	2.8	0.3	0.1
Construction 2027	1.2	<0.1	0.1	<0.1	<0.1
Total Construction Emissions	1.9	9.0	9.4	1.2	0.5
Highest Annual Construction Emissions	1.2	3.7	3.3	0.5	0.2
Significance Thresholds	10.00	10.00	100.00	15.00	15.00
Exceed Threshold?	No	No	No	No	No

Source: LSA (March 2023).

As shown in Table 4.B construction emissions associated with the project would not exceed SJVAPCD thresholds for ROG, NO_x, CO, PM₁₀, and PM_{2.5} emissions. Therefore, construction of the proposed project would not result in a cumulatively considerable net increase of PM₁₀ or any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standards and impacts would be less than significant.

Long-Term (Operational) Emissions. Long-term air pollutant emission impacts are those associated with mobile sources (e.g., vehicle trips), energy sources (e.g., electricity and natural gas), and area sources (e.g., architectural coatings and the use of landscape maintenance equipment) related to the proposed project.

PM₁₀ emissions result from running exhaust, tire and brake wear, and the entrainment of dust into the atmosphere from vehicles traveling on paved roadways. Entrainment of PM₁₀ occurs when

vehicle tires pulverize small rocks and pavement, and the vehicle wakes generate airborne dust. The contribution of tire and brake wear is small compared to the other PM emission processes. Gasoline-powered engines have small rates of particulate matter emissions compared with diesel-powered vehicles.

Energy source emissions result from activities in buildings for which electricity and natural gas are used. The quantity of emissions is the product of usage intensity (i.e., the amount of electricity or natural gas) and the emission factor of the fuel source. Major sources of energy demand include building mechanical systems, such as heating and air conditioning, lighting, and plug-in electronics, such as refrigerators or computers. Greater building or appliance efficiency reduces the amount of energy for a given activity and thus lowers the resultant emissions. The emission factor is determined by the fuel source, with cleaner energy sources, like renewable energy, producing fewer emissions than conventional sources.

Typically, area source emissions consist of direct sources of air emissions located at the project site, including architectural coatings and the use of landscape maintenance equipment. Area source emissions associated with the project would include emissions from the use of landscaping equipment and the use of consumer products.

Emission estimates for operation of the project were calculated using CalEEMod. Model results are shown in Table 4.C. Trip generation rates for the project were based on the project's trip generation estimates, as identified in Section 4.17, Transportation. However, as discussed in Section 4.17, Transportation, approximately 41,500 square feet of commercial/office uses is proposed. These uses would generate fewer trips than the 114,000 square feet of commercial/office uses that is analyzed in the proposed project trip generation estimate. The trip generation in CalEEMod was adjusted to reflect 41,500 square feet of commercial/office uses. As such, CalEEMod assumes a total of approximately 5,239 average daily trips (ADT), including 1,393 ADT for the Ambulatory Surgery Center, Specialty Clinic, Medical Office Building, and Psychiatric Health Facility, 682 ADT for the Hotel and Conference Center, 638 ADT for the Nursing College, 662 ADT for the Skilled Nursing Facility, Memory Care, Assisted Living Facility, 576 ADT for the Multi-Family Apartments, and 1,287 ADT for the Medical/Commercial uses based on the project's trip generation and taking into account a 10 percent reduction for internal trips. In addition, this analysis assumes the proposed project would be built to current Title 24 building standards. Where project-specific data were not available, default assumptions from CalEEMod were used to estimate project emissions.

The primary emissions associated with the project are regional in nature, meaning that air pollutants are rapidly dispersed on release or, in the case of vehicle emissions associated with the project; emissions are released in other areas of the Air Basin. The annual emissions associated with project operation are identified in Table 4.C for ROG, NO_x, CO, PM₁₀, and PM_{2.5}.

Table 4.C: Project Operation Emissions

Source	Emissions (tons per year)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Mobile Source Emissions	2.9	2.5	14.5	1.1	0.2
Area Source Emissions	2.4	0.1	4.3	0.3	0.3
Energy Source Emissions	<0.1	0.6	0.4	<0.1	<0.1
Total Operation Emissions	5.4	3.2	19.2	1.5	0.6
Significance Thresholds	10.00	10.00	100.00	15.00	15.00
Exceed Threshold?	No	No	No	No	No

Source: LSA (March 2023).

The results shown in Table 4.C indicate the project would not exceed the significance criteria for annual ROG, NO_x, CO, PM₁₀ or PM_{2.5} emissions. In addition, the application of SJVAPCD Rule 9510, and implementation of the General Plan air quality-related policies would reduce impacts to the extent feasible. The project fulfills other General Plan objectives by increasing development densities and providing infill development in an area surrounded by existing development. As such, operation of the proposed project would not result in a cumulatively considerable net increase of PM₁₀ or any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standards and impacts would be less than significant.

Project Health Impacts. In the 5th District Court of Appeal case *Sierra Club v. County of Fresno (Friant Ranch, L.P.)*, the Court found the project's Environmental Impact Report (EIR) deficient because it did not identify specific health-related effects resulting from the estimated amount of pollutants generated by the project. The ruling stated that the EIR should give a "sense of the nature and magnitude of the 'health and safety problems' caused by a project's air pollution. The EIR should translate the emission numbers into adverse impacts or to understand why such translation is not possible at this time (and what limited translation is, in fact, possible)."

The pollutants of concern in the Friant Ranch ruling were regional criteria pollutants ozone and PM₁₀. It is important to note that the potential for localized impacts can be addressed through dispersion modeling. The SJVAPCD includes screening criteria that if exceeded would require dispersion modeling to determine if project emissions would result in a significant health impact. For this project, no significant localized health impacts would occur. Regional pollutants require more complex modeling as described below.

Ozone concentrations are estimated using regional photochemical models because ozone formation is subject to temperature, inversion strength, sunlight, emissions transport over long distances, dispersion, and the regional nature of the precursor emissions. The emissions from individual projects are too small to produce a measurable change in ozone concentrations – it is the cumulative contribution of emissions from existing and new development that is accounted for in the photochemical model. Ozone concentrations vary widely throughout the day and year even with the same amount of daily emissions. The SJVAPCD indicated in an Amicus Brief on Friant Ranch that running the photochemical model with just Friant Ranch emissions (109.5 tons/year NO_x) is not likely to yield valid information given the relative scale involved. The NO_x inventory for the San Joaquin Valley is 224 tons per day in 2019 or 81,760 tons per year. Friant Ranch would result in 0.13

percent increase in NO_x emissions. A project emitting at the SJVAPCD CEQA threshold of 10 tons per year would result in a 0.01 percent increase in NO_x emissions. Most project emissions are generated by motor vehicle travel distributed on regional roadways miles from the project site, and these emissions are not conducive to project-level modeling.

Emissions throughout the San Joaquin Valley are projected to decline in the coming decade. The SJVAPCD 2022 Ozone Plan predicts NO_x emissions will decline 72 percent between 2018 and 2037, contributing to the Valley's progress toward attainment of the 2015 8-hour ozone standard levels through implementation of control measures included in the plan. This means that ozone health impacts to residents of the San Joaquin Valley will be lower than currently experienced, and most areas of the San Joaquin Valley will have attained ozone air quality standards. The plan accounts for growth in population at rates projected by the State for the San Joaquin Valley, so only cumulative projects that would exceed regional growth projections would potentially delay attainment and prolong the time and the number of people would experience health impacts. It is unlikely that anyone would experience greater impacts from regional emissions than currently occur. The federal transportation conformity regulation provides a means of ensuring growth in emissions does not exceed emission budgets for each County. Regional Transportation Plans and Regional Transportation Improvement Plans must provide a conformity analysis based on the latest planning assumptions that demonstrates that budgets will not be exceeded. If budgets are exceeded, the San Joaquin Valley may be subject to Clean Air Act sanctions until the deficiency is addressed.

Particulate emission impacts can be localized and regional. Particulates can be directly emitted and can be formed in the atmosphere with chemical reactions. Small directly emitted particles such as diesel emissions and other combustion emissions can remain in the atmosphere for a long time and can be transported over long distances. Large particles such as fugitive dust tend to be deposited a short distance from where emitted but can also travel long distances during periods of high winds. Particulates can be washed out of the atmosphere by rain and deposited on surfaces. Secondary particulates formed in the atmosphere such as ammonium nitrate require NO_x and ammonia and require low inversion levels, and certain ranges of temperature and humidity to result in substantial concentrations. These complications, make modeling project particulate emissions to determine concentration only feasible for directly emitted particles at receptor locations close to the project site. Regional particulate concentrations are modeled using a gridded inventory (emissions in tons/day are placed a four-kilometer three-dimensional grid to spatially allocate the emissions geographically) and an atmospheric chemistry component to simulate the chemical reactions. The model uses relative reduction factors to determine the amount of reductions of each PM component will be needed to attain the air quality standards on the days with the conditions most favorable to high particulate concentrations. A small project would not produce sufficient emissions to determine a project's individual contribution to the particulate concentration and health impact.

Since the Basin is nonattainment for ozone, PM₁₀, and PM_{2.5}, it is considered to have an existing significant cumulative health impact without the project. When this occurs, the analysis considers whether the project's contribution to the existing violation of air quality standards is cumulatively considerable. The SJVAPCD regional thresholds for NO_x, VOC, PM₁₀, or PM_{2.5} are applied as cumulative contribution thresholds. Projects that exceed the regional thresholds would have a cumulatively considerable health impact. As shown in Table 4.B and Table 4.B, the construction and

operational emissions analysis indicates that the project would not exceed SJVAPCD significance thresholds.

In addition, the SJVAPCD Air Quality Attainment Plans predict that nonattainment pollutant emissions will continue to decline each year as regulations adopted to reduce these emissions are implemented, accounting for growth projected for the region. Therefore, the cumulative health impact will also decline even with the project's emission contribution. As such, impacts would be considered less than significant.

c. Would the project expose sensitive receptors to substantial pollutant concentrations?

Sensitive receptors are defined as people that have an increased sensitivity to air pollution or environmental contaminants, including children, the elderly, and persons with pre-existing respiratory or cardiovascular illness. The SJVAPCD considers a sensitive receptor a location that houses or attracts children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Examples of sensitive receptors include hospitals, residences, convalescent facilities, and schools. The proposed project includes residences, assisted living, and a skilled nursing facility that would house sensitive receptors.

Off-Site Sensitive Receptors. Construction activities associated with the proposed project may expose surrounding sensitive receptors to airborne particulates, as well as a small quantity of construction equipment pollutants (i.e., usually diesel-fueled vehicles and equipment). However, construction contractors would be required to implement measures to reduce or eliminate emissions by following the Regulation VIII, Fugitive PM₁₀ Prohibitions. Project construction emissions would be below SJVAPCD significance thresholds. In addition, once the proposed project is constructed, the project would not be a significant source of long-term operational emissions. Therefore, the proposed project would not expose sensitive receptors to substantial pollutant concentrations, and potential impacts to off-site sensitive receptors would be considered less than significant.

On-Site Sensitive Receptors. The proposed project would not be a significant source of TAC emissions. Construction activities produce short term emissions that would not contribute substantially to cancer risk, which is estimated based on a 70-year exposure period. In the California Building Industry Association v. Bay Area Air Quality Management District (BAAQMD), 62 Cal.4th 369 (2015) (Case No. S213478) the California Supreme Court held that "agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents." Although the Court ruled that impacts from the existing environment on projects are not required to be addressed under CEQA, land uses such as gasoline stations, dry cleaners, distribution centers, and auto body shops can expose residents or other sensitive receptors to high levels of TAC emissions if they are in proximity of the project site. Information regarding the location of existing TAC sources is provided for disclosure purposes only and not as a measure of the project's significance under CEQA. Consistency with these recommendations is assessed as follows:

- Heavily traveled roads. The California Air Resource Board (CARB) recommends avoiding new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles per day, or

rural roads with 50,000 vehicles per day. Epidemiological studies indicate that the distance from the roadway and truck traffic densities were key factors in the correlation of health effects, particularly in children. The project is located north of SR-198. The traffic volume on SR-198 was 35,500 trips per day in 2017. Therefore, no roads serving the project would exceed this criterion.

- Distribution centers. CARB also recommends avoiding siting new sensitive land uses within 1,000 feet of a distribution center. The project is not located within 1,000 feet of a distribution center.
- Fueling stations. CARB recommends avoiding new sensitive land uses within 300 feet of a large fueling station (a facility with a throughput of 3.6 million gallons per year or greater). CARB recommends a 50-foot separation from typical gas dispensing facilities. The nearest gas station is approximately 0.18 mile southeast of the project site at the corner of 11th Avenue and West 3rd Street.
- Dry cleaning operations. CARB recommends avoiding siting new sensitive land uses within 300 feet of any dry-cleaning operation that uses perchloroethylene. For operations with two or more machines, CARB recommends a buffer of 500 feet. For operations with three or more machines, CARB recommends consultation with the local air district. The nearest dry-cleaning operation is approximately 0.76 mile east of the project site at 119 N. Douty Street.
- Auto body shops. Auto body shops have the potential to emit TACs related to painting. The nearest auto body shop is approximately 0.47 mile east of the project site at 329 W. 5th Street, which is beyond the distance that would result in a measurable impact.

As such, impacts to future on-site sensitive receptors would be less than significant.

Localized Pollutant Analysis. Emissions occurring at or near the project have the potential to create a localized impact, also referred to as an air pollutant hotspot. Localized emissions are considered significant if, when combined with background emissions, they would result in exceedance of any health-based air quality standard. The impact from localized pollutants is based on the impact to the nearest sensitive receptor.

The SJVAPCD's GAMAQI includes screening thresholds for identifying projects that need detailed analysis for localized impacts. Projects with on-site emission increases from construction activities or operational activities that exceed the 100 pounds per day screening level of any criteria pollutant after compliance with Rule 9510 and implementation of all enforceable mitigation measures would require preparation of an ambient air quality analysis. The criteria pollutants of concern for localized impact in the SJVAB are PM₁₀, PM_{2.5}, NO_x, and CO. There is no localized emission standard for ROG and most types of ROG are not toxic and have no health-based standard; however, ROG was included for informational purposes only.

The results of the construction screening analysis are presented in Table 4.D.

Table 4.D: Maximum Daily Air Pollutant Emissions during Construction

Year	Emissions (pounds per day)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Highest Emissions in Any Year	53.6	59.4	38.8	8.9	4.0
Screening Thresholds	100.00	100.00	100.00	100.00	100.00
Exceed Threshold – Significant Impact?	No	No	No	No	No

Source: LSA (March 2023).

In addition, an analysis of maximum daily emissions during operation was conducted to determine if emissions would exceed 100 pounds per day for any pollutant of concern. Operational emissions include emissions generated on-site by area sources such as natural gas combustion and landscape maintenance, and off-site by motor vehicles accessing the project. By design, the localized impacts analysis only includes on-site sources; however, the CalEEMod outputs do not separate on-site and off-site emissions for mobile sources. Most motor vehicle emissions would occur distant from the site and would not contribute to a violation of ambient air quality standards; therefore, operational emissions only reflect the emissions within one half mile of the project site. As such, considering the total trip length included in CalEEMod, this analysis conservatively assumes that 5 percent of the project-related mobile source would occur on site. The results of the screening analysis are presented in Table 4.E.

Table 4.E: Maximum Daily Air Pollutant Emissions during Operations

Source	Emissions (pounds per day)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Total	20.0	3.5	80.6	7.9	7.3
Screening Threshold	100.00	100.00	100.00	100.00	100.00
Exceed Threshold?	No	No	No	No	No

Source: LSA (March 2023).

As shown in Tables 4.D and 4.E, construction and operation of the proposed project would not exceed SJVAPCD screening thresholds for localized pollutant impacts; therefore, the project's localized criteria impacts would be less than significant.

Carbon Monoxide Hot Spot Analysis. Localized high levels of CO are associated with traffic congestion and idling or slow-moving vehicles. The SJVAPCD provides screening criteria to determine when to quantify local CO concentrations based on impacts to the level of service (LOS) of intersections in the project vicinity.

The construction of the project would result in minor increases in traffic for the surrounding road network during the duration of construction. Once operational, motor vehicles accessing the site would result in approximately 742 peak hourly trips and 7,493 average daily trips and would not substantially reduce the LOS with expected roadway improvements. As discussed in Section 4.17, Transportation, the 12th Avenue at Glendale Avenue intersection currently exceeds the City of Hanford's minimum LOS criteria during the PM peak hour. In addition, results of the analysis show

that the proposed project contributes to an unacceptable LOS at five of the study intersections when comparing the Cumulative Year 2042 scenarios. Section 4.17, Transportation, identifies potential intersection improvements; however, the intersection of 12th Avenue at Glendale Avenue would be above the City's standard of LOS D standard. The City acknowledges in General Plan Objective CI 2 and Policy CI 2.2, that there may be instances where design considerations or other public health, safety, or welfare factors determine otherwise. Therefore, since additional improvements are not recommended due design considerations, impacts to intersection LOS are considered to be less than significant. Therefore, the project would not significantly contribute to an exceedance of state or federal CO standards.

Valley Fever. Valley fever, or coccidioidomycosis, is an infection caused by inhalation of the spores of the fungus, *Coccidioides immitis* (*C. immitis*). The spores live in soil and can live for an extended time in harsh environmental conditions. Activities or conditions that increase the amount of fugitive dust contribute to greater exposure, and they include dust storms, grading, and recreational off-road activities.

The San Joaquin Valley is considered an endemic area for Valley fever. However, within endemic areas less favorable for the occurrence of *C. immitis* include: cultivated fields; heavily vegetated areas (e.g. grassy lawns); higher elevations (above 7,000 feet); areas where commercial fertilizers (e.g. ammonium sulfate) have been applied; areas that are continually wet; paved (asphalt or concrete) or oiled areas; soils containing abundant microorganisms; and heavily urbanized areas where there is little undisturbed virgin soil.⁶

The project site is situated in an infill area. The project includes urbanization of a site that was formerly graded. Therefore, implementation of the project would have a low probability of the site having *C. immitis* growth sites and exposure to the spores from disturbed soil.

Construction activities would generate fugitive dust that could contain *C. immitis* spores. The proposed project would minimize the generation of fugitive dust during construction activities by complying with SJVAPCD Regulation VIII. Therefore, this regulation, combined with the relatively low probability of the presence of *C. immitis* spores, would reduce Valley fever impacts to less than significant. During operations, dust emissions are anticipated to be negligible, because most of the project area would be occupied by buildings, pavement, and landscaped areas. This condition would preclude the possibility of the project from providing habitat suitable for *C. immitis* spores and for generating fugitive dust that may contribute to Valley fever exposure. Impacts would be less than significant.

⁶ U. S. Geological Survey. 2000. Operational Guidelines (version 1.0) for Geological Fieldwork in Areas Endemic for Coccidioidomycosis (Valley Fever). Website: pubs.er.usgs.gov/publication/ofr00348 (accessed March 2023).

Naturally Occurring Asbestos. According to a map of areas where naturally occurring asbestos in California are likely to occur,⁷ there are no such areas in the project area. Therefore, development of the project is not anticipated to expose receptors to naturally occurring asbestos. Impacts would be less than significant.

d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Land uses that are typically identified as sources of objectionable odors include landfills, transfer stations, sewage treatment plants, wastewater pump stations, composting facilities, feed lots, coffee roasters, asphalt batch plants, and rendering plants. The project would not engage in any of these activities. Therefore, the project would not be considered a generator of objectionable odors during operations.

During construction, the various diesel-powered vehicles and equipment in use on-site would create localized odors. These odors would be temporary and would not likely be noticeable for extended periods of time beyond the project's site boundaries. The potential for diesel odor impacts would therefore be less than significant.

As a residential and medical office development, the project has the potential to place sensitive receptors near existing odor sources. The City's wastewater treatment plant is located approximately 1.75 miles south southeast of the project site. The prevailing wind direction in Hanford is northwesterly; therefore, the site location would not be exposed to substantial odors. There are no other major odor-generating sources near the project site. Therefore, the proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people, and potential impacts would be considered less than significant.

⁷ U.S. Geological Survey. 2011. Van Gosen, B.S., and Clinkenbeard, J.P. California Geological Survey Map Sheet 59. Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California. Open-File Report 2011-1188. Website: <http://pubs.usgs.gov/of/2011/1188/> (accessed March 2023).

4.4 BIOLOGICAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

The following discussion is based on the findings of the Biological Resources Assessment⁸ prepared for the proposed project. The Biological Resources Assessment is included as Appendix B.

Methods. LSA Biologist Kelly McDonald conducted a literature review and records search on March 31, 2020, to identify the existence and potential for occurrence of sensitive or special status⁹ plant and animal species in the vicinity of the project site. Federal and State lists of sensitive species were also examined. Current electronic database records reviewed included the following:

⁸ LSA. 2020. *Biological Resources Assessments Hanford Place Project Kings County, California*. May.

⁹ For the purposed of this report, the term "special-status species" refers to those species that are listed or proposed for listing under the CESA and/or FESA, California Fully Protected Species, California Species of Special Concern, and California Special Animals. It should be noted that "Species of Special Concern" and "California Special Animal" are administrative designations made by the CDFW and carry no formal legal protection status. However, Section 15380 of the *State CEQA Guidelines* indicates that these species should be included in an analysis of project impacts if they can be shown to meet the criteria of sensitivity outlined therein.

- **California Natural Diversity Data Base information (CNDDB – RareFind 5)**, which is administered by the California Department of Fish and Wildlife (CDFW), formerly known as the California Department of Fish and Game (CDFG). This database covers sensitive plant and animal species as well as sensitive natural communities that occur in California. Records from nine USGS quadrangles surrounding the project site (*Riverdale, Laton, Burris Park, Lemoore, Hanford, Remnol, Stratford, Guernsey, and Waukena*) were obtained from this database to inform the field survey.
- **California Native Plant Society’s (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants**, which utilizes four specific categories or “lists” of sensitive plant species to assist with the conservation of rare or endangered botanical resources. All of the plants constituting California Rare Plant Ranks (CRPR) 1A, 1B, 2A, and 2B are intended to meet the status definitions of “threatened” or “endangered” in CESA and the California Department of Fish and Game Code, and are considered by CNPS to be eligible for State listing. At the discretion of the CEQA Lead Agency, impacts to these species may be analyzed as such, pursuant to the *State CEQA Guidelines* Sections 15125(c) and 15380. Plants in Rank 3 (limited information; review list), Rank 4 (limited distribution; watch list), or that are considered Locally Unusual and Significant may be analyzed under CEQA if there is sufficient information to assess potential significant impacts. Records from the nine USGS quadrangles surrounding the project site were obtained from this database to inform the field survey.
- **United States Fish and Wildlife Service’s (USFWS) Information for Planning and Conservation (IPaC) Online System**, which lists all proposed, candidate, threatened, and endangered species managed by the Endangered Species Program of the USFWS that have the potential to occur on or near a particular site. This database also lists all known critical habitats, national wildlife refuges, and migratory birds that could potentially be impacted by activities from a proposed project. An IPaC Trust Resource Report was generated for the project area.
- **Designated and Proposed USFWS Critical Habitat Polygons** were reviewed to determine whether critical habitat has been designated or proposed within or in the vicinity of the project site.
- **The USFWS National Wetlands Inventory** was reviewed to determine whether any wetlands or surface waters of the United States have been previously-identified in the survey area.
- **eBird**: eBird is a real-time, online checklist program launched in 2002 by the Cornell Lab of Ornithology and National Audubon Society. It provides rich data sources for basic information on bird abundance and distribution at a variety of spatial and temporal scales. eBird occurrence records for burrowing owl (*Athene cunicularia*) from a 5-mile radius around the project site were reviewed in May 2020.

In addition to the databases listed above, historic and current aerial imagery, existing environmental reports for developments in the project vicinity, and local land use policies related to biological resources were reviewed.

A general biological survey of the project site was conducted by LSA Biologist Kelly McDonald on April 27, 2020. The project site was surveyed on foot, and all biological resources observed were noted and mapped. Suitable habitat for any species of interest or concern was duly noted, and general site conditions were photographed. The field survey took place on a clear sunny morning with weather conditions conducive to the detection of plant and animal species.

- a. *Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

The Hanford region supports various special-status natural communities, plants, and animals. The Biological Resources Assessment provides tables that identify those special-status plant and animal species known to occur or that potentially occur in the vicinity of the project site (based on the literature review and experience in the region) and includes detailed information about each species' habitat and distribution, State and federal status designations, and probability of occurrence within the project site. As stated in the methodology section above, the background research included occurrence records from nine United States Geological Survey (USGS) topographic quadrangles surrounding the survey area. A nine USGS quadrangle search covers a large, variable geographic and topographic area containing numerous habitat types not found within or around the project site.

Special-Status Natural Communities. No special-status natural communities or conservation areas exist within the project site or in adjacent parcels. The project site is completely isolated and distant from all special-status natural communities that occur in the region. Therefore, as the project site does not contain any special-status natural communities, such habitats would not be impacted by the proposed project.

Special-Status Species. No special-status plant species are expected to occur within the project site or to be adversely affected by the proposed project.

While no special-status animal species (or signs of such species) were observed on site during the April 2020 survey, several small mammal burrows were observed within the project site that are considered suitable habitat for burrowing owl, a California Species of Special Concern, and/or San Joaquin kit fox, a federally listed as endangered and state-listed as threatened species. None of the small mammal burrows observed in the project site exhibited features typical of occupied kit fox or burrowing owl burrows at the time of the survey, although there is some potential for use by these species in the future. Potentially significant direct and indirect impacts, including mortality, harassment, or other forms of incidental take, could occur if construction-related ground disturbance occurs in or around an occupied den or burrow.

No other special-status species were determined to have a moderate or high probability of occurrence on the project site (refer to Appendix D of the Biological Resources Assessment). The removal of the disturbed annual grassland habitat documented on the project site is not anticipated to substantially impact the population sizes of any special-status animal species given the context and setting of the project site and additional habitats for such species in the project vicinity.

While suitable habitat for shrub and tree nesting birds is very limited on the project site (only one tree occurs within the site boundaries), the project site does contain suitable nesting habitat for a variety of ground-nesting birds and for other birds that could nest in the annual herbaceous vegetation. Nesting birds are protected under the California Fish and Game Code. Construction activities that occur during the nesting bird season (typically February 15 through September 15) have potential to result in the direct or indirect take of nesting birds.

If unmitigated or unavoided, these potential direct and indirect impacts on special-status wildlife species and nesting birds could be considered potentially significant. However, conducting pre-construction surveys and complying with applicable regulatory requirements would prevent or compensate for impacts on special-status species. Therefore, implementation of Mitigation Measures BIO-1 through BIO-4, as summarized below, which would require pre-construction surveys and compliance with applicable regulatory requirements, would effectively mitigate any impacts on special-status wildlife species to less-than-significant levels.

Mitigation Measure BIO-1**Conduct Preconstruction Clearance Surveys for San Joaquin Kit Fox and Burrowing Owl.**

A preconstruction clearance survey is required for San Joaquin kit fox and burrowing owl no more than 30 calendar days prior to initiation of project activities. All survey results must be delivered to the United States Fish and Wildlife Service's (USFWS), the California Department of Fish and Wildlife (CDFW), and the City. If the survey results find an active burrow of one or both of these species on the project site, the applicant must coordinate with the applicable resource agencies (CDFW for burrowing owl, CDFW and USFWS for kit fox) to obtain applicable agency approval(s)/permit(s) prior to any ground disturbance activities on the site.

Specific avoidance, den excavation, passive relocation, and compensatory mitigation activities shall be performed as required by the applicable agency. Appropriate provisions of the *CDFW Staff Report on Burrowing Owl Mitigation* and *USFWS Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox* shall be adhered to.

Mitigation Measure BIO-2

Worker Environmental Awareness Training. Prior to initial groundbreaking, Worker Environmental Awareness Training shall be conducted by a qualified biologist to educate all construction personnel on the relevant federal, state, and local laws related to potentially occurring special-status species at the site. The tailgate session shall include training on identification of species that may be found on the project site, the status of those species, and any legal protection afforded to those species. Personnel will be advised to report any special-status species encountered promptly. A fact sheet conveying this information will be prepared for display or for distribution to anyone who may enter the project site.

Mitigation Measure BIO-3

Construction Site Housekeeping and Operational Requirements.

Habitat subject to permanent and temporary construction disturbances and other types of ongoing project-related disturbance activities shall be minimized by adhering to the following *USFWS Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox*:

- a. To minimize temporary disturbances, all project-related vehicle traffic shall be restricted to established roads, construction areas, and other designated areas. These areas shall also be included in preconstruction surveys and, to the extent possible, shall be established in locations disturbed by previous activities to prevent further impacts.
- b. Project-related vehicles shall observe a daytime speed limit of 20-mph throughout the site in all project sites, except on county roads and state and federal highways; this is particularly important at night when kit foxes are most active. Night-time construction shall be minimized to the extent possible. However, if it does occur, then the speed limit shall be reduced to 10-mph. Off-road traffic outside of designated project sites shall be prohibited.
- c. To prevent inadvertent entrapment of kit foxes or other animals during the construction phase of a project, all excavated, steep-walled holes or trenches more than 2-feet deep shall be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks shall be installed. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped animals. If at any time a trapped or injured kit fox is discovered, the USFWS and the CDFW shall be contacted.
- d. Kit foxes are attracted to den-like structures such as pipes and may enter stored pipes and become trapped or injured. All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored at a construction site for one or more overnight periods shall be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe shall not be moved until the USFWS and CDFW have been consulted. If necessary, and under the direct supervision of a qualified biologist, the pipe may be moved only once to remove it from the path of construction activity, until the fox has escaped. In the case of

trapped animals, escape ramps or structures shall be installed immediately to allow the animal(s) to escape, or the USFWS and CDFW should be contacted for further guidance.

- e. All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in securely closed containers and removed at least once a week from a construction or project site.
- f. Pets, such as dogs or cats, shall not be permitted on the project site to prevent harassment, mortality of kit foxes, or destruction of dens.
- g. Use of rodenticides and herbicides in project sites shall be restricted. This is necessary to prevent primary or secondary poisoning of kit foxes and the depletion of prey populations on which they depend. All uses of such compounds shall observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other state and federal legislation. If rodent control must be conducted, zinc phosphide should be used because of a proven lower risk to kit fox.

Mitigation Measure BIO-4

Nesting Bird Surveys and Avoidance. If vegetation removal, construction, or grading activities are planned to occur within the active nesting bird season (February 15 through September 15), a qualified biologist shall conduct a preconstruction nesting bird survey no more than 5 days prior to the start of such activities. The nesting bird survey shall include the project site and areas immediately adjacent to the site that could potentially be affected by project-related activities such as noise, vibration, increased human activity, and dust, etc. For any active nest(s) identified, the qualified biologist shall establish an appropriate buffer zone around the active nest(s). The appropriate buffer shall be determined by the qualified biologist based on species, location, and the nature of the proposed activities. Project activities shall be avoided within the buffer zone until the nest is deemed no longer active by the qualified biologist.

Critical Habitat. The project would not result in any impacts to critical habitat, and no additional mitigation is required.

- b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

No riparian habitat or other sensitive natural communities are present at the project site. Therefore, implementation of the proposed project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community. As a result, no impact would occur.

- c. Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

The project proposes to convert an open trapezoidal segment of Peoples Ditch (an excavated irrigation canal) to a 66-inch-diameter below-ground pipe culvert which would terminate approximately 20 feet short of the existing pipe culvert that runs under SR-198. Approximately 0.50 acre of the irrigation canal would be undergrounded as part of the project.

Peoples Ditch does not meet the definition of a jurisdictional water of the United States pursuant to the *Navigable Waters Protection Rule*, effective June 22, 2020. Furthermore, Peoples Ditch does not meet the wetland criteria outlined in the *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State*, which excludes agricultural ditches with ephemeral flow that are not a relocated water of the state or excavated in a water of the state. Nevertheless, Peoples Ditch may fall within the jurisdiction of CDFW under Section 1602 of the California Fish and Game Code and the Regional Water Quality Control Board (RWQCB) under the California Water Code (e.g., the Porter-Cologne Water Quality Control Act). Furthermore, given the recent substantial changes in operable definitions that have occurred and may continue to occur, and considering the regulatory revisions and potential court actions, it is not possible to definitively predict the regulations that will be in place at the time of a particular jurisdictional determination or permit action by the USACE. Under currently effective Clean Water Act regulations and guidance, the USACE reserves the right to regulate certain resources on a case-by-case basis. Therefore, Mitigation Measure BIO-5 would be required.

Mitigation Measure BIO-5

Agency Coordination for Peoples Ditch. Prior to any modifications to Peoples Ditch, it is recommended to consult with the United States Army Corps of Engineers (USACE), CDFW, and Regional Water Quality Control Board (RWQCB) to verify the feature's jurisdictional status and obtain applicable permit(s) and/or authorization(s). A notification of streambed alteration should be submitted to the CDFW in accordance with Section 1602 of the California Fish and Game Code. Unless categorically excluded under effective definitions or existing documentation confirms that no permit is needed, the Central Valley RWQCB and Sacramento District of the USACE should be consulted regarding potential permitting needs under the California Water Code and federal Clean Water Act, respectively, associated with the proposed Peoples Ditch modifications.

Implementing applicable permit measures would prevent or compensate for impacts on jurisdictional aquatic resources. Considering the status of Peoples Ditch as a constructed and maintained irrigation canal and the lack of natural drainages, riparian areas, and wetlands on the project site, the project would not result in a substantial adverse effect on State or federally protected wetlands through direct removal, filling, hydrological interruption, or by other means. The impact would be considered less than significant with mitigation incorporated.

d. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The wildlife species that occur in the project vicinity are adapted to the urban-wildland interface, and the project would not introduce new affects to the area. The noise, vibration, light, dust, or human disturbance within construction areas would only temporarily deter wildlife from using areas in the immediate vicinity of construction activities. These indirect effects could temporarily alter migration behaviors, territories, or foraging habitats in select areas. However, because these are temporary effects, it is likely that wildlife already living and moving in close proximity to urban development would alter their normal functions for the duration of the project construction and then re-establish these functions once all temporary construction effects have been removed. The proposed project would not place any permanent barriers within any known wildlife movement corridors or interfere with habitat connectivity. The impact would be considered less than significant, and no additional mitigation is required.

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The City of Hanford and Kings County currently do not have a regional Natural Community Conservation Plan or Habitat Conservation Plan. The 2035 General Plan for the City outlines local relevant policies related to biological resources. Below is the list of applicable policies and consistency analysis:

- **5.5.1 Natural Habitat: Goal 04:** Protection of natural habitat and other biological resources.

- *Policy 031 Provision of Open Space Areas: Preserve and enhance open space area.*

Consistency Analysis: The project site is currently designated as a Highway Commercial land use and is isolated from open space areas; therefore, the project is considered consistent with this policy.

- *Policy 032 Wetland and Riparian Corridor: Where appropriate and feasible, establish permanent mechanisms to protect wetlands and riparian corridors.*

Consistency Analysis: The project is not located within wetlands or riparian corridors; therefore, the project is considered consistent with this policy.

- *Policy 033 Vernal Pools:* Identify and protect vernal pools that be located in Planning Area.

Consistency Analysis: Vernal pools are not located within the project site; therefore, the project is considered consistent with this policy.

- *Policy 035 Impacts from Development:* Ensure that potential impacts to biological resources and sensitive habitat are carefully evaluated when considering development projects.

Consistency Analysis: No sensitive or special-status natural communities occur on the project site. An appropriately timed field survey and biological resources assessment were conducted on the project site to determine the likelihood and suitability of sensitive habitat and species; the project is not likely to result in significant impacts on sensitive resources with the implementation of recommended measures. Therefore, the project is considered consistent with this policy.

- *Policy 037 Mature Trees:* Promote the preservation of existing mature trees and encourage the planting of appropriate shade trees in new developments.

Consistency Analysis: The development plan includes the removal of one nonnative tree. The project will include the planting of trees as part of the landscaping plan, resulting in an overall increase in shade trees within the project area. Therefore, the project is considered consistent with this policy.

- *Policy 038 Native Tree Species and Drought Tolerant Vegetation:* Encourage the planting of native tree species and drought-tolerant vegetation.

Consistency Analysis: The landscaping plan will be provided in accordance with Section 17.52 Landscape Standards of the Hanford Municipal Code; all species of trees shall be selected from a list approved by the City's Parks Division. Therefore, the project is considered consistent with this policy.

- **5.5.2 Wildlife and Sensitive Species**

- *Policy 039 Endangered Wildlife and Habitat:* Establish programs in connection with environmental review processes to protect endangered wildlife and their habitats.

Consistency Analysis: An appropriately-timed field survey and literature reviews were conducted for the project in support of the CEQA review process. Based on the analysis and with implementation of the recommended mitigation measures contained herein, it is unlikely that any endangered species would be adversely affected by the project. Therefore, the project is considered consistent with this policy.

- *Policy 040 Sensitive Wildlife:* Work with State, federal, and local agencies on the preservation of sensitive wildlife species in the City.

Consistency Analysis: Implementation of recommended Mitigation Measures BIO-1 through BIO-4, as described above, would ensure consistency with applicable resource agency policies with regard to sensitive wildlife species determined to have potential of occurring on the project site. Therefore, the project is considered consistent with this policy.

With implementation of the Mitigation Measures BIO-1 through BIO-5 listed above, the proposed project would not conflict with any regional habitat conservation plan or local policies related to the protection and conservation of biological resources. Therefore, this impact is considered less than significant with mitigation incorporated.

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The project site is not within the boundaries of a habitat conservation plan or natural community conservation plan. This condition precludes the possibility that implementation of the proposed project would conflict with the provisions of such a plan, and no impact would occur.

4.5 CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☒	☐	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

A Cultural Resource Inventory¹⁰ was prepared for the proposed project, which included: (1) a records search at the California Historical Resources Information System (CHRIS) Southern San Joaquin Valley Information Center (SSJVIC) to identify prior cultural resource studies and previously recorded cultural resources in the project area and surrounding 0.5-mile area; (2) desktop archival research to better understand land use and property ownership within the project area; (3) a search of the Native American Heritage Commission's (NAHC) Sacred Lands File and outreach with local tribal representatives; (4) a pedestrian survey of the project area to identify potential historical resources within the project area and preliminary recordation of identified resources on the appropriate California Department of Parks and Recreation record form(s); (5) a buried site sensitivity assessment; and (6) recommendations for further work to assess whether the proposed project would cause adverse impacts to historical resources—i.e., cultural resources eligible for listing on the California Register. The analysis in this Cultural Resources section is based on the results of the Cultural Resource Inventory. The Cultural Resource Inventory is included as Appendix C.

a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

Records Search Results. A records search of the project site and a 0.5-mile radius was conducted on May 5, 2020, by staff at the SSJVIC. The SSJVIC reported nine previous cultural studies encompassing portions of the project area that occurred between 1982 and 2015, and five additional studies in the surrounding 0.5-mile area. Of the nine studies within the project area, seven had negative results. The Peoples Ditch is the only previously recorded resource within the project area. In addition, the Southern Pacific Railroad/San Joaquin Valley Railroad is just outside the project area's northern boundary. Two additional built environment resources were identified within a 0.5-mile radius of the project area and one additional resource is also within 0.5 mile of the project area.

Buried Site Sensitivity Assessment. Geologic and soil data derived from the National Resources Conservation Service Web Soil Survey identify only one soil type within the project area, consisting of Nord coarse to fine sandy loam. Based on this soil type, the entire project area is encompassed by

¹⁰ Applied EarthWorks, Inc. 2020. *Cultural Resource Inventory for the Hanford Place Medical and Mixed-Use Property Project in the City of Hanford, Kings County, California*. August.

a soil type and landform that have high or very high potential for containing anthropogenic paleosols with intact cultural deposits. Adding to this sensitivity is the presence of Dry Creek within the project area during prehistory, which would have provided rich habitat and other resources for Native American groups. Dry Creek was a naturally occurring intermittent stream that was modified during Hanford's early settlement period. However, it is likely that portions of the project area have been disturbed by past infill of Dry Creek and the construction of Peoples Ditch in addition to impacts related to historic-era agricultural and domestic activities in the eastern portion of the project area. In these areas of disturbance, the sensitivity for intact and well-preserved buried sites is moderate, low, or none.

This evidence of modern disturbance notwithstanding, due to the very high sensitivity of the soil type in the project area, and because over excavation and recompact of soil is recommended to mitigate the effects of potential hydrocompaction to at least 7 feet below the existing grade and to a distance of at least 10 feet beyond the perimeter of the planned buildings and surrounding improvements, limited subsurface archaeological testing to confirm the presence/absence of anthropogenic paleosols or intact cultural resource deposits is recommended. Based on the findings of subsurface archaeological testing, archaeological data recovery to assess prehistoric cultural deposits and cultural resource monitoring during ground disturbing construction activities may be needed. As such, implementation of Mitigation Measure CULT-1 would be required.

Field Survey Results. During the field survey, one historic-era refuse scatter (AE-4167-01) and one historic-era isolate (AE-4167-ISO-01) were observed. The artifacts date to the first half of the twentieth century, suggesting the deposit may be associated with the nonextant historical structure. In addition, the project site appears to have been impacted by previous agricultural activity that would have displaced artifacts within a few feet of their original placement. The condition of the subsurface deposit is unknown as it was not visible during the pedestrian survey. No prehistoric artifact concentrations, isolated artifacts, features, or evidence of human skeletal material were observed during the survey.

Built Environment Resources Results. A modern segment of Peoples Ditch and the remnants of its older, now abandoned, route were observed during survey. As such, the existing California Department of Parks and Recreation cultural resource record for the Peoples Ditch was updated to record its remnant historical alignment within the project area. The new segment is less than 50 years old. The only remaining evidence of the original alignment of the ditch is its scar on the landscape and the remains of a concrete containment well at the northern end of the abandoned segment.

Summary. To determine whether the proposed project would cause a substantial adverse change in the significant quantities of a historical resource, additional mapping and subsurface testing would be required. Conducting additional mapping and subsurface testing would prevent potential impacts to historic and archaeological resources that could be uncovered during construction activities. Therefore, Mitigation Measures CULT-1 and CULT-2 would be required to reduce the project's potential impacts to previous unidentified historical resources that may be encountered during construction. Implementation of this mitigation measure would reduce potential impacts to less than significant.

Mitigation Measure CULT-1

Because of the very high sensitivity of the soil type in the project area, the possibility exists that buried archaeological deposits within the project site. Therefore, archaeological monitoring must be conducted during ground-disturbing construction activities in native soil, including clearing and grubbing. Monitoring should occur on a full-time basis during all excavation activities until the Project Archaeologist, based on the archaeological monitor's observations, is satisfied that there is little likelihood of encountering intact archaeological deposits. The Project Archaeologist may also determine it is appropriate to reduce monitoring to spot-checking or on a part-time basis.

Upon completion of the monitoring and, if necessary, mitigation, the archaeologist should prepare a report to document the methods and results of the monitoring. The final report should be submitted to the SSJVIC.

Mitigation Measure CULT-2

Additional mapping and subsurface testing of AE-4167-01 shall be conducted to evaluate its eligibility for inclusion in the California Register of Historical Resources, pursuant to California Public Resources Code (PRC) 5024.1. Additional focused subsurface testing in areas not previously disturbed by historic-era activities must be conducted to confirm presence/absence of high-sensitivity paleosols that may include intact prehistoric cultural deposits. If intact prehistoric cultural deposits are encountered during subsurface presence/absence testing, further investigation must be conducted to determine if the deposit retains integrity and is eligible for inclusion in the California Register of Historical Resources. The methods and findings of the additional studies would be presented as an addendum to the Cultural Resource Inventory for the Hanford Place Medical and Mixed-Use Property Project and would include cultural resource management recommendations to guide mitigation of potential adverse effects to any identified historical resources within the project area.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Mitigation Measures CULT-1 and CULT-2, as presented in Response 4.5.a above, would ensure that potential impacts to archaeological resources would be reduced to a less-than-significant level by conducting additional mapping and subsurface testing to prevent potential impacts to historic and archaeological resources that could be uncovered during construction activities. Therefore, the project would not cause a substantial adverse change in the significance of an archaeological resource.

c. Would the project disturb any human remains, including those interred outside of formal cemeteries?

Although no such remains have been identified within the project site, there is a possibility of encountering such remains, either in isolation or with prehistoric archaeological deposits. Such remains could be uncovered during project ground-disturbing activities. The project would have a significant effect on the environment if it would disturb human remains, including those interred outside of formal cemeteries.

Implementation of Mitigation Measure CULT-3 would reduce potential impacts to human remains to a less than significant level by ensuring compliance with California Health and Safety Code Section 7050.5 in the event that any human remains are encountered during project-related ground-disturbing activities.

In addition, on January 10, 2017, the City of Hanford met with the Tachi Yokut Tribe, on a different project in order to establish conditions, which would apply to all projects in the City of Hanford, which required an initial study. In order to address the concerns of the Tachi Yokut Tribe, the City is requiring the implementation of a Burial Treatment Plan as a mitigation measure. Therefore, implementation Mitigation Measure CULT-4 would ensure implementation of a Burial Treatment Plan and would reduce impacts to a less than significant level.

Mitigation Measure CULT-3 Any human remains encountered during project-related ground-disturbing activities shall be treated in accordance with California Health and Safety Code Section 7050.5. The project sponsor shall inform all contractor(s) performing excavation of the sensitivity of the project site for human remains and include the following directive in the appropriate contract documents:

If human remains are uncovered, all work within 50 feet of the discovery shall be halted and the Kings County Coroner notified immediately. At the same time, the on-site monitoring archaeologist shall assess the situation and consult with agencies as appropriate. Project personnel shall not collect or move any human remains or associated materials. If the human remains are of Native American origin, the Coroner must notify the California State Native American Heritage Commission (NAHC) within 24 hours of this identification. The NAHC will formally identify a Native American Most Likely Descendant (MLD)—if one is not already on-site—to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods. Such recommendations shall be carried out to the satisfaction of the NAHC prior to work resuming within 50 feet of the discovered remains.

Mitigation Measure CULT-4 A Burial Treatment Plan shall be entered into by the project applicant/property owner prior to any ground disturbing activities.

4.6 ENERGY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?	☐	☐	☒	☐
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

a. Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?

The proposed project would increase the demand for electricity, natural gas, and gasoline. The discussion and analysis provided below is based on the CalEEMod output included as Appendix A.

Construction-Period Energy Use. The anticipated construction schedule assumes that the proposed project would be built over approximately 3 years. The proposed project would require grading, site preparation, and building activities during construction.

Construction of the proposed project would require energy for the manufacture and transportation of construction materials, preparation of the site for demolition and grading activities, and construction of the residences. Petroleum fuels (e.g., diesel and gasoline) would be the primary sources of energy for these activities. Construction activities are not anticipated to result in an inefficient use of energy as gasoline and diesel fuel would be supplied by construction contractors who would conserve the use of their supplies to minimize their costs on the project. Energy usage on the project site during construction would be temporary in nature and would be relatively small in comparison to the State's available energy sources. Therefore, construction energy impacts would be less than significant.

Operational Energy Use. Energy use consumed by the proposed project would be associated with natural gas use, electricity consumption, and fuel used for vehicle trips associated with the project. Energy and natural gas consumption was estimated for the project using default energy intensities by building type in CalEEMod.

CalEEMod divides building electricity and natural gas use into uses that are subject to Title 24 standards and those that are not. For electricity, Title 24 uses include the major building envelope systems covered by Part 6 (California Energy Code) of Title 24 (e.g., space heating, space cooling, water heating, and ventilation). Non-Title 24 uses include all other end uses (e.g., appliances, electronics, and other miscellaneous plug-in uses). Because some lighting is not considered as part of the building envelope energy budget, CalEEMod considers lighting as a separate electricity use category. For natural gas, uses are likewise categorized as Title 24 or Non-Title 24, with Title 24 uses

including building heating and hot water end uses. Non-Title 24 natural gas uses include cooking and appliances (including pool/spa heaters).

Table 4.F, below, shows the estimated potential increased electricity, natural gas, gasoline, and diesel demand associated with the proposed project. The electricity and natural gas rates are from the CalEEMod analysis, while the gasoline and diesel rates are based on the traffic analysis in conjunction with United States Department of Transportation (DOT) fuel efficiency data.

Table 4.F: Estimated Annual Energy Use of Proposed Project

Land Use	Electricity Use (kWh per year)	Natural Gas Use (therms per year)	Gasoline (gallons per year)	Diesel (gallons per year)
Ambulatory Surgery Center, Specialty Clinic, Medical Office Building, and Psychiatric Health Facility	1,395,423	26,572	67,277	55,850
Hotel and Conference Center	1,403,506	30,168	32,955	27,358
Nursing College	365,853	15,649	30,809	25,576
Skilled Nursing Facility, Memory Care, Assisted Living Facility	701,757	24,991	37,905	31,467
Multi-Family Apartments	454,375	16,181	32,930	27,337
Medical/Commercial	427,442	2,508	62,119	51,569
Parking Lot	596,800	0	0	0
Total	5,345,159	116,068	263,994	219,156

Source: LSA (March 2023).

As shown in Table 4.F, the estimated potential increased electricity demand associated with the proposed project is 5,345,159 kilowatt-hours (kWh) per year. In 2021, California consumed approximately 280,738 gigawatt-hours (GWh) or 280,738,376,720 kWh.¹¹ Of this total, Kings County consumed 1,980 GWh or 1,980,705,673 kWh.¹² Therefore, electricity demand associated with the proposed project would only be approximately 0.27 percent of Kings County's total electricity demand.

The estimated potential increased natural gas demand associated with the proposed project is 116,068 therms per year, as shown in Table 4.F. In 2021, California consumed approximately 11,923 million therms or 11,923,705,642 therms, while Kings County consumed approximately 64 million therms or approximately 64,004,283 therms.¹³ Therefore, natural gas demand associated with the proposed project would only be approximately 0.18 percent of Kings County's total natural gas demand.

¹¹ California Energy Commission. 2022b. Energy Consumption Data Management Service. Electricity Consumption by County and Entity. Website: www.ecdms.energy.ca.gov/elecbycounty.aspx (accessed March 2023).

¹² Ibid.

¹³ California Energy Commission. 2022c. Energy Consumption Data Management Service. Gas Consumption by County and Entity. Website: www.ecdms.energy.ca.gov/gasbycounty.aspx (accessed March 2023).

In addition, the proposed project would result in energy usage associated with gasoline and diesel to fuel project-related trips. The average fuel economy for light-duty vehicles (autos, pickups, vans, and SUVs) in the United States has steadily increased from about 14.9 miles per gallon (mpg) in 1980 to 22.9 mpg in 2020.¹⁴ The average fuel economy for heavy-duty trucks in the United States has also steadily increased, from 5.7 mpg in 2013 to a projected 8.0 mpg in 2021.¹⁵

Using the average USEPA gasoline fuel economy estimates for 2020, the California diesel fuel economy estimates for 2021, and the traffic data from the project traffic analysis, the proposed project would result in the annual consumption of approximately 263,994 gallons of gasoline and 219,156 gallons of diesel. In 2019, vehicles in California consumed approximately 15.6 billion gallons of gasoline and 3.8 billion gallons of diesel fuel.¹⁶ Therefore, gasoline and diesel demand generated by vehicle trips associated with the proposed project would be a minimal fraction of gasoline and diesel fuel consumption in California and Kings County.

In addition, vehicles associated with trips to and from the project site would be subject to fuel economy and efficiency standards, which are applicable throughout the State. As such, the fuel efficiency of vehicles associated with project operations would increase throughout the life of the proposed project. Therefore, implementation of the proposed project would not result in a substantial increase in transportation-related energy uses.

The proposed project would be constructed to CALGreen standards, which would help to reduce energy and natural gas consumption. Therefore, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of fuel or energy and would incorporate renewable energy or energy efficiency measures into building design, equipment use, and transportation. Construction and operation period impacts related to consumption of energy resources would be less than significant.

b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

In 2002, the Legislature passed Senate Bill 1389, which required the California Energy Commission (CEC) to develop an integrated energy plan every two years for electricity, natural gas, and transportation fuels, for the California Energy Policy Report. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero emission (ZE) vehicles and their

¹⁴ U.S. Department of Transportation (DOT). "Table 4-23: Average Fuel Efficiency of U.S. Light Duty Vehicles." Website: <https://www.bts.gov/content/average-fuel-efficiency-us-light-duty-vehicles> (accessed March 2023).

¹⁵ Ibid.

¹⁶ CEC. n.d. California Gasoline Data, Facts, and Statistics. Website: www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-gasoline-data-facts-and-statistics (accessed March 2023).

infrastructure needs, and encouragement of urban designs that reduce vehicle miles traveled (VMT) and accommodate pedestrian and bicycle access.

The most recently adopted report includes the 2021 Integrated Energy Policy Report¹⁷ and the 2022 Integrated Energy Policy Report Update.¹⁸ The Integrated Energy Policy Report provides the results of the CEC's assessments of a variety of energy issues facing California. Many of these issues will require action if the State is to meet its climate, energy, air quality, and other environmental goals while maintaining energy reliability and controlling costs. The Integrated Energy Policy Report covers a broad range of topics, including implementation of Senate Bill 350, integrated resource planning, distributed energy resources, transportation electrification, solutions to increase resiliency in the electricity sector, energy efficiency, transportation electrification, barriers faced by disadvantaged communities, demand response, transmission and landscape-scale planning, the California Energy Demand Preliminary Forecast, the preliminary transportation energy demand forecast, renewable gas (in response to Senate Bill 1383), updates on California electricity reliability, natural gas outlook, and climate adaptation and resiliency.

As indicated above, energy usage on the project site during construction would be temporary in nature. In addition, energy usage associated with operation of the proposed project would be relatively small in comparison to the State's available energy sources and energy impacts would be negligible at the regional level. Because California's energy conservation planning actions are conducted at a regional level, and because the project's total impact to regional energy supplies would be minor, the proposed project would not conflict with California's energy conservation plans as described in the CEC's Integrated Energy Policy Report. Thus, as shown above, the project would avoid or reduce the inefficient, wasteful, and unnecessary consumption of energy and not result in any irreversible or irretrievable commitments of energy. Therefore, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation and this impact would be less than significant.

¹⁷ CEC. 2021. *2021 Integrated Energy Policy Report*. California Energy Commission. Docket Number: 21-IEPR-01.

¹⁸ CEC. 2022a. *2020 Integrated Energy Policy Report Update*. California Energy Commission. Docket Number: 22-IEPR-01.

4.7 GEOLOGY AND SOILS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv. Landslides?	☐	☐	☒	☐
b. Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

This section is based on the Preliminary Geotechnical Investigation and Geologic and Seismic Hazards Evaluation Report.¹⁹ The Preliminary Geotechnical Investigation and Geologic and Seismic Hazards Evaluation Report is included as Appendix D.

a. *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:*

i. *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*

The project site is not located within a currently designated Alquist-Priolo Earthquake Zone. In addition, no known active or potentially active faults or fault traces are located in the project vicinity and no major fault systems are known to exist in Kings County.²⁰ The project site is

¹⁹ Kleinfelder. 2020. *Preliminary Geotechnical Investigation and Geologic and Seismic Hazards Evaluation Report Proposed Hanford Place, Medical and Mixed-Use Property Hanford, California*. June 9.

²⁰ Hanford, City of. 2017, op. cit.

located approximately 58 miles east of the San Andreas fault and approximately 42 miles east of the Great Valley fault. A major seismic event on these fault segments may cause significant ground shaking at the site.²¹ However, as no known active, or potentially active faults cross or project toward the project site, the potential for fault-related surface rupture at the site is considered very low.²² In addition, the proposed project would be built to current building codes and standards to reduce the potential for structural failure caused by ground shaking and other geologic hazards. Therefore, no people or structures would be exposed to potential substantial adverse effects, including the risk of loss, injury, or death from the rupture of a known earthquake fault as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, and impacts would be less than significant.

ii. Strong seismic ground shaking?

As identified above, no known active or potentially active faults or fault traces are located in the project vicinity and no major fault systems are known to exist in Kings County. Ground shaking is the most likely damaging effect of an earthquake in Hanford. However, as no known active, or potentially active faults cross or project toward the project site, the potential for fault-related surface rupture at the site is considered very low.²³ In addition, the proposed project would be built to current building codes and standards to reduce the potential for structural failure caused by ground shaking and other geologic hazards. Therefore, impacts related to strong seismic ground shaking would be less than significant.

iii. Seismic-related ground failure, including liquefaction?

Secondary impacts of earthquakes can include landslides, seiches, liquefaction, and dam failure.²⁴ Liquefaction describes a condition in which a saturated, cohesionless soil loses shear strength during earthquake shocks. Ground motion from an earthquake may induce cyclic reversals of shearing strains of large amplitude. Lateral and vertical movements of the soil mass, combined with loss of bearing strength, usually result from this phenomenon. Historically, liquefaction of soils has caused severe damage to structures, berms, levees and roads. Liquefaction potential depends on soil type, void ratio, depth to groundwater, duration of shaking and confining pressures over the potentially liquefiable soil mass. Fine, well-sorted, loose sand, shallow groundwater, severe seismic ground motion and particularly long durations of ground shaking are conditions conducive for liquefaction. Soils in Hanford do not have significant liquefaction potential.²⁵ Hanford is located in a stable geologic formation, so the effects of ground shaking on soil stability should be minimal. As such, the proposed project would not expose people or structures to potential substantial effects associated with seismic-related ground failure, including liquefaction. Therefore, this impact is less than significant.

²¹ Kleinfelder. 2020, op. cit.

²² Ibid.

²³ Ibid.

²⁴ Hanford, City of. 2014. *General Plan Background Report - Hanford, California*. March. Website: cms6.revize.com/revize/hanfordca/document_center/Planning/General%20Plan/2034%20General%20Plan%20Background%20Report.pdf (accessed March 2023).

²⁵ Ibid.

iv. Landslides?

As discussed above, secondary impacts of earthquakes can include landslides, seiches, liquefaction, and dam failure. However, Hanford is located in a stable geologic formation, so the effects of ground shaking on soil stability should be minimal. In addition, because the project site is generally level, the proposed project would not expose people or structures to potential substantial adverse effects associated with landslides. Therefore, impacts related to landslides would be less than significant.

b. Would the project result in substantial soil erosion or the loss of topsoil?

Soil erosion is a process whereby soil materials are worn away and transported to another area, either by wind or water. Rates of erosion can vary depending on the soil material and structure, placement, and human activity. Soil containing high amounts of silt can be easily eroded, while sandy soils are less susceptible. Excessive soil erosion can eventually damage building foundations and roadways. Erosion is most likely to occur on sloped areas with exposed soil, especially where unnatural slopes are created by cut-and-fill activities. Soil erosion rates can be higher during the construction phase. Typically, the soil erosion potential is reduced once the soil is graded and covered with concrete, structures, or asphalt.

Implementation of the proposed project would include grading activities that could result in short-term soil erosion during the construction period. Exposed soils are considered erodible when subjected to concentrated surface flow or wind. Mitigation Measure GEO-1, described below, would reduce the potential for soil erosion.

Mitigation Measure GEO-1 To reduce the potential for soil erosion during construction of the proposed project, an Erosion Control Plan shall be prepared for the project in conformance with the California Storm Water Best Management Practice Handbook for Construction Activity, prior to the start of grading.

In addition, soil erosion and loss of topsoil would be minimized through implementation of SJVAPCD Regulation VIII fugitive dust control measures and compliance with the National Pollutant Discharge Elimination System (NPDES) permit requirements. With incorporation of Mitigation Measure GEO-1 and compliance with NPDES permit requirements, construction of the proposed project would not result in substantial soil erosion or loss of topsoil. This impact would be less than significant with mitigation incorporated.

c. Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

See Responses 4.7.a.iii and 4.7.a.iv above. The proposed project would not require a substantial grade change or change in topography. The project would not result in on- or off-site landslides, lateral spreading, subsidence, or liquefaction or collapse. However, some of the alluvial soils in the San Joaquin Valley are subject to hydrocompaction. Hydrocompactive soil has a relatively loose

skeletal structure, which is weakly cemented by soluble salts or a slight clay mineral content. Moisture increase breaks down the inter-particle cementation causing a collapse of the skeletal structure. The significant loss in soil volume can result in settlement of overlying structures. The project geotechnical exploration and associated laboratory testing identified the in-place relative density of the subsurface soil was relatively low and compression characteristics were moderate. Based on laboratory testing, post saturation of four soil obtained from the project site had compression characteristics that were low to moderate, indicating a possibility of collapse potential. However, with implementation of the earthwork and design recommendations included in the Preliminary Geotechnical Investigation and Geologic and Seismic Hazards Evaluation Report, impacts would be less than significant.

d. Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Expansive soils possess a “shrink-swell” characteristic. Shrink-swell is the cyclic change in volume (expansion and contraction) that occurs in fine-grained clay sediments from the process of wetting and drying. Structural damage may occur over a long period of time, usually the result of inadequate soil and foundation engineering, or the placement of structures directly on expansive soils. Based on the borings conducted for the Preliminary Geotechnical Investigation and Geologic and Seismic Hazards Evaluation Report, expansive soils were not encountered. Furthermore, based on review of soil survey, expansive soil was not identified within the project area. Expansive soils are not anticipated within the influence of foundation systems or zone of cyclic moisture changes, and therefore, would not dictate the need for special grading or special footing and concrete slab-on-grade design.²⁶ Therefore, the project would result in a less than significant impact related to substantial risks to life or property due to expansive soils.

e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

The proposed project would not require the use of septic tanks or other alternative wastewater disposal systems. Therefore, no impact would occur.

f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Paleontological resources are the mineralized (fossilized) remains of prehistoric plant and animal life exclusive of human remains or artifacts. Fossil remains such as bones, teeth, shells, and leaves are found in geologic deposits (rock formations) where they were originally buried. Fossil remains are considered to be important as they provide indicators of the earth’s chronology and history. These resources are afforded protection under CEQA and are considered to be limited and nonrenewable, and they provide invaluable scientific and educational data. Due to the sensitive nature of these paleontological resources, they are not mapped.

²⁶ Kleinfelder. 2020, op. cit.

Implementation of the proposed project would require ground disturbing construction activities that may inadvertently encounter and damage paleontological resources. Should this occur, project construction at both well sites may result in the destruction of a unique paleontological site, resulting in a potentially significant impact. Mitigation Measure GEO-2 would reduce this impact to less than significant by redirecting ground-disturbing activities, consulting with agencies as appropriate, and making recommendations for the treatment of the discovery in the event that any human remains are encountered during project-related ground-disturbing activities.

The following mitigation measure would reduce the paleontological resource impacts associated with the proposed project to a less-than-significant level.

Mitigation Measure GEO-2

The project applicant shall inform its contractor(s) of the sensitivity of the project area for paleontological resources. Should paleontological resources be encountered during project subsurface construction activities, all ground-disturbing activities within 25 feet shall be redirected and a qualified paleontologist contacted to assess the situation, consult with agencies as appropriate, and make recommendations for the treatment of the discovery. If found to be significant, and project activities cannot avoid the paleontological resources, adverse effects to paleontological resources shall be mitigated. Mitigation may include monitoring, recording the fossil locality, data recovery and analysis, a final report, and accessioning the fossil material and technical report to a paleontological repository. Public educational outreach may also be appropriate. Upon completion of the assessment, a report documenting methods, findings, and recommendations shall be prepared and submitted to the City for review, and (if paleontological materials are recovered) a paleontological repository, such as the University of California Museum of Paleontology (UCMP). The City shall verify that the above directive has been included in the appropriate contract documents.

4.8 GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☒	☐	☐
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

a. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Greenhouse gas emissions (GHGs) are present in the atmosphere naturally, and are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. However, over the last 200 years, human activities have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere, and enhancing the natural greenhouse effect, which is believed to be causing global climate change. The gases that are widely seen as the principal contributors to human-induced global climate change are:

- Carbon dioxide (CO₂)
- Methane (CH₄)
- Nitrous oxide (N₂O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulfur Hexafluoride (SF₆)

Certain gases, such as water vapor, are short-lived in the atmosphere. Others remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is excluded from the list of GHGs above because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

These gases vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. GWP is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and the length of time that the gas remains in the atmosphere ("atmospheric lifetime").

The GWP of each gas is measured relative to CO₂, the most abundant GHG; the definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO₂ over a specified time period. GHG emissions are typically measured in terms of pounds or tons of "CO₂ equivalents" (CO₂e).

This section discusses the proposed project’s potential impacts related to the release of GHG emissions for both construction and project operation. Section 15064.4 of the *State CEQA Guidelines* states that: “A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project.” In performing that analysis, the lead agency has discretion to determine whether to use a model or methodology to quantify GHG emissions, or to rely on a qualitative analysis or performance-based standards. In making a determination as to the significance of potential impacts, the lead agency then considers the extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting, whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project, and the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

Neither the City of Hanford, nor the SJVAPCD has developed or adopted numeric GHG significance thresholds. Therefore, this analysis evaluates the GHG emissions based on the project’s consistency with State GHG reduction goals.

Construction Activities. Construction activities associated with the proposed project would produce combustion emissions from various sources. During construction, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically use fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO₂, CH₄, and N₂O. Furthermore, CH₄ is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

Total GHG emissions generated during all phases of construction were combined and are presented in Table 4.G. The SJVAPCD does not recommend assessing the significance of construction-related emissions. However, other jurisdictions, such as the South Coast Air Quality Management District (SCAQMD) and the Sacramento Metropolitan Air Quality Management District (SMAQMD), have concluded that construction emissions should be included since they may remain in the atmosphere for years after construction is complete. In order to account for the construction emissions, amortization of the total emissions generated during construction were based on the life of the development (nonresidential— 30 years) and added to the operational emissions.

Table 4.G: Project Construction GHG Emissions

Year	Metric Tons of CO ₂ e per Year
2024	815.0
2025	623.0
2026	525.0
2027	11.0
Total	1,973.0
Amortized over 30 years	65.8

Source: LSA (March 2023).

As shown in Table 4.G, it is estimated that construction of the proposed project would generate approximately 1,973.0 metric tons of CO₂e. When considered over the 30-year life of the project, the total amortized construction emissions for the proposed project would be 65.8 metric tons of CO₂e per year.

Operational Emissions. Long-term GHG emissions are typically generated from mobile sources (e.g., cars, trucks, and buses), area sources (e.g., maintenance activities and landscaping), indirect emissions from sources associated with energy consumption, waste sources (land filling and waste disposal), and water sources (water supply and conveyance, treatment, and distribution). Mobile-source GHG emissions would include project-generated vehicle trips to and from the project. Area-source emissions would be associated with activities such as landscaping and maintenance on the project site. Energy source emissions would be generated at off-site utility providers as a result of increased electricity demand generated by the project. Waste source emissions generated by the proposed project include energy generated by land filling and other methods of disposal related to transporting and managing project generated waste. In addition, water source emissions associated with the proposed project are generated by water supply and conveyance, water treatment, water distribution, and wastewater treatment.

Emissions estimates for operation of the proposed project were calculated using CalEEMod. Model results are shown in Table 4.H. Trip generation rates for the project were based on the project's trip generation estimates, as identified in Section 4.17, Transportation. However, as discussed in Section 4.17, approximately 41,500 square feet of commercial/office uses is proposed. These uses would generate fewer trips than the 114,000 square feet of commercial/office uses that is analyzed in the proposed project trip generation estimate. The trip generation in CalEEMod was adjusted to reflect 41,500 square feet of commercial/office uses. As such, CalEEMod assumes a total of approximately 5,239 ADT, including 1,393 ADT for the Ambulatory Surgery Center, Specialty Clinic, Medical Office Building, and Psychiatric Health Facility, 682 ADT for the Hotel and Conference Center, 638 ADT for the Nursing College, 662 ADT for the Skilled Nursing Facility, Memory Care, Assisted Living Facility, 576 ADT for the Multi-Family Apartments, and 1,287 ADT for the Medical/Commercial uses based on the project's trip generation and taking into account a 10 percent reduction for internal trips. In addition, this analysis assumes the proposed project would be built to current Title 24 building standards. Where project-specific data were not available, default assumptions from CalEEMod were used to estimate project emissions.

Table 4.H: Operational GHG Emissions

Emissions Category	Operational Emissions (Metric Tons per Year)				
	CO ₂	CH ₄	N ₂ O	CO ₂ e	Percent of Total
Mobile Source	3,166.0	0.2	0.2	3,236.0	56
Area Source	142.0	0.2	<0.1	148.0	3
Energy Source	1,906.0	0.1	<0.1	1,912.0	33
Water Source	33.9	0.8	<0.1	60.6	1
Waste Source	124.0	12.4	0.0	433.0	7
Total Operational				5,789.6	100.0

Source: Compiled by LSA (February 2023).

Note = Some values may not appear to add up correctly due to rounding.

CH₄ = methane

CO₂e = carbon dioxide equivalent

CO₂ = carbon dioxide

N₂O = nitrous oxide

As shown in Table 4.H, the proposed project would generate approximately 5,789.6 metric tons of CO₂e annually.

The Kings County Association of Government Final Regional Climate Action Plan (Regional CAP) meets the requirements for a Qualified GHG Reduction Strategy and is designed to streamline environmental review of future development projects in the County consistent with *State CEQA Guidelines* Section 15183.5(b). However, the Regional CAP identifies emission reduction goals to reduce GHG emissions in the region by 15 percent below the 2005 emissions levels by 2020, consistent with Assembly Bill (AB) 32. The proposed project would not be operational until post-2020; therefore, because the Regional CAP was prepared based on the 2020 GHG targets, which are now superseded by the 2030 GHG targets established in Senate Bill (SB) 32, the Regional CAP would not be applicable for CEQA streamlining.

In addition, the SJVAPCD has not established a numeric threshold for GHG emissions. As discussed, the significance of GHG emissions may be evaluated based on locally adopted quantitative thresholds or consistency with a regional GHG reduction plan (such as a Climate Action Plan). Neither the City of Hanford, nor the SJVAPCD has developed or adopted numeric GHG significance thresholds. Therefore, the proposed project was analyzed for consistency with the 2022 Scoping Plan.

The 2022 Scoping Plan includes key project attributes that reduce operational GHG emissions in Appendix D, Local Actions²⁷, of the 2022 Scoping Plan. As discussed in Appendix D of the 2022 Scoping Plan, absent consistency with an adequate, geographically specific GHG reduction plan such as a CEQA-qualified CAP, the first approach the State recommends for determining whether a proposed residential or mixed-use residential development would align with the State's climate goals is to examine whether the project includes key project attributes that reduce operational GHG emissions while simultaneously advancing fair housing. The following project attributes result in reduced GHG emissions from residential and mixed-use development. Residential and mixed-use projects that have all of the key project attributes in Table 4.I would accommodate growth in a manner consistent with State GHG reduction and equity prioritization goals.

²⁷ CARB, 2022. *2022 Scoping Plan Appendix D Local Actions*. November. Website: <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf> (accessed March 2023).

Table 4.I: Project Consistency with the 2022 Scoping Plan Key Residential and Mixed-Use Project Attributes that Reduce GHGs

Priority Areas	Key Project Attribute	Project Consistency
Transportation Electrification	Provides EV charging infrastructure that, at minimum, meets the most ambitious voluntary standard in the California Green Building Standards Code at the time of project approval.	Consistent with Mitigation Measure GHG-1. CALGreen requires provision of infrastructure to accommodate EV chargers. It is not yet known whether the proposed project would include electric vehicle charging; therefore, implementation of Mitigation Measure GHG-1 would be required to ensure the proposed project would provide electric vehicle charging. With implementation of Mitigation Measure GHG-1, the proposed project would be consistent with this key project attribute.
VMT Reduction	Is located on infill sites that are surrounded by existing urban uses and reuses or redevelops previously undeveloped or underutilized land that is presently served by existing utilities and essential public services (e.g., transit, streets, water, sewer).	Consistent. The project site is located in an area with a mix of land uses, including residential, commercial, and medical uses that are presently served by existing utilities and essential public services (e.g., transit, streets, water, sewer). In addition, as discussed in Section 4.17, the proposed project would result in a less-than-significant VMT impact. Therefore, the proposed project would be consistent with this key project attribute.
	Does not result in the loss or conversion of natural and working lands.	Consistent. The project site is classified as Grazing Land and is not zoned for agricultural uses or enrolled in a Williamson Act Contract. The State Department of Conservation classifies the project site as Non-Enrolled Land. The project site is not located on land that is designated as Prime Farmland or Farmland of State Importance. In addition, the project site is currently vacant and is not zoned for agricultural uses. As such, the proposed project would be consistent with this key project attribute.
	Consists of transit-supportive densities (minimum of 20 residential dwelling units per acre) or is in proximity to existing transit stops (within a half mile), or satisfies more detailed and stringent criteria specified in the region's SCS.	Consistent. The proposed project would not include 20 residential dwelling units per acre; however, the project site is located within 0.25 mile of a transit stop. In addition, the proposed project would develop a medical and mixed-use development and would construct 15 buildings consisting of medical outpatient clinic services, a hotel and conference center, specialized education, retail, medical office, skilled nursing and assisted living, and multi-family residential uses, as well as a bio infiltration basin, associated open space, circulation and parking, and infrastructure improvements. In addition, the proposed project would include apartments that allow employees of the project medical office and service facilities to live within walking distance. The proposed project would also provide pedestrian infrastructure connecting to neighboring uses. The roads serving the project are designed for low speed and would be conducive to bicycle use. As such, the project would promote initiatives to reduce vehicle trips and VMT and would increase the use of alternate means of transportation.

Table 4.I: Project Consistency with the 2022 Scoping Plan Key Residential and Mixed-Use Project Attributes that Reduce GHGs

Priority Areas	Key Project Attribute	Project Consistency
		As such, the proposed project would be consistent with this key project attribute.
	Reduces parking requirements by: eliminating parking requirements or including maximum allowable parking ratios (i.e., the ratio of parking spaces to residential units or square feet); or providing residential parking supply at a ratio of less than one parking space per dwelling unit; or for multifamily residential development, requiring parking costs to be unbundled from costs to rent or own a residential unit.	Consistent. The proposed project would consist of 15 buildings consisting of medical outpatient clinic services, a hotel and conference center, specialized education, retail, medical office, skilled nursing and assisted living, and multi-family residential uses. The proposed project would provide 1,466 parking spaces throughout the project site. Based on the proposed uses when compared to the number of parking spaces, the proposed project would be consistent with this key project attribute.
	At least 20 percent of units included are affordable to lower-income residents.	Consistent. The proposed project would not include affordable residential units. However, the proposed project would include apartments that allow employees of the project medical office and service facilities to live within walking distance. In addition, the proposed project would include Skilled Nursing Facility, Memory Care, Assisted Living Facility uses. Although the proposed project would not include affordable housing, the proposed project would provide needed multi-family and senior housing. Therefore, the proposed project would be consistent with this key project attribute.
	Results in no net loss of existing affordable units.	Consistent. The proposed project would not result in the removal of any existing residential units. As such, the proposed project would be consistent with this key project attribute.
Building Decarbonization	Uses all-electric appliances without any natural gas connections and does not use propane or other fossil fuels for space heating, water heating, or indoor cooking.	Consistent The proposed project would be consistent with State building code requirements as Title 24 advances to implement the building decarbonization goals from the 2022 Scoping Plan. As such, the proposed project would be consistent with this key project attribute.

Source: Compiled by LSA (February 2023).

With implementation of Mitigation Measure GHG-1, the proposed project would be consistent with the 2022 Scoping Plan key residential and mixed-use project attributes related to EV charging requirements and building electrification. Therefore, with implementation of Mitigation Measure GHG-1, the proposed project would be consistent with all project attributes in the 2022 Scoping Plan GHG emission thresholds.

Mitigation Measure GHG-1

In order to meet the 2022 Scoping Plan greenhouse gas (GHG) requirements, consistent with State GHG reduction and equity prioritization goals, the proposed project shall provide electric vehicle charging capabilities that meet the most ambitious

voluntary standard in the California Green Building Standards Code at the time of project approval as part of the final project design.

Implementation of Mitigation Measure GHG-1 would ensure that the proposed project would be consistent with all project attributes in the 2022 Scoping Plan GHG emission thresholds. As such, the proposed project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. Impacts would be less than significant with mitigation.

b. Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The following analysis evaluates the proposed project's consistency with adopted plans to reduce GHG emissions. The City of Hanford adopted the Regional CAP in 2014. The CAP includes a GHG inventory, a benchmarking/goal-setting process, and identifies a reduction target for 2020. This allowed the City to take advantage of the streamlining provisions contained in the *State CEQA Guidelines* amendments adopted for SB 97 and clarifications provided in the CEQA Guidelines amendments adopted on December 28, 2018. Although the CAP does not include a target for 2030, the measures in the plan will continue to provide reductions after the milestone year and help demonstrate continued progress toward achieving the SB 32 2030 target.

Regional CAP. The CAP includes a number of policies that support emission reductions from new development. The applicable policies and a discussion of the project's consistency with the policies are provided in Table 4.J. The project is consistent with all applicable policies.

In summary, the proposed project would incorporate a number of features that would minimize GHG emissions. These features are consistent with project-level strategies identified by the Regional CAP and CARB's Scoping Plan. As demonstrated in the impact analysis above, the proposed project would not significantly hinder or delay the State's ability to meet the reduction targets contained in AB 32 or SB 32 or conflict with implementation of the Scoping Plan. The proposed project would promote the goals of the Scoping Plan through implementation of design measures that reduce energy consumption, water consumption, and reduction in VMT. Therefore, the proposed project would not conflict with any plans to reduce GHG emissions. The impact would be less than significant. No mitigation would be required.

Table 4.J: Consistency with the Regional Climate Action Plan

Climate Action Plan Policy	Project Consistency
E-4.1 Encourage local homebuilders to participate in the New Solar Homes Partnership to install solar PV systems on qualifying new homes. (Community)	Consistent. The proposed project would comply with the latest CALGreen solar readiness and installation requirements.
E-4.2 Work with the building industry to incorporate designs improving solar readiness into building plans through voluntary green building guidelines. (Community)	Consistent. The proposed project would comply with the latest CALGreen solar readiness and installation requirements.
E-5.2 Provide project applicants with green building resources, including the SJVAPCD's Best Performance Standards list for GHG reductions, and promote workshops offered by community organizations. (Community)	Consistent.. The proposed project would include sustainability features in the project design in accordance with SJVAPCD requirements, CALGreen, and City of Hanford standards.

Table 4.J: Consistency with the Regional Climate Action Plan

Climate Action Plan Policy	Project Consistency
TL-1.1 Support and encourage mixed-use and medium- and high-density land use categories located within ¼ mile of a transit stop, park and ride facility, or existing developed areas, by allowing flexible zoning and/or density bonuses for applicable projects. (Community)	Consistent. The project site is located within 0.25 mile of a transit stop. The proposed project would consist of mixed uses with high-density residential, hotel, and medical office uses.
TL-1.2 Prioritize infill development by publicly providing the location and zoning of infill sites on the local jurisdiction's website and working with developers to expedite applications. (Community)	Consistent. The project site is an infill location.
TL-1.3 Allow live/work developments that permit residents to live at their place of work and thereby reduce VMT and associated GHG emissions. (Community)	Consistent. The proposed project would include apartments that allow employees of the project medical office and service facilities to live within walking distance.
TL-2.3 Establish minimum design criteria for bicycle and pedestrian circulation and implement through the design review process. (Community)	Consistent. The proposed project would provide pedestrian infrastructure connecting to neighboring uses. The roads serving the project are designed for low speed and would be conducive to bicycle use.
TL-2.4 Encourage the installation of adequate and secure bicycle parking at all multi-family residential, commercial, governmental, and recreational locations throughout the region. (Community)	Consistent. The proposed project would comply with CALGreen Code requirements for bicycle parking.
TL-2.5 Support land use planning that will promote pedestrian and bicyclist access to and from new development by encouraging land use and subdivision designs that provide safe bicycle and pedestrian circulation, including bicycle parking facilities and internal bicycle and pedestrian routes, where feasible. (Community)	Consistent. The proposed project would comply with all applicable City design standards related to safe bicycle and pedestrian circulation.
TL-3.4 Support and encourage new development that provides safe routes to adjacent transit stops, where applicable. (Community)	Consistent. The proposed project would comply with City design standards that provide a safe route to a nearby transit stop.
TL-4.2 Work with employers and developers to provide affordable transportation alternatives and telecommuting options to serve both new and existing land uses. (Community)	Consistent. The proposed project's tenants would be able to participate in commute services offered by the Kings County Association of Governments and the City.
TL-4.3 Support compliance with SJVAPCD Rule 9410 by providing guidance and resources to employers required to comply with the eTRIP Rule. The eTRIP Rule requires employers with over 100 eligible employees to establish an Employer Trip Reduction Implementation Plan (eTRIP) to encourage employees to reduce single-occupancy vehicle trips by providing end of trip facilities such as preferential parking for vanpools and rideshare, bicycle parking, and other facilities suitable for the type of business. (Community)	Consistent. Tenants with over 100 eligible employees would be required to prepare an eTrip Plan that provides programs and measures that encourage ridesharing and use of alternative modes of transportation.
TL-5.2 Allow the joint use of parking facilities for both private businesses and public agencies. (Community)	Consistent. The parking lots would serve multiple businesses located throughout the complex.

Source: Kings County Association of Governments (2014) and LSA (March 2023).

4.9 HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☒	☐
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

The proposed project would develop a medical and mixed-use development and would construct 15 buildings consisting of medical outpatient clinic services, hotel and conference center, specialized education, retail, medical office, skilled nursing and assisted living, and multi-family residential uses, as well as a bio infiltration basin, associated open space, circulation and parking, and infrastructure improvements.

Construction activities associated with the proposed project would involve the use of limited amounts of potentially hazardous materials, including but not limited to, solvents, paints, fuels, oils, and transmission fluids. However, all materials used during construction would be contained, stored, and handled in compliance with applicable standards and regulations established by the Department of Toxic Substances Control (DTSC), the U.S. Environmental Protection Agency (USEPA), and the Occupational Safety and Health Administration (OSHA). No manufacturing, industrial, or other uses utilizing large amounts of hazardous materials would occur within the project site.

Project operation would involve the use of common materials associated with residential, commercial, office, and medical uses (i.e., cleaning products, fertilizers, pesticides, herbicides, etc.) that could be potentially hazardous if handled improperly or ingested. However, these products are not considered acutely hazardous and are not generally considered unsafe. All storage, handling, and disposal of hazardous materials during project construction and operation would comply with applicable standards and regulations. The proposed residential uses would not generate significant amounts of any hazardous materials. Therefore, the proposed project would have a less-than-significant impact associated with the routine transport, use, or disposal of hazardous materials.

b. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

See Response 4.9.a, above. The proposed project would not result in a significant hazard to the public or the environment through a reasonably foreseeable upset or accident condition related to the release of hazardous materials. This impact would be less than significant.

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

The closest existing school is Roosevelt Elementary School, located approximately 0.1 mile south of the project site. As previously stated, the proposed project would not result in the use or emission of substantial quantities of hazardous materials that would pose a human or environmental health risk. In addition, all materials would be handled, stored, and disposed of in accordance with applicable standards and regulations. Therefore, because the proposed project does not involve activities that would result in the emission of hazardous materials or acutely hazardous substances, implementation of the proposed project would result in a less-than-significant impact in the use or emission of hazardous materials that would adversely affect an existing school.

d. Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

According to the DTSC EnviroStor database,²⁸ the project site is not located on a federal superfund site, State response site, voluntary cleanup site, school cleanup site, evaluation site, school investigation site, military evaluation site, tiered permit site, or corrective action site. The project site is not included on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.²⁹ As a result, no impacts related to this issue are anticipated.

²⁸ California Department of Toxic Substances Control. 2019. EnviroStor. Website: www.envirostor.dtsc.ca.gov/public (accessed March 2023).

²⁹ California Environmental Protection Agency. 2019. *Government Code Section 65962.5(a)*. Website: calepa.ca.gov/sitecleanup/corteselist/section-65962-5a/ (accessed March 2023).

- e. Would the project be located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?*

The Hanford Municipal Airport is the closest airport and is located approximately 1.5 miles southeast of the project site. Although the project is located within 2 miles of the airport, implementation of the proposed project is not expected to result in a safety hazard or excessive noise for people residing or working in the project area. In addition, the project site is not within noise contours of the airport. As such, impacts would be less than significant. No mitigation is required.

- f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

The project site is not located along an emergency evacuation route. Vehicular access to the site would be provided by Glendale Avenue, 5th Street, and Campus Drive. The extension of these roadways would be constructed to City standards and would be dedicated as public right of way. The proposed project would also construct a roundabout, which would also be dedicated as public right of way and would be constructed to Caltrans or City-approved standards. As part of the project, Glendale Avenue would be realigned at the northwest corner of the Hanford Veterinary Hospital development. The existing knuckle would be removed, and Glendale Avenue would be realigned using speed-specific design curves. Any new portions of Glendale Avenue would be dedicated as public right of way and any portion of existing right of way not used would be abandoned. 5th Street would be extended starting at the existing alignment before realigning to the roundabout. Therefore, project implementation would not physically interfere with emergency evacuation or the City Fire Department access to and from the project site. Therefore, impacts would be less than significant as a result of project implementation and no mitigation is required.

- g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?*

Wildland fires occur in geographic areas that contain the types and conditions of vegetation, topography, weather, and structure density susceptible to risks associated with uncontrolled fires that can be started by lightning, improperly managed campfires, cigarettes, sparks from automobiles, and other ignition sources. According to the California Department of Forestry and Fire Protection (CAL FIRE) Very High Fire Hazard Severity Zone (VHFHSZ) Map for Kings County, the project site is not located within a High or Very High Fire Hazard Severity Zone.³⁰ Therefore, implementation of the proposed project would not expose people to significant risk of loss, injury, or death due to wildland fires and this impact would be less than significant.

³⁰ California Department of Forestry and Fire Protection (CAL FIRE). 2007. *Fire Hazard Severity Zone in Local Resource Area (LRA)*. September 20. Website: osfm.fire.ca.gov/media/6689/fhszl06_1_map16.pdf (accessed March 2023).

4.10 HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☒	☐	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	☐	☒	☐	☐
i. Result in substantial erosion or siltation on- or off-site;	☐	☒	☐	☐
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☒	☐	☐
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☒	☐	☐
iv. Impede or redirect flood flows?	☐	☒	☐	☐
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☒	☐	☐

a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

The proposed project is located in the City of Hanford and Kings County, which is within the jurisdiction of the Central Valley RWQCB.

Pollutants of concern during construction include eroded sediments, trash, petroleum products, concrete waste (dry and wet), sanitary waste, and other construction-related chemicals. Each of these pollutants on its own or in combination with other pollutants can have a detrimental effect on water quality. During construction activities, excavated soil would be exposed, and there would be an increased potential for soil erosion and sedimentation compared to existing conditions. In addition, there is a potential for chemicals, petroleum products, other liquids (such as paints and solvents), and concrete-related waste to be spilled or leaked and transported via storm runoff into a stormwater drainage basin.

The project site is approximately 39.23-acres. Because construction of the proposed project would disturb greater than 1 acre of soil, the proposed project would be subject to the requirements of the NPDES Construction General Permit (CGP). To prevent significant water quality impacts during

ground-disturbance activities, the proposed project would need to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) that includes construction BMPs that comply with the requirements of the CGP. These requirements are included in Mitigation Measure HYDRO-1.

Mitigation Measure HYDRO-1 To minimize any potential short-term water quality effects from project-related construction activities, the project contractor shall implement Best Management Practices (BMPs) in conformance with the California Storm Water Best Management Practice Handbook for Construction Activity. In addition, the proposed project shall be in compliance with existing regulatory requirements, including the Water Pollution Control Preparation (WPCP) Manual. In addition, implementation of a Storm Water Pollution Prevention Plan (SWPPP) would be required under the National Pollutant Discharge Elimination System (NPDES) to regulate water quality associated with construction activities.

During operation of the proposed project, expected pollutants of concern include chemicals, liquid products, petroleum products (such as paints, solvents, and fuels), and waste that may be spilled or leaked and have the potential to be transported via runoff during periods of heavy precipitation. The proposed project would increase impervious surface area, which would increase the volume of runoff during a storm and more effectively transport pollutants to receiving waters. In addition, an increase in impervious surface area would increase the total amount of pollutants in the storm water runoff, which would increase the amount of pollutants discharged to downstream receiving waters. In order to avoid impacts to water quality during project operation, the proposed project would need to prepare and implement a Storm Water Management Plan (SWMP) to reduce the discharge of pollutants of concern to the maximum extent practicable.

Mitigation Measure HYDRO-2 To reduce the potential for degradation of surface water quality during project operation, a Storm Water Management Plan (SWMP) shall be prepared for the proposed project. The SWMP shall describe specific programs to minimize storm water pollution resulting from the proposed project. Specifically, the SWMP shall identify and describe source control measures, treatment controls, and BMP maintenance requirements to ensure that the project complies with post-construction storm water management requirements of the Regional Water Quality Control Board (RWQCB).

With implementation of Mitigation Measure HYDRO-1 and Mitigation Measure HYDRO-2, the proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. Therefore, the project's impacts would be less than significant with mitigation incorporated.

b. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Groundwater was not encountered up to a depth of 45 feet below ground surface (bgs) during geotechnical borings on the project site.³¹ Therefore, due to the depth to the groundwater table and the depth of excavation, dewatering of the groundwater table would not be required. Although excavation would occur well above existing groundwater levels, perched groundwater could be present beneath the project site. As such, groundwater dewatering of perched groundwater may be required during construction. Groundwater dewatering would not substantially affect groundwater supplies or recharge because groundwater dewatering would be temporary, would cease after project construction, and would only affect perched groundwater. Therefore, construction impacts related to depletion of groundwater supplies or interference with groundwater recharge would be less than significant, and no mitigation would be required.

Currently, the project site is vacant and undeveloped. Development of the proposed project would increase impervious surfaces on the project site, which would decrease on-site infiltration. However, due to the depth to groundwater, it is unlikely that groundwater recharge from stormwater infiltration currently occurs on the project site. Regardless, any decrease in infiltration would be minimal in comparison to the size of the watershed and the amount of existing impervious surface area in the vicinity of the project area. Furthermore, project operation would not include groundwater extraction. Therefore, the proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin, and impacts would be less than significant.

c. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i. Result in substantial erosion or siltation on- or off-site;

During construction activities, soil would be exposed and disturbed, drainage patterns would be temporarily altered during grading and other construction activities, and there would be an increased potential for soil erosion and siltation compared to existing conditions. Additionally, during a storm event, soil erosion and siltation could occur at an accelerated rate. As discussed above in Response 4.10.a, Mitigation Measure HYDRO-1 requires compliance with applicable permits and preparation of a SWPPP to identify construction BMPs to be implemented as part of the proposed project to reduce impacts to water quality during construction, including those impacts associated with soil erosion and siltation. Compliance with applicable permit requirements and implementation of the construction BMPs would ensure that construction impacts related to on- or off-site erosion or siltation would be reduced to less than significant with mitigation incorporated.

³¹ Kleinfelder. 2020, op. cit.

Once operational, implementation of the proposed project would result in new internal access roads and surface parking lots, increasing impervious surface area which is not prone to erosion or siltation. The project would also include landscaping that would minimize erosion and siltation. The project site would be designed for storm water to be captured by the storm drain system, which would be collected by an underground conveyance system and delivered to the onsite bio infiltration basin. The basin would be privately held by the owners and would collect both the proposed project and the City right of way. All storm drain facilities would be designed to City standards. The proposed project would also convert the Peoples Ditch to a 66-inch-diameter below-ground pipeline where the ditch currently exists. The depth of the below-ground pipeline would be between two and six feet. Therefore, on-site flooding, erosion, and siltation would not occur. This impact would be less than significant.

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;

During construction activities, soil would be exposed and disturbed, drainage patterns would be temporarily altered during grading and other construction activities, and there would be an increased potential for flooding compared to existing conditions. Additionally, during a storm event, flooding could occur at an accelerated rate. As discussed above in Response 4.10.a, Mitigation Measure HYDRO-1 requires compliance with applicable permits and preparation of a SWPPP to identify construction BMPs to be implemented as part of the proposed project to manage and convey storm water during construction. Proper management of storm water during construction would reduce impacts associated with flooding. Therefore, impacts related to on- or off-site flooding would be less than significant with mitigation incorporated.

Once operational, the proposed project would increase impervious surface area on the site and could potentially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite. However, as discussed previously, the project site would be designed for storm water to be captured by the storm drain system, which would be collected by an underground conveyance system and delivered to the onsite bio infiltration basin. The basin would be privately held by the owners and would collect both the proposed project and the City right of way. All storm drain facilities would be designed to City standards. The proposed project would also convert the Peoples Ditch to a 66-inch-diameter below-ground pipeline where the ditch currently exists. Therefore, the proposed project would not substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site. As such, operational impacts related to on-site or off-site flooding would be less than significant.

iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

As discussed above in Response 4.10.a, there is a potential for sediments, trash, petroleum products, concrete waste (dry and wet), sanitary waste, and chemicals to be spilled or leaked and transported via storm runoff into stormwater basins. Each of these pollutants on its own or in combination with other pollutants can have a detrimental effect on water quality. Drainage patterns would be temporarily altered during grading and other construction activities, and construction-related pollutants could be spilled, leaked, or transported via storm runoff into

adjacent drainages and stormwater basins. Mitigation Measure HYDRO-1 requires compliance with applicable permits and preparation of a SWPPP to identify construction BMPs to be implemented as part of the proposed project to manage and convey storm water during construction. Therefore, construction of the proposed project would not create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff. Impacts would be less than significant with mitigation incorporated.

In addition, as discussed above in Response 4.10.a, expected pollutants of concern during operation of the proposed project include chemicals, liquid products, petroleum products (such as paints, solvents, and fuels), and waste that may be spilled or leaked and have the potential to be transported via runoff during periods of heavy precipitation. The proposed project would increase impervious area, which would increase the volume of runoff during a storm and more effectively transport pollutants to receiving waters. In addition, an increase in impervious surface would increase the total amount of pollutants in the storm water runoff, which would increase the amount of pollutants discharged to downstream receiving waters.

As discussed previously, the project site would be designed for storm water to be captured by the storm drain system, which would be collected by an underground conveyance system and delivered to the onsite bio infiltration basin. The basin would be privately held by the owners and would collect both the proposed project and the City right of way. All storm drain facilities would be designed to City standards. The proposed project would also convert the Peoples Ditch to a 66-inch-diameter below-ground pipeline where the ditch currently exists. Therefore, operation of the proposed project would not create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff. Impacts would be less than significant.

iv. Impede or redirect flood flows?

Refer to Response 4.10.a.ii above. With implementation of Mitigation Measure HYDRO-1, implementation of the proposed project would not impede or redirect flood flows. This impact would be less than significant with mitigation incorporated.

d. In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

Tsunamis are sea waves of unusual size that occur from significant earthquakes either under the ocean floor or adjacent to shorelines and can travel great distances to impact low-lying communities and developments. Considering that the Coast Range protects the site from the sea, the potential to be affected by a tsunami is nil. A seiche is a free or standing wave oscillation that occurs in a confined body of water, such as a reservoir or lake. Earthquake-generated ground waves, which have a period that matches the natural period of the lake or reservoir, may cause the water to oscillate, which can cause damage to shoreline improvements. The Kings County General Plan

indicates that earthquake-induced seiches are not considered a risk within the vicinity of the project site.³²

According to the Kings County General Plan, two major dams could cause substantial flooding in Kings County in the event of a failure: Pine Flat and Terminus Dams. The project site is located within an area of potential flooding due to dam failure of Pine Flat Dam. However, the Kings County General Plan does not state the potential inundation depth in the event of failure of Pine Flat Dam. The project site is not located within potential flooding of the Terminus Dam.

According to the Federal Emergency Management Agency (FEMA), the majority of the project site lies within a Zone X flood designation (Map Number 06031C0185C, dated June 16, 2009). Areas within Flood Zone X are outside of the 500-year floodplain. According to FEMA, “the areas of minimal flood hazard, which are the areas outside the Special Flood Hazard Area (SFHA) and higher than the elevation of the 0.2-percent-annual-chance flood, are labeled Zone C or Zone X (unshaded)”. Therefore, the project site lies outside of the 100-year floodplain and the designated SFHA. Therefore, implementation of the proposed project would not place housing within a flood hazard area, and a less-than-significant impact would result related to flood hazards.

e. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

As discussed above in Response 4.10.a, during construction activities, excavated soil would be exposed with an increased potential to expose soils to wind and water erosion, which could result in temporary minimal increases in sediment load in nearby water bodies. Pollutants of concern during construction include sediments, trash, petroleum products, concrete waste (dry and wet), sanitary waste, and chemicals and have the potential to be transported via stormwater runoff into receiving waters. However, Mitigation Measure HYDRO-1 would ensure implementation of BMPs and would require implementation of a SWPPP to control stormwater runoff and discharge of pollutants.

In addition, as discussed above in Response 4.10.a, operation of the proposed project could result in surface water pollution associated with chemicals, liquid products, petroleum products (such as paints, solvents, and fuels), and waste that may be spilled or leaked and have the potential to be transported via runoff during periods of heavy precipitation. As required by Mitigation Measure HYDRO-2, the proposed project would implement a SWMP, which shall identify and describe source control measures, treatment controls, and BMP maintenance requirements to ensure that the project complies with post-construction storm water management requirements of the RWQCB.

For the reasons discussed above, with implementation of Mitigation Measures HYDRO-1 and HYDRO-2, the proposed project would not result in water quality impacts that would conflict with the RWQCB’s Water Quality Control Plan (Basin Plan). Therefore, impacts related to conflict with a water quality control plan would be less than significant.

³² Kleinfelder. 2020, op. cit.

4.11 LAND USE AND PLANNING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?	☐	☐	☒	☐
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

a. Would the project physically divide an established community?

The project site is located in an area with a mix of land uses, including residential, commercial, and medical uses. Adjacent parcels consist mostly of low-density residential and commercial uses, with several undeveloped lots located north of the project site. The project site is generally bound to the north by the San Joaquin Valley Railroad and existing mixed-use structures, including commercial, medical, retail, and some residential uses, to the east by commercial land uses, to the south by SR-198, and to the west by commercial land uses.

The proposed project is located within a generally urbanized area of the City. The project site is currently undeveloped; however, as identified above, it is bordered by low-density residential and commercial uses. The proposed project would develop the project site with a new mixed-use development on an infill site. Although other land uses are located within the vicinity of the project site, none of these uses would be encroached upon or divided by project development. In addition, the project would not disturb or alter access to any existing adjacent uses. Therefore, the proposed project would not physically divide an established community. This impact would be less than significant.

b. Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The main documents regulating land use on the project site include the City's General Plan and the Zoning Ordinance. The General Plan designation for the project site is currently Highway Commercial and the current zoning designation is C-H. The proposed project would develop a medical and mixed-use development and would construct 15 buildings consisting of medical outpatient clinic services, hotel and conference center, specialized education, retail, medical office, skilled nursing and assisted living, and multi-family residential uses. Medical uses, education uses, and multi-family are not consistent with the land uses allowed in the Highway Commercial designation. Therefore, a change in the General Plan and zoning designations are required.

The project would amend the General Plan to Service Commercial and High-Density Residential. In addition, the project would require a rezone to C-S and R-H with a PUD overlay that would allow uses allowed on the entire project site. This zoning designation and PUD would allow uses from both zones to be constructed anywhere on the project site.

General Plan. The City's General Plan is the fundamental policy document of the City of Hanford. Within the General Plan, the Land Use and Community Design Element is the principal document guiding land use and development within the City. It serves as a blueprint for development throughout the community and is the vehicle through which the community needs, desires, and aspirations are balanced.

As identified above, without a General Plan amendment, the proposed project is inconsistent with the policies of the General Plan as they pertain to the existing Highway Commercial designation. The proposed project would amend the General Plan to Service Commercial and High-Density Residential.

Service Commercial. The Service Commercial designation provides a broad range of commercial activities such as businesses which have both retail and service components along SR-198.

The proposed project would be consistent with applicable Land Use and Community Design Element policies:

- **Policy L51 Purpose of Service Commercial Land Use Designation:** Establish the Service Commercial land use designation to provide for establishments that engage in servicing equipment, materials, products and related sales and travel conveniences, but which do not require the manufacturing, assembly, packaging or processing of articles or merchandise for distribution.
- **Policy L52 Typical Uses in Service Commercial Land Use Designation:** Define the uses allowed in the Service Commercial land use designation to include a broad range of commercial activities such as businesses which have both retail and service components. Among these are uses such as vehicle sales and service; auto rental and equipment rental; motels; restaurants (including fast food); service stations; car washes; building material supply; warehousing; wholesale trade; contractors, suppliers, small equipment yards; and other similar uses.
- **Policy L53 Existing Service Commercial Designations:** Encourage existing service commercial centers to expand or adapt to market changes through reuse, rehabilitation, and infill development.
- **Policy L54 Design of the Service Commercial Land Use Designation:** Require that new development projects and major site reconfigurations in the Service Commercial land use designation provide site layouts, landscaping, and screening so that the site appears aesthetically pleasing from the public street.
- **Policy L55 Location and Size of Service Commercial Land Use Designation:** Locate Service Commercial land use designations along Highway 198 and where they can serve as a buffer land use, such as between residential areas and railroad corridors. Require new development projects to be a minimum of one acre.

The proposed medical outpatient clinic services, hotel and conference center, specialized education, retail, and medical office, land uses would be consistent with the allowable uses within the Service Commercial designation. The project site is located along SR-198, consistent with Policy L55.

High-Density Residential. The High-Density Residential designation allows a density range of 14 to 29 units per gross acre with an expected typical density of 16 units per gross acre.

The proposed project would be consistent with applicable Land Use and Community Design Element policies:

- **Policy L38 Purpose of the High Density Residential Land Use Designation:** Establish the High-Density Residential land use designation primarily for multi-family apartment and condominium development in proximity to arterial streets, commercial and recreation facilities, and employment centers.
- **Policy L39 Typical Uses in the High-Density Residential Land Use Designation:** Define the uses allowed in the High-Density Residential land use designation to include multi-family residential dwellings in apartment buildings complexes.
- **Policy L40 Design of the High-Density Residential Land Use Designation:** Develop and enforce design policies and/or ordinances for High-Density Residential developments that ensure high-quality constructions design, open space amenities, safety and security, overall compatibility with the rest of the neighborhood.
- **Policy L41 Location and Size of the High Density Residential Land Use Designation:** Locate High-Density Residential land use designations in close proximity to Arterial streets, commercial centers, recreational facilities, and employment centers.

The proposed multi-family residential, skilled nursing, and assisted living land uses would be consistent with the allowable uses within the High-Density Residential designation. In addition, project site is located in proximity to arterial streets (11th Avenue), commercial (planned on site), and employment centers (planned on site), consistent with Policy L41.

Zoning Ordinance. The current zoning designation for the project site is C-H; however, the project would require a rezone to C-S and R-H with a PUD overlay that would allow uses allowed on the entire project site. This zoning designation and PUD would allow uses from both zones to be constructed anywhere on the project site.

Service Commercial (C-S). The C-S zone allows for commercial uses that engage in servicing equipment, materials, products and related sales and travel conveniences, but which do not require the manufacturing, assembly, packaging or processing of articles or merchandise for distribution. The minimum site area must be 5,000 square feet, unless a smaller site is approved with a conditional use permit in accordance with Chapter 17.80. No structure shall be placed within a building setback area, as identified in Section 17.20.060 of the Municipal Code. The

minimum distance between any residential structures shall be 10 feet, except as provided by the building code.

The C-S zone does not require usable open space. Landscaping also must be provided in accordance with Section 17.52 of the Municipal Code. In addition, driveways, parking, signage, mechanical equipment, lighting, and coverings must be designed consistent with City standards. The proposed project would be required to comply with these standards.

High-Density Residential (R-H). The R-H zone allows for a density range of 14 to 29 units per gross acre with a minimum site area per dwelling unit of 1,500 square feet. The minimum site area per dwelling unit shall be 1,500 square feet. The maximum coverage of a lot shall be determined by the combined building setback area requirements, accessory structure limitations, open space requirements, and off-street parking. In addition, no structure shall be placed within a building setback area, as identified in Section 17.14.070 of the Municipal Code. The minimum distance between structures shall be 10 feet, except as provided by the building code, and the maximum structure height shall be 35 feet.

Lots with five or more dwelling units shall provide for a usable open space area equal to five percent of the lot area. Where multiple lots that together make up a single development site, the required open space may be combined into common open space areas that are accessible to all residents of the site. Landscaping also must be provided in accordance with Section 17.52 of the Municipal Code. In addition, driveways, parking, signage, mechanical equipment, lighting, and coverings must be designed consistent with City standards. The proposed project would be required to comply with these standards.

Summary. Although the proposed project would require a General Plan Amendment and a Zone Change, the proposed uses would be consistent with the proposed General Plan designations and zones. Therefore, the proposed project would be consistent with proposed General Plan and zoning designations and would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. This impact would be less than significant.

4.12 MINERAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☒	☐
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

a. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

The Surface Mining and Reclamation Act (SMARA) regulates surface mining in California. SMARA was adopted in 1975 to protect the State's need for a continuing supply of mineral resources and to protect the public and environmental health. SMARA requires that all cities incorporate mapped mineral resource designations approved by the State Mining and Geology Board into their General Plans.

The City's General Plan indicates that at this time there are no known significant deposits of minerals, and no active mines.³³ The only mineral commodities that have been found within the City are sand and gravel that could be used for road and building construction. The Monterey Shale lies beneath Kings County and contains both oil and natural gas deposits. However, the City's General Plan states there have been no efforts to date to attempt extraction of these resources within or near the City. Therefore, implementation of the proposed project is not expected to result in the loss of known mineral resources or recovery sites. Therefore, this impact would be less than significant.

b. Would the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

The project site is not located within an area known to contain locally important mineral resources. No impacts related to the loss of availability of a locally important mineral resource recovery site as delineated on a local general plan, specific plan, or other land use plan would occur as a result of project implementation.

³³ Hanford, City of. 2017, op. cit.

4.13 NOISE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b. Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

This section is based on the Acoustical Analysis prepared for the proposed project.³⁴ The Acoustical Analysis is included as Appendix E.

Noise is usually defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, or sleep. Several noise measurement scales exist that are used to describe noise in a particular location. A decibel (dB) is a unit of measurement that indicates the relative intensity of a sound. Sound levels in dB are calculated on a logarithmic basis. An increase of 10 dB represents a 10-fold increase in acoustic energy, while 20 dB is 100 times more intense, and 30 dB is 1,000 times more intense. Each 10 dB increase in sound level is perceived as approximately a doubling of loudness; and similarly, each 10 dB decrease in sound level is perceived as half as loud. Sound intensity is normally measured through the A-weighted sound level (dBA). This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. The A-weighted sound level is the basis for 24-hour sound measurements that better represent human sensitivity to sound at night.

As noise spreads from a source, it loses energy so that the farther away the noise receiver is from the noise source, the lower the perceived noise level would be. Geometric spreading causes the sound level to attenuate or be reduced, resulting in a 6 dB reduction in the noise level for each doubling of distance from a single point source of noise to the noise sensitive receptor of concern.

There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound. Equivalent continuous sound level (L_{eq}) is the total sound energy of time varying noise over a sample period. However, the predominant rating scales for human communities in the State are the L_{eq} , the community noise equivalent level (CNEL), and the day-night average level (L_{dn}) based on A-weighted decibels (dBA). CNEL is the time varying noise over a 24-hour period, with a 5 dBA weighting factor applied to the

³⁴ WJV Acoustics, Inc. 2021. *Acoustical Analysis Hanford Place Hanford, California WJVA Report No. 20-016*. May 12.

hourly L_{eq} for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and 10 dBA weighting factor applied to noise occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). L_{dn} is similar to the CNEL scale, but without the adjustment for events occurring during the evening relaxation hours. CNEL and L_{dn} are within one dBA of each other and are normally exchangeable. The noise adjustments are added to the noise events occurring during the more sensitive hours.

A project would have a significant noise effect if it would substantially increase the ambient noise levels for adjoining areas or conflict with adopted environmental plans and goals of applicable regulatory agencies, including, as appropriate, the City of Hanford.

The City of Hanford Noise Element of the 2017 General Plan provides generalized Noise Goals and Policies for various noise sources and land uses, related to development within the City. However, the 2017 General Plan does not provide specific noise standards applicable to development projects. Therefore, City staff provided the noise level standards from the City's 2002 General Plan. The standards provided in the 2002 General Plan are the same as those provided in the Kings County General Plan and will be considered the applicable standards for this project.

The 2002 General Plan provided noise level compatibility standards for transportation and non-transportation (stationary) noise sources. Table 4.K provides the City of Hanford 2002 General Plan noise standards for transportation noise sources and Table 4.L provides the City of Hanford 2002 General Plan noise standards for non-transportation (stationary) noise sources.

Table 4.K: Maximum Allowable Noise Exposure Transportation Noise Sources

Land Use	Outdoor Activity Areas ¹ L_{dn} /CNEL, dB	Interior Spaces	
		L_{dn} /CNEL, dB	L_{eq} , dB ²
Residential	60 ³	45	-
Transient Lodging	60 ³	45	-
Hospitals, Nursing Homes	60 ³	45	-
Theaters, Auditoriums, Music Halls	-	-	35
Churches, Meeting Halls	60 ³	-	40
Office Buildings	-	-	45
Schools, Libraries, Museums	-	-	45
Playgrounds, Neighborhoods Parks	70	-	-

Source: WJV Acoustics, Inc. (2021).

Notes:

¹ Where the location of outdoor activity areas is unknown, the exterior noise-level standard shall be applied to the property line of the receiving land use.

² As determined for a typical worst case hour during periods of use.

³ Where it is not possible to reduce noise in outdoor activity areas to 60 dB L_{dn} /CNEL or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB L_{dn} /CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

Table 4.L: Noise-Level Performance Standards for New Projects Affected by or Including Non-Transportation (Stationary) Noise Sources

Category	Noise-Level Descriptor	Exterior Noise Level Standard (Applicable at Property Line)		Interior Noise Level Standard	
		Daytime	Nighttime	Daytime	Nighttime
Residential	L_{eq}	50	45	40	35
	L_{max}	70	65	60	35
Transient Lodging Hospitals, Nursing Homes	L_{eq}	-	-	40	35
	L_{max}	-	-	60	55
Theaters, Auditoriums, Music Halls	L_{eq}	-	-	35	35
Churches, Meeting Halls	L_{eq}	-	-	40	40
Office Buildings	L_{eq}	-	-	45	-
Schools, Libraries, Museums	L_{eq}	-	-	45	-
Playgrounds, Neighborhood Parks	L_{eq}	65	-	-	-

Source: WJV Acoustics, Inc. (2021).

Notes:

Each of the noise levels specified above shall be lowered by 5 dB for simple tone noises, noises consisting primarily of speech or music, or recurring impulsive noises. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings).

Certain land uses are considered more sensitive to noise than others. Examples of these land uses include residential areas, educational facilities, hospitals, childcare facilities, and senior housing. The project site generally bound by SR-198 to the south, San Joaquin Valley Railroad to the north, an existing retail shopping center to the east, and a mini-storage facility and former amusement/water park located west of the project site. The closest sensitive receptors to the proposed project include the residential land uses located north of the project site (across the San Joaquin Valley Railroad line) and south of the project site (across SR-198).

To assess existing noise levels, noise monitoring was conducted to establish the existing ambient noise environment at the project site. Eight short-term (15-minute) and two long-term (24-hour) noise measurements were conducted at the project site on May 5, 2021, and May 6, 2021. Noise measurement data collected during the noise monitoring area summarized in Table 4.M. As shown in Table 4.M, the short-term noise measurements indicate that ambient noise in the project site vicinity ranges from approximately 51.8 dBA to 62.6 dBA L_{eq} . The measured L_{dn} value at site LT-1 for May 5th and May 6th was 68.8 dB L_{dn} and 68.9 dB L_{dn} , respectively. The measured L_{dn} value at site LT-2 for May 5th and May 6th was 67.6 dB L_{dn} and 64.9 dB L_{dn} , respectively. Vehicle traffic, aircraft, agricultural activities, voices, birds, barking dogs, and a rooster were reported as the primary noise sources.

Table 4.M: Ambient Noise Monitoring Results (dBA)

Location Number	Location Description	Time	L _{eq} ¹	L _{max} ¹
LT-1	Located within the central portion of the project site, approximately 300 feet from the centerline of SR-198.	Daytime Average (7:00 a.m. – 10:00 p.m.)	64.5/ 65.0 ³	81.0/ 79.1 ³
		Night Average (10:00 p.m. – 7:00 a.m.)	60.3/ 60.5 ³	76.2/ 77.5 ³
LT-2	Located near the northern portion of the project site, adjacent to the existing residential land uses, and approximately 50 feet from the San Joaquin Valley Railroad line.	Daytime Average (7:00 a.m. – 10:00 p.m.)	59.9/ 58.0 ³	80.8/ 79.2 ³
		Night Average (10:00 p.m. – 7:00 a.m.)	54.4/ 51.7 ³	70.8/ 68.2 ³
ST-1	Located near the northeast portion of the project site, in the vicinity of existing retail/commercial land uses adjacent to the project site.	7:35 a.m.	51.8	56.0
		4:25 p.m.	53.7	62.1
ST-2	Located near the project site access point along Campus Drive.	8:05 a.m.	62.6	76.3
		4:45 p.m.	56.7	62.3
ST-3	Located near the northwestern portion of the project site, in the parking lot of Adventist Health Hospital.	8:30 a.m.	51.9	70.1
		5:10 p.m.	52.1	66.6
ST-4	Located at the intersection of Campus Drive and 7th Street, north of the project site.	8:50 a.m.	60.3	77.0
		5:30 p.m.	61.4	74.2

Source: WJV Acoustics, Inc. (2021)

Notes:

¹ L_{eq} represents the average of the sound energy occurring over the measurement time period for the short-term noise measurements.

² L_{max} is the highest sound level measured during the measurement time period.

³ May 5, 2021 data/May 6, 2021 data

a. Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

The following section describes how the short-term construction and long-term operational noise impacts of the proposed project would be less than significant with mitigation.

Traffic Noise Impacts to Off-Site Noise-Sensitive Land Uses. The Federal Highway Administration (FHWA) Traffic Noise Model was used to quantify expected project-related increases in traffic noise exposure along roadways in the project vicinity based on ADT.

Project-related significant impacts would occur if an increase in traffic noise associated with the project would result in noise levels exceeding the City's applicable noise level standards at the location(s) of sensitive receptors. For the purpose of this analysis a significant impact was also assumed to occur if traffic noise levels were to increase by 3 dB at sensitive receptor locations where noise levels already exceed the City's applicable noise level standards (without the project), as 3 dB generally represents the threshold of perception in change for the human ear.

The City's exterior noise level standard for residential land uses is 60 dB L_{dn} (an exterior noise exposure of up to 65 dB L_{dn} is allowed in instances where it is not possible to reduce noise exposure in outdoor activity areas to 60 L_{dn} or less using a practical application of available noise reduction measures.). Traffic noise was modeled at seven receptor locations. The seven modeled receptors are

located at roadway setback distances representative of the sensitive receptors (residences) along each analyzed roadway segment. The receptor locations are described below:

- R-1: Residential land use located approximately 90 feet from the centerline of Lacey Boulevard.
- R-2: Residential land use located approximately 60 feet from the centerline of 7th Street.
- R-3: Residential land use located approximately 95 feet from the centerline of 7th Street.
- R-4: Residential land use located approximately 60 feet from the centerline of 6th Street.
- R-5: Residential land use located approximately 100 feet from the centerline of Campus Drive.
- R-6: Residential land use located approximately 95 feet from the centerline of 7th Street.
- R-7: Residential land use located approximately 90 feet from the centerline of 6th Street.

Traffic volumes for Existing and Cumulative Year 2042 Conditions without and with project traffic noise levels at these receptor locations are shown in Table 4.N. These noise levels represent the worst-case scenario, which assumes that no shielding is provided between traffic and the location where the noise contours are drawn.

Table 4.N: Project Contribution to Traffic Noise (dB L_{dn})

Modeled Receptor	Existing Conditions			Cumulative Conditions		
	Without Project	Plus Project	Project Contribution	Without Project	Plus Project	Project Contribution
R-1	63	63	0	64	64	0
R-2	62	62	0	64	64	0
R-3	58	59	+1	60	60	0
R-4	55	58	+3	56	59	+3
R-5	51	51	0	53	53	0
R-6	59	59	0	61	61	0
R-7	52	52	0	54	54	0

Source: WJV Acoustics, Inc. (2020).

Note: As discussed in Section 4.17, Transportation, approximately 41,500 square feet of commercial/office uses is proposed. These uses would generate fewer trips than the 114,000 square feet of commercial/office uses that is analyzed in the TIS/proposed project trip generation estimate. Thus, the traffic noise analysis evaluates a project with higher trip generation potential. Therefore, this analysis can be considered conservative.

As shown in Table 4.N, project-related traffic would not result in noise levels at any sensitive receptors to exceed the City's noise level standard, nor result in an increase of more than 3 dB in any sensitive receptor locations where noise levels already exceed the City's noise level standard without the implementation of the project. In addition, the project's contribution to Cumulative 2042 traffic noise exposure levels at the modeled representative receptor locations would not result in noise levels to exceed the City's noise level standard, nor result in an increase of more than 3 dB in any sensitive receptor locations where noise levels already exceed the City's noise level standard without the implementation of the project. Therefore, project-related traffic noise impacts to off-site noise-sensitive land uses would be less than significant. No mitigation is required.

Stationary Source Noise Impacts. The proposed project would include a variety of medical buildings, hotel and conference center, medical instruction facilities, retail/drive-thru buildings, commercial buildings and a multi-family apartment building. A wide variety of noise sources can be associated

with these land use designations. The noise levels produced by such sources can also be highly variable and could potentially impact existing off-site and proposed on-site sensitive receptors. Typical examples of stationary noise sources associated with such land uses include: heating ventilation, and air conditioning (HVAC) and mechanical equipment; truck deliveries; parking lot activities; and drive-thru operations. These noise sources are evaluated below.

Mechanical Equipment. It is assumed that the project would include roof-mounted HVAC units on the proposed buildings. The HVAC requirements for the buildings would likely require the use of multiple packaged roof-top units. For the purpose of noise and aesthetics, roof-mounted HVAC units are typically shielded by means of a roof parapet. Based on reference noise level measurements at numerous commercial and retail buildings with roof-mounted HVAC units, associated noise levels typically range between approximately 45-50 dBA L_{max} at a distance of 50 feet from the building façade.

For this project, the closest residential property lines to any potential roof-mounted HVAC equipment would be located at a minimum setback distance of 200 feet. Taking into account the standard rate of noise attenuation with increased distance from a point source (a reduction of 6 dB per doubling of distance), noise levels associated with the operation of roof-mounted HVAC units would be approximately 33-38 dBA L_{max} at the closest sensitive receptor property line. These noise levels would not exceed any City of Hanford noise level standard or exceed existing (without project) ambient noise levels. Therefore, potential impacts related to mechanical equipment noise would be less than significant and no mitigation is required.

Truck Movements. At the time of this analysis, a specific truck access route (or routes) had not been designated. However, trucks would access the project site by one of three access points, Glendale Avenue from the west, Campus Drive from the north or 5th Street from the east. It is assumed that truck deliveries would occur at various times and locations throughout the overall project area. Precise details on truck deliveries were not known at the time of this analysis.

Based on reference measurements of the noise levels produced by slowly moving trucks, truck movements would be expected to produce noise levels in the range of 65 to 71 dBA L_{max} at a distance of 100 feet. The range in measured truck noise levels is due to differences in the size of trucks, their speed of movement and whether they have refrigeration units in operation during the pass-by.

If truck movements were to access the project site via the 5th Street access point, truck movements could occur as close as approximately 130 feet from the closest residential property lines to the north. At this distance, noise levels associated with truck movements would produce maximum noise levels in the range of approximately 63 to 69 dBA L_{max} , which would not exceed the City's daytime (7:00 a.m. to 10:00 p.m.) noise level standard of 70 dBA L_{max} , but would have the potential to exceed the City's nighttime (10:00 p.m. to 7:00 a.m.) noise level standard of 65 dBA L_{max} . Based on the existing ambient noise levels in the vicinity of the future 5th Street access point (noise monitoring site LT-2), the City's nighttime 65 dBA L_{max} standard was exceeded during twelve of the 18 nighttime hours measured over the two-day monitoring period. However, implementation of Mitigation Measure NOI-1 would reduce potential impacts

related to truck movement noise by requiring truck movements to use the Glendale access point only during nighttime hours.

Mitigation Measure NOI-1 **Truck Movements.** All truck movements occurring during nighttime hours of 10:00 p.m. to 7:00 a.m. shall be required to use the Glendale Avenue access point only.

With implementation of Mitigation Measure NOI-1, impacts associated with truck movement noise would be reduced to a less-than-significant level.

Parking Lot Activities. Noise due to traffic in parking lots is typically limited by low speeds and is not usually considered to be significant. Human activity in parking lots that can produce noise includes voices, stereo systems and the opening and closing of car doors and trunk lids. Such activities can occur at any time. The noise levels associated with these activities cannot be precisely defined due to variables such as the number of parking movements, time of day and other factors. It is typical for a passing car in a parking lot to produce a maximum noise level of 60 to 65 dBA at a distance of 50 feet, which is comparable to the level of a raised voice.

For this project, parking would be dispersed throughout the overall project area. The closest proposed parking areas would be located at least 150 feet from the closest existing residential property lines to the north. At this distance, maximum parking lot vehicle movements would be expected to be approximately 51 to 56 dBA L_{max} , which would not exceed any of the City's applicable noise levels standards or exceed existing ambient noise levels at the closest residential land uses. Due to existing elevated ambient noise levels at the closest sensitive receptor locations (residential land uses north of the project site), noise levels associated with parking lot activities would generally not be audible over existing (without project) noise levels. Therefore, potential impacts related to parking lot activity noise would be less than significant and no mitigation is required.

Drive-Thru Retail. The proposed project would include two retail areas that would likely include drive-thru operations. While the exact tenants and type of retail store was not known at this time, it is assumed that amplified speech would be incorporated into drive-thru operations.

In order to assess potential project noise levels associated with drive-thru operations, reference noise levels were used from previous noise measurements at a drive-thru restaurant. Based on the previous noise measurements, the microphone used by customers to order food and the loudspeaker used by employees to confirm orders are both integrated into a menu board that is located a few feet from the drive-thru lane at the approximate height of a typical car window. Vehicles would enter the drive-thru lane from the west and then turn to the north along the east side of the restaurant.

Reference noise measurements were obtained at a distance of approximately 40 feet from the menu board containing the microphone/loudspeaker system at an angle of about 45° toward the rear of the vehicle being served. This provided a worst-case exposure to sound from the loudspeaker system since the vehicle was not located directly between the loudspeaker and measurement location. Cars were lined up in the access lane during the noise measurement period indicating that the drive-through lane was operating at or near a peak level of activity.

Each ordering cycle was observed to take approximately 60 seconds including vehicle movements. A typical ordering cycle included 5-10 seconds of loudspeaker use with typical maximum noise levels in the range of 60-62 dBA L_{max} at the 40 foot-reference location. Vehicles moving through the drive-thru lane produced noise levels in the range of 55-60 dBA L_{max} at the same distance. Vehicles parked at the ordering position (between the menu board and measurement site) were observed to provide significant acoustic shielding during the ordering sequence. The effects of such shielding are reflected by the noise measurement data. Noise levels were measured to approximately 60 dB L_{eq} at the measurement site, and included noise from all sources, including the loudspeaker, vehicle movements and HVAC equipment.

The closest noise-sensitive receptors (residential land uses) to the proposed retail drive-thru operations are located approximately 190 feet to the north. At this setback distance, noise levels associated with drive-thru retail operations would be expected to produce noise levels of approximately 47-49 dB L_{max} and approximately 46 dB L_{eq} . Potential project-related noise exposure at the locations of the closest residential land uses was calculated based upon the above-described reference noise measurement data, the existing sound walls, and the normal rate of sound attenuation over distance for a "point" noise source (6 dB/doubling of distance).

It is unknown if nighttime operations would occur at the drive-thru retail locations. The noise level of 46 dB L_{eq} at the closest residential property line assumes the drive-thru would be in constant operation and should therefore be considered a worst-case assessment of drive-thru noise levels. While drive-thru operational noise levels (46 dB L_{eq}) slightly exceed the City's nighttime noise level standard of 45 dB L_{eq} , such levels are below existing (without project) nighttime ambient noise levels at the residential property lines and would therefore not be considered a significant impact. Therefore, potential impacts related to drive-thru noise would be less than significant, and no mitigation is required.

Construction Noise Impacts. Construction noise would occur at various locations within the project site through the buildout period and at locations where off-site infrastructure improvements may be required. Existing sensitive receptors could be located as close as 150 feet from construction activities. Table 4.O provides typical construction-related noise levels at distances of 100 feet, 200 feet, and 300 feet.

Construction noise is not considered to be a significant impact if construction is limited to the allowed hours and construction equipment is adequately maintained and muffled. The City of Hanford limits hours of construction to occur only between the hours of 7:00 a.m. to 8:00 p.m. Construction noise impacts could result in annoyance or sleep disruption for nearby residents if nighttime operations were to occur or if equipment is not properly muffled or maintained.

Table 4.O: Typical Construction Equipment Maximum Noise Levels (dBA)

Type of Equipment	100 Feet	200 Feet	300 Feet
Concrete Saw	84	78	74
Crane	75	69	65
Excavator	75	69	65
Front End Loader	73	67	63
Jackhammer	83	77	73
Paver	71	65	61
Pneumatic Tools	79	73	69
Dozer	76	70	66
Rollers	74	68	64
Trucks	82	72	70
Pumps	74	68	64
Scrapers	81	75	71
Portable Generators	74	68	64
Backhoe	80	74	70
Grader	80	74	70

Source: Noise Control for Buildings and Manufacturing Plants, Bolt, Beranek & Newman (1987).

Noise levels associated with construction activities would be reduced by incorporating noise mitigation measures and appropriate best management practices. The following mitigation measures and best management practices should be applied during periods of project construction.

Mitigation Measure NOI-2

The project contractor shall implement the following measures during construction of the project:

- Per the City of Hanford Municipal Code, construction activities should not occur outside the hours of 7:00 a.m. to 8:00 p.m.
- All construction equipment shall be properly maintained and muffled as to minimize noise generation at the source.
- Noise-producing equipment shall not be operating, running, or idling while not in immediate use by a construction contractor.
- All noise-producing construction equipment shall be located and operated, to the extent possible, at the greatest possible distance from any noise-sensitive land uses.
- Locate construction staging areas, to the extent possible, at the greatest possible distances from any noise-sensitive land uses.
- Signs shall be posted at the construction site and near adjacent sensitive receptors displaying hours of construction activities and providing the contact phone number of a designated noise disturbance coordinator.

Implementation of Mitigation Measure NOI-2 would limit construction hours and require the construction contractor to implement noise reducing measures during construction, which would reduce short-term construction noise impacts to a less-than-significant level.

Noise Impacts to Proposed On-Site Sensitive Receptors. The proposed project would include sensitive receptors (residential land uses, transient lodging, nursing homes, offices, etc.) that could be impacted by exterior and interior noise exposure associated with existing transportation noise sources (SR-198 and San Joaquin Valley Railroad line). The applicable exterior and interior noise level standards for such land uses are provided above as Table 4.K.

Exterior Noise Exposure. Exterior noise exposure within the project site is dominated by vehicle traffic associated with SR-198 to the south and railroad operations associated with the San Joaquin Valley Railroad line to the north. Noise levels measured at ambient noise monitoring sites LT-1 and LT-2 indicate that overall project site noise exposure is approximately 65-70 dB L_{dn} .

The exterior noise level standard applicable to the above-described sensitive receptors is 60 dB L_{dn} . The General Plan also states that where it is not possible to reduce noise in outdoor activity areas to 60 dB L_{dn} /CNEL or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB L_{dn} /CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance.

Exterior noise level compatibility standards for transportation noise sources are applied at the outdoor activity areas of sensitive receptors. Outdoor activity areas typically include backyards of single-family residential uses and outdoor common use areas (pools, BBQ/picnic areas, playgrounds, etc.) as well as individual patios, balconies and decks of multi-family residential uses and transient lodging land uses. The exact locations of such outdoor activity areas were not known at the time of this analysis; however, the project site plan (Figure 3) provides preliminary locations of pool areas for both the apartment development and the hotel development. Other proposed sensitive receptors (memory care facility, assisted living facility, skilled nursing facility, etc.) may also include outdoor activity areas, at which this exterior noise level standard would apply.

Based upon project site noise exposure (approximately 65-70 dB L_{dn}) and the preliminary locations of the apartment and hotel pool areas (outdoor activity areas), mitigating exterior noise levels at these locations to at or below 60 dB L_{dn} would likely not be feasible. However, a preliminary analysis using a sound wall insertion loss model indicates that a sound wall constructed to a minimum height of 6.5 feet above ground level constructed around the two pool areas (apartment and hotel land uses) would mitigate exterior noise levels to below 65 dB L_{dn} within these outdoor activity areas.

Other proposed sensitive receptors (memory care facility, assisted living facility, skilled nursing facility, etc.) may also include outdoor activity areas, at which this exterior noise level standard would apply. The potential locations of outdoor activity areas associated with these land uses was not known at the time of this analysis. However, a similarly constructed sound wall around

such uses would reduce noise levels to below 65 dB L_{dn} . Such noise levels are allowed by the City.

Therefore, since transportation noise exposure levels are expected to exceed the City's 60 dB L_{dn} exterior noise level standard at outdoor activity areas associated with the multi-family apartment land use and the hotel land use, implementation of Mitigation Measure NOI-3 would be required.

Mitigation Measure NOI-3

Exterior Noise Levels. The final design shall include a minimum 6.5-foot above-ground level sound wall around outdoor activity areas associated with the proposed hotel and apartment land uses to mitigate exterior noise levels to below 65 dB L_{dn} within these outdoor activity areas.

Interior Noise Exposure. As described above, exterior project site noise exposure throughout the overall project area is approximately 65-70 dB L_{dn} , as a result of varying levels of proximity to both SR-198 and the San Joaquin Valley Railroad line. Additionally, peak hour exterior noise levels would be approximately 70 dB L_{eq} at the exterior of the office land uses to the north and the nursing college to the south. Interior noise level standards applicable to the project site vary, based upon proposed land uses. These interior noise level standards applicable to the project are:

- 45 dB L_{dn} : Multi-family apartment, hotel, skilled nursing facility, memory care facility, assisted living facility, and any additional facility where people are residing and sleep disturbance is considered.
- 45 dB L_{eq} : Office buildings, nursing college (as determined for a typical worst-case hour during periods of use).
- Based upon the above-described exterior noise exposure levels and applicable interior noise level standards, the proposed construction measures must be capable of providing approximately 25 dB of outdoor-to-indoor noise level reduction (NLR) ($70-45=25$).

Generally speaking, construction measures complying with current building code standards would typically be expected to provide approximately 20-25 dB of outdoor-to-indoor NLR, provided windows and doors can remain closed for sound insulation purposes. However, additional sound attenuation measures may be required in conditions where the exterior façade consists of large portions of window or storefront glazing assemblies. Once construction plans are developed, an acoustical consultant should review to determine if additional interior noise level mitigation measures may be required.

Mitigation Measure NOI-4

Interior Noise Levels. Once building-specific construction plans become available, interior noise levels should be reviewed and calculated by a qualified acoustical consultant to determine if additional noise attenuation mitigation measures are required to comply with interior noise level standards.

Implementation of Mitigation Measures NOI-3 and NOI-4 would reduce exterior and interior noise levels at future sensitive receptors and would reduce potential impacts to a less-than-significant level.

b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

The dominant sources of man-made vibration are sonic booms, blasting, pile driving, pavement breaking, demolition, diesel locomotives, and rail-car coupling. None of these activities are anticipated to occur with construction or operation of the proposed project. Vibration from construction activities could be detected at the closest sensitive land uses, especially during movements by heavy equipment or loaded trucks and during some paving activities (if they were to occur).

Construction of the proposed project could result in the generation of groundborne vibration. This construction vibration impact analysis assesses the potential for building damages using vibration levels in peak particle velocity (PPV) (in/sec). Typical vibration levels at distances of 100 feet and 300 feet are summarized by Table 4.P. The closest existing sensitive receptors are located approximately 150 feet from construction activity. At this distance, vibration levels would not be expected to exceed any significant threshold levels for annoyance or damage. Therefore, construction-related vibration impacts would be less than significant, and no mitigation is required.

Table 4.P: Typical Vibration Levels During Construction

Equipment	PPV (in/sec)	
	100 feet	300 feet
Bulldozer (large)	0.0110	0.00600
Bulldozer (small)	0.0004	0.00019
Loaded Truck	0.0100	0.00500
Jackhammer	0.0050	0.00200
Vibratory Roller	0.0300	0.01300
Caisson Drilling	0.0100	0.00600

Source: WJV Acoustics, Inc. (2021).

Once operational, it is not expected that ongoing operational activities would result in any vibration impacts at nearby sensitive uses. Activities involved in trash bin collection could result in minor on-site vibrations as the bin is placed back onto the ground. Such vibrations would not be expected to be felt at the closest off-site sensitive uses. As such, operational vibration impacts would be less than significant, and no mitigation is required.

c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The closest airport to the project site is the Hanford Municipal Airport, located approximately 1.5 miles southeast of the project site. Aircraft noise is occasionally audible at the project site; however,

no portion of the project site lies within the 60 dBA CNEL noise contours of any public airport. Therefore, the proposed project would not result in the exposure of people residing or working in the project area to excessive noise levels. This impact would be less than significant, and no mitigation is required.

4.14 POPULATION AND HOUSING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

- a. *Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*

The proposed project would include medical outpatient clinic services, a hotel and conference center, specialized education, retail, medical office, memory care, skilled nursing, and assisted living uses, and multi-family residential uses. The project site does not currently contain any permanent residents in the existing condition. As such, implementation of the proposed project would potentially result in an increase in residents of the City. The proposed project would result in the development of 90 multi-family residential apartment units, which would result in approximately 280 additional residents based on the estimated 3.11 persons per household³⁵ in Hanford. The skilled nursing, and assisted living uses are not a typical residential use and would likely attract existing residents that already live in the City and surrounding areas rather than inducing new population growth from outside the area. Nevertheless, this analysis assumes the facility would house one resident per unit. Therefore, these facilities would house 139 residents. Therefore, the proposed project would add up to 419 new residents on the project site. The addition of 419 new residents represents 0.7 percent of Hanford's 2021 population of 58,496.³⁶

During project operation, the proposed project would also generate new employment. According to the most recently data published by the U.S. Census Bureau, the City of Hanford had approximately 58.8 percent of the population within the civilian labor force (approximately 34,396 individuals employed).³⁷ Therefore, because the region's existing labor force already includes a large number of people employed, it is reasonable to assume that the proposed project's employees would most likely be comprised of individuals who already live in the general area. As such, it is unlikely that these employment opportunities would cause employees to relocate their residences to be close to

³⁵ Kings County and Cities of Avenal, Corcoran, Hanford and Lemoore. 2016. *2016-2024 Housing Element*. January. Website: https://cms6.revize.com/revize/hanfordca/document_center/Planning/Plans/Housing%20Element%20approved%20by%20HCD_2016-03-31%20final.pdf (accessed March 2023).

³⁶ U.S. Census Bureau. 2022. QuickFacts Hanford City, California. Website: census.gov/quickfacts/hanfordcitycalifornia (accessed March 2023).

³⁷ Ibid.

the project site, thereby inducing growth within the City. Population growth in the area as a result of on-site employment opportunities would be negligible.

All utilities infrastructure, including sewer and water facilities and storm drains, exists in the immediate vicinity of the project site and would be extended to the project site. These existing utility and service systems have adequate capacity to serve the proposed project (refer to Section 4.19, below). Therefore, the proposed project would not result in significant population growth as a result of project implementation. Impacts would be less than significant.

b. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No housing is currently present on the project site, and therefore, there are no people living on the project site that would be displaced by the proposed project. Conversely, the project would result in the development of medical outpatient clinic services, a hotel and conference center, specialized education, retail, medical office, skilled and nursing and assisted living uses, and multi-family residential uses. Therefore, there would be no impacts related to the displacement of substantial numbers of people or housing units, and no mitigation is required.

4.15 PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i. Fire protection?	☐	☐	☒	☐
ii. Police protection?	☐	☐	☒	☐
iii. Schools?	☐	☐	☒	☐
iv. Parks?	☐	☐	☒	☐
v. Other public facilities?	☐	☐	☒	☐

- a. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*

i. *Fire protection?*

Fire suppression, emergency medical and rescue services, and other life safety services are provided to the project area and the site by the Fire Department. There are three fire stations within the City, with the closest to the project site being Fire Station 3 at 1070 S. 12th Street, Hanford, approximately 1.5 miles south of the project site.

As noted above, the proposed project would result in an incremental increase in the population of the City and therefore incrementally increase the demand for emergency fire services and emergency medical services. However, the proposed project would be required to comply with all applicable codes for fire safety and emergency access. In addition, the Fire Department would also review the site plans and fire access plan for the proposed project to ensure that adequate emergency access is provided prior to issuance of a building permit.

The Fire Department would provide services to the project site and would not require additional firefighters to serve the proposed project. The construction of a new or expanded fire station would also not be required. The proposed project would not result in a significant impact on the physical environment due to the incremental increase in demand for fire protection and life safety services, and the potential increase in demand for service is not expected to adversely affect existing response times to the site or within the City. In addition, the project applicant would be required to pay development impact fees for fire facilities, which are charged to all new development to support the needs for fire protection. Therefore, with payment of

development impact fees, construction and operation of the proposed project would have a less-than-significant impact on fire protection and safety services and facilities.

ii. Police protection?

The City of Hanford Police Department (Police Department) provides police protection to the project area and project site. The Police Department is located at 425 N. Irwin Street, approximately 1.4 miles northeast of the project site. Development of the proposed project would increase the population on the project site and incrementally increase demand for emergency police services to the project site. However, the Police Department would continue to provide service to the project site and would not require additional officers to serve the project site. The construction of new or expanded police facilities would not be required. In addition, the project applicant would be required to pay development impact fees for police facilities, which are charged to all new development to support the needs for police protection. Therefore, with payment of development impact fees, the proposed project would not result in a substantial adverse impact associated with the provision of additional police facilities or services, and impacts to police services represent a less-than-significant impact.

iii. Schools?

There are six elementary school districts and one high school district within Hanford, including Hanford Joint Union High School District, Hanford Elementary School District, Pioneer Union Elementary School District, Kings River-Hardwick Union Elementary School District, Kit Carson Union Elementary School District, Lakeside Union Elementary School District, and Armona Union Elementary School District. There are also private schools that provide educational services.

The estimated number of students the proposed project would generate is derived by multiplying the number of students per dwelling unit (the student yield factor) by the number of dwelling units in the proposed project (90 new units). The California State Allocation Board Office of Public-School Instruction reports that the Statewide student yield factor of 0.7 student per dwelling unit is applicable for unified school districts. Applying the Statewide average student yield factor, the proposed project would generate 63 students.

Senate Bill 50 (SB 50), which revised the existing limitation on developer fees for school facilities, was enacted as urgency legislation which became effective on November 4, 1998, as a result of the California voters approving a bond measure (Proposition 1A). SB 50 established a 1998 base amount of allowable developer fees (Level One fee) for residential construction (subject to adjustment) and prohibits school districts, cities, and counties from imposing school impact mitigation fees or other requirements in excess or in addition to those provided in the statute.

The project sponsor would be required to pay Hanford Joint Union High School District school impact fees prior to issuance of a certificate of occupancy. The Hanford Joint Union High School District is responsible for implementing the specific methods for mitigating school impacts under the Government Code. These fees would be directed towards maintaining adequate service levels, which would ensure that any impact to schools that could result from the proposed

project would be offset by development fees, and in effect, reduce potential impacts to a less-than-significant level.

iv. Parks?

Development of the proposed project could increase the use of parks within the vicinity of the project site. However, this increase in use is not expected to adversely affect the physical conditions of local and regional open space areas or recreational facilities or require the provision of new parks or facilities. Specifically, the proposed project is anticipated to increase the City population by less than one percent. The proposed project would not result in a substantial increase in demand for park or recreation services in the vicinity, such that new facilities would be required to serve the project. In addition, the project applicant would be required to pay development impact fees for parks and recreation facilities. Therefore, with payment of development impact fees, the proposed project would have a less-than-significant impact related to the provision of park and recreational facilities.

v. Other public facilities?

Development of the proposed project could also increase demand for other public services, including libraries, community centers, and public health care facilities. However, due to the minimal increase in population, the proposed project would not result in a substantial increase the use of these facilities, such that new facilities would be needed to maintain service standards, as these facilities are not currently overused and have capacity to serve new demand. In addition, the project applicant would be required to pay development impact fees, which would ensure that impacts to other public facilities would be less than significant.

4.16 RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

As discussed in Section 4.15, Public Services, residents of the proposed project would be expected to use local parks and community facilities within the City as well as regional recreational facilities. Although the proposed project would incrementally increase use of these facilities, this minor increase in use is not expected to result in substantial physical deterioration of local parks, trails, and community centers and this impact would be less than significant. Specifically, the proposed project is anticipated to increase the City's population by less than one percent and these facilities are anticipated to have capacity to serve this minimal increase in demand. In addition, the project applicant would be required to pay development impact fees for parks and recreation facilities. Therefore, with payment of development impact fees, the proposed project would have a less-than-significant impact on existing parks or other recreational facilities.

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The proposed project would involve development of the project site with residential uses. The proposed project does not include or require the construction or expansion of existing public recreational facilities. Therefore, development of the proposed project and associated recreational opportunities for use by project residents would not result in additional environmental effects beyond those described in this document, and no impact would occur.

4.17 TRANSPORTATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b. Conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b)?	☐	☐	☒	☐
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d. Result in inadequate emergency access?	☐	☐	☒	☐

a. Would the project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

This section is based on the Traffic Impact Study (TIS) prepared for the proposed project.³⁸ The TIS is included as Appendix F.

When preparing a TIS, guidelines set by affected agencies are followed. In analyzing street and intersection capacities the LOS methodologies are applied. LOS standards are applied by transportation agencies to quantitatively assess a street and highway system's performance. In addition, safety concerns are analyzed to determine the need for appropriate mitigation resulting from increased traffic near sensitive uses, the need for dedicated ingress and egress access lanes to the project, and other evaluations such as the need for signalized intersections or other improvements. Guidelines incorporated in the Highway Capacity Manual (HCM), 6th Edition, published in 2016 were also used in the development of this TIS. The study area for the TIS included the following study intersections and roadway segments.

Intersections

- 12th Avenue/Glendale Avenue
- 12th Avenue/SR-198 westbound (WB) Ramps
- 12th Avenue/SR-198 eastbound (EB) Ramps
- Campus Drive/Lacey Boulevard
- Campus Drive/7th Street
- Campus Drive/6th Street
- 11th Avenue/Lacey Boulevard
- 11th Avenue /7th Street
- 11th Avenue/6th Street
- 11th Avenue/5th Street
- 11th Avenue/4th Street-SR-198 WB On Ramp
- 11th Avenue/3rd Street-SR-198 EB Off Ramp

³⁸ VRPA Technologies, Inc. 2020. *Draft Hanford Place Development Traffic Impact Study*. December.

Segments

1. Lacey Boulevard
 - 12th Avenue to Campus Drive
 - Campus Drive to 11th Avenue
 - 7th Street
 - Campus Drive to 11th Avenue
2. 6th Street
 - Campus Drive to 11th Avenue
3. Glendale Avenue
 - East of 12th Avenue
4. 5th Avenue
 - West of 11th Avenue
5. Campus Drive
 - Lacey Boulevard to Glendale Avenue

The TIS includes the LOS analysis for the following traffic scenarios:

- Existing Conditions
- Existing Plus Project
- Near-Term Plus Project
- Cumulative Year 2042 Without Project
- Cumulative Year 2042 Plus Project

Existing Traffic Counts and Roadway Geometrics. The first step toward assessing project traffic impacts is to assess existing traffic conditions. Existing traffic counts were estimated considering the Kings County Association of Governments (KCAG) travel model and historic traffic counts in the study area given the COVID-19 pandemic. The methodology used for the development of existing traffic counts included the following:

- A comparison of the KCAG base year and future year travel model showed that the growth in the study area is approximately 2 percent per year. The 2 percent per year growth rate was applied to historical average daily trip (ADT) counts collected in the study area to estimate Year 2020 pre-COVID conditions.
- The estimated pre-COVID year 2020 ADT values (obtained using the 2 percent per year growth rate) were compared to October 2020 ADT values. Results of the comparison indicated that traffic counts taken in October 2020 ADT (i.e., during COVID) should be increased by a factor of 1.30 to estimate 2020 pre-COVID levels.
- Where intersection turning movement counts in years prior to 2020 are available, a 2 percent per year growth rate was applied to estimate year 2020 conditions.
- Where intersection turning movement counts are not available in years prior to 2020, a factor of 1.3 was applied to the October 2020 turning movement counts collected in the study area.

City of Hanford Level of Service Policies. The City of Hanford adopts minimum levels of service to control congestion that may result as new development occurs.

The City of Hanford General Plan Circulation Element states: “The City of Hanford has adopted an overall LOS standard of C with peak hour LOS standard of D acceptable in some instances. Due to the nature of the roadway system, improvements to existing developed areas are extremely difficult. As a result, there may be instances where a lower LOS is acceptable.”

The City of Hanford General Plan Objective CI 2 states: “Provide timely and effective means of programming and constructing street and highway improvements to maintain an overall Level of Service of “C”, with a peak hour Level of Service of “D” as defined in the HCM (published by the Transportation Research Board of the National Research Council) or better unless the City’s design considerations or other public health, safety, or welfare factors determine otherwise.”

The City of Hanford General Plan Policy CI 2.2 states: “Street improvements shall be prioritized with emphasis on current and forecasted service levels. Roadways experiencing or forecasted to experience conditions less than Level-of-Service “D” shall require improvements, unless the City’s design considerations or other public health, safety or welfare factors determine otherwise.”

Caltrans Level of Service Policies. With the changes brought about by SB 743 (described further in 4.17.1.b below), Caltrans no longer uses LOS to determine the need for transportation improvements. Instead, the focus is on providing adequate facilities for pedestrians, bicycles, and transit as well as safety considerations for all transportation modes. Guidance is provided in the Transportation Impact Study Guide dated May 20, 2020, and the Interim Land Development and Intergovernmental Review Safety Review Practitioners Guidance dated July 2020. This guidance was used in determining the need for roadway improvements on Caltrans facilities.

Project Trip Generation. To assess potential impacts that the project may have on the surrounding roadway network, the first step was to determine project trip generation. Project trip generation is identified in Table 4.Q based on trip generation rates from the Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition) and the ITE Trip Generation Handbook (3rd Edition).

As discussed in Chapter 3.0, Project Description, 41,500 square feet of medical/commercial uses is currently proposed. However, the TIS evaluated 114,000 square feet of medical/commercial uses. As such, the proposed project would generate fewer trips than analyzed in the TIS/proposed project trip generation estimate. Thus, this analysis evaluates a project with higher trip generation potential. Therefore, this analysis can be considered conservative.

Intersection Capacity Analysis. Intersection LOS analysis was conducted using the Synchro software program. Synchro supports HCM methodologies and is deemed an acceptable program by City of Hanford staff for assessment of traffic impacts. LOS can be determined for both signalized and unsignalized intersections. Table 4.R indicates the ranges in the amounts of average delay for a vehicle at signalized and unsignalized intersections for the various levels of service ranging from LOS “A” to “F”.

Table 4.Q: Project Trip Generation

Land Use	Average Daily Trips	Weekday AM Peak Hour			Weekday PM Peak Hour		
		In	Out	Total	In	Out	Total
Ambulatory Surgery Center	148	46	13	59	9	21	30
Specialty Clinic	475	36	10	46	13	31	44
Medical Office Building	869	51	14	65	24	62	86
Psychiatric Health Facility	56	12	10	22	10	12	22
Hotel & Conference Center	758	28	19	47	27	26	53
Nursing College	709	55	17	72	32	33	65
Skilled Nursing Facility	363	23	7	30	13	19	32
Memory Care	229	15	4	19	9	12	21
Assisted Living Facility	144	10	3	13	5	12	17
Multi-Family Apartment	640	10	33	43	34	20	54
Medical/ Commercial	3,934	234	66	300	112	288	400
Subtotal Trip Generation	8,325	520	196	716	288	536	824
Internal Vehicle Trips (10 percent)	833	52	20	72	29	54	82
Total External Trip Generation	7,493	468	176	644	259	482	742

Source: VRPA Technologies, Inc. (2020).

Table 4.R: Relationship of Delay to Level of Service

Level of Service	Signalized Intersections Average Total Delay (seconds/vehicle)	Unsignalized Intersections Average Total Delay (seconds/vehicle)
A	≤10.0	0.0-10.0
B	>10.0-20.0	>10.0-15.0
C	>20.0-35.0	>15.0-25.0
D	>35.0-55.0	>25.0-35.0
E	>55.0-80.0	>35.0-50.0
F	>80.0	>50.0

Source: *Highway Capacity Manual*, 6th Edition (Transportation Research Board 2016).

When an unsignalized intersection does not meet acceptable LOS standards, the investigation of the need for a traffic signal shall be evaluated. The latest edition of the California Manual on Uniform Traffic Control Devices for Streets and Highways (California MUTCD) introduces standards for determining the need for traffic signals. The California MUTCD indicates that the satisfaction of one or more traffic signal warrants does not in itself require the installation of a traffic signal. In addition to the warrant analysis, an engineering study of the current or expected traffic conditions should be conducted to determine whether the installation of a traffic signal is justified. The California MUTCD Peak Hour Warrant (Warrant 3) was used to determine if a traffic signal is warranted at unsignalized intersections that fall below current LOS standards.

Table 4.S shows the intersection LOS for the existing conditions. Results of the analysis show that the 12th Avenue at Glendale Avenue intersection currently exceeds the City of Hanford's minimum LOS criteria during the PM peak hour. Table 4.S also provides the intersection LOS analysis for the study intersections for Existing Plus Project Scenario, Near-Term Traffic Conditions, and Cumulative Year 2042 Plus Project Traffic Conditions.

Table 4.S: Intersection Operations

Intersection	Peak Hour	Existing Without Project		Existing Plus Project		Near-Term Plus Project		Cumulative Year 2042 Without Project		Cumulative Year 2042 Plus Project	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. 12th Avenue / Glendale Avenue ¹	AM	22.7	C	30.2	D	37.2	E	74.4	F	154.4	F +
	PM	100.4	F+	184.6	F +	269.9	F +	++	F	++	F +
2. 12th Avenue / SR-198 WB Ramps ²	AM	13.8	B	13.7	B	14.5	B	18.8	B	19.9	B
	PM	17.8	B	19.4	B	23.0	C	64.5	E	75.1	E
3. 12th Avenue / SR-198 EB Ramps ²	AM	11.9	B	12.5	B	12.7	B	13.2	B	13.7	B
	PM	13.0	B	13.6	B	14.3	B	19.0	B	20.1	C
4. Campus Drive / Lacey Boulevard ²	AM	25.0	C	25.2	C	25.4	C	25.7	C	25.5	C
	PM	28.0	C	29.2	C	31.4	C	52.2	D	52.9	D
5. Campus Drive / 7th Street ³	AM	9.9	A	11.9	B	12.6	B	12.1	B	15.0	B
	PM	15.6	C	23.7	C	31.8	D	92.9	F	146.9	F
6. Campus Drive / 6th Street ¹	AM	10.4	B	13.3	B	13.6	B	10.7	B	13.1	B
	PM	10.6	B	13.9	B	14.3	B	11.5	B	14.7	B
7. 11th Avenue / Lacey Boulevard ²	AM	20.4	C	20.3	C	21.0	C	25.3	C	25.9	C
	PM	27.5	C	28.5	C	31.6	C	49.9	D	52.7	D
8. 11th Avenue / 7th Street ²	AM	18.9	C	18.9	B	19.7	B	24.2	C	24.4	C
	PM	28.8	C	29.0	C	31.8	C	55.6	E	57.6	E
9. 11th Avenue / 6th Street ¹	AM	12.6	B	12.7	B	13.3	B	17.1	C	17.3	C
	PM	17.4	C	18.1	C	20.6	C	74.3	F	83.6	F
10. 11th Avenue / 5th Street ²	AM	4.9	A	9.6	A	9.7	A	6.5	A	10.7	B
	PM	121	B	18.1	B	19.5	B	23.8	C	42.3	D
11. 11th Avenue / 4th Street-SR-98 WB On Ramp ²	AM	10.0	B	15.3	B	15.9	B	16.4	B	20.8	C
	PM	12.7	B	14.6	B	15.6	B	21.0	C	28.4	C
12. 11th Avenue / 3rd Street-SR 198-EB Off Ramp ²	AM	18.6	B	21.0	C	22.9	C	27.0	C	30.2	C
	PM	25.1	C	30.6	C	35.4	D	76.3	E	97.4	F

Source: VRPA Technologies, Inc. (2020).

Notes:

Bold denotes LOS standard has been exceeded.

+ Meets peak hour signal warrants.

++ Delay Exceeds 300 seconds.

¹ Two-way stop sign

² Signalized

³ All-way stop sign

Results of the analysis show that the proposed project contribute to an unacceptable LOS at five of the study intersections when comparing the Cumulative Year 2042 scenarios. Potential intersection improvements are discussed below.

12th Avenue at Glendale Avenue. Installation of a traffic signal would alleviate LOS deficiencies at the intersection for all study scenarios. However, providing a traffic signal at this location is not practical given the close spacing of adjacent intersections. In lieu of the traffic signal, dual right turn lanes for the eastbound and westbound approaches to the intersection should be considered to alleviate queuing at the eastbound and westbound approaches.

Campus Drive at 7th Street. Installation of a traffic signal at Campus Drive at 7th Street would improve the intersection to meet the City of Hanford's acceptable LOS standard of 'D' for the Cumulative Year 2042 Plus Project scenario.

11th Avenue at 7th Street. Providing additional turning movement lanes along 11th Avenue and 7th Street is not possible due to design constraints or infeasible/impractical due to the presence of commercial development that currently exists along the north and south side of 7th Street.

11th Avenue at 6th Street. This intersection is forecasted to operate at unacceptable LOS 'F' during the PM peak hour under Cumulative Year 2042 Without Project and Cumulative Year 2042 Plus Project conditions; however, this intersection does not meet the peak hour traffic signal warrant because the minor approaches do not carry enough traffic to justify signalization. Therefore, no improvements are recommended for the project's contribution of traffic at the intersection for the Cumulative Year 2042 Plus Project condition.

12th Avenue at SR-198 WB Ramps. Providing additional turning movement lanes at the 12th Avenue and SR -98 WB Ramps intersection is not possible due to design constraints or infeasible/impractical due to the presence of development that currently exists along the north side of the SR-198 WB Ramps. As noted above, Caltrans no longer uses LOS to determine the need for transportation improvements. Instead, focus is on providing adequate facilities for pedestrians, bicycles, and transit as well as safety considerations for all transportation modes.

Campus Drive at 7th Street. Providing additional turning movement lanes at the 11th Avenue and 3rd Street-SR-198 EB Off Ramp intersection is not possible due to design constraints or infeasible/impractical due to the presence of development that currently exists along the south side of 3rd Street and the SR-198 EB Off Ramp. As above, Caltrans no longer uses LOS to determine the need for transportation improvements. Instead, focus is on providing adequate facilities for pedestrians, bicycles, and transit as well as safety considerations for all transportation modes.

Intersection operations with these potential improvements is shown in Table 4.T below. As shown in Table 4.T, the intersection of 12th Avenue at Glendale Avenue would be above the City's standard of LOS D standard; however, the City acknowledges in General Plan Objective CI 2 and Policy CI 2.2, that there may be instances where design considerations or other public health, safety, or welfare factors determine otherwise. Therefore, since additional improvements are not recommended due design considerations, impacts to intersection LOS would be less than significant. No mitigation is required.

Roadway Segment Analysis. According to the HCM, LOS is categorized by two parameters of traffic: uninterrupted and interrupted flow. Uninterrupted flow facilities do not have fixed elements such as traffic signals that cause interruptions in traffic flow. Interrupted flow facilities do have fixed elements that cause an interruption in the flow of traffic, such as stop signs and signalized intersections along arterial roads. A roadway segment is defined as a stretch of roadway generally located between signalized or controlled intersections.

Table 4.T: Intersection Operations with Improvements

Intersection	Peak Hour	Existing Plus Project		Near-Term Plus Project		Cumulative Year 2042 Plus Project	
		Delay	LOS	Delay	LOS	Delay	LOS
1. 12th Avenue / Glendale Avenue	AM	30.2	D	37.2	E¹	154.4	F¹
	PM	184.6	F¹	269.9	F¹	++	F¹
2. 12th Avenue / SR-198 WB Ramps	AM	-	-	-	-	19.9	B
	PM	-	-	-	-	75.1	E ²
5. Campus Drive / 7th Street	AM	-	-	-	-	12.8	B
	PM	-	-	-	-	20.4	C
8. 11th Avenue / 7th Street	AM	-	-	-	-	24.4	C
	PM	-	-	-	-	57.6	E ²
9. 11th Avenue / 6th Street	AM	-	-	-	-	17.3	C
	PM	-	-	-	-	83.6	F ³
12. 11th Avenue / 3rd Street-SR 198 EB Off Ramp	AM	-	-	-	-	30.2	C
	PM	-	-	-	-	97.4	F ²

Source: Source: VRPA Technologies, Inc. (2020).

Notes:

Bold denotes LOS standard has been exceeded.

¹ Installation of a traffic signal would alleviate LOS deficiencies at the intersection. A traffic signal is not recommended given the close spacing of adjacent intersections.

² Improvements to the intersection aren't recommended given the presence of abutting commercial development at the intersection.

³ Intersection does not meet the peak hour traffic signal warrant.

++ Delay exceeds 300 seconds.

Segment LOS is important in order to understand whether the capacity of a roadway can accommodate future traffic volumes. The performance criteria used for evaluating volumes and capacities on the road and highway system for this study were estimated using the Modified HCM-Based LOS Tables which are widely accepted throughout the central valley, including Kings County. The tables consider the capacity of individual road and highway segments based on numerous roadway variables (design speed, passing opportunities, signalized intersections per mile, number of lanes, saturation flow, etc.). These variables were identified and applied to reflect segment LOS conditions. Street segment capacity was determined using information shown in Table 4.U, which comes from the Modified Arterial Level of Service Tables included in Appendix A of the TIS.

Table 4.U: Peak Hour Two-Way Volumes

Level of Service					
Lanes	Division	B	C	D	E
2	Undivided	N/A	324	1,125	1,521
2	Divided	N/A	340	1,181	1,597
4	Undivided	77	2,083	2,763	2,890
4	Divided	81	2,205	2,925	3,060
6	Divided	135	3,339	4,401	4,617

Source: VRPA Technologies, Inc. (2020).

Results of the segment analysis along the existing street and highway system are reflected in Table 4.V. Table 4.V also shows the results of the analysis.

Table 4.V: Segment Operations

Street Segment	Peak Hour	Existing		Existing Plus Project		Near-Term Plus Project		Cumulative Year 2042 Without Project		Cumulative Year 2042 Plus Project	
		Volume	LOS	Volume	LOS	Volume	LOS	Volume	LOS	Volume	LOS
Lacey Boulevard											
12th Avenue to Campus Drive	AM	855	C	919	C	990	C	1,322	C	1,386	C
	PM	1,693	C	1,767	C	1,907	C	2,617	D	2,691	D
Campus Drive to 11th Avenue	AM	963	C	1,027	C	1,107	C	1,489	C	1,553	C
	PM	1,873	C	1,947	C	2,101	C	2,896	D	2,970	E
7th Street											
Campus Drive to 11th Avenue	AM	346	D	378	D	407	D	535	D	567	D
	PM	743	D	780	D	841	D	1,149	E	1,186	E
6th Street											
Campus Drive to 11th Avenue	AM	127	C	127	C	137	C	196	C	196	C
	PM	142	C	142	C	154	C	220	C	220	C
Glendale Avenue											
East of 12th Avenue	AM	130	C	323	C	334	D	201	C	394	D
	PM	163	C	385	D	399	D	252	C	474	D
5th Avenue											
West of 11th Avenue	AM	101	C	359	D	367	D	156	C	414	D
	PM	464	D	760	D	799	D	717	D	1,014	D
Campus Drive											
Lacey Boulevard to Glendale Avenue	AM	251	C	AM	380	D	400	D	388	D	517
	PM	393	D	PM	541	D	574	D	608	D	756

Source: VRPA Technologies, Inc. (2020).

Notes:

Bold denotes LOS standard has been exceeded.

As indicated in Table 4.V, two study roadway segments would exceed LOS standards in the Cumulative year 2042 scenarios. Potential roadway segments improvements are discussed below.

Lacey Boulevard between Campus Drive and 11th Avenue. Providing additional travel lanes along Lacey Boulevard is not possible due to design constraints or infeasible/impractical due to the presence of retail development that currently exists along the north and south side of Lacey Boulevard. In addition, accommodating additional travel lanes along Lacey Boulevard could result in the elimination of parking along Lacey Boulevard.

7th Street between Campus Drive and 11th Avenue. Restriping 7th Street between Campus Drive and 11th Avenue to provide two-way left turn lane with removal of parking as necessary would improve capacity on 7th Street Campus Drive and 11th. However, providing additional travel lanes along 7th Street is not possible due to right-of-way constraints.

Roadway operations with these potential improvements is shown in Table 4.W below. As shown in Table 4.W, Lacey Boulevard between Campus Drive and 11th Avenue and 7th Street between Campus Drive and 11th Avenue would be above the City's standard of LOS D standard; however, the City acknowledges in General Plan Objective CI 2 and Policy CI 2.2, that there may be instances where design considerations or other public health, safety, or welfare factors determine otherwise. Therefore, since additional improvements are not recommended due design considerations, impacts to roadway segment LOS would be less than significant. No mitigation is required.

Table 4.W: Segment Operations with Improvements

Street Segment	Peak Hour	Cumulative Year 2042 Plus Project	
		Volume	LOS
Lacey Boulevard			
Campus Drive to 11th Avenue	AM	1,553	C
	PM	2,970	E ¹
7th Street			
Campus Drive to 11th Avenue	AM	567	C
	PM	1,186	E ¹

Source: VRPA Technologies, Inc. (2020).

Notes:

Bold denotes LOS standard has been exceeded.

¹ Capacity increasing improvements to the roadway segment aren't recommended given the presence of abutting commercial development.

b. Would the project conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b)?

On December 28, 2018, the California Office of Administrative Law cleared the revised *State CEQA Guidelines* for use. Among the changes to the guidelines was removal of vehicle delay and level of service from consideration under CEQA. With the adopted guidelines, transportation impacts are to be evaluated based on a project generated VMT.

The City has recently adopted its SB 743 guidelines – City of Hanford VMT Thresholds and Implementation Guidelines (guidelines), November 2022. Therefore, the project VMT analysis was conducted using the methodology and significant threshold criteria identified in the guidelines. As previously mentioned, the project includes residential, multiple medical uses, and commercial land uses. As per the guidelines, mixed-use projects should be evaluated separately for each component of the project using the applicable VMT metric. The VMT analysis is based on the Hanford Place Medical Mixed-use Development Project VMT Analysis Memorandum,³⁹ which is included as Appendix G.

The guidelines also provide screening criteria to screen out land use projects from a detailed VMT analysis. As per the guidelines, mixed-use projects should be evaluated separately for each component of the project using applicable VMT metrics. Based on the screening criteria, only the medical/commercial uses component of the project can be screened out of detailed VMT analysis

³⁹ LSA. 2023. *Hanford Place Medical Mixed-use Development Project Vehicle Miles Traveled (VMT) Analysis Memorandum*. March.

since the project would include less than 55,000 square feet of retail uses. However, the medical/commercial uses component was included in the project model run to appropriately account for the internal capture that will occur due to the mixed-use nature of the project. Given that the project land uses other than medical/commercial uses cannot be screened out, a detailed VMT analysis was conducted for these land uses.

For projects that require a detailed VMT analysis, the guidelines recommend use of KCAG travel demand model to conduct the VMT analysis. Therefore, the KCAG model was used for the VMT evaluation of the project. Numerical values for the regional thresholds (VMT per capita, VMT per employee, and VMT per service population) were obtained from the guidelines document – Table E: Significance Thresholds for VMT Analysis.

Table 4.X shows the result of the VMT analysis. As shown in Table 4.X, the project VMT per capita for residential component of the project is 39.9 percent lower than the regional threshold. Similarly, the project VMT per employee for the memory care, assisted living, and skilled nursing facility uses is 62.7 percent lower than the corresponding regional threshold. Also, the VMT per service population for rest of non-residential uses (except medical/commercial uses) is 43.6 percent lower than the regional threshold. As such, based on the project’s VMT analysis, the project would not have a significant VMT impact.

Table 4.X: Project VMT Metrics and Regional Threshold Comparison

	Project	City of Hanford Threshold	Difference	Percent Difference
VMT Per Capita	5.40	8.99	-3.59	-39.9%
VMT per Employee	6.32	16.95	-10.63	-62.7%
VMT per Service Population	12.32	21.84	-9.52	-43.6%

Source: Source: LSA (March 2023).

Note: The City of Hanford Threshold was obtained from the City of Hanford VMT Thresholds and Implementation Guidelines, Table E: Significance Thresholds for VMT Analysis (November 2022).

In summary, as described above the proposed project would not exceed the VMT regional average standards. As such the proposed project would not conflict with or be inconsistent with *State CEQA Guidelines* §15064.3, subdivision (b).

c. Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Vehicular access to the site would be provided by Glendale Avenue, 5th Street, and Campus Drive. The extension of these roadways would be constructed to City standards and would be dedicated as public right of way. The proposed project would also construct a roundabout, which would also be dedicated as public right of way and would be constructed to Caltrans or City-approved standards. As part of the project, Glendale Avenue would be realigned at the northwest corner of the Hanford Veterinary Hospital development. The existing knuckle would be removed, and Glendale Avenue would be realigned using speed-specific design curves. Any new portions of Glendale Avenue would be dedicated as public right of way and any portion of existing right of way not used would be

abandoned. 5th Street would be extended starting at the existing alignment before realigning to the roundabout.

The proposed project would not include any sharp curves or other roadway design elements that would create dangerous conditions. In addition, the project design features would be required to comply with standards set by the City's General Plan and City Engineer. In addition, the proposed project would also be required to submit plans to the City Fire Department for review and approval prior to the issuance of building permits to ensure there are no substantial hazards associated with the project design. Therefore, the proposed project would result in a less-than-significant impact related to hazards associated with a design feature, and no mitigation is required.

d. Would the project result in inadequate emergency access?

Emergency access would be provided to the project site by Glendale Avenue, 5th Street, and Campus Drive. Further, the proposed project's site plan would be subject to review and approval by the City Fire Department to ensure the project includes adequate emergency access. In addition, as discussed in Response 4.9.f, project implementation would not physically interfere with emergency evacuation or the City Fire Department access to and from the project site. Therefore, the proposed project would result in less-than-significant impacts related to emergency access, and no mitigation is required.

4.18 TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)? Or	☐	☒	☐	☐
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

- a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:*
- i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)? Or*
 - ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.*

AB 52, which became law on January 1, 2015, provides for consultation with California Native American tribes during the CEQA environmental review process, and equates significant impacts to “tribal cultural resources” with significant environmental impacts.

Public Resources Code (PRC) Section 21074 states that “tribal cultural resources” are:

Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe and are one of the following:

- Included or determined to be eligible for inclusion in the California Register of Historical Resources;
- Included in a local register of historical resources as defined in subdivision (k) of PRC Section 5020.1; or
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

A “historical resource” (PRC Section 21084.1), a “unique archaeological resource” (PRC Section 21083.2(g)), or a “nonunique archaeological resource” (PRC Section 21083.2 (h)) may also be a tribal cultural resource if it is included or determined to be eligible for inclusion in the California Register. The consultation provisions of the law require that a public agency consult with local Native American tribes that have requested placement on that agency’s notification list for CEQA projects. Within 14 days of determining that a project application is complete, or a decision by a public agency to undertake a project, the lead agency must notify tribes of the opportunity to consult on the project, should a tribe have previously requested to be on the agency’s notification list. California Native American tribes must be recognized by the NAHC as traditionally and culturally affiliated with the project site and must have previously requested that the lead agency notify them of projects. Tribes have 30 days following notification of a project to request consultation with the lead agency.

The purpose of consultation is to inform the lead agency in its identification and determination of the significance of tribal cultural resources. If a project is determined to result in a significant impact on an identified tribal cultural resource, the consultation process must occur and conclude prior to adoption of a Negative Declaration or Mitigated Negative Declaration, or certification of an Environmental Impact Report (PRC Sections 21080.3.1, 21080.3.2, 21082.3).

California Native American tribes traditionally and culturally affiliated with the project site and area were notified of the proposed project on August 5, 2020. Follow-up contact by email and telephone was completed on August 13, 2020. No responses have been received to date.

The proposed excavation of the project sites could potentially result in adverse effects of unanticipated tribal cultural resources. Mitigation Measures CULT-1 through CULT-3 would address unknown archaeological materials and unknown human remains. In addition, in order to address the concerns of the Tachi Yokut Tribe, the City is requiring the implementation of a Burial Treatment Plan as a mitigation measure on all projects. Mitigation Measure CULT-4 would ensure implementation of a Burial Treatment Plan and would reduce impacts to a less than significant level. Therefore, implementation of Mitigation Measures CULT-1 through CULT-4, the proposed project would not have a significant impact on tribal cultural resources.

4.19 UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☒	☐	☐
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

a. Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

As identified in Section 2.0, Project Description, utilities required to serve the proposed project would include water, sanitary sewer, storm water drainage, electricity, natural gas, and telecommunications infrastructure. Water service, sewage disposal, and refuse collection would be provided by the City of Hanford. In addition, all City utilities (i.e., water, sewer, and storm drain) would be constructed within the proposed right of way. Storm drainage would be collected by an underground conveyance system and delivered to the onsite bio infiltration basin. The basin would be privately held by the owners and would collect both the proposed project and the City right of way. All storm drain facilities would be designed to City standards.

Water. The City of Hanford provides water service to the project site. Based on the City's 2020 Urban Water Management Plan (UWMP), the City currently uses local groundwater as the sole source of water supply and does not purchase or import water from any other water suppliers or entities. At the time of preparation of the 2020 UWMP, the City had recorded metered water deliveries to 17,965 accounts. The total amount of metered water delivered in 2020 was 11,714

acre-feet per year (afy). Based on the 2020 UWMP, the total project water demand for customers served by the City of Hanford will be 12,172 afy in 2030.⁴⁰

Short term demand for water may occur during excavation, grading, and construction activities on site. Construction activities would require water primarily for dust mitigation purposes. Water from the existing potable water lines in the vicinity of the project site would be used. Overall, short-term construction activities would require minimal water and are not expected to have any adverse impacts on the existing water system or available water supplies. The proposed project would not require the construction of new or expanded water conveyance, treatment, or collection facilities with respect to construction activities. Therefore, the impacts on water facilities during construction would be less than significant, and no mitigation is required.

According to water demand factors included in CalEEMod, the proposed project is estimated to demand approximately 77,272 gallons per day (gpd) or 86.6 afy of water. Therefore, the estimated increase in water demand associated with the project would represent approximately 0.7 percent of the City's projected potable water demand of 12,172 afy in 2030. The project-generated increase in water demand would be minimal and would fall within the City's existing capacity and available supply. As such, the proposed project would not necessitate new or expanded water entitlements, and the City would be able to accommodate the increased demand for potable water.

Wastewater. The City collects wastewater from residential, commercial, and industrial customers within the City limits and some unincorporated areas. The collected flows are conveyed through a trunk system to a Wastewater Treatment Facility (WWTF) in the south of the City. The City's large industrial area near the southern boundary of the City limits collect flows at a series of lift stations before being pumped north to the WWTF. Based on available data received from City staff, the WWTF treated an average annual wastewater flow of approximately 4,944 afy in 2020.⁴¹

No significant increase in wastewater flows is anticipated as a result of construction activities on the project site. Sanitary services during construction would be provided by portable toilet facilities, which transport waste off-site for treatment and disposal. Therefore, during construction, potential impacts to wastewater treatment and wastewater conveyance infrastructure would be less than significant, and no mitigation would be required.

As discussed above, according to water demand factors included in CalEEMod, the proposed project is estimated to demand approximately 77,272 gpd or 86.6 afy of water. Wastewater generation associated with the proposed project is not anticipated to exceed the WWTF wastewater treatment requirements or exceed the available capacity to accommodate the increased wastewater flows from the proposed project. The project would be adequately served by the capacity and the existing wastewater conveyance system. As such, the proposed project would not necessitate new or

⁴⁰ Hanford, City of. 2021. *2020 Urban Water Management Plan*. October. Website: http://cms6.revize.com/revize/hanfordca/document_center/Public%20Works/Water%20Management/2020%20UWMP,%20Final.pdf (accessed March 2023).

⁴¹ Ibid,

expanded water entitlements, and the City would be able to accommodate the increased demand for potable water.

Stormwater and Drainage Facilities. During construction activities, soil would be exposed and disturbed, drainage patterns would be temporarily altered during grading and other construction activities, and there would be an increased potential for soil erosion and siltation compared to existing conditions. Additionally, during a storm event, soil erosion and siltation could occur at an accelerated rate. As discussed above in Response 4.10.a, Mitigation Measure HYDRO-1 requires compliance with applicable permits and preparation of a SWPPP to identify construction BMPs to be implemented as part of the proposed project to reduce impacts to water quality during construction, including those impacts associated with soil erosion and siltation. Compliance with applicable permit requirements and implementation of the construction BMPs would ensure that the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts, and the impact would be less than significant with implementation of Mitigation Measure HYDRO-1.

Once operational, implementation of the proposed project would result in new internal access roads and surface parking lots, increasing impervious surface area which is not prone to erosion or siltation. The project would also include landscaping that would minimize erosion and siltation. The project site would be designed for storm water to be captured by the storm drain system, which would be collected by an underground conveyance system and delivered to the onsite bio infiltration basin. The basin would be privately held by the owners and would collect both the proposed project and the City right of way. All storm drain facilities would be designed to City standards. The proposed project would also convert the Peoples Ditch to a 66-inch-diameter below-ground pipeline where the ditch currently exists. The depth of the below-ground pipeline would be between two and six feet. Storm drainage facilities would be constructed to City standards, which would ensure that sufficient capacity in the downstream drain systems is available to accommodate any increase in storm runoff from the project site so that on- and off-site flooding does not occur.

With the adherence to Mitigation Measure HYDRO-1, the proposed project would result in less than significant impacts related to the construction or expansion of stormwater drainage facilities. No additional mitigation is required.

Electricity. Electrical power would be supplied to the proposed project site by SCE. SCE provides services through a grid of transmission lines and related facilities. SCE provides electricity to more than 15 million people in a 50,000 sq mi area of Central, Coastal, and Southern California.⁴² According to the CEC, total electricity consumption in the SCE service area in 2021 was 103,045 GWh.⁴³ Total electricity consumption in Kings County was 1,980 GWh or 1,980,705,673 kWh.⁴⁴

⁴² Southern California Edison (SCE). 2020. About Us. Website: <https://www.sce.com/about-us/who-we-are> (accessed March 2023).

⁴³ California Energy Commission. 2022b. Energy Consumption Data Management Service. Electricity Consumption by County and Entity. Website: www.ecdms.energy.ca.gov/elecbycounty.aspx (accessed March 2023).

⁴⁴ Ibid.

Short-term construction activities would be limited to providing power to the staging area and portable construction equipment and would not substantially increase demand for electricity. The heavy equipment used for construction is primarily powered by diesel fuel. Temporary electric power would be provided via existing utility boxes and lines on the project site. Given the limited nature of potential demand for electricity during construction and the availability of existing power lines on the site, there would not be a need to construct new or alter existing electric transmission facilities. Impacts to local regional supplies of electricity would be less than significant, and no mitigation is required.

The proposed project includes connections to the surrounding electrical system on site. Operation of the proposed project would increase on-site electricity demand. As discussed in Response 4.6.a, the estimated potential increased electricity demand associated with the proposed project is 5,345,159 kWh per year. Therefore, electricity demand associated with the proposed project would only be approximately 0.27 percent of Kings County's total electricity demand. Because the proposed project would only represent a small fraction of electricity demand in Kings County, the project would meet Title 24 requirements and incorporate additional energy conservation measures, and there would be sufficient electricity supplies available, energy demand for the proposed project would be less than significant. Therefore, although the proposed project would require the construction of new improvements related to the provision of electricity service, the proposed project would not result in significant environmental impacts and the proposed project's impacts would be less than significant. No mitigation is required.

Natural Gas. The Southern California Gas Company (SoCalGas) is the natural gas service provider for the project site. SoCalGas provides natural gas to approximately 21.8 million people in a 24,000-square-mile service area throughout Central and Southern California, from Visalia to the Mexican border.⁴⁵ According to the CEC, total natural gas consumption in the SoCalGas service area in 2021 was 6,755 million therms (2,308 million therms for the residential sector). Kings County consumed approximately 64 million therms or approximately 64,004,283 therms.⁴⁶

Operation of the proposed project would increase on-site natural gas demand. As discussed in Response 4.6.a, the estimated potential increased natural gas demand associated with the proposed project is 116,068 therms per year. Therefore, natural gas demand associated with the proposed project would only be approximately 0.18 percent of Kings County's total natural gas demand. Because the proposed project would only represent a small fraction of electricity demand in Kings County, the project would meet Title 24 requirements and incorporate additional energy conservation measures, and there would be sufficient natural gas supplies available, energy demand for the proposed project would be less than significant. Therefore, although the proposed project would require the construction of new improvements related to the provision of natural gas service, the proposed project would not result in significant environmental impacts and the proposed project's impacts would be less than significant. No mitigation is required.

⁴⁵ Southern California Gas Company (SoCalGas). 2020. About SoCalGas. Website: <https://www3.socalgas.com/about-us/company-profile> (accessed March 2023).

⁴⁶ California Energy Commission. 2022c. Energy Consumption Data Management Service. Gas Consumption by County and Entity. Website: www.ecdms.energy.ca.gov/gasbycounty.aspx (accessed March 2023).

Telecommunication Facilities. Existing telephone, cable, and internet service lines in the vicinity would serve the project site. Internal to the project site, the project Applicant/Developer would be responsible for constructing adequate telecommunication facility extensions for the proposed project. The reconfiguration of these facilities would occur on site during the site preparation and earthwork phase and are not expected to impact any telephone, cable, or internet services offsite that serve the surrounding areas. Additionally, telecommunication facilities are generally installed concurrently with utility expansions and impacts associated with the expansion of telecommunication facilities are already considered in the air quality, noise, and construction traffic analysis. Therefore, the project impacts associated with the relocation or construction of new or expanded telecommunication facilities and impacts would be less than significant. No mitigation is required.

Summary. The proposed project would not require or result in the relocation or construction of new or expanded facilities for water, wastewater treatment, storm drainage, electric power, natural gas, or telecommunications. With implementation of Mitigation Measure HYDRO-1 included in Section 4.10, Hydrology and Water Quality, the project would not substantially increase demand upon these facilities. Therefore, impacts to these utility facilities would be less than significant.

b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Refer to discussion a) of Section 4.10, Hydrology and Water Quality. As discussed above, sufficient water supply would be available to serve the project site. As a result, the project would result in a less-than-significant impact related to water supply.

c. Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

The proposed project is not expected to exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

d. Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Solid waste and recycling pickup and disposal in the City of Hanford is provided by the Kings Waste Management Authority (KWMA). The KWMA does not operate an active landfill. Waste is hauled by transfer trucks from the Material Recover Facility (MRF) to the State permitted 320-acre Chemical Waste Management Landfill site in Kettleman Hills, approximately 45 miles west of the MRF. A combined MRF and Transfer Station (TS) was constructed near the old landfill southeast of Hanford. The MRF and TS facility includes a small but complete Household Hazardous Waste collection station.⁴⁷ Waste Management Kettleman Hills Landfill is permitted to receive a maximum of 2,000 tons of municipal solid waste per day, but typically receives an average of only about 1,350 tons per

⁴⁷ Hanford, City of. 2017, op. cit.

day.⁴⁸ In addition, Waste Management Kettleman Hills Landfill is currently proposing a facility expansion to extend its hazardous waste operations and increase the capacity at the existing landfill.⁴⁹

Based on the CalEEMod output, operation of the proposed project would generate approximately 5,896 pounds of solid waste per day or about 3 tons of solid waste per day. Given the available capacity at the landfill, the additional solid waste generated by the proposed project is not anticipated to cause the facility to exceed its daily permitted capacity. As such, the project would be served by a landfill with sufficient capacity to accommodate the project's waste disposal needs, and impacts associated with the disposition of solid waste would be less than significant.

e. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

The proposed project would comply with all federal, State, and local solid waste statutes and/or regulations related to solid waste. Also refer to Response 4.19.d. Therefore, the proposed project would result in a less-than-significant impact related to solid waste regulations.

⁴⁸ Waste Management, 2021. *Facility Overview*. Website: <https://kettlemanhillslandfill.wm.com/fact-sheets/2011/facility-overview.jsp> (accessed March 2023).

⁴⁹ Waste Management, 2019. *Facility Expansion*. Website: kettlemanhillslandfill.wm.com/facility-expansion/index.jsp (accessed March 2023).

4.20 WILDFIRE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

a. Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

Wildland fires occur in geographic areas that contain the types and conditions of vegetation, topography, weather, and structure density susceptible to risks associated with uncontrolled fires that can be started by lightning, improperly managed campfires, cigarettes, sparks from automobiles, and other ignition sources. According to the California Department of Forestry and Fire Protection (CAL FIRE) Very High Fire Hazard Severity Zone (VHFHSZ) Map for Kings County, the project site is not located within a High or Very High Fire Hazard Severity Zone.

The proposed project consists of a mixed-use development on an infill site within the City. As a result, project implementation would not physically interfere with evacuation plans or the City Fire Department access to and from the project site. In addition, the proposed project's site plan would be subject to review and approval by the City Fire Department to ensure the project includes adequate emergency access. Moreover, since the project site is not located in or near a VHFHSZ nor is it located in or near a State Responsibility Area (SRA), potential impacts associated with emergency access described above would not pertain to wildfire and would more likely be associated with an urban fire or other emergency situations. Therefore, operation of the proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan. This impact would be less than significant and no mitigation would be required.

- b. Would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*

As stated previously, the project site is not located in or near a VHFHSZ nor is it located in or near a SRA. Therefore, the proposed project would not exacerbate wildfire risks due to slope and prevailing winds, thereby exposing project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. This impact would be less and significant, and no mitigation would be required.

- c. Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*

Utility and infrastructure improvements included as part of the project are described in Section 2.0, Project Description. These improvements would include the installation of water, sanitary sewer, storm water drainage, electricity, natural gas, and telecommunications infrastructure. The project would also include new internal roads and would realign Glendale Avenue at the northwest corner of the Hanford Veterinary Hospital development.

The project site is not located in or near a VHFHSZ nor is it located in or near a SRA. Utility installations and internal roads would not exacerbate fire risk due to the location of the project site in an urban area outside of a designated fire hazard zone. Therefore, the proposed project would not require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that would exacerbate fire risk or result in temporary or ongoing impacts to the environment. This impact would be less and significant, and no mitigation would be required.

- d. Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

Landslides and other forms of mass wasting, including mud flows, debris flows, and soil slips, occur as soil moves downslope under the influence of gravity. Landslides are frequently triggered by intense rainfall or seismic shaking but can also occur as a result of erosion and downslope runoff caused by rain following a fire. As previously discussed in Response 4.7.a, Hanford is located in a stable geologic formation, so the effects of ground shaking on soil stability should be minimal. In addition, the project site is generally level and would not expose people or structures to potential substantial adverse effects associated with landslides. Further, as stated previously, the project site is not located in or near a VHFHSZ nor is it located in or near a SRA. Therefore, the proposed project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. This impact would be less than significant, and no mitigation would be required.

4.21 MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☒	☐	☐
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

- a. *Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?*

Implementation of Mitigation Measures CULT-1, CULT-2, CULT-3, CULT-4, and GEO-2 would ensure that potential impacts to historic, archaeological, tribal and paleontological resources that could be uncovered during construction activities would be reduced to a less-than-significant level. Implementation of Mitigation Measures BIO-1 through BIO-5 would ensure that potential impacts to special-status species and modifications to Peoples Ditch would be reduced to a less-than-significant level. Therefore, with the incorporation of mitigation measures, development of the proposed project would not: (1) degrade the quality of the environment; (2) substantially reduce the habitat of a fish or wildlife species; (3) cause a fish or wildlife species population to drop below self-sustaining levels; (4) threaten to eliminate a plant or animal community; (5) reduce the number or restrict the range of a rare or endangered plant or animal; or (6) eliminate important examples of the major periods of California history.

- b. *Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?*

The proposed project's impacts would be individually limited and not cumulatively considerable. The potentially significant impacts that can be reduced to a less-than-significant level with implementation

of recommended mitigation measures include the topics of biological resources, cultural resources, geology and soils, hydrology and water quality, and noise. For the topic of biological resources, implementation of Mitigation Measures BIO-1 through BIO-5 would ensure that impacts related to special status-species and modification of the Peoples Ditch are reduced to a less-than-significant level. For the topic of cultural resources, potentially significant impacts to archaeological resources would be reduced to less-than-significant levels with implementation of Mitigation Measures CULT-1 and CULT-2 and Mitigation Measures CULT-3 and CULT-4 would reduce potential impacts to human remains to a less than significant level. For the topic of geology and soils, potentially significant impacts related to soil erosion during construction would be reduced to less-than-significant levels with implementation of Mitigation Measure GEO-1 and potentially significant impacts related to paleontological resources would be reduced to less-than-significant levels with implementation of Mitigation Measure GEO-2. For the topic of hydrology and water quality, implementation of Mitigation Measures HYDRO-1 and HYDRO-2 would ensure that potential water quality impacts are reduced to a less-than-significant level. For the topic of noise, impacts would be reduced to a less-than-significant level with implementation of Mitigation Measures NOI-1 through NOI-4.

For the topics of aesthetics, air quality, agricultural and forestry resources, energy, greenhouse gas emissions, hazards and hazardous materials, land use and planning, mineral resources, population and housing, public services, recreation, transportation, tribal cultural resources, utilities and service systems, and wildfire, the project would have no impacts or less-than-significant impacts, and therefore, the project would not substantially contribute to any potential cumulative impacts for these topics. All environmental impacts that could occur as a result of the proposed project would be reduced to a less-than-significant level through the implementation of the mitigation measures recommended in this document.

Implementation of these measures would ensure that the impacts of the project would be below established thresholds of significance and that these impacts would not combine with the impacts of other cumulative projects to result in a cumulatively considerable impact on the environment as a result of project development. Therefore, this impact would be less than significant.

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

The proposed project would not result in any environmental effects that would cause substantial direct or indirect adverse effects to human beings.

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APPENDIX A

CALEEMOD OUTPUTS

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Hanford Place Project Custom Report

Table of Contents

- 1. Basic Project Information
 - 1.1. Basic Project Information
 - 1.2. Land Use Types
 - 1.3. User-Selected Emission Reduction Measures by Emissions Sector
- 2. Emissions Summary
 - 2.1. Construction Emissions Compared Against Thresholds
 - 2.2. Construction Emissions by Year, Unmitigated
 - 2.4. Operations Emissions Compared Against Thresholds
 - 2.5. Operations Emissions by Sector, Unmitigated
- 3. Construction Emissions Details
 - 3.1. Site Preparation (2024) - Unmitigated
 - 3.3. Grading (2024) - Unmitigated
 - 3.5. Building Construction (2024) - Unmitigated
 - 3.7. Building Construction (2025) - Unmitigated

3.9. Building Construction (2026) - Unmitigated

3.11. Paving (2026) - Unmitigated

3.13. Architectural Coating (2026) - Unmitigated

3.15. Architectural Coating (2027) - Unmitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.2. Unmitigated

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Hanford Place Project
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.40
Precipitation (days)	23.0
Location	36.32149538375269, -119.66421703413741
County	Kings
City	Hanford
Air District	San Joaquin Valley APCD
Air Basin	San Joaquin Valley
TAZ	2627
EDFZ	9
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Medical Office Building	72.3	1000sqft	3.09	72,305	0.00	—	—	—
Hotel	105	Room	4.15	100,000	0.00	—	—	—
Junior College (2yr)	35.0	1000sqft	0.95	35,000	0.00	0.00	—	—

Congregate Care (Assisted Living)	139	Dwelling Unit	4.76	123,471	0.00	—	431	—
Apartments Mid Rise	90.0	Dwelling Unit	3.55	76,500	0.00	—	279	—
Other Non-Asphalt Surfaces	5.00	Acre	6.00	0.00	0.00	—	—	—
Parking Lot	1,466	Space	15.6	0.00	170,755	—	—	—
Strip Mall	41.5	1000sqft	2.00	41,500	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.01	59.4	38.8	0.12	1.53	7.79	8.91	1.40	3.97	4.99	—	15,564	15,564	0.35	1.42	16,019
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	53.6	39.9	29.0	0.05	1.12	7.79	8.91	1.02	3.97	4.99	—	5,431	5,431	0.24	0.22	5,451
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.71	20.3	18.1	0.03	0.58	2.26	2.84	0.53	0.79	1.33	—	4,820	4,820	0.16	0.31	4,920
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.22	3.70	3.31	0.01	0.11	0.41	0.52	0.10	0.15	0.24	—	798	798	0.03	0.05	815

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.01	59.4	38.8	0.12	1.53	7.79	8.91	1.40	3.97	4.99	—	15,564	15,564	0.35	1.42	16,019
2025	1.93	21.0	28.1	0.03	0.70	2.06	2.76	0.65	0.51	1.16	—	5,373	5,373	0.22	0.21	5,450
2026	1.77	20.9	27.0	0.03	0.70	2.06	2.76	0.65	0.51	1.16	—	5,311	5,311	0.22	0.20	5,386
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.84	39.9	29.0	0.05	1.12	7.79	8.91	1.02	3.97	4.99	—	5,431	5,431	0.24	0.22	5,451
2025	1.71	21.3	25.0	0.03	0.70	2.06	2.76	0.65	0.51	1.16	—	5,122	5,122	0.24	0.21	5,190
2026	53.6	21.2	24.1	0.03	0.70	2.06	2.76	0.65	0.51	1.16	—	5,066	5,066	0.17	0.21	5,133
2027	53.6	1.26	2.65	< 0.005	0.07	0.37	0.44	0.06	0.09	0.15	—	509	509	0.02	0.02	515
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.01	20.3	17.8	0.03	0.58	2.26	2.84	0.53	0.79	1.33	—	4,820	4,820	0.16	0.31	4,920
2025	1.23	15.1	18.1	0.02	0.50	1.45	1.95	0.47	0.36	0.82	—	3,709	3,709	0.16	0.15	3,761
2026	1.54	13.7	15.4	0.02	0.47	1.17	1.64	0.44	0.29	0.73	—	3,131	3,131	0.10	0.12	3,172
2027	6.71	0.16	0.34	< 0.005	0.01	0.05	0.05	0.01	0.01	0.02	—	65.5	65.5	< 0.005	< 0.005	66.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.18	3.70	3.25	0.01	0.11	0.41	0.52	0.10	0.15	0.24	—	798	798	0.03	0.05	815
2025	0.23	2.76	3.31	< 0.005	0.09	0.26	0.36	0.08	0.06	0.15	—	614	614	0.03	0.02	623
2026	0.28	2.51	2.81	< 0.005	0.09	0.21	0.30	0.08	0.05	0.13	—	518	518	0.02	0.02	525
2027	1.22	0.03	0.06	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	10.8	10.8	< 0.005	< 0.005	11.0

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	37.3	19.1	165	0.40	7.96	5.91	13.9	7.69	1.04	8.73	2,041	34,390	36,431	87.5	1.39	39,252
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	32.1	20.5	138	0.38	7.94	5.91	13.9	7.66	1.04	8.70	2,041	32,764	34,806	87.7	1.47	37,598
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	29.4	17.7	105	0.25	2.11	5.91	8.02	2.05	1.04	3.09	1,076	31,371	32,447	83.0	1.42	35,132
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.37	3.22	19.2	0.05	0.39	1.08	1.46	0.37	0.19	0.56	178	5,194	5,372	13.7	0.24	5,817

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	18.0	13.0	86.4	0.20	0.18	5.91	6.08	0.17	1.04	1.21	—	20,234	20,234	1.02	1.20	20,676
Area	19.1	2.96	76.3	0.18	7.55	—	7.55	7.28	—	7.28	1,245	2,490	3,735	5.87	0.01	3,883
Energy	0.17	3.05	2.13	0.02	0.24	—	0.24	0.24	—	0.24	—	11,510	11,510	0.81	0.07	11,550
Water	—	—	—	—	—	—	—	—	—	—	48.8	156	205	5.01	0.12	366
Waste	—	—	—	—	—	—	—	—	—	—	748	0.00	748	74.7	0.00	2,616

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	161
Total	37.3	19.1	165	0.40	7.96	5.91	13.9	7.69	1.04	8.73	2,041	34,390	36,431	87.5	1.39	39,252
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	15.8	14.8	83.6	0.18	0.18	5.91	6.08	0.17	1.04	1.21	—	18,687	18,687	1.24	1.28	19,102
Area	16.2	2.74	52.5	0.18	7.53	—	7.53	7.26	—	7.26	1,245	2,411	3,655	5.86	< 0.005	3,803
Energy	0.17	3.05	2.13	0.02	0.24	—	0.24	0.24	—	0.24	—	11,510	11,510	0.81	0.07	11,550
Water	—	—	—	—	—	—	—	—	—	—	48.8	156	205	5.01	0.12	366
Waste	—	—	—	—	—	—	—	—	—	—	748	0.00	748	74.7	0.00	2,616
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	161
Total	32.1	20.5	138	0.38	7.94	5.91	13.9	7.66	1.04	8.70	2,041	32,764	34,806	87.7	1.47	37,598
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	16.1	13.9	79.5	0.19	0.18	5.91	6.08	0.17	1.04	1.21	—	19,124	19,124	1.12	1.24	19,546
Area	13.2	0.72	23.5	0.04	1.70	—	1.70	1.64	—	1.64	280	581	860	1.32	< 0.005	894
Energy	0.17	3.05	2.13	0.02	0.24	—	0.24	0.24	—	0.24	—	11,510	11,510	0.81	0.07	11,550
Water	—	—	—	—	—	—	—	—	—	—	48.8	156	205	5.01	0.12	366
Waste	—	—	—	—	—	—	—	—	—	—	748	0.00	748	74.7	0.00	2,616
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	161
Total	29.4	17.7	105	0.25	2.11	5.91	8.02	2.05	1.04	3.09	1,076	31,371	32,447	83.0	1.42	35,132
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.93	2.53	14.5	0.03	0.03	1.08	1.11	0.03	0.19	0.22	—	3,166	3,166	0.19	0.20	3,236
Area	2.40	0.13	4.30	0.01	0.31	—	0.31	0.30	—	0.30	46.3	96.1	142	0.22	< 0.005	148
Energy	0.03	0.56	0.39	< 0.005	0.04	—	0.04	0.04	—	0.04	—	1,906	1,906	0.13	0.01	1,912
Water	—	—	—	—	—	—	—	—	—	—	8.08	25.8	33.9	0.83	0.02	60.6
Waste	—	—	—	—	—	—	—	—	—	—	124	0.00	124	12.4	0.00	433
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	26.6
Total	5.37	3.22	19.2	0.05	0.39	1.08	1.46	0.37	0.19	0.56	178	5,194	5,372	13.7	0.24	5,817

3. Construction Emissions Details

3.1. Site Preparation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	39.9	28.3	0.05	1.12	—	1.12	1.02	—	1.02	—	5,296	5,296	0.21	0.04	5,314
Dust From Material Movement	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	39.9	28.3	0.05	1.12	—	1.12	1.02	—	1.02	—	5,296	5,296	0.21	0.04	5,314
Dust From Material Movement	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	2.73	1.94	< 0.005	0.08	—	0.08	0.07	—	0.07	—	363	363	0.01	< 0.005	364
Dust From Material Movement	—	—	—	—	—	0.53	0.53	—	0.27	0.27	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.50	0.35	< 0.005	0.01	—	0.01	0.01	—	0.01	—	60.1	60.1	< 0.005	< 0.005	60.3
Dust From Material Movement	—	—	—	—	—	0.10	0.10	—	0.05	0.05	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.06	0.97	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	153	153	0.01	0.01	156
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.74	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	136	136	0.01	0.01	138
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.64	9.64	< 0.005	< 0.005	9.78
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.60	1.60	< 0.005	< 0.005	1.62
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
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3.3. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.33	48.8	35.3	0.06	1.36	—	1.36	1.23	—	1.23	—	6,598	6,598	0.27	0.05	6,621
Dust From Material Movement	—	—	—	—	—	3.61	3.61	—	1.43	1.43	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	8.03	5.81	0.01	0.22	—	0.22	0.20	—	0.20	—	1,085	1,085	0.04	0.01	1,088
Dust From Material Movement	—	—	—	—	—	0.59	0.59	—	0.23	0.23	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	1.47	1.06	< 0.005	0.04	—	0.04	0.04	—	0.04	—	180	180	0.01	< 0.005	180

Dust From Material Movement	—	—	—	—	—	0.11	0.11	—	0.04	0.04	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.07	1.10	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	175	175	0.01	0.01	178
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.16	10.5	2.30	0.06	0.17	2.32	2.48	0.17	0.63	0.80	—	8,791	8,791	0.07	1.36	9,220
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.15	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	26.4	26.4	< 0.005	< 0.005	26.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	1.81	0.38	0.01	0.03	0.38	0.40	0.03	0.10	0.13	—	1,446	1,446	0.01	0.22	1,514
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.38	4.38	< 0.005	< 0.005	4.44
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.33	0.07	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	239	239	< 0.005	0.04	251

3.5. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,398	2,398	0.10	0.02	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,398	2,398	0.10	0.02	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	6.80	5.15	0.01	0.25	—	0.25	0.23	—	0.23	—	863	863	0.04	0.01	866
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	1.24	0.94	< 0.005	0.05	—	0.05	0.04	—	0.04	—	143	143	0.01	< 0.005	143
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.34	0.93	14.3	0.00	0.00	1.87	1.87	0.00	0.45	0.45	—	2,260	2,260	0.11	0.08	2,296
Vendor	0.06	1.36	0.67	0.01	0.01	0.19	0.20	0.01	0.05	0.06	—	778	778	0.01	0.11	814
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.17	1.15	10.9	0.00	0.00	1.87	1.87	0.00	0.45	0.45	—	2,000	2,000	0.13	0.08	2,028
Vendor	0.05	1.44	0.70	0.01	0.01	0.19	0.20	0.01	0.05	0.06	—	780	780	0.01	0.11	814
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.43	0.38	4.10	0.00	0.00	0.66	0.66	0.00	0.16	0.16	—	747	747	0.04	0.03	758
Vendor	0.02	0.50	0.25	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	280	280	< 0.005	0.04	293
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.75	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	124	124	0.01	< 0.005	126
Vendor	< 0.005	0.09	0.04	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	46.4	46.4	< 0.005	0.01	48.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,398	2,398	0.10	0.02	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,398	2,398	0.10	0.02	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44	13.5	10.2	0.02	0.49	—	0.49	0.46	—	0.46	—	1,713	1,713	0.07	0.01	1,719
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	2.46	1.86	< 0.005	0.09	—	0.09	0.08	—	0.08	—	284	284	0.01	< 0.005	285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.26	0.86	13.1	0.00	0.00	1.87	1.87	0.00	0.45	0.45	—	2,211	2,211	0.11	0.08	2,246
Vendor	0.05	1.31	0.65	0.01	0.01	0.19	0.20	0.01	0.05	0.06	—	764	764	0.01	0.11	799
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.04	1.07	10.0	0.00	0.00	1.87	1.87	0.00	0.45	0.45	—	1,958	1,958	0.13	0.08	1,986
Vendor	0.04	1.39	0.68	0.01	0.01	0.19	0.20	0.01	0.05	0.06	—	766	766	0.01	0.11	798
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.76	0.66	7.46	0.00	0.00	1.32	1.32	0.00	0.32	0.32	—	1,450	1,450	0.08	0.06	1,472
Vendor	0.03	0.97	0.47	< 0.005	0.01	0.14	0.14	0.01	0.04	0.04	—	546	546	0.01	0.08	570

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.12	1.36	0.00	0.00	0.24	0.24	0.00	0.06	0.06	—	240	240	0.01	0.01	244
Vendor	0.01	0.18	0.09	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	90.5	90.5	< 0.005	0.01	94.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,397	2,397	0.10	0.02	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,397	2,397	0.10	0.02	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	10.7	8.09	0.01	0.39	—	0.39	0.36	—	0.36	—	1,356	1,356	0.05	0.01	1,360
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.06	1.95	1.48	< 0.005	0.07	—	0.07	0.07	—	0.07	—	224	224	0.01	< 0.005	225
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.10	0.72	12.0	0.00	0.00	1.87	1.87	0.00	0.45	0.45	—	2,164	2,164	0.11	0.08	2,197
Vendor	0.05	1.27	0.62	0.01	0.01	0.19	0.20	0.01	0.05	0.06	—	750	750	0.01	0.11	784
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.97	0.94	9.17	0.00	0.00	1.87	1.87	0.00	0.45	0.45	—	1,917	1,917	0.06	0.08	1,943
Vendor	0.04	1.36	0.65	0.01	0.01	0.19	0.20	0.01	0.05	0.06	—	752	752	0.01	0.11	784
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.56	0.48	5.41	0.00	0.00	1.04	1.04	0.00	0.25	0.25	—	1,124	1,124	0.03	0.05	1,141
Vendor	0.03	0.74	0.36	< 0.005	0.01	0.11	0.11	0.01	0.03	0.04	—	425	425	0.01	0.06	443
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.99	0.00	0.00	0.19	0.19	0.00	0.05	0.05	—	186	186	< 0.005	0.01	189
Vendor	< 0.005	0.14	0.07	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	70.3	70.3	< 0.005	0.01	73.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

3.11. Paving (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
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Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	13.3	10.6	0.01	0.58	—	0.58	0.54	—	0.54	—	1,511	1,511	0.06	0.01	1,516
Paving	0.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	1.82	1.45	< 0.005	0.08	—	0.08	0.07	—	0.07	—	207	207	0.01	< 0.005	208
Paving	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.33	0.27	< 0.005	0.01	—	0.01	0.01	—	0.01	—	34.3	34.3	< 0.005	< 0.005	34.4
Paving	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.53	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	111	111	< 0.005	< 0.005	113

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.08	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	15.8	15.8	< 0.005	< 0.005	16.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.62	2.62	< 0.005	< 0.005	2.66
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

3.13. Architectural Coating (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	1.09	0.96	< 0.005	0.07	—	0.07	0.06	—	0.06	—	134	134	0.01	< 0.005	134
Architectural Coatings	53.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.05	1.05	< 0.005	< 0.005	1.05
Architectural Coatings	0.42	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.17	0.17	< 0.005	< 0.005	0.17
Architectural Coatings	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19	0.19	1.83	0.00	0.00	0.37	0.37	0.00	0.09	0.09	—	383	383	0.01	0.02	389
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.11	3.11	< 0.005	< 0.005	3.16
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.52	0.52	< 0.005	< 0.005	0.52

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

3.15. Architectural Coating (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	1.09	0.96	< 0.005	0.07	—	0.07	0.06	—	0.06	—	134	134	0.01	< 0.005	134
Architectural Coatings	53.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.14	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	16.7	16.7	< 0.005	< 0.005	16.8
Architectural Coatings	6.68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.77	2.77	< 0.005	< 0.005	2.78

Architectu Coatings	1.22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.17	1.69	0.00	0.00	0.37	0.37	0.00	0.09	0.09	—	376	376	0.01	0.02	381
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.22	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	48.8	48.8	< 0.005	< 0.005	49.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.08	8.08	< 0.005	< 0.005	8.19
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	4.77	3.39	22.4	0.05	0.05	1.51	1.55	0.04	0.27	0.31	—	5,169	5,169	0.27	0.31	5,283
Hotel	2.34	1.66	11.0	0.02	0.02	0.74	0.76	0.02	0.13	0.15	—	2,532	2,532	0.13	0.15	2,588
Junior College (2yr)	2.18	1.55	10.2	0.02	0.02	0.69	0.71	0.02	0.12	0.14	—	2,367	2,367	0.12	0.14	2,419
Congregate Care (Assisted Living)	2.31	1.77	11.9	0.03	0.02	0.85	0.87	0.02	0.15	0.17	—	2,886	2,886	0.13	0.17	2,947
Apartment's Mid Rise	2.01	1.54	10.3	0.02	0.02	0.74	0.76	0.02	0.13	0.15	—	2,507	2,507	0.12	0.14	2,560
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Strip Mall	4.40	3.13	20.6	0.05	0.04	1.39	1.43	0.04	0.24	0.28	—	4,773	4,773	0.25	0.29	4,878
Total	18.0	13.0	86.4	0.20	0.18	5.91	6.08	0.17	1.04	1.21	—	20,234	20,234	1.02	1.20	20,676
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	4.17	3.83	21.8	0.05	0.05	1.51	1.55	0.04	0.27	0.31	—	4,775	4,775	0.33	0.33	4,883
Hotel	2.04	1.88	10.7	0.02	0.02	0.74	0.76	0.02	0.13	0.15	—	2,339	2,339	0.16	0.16	2,392

Junior College (2yr)	1.91	1.75	9.98	0.02	0.02	0.69	0.71	0.02	0.12	0.14	—	2,187	2,187	0.15	0.15	2,236
Congregate Care (Assisted Living)	2.03	2.01	11.3	0.03	0.02	0.85	0.87	0.02	0.15	0.17	—	2,663	2,663	0.16	0.18	2,720
Apartment s Mid Rise	1.76	1.74	9.79	0.02	0.02	0.74	0.76	0.02	0.13	0.15	—	2,314	2,314	0.14	0.15	2,363
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Strip Mall	3.85	3.54	20.1	0.04	0.04	1.39	1.43	0.04	0.24	0.28	—	4,409	4,409	0.30	0.31	4,508
Total	15.8	14.8	83.6	0.18	0.18	5.91	6.08	0.17	1.04	1.21	—	18,687	18,687	1.24	1.28	19,102
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	0.78	0.66	3.77	0.01	0.01	0.27	0.28	0.01	0.05	0.06	—	809	809	0.05	0.05	827
Hotel	0.38	0.32	1.85	< 0.005	< 0.005	0.13	0.14	< 0.005	0.02	0.03	—	396	396	0.02	0.03	405
Junior College (2yr)	0.36	0.30	1.73	< 0.005	< 0.005	0.13	0.13	< 0.005	0.02	0.03	—	370	370	0.02	0.02	379
Congregate Care (Assisted Living)	0.38	0.34	1.97	< 0.005	< 0.005	0.15	0.16	< 0.005	0.03	0.03	—	451	451	0.02	0.03	461
Apartment s Mid Rise	0.33	0.30	1.71	< 0.005	< 0.005	0.13	0.14	< 0.005	0.02	0.03	—	392	392	0.02	0.02	400

Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Strip Mall	0.72	0.61	3.48	0.01	0.01	0.25	0.26	0.01	0.04	0.05	—	747	747	0.05	0.05	764
Total	2.93	2.53	14.5	0.03	0.03	1.08	1.11	0.03	0.19	0.22	—	3,166	3,166	0.19	0.20	3,236

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	2,034	2,034	0.13	0.02	2,042
Hotel	—	—	—	—	—	—	—	—	—	—	—	2,046	2,046	0.13	0.02	2,053
Junior College (2yr)	—	—	—	—	—	—	—	—	—	—	—	533	533	0.03	< 0.005	535
Congregate Care (Assisted Living)	—	—	—	—	—	—	—	—	—	—	—	1,023	1,023	0.06	0.01	1,027
Apartment s Mid Rise	—	—	—	—	—	—	—	—	—	—	—	662	662	0.04	< 0.005	665
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	870	870	0.05	0.01	873
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	623	623	0.04	< 0.005	625
Total	—	—	—	—	—	—	—	—	—	—	—	7,790	7,790	0.48	0.06	7,820
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	2,034	2,034	0.13	0.02	2,042
Hotel	—	—	—	—	—	—	—	—	—	—	—	2,046	2,046	0.13	0.02	2,053
Junior College (2yr)	—	—	—	—	—	—	—	—	—	—	—	533	533	0.03	< 0.005	535
Congregate Care (Assisted Living)	—	—	—	—	—	—	—	—	—	—	—	1,023	1,023	0.06	0.01	1,027
Apartment s Mid Rise	—	—	—	—	—	—	—	—	—	—	—	662	662	0.04	< 0.005	665
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	870	870	0.05	0.01	873
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	623	623	0.04	< 0.005	625
Total	—	—	—	—	—	—	—	—	—	—	—	7,790	7,790	0.48	0.06	7,820
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	337	337	0.02	< 0.005	338
Hotel	—	—	—	—	—	—	—	—	—	—	—	339	339	0.02	< 0.005	340

Junior College (2yr)	—	—	—	—	—	—	—	—	—	—	—	88.3	88.3	0.01	< 0.005	88.6
Congregate Care (Assisted Living)	—	—	—	—	—	—	—	—	—	—	—	169	169	0.01	< 0.005	170
Apartment s Mid Rise	—	—	—	—	—	—	—	—	—	—	—	110	110	0.01	< 0.005	110
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	144	144	0.01	< 0.005	145
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	103	103	0.01	< 0.005	104
Total	—	—	—	—	—	—	—	—	—	—	—	1,290	1,290	0.08	0.01	1,295

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	0.04	0.71	0.60	< 0.005	0.05	—	0.05	0.05	—	0.05	—	852	852	0.08	< 0.005	854
Hotel	0.04	0.81	0.68	< 0.005	0.06	—	0.06	0.06	—	0.06	—	967	967	0.09	< 0.005	970
Junior College (2yr)	0.02	0.42	0.35	< 0.005	0.03	—	0.03	0.03	—	0.03	—	502	502	0.04	< 0.005	503

Congregate Care (Assisted Living)	0.04	0.63	0.27	< 0.005	0.05	—	0.05	0.05	—	0.05	—	801	801	0.07	< 0.005	803
Apartment s Mid Rise	0.02	0.41	0.17	< 0.005	0.03	—	0.03	0.03	—	0.03	—	519	519	0.05	< 0.005	520
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Strip Mall	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	80.4	80.4	0.01	< 0.005	80.6
Total	0.17	3.05	2.13	0.02	0.24	—	0.24	0.24	—	0.24	—	3,720	3,720	0.33	0.01	3,730
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	0.04	0.71	0.60	< 0.005	0.05	—	0.05	0.05	—	0.05	—	852	852	0.08	< 0.005	854
Hotel	0.04	0.81	0.68	< 0.005	0.06	—	0.06	0.06	—	0.06	—	967	967	0.09	< 0.005	970
Junior College (2yr)	0.02	0.42	0.35	< 0.005	0.03	—	0.03	0.03	—	0.03	—	502	502	0.04	< 0.005	503
Congregate Care (Assisted Living)	0.04	0.63	0.27	< 0.005	0.05	—	0.05	0.05	—	0.05	—	801	801	0.07	< 0.005	803
Apartment s Mid Rise	0.02	0.41	0.17	< 0.005	0.03	—	0.03	0.03	—	0.03	—	519	519	0.05	< 0.005	520
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00

Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Strip Mall	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	80.4	80.4	0.01	< 0.005	80.6
Total	0.17	3.05	2.13	0.02	0.24	—	0.24	0.24	—	0.24	—	3,720	3,720	0.33	0.01	3,730
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	0.01	0.13	0.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	141	141	0.01	< 0.005	141
Hotel	0.01	0.15	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	160	160	0.01	< 0.005	161
Junior College (2yr)	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	83.0	83.0	0.01	< 0.005	83.3
Congregate Care (Assisted Living)	0.01	0.12	0.05	< 0.005	0.01	—	0.01	0.01	—	0.01	—	133	133	0.01	< 0.005	133
Apartment s Mid Rise	< 0.005	0.07	0.03	< 0.005	0.01	—	0.01	0.01	—	0.01	—	85.9	85.9	0.01	< 0.005	86.1
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Strip Mall	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.3	13.3	< 0.005	< 0.005	13.3
Total	0.03	0.56	0.39	< 0.005	0.04	—	0.04	0.04	—	0.04	—	616	616	0.05	< 0.005	618

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	5.80	2.74	52.5	0.18	7.53	—	7.53	7.26	—	7.26	1,245	2,411	3,655	5.86	< 0.005	3,803
Consumer Products	9.68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.73	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscap e Equipmen t	2.92	0.22	23.8	< 0.005	0.02	—	0.02	0.03	—	0.03	—	79.2	79.2	< 0.005	< 0.005	79.5
Total	19.1	2.96	76.3	0.18	7.55	—	7.55	7.28	—	7.28	1,245	2,490	3,735	5.87	0.01	3,883
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	5.80	2.74	52.5	0.18	7.53	—	7.53	7.26	—	7.26	1,245	2,411	3,655	5.86	< 0.005	3,803
Consumer Products	9.68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.73	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	16.2	2.74	52.5	0.18	7.53	—	7.53	7.26	—	7.26	1,245	2,411	3,655	5.86	< 0.005	3,803
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.24	0.11	2.15	0.01	0.31	—	0.31	0.30	—	0.30	46.3	89.7	136	0.22	< 0.005	141
Consumer Products	1.77	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscap e Equipmen t	0.26	0.02	2.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.47	6.47	< 0.005	< 0.005	6.49

Total	2.40	0.13	4.30	0.01	0.31	—	0.31	0.30	—	0.30	46.3	96.1	142	0.22	< 0.005	148
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4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	17.4	52.1	69.5	1.79	0.04	127
Hotel	—	—	—	—	—	—	—	—	—	—	5.10	15.3	20.4	0.52	0.01	37.2
Junior College (2yr)	—	—	—	—	—	—	—	—	—	—	3.29	9.86	13.1	0.34	0.01	24.0
Congregate Care (Assisted Living)	—	—	—	—	—	—	—	—	—	—	10.4	31.2	41.5	1.07	0.03	75.9
Apartment's Mid Rise	—	—	—	—	—	—	—	—	—	—	6.73	20.2	26.9	0.69	0.02	49.1
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	9.65	9.65	< 0.005	< 0.005	9.69
Strip Mall	—	—	—	—	—	—	—	—	—	—	5.89	17.6	23.5	0.61	0.01	43.0
Total	—	—	—	—	—	—	—	—	—	—	48.8	156	205	5.01	0.12	366

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	17.4	52.1	69.5	1.79	0.04	127
Hotel	—	—	—	—	—	—	—	—	—	—	5.10	15.3	20.4	0.52	0.01	37.2
Junior College (2yr)	—	—	—	—	—	—	—	—	—	—	3.29	9.86	13.1	0.34	0.01	24.0
Congregate Care (Assisted Living)	—	—	—	—	—	—	—	—	—	—	10.4	31.2	41.5	1.07	0.03	75.9
Apartment S Mid Rise	—	—	—	—	—	—	—	—	—	—	6.73	20.2	26.9	0.69	0.02	49.1
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	9.65	9.65	< 0.005	< 0.005	9.69
Strip Mall	—	—	—	—	—	—	—	—	—	—	5.89	17.6	23.5	0.61	0.01	43.0
Total	—	—	—	—	—	—	—	—	—	—	48.8	156	205	5.01	0.12	366
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	2.88	8.62	11.5	0.30	0.01	21.0
Hotel	—	—	—	—	—	—	—	—	—	—	0.85	2.53	3.38	0.09	< 0.005	6.17
Junior College (2yr)	—	—	—	—	—	—	—	—	—	—	0.54	1.63	2.18	0.06	< 0.005	3.97

Congregate Care (Assisted Living)	—	—	—	—	—	—	—	—	—	—	1.72	5.16	6.88	0.18	< 0.005	12.6
Apartment s Mid Rise	—	—	—	—	—	—	—	—	—	—	1.11	3.34	4.45	0.11	< 0.005	8.13
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	1.60	1.60	< 0.005	< 0.005	1.60
Strip Mall	—	—	—	—	—	—	—	—	—	—	0.98	2.92	3.90	0.10	< 0.005	7.12
Total	—	—	—	—	—	—	—	—	—	—	8.08	25.8	33.9	0.83	0.02	60.6

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	421	0.00	421	42.1	0.00	1,472
Hotel	—	—	—	—	—	—	—	—	—	—	31.0	0.00	31.0	3.10	0.00	108
Junior College (2yr)	—	—	—	—	—	—	—	—	—	—	24.5	0.00	24.5	2.45	0.00	85.8

Congregate Care (Assisted Living)	—	—	—	—	—	—	—	—	—	—	212	0.00	212	21.2	0.00	742
Apartment s Mid Rise	—	—	—	—	—	—	—	—	—	—	35.9	0.00	35.9	3.59	0.00	126
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	23.5	0.00	23.5	2.35	0.00	82.2
Total	—	—	—	—	—	—	—	—	—	—	748	0.00	748	74.7	0.00	2,616
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	421	0.00	421	42.1	0.00	1,472
Hotel	—	—	—	—	—	—	—	—	—	—	31.0	0.00	31.0	3.10	0.00	108
Junior College (2yr)	—	—	—	—	—	—	—	—	—	—	24.5	0.00	24.5	2.45	0.00	85.8
Congregate Care (Assisted Living)	—	—	—	—	—	—	—	—	—	—	212	0.00	212	21.2	0.00	742
Apartment s Mid Rise	—	—	—	—	—	—	—	—	—	—	35.9	0.00	35.9	3.59	0.00	126
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00

Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	23.5	0.00	23.5	2.35	0.00	82.2
Total	—	—	—	—	—	—	—	—	—	—	748	0.00	748	74.7	0.00	2,616
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	69.7	0.00	69.7	6.96	0.00	244
Hotel	—	—	—	—	—	—	—	—	—	—	5.13	0.00	5.13	0.51	0.00	17.9
Junior College (2yr)	—	—	—	—	—	—	—	—	—	—	4.06	0.00	4.06	0.41	0.00	14.2
Congregate Care (Assisted Living)	—	—	—	—	—	—	—	—	—	—	35.1	0.00	35.1	3.51	0.00	123
Apartment s Mid Rise	—	—	—	—	—	—	—	—	—	—	5.94	0.00	5.94	0.59	0.00	20.8
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	3.89	0.00	3.89	0.39	0.00	13.6
Total	—	—	—	—	—	—	—	—	—	—	124	0.00	124	12.4	0.00	433

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.85
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	156
Junior College (2yr)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.14
Congregate Care (Assisted Living)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.57
Apartment s Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.55
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.26
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	161
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.85
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	156
Junior College (2yr)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.14
Congregate Care (Assisted Living)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.57

Apartment s	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.55
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.26
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	161
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.31
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	25.9
Junior College (2yr)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02
Congregat e Care (Assisted Living)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.26
Apartment s Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.09
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	26.6

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipmen t Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequester	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequester ed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	3/4/2024	4/5/2024	5.00	25.0	—
Grading	Grading	4/8/2024	6/28/2024	5.00	60.0	—
Building Construction	Building Construction	7/1/2024	10/16/2026	5.00	600	—
Paving	Paving	10/19/2026	12/25/2026	5.00	50.0	—
Architectural Coating	Architectural Coating	12/28/2026	3/5/2027	5.00	50.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Tier 2	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 2	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Tier 2	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Tier 2	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Tier 2	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Tier 2	2.00	8.00	423	0.48
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 2	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Tier 2	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Tier 2	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Tier 2	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 2	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Tier 2	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Tier 2	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 2	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 2	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 2	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	10.6	LDA,LDT1,LDT2

Site Preparation	Vendor	—	3.50	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	10.6	LDA,LDT1,LDT2
Grading	Vendor	—	3.50	HHDT,MHDT
Grading	Hauling	125	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	258	10.6	LDA,LDT1,LDT2
Building Construction	Vendor	65.3	3.50	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	10.6	LDA,LDT1,LDT2
Paving	Vendor	—	3.50	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	51.6	10.6	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	3.50	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%
Sweep paved roads once per month	9%	9%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	404,941	134,980	373,208	124,403	56,558

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	37.5	0.00	—
Grading	—	60,000	180	0.00	—
Paving	0.00	0.00	0.00	0.00	21.6

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Medical Office Building	0.00	0%
Hotel	0.00	0%

Junior College (2yr)	0.00	0%
Congregate Care (Assisted Living)	—	0%
Apartments Mid Rise	—	0%
Other Non-Asphalt Surfaces	6.00	0%
Parking Lot	15.6	100%
Strip Mall	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	532	0.03	< 0.005
2025	0.00	532	0.03	< 0.005
2026	0.00	532	0.03	< 0.005
2027	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Medical Office Building	1,393	1,393	1,393	508,561	5,447	5,447	5,447	1,988,040
Hotel	683	683	683	249,113	2,668	2,668	2,668	973,818
Junior College (2yr)	638	638	638	232,888	2,494	2,494	2,494	910,395
Congregate Care (Assisted Living)	663	663	663	242,006	3,069	3,069	3,069	1,120,102
Apartments Mid Rise	576	576	576	210,240	2,666	2,666	2,666	973,076
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Strip Mall	1,287	1,287	1,287	469,573	5,029	5,029	5,029	1,835,629

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Congregate Care (Assisted Living)	—
Wood Fireplaces	0
Gas Fireplaces	70
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	70
Conventional Wood Stoves	0
Catalytic Wood Stoves	7
Non-Catalytic Wood Stoves	7
Pellet Wood Stoves	0
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	45
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	45
Conventional Wood Stoves	0
Catalytic Wood Stoves	5
Non-Catalytic Wood Stoves	5

Pellet Wood Stoves	0
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5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
404941.27499999997	134,980	373,208	124,403	56,558

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Medical Office Building	1,395,423	532	0.0330	0.0040	2,657,190
Hotel	1,403,506	532	0.0330	0.0040	3,016,789
Junior College (2yr)	365,853	532	0.0330	0.0040	1,564,872
Congregate Care (Assisted Living)	701,757	532	0.0330	0.0040	2,499,095
Apartments Mid Rise	454,375	532	0.0330	0.0040	1,618,119
Other Non-Asphalt Surfaces	0.00	532	0.0330	0.0040	0.00
Parking Lot	596,800	532	0.0330	0.0040	0.00
Strip Mall	427,442	532	0.0330	0.0040	250,756

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Medical Office Building	9,072,870	0.00
Hotel	2,663,511	0.00
Junior College (2yr)	1,716,716	0.00
Congregate Care (Assisted Living)	5,426,108	0.00
Apartments Mid Rise	3,513,308	0.00
Other Non-Asphalt Surfaces	0.00	0.00
Parking Lot	0.00	2,737,629
Strip Mall	3,074,010	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Medical Office Building	781	0.00
Hotel	57.5	0.00
Junior College (2yr)	45.5	0.00
Congregate Care (Assisted Living)	127	0.00
Apartments Mid Rise	21.5	0.00
Other Non-Asphalt Surfaces	0.00	0.00
Parking Lot	0.00	0.00
Strip Mall	43.6	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Medical Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.45	0.60	0.00	1.00
Medical Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Hotel	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Hotel	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Hotel	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Junior College (2yr)	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior College (2yr)	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior College (2yr)	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior College (2yr)	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Congregate Care (Assisted Living)	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Congregate Care (Assisted Living)	Household refrigerators and/or freezers	R-134a	1,430	0.22	0.60	0.00	1.00
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
-----------	--------	------------------------------	------------------------------

8. User Changes to Default Data

Screen	Justification
Land Use	Medical Office Building includes: a 22,525-square-foot ambulatory surgery center; a 12,445-square-foot specialty clinic; two 12,445-square-foot medical office buildings; and a 12,445-square-foot psychiatric health facility. Strip Mall includes 41,500 square feet of medical/commercial uses. Hotel includes a 100,000-square-foot, a four-story 105-room hotel with a conference center. Junior College includes a 35,000-square-foot nursing college. Congregate Care (Assisted Living) includes; a 54,611-square-foot skilled nursing facility; a 34,480-square-foot memory care facility; and a 34,380-square-foot assisted living facility. Mid-rise Apartment includes a three-story 90-unit multi-family apartment. Total project acreage is 39.23 acres. Assuming 10% of the project site would be landscaped.
Construction: Construction Phases	Construction is anticipated to begin March 2024 and last approximately 3 years.
Construction: Off-Road Equipment	Assuming the use of Tier 2 construction equipment.
Construction: Dust From Material Movement	Over excavation would be between 30,000 and 60,000 cubic yards of soil; therefore, this analysis assumes up to 60,000 cubic yards of export.

Operations: Vehicle Data	Assuming approximately 1,393 average daily trips (ADT) for the Medical Office Building land uses, 682 ADT for the hotel use, 638 ADT for the nursing college, 662 ADT for the assisted living uses, 576 ADT for the apartments, and 1,287 ADT for the Strip Mapp land uses based on the project's trip generation and taking into account 10% internal trips.
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APPENDIX B

BIOLOGICAL RESOURCES ASSESSMENT

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BIOLOGICAL RESOURCES ASSESSMENT

HANFORD PLACE PROJECT CITY OF HANFORD, CALIFORNIA



LSA

June 2021

BIOLOGICAL RESOURCES ASSESSMENT

HANFORD PLACE PROJECT CITY OF HANFORD, CALIFORNIA

Submitted to:

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LSA Project No. EPI2001



June 2021

EXECUTIVE SUMMARY

LSA Associates, Inc. (LSA) prepared this biological resources assessment for the proposed Hanford Place Project (project) located between State Route 198 and the San Joaquin Valley Railroad in the City of Hanford, Kings County, California. The project consists of a medical and mixed-use development spanning approximately 40 acres. A total of 15 buildings are proposed, including medical outpatient clinic services, hotel and conference center, specialized education, retail, medical office, skilled nursing and assisted living, and multi-family residential uses, as well as an infiltration basin, associated open space, circulation and parking, and infrastructure improvements. The project site was historically used for agricultural but has remained fallow for many years. The site is located on the margin of urban portions of the City of Hanford with no connection to undisturbed or natural lands.

In March 2020, LSA biologists conducted a literature review and records search to identify the existence and potential for occurrence of sensitive or special-status plant and animal species in the vicinity of the project site. Federal and state lists of sensitive species were also examined. Current electronic database records reviewed included the California Natural Diversity Database, California Native Plant Society's Electronic Inventory of Rare and Endangered Vascular Plants, and United States Fish and Wildlife Service's National Wetlands Inventory. Historic and current aerial imagery, existing environmental reports for developments in the project vicinity, regional habitat conservation plans, and local land use policies related to biological resources were also reviewed. A field survey covering the project site was conducted on April 27, 2020.

With the exception of the Peoples Ditch, the project site is strictly upland in nature with well-drained soils and vegetation consisting of nonnative grassland with patches of mixed herbaceous ruderal/invasive species and bare ground in several areas. Ongoing soil disturbance and the resulting competitive exclusion by invasive nonnative plants limit the potential for native flora to occur in the project site. No native or special-status vegetation communities exist on the project site. No special-status plant species were observed during the field survey and none are expected to occur due to historical and ongoing anthropogenic disturbances.

Habitat in the project site is considered low quality with respect to most of the regionally-occurring special-status animal species, and no special-status species were observed during the field survey. However, two special-status animal species—San Joaquin kit fox (*Vulpes macrotis mutica*) and burrowing owl (*Athene cunicularia*)—have at least a low potential to occur in the project site due to the presence of suitable habitat and known occurrence records in the project vicinity. The project site also contains foraging habitat for certain raptors such as Swainson's hawk (*Buteo swainsoni*) but suitable tree-nesting habitat is generally absent from the project site. Suitable avian nesting habitat on the project site is limited to that which supports ground-nesting species such as Savannah sparrow (*Passerculus sandwichensis*) and other birds that may nest in the annual herbaceous cover.

With the implementation of recommended impact avoidance, minimization, and mitigation measures—including pre-construction surveys and compliance with applicable regulatory requirements—there would be no significant impacts to special-status biological resources resulting from the project.

TABLE OF CONTENTS

INTRODUCTION	1
Project Description.....	1
Project Setting	2
METHODS.....	3
Literature Review and Records Search	3
Field Survey	4
RESULTS	5
Vegetation Communities and Land Cover Types	5
Wild oats and annual brome grassland (<i>Avena spp.</i> - <i>Bromus spp.</i> Herbaceous Semi-Natural Alliance).....	6
Disturbed / Barren	6
Developed	7
Soils.....	7
Nord complex, 0 to 2 Percent Slopes, MLRA 17.....	7
Special-Status Biological Resources	7
Special-Status Natural Communities.....	7
Special-Status Plants	8
Special-Status Animals	8
Critical Habitat.....	9
Jurisdictional Aquatic Resources	9
Wildlife Movement and Habitat Connectivity.....	10
Regional Habitat Conservation Plans and Local Policies	10
IMPACT FINDINGS AND RECOMMENDED MITIGATION MEASURES.....	11
Special-Status natural communities.....	11
Special-Status Species	11
Critical Habitat.....	14
Jurisdictional Aquatic Resources	14
Wildlife Movement and Habitat Connectivity.....	15
Regional Habitat Conservation Plans and Local Policies	15
Conclusion	17
REFERENCES	18

TABLES

Table A: Vegetation and Land Cover Types Within the Project site	6
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ATTACHMENTS

Appendix A (Figures), Appendix B (Plant Species Observed), Appendix C (Representative Site Photos), Appendix D (Regional Special-Status Species)

INTRODUCTION

LSA has prepared this Biological Resources Assessment for the proposed Hanford Place Project (project) located between State Route 198 and the San Joaquin Valley Railroad in the City of Hanford (City), Kings County, California (refer to Figure 1, Project Location; all figures are provided in Appendix A). The purpose of this report is to describe and document biological resources—including sensitive and special-status species—known to occur or with the potential to occur on the proposed project site. This technical information is provided for project planning purposes and review under the California Environmental Quality Act (CEQA), California Endangered Species Act (CESA), the Federal Endangered Species Act (FESA), and other pertinent regulations.

The Biological Resources Assessment conducted for the project involved the following components:

- Reviewing existing relevant scientific literature and other pertinent information related to the survey area;
- Creating a list of regionally occurring special-status species determined to have the potential to occur on or in the vicinity of the project site;
- Characterizing the vegetation communities present within the survey area;
- Evaluating the potential for the occurrence of special-status plant and wildlife species within the survey area;
- Assessing the potential for the project to adversely impact existing biological resources; and
- Recommending avoidance, minimization, and mitigation measures to avoid or minimize any potentially significant project-related impacts to biological resources.

PROJECT DESCRIPTION

The project involves a medical and mixed use development consisting of medical facility, skilled nursing, assisted living, retail and multi-family units on approximately 40 acres of vacant land located between State Route 198 and the San Joaquin Valley Railroad in the City of Hanford (Figure 2). Once constructed, and extension of 5th Street would run through the project site in an east/west direction and Campus Drive would be extended south into the site, with a roundabout constructed near the center portion of the site. Proposed road extensions and improvements would be dedicated as public right of way. As part of the project, Glendale Avenue would also be realigned and any portion of existing right of way not used would be abandoned. In addition, an open segment of Peoples Ditch (a constructed irrigation canal) that currently runs through the project site would be converted to an underground culvert.

The General Plan and zoning designation for the project site is currently Highway Commercial (C-H). The project would amend the General Plan and require a rezone to a combination of Office, Medium- or High-Density Residential and Regional or Highway Commercial.

The project would include the following: a 22,525-square-foot ambulatory surgery center; a 12,445-square-foot specialty clinic; two 12,445-square-foot medical office buildings; a 12,445-square-foot psychiatric health facility; a 10,000-square-foot, a four-story 105-room hotel with a conference

center and pool; a 35,000-square-foot nursing college; four 15,55-square-foot strip retail buildings; two 15,000-square-foot retail/drive-through/medical commercial buildings; a 54,611-square-foot skilled nursing facility; a 34,480-square-foot memory care facility; a three-story 90-unit multi-family apartment; two 11,000 medical/commercial buildings; and a 5-acre bio infiltration basin. In addition, the project would provide 1,466 parking spaces throughout the project site. Figure 3 shows the project site plan.

Regional access to the site is provided by State Route 198, which borders the southern portion of the project site and is located approximately 0.5 miles from the project site entrance. Site access would be provided by one main driveway along Campus Drive, as well as Fifth Street on the east side of the project site that would extend on the existing street alignment. The project would not require any work within undeveloped lands outside of the approximately 40-acre project site.

PROJECT SETTING

The project site is located along the south central portion of the San Joaquin Valley floor in the Kings County. Specifically, the project site is located on four legal parcels (Assessor's Parcel Numbers 012-290-042, 012-290-054, 011-060-007, and 011-060-080) in the northeastern quarter of the United States Geological Survey (USGS) *Hanford, California*, 7.5-minute topographic quadrangle map (refer to Figure 1). The "project site" discussed in this report refers to all areas within the four legal parcels described above (totaling approximately 40 acres) and includes all areas where temporary and permanent ground disturbance would occur.

The project site is currently fallow and disturbed with no existing structures (Figure 2). The site was previously used for agriculture, consistent with many of the surrounding lands in the region. According to historic aerial imagery, the project site has remained in its current condition for more than 20 years. Adjacent parcels consist mostly of low-density residential and commercial developments, with several undeveloped lots located to the north of the project site. Recent developments along the margins of the City of Hanford and expansion into ranch land settlements have brought increased urban development throughout lands previously used for agriculture. Some lands in the vicinity of the project site are fallow or active agricultural lands; however, most of the lands are developed and are a mixture of school, residential, commercial, retail, and industrial uses. There are no undisturbed open spaces in the vicinity of the project site.

The project site is located within the San Joaquin Valley Sub-region of the California Floristic Province (Baldwin, et al. 2012) and within the Sand Slough watershed (Hydrologic Unit Code #180300122002). The project site is flat with almost no topographic variation and is at approximately 228 feet (69 meters) above mean sea level in elevation. An open segment of Peoples Ditch (a constructed irrigation canal) is located within the project site, but there are no natural drainage features or riparian areas present in the project site. Extensive soil disturbance from foot traffic and vehicles is evident throughout the site, and the site appears to be regularly disked for vegetation control. Several homeless encampments were present in multiple portions of the project site during the April 2020 site survey.

METHODS

LITERATURE REVIEW AND RECORDS SEARCH

LSA Biologist Kelly McDonald conducted a literature review and records search on March 31, 2020, to identify the existence and potential for occurrence of sensitive or special-status¹ plant and animal species in the vicinity of the project site. Federal and State lists of sensitive species were also examined. Current electronic database records reviewed included the following:

- **California Natural Diversity Data Base information (CNDDB – RareFind 5)**, which is administered by the California Department of Fish and Wildlife (CDFW), formerly known as the California Department of Fish and Game (CDFG). This database covers sensitive plant and animal species as well as sensitive natural communities that occur in California. Records from nine USGS quadrangles surrounding the project site (*Riverdale, Laton, Burris Park, Lemoore, Hanford, Remnoy, Stratford, Guernsey, and Waukena*) were obtained from this database to inform the field survey.
- **California Native Plant Society’s (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants**, which utilizes four specific categories or “lists” of sensitive plant species to assist with the conservation of rare or endangered botanical resources. All of the plants constituting California Rare Plant Ranks 1A, 1B, 2A, and 2B are intended to meet the status definitions of “threatened” or “endangered” in CESA and the California Department of Fish and Game Code, and are considered by CNPS to be eligible for State listing. At the discretion of the CEQA Lead Agency, impacts to these species may be analyzed as such, pursuant to the CEQA Guidelines Sections 15125(c) and 15380. Plants in Rank 3 (limited information; review list), Rank 4 (limited distribution; watch list), or that are considered Locally Unusual and Significant may be analyzed under CEQA if there is sufficient information to assess potential significant impacts. Records from the nine USGS quadrangles surrounding the project site were obtained from this database to inform the field survey.
- **United States Fish and Wildlife Service’s (USFWS) Information for Planning and Conservation (IPaC) Online System**, which lists all proposed, candidate, threatened, and endangered species managed by the Endangered Species Program of the USFWS that have the potential to occur on or near a particular site. This database also lists all known critical habitats, national wildlife refuges, and migratory birds that could potentially be impacted by activities from a proposed project. An IPaC Trust Resource Report (USFWS 2020a) was generated for the project area.

¹ For the purposed of this report, the term “special-status species” refers to those species that are listed or proposed for listing under the CESA and/or FESA, California Fully Protected Species, California Species of Special Concern, and California Special Animals. It should be noted that “Species of Special Concern” and “California Special Animal” are administrative designations made by the CDFW and carry no formal legal protection status. However, Section 15380 of the CEQA Guidelines indicates that these species should be included in an analysis of project impacts if they can be shown to meet the criteria of sensitivity outlined therein.

- **Designated and Proposed USFWS Critical Habitat Polygons** were reviewed to determine whether critical habitat has been designated or proposed within or in the vicinity of the project site (USFWS 2020b).
- **The USFWS National Wetlands Inventory** was reviewed to determine whether any wetlands or surface waters of the United States have been previously-identified in the survey area (USFWS 2020c).
- **eBird:** eBird is a real-time, online checklist program launched in 2002 by the Cornell Lab of Ornithology and National Audubon Society. It provides rich data sources for basic information on bird abundance and distribution at a variety of spatial and temporal scales. eBird occurrence records for burrowing owl (*Athene cunicularia*) from a 5 mile radius around the project site were reviewed in May 2020 (eBird 2020).

In addition to the databases listed above, historic and current aerial imagery, existing environmental reports for developments in the project vicinity, and local land use policies related to biological resources were reviewed.

FIELD SURVEY

A general biological survey of the project site was conducted by LSA Biologist Kelly McDonald on April 27, 2020. The project site was surveyed on foot, and all biological resources observed were noted and mapped. Suitable habitat for any species of interest or concern was duly noted, and general site conditions were photographed (Appendix C, Site Photos). The field survey took place on a clear sunny morning with weather conditions conducive to the detection of plant and animal species.

RESULTS

This section summarizes the environmental setting and provides further analysis of the data collected in the field. Discussions regarding the existing project site conditions, soils, vegetation communities, potentially occurring special-status biological resources, and habitat connectivity are presented below.

The project site consists of flat, undeveloped parcels supporting nonnative grassland and other invasive plant species. Ruderal and nonnative grassland vegetation existing on the site appears to be regularly maintained. There is one tree, tree of heaven (*Ailanthus altissima*; a nonnative species), within the project site. Much of the soil and vegetation within the project site is disturbed from existing roadways in the immediate vicinity, off-highway vehicles, homeless encampment, and human foot traffic. Worn foot paths, litter, and trampling are evident throughout the project site.

Habitat within the project site is considered low quality with respect to most of the special-status animal species identified during the literature review and the project site is not expected to support any special-status plant species (refer to Appendix D). Wildlife species observed during the April 2020 field survey include: rock pigeon (*Columba livia*; nonnative species), Savannah sparrow (*Passerculus sandwichensis*), western kingbird (*Tyrannus verticalis*), northern mockingbird (*Mimus polyglottos*), mourning dove (*Zenaidura macroura*), double-crested cormorant (*Phalacrocorax auritus*), common raven (*Corvus corax*), red-tailed hawk (*Buteo jamaicensis*), European starling (*Sturnus vulgaris*; nonnative species), western fence lizard (*Sceloporus occidentalis*), Sierran tree frog (*Pseudacris sierra*), California toad (*Anaxyrus boreas halophilus*; tadpoles) and California ground squirrel (*Otospermophilus beecheyi*).

No riparian habitat exists in the project site or on adjacent parcels and there are no depressional wetlands (e.g., vernal pools) or natural drainage features within the project site. The project site does not serve as a wildlife nursery or as a wildlife migration corridor. Further details regarding specific biological resources are provided in the following subsections.

VEGETATION COMMUNITIES AND LAND COVER TYPES

With the exception of an open portion of Peoples Ditch (an irrigation canal excavated in the late 1800's), the project site is strictly upland in nature with dominant vegetation consisting of nonnative grassland with patches of mixed herbaceous ruderal/invasive species. Ongoing soil disturbance and the resulting competitive exclusion by invasive nonnative plants limit the potential for native flora to occur in the project site. No native or special-status vegetation communities exist in the project site.

The identification and characterizations of vegetation communities generally follow the plant community descriptions in the Manual of California Vegetation (Sawyer et al. 2009). Anthropogenic areas are those areas that have been converted from their natural habitat to ones that are subject to ongoing human maintenance and disturbance; these areas include roads, road shoulders, and areas that are disturbed or maintained. The acreages of each vegetation community and land cover type occurring in the project site are shown in Table A, below. Representative photographs of the

project site are presented in Appendix C, and Figure 4 provides a map of these vegetation and land cover types within the project site.

Table A: Vegetation and Land Cover Types Within the Project site

Vegetation / Land Cover Type	Acreage ¹
Wild oats and annual brome grasslands	38.51
Developed	0.17
Disturbed / Barren	1.10
Peoples Ditch – Irrigation Canal	0.51
Total	40.29

¹ All acreages were calculated using geographic information system (GIS) measurements and are considered approximate.

A total of 36 vascular plant species were identified within the project site during the April 2020 field survey (refer to Appendix B). A total of 27 of these plant species (75 percent) represent nonnative taxa, reflecting a high level of disturbance within the project site.

Wild oats and annual brome grassland (*Avena spp.* - *Bromus spp.* Herbaceous Semi-Natural Alliance)

Disturbed nonnative wild oats and annual brome grassland comprises the majority of the project site. Wild oats and annual brome grasslands are often found in foothills, waste places, rangelands, and opening in woodlands. This alliance is dominated by invasive/pioneering nonnative grasses including slender oats (*Avena barbata*), ripgut grass (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), barely grasses (*Hordeum spp.*), along with other nonnative/ruderal plant species such as Russian thistle (*Salsola tragus*). Less prevalent species at the time of survey included London rocket (*Sisymbrium irio*), cheeseweed mallow (*Malva parviflora*) and Mediterranean storks' bill (*Erodium malacoides*).

The dominance of these nonnative weedy species is indicative of historical and recent soil disturbance. Native perennial shrubs are entirely absent from the project site, and the site appears to be regularly maintained.

Large tracts of annual grassland habitat provide foraging and/or breeding habitat for many wildlife species. Vacant lots in the vicinity of the project site provide suitable habitat for numerous invertebrate species (such as insects), many of which provide a food source for animals such as lizards, birds, and small mammals, which in turn serve as a prey base for larger predator animals, including snakes, raptors, and coyotes. Due to the extensive weed coverage of the wild oats and annual brome grassland within the project site, it is not expected to provide high-quality foraging or nesting habitat for many special-status wildlife species known to occur in the region.

Disturbed / Barren

Based on an analysis of historical aerial imagery and observations during the April 2020 site survey, vehicles regularly park and drive across portions of the site, specifically along the project site perimeter. Portions of the central survey area also appeared to be disturbed by off-highway vehicles (as evinced by tire tracks, ruts, etc.). These disturbed areas lacked vegetation or supported a sparse

cover of ruderal vegetation, with annual nonnative grasses and Russian thistle being the most frequently encountered plant species. Several other invasive, pioneering plant species were also observed in these areas.

Developed

Developed sites consist of paved areas, buildings, and other areas that are cleared or graded for anthropogenic purposes. A small portion (0.17 acre) of the project site contains an existing paved road which is mapped as developed.

SOILS

According to the NRCS online soil survey of Kings County, the project site is primarily composed of Nord complex soils (99.3%) and the remaining are urban land (Figure 5). The Nord complex soil classification is discussed in greater detail below.

Nord complex, 0 to 2 Percent Slopes, MLRA 17

The parent material of this soil type is alluvium derived from igneous rock, occurring between 58 and 183 m in elevation. The drainage class of this soil type is well drained, and it is typically composed of fine sandy loam and stratified sandy loam to loam. Nord complex usually occurs on alluvial fans, and is used for growing irrigated field, forage, and row crops. When not irrigated, vegetation is typically annual grasses and forbs.

SPECIAL-STATUS BIOLOGICAL RESOURCES

The Hanford region supports various special-status natural communities, plants, and animals. Appendix D provides tables that identify those special-status plant and animal species known to occur or that potentially occur in the vicinity of the project site (based on the literature review and experience in the region) and includes detailed information about each species' habitat and distribution, State and Federal status designations, and probability of occurrence within the project site. As stated in the methodology section above, the background research included occurrence records from nine USGS topographic quadrangles surrounding the survey area. A nine USGS quadrangle search covers a large, variable geographic and topographic area containing numerous habitat types not found within or around the project site.

The following subsections provide specific discussions for special-status natural communities, plant and animal species, and habitats of concern (including critical habitat, jurisdictional aquatic resources, wildlife movement corridors, and regional and local habitat conservation plans).

Special-Status Natural Communities

The CNDDDB search identified occurrences of two special-status natural (i.e., plant) communities within the nine-quad search area: Valley Sacaton Grassland and Valley Sink Scrub.

No special-status natural communities or conservation areas exist within the project site or in adjacent parcels. The project site is completely isolated and distant from all special-status natural communities that occur in the region.

Special-Status Plants

The literature review identified eight special-status plant species that are known to occur within a nine-quad radius of the project site (refer to Appendix D). The majority of the rare plant species that were identified in the databases have specialized habitat requirements (i.e., they occur on predominantly alkaline soils, woodland, riparian, or wetland habitats, etc.) that do not occur within the project site.

Historic anthropogenic disturbances have greatly altered the natural hydrologic regimes and have either eliminated or greatly impacted the pre-settlement habitats needed to support the special-status plant species identified in the CNDDDB and CNPS queries. As such, the specific habitats, soil substrates or “micro-climates” necessary for special-status plant species to occur are absent within the boundaries of the project site. Based on site observations coupled with the habitat suitability analysis, no special-status plant species are expected to occur within the project site. It is also unlikely that any source populations exist in adjacent or nearby parcels.

Special-Status Animals

The historic anthropogenic disturbances in the project site and adjacent parcels (i.e., farming, disking, off-highway vehicles, etc.) have greatly altered, eliminated, or impacted the pre-settlement habitats needed to support most of the special-status animal species identified in the CNDDDB and USFWS queries (refer to Appendix D). There are no known occurrences of any special-status animal species in the project site, and none were observed during the April 2020 field survey. Nonetheless, suitable habitat for several regionally-occurring special-status species is present in the project site and those species are discussed in further detail below.

Two special-status animal species, San Joaquin kit fox (*Vulpes macrotis mutica*), and burrowing owl (*Athene cunicularia*) have a moderate potential to occur in the project site due to the presence of suitable habitat and known records in the project vicinity. However, no sign which would indicate occupation or use by these species (e.g., scat, tracks, nesting materials, prey remains, or any other sign) was identified. Several small mammal burrows, including active California ground squirrel burrows and others (likely those of California vole [*Microtus californicus*], and/or Botta’s pocket gopher [*Thomomys bottae*]), were observed within the grassland habitats in the project site. None of the small mammal burrows observed in the project site exhibited features typical of occupied kit fox or burrowing owl burrows, although there is some potential for use by these species in the future. It should also be noted that the April 2020 survey took place at a time when regional documented burrowing owl habitat was occupied by the species (eBird 2020).

The project site contains foraging habitat for certain raptors such as the Swainson’s hawk (*Buteo swainsoni*) but potential tree-nesting habitat is extremely limited on the project site (only one nonnative tree was present during the April 2020 survey). Suitable avian nesting habitat in the project site is limited to that which supports ground-nesting species such as Savannah sparrow (*Passerculus sandwichensis*) and other birds that may nest in the annual herbaceous cover.

The evaluation of special-status animal species occurrence within the project site was based on a habitat suitability analysis. It did not include exhaustive surveys to determine their presence or absence, but did include direct observation of on-site and off-site conditions and a review of the available recorded occurrence data from the area to conclude whether or not a particular species could be expected to occur. Based on this analysis, it is unlikely that the remaining special-status wildlife species listed in Appendix D occur within the project site. Significant adverse impacts to special-status wildlife species are not anticipated with the implementation of the recommended impact avoidance, minimization, and mitigation measures described in further detail below.

Critical Habitat

The project site is not located within or adjacent to designated or proposed critical habitat for any species.

Jurisdictional Aquatic Resources

With the exception of an open segment of Peoples Ditch (an irrigation canal excavated in the late 1800's), the project site is strictly upland in nature with well-drained soils.

The Peoples Ditch is an artificially-constructed and maintained irrigation canal (owned and operated by the Peoples Ditch Company) that conveys diverted water to farmland south of the project site. Within the Hanford region, Peoples Ditch has open trapezoidal sections as well as portions that run underground through culverts of various sizes and lengths. At the project site, the Peoples Ditch is an open trapezoidal channel measuring approximately 32 feet in width from the top-of-bank to top-of-bank and approximately 10 feet deep. Most of the canal was dry during the April 2020 site survey, indicating an ephemeral flow regime at this location. The active channel width (e.g., area typically subject to seasonal flows) was measured in two locations (one near the culvert outfall at the southern terminus of Campus Drive/railroad alignment, and one near the southern culvert inlet that goes under State Route 198); the active channel width measures approximately 12 feet wide. The canal appears to be regularly maintained for vegetation control and irrigation water conveyance.

Three plants typically associated with wetlands were observed in the canal: seep monkeyflower (*Mimulus guttatus*), western marsh cudweed (*Gnaphalium palustre*), and common knotweed (*Persicaria lapathifolia*). Additionally, Sierran tree frog (*Pseudacris sierra*) were heard calling and California toad (*Anaxyrus boreas halophilus*) tadpoles were observed within the canal. Litter and signs of other human disturbance were also present within the canal.

Due to the presence of a bed and bank and presence of water-dependent plants and wildlife, the Peoples Ditch may fall within the jurisdiction of CDFW under Section 1602 of the California Fish and Game Code and the Regional Water Quality Control Board (RWQCB) under the California Water Code. However, the Peoples Ditch does not appear to have a downstream nexus with any jurisdictional water of the United States based on analysis of aerial imagery and topographic maps, and pursuant to the *Navigable Waters Protection Rule* (EPA and DOA 2020), effective June 22, 2020, the Peoples Ditch does not meet the definition of a jurisdictional water of the United States subject to regulation under Section 404 of the federal Clean Water Act. Furthermore, the Peoples Ditch does not meet the wetland criteria outlined in the *State Wetland Definition and Procedures for*

Discharges of Dredged or Fill Material to Waters of the State (SWRCB 2019), which excludes agricultural ditches with ephemeral flow that are not a relocated water of the state or excavated in a water of the state. Nevertheless, prior to any project project-related impacts to Peoples Ditch, it is recommended to consult with the United States Army Corps of Engineers (USACE), CDFW, and RWQCB to verify the feature's jurisdictional status, and obtain applicable permit(s) and/or authorization(s), if any.

Wildlife Movement and Habitat Connectivity

The project site is isolated from natural areas and is surrounded by existing developments and highways. Therefore, it is unlikely that the site serves as an important corridor for animals moving locally, regionally, or in broader migrations. Migratory bird species may utilize the project site for foraging; however, the usage is likely transient and limited to species that forage over open grassland areas. The project site does not possess any characteristics that would indicate a locally significant stopover point for migratory species including raptors or waterfowl.

No known wildlife movement corridors occur within the project site or in the immediate vicinity.

Regional Habitat Conservation Plans and Local Policies

The City of Hanford and Kings County currently do not have a regional Natural Community Conservation Plan or Habitat Conservation Plan. The 2035 General Plan for the City of Hanford outlines local relevant policies related to biological resources. Below is the list of applicable policies:

- 5.5.1 Natural Habitat: Goal 04: Protection of natural habitat and other biological resources.
 - *Policy 031 Provision of Open Space Areas*: Preserve and enhance open space area.
 - *Policy 032 Wetland and Riparian Corridor*: Where appropriate and feasible, establish permanent mechanisms to protect wetlands and riparian corridors.
 - *Policy 033 Vernal Pools*: Identify and protect vernal pools that be located in Planning Area.
 - *Policy 035 Impacts from Development*: Ensure that potential impacts to biological resources and sensitive habitat are carefully evaluated when considering development projects.
 - *Policy 037 Mature Trees*: Promote the preservation of existing mature trees and encourage the planting of appropriate shade trees in new developments.
 - *Policy 038 Native Tree Species and Drought Tolerant Vegetation*: Encourage the planting of native tree species and drought-tolerant vegetation.
- 5.5.2 Wildlife and Sensitive Species
 - *Policy 039 Endangered Wildlife and Habitat*: Establish programs in connection with environmental review processes to protect endangered wildlife and their habitats.
 - *Policy 040 Sensitive Wildlife*: Work with state, federal, and local agencies on the preservation of sensitive wildlife species in the City.

IMPACT FINDINGS AND RECOMMENDED MITIGATION MEASURES

The following impact assessment and recommended mitigation measures are intended to support the CEQA review process. The project, as proposed by the applicant, coupled with LSA's survey results and review of biological literature, provided the basis for this analysis. The impact discussion below addresses the range of impacts that could result from the proposed project, as well as recommended mitigation measures that would avoid, reduce, or compensate for such impacts.

SPECIAL-STATUS NATURAL COMMUNITIES

The project site does not contain any special-status natural communities and such habitats would not be impacted by the proposed project.

SPECIAL-STATUS SPECIES

No special-status plant species are expected to occur within the project site or to be adversely affected by the proposed project.

While no special-status animal species (or signs of such species) were observed on site during the April 2020 survey, several small mammal burrows were observed within the project site that are considered suitable habitat for burrowing owl, a California Species of Special Concern, and/or San Joaquin kit fox, a federally listed as endangered and state-listed as threatened species. None of the small mammal burrows observed in the project site exhibited features typical of occupied kit fox or burrowing owl burrows at the time of the survey, although there is some potential for use by these species in the future. Potentially significant direct and indirect impacts, including mortality, harassment, or other forms of incidental take, could occur if construction-related ground disturbance occurs in or around an occupied den or burrow.

No other special-status species were determined to have a moderate or high probability of occurrence on the project site (refer to Appendix D). The removal of the disturbed annual grassland habitat documented on the project site is not anticipated to substantially impact the population sizes of any special-status animal species given the context and setting of the project site and additional habitats for such species in the project vicinity.

While suitable habitat for shrub and tree nesting birds is very limited on the project site (only one tree occurs within the site boundaries), the project site does contain suitable nesting habitat for a variety of ground-nesting birds and for other birds that could nest in the annual herbaceous vegetation. Nesting birds are protected under the California Fish and Game Code. Construction activities that occur during the nesting bird season (typically February 15 through September 15) have potential to result in the direct or indirect take of nesting birds.

If unmitigated or avoided, these potential direct and indirect impacts on special-status wildlife species and nesting birds could be considered potentially significant. However, implementation of Mitigation Measures BIO-1 through BIO-4, as summarized below, would effectively mitigate any impacts on special-status wildlife species to less-than-significant levels.

Mitigation Measure BIO-1: Conduct Preconstruction Clearance Surveys for San Joaquin Kit Fox and Burrowing Owl. A preconstruction clearance survey is required for San Joaquin kit fox and burrowing owl no more than 30 calendar days prior to initiation of project activities. All survey results must be delivered to the USFWS, the CDFW, and the City of Hanford. If the survey results find an active burrow of one or both of these species on the project site, the applicant must coordinate with the applicable resource agencies (CDFW for burrowing owl, CDFW and USFWS for kit fox) to obtain applicable agency approval(s)/permit(s) prior to any ground disturbance activities on the site.

Specific avoidance, den excavation, passive relocation, and compensatory mitigation activities shall be performed as required by the applicable agency. Appropriate provisions of the *CDFW Staff Report on Burrowing Owl Mitigation* (CDFG 2012) and *USFWS Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox* (USFWS 2011) shall be adhered to.

Mitigation Measure BIO-2. Worker Environmental Awareness Training. Prior to initial groundbreaking, Worker Environmental Awareness Training shall be conducted by a qualified biologist to educate all construction personnel on the relevant federal, state, and local laws related to potentially occurring special-status species at the site. The tailgate session shall include training on identification of species that may be found on the project site, the status of those species, and any legal protection afforded to those species. Personnel will be advised to report any special-status species encountered promptly. A fact sheet conveying this information will be prepared for display or for distribution to anyone who may enter the project site.

Mitigation Measure BIO-3. Construction Site Housekeeping and Operational Requirements. Habitat subject to permanent and temporary construction disturbances and other types of ongoing project-related disturbance activities shall be minimized by adhering to the following *USFWS Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox* (USFWS 2011):

- A. To minimize temporary disturbances, all project-related vehicle traffic shall be restricted to established roads, construction areas, and other designated areas. These areas shall also be included in preconstruction surveys and, to the extent possible, shall be established in locations disturbed by previous activities to prevent further impacts.
- B. Project-related vehicles shall observe a daytime speed limit of 20-mph throughout the site in all project sites, except on county roads

and state and federal highways; this is particularly important at night when kit foxes are most active. Night-time construction shall be minimized to the extent possible. However if it does occur, then the speed limit shall be reduced to 10-mph. Off-road traffic outside of designated project sites shall be prohibited.

- C. To prevent inadvertent entrapment of kit foxes or other animals during the construction phase of a project, all excavated, steep-walled holes or trenches more than 2-feet deep shall be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks shall be installed. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped animals. If at any time a trapped or injured kit fox is discovered, the USFWS and the CDFW shall be contacted.
- D. Kit foxes are attracted to den-like structures such as pipes and may enter stored pipes and become trapped or injured. All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored at a construction site for one or more overnight periods shall be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe shall not be moved until the USFWS and CDFW have been consulted. If necessary, and under the direct supervision of a qualified biologist, the pipe may be moved only once to remove it from the path of construction activity, until the fox has escaped. In the case of trapped animals, escape ramps or structures shall be installed immediately to allow the animal(s) to escape, or the USFWS and CDFW should be contacted for further guidance.
- E. All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in securely closed containers and removed at least once a week from a construction or project site.
- F. Pets, such as dogs or cats, shall not be permitted on the project site to prevent harassment, mortality of kit foxes, or destruction of dens.
- G. Use of rodenticides and herbicides in project sites shall be restricted. This is necessary to prevent primary or secondary poisoning of kit foxes and the depletion of prey populations on which they depend. All uses of such compounds shall observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other state and federal legislation. If rodent control must be

conducted, zinc phosphide should be used because of a proven lower risk to kit fox.

Mitigation Measure BIO-4: Nesting Bird Surveys and Avoidance. If vegetation removal, construction, or grading activities are planned to occur within the active nesting bird season (February 15 through September 15), a qualified biologist shall conduct a preconstruction nesting bird survey no more than 5 days prior to the start of such activities. The nesting bird survey shall include the project site and areas immediately adjacent to the site that could potentially be affected by project-related activities such as noise, vibration, increased human activity, and dust, etc. For any active nest(s) identified, the qualified biologist shall establish an appropriate buffer zone around the active nest(s). The appropriate buffer shall be determined by the qualified biologist based on species, location, and the nature of the proposed activities. Project activities shall be avoided within the buffer zone until the nest is deemed no longer active by the qualified biologist.

CRITICAL HABITAT

The project would not result in any impacts to critical habitat, and no additional mitigation is required.

JURISDICTIONAL AQUATIC RESOURCES

The project proposes to convert an open trapezoidal segment of Peoples Ditch (an excavated irrigation canal) to a 66-inch-diameter below-ground pipe culvert which would terminate approximately 20 feet short of the existing pipe culvert that runs under State Route 198. Approximately 0.50 acre of the irrigation canal would be undergrounded as part of the project.

As previously discussed, Peoples Ditch does not meet the definition of a jurisdictional water of the United States pursuant to the *Navigable Waters Protection Rule* (EPA and DOA 2020), effective June 22, 2020. Furthermore, Peoples Ditch does not meet the wetland criteria outlined in the *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (SWRCB 2019), which excludes agricultural ditches with ephemeral flow that are not a relocated water of the state or excavated in a water of the state. Nevertheless, Peoples Ditch may fall within the jurisdiction of CDFW under Section 1602 of the California Fish and Game Code and the RWQCB under the California Water Code (e.g., the Porter-Cologne Water Quality Control Act). Furthermore, given the recent substantial changes in operable definitions that have occurred and may continue to occur, and considering the regulatory revisions and potential court actions, it is not possible to definitively predict the regulations that will be in place at the time of a particular jurisdictional determination or permit action by the USACE. Under currently effective Clean Water Act regulations and guidance, the USACE reserves the right to regulate certain resources on a case-by-case basis. Therefore, Regulatory Compliance Measure BIO-1 is recommended.

Regulatory Compliance Measure BIO-1:

Agency Coordination for Peoples Ditch. Prior to any modifications to Peoples Ditch, it is recommended to consult with the USACE, CDFW, and RWQCB to verify the feature's jurisdictional status and obtain applicable permit(s) and/or authorization(s). A notification of streambed alteration should be submitted to the California Department of Fish and Wildlife in accordance with Section 1602 of the California Fish and Game Code. Unless categorically excluded under effective definitions or existing documentation confirms that no permit is needed, the Central Valley RWQCB and Sacramento District of the USACE should be consulted regarding potential permitting needs under the California Water Code and federal Clean Water Act, respectively, associated with the proposed Peoples Ditch modifications.

Implementing applicable permit measures would prevent or compensate for impacts on jurisdictional aquatic resources. Considering the status of Peoples Ditch as a constructed and maintained irrigation canal and the lack of natural drainages, riparian areas, and wetlands on the project site, the project would not result in a substantial adverse effect on state or federally protected wetlands through direct removal, filling, hydrological interruption, or by other means. The impact is considered less than significant.

WILDLIFE MOVEMENT AND HABITAT CONNECTIVITY

The wildlife species that occur in the project vicinity are adapted to the urban-wildland interface, and the project would not introduce new affects to the area. The noise, vibration, light, dust, or human disturbance within construction areas would only temporarily deter wildlife from using areas in the immediate vicinity of construction activities. These indirect effects could temporarily alter migration behaviors, territories, or foraging habitats in select areas. However, because these are temporary effects, it is likely that wildlife already living and moving in close proximity to urban development would alter their normal functions for the duration of the project construction and then re-establish these functions once all temporary construction effects have been removed. The proposed project would not place any permanent barriers within any known wildlife movement corridors or interfere with habitat connectivity. The impact is considered less than significant, and no additional mitigation is required.

REGIONAL HABITAT CONSERVATION PLANS AND LOCAL POLICIES

- 5.5.1 Natural Habitat: Goal 04: Protection of natural habitat and other biological resources.
 - *Policy 031 Provision of Open Space Areas:* Preserve and enhance open space area.

Consistency Analysis: The project site is located within the Highway Commercial land use designation and is isolated from open space areas; therefore the project is considered consistent with this policy.

- o *Policy 032 Wetland and Riparian Corridor:* Where appropriate and feasible, establish permanent mechanisms to protect wetlands and riparian corridors.

Consistency Analysis: The project is not located within wetlands or riparian corridors; therefore the project is considered consistent with this policy.

- o *Policy 033 Vernal Pools:* Identify and protect vernal pools that be located in Planning Area.

Consistency Analysis: Vernal pools are not located within the project site; therefore the project is considered consistent with this policy.

- o *Policy 035 Impacts from Development:* Ensure that potential impacts to biological resources and sensitive habitat are carefully evaluated when considering development projects.

Consistency Analysis: No sensitive or special-status natural communities occur on the project site. An appropriately-timed field survey and biological resources assessment were conducted on the project site to determine the likelihood and suitability of sensitive habitat and species; the project is not likely to result in significant impacts on sensitive resources with the implementation of recommended measures. Therefore, the project is considered consistent with this policy.

- o *Policy 037 Mature Trees:* Promote the preservation of existing mature trees and encourage the planting of appropriate shade trees in new developments.

Consistency Analysis: The development plan includes the removal of one nonnative tree. The project will include the planting of trees as part of the landscaping plan, resulting in an overall increase in shade trees within the project area. Therefore, the project is considered consistent with this policy.

- o *Policy 038 Native Tree Species and Drought Tolerant Vegetation:* Encourage the planting of native tree species and drought-tolerant vegetation.

Consistency Analysis: The landscaping plan will be provided in accordance with Section 17.52 Landscape Standards of the Hanford Municipal Code; all species of trees shall be selected from a list approved by the City's Parks Division. Therefore, the project is considered consistent with this policy.

- 5.5.2 Wildlife and Sensitive Species

- o *Policy 039 Endangered Wildlife and Habitat:* Establish programs in connection with environmental review processes to protect endangered wildlife and their habitats.

Consistency Analysis: An appropriately-timed field survey and literature reviews were conducted for the project in support of the CEQA review process. Based on the analysis and with implementation of the recommended mitigation measures contained herein, it is unlikely that any endangered species would be adversely affected by the project. Therefore, the project is considered consistent with this policy.

- o *Policy 040 Sensitive Wildlife:* Work with state, federal, and local agencies on the preservation of sensitive wildlife species in the City.

Consistency Analysis: Implementation of recommended Mitigation Measures BIO-1 through BIO-4, as described above, would ensure consistency with applicable resource agency policies with regard to sensitive wildlife species determined to have potential of occurring on the project site. Therefore, the project is considered consistent with this policy.

With implementation of the recommended mitigation measures listed above, the proposed project would not conflict with any regional habitat conservation plan or local policies related to the protection and conservation of biological resources.

CONCLUSION

Based on field observations coupled with the habitat suitability analysis conducted for this assessment, the proposed project has low-to-moderate potential to impact several regionally-occurring special-status wildlife species, but is not anticipated to impact any special-status plant species, natural communities, or other habitats of concern. The implementation of the recommended mitigation measures detailed herein would ensure consistency with local policies related to biological resources, and would reduce any potentially significant impacts on special-status wildlife species to a less than significant level.

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APPENDIX A

FIGURES

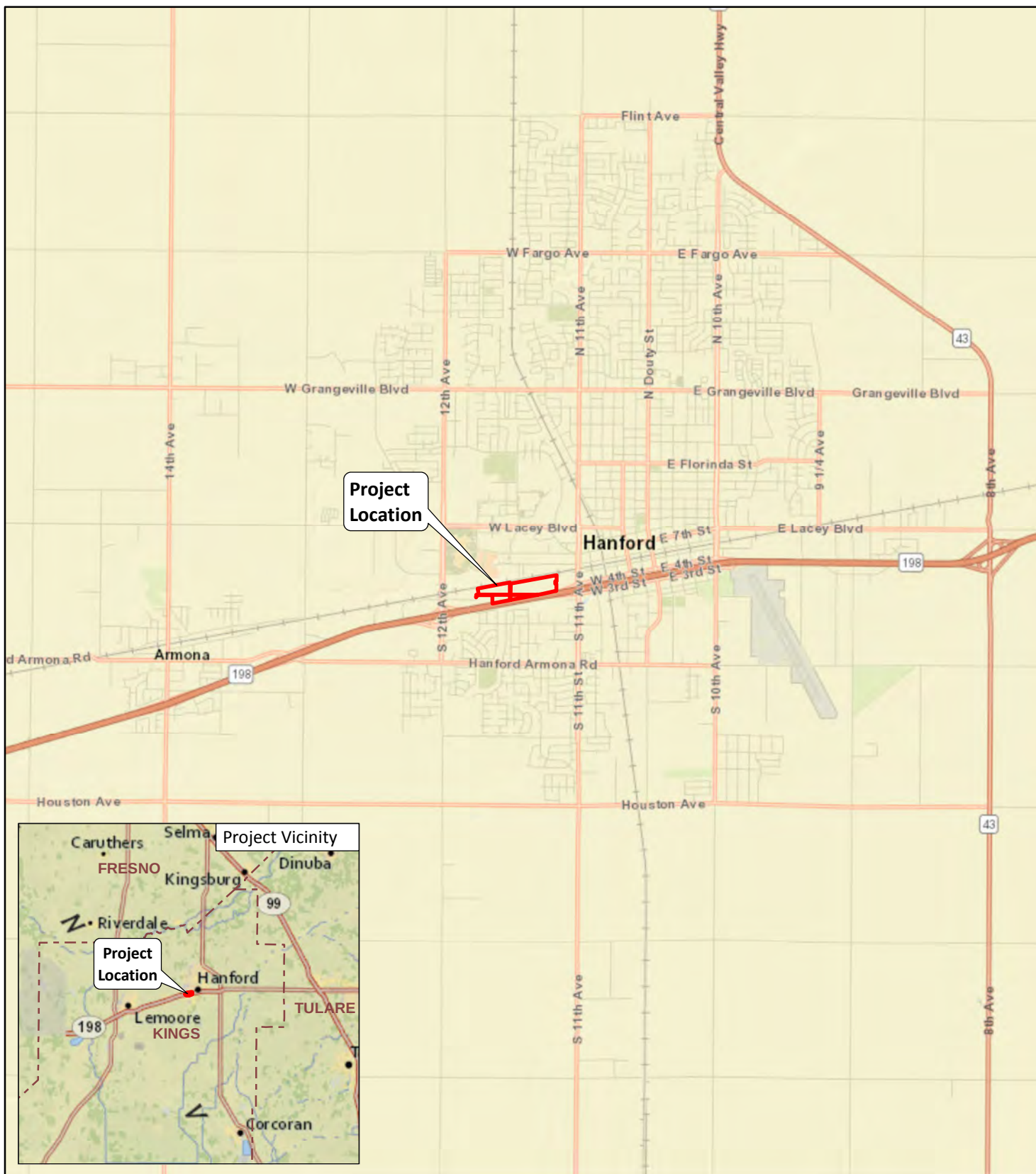


FIGURE 1

*Hanford Place Project
Hanford, Kings County, California
Regional Location*



LSA

LEGEND

Project Site



0 250 500
FEET

SOURCE: Google Aerial Imagery (2020).

\\PTR11\images\EPI2001\GIS\Maps\Figure 2_Project Location_rev1.mxd (5/11/2020)

FIGURE 2

Hanford Place Project
Hanford, Kings County, California
Project Location



FIGURE 3

LSA



SOURCE: LANGDON WILSON INTERNATIONAL, 2020.

FRE10\P:\EPI2001 Hanford Place\PRODUCTS\Figure_3.ai (4/22/2020)

Hanford Place Project
Hanford, Kings County, California
Site Plan



LSA

LEGEND

 Project Site

Vegetation and Land Use Type

Developed

Barren/Disturbed

Peoples Ditch- Irrigation Canal

Wild Oats and Annual Brome Grassland



0 250 500
FEET

SOURCE: Google Aerial Imagery (2020).

\\PTR11\images\EPI2001\GIS\Maps\Figure 4_Vegetation Map_rev1.mxd (6/10/2021)

FIGURE 4

Hanford Place Project
Hanford, Kings County, California
Vegetation Map



FIGURE 5

LSA



0 250 500
FEET

LEGEND

Project Site

Soil Type

149-Nord complex, 0 to 2 percent slopes MLRA 17

167- Urban land

SOURCE: Google Aerial Imagery (2020).

\\PTR11\images\EPI2001\GIS\Maps\Figure 5_Soils Map.mxd (4/30/2020)

Hanford Place Project
Hanford, Kings County, California
Soils Map

APPENDIX B

PLANT SPECIES OBSERVED

The table below contains a list of plant species identified on the project site by LSA Biologist Kelly McDonald on April 27, 2020.

Plant Species Observed

EUDICOTS	
Amaranthaceae	Amaranth family
* <i>Amaranthus albus</i>	pigweed amaranth
Asteraceae	Sunflower Family
* <i>Erigeron bonariensis</i>	flax-leaved horseweed
<i>Erigeron canadensis</i>	Canadian horseweed
<i>Gnaphalium palustre</i>	Western marsh cudweed
<i>Helianthus annuus</i>	common sunflower
* <i>Lactuca serriola</i>	prickly lettuce
<i>Matricaria discoidea</i>	pineapple weed
* <i>Silybum marianum</i>	milk thistle
* <i>Soncus asper</i>	spiny sow-thistle
Boraginaceae	Borage family
<i>Amsinckia menziesii</i>	common fiddleneck
Brassicaceae	Mustard Family
* <i>Capsella bursa-pastoris</i>	Shepherd's purse
* <i>Hirschfeldia incana</i>	shortpod mustard
* <i>Lepidium didymum</i>	lesser swine cress
* <i>Raphanus raphanistrum</i>	wild radish
* <i>Sisymbrium altissimum</i>	tumble mustard
* <i>Sisymbrium irio</i>	London rocket
Chenopodiaceae	Goosefoot Family
* <i>Salsola tragus</i>	Russian thistle
Geraniaceae	Geranium Family
* <i>Erodium malacoides</i>	Mediterranean storks' bill
Fabaceae	Legume Family
* <i>Melilotus albus</i>	whitesweet clover
* <i>Melilotus indicus</i>	yellow sweetclover
<i>Trifolium willdenovii</i>	Tomcat clover
Malvaceae	Mallow Family
* <i>Malva parviflora</i>	cheeseweed mallow
Polygonaceae	Buckwheat Family
<i>Persicaria lapathifolia</i>	common knotweed
* <i>Rumex crispus</i>	curly dock
Phrymaceae	Lopseed Family
<i>Erythranthe guttata</i>	common monkeyflower
Solanacea	Nightshade Family

Plant Species Observed

* <i>Solanum elaeagnifolium</i>	white-horse nettle
Simaroubaceae	Quassi Family
* <i>Ailanthus altissima</i>	tree of heaven
MONOCOTS	
Poaceae	Grass Family
* <i>Avena barbata</i>	wild oat
* <i>Bromus diandrus</i>	ripgut grass
* <i>Bromus madritensis ssp. rubens</i>	red brome
* <i>Bromus madritensis ssp. madritensis</i>	foxtail chess
* <i>Bromus tectorum</i>	cheat grass
* <i>Hordeum murinum</i>	foxtail barley
* <i>Polypogon monspeliensis</i>	rabbitsfoot grass
* <i>Sorghum halepense</i>	Johnsongrass

* = nonnative species

APPENDIX C

REPRESENTATIVE SITE PHOTOS



Site overview showing disturbed areas and wild oats and annual brome grassland vegetation. Photo taken facing east from the central portion of the project site, east of Peoples Ditch. April 27, 2020.



The southwest portion of the project site supports wild oats and annual brome grassland vegetation. Photo taken facing west near Highway 198, near the southwestern corner of the project site. April 27, 2020.



View of Peoples Ditch and barren areas, facing northwest. A single tree (*Ailanthus altissima*; nonnative species) is present on the project site. April 27, 2020.



View of Peoples Ditch and barren areas, facing west. April 27, 2020.



View of Peoples Ditch, facing south near the Campus Drive culvert outfall. April 27, 2020.



View of existing Peoples Ditch culvert inlet that goes underneath Highway 198, facing south. Visible signs of debris and human disturbance were observed within the canal. April 27, 2020.



Site overview showing disturbed/barren areas, debris, and wild oats and annual brome grassland vegetation. Photo taken facing east from the northeastern corner of the project site. April 27, 2020.



Site overview showing disturbance from off-highway vehicle use, foot paths, and wild oats and annual brome grassland vegetation. Photo taken facing east near the northern portion of the project site. April 27, 2020.

LSA

APPENDIX B

(Sheet 3 of 4)

Hanford Place Project

Site Photographs



One of several burrows located in the barren areas surrounding Peoples Ditch. No burrowing owl or kit fox sign was detected at any of the observed burrows. April 27, 2020.



View of the northeastern portion of the project site showing the worn foot path and wild oats and annual brome grassland vegetation, near the railroad tracks. April 27, 2020.

APPENDIX D

SPECIAL-STATUS SPECIES IDENTIFIED AS POTENTIALLY OCCURING IN THE PROJECT VICINITY

Table D-1: Special-Status Plant Species Potentially Occurring in the Project Vicinity

Common Name	Scientific Name	Status	General Habitat Description	Flowering Period	Likelihood of Occurrence and Rationale
Earliart orache	<i>Atriplex cordulata</i> <i>var. erecticaulis</i>	US: – CA: – CNPS: 1B:2	Annual herb occurring in valley and foothill grassland between 40 and 100 m in elevation. Kings, Kern and Tulare counties.	August-September	Not Expected. There are no known historical records of occurrence in the project vicinity ¹ and suitable habitat is limited in the project area; the maintained nature of the project area reduces the likelihood of occurrence.
Brittlescale	<i>Atriplex depressa</i>	US: – CA: – CNPS: 1B:2	Annual herb occurring in chenopod scrub, meadows, seeps, valley/foothill grasslands, playas and vernal pools between 1 and 320 m elevation. Found in Central Valley counties.	April-October	Not Expected. There are no known records of occurrence in the project vicinity and suitable habitat is limited in the project area; the maintained nature of the project area reduces the likelihood of occurrence.
Lesser saltscale	<i>Atriplex minuscula</i>	US: – CA: – CNPS: 1B:1	Annual herb occurring in chenopod scrub, valley/foothill grassland, and playas in sandy soils between 15 and 200 m in elevation. Found in Central Valley counties.	May-October	Low probability of occurrence. There are no known records of occurrence in the project vicinity and suitable habitat is limited in the project area; the maintained nature of the project area reduces the likelihood of occurrence.
Subtle orache	<i>Atriplex subtilis</i>	US: – CA: – CNPS: 1B:2	Annual herb occurring in valley and foothill grassland on alkaline soils between 40 and 100 m in elevation. Found in Central Valley counties.	June-October	Low probability of occurrence. There are no known records of occurrence in the project vicinity and suitable habitat is limited in the project area; the maintained nature of the project area reduces the likelihood of occurrence.
Recurved larkspur	<i>Delphinium recurvatum</i>	US: – CA: – CNPS: 1B:2	Perennial herb associated with chenopod scrub, cistomante woodlands, and valley/foothill grasslands on alkaline soils between 3 and 790 m in elevation. Found in Central Valley counties.	March-June	Not expected. There are no known records of occurrence in the project vicinity and suitable habitat is limited in the project area; the maintained nature of the project area reduces the likelihood of occurrence. The April 2020 survey was conducted during the typical blooming period of this species.
Panoche pepper-grass	<i>Lepidium jaredii</i> <i>ssp. album</i>	US: – CA: – CNPS: 1B:2	Annual herb occurring in valley and foothill grasslands on steep slopes with clay and alkaline soils between 185 and 745 m elevation. Fresno, San Benito and San Luis Obispo counties.	February-June	Not Expected. There are no known records of occurrence in the project vicinity and suitable habitat conditions are absent in the project area.

Table D-1: Special-Status Plant Species Potentially Occurring in the Project Vicinity

Common Name	Scientific Name	Status	General Habitat Description	Flowering Period	Likelihood of Occurrence and Rationale
Mud nama	<i>Nama stenocarpa</i>	US: – CA: – CNPS: 1B.1	Annual/perennial herb occurring lake margins, river banks, marshes and swamps between 5 and 500 m in elevation. Found in interior southern California counties.	January-July	Not Expected. There are historical records of occurrence in the project vicinity (CNDDDB 1942); however, suitable habitat is limited in the project area; the maintained nature of the project area reduces the likelihood of occurrence.
California alkali grass	<i>Puccinellia simplex</i>	US: – CA: – CNPS: 1B.2	Annual herb occurring in chenopod scrub, vernal pools, valley/foothill grasslands, and meadows/seeps. On alkaline, vernal mesic, sinks, flats and lake margins between 2 and 930 m in elevation. Central Valley counties.	March-May	Not Expected. There are no known records of occurrence in the project vicinity and suitable habitat is limited in the project area; the maintained nature of the project area reduces the likelihood of occurrence.

¹Project vicinity = Project area plus a 5 mile buffer

Status: Federal Endangered (FE), Federal Threatened (FT), Federal Candidate (FC), Federal Proposed (FP, FPE, FPT), Federal Delisted (FD), California Endangered (CE), California Threatened (CT), California Species of Special Concern (SSC), California Fully Protected Species (CFP), California Special Plant (CSP), California Special Animal (CSA)

California Native Plant Society Designations:

1B = Rare, threatened, or endangered in California and elsewhere

2B = Rare, threatened, or endangered in California, but not elsewhere

0.1 = seriously endangered

0.2 = fairly endangered

CA = California

CNPS = California Native Plant Society

ft = foot/feet

m = meter/meters

mi = mile/miles

US = United States

Table D-2: Special-Status Animal Species Potentially Occurring or Known to Occur in the Project Vicinity

Common Name	Scientific Name	Status Listing	Habitat and Comments	Likelihood of Occurrence and Rationale
INVERTEBRATES				
Valley elderberry longhorn beetle	<i>Desmocerus californicus dimorphus</i>	US: FT CA: –	Requires elderberry trees, usually in riparian ecosystems, as host sources for breeding and forage.	Not Expected. There are no known records of occurrence in the project vicinity and suitable habitat is absent in the project area.
San Joaquin tiger beetle	<i>Cicindela tranquebarica ssp.</i>	US: – CA: –	Known only to occur in Tulare and Kings counties.	Not Expected. There are no known records of occurrence in the project vicinity and suitable habitat is absent in the project area.
vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	US: FT CA: –	Occurs only in vernal pools or vernal pool-like habitats and does not occur in riverine, marine, or other permanent bodies of water.	Not expected. There are no known records of occurrence in the project vicinity and suitable habitat is absent in the project area.
vernal pool tadpole shrimp	<i>Lepidurus packardii</i>	US: FE CA: –	Occurs only in ephemeral freshwater habitats, including alkaline pools, clay flats, vernal lakes, vernal pools, vernal swales, and other seasonal wetlands.	Not expected. There are no known records of occurrence in the project vicinity and suitable habitat is absent in the project area.
AMPHIBIANS				
California tiger salamander	<i>Ambystoma californiense</i>	US: FT CA: CT	Located in riparian woodlands and valley/foothills grasslands. Requires underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	Not expected. There are no known records of occurrence in the project vicinity and minimal suitable habitat is present.
Western spadefoot	<i>Spea hammondi</i>	US: FCT CA: SSC	Occurs primarily in grassland and other relatively open habitats. Found in elevations ranging from sea level to 4,500 ft. Requires temporary pools for breeding.	Low probability of occurrence. There are no known records of occurrence in the project vicinity and minimal suitable habitat is present within the canal and the surrounding grassland. However, debris and human disturbance were observed within the canal limiting the likelihood of occurrence.
REPTILES				
California glossy snake	<i>Arizona elegans occidentalis</i>	US:- CA: SSC	Occurs in low-elevation arid scrub, open woodland, grasslands, and chaparral slope habitats throughout the southwest and into Mexico. Dependent on diurnal lizards for major food source, small reptiles, birds, and mammals.	Low probability of occurrence. There are no known records of occurrence in the project vicinity and minimal suitable habitat is present.
Blunt-nosed leopard lizard	<i>Gambella sila</i>	US: FE CA: CE	Prefers sparsely vegetated arid grasslands and brush/scrub where there are abundant rodent burrows. Rare or absent in dense vegetation or tall grass.	Low probability of occurrence. There are no known records of occurrence in the project vicinity and suitable habitat is largely absent in the project area due to high, dense vegetation. Human disturbance also limits the likelihood of occurrence.

Table D-2: Special-Status Animal Species Potentially Occurring or Known to Occur in the Project Vicinity

Common Name	Scientific Name	Status Listing	Habitat and Comments	Likelihood of Occurrence and Rationale
Western pond turtle	<i>Emys marmorata</i>	US: – CA: SSC	Occurs in ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Upland habitat is needed for basking and breeding.	Very low probability of occurrence. There are no known records of occurrence in the project vicinity and only marginally suitable habitat is present within the canal and the surrounding grassland. However, debris and human disturbance were observed within the canal, and the ephemeral flow regime limit the likelihood of occurrence.
BIRDS				
Tricolored blackbird	<i>Agelaius tricolor</i>	US: – CA: CT	Occurs in open country or marshes in large colonies mainly in CA Central Valley. Breeds in freshwater marshes with tall emergent vegetation, feeds on insects.	Not Expected. There are no known records of occurrence in the project vicinity and suitable habitat is absent in the project area.
Burrowing owl	<i>Athene cunicularia</i>	US: – CA: SSC	Burrows in open, dry, annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably the California ground squirrel.	Moderate probability of occurrence. There are no known occurrences on the project site and marginally suitable habitat is present in the project area. Several small mammal burrows were unoccupied during the April 2020 survey, and no owl sign was observed. Known burrow sites in the Hanford region were occupied at the time of the April 2020 survey (eBird 2020).
Swainson's hawk	<i>Buteo swainsoni</i>	US: – CA: CT	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannas, and agricultural/ranch lands. Requires adjacent suitable foraging areas such as grasslands, alfalfa, or grain fields supporting rodent populations.	Moderate probability of foraging; Low probability of nesting. There are historical records of occurrence in the project vicinity (CNDDDB 2012, 2016) where nesting occurred. The project area does contain one tree that could provide suitable nesting habitat. The surrounding grassland could also provide suitable foraging habitat.
Western snowy plover	<i>Charadrius alexandrinus nivosus</i>	US: FT CA: SSC	Inhabits sandy beaches, salt pond levees & shores of large alkali lakes. Nests on sandy, gravelly or friable soils.	Low probability of occurrence. There are no known records of occurrence in the project vicinity and suitable nesting habitat is restricted to the top of the canal. However, debris and human disturbance were observed within project area limiting the likelihood of occurrence.

Table D-2: Special-Status Animal Species Potentially Occurring or Known to Occur in the Project Vicinity

Common Name	Scientific Name	Status Listing	Habitat and Comments	Likelihood of Occurrence and Rationale
Yellow-headed blackbird	<i>Xanthocephalus xanthocephalus</i>	US: – CA: SSC	Known to inhabit marshes and riparian areas in the Central Valley.	Not Expected. There are no known records of occurrence in the project vicinity and suitable habitat is absent in the project area.
MAMMALS				
Tipton kangaroo rat	<i>Dipodomys nitratoides nitratoides</i>	US: FE CA: CE	Inhabits open lands with sparse wood shrubs and low cover of annual grasses and forbs, alkali and saltbush scrublands.	Low probability of occurrence. There are no known records of occurrence in the project vicinity and suitable habitat is largely absent in the project area due to high, dense vegetation. Several small mammal burrows were unoccupied during the April 2020 survey, however debris and human disturbance were observed within the project area limiting the likelihood of occurrence
Hoary bat	<i>Lasiurus cinereus</i>	US: – CA: CSA	Prefers open habitats or habitat mosaics with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.	Roosting Not Expected. There is a historical record of occurrence in the project vicinity (CNDDDB 1991). Suitable roosting habitat is absent in the project area. Some suitable foraging habitat present in the project area.
San Joaquin kit fox	<i>Vulpes macrotis mutica</i>	US: FE CA: CT	Prefers open, level areas with loose-textured soils supporting scattered, shrubby vegetation with little human disturbance. Some agricultural areas may support these foxes.	Moderate probability of occurrence. There are historical records of occurrence in the project vicinity (CNDDDB 1975, 2000, 2006). Known to historically forage and den in the project vicinity, although there are no records in the project site and the site is isolated by existing urban development. Marginal denning habitat is present in the project site. Several small mammal burrows appeared to be unoccupied during the April 2020 survey, and no fox sign was observed.

¹Project vicinity = Project area plus a 5 mile buffer

Status: Federal Endangered (FE), Federal Threatened (FT), Federal Candidate (FC), Federal Proposed (FP, FPE, FPT), Federal Delisted (FD), California Endangered (CE), California Threatened (CT), California Species of Special Concern (SSC), California Fully Protected Species (CFP), California Special Animal (CSA)

ft = foot/feet

m = meter/meters

mi = mile/miles

US = United States

CA = California

APPENDIX C

CULTURAL RESOURCE INVENTORY

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Cultural Resource Inventory for the Hanford Place Medical and Mixed-Use Property Project in the City of Hanford, Kings County, California

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MANAGEMENT SUMMARY

Applied EarthWorks, Inc. (Æ), at the request of the Hanford Group and under subcontract to Epic Management Group, Inc., completed a cultural resource inventory for the Hanford Place Medical and Mixed-Use Property Project (Project) in Kings County, California. The Project proposes the construction of 15 buildings and structures that will be utilized for medical outpatient clinic services, hospitality, specialized education, retail, medical offices, skilled nursing and assisted living facilities, and multifamily housing. Project activities that could cause ground disturbance include grading; trenching for installation of water, sewer, and electrical infrastructure; construction of a roundabout; and excavation of a storm water retention basin in addition to construction of buildings, structures, and facilities.

The Project must comply with the California Environmental Quality Act (CEQA), which mandates that government agencies consider the impacts of their actions on the environment, including cultural resources. This report documents whether historical resources, as defined by the CEQA Guidelines, would be adversely impacted by the proposed Project. Æ's cultural resource inventory included a records search at the California Historical Resources Information System Southern San Joaquin Valley Information Center at California State University, Bakersfield; a review of historic maps, aerial photographs, and atlases; a search of the Native American Heritage Commission's (NAHC) Sacred Lands File; nongovernmental outreach to local Native American representatives identified by the NAHC; a buried site sensitivity assessment; and an intensive pedestrian survey of the Project area to identify cultural resources observable on the ground surface.

The Southern San Joaquin Valley Information Center records search for the Project and surrounding 0.5-mile area identified nine previous investigations intersecting the Project area and five additional studies in the surrounding 0.5-mile area. One historic-era resource was identified in the Project area (a segment of Peoples Ditch) and three historic-era resources were identified in the surrounding 0.5-mile area. A search of the NAHC Sacred Lands File did not identify sacred sites in the Project area. No responses have been received in response to Æ's outreach to six Native American representatives identified by the NAHC.

Æ archaeologists conducted an intensive pedestrian survey of the Project area to identify prehistoric and historic-era cultural resources visible at the ground surface. No prehistoric sites were identified during the pedestrian survey; however, Æ recorded one isolated historic artifact (AE-4167-ISO-01) and one historic-era deposit (AE-4167-01) observed on the ground surface in the southeastern portion of the Project area.

In addition, the buried site sensitivity assessment concluded that there is high potential for the soils in previously undisturbed portions of the Project area to contain anthropogenic paleosols that may harbor intact prehistoric cultural deposits. Portions of the Project area previously disturbed by the construction of the historic-era Peoples Ditch canal and its modern realignment, or within the historic-era plow zone (up to 24 inches below the ground surface) have a much lower sensitivity for containing paleosols with intact prehistoric deposits.

To fully comply with CEQA and determine if the Project will cause a substantial adverse change in the significant qualities of a historical resource, Æ recommends additional mapping and subsurface testing of AE-4167-01 to evaluate its eligibility for inclusion in the California Register of Historical Resources, pursuant to California Public Resources Code Section 5024.1. Æ additionally recommends focused subsurface testing in areas of the site not previously disturbed by historic-era activities to confirm the presence/absence of high-sensitivity paleosols that may include intact prehistoric cultural deposits. Completion of mapping, site testing, and soil testing will allow for an adequate assessment of whether the proposed Project may cause adverse impacts to historical resources (i.e., cultural resources eligible for listing on the California Register of Historical Resources). The methods and findings of the additional study would be presented as an addendum to this report and would include cultural resource management recommendations.

Field notes and photographs are on file at Æ's office in Fresno, California. A copy of the final version of this report and associated cultural resource records will be transmitted to the Southern San Joaquin Valley Information Center for inclusion in the California Historical Resources Information System.

CONTENTS

1	INTRODUCTION.....	1
1.1	PROJECT BACKGROUND	1
1.2	PROFESSIONAL QUALIFICATIONS.....	5
1.3	REPORT ORGANIZATION.....	5
2	PROJECT SETTING	7
2.1	NATURAL SETTING.....	7
2.2	CULTURAL SETTING.....	8
2.2.1	Prehistory	8
2.2.2	Ethnohistory	9
2.2.3	Historical Setting	10
2.2.3.1	Transportation and Development of Hanford	11
2.2.3.2	Agriculture in the Central Valley.....	12
2.2.3.3	Water Conveyance	12
2.2.3.4	Historical Use and Development of the Project Area.....	13
3	METHODS	19
3.1	RECORDS SEARCH	19
3.2	ARCHIVAL RESEARCH	19
3.3	NATIVE AMERICAN OUTREACH.....	19
3.4	BURIED SITE SENSITIVITY ASSESSMENT	19
3.5	ARCHAEOLOGICAL SURVEY.....	20
3.5.1	Documentation of Cultural Resources	20
4	FINDINGS	21
4.1	RECORDS SEARCH RESULTS	21
4.2	ARCHIVAL RESEARCH	21
4.3	NATIVE AMERICAN OUTREACH.....	21
4.4	BURIED SITE SENSITIVITY ASSESSMENT	22
4.5	ARCHAEOLOGICAL SURVEY FINDINGS	23
4.5.1	Visibility	23
4.5.2	Archaeological Resources.....	23
4.5.3	Built Environment Resources	26
5	SUMMARY AND RECOMMENDATIONS.....	29
6	REFERENCES.....	31

APPENDICES

- A Personnel Qualifications**
- B Records Search Results**
- C Native American Outreach**
- D Cultural Resource Records**

FIGURES

1-1	Project vicinity in Kings County, California	2
1-2	Project location on the USGS Hanford, CA 7.5-minute quadrangle	3
1-3	Aerial view of the Project area.....	4
2-1	City of Hanford circa 1892 showing streets and blocks aligned to the SPR tracks.....	11
2-2	Dry Creek present within the Project area prior to irrigation, as depicted on an 1855 General Land Office Plat	14
2-3	Project area on Thompson's 1892 Tulare County property atlas showing the structure on H. F. Schumaker's property	14
2-4	USGS Hanford, California, 1926 topographic map showing location of the structure identified on the 1892 Tulare County atlas and the historical alignment of Peoples Ditch within the Project area.....	15
2-5	1937 aerial photo depicting the alignment of the Peoples Ditch, the history-era residence, and the Southern Pacific/San Joaquin Valley Railroad within the Project area.....	16
2-6	USGS Hanford, CA 1954 photorevised topographic map showing historical building in eastern portion of the Project area and Peoples Ditch in the western portion.....	16
2-7	1976 aerial photograph demonstrating removal of historical building in the eastern portion of the Project area and the alignment of the Peoples Ditch at that time in the western portion.....	17
4-1	Survey conditions from the center of the Project area showing 100 percent ground surface visibility, facing west	24
4-2	Survey conditions within and along the modern alignment of Peoples Ditch, facing north	24
4-3	Survey coverage and cultural resources in the Project area.....	25
4-4	Various glass and ceramic artifact fragments and a toy marble from historic site AE-4167-01	26
4-5	Detail view of historical glass insulator fragment (isolated artifact AE-4167- ISO-01)	26
4-6	Remnant scar of historical Peoples Ditch within survey area, facing east	27

1

INTRODUCTION

Applied EarthWorks, Inc. (Æ), under subcontract to Epic Management Group, Inc., performed a cultural resource inventory for the Hanford Place Medical and Mixed-Use Facility Project (Project) in the city of Hanford, Kings County, California (Figure 1-1). Specifically, the Project is in Section 35, Township 18 South, Range 21 East, Mount Diablo Base and Meridian (Figure 1-2). The Project includes 42.84 acres between the Burlington Northern Santa Fe Railway tracks and State Route 198 (Figure 1-3).

The Project is subject to the California Environmental Quality Act (CEQA; California Public Resources Code [PRC] Sections 21000–21189) and the CEQA Guidelines (Title 14, California Code of Regulations [CCR], Sections 15000–15387), which mandate that public agencies consider the impacts of discretionary projects on the environment, including cultural resources. If a project has the potential to cause substantial adverse change in the characteristics of an important cultural resource or “historical resource” through demolition, destruction, relocation, alteration, or other means, then the project is judged to have a significant effect on the environment (14 CCR 15064.5[b]). Sections 15064.5(a)(1–3) of the CEQA Guidelines state that a historical resource is: (1) listed or determined eligible for listing in the California Register of Historical Resources; (2) included in a local register of historical resources (pursuant to PRC Section 5020.1[k]) or identified as significant in a historical resource survey per the CRHR eligibility criteria (PRC 5024.1[c]); or (3) considered eligible by a lead agency under PRC 5020.1(j) or 5024.1. The definition subsumes a variety of resources, including prehistoric and historical archaeological sites, structures, buildings, and objects (14 CCR 15064.5[a][3] and 15064.5[c]). The City of Hanford is the lead agency for purposes of the CEQA.

1.1 PROJECT BACKGROUND

The Project proposes to construct 15 buildings, structures, and facilities that will be utilized for medical outpatient clinic services, hospitality, specialized education, retail, medical offices, skilled nursing and assisted living, and multifamily housing. Project activities with potential to cause ground disturbance would include grading; installation of water, sewer, and electrical infrastructure; construction of a roundabout; and excavation of a storm water retention basin in addition to construction of the 15 buildings and structures. The roundabout would be incorporated into the public right-of-way. Maximum depth of ground disturbance is presently undefined. Similarly, maximum height of proposed structures is not determined.

To assist the Hanford Group in fulfilling CEQA requirements for the proposed Project, Æ conducted a cultural resource inventory that included: (1) a records search at the California Historical Resources Information System (CHRIS) Southern San Joaquin Valley Information Center (SSJVIC) to identify prior cultural resource studies and previously recorded cultural resources in the Project area and surrounding 0.5-mile area; (2) desktop archival research to better understand land use and property ownership within the Project area; (3) a search of the Native American Heritage Commission’s (NAHC) Sacred Lands File and outreach with local

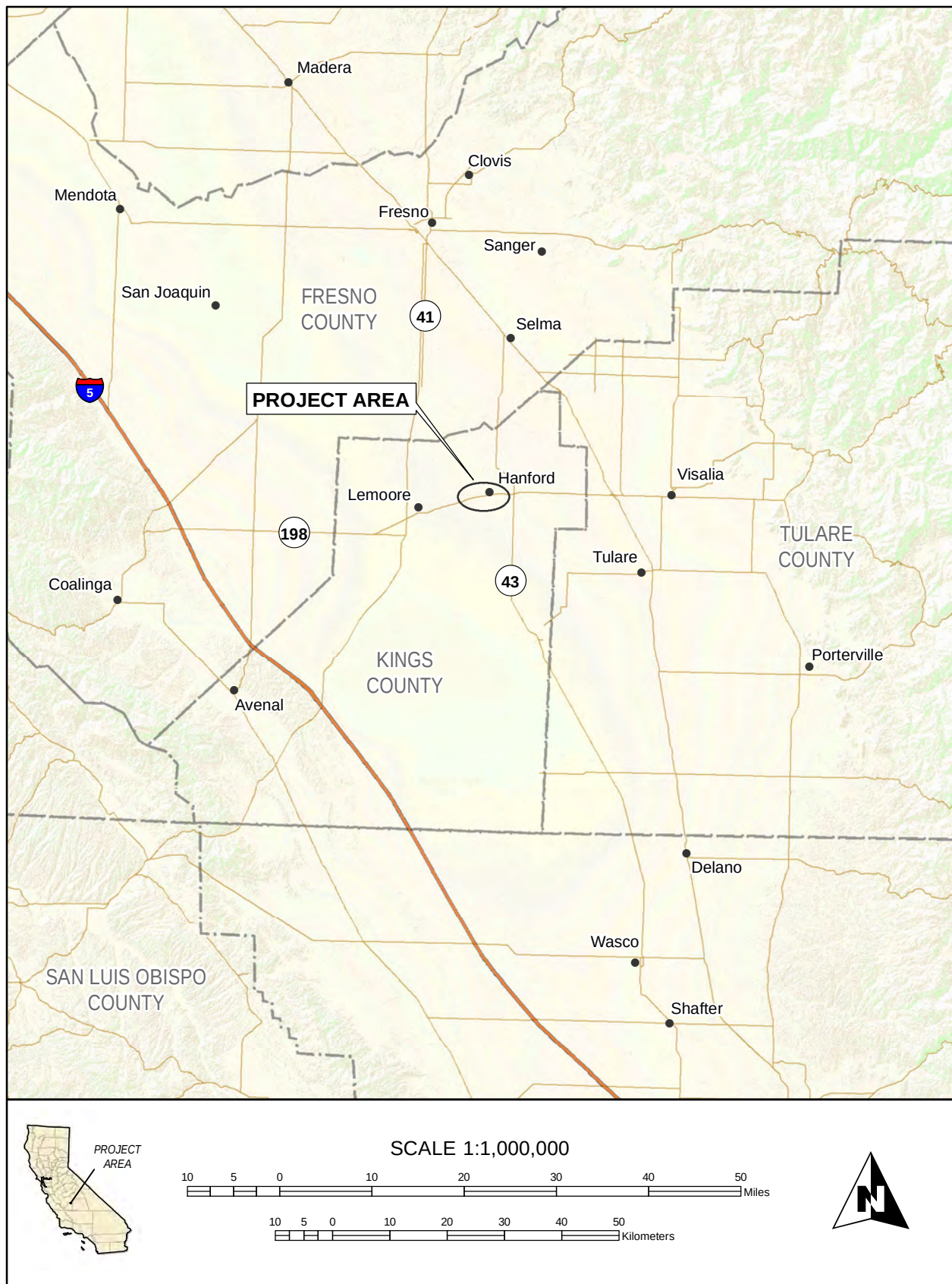


Figure 1-1 Project vicinity in Hanford, California.

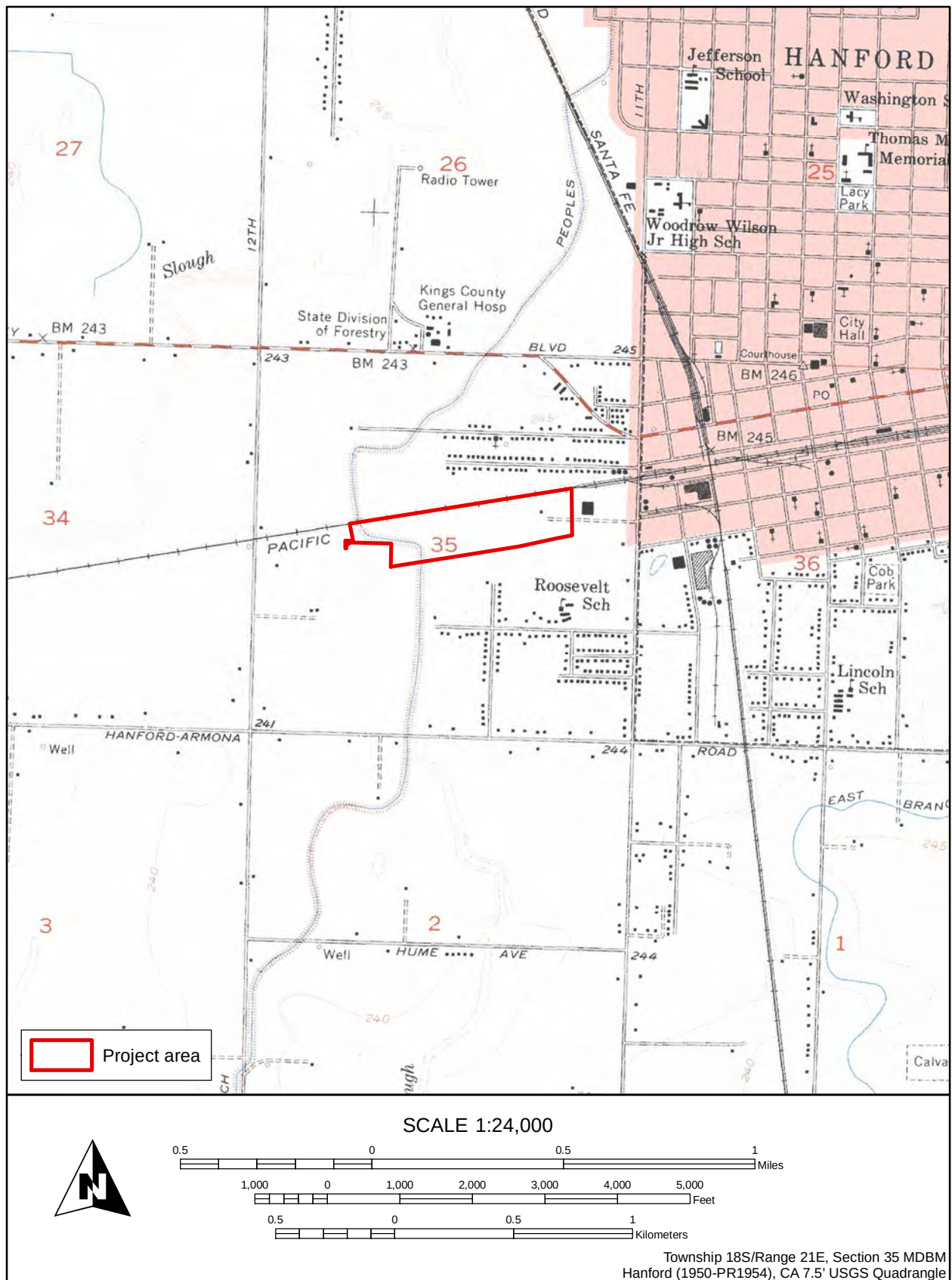


Figure 1-2 Project location on the USGS Hanford, CA 7.5-minute quadrangle.



Figure 1-3 Aerial view of the Project area.

tribal representatives; (4) a pedestrian survey of the Project area to identify potential historical resources within the Project area and preliminary recordation of identified resources on the appropriate California Department of Parks and Recreation record form(s); (5) a buried site sensitivity assessment; and (6) recommendations for further work to assess whether the proposed Project would cause adverse impacts to historical resources—i.e., cultural resources eligible for listing on the California Register.

1.2 PROFESSIONAL QUALIFICATIONS

Æ Senior Archaeologist Diana T. Dyste (M.A.), a Registered Professional Archaeologist (RPA 39362477), served as project manager and co-author of this report, providing quality oversight and technical guidance. Æ Senior Architectural Historian Carlos van Onna (M.A.) conducted site-specific archival research and prepared the historic context for the Peoples Ditch (P-16-000246/CA-KIN-97H). Æ Senior Archaeologist Dennis McDougall assisted van Onna with research. Æ Staff Archaeologist Ward Stanley completed the archaeological pedestrian survey and, along with Staff Archaeologist Jessica Jones, contributed to the technical report. Staff Archaeologist/GIS Technician Flavio Silva (Ph.D.) prepared maps, report graphics, and compiled the GIS data. Résumés for key personnel are provided in Appendix A.

1.3 REPORT ORGANIZATION

This technical report was prepared according to California Office of Historic Preservation (1990) standards outlined in *Archaeological Resource Management Reports (ARMR): Recommended Contents and Format* and thus fulfills the requirements for the CEQA.

Following this introduction, Chapter 2 describes the natural environment, prehistoric setting, ethnography of the region, and historic setting encompassing the Project area. Chapter 3 discusses the methods used during archival research, buried site sensitivity assessment, and archaeological and built environment surveys. Research findings and results of the survey and buried site assessment are provided in Chapter 4. A summary of findings and cultural resource management recommendations are included in Chapter 5. References cited are provided in Chapter 6, followed by Appendices A–D.

2 PROJECT SETTING

2.1 NATURAL SETTING

The Project is in the San Joaquin Valley, the southern half of an elongated trough called the Great Valley. The Great Valley is a 50-mile-wide lowland that extends approximately 500 miles south from the Cascade Range to the Tehachapi Mountains (Norris and Webb 1990:412). Between the Mesozoic and Cenozoic eras, the Great Valley served as a shallow marine embayment containing numerous lakes, primarily within the San Joaquin Valley (Norris and Webb 1990:412). Waters began to diminish around 10 million years ago during the late Pliocene and eventually were cut off from the ocean altogether by the formation of the Coast Ranges, leaving tributaries and small lakes that survived until the historic era (Hill 1984:28; Norris and Webb 1990:380).

Much of the Great Valley rests upon thick strata of alluvial sediments washed down from the Sierra Nevada and Coast Ranges during the Quaternary (Norris and Webb 1990). It is this same soil that today makes the valley a fertile agricultural region. Below these levels are layers from the Pliocene and older epochs, which consist of both marine (shale, sandstone) and nonmarine (basalt, andesite) materials. Primary soils have been developed by weathering, seasonal erosion, and mass flood events that cause downward movement of granitic parent material. Secondary soils are formed by a combination of eolian and alluvial forces that have transported granitic and assorted metamorphic and metavolcanic materials along mountain streams (Weir 1956). Quaternary and recent alluvium covers most of the valley basin (Meyer et al. 2010).

The Project area is in the Tulare Lake Basin hydrologic unit, which includes a portion of one of the San Joaquin Valley's dominant hydrologic features, the Kings River. Several smaller order creeks and streams flow north into the Kings River toward Hanford, while the westward-flowing Tule River is south of Hanford. Intermittent creeks feed the Kings River, which can remain dry for long periods of the year. However, before historic drainage projects and modern reclamation, seasonal flooding from the Kings River produced extensive wetlands in the valley. Lakes, marshes, and sloughs once covered more than 3,000 square miles in the San Joaquin Valley (Moratto 1984:168). The largest of these was ancient Tulare Lake. The lake existed approximately 25 miles southwest of the Project area and spanned as much as 30 miles from shore to shore (Preston 1981). As more water was historically diverted from major streams for agricultural purposes, the shores of the lake progressively retreated. By the early twentieth century, Tulare Lake had all but disappeared except in unusually wet years when high levels of runoff are released.

The abundance of water near and within the Project area provided a rich habitat for plants and animals in prehistory and through the historic era. Common native plants would have included white and live oaks (*Quercus* spp.) as well as walnut (*Juglans* sp.), cottonwood (*Populus fremontii*), willow (*Salix* sp.), and tule (*Schoenoplectus* sp.), and possibly hardstem bulrush (*Scirpus acutus*) and cattail (*Typha* sp.). Various grasses, forbs, and sedges would have flourished in the area. A variety of animals lived in and around the Project area prior to the modern era, including mule deer (*Odocoileus hemionus*), white-tailed deer (*O. virginianus*), tule

elk (*Cervus* sp.), pronghorn (*Antilocapra americana*), grizzly bears (*Ursus arctos californicus*) and black bears (*U. americanus*) (Preston 1981:245–247). These resources provided humans with a diverse range of medicinal, dietary, and other resources used for tool production and other subsistence purposes during prehistory and the historic era.

2.2 CULTURAL SETTING

2.2.1 Prehistory

The San Joaquin Valley prehistoric record is among the least understood of all regions in California. Reconstruction of past cultural patterns has been stymied by two key factors: geomorphology and human activity (Dillon 2002; Siefkin 1999). The valley floor that encompasses the Project area has been inundated with thick alluvial deposits resulting from granitic and sedimentary outflow from the Kings River, particularly during mass flood events. This pattern has continued for millennia and has resulted in the burial of early- to mid-Holocene archaeological sites, estimated to be buried at depths of up to 10 meters along the lower stretches of the San Joaquin Valley drainage systems (Meyer et al. 2010; Onken 2020). Thus, compared to other regions in the state, there is a paucity of research and a related lack of data from which to build a complete understanding of past human behavior specific to the valley.

Nevertheless, available data for sites in valley lacustrine environs help identify key cultural changes within the Project area and surrounding environs. The summary of cultural traits presented below is based on a review of San Joaquin Valley lacustrine, riverine, and valley floor site data discussed in Rosenthal et al. (2007). Cultural periods and accompanying dates (given as calibrated calendar years [cal B.C. or A.D.]) are based on Rosenthal et al. (2007:150–159), Moratto (1984:333), McGuire and Garfinkel (1980:49–53), and Bennyhoff and Fredrickson's chronologies (Fredrickson 1973, 1974).

Archaeological investigations in the Tulare Lake and Buena Vista Lake localities suggest that people occupied the San Joaquin Valley as early as 11,000–12,000 years ago (Fredrickson and Grossman 1977; Riddell and Olsen 1969). Because there has been very little systematic and thorough archaeological excavation in the immediate vicinity of the Project area, it is unclear whether the cultural phases identified in the adjacent foothills or southern valley extend to this area. Although some limited data suggest that phases developed for Yosemite National Park and Buchanan Reservoir for the most recent period of prehistory can be extended to sites in the San Joaquin Valley (Baloian et al. 2006), there is no evidence that this holds true for earlier phases.

The Paleo-Indian Period (11,500–8550 cal B.C.) is represented by ephemeral lacustrine sites dominated by atlatl dart and spear projectile points. The earliest evidence of distinct valley cultural patterns appears during the Lower Archaic Period (8550–5550 cal B.C.) when crescents and stemmed projectile points are first used and evidence appears of dietary use of freshwater fish, waterfowl, mussels, deer, and pronghorn. The Middle Archaic (5550–550 cal B.C.) includes a time, estimated between 5950–3150 cal B.C., when semipermanent villages first appear along riverbanks in tandem with larger, more established lacustrine villages. Stone tools were used in abundance, meanwhile ground stone tool kits emerged along with long-distance trade and exchange networks focused on obsidian, shell beads, and ornaments.

New cultural patterns emerged during the Upper Archaic Period (550 cal B.C. to cal A.D. 1100), especially between 3150–1350 cal B.C. when a distinct shift in burial practices occurred and geographic differences in site and artifact types appeared. The time between 1350–650 cal B.C. is marked by the sudden presence of mound sites in the valley. Widespread proliferation of specialized technology is evident, including new types of bone tools, projectile points, and ceremonial objects such as wands and blades. Paleoethnobotanical studies also suggest the use of labor-intensive and seasonally abundant resources, including acorns, pine nuts, salmon, and shellfish. Similarly, the Emergent Period, extending from cal A.D. 1000 to the historic era, is marked by continued variation in settlement and burial patterns across the valley, coupled with the disappearance of atlatl and dart tool kits that are replaced with bow-and-arrow technology (i.e., small corner-notched and Desert series projectile points) at about cal A.D. 1000. Fishing tool kits expanded to include more efficient harpoons, bone fishhooks, and gorge hooks. In the Tulare basin, pottery obtained via trade appears as well as baked clay balls used for cooking and making carved clay effigies.

2.2.2 Ethnohistory

The Project area is in the Southern Valley Yokuts ethnographic territory. The Yokuts are one of eight subgroups of the Penutian linguistic phylum that is present across the western coast and inland regions of North America from Canada to Mexico (Golla 2011:128). The Yokuts had many language subgroups and spoke a variety of mutually intelligible dialects across the San Joaquin Valley and Sierra Nevada (Golla 2011). The Southern Valley Yokuts populated the shores of Tulare, Buena Vista, and Kern lakes, their connecting sloughs, and the lower portions of the Kings, Kaweah, Tule, and Kern rivers (Latta 1999; Silverstein 1978).

The Tachi Yokut, who were the northernmost of the Tulare Lake tribes, occupied a large area of the Central Valley, extending from the western shores of Tulare Lake northward to the Fresno Slough and westward to the Coast Ranges (Kroeber 1976:484). A major ethnohistoric Tachi Yokut village *Wiu* (also *Waiu*, or Mussel Slough) was just south of Lemoore. *Wiu* is at the present location of the Santa Rosa Rancheria Tachi Yokut reservation, approximately 9 miles southwest of the Project area (Kroeber 1976:484).

During the historic era, the general vicinity of Hanford was a seasonal plant, seed, and nut collection area for local tribes. The Tachi Yokut relied on the plentiful supply of lacustrine and riverine resources, including lake trout, chubs, perch, and suckers as well as turtles and freshwater shellfish. Wild seeds and acorns were harvested in the early summer and fall, respectively, and stored for use throughout the year. Waterfowl and other game attracted to the lake supplemented the Tachi Yokut diet.

Intensive European exploration of the San Joaquin Valley Yokuts territory did not take place until the early nineteenth century (Wallace 1978). As a result of European contact with Native American populations in the valley, indigenous populations were significantly reduced by disease. Native American settlement patterns within the valley were disrupted because of recruitment for Missions Soledad, San Luis Obispo, San Antonio de Padua, and San Juan Bautista. Further traumatic impacts to the valley's Native American population were caused by a series of parasitic (i.e., malaria) and viral (e.g., influenza) epidemics that began in 1833. The

diseases struck with such virulence that by 1846 an estimated 40–75 percent of Native Americans had died during outbreaks in California (Cook 1955).

Many Southern Valley Yokuts tribes have survived the effects of colonization, particularly the Santa Rosa Rancheria Tachi Yokut Tribe, which has since developed an early childhood education to college success program and has worked to preserve song, dance, and oral history traditions of the Tribe (Golla 2011:154). The Santa Rosa Rancheria Tachi Yokut Tribe is governed by General and Tribal Councils and operates auxiliary departments that serve local Native American populations in areas of governance, healthcare, education, housing, cultural resource management, and administration of the Tachi Palace Hotel and Casino. The Tribe contributes annually to the Kings County fire department, health initiatives, other community welfare programs, and state public use funding programs.

2.2.3 Historical Setting

The first organized Euro-American foray into the western valley occurred in 1806 when Spanish Lieutenant Gabriel Moraga and his men explored stretches of the San Joaquin, Kings, and Kaweah rivers (Cook 1960:247–253). The most relevant exploration was the 1815 travels of Sergeant Juan de Ortega and his band, who camped at a place they called “Chenem” just after crossing the coastal mountains from the Presidio of Monterey (Cook 1960:268). Chenem, which was 32 miles southwest of the Project area, was later occupied and renamed by Mexican settlers, who referred to the place as Posa Chiné or Poso Chané. A 1932 Tulare newspaper article stated:

[At] one time, there were perhaps a dozen Spanish and Mexican families living at the old Posa. They ranged cattle and horses and a few goats. The swamp area was cultivated and they planted trees, vines, and garden truck [Clough and Secrest 1984:40].

In 1854, the Higuera family established a homestead at Posa Chiné/Poso Chané and herded cattle and stock as far as the west shore of Tulare Lake. They likely resided there until 1862–1863 when a flood destroyed the watering hole.

Ranching had been a part of the state’s economy since the Mexican period, and the industry’s growth accelerated as many successful prospectors and businessmen reinvested their profits from the gold rush in cattle and sheep herds. In the early days of ranching, sheep were a valued commodity because they not only could be sold for consumption but could be sheared for their wool. From 1857 to 1871, the amount of wool produced in California increased more than 20-fold, while revenue grew at an average annual rate of 30 percent (Vandor 1919:164). Similarly, cattle provided beef and dairy products as well as hides. Tallow can be rendered from the fat of both cattle and sheep.

In 1850, California gained statehood and the area that was to become Kings County, along with Fresno and several other counties, was part of Mariposa County. Mariposa, truly the “mother of counties,” was the largest county in the state, encompassing more than one fifth of California. Tulare County was formed from parts of Mariposa County in 1852. Kings County, as it exists today, was formed in 1893 from a portion of Tulare County.

2.2.3.1 Transportation and Development of Hanford

In 1877 the Southern Pacific Railway (SPR) established the city of Hanford at the site of a small Chinese shepherders' camp. The city was named after SPR executive James Madison Hanford and soon grew into a hub for railway transportation in the southern central valley (Menefee and Dodge 1913:209). As with other towns in the valley, the SPR greatly contributed to Hanford's growth in its early years of existence. City streets were aligned with the passing railroad rather than in cardinal directions (Figure 2-1). Blocks contained 32 lots ready for purchase at inflated rates from the railroad company that was granted rights to the land. While many towns in their early days were located a few blocks off the railroad where land was originally purchased at lower prices, by 1892 the town of Hanford was refocused on the rail line (Preston 1981:123–125). By the early part of the twentieth century, Hanford had a public free library, several churches of various denominations, a fire station, high school, and developed farming districts surrounding the town (Menefee and Dodge 1913:212–216).

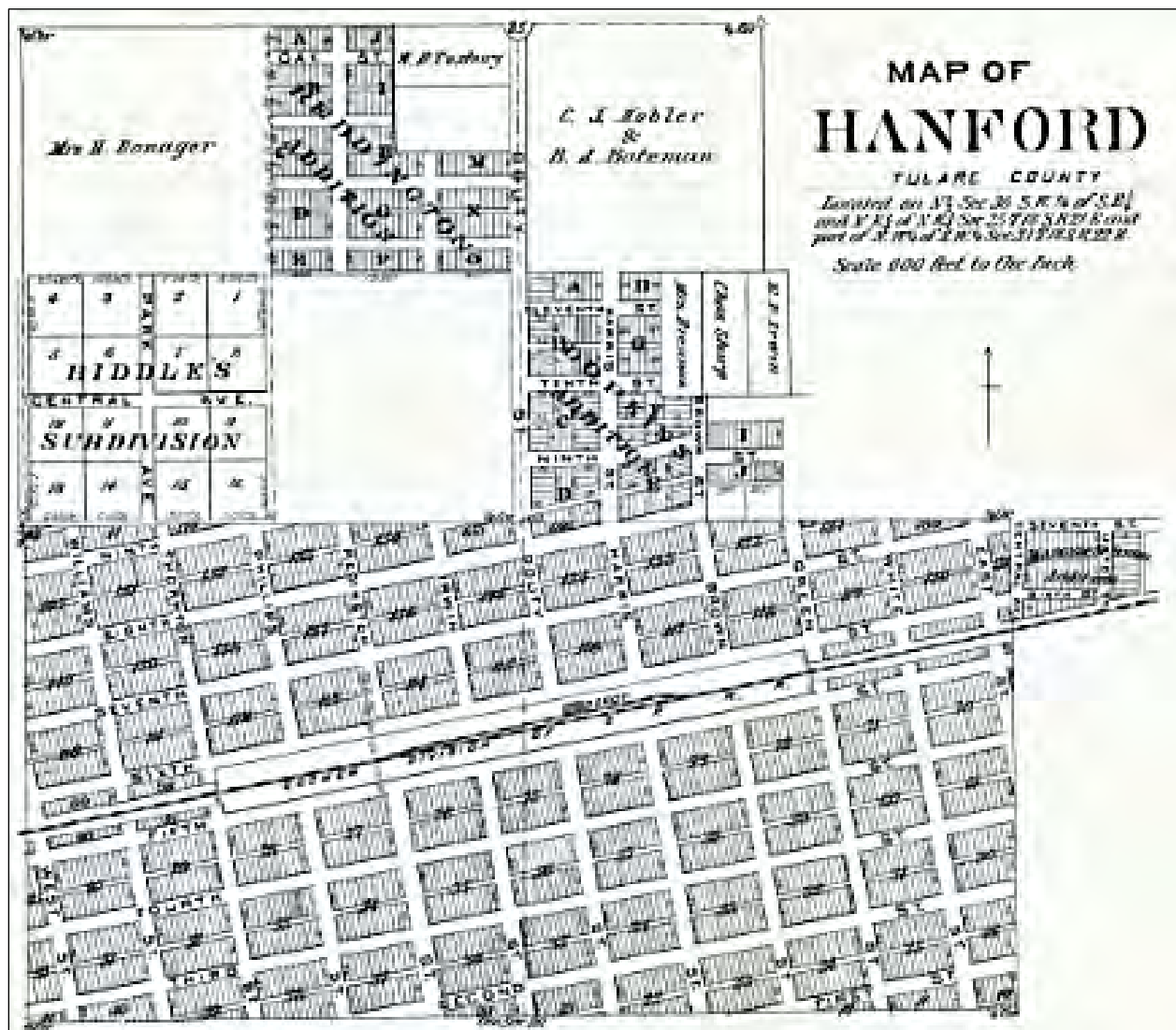


Figure 2-1 City of Hanford circa 1892 showing streets and blocks aligned to the SPR tracks (Thompson 1892:58).

2.2.3.2 Agriculture in the Central Valley

Early settlers in the Tulare Lake basin area encountered hogs left from the Spanish-Mexican era. Hogs were preferred stock over wandering cattle because the animals could be fattened quickly and cuts cured for easy transport (Mitchell 1976:34–37). Large numbers of hogs were fattened in the endless tule reeds surrounding Tulare Lake, then driven to the Sierra foothills in the fall to gorge on ripened acorns (Nordhoff 1874:209). The hog industry helped sustain early Euro-American settlers, whose food supplies otherwise had to be transported by wagon from Stockton (Preston 1981:74–75).

Agriculture had been gathering its own momentum since the gold rush. Early efforts to grow wheat without a sufficient water supply met with failure. Before the 1870s and the advent of large-scale water conveyance systems, farms were generally located near a perennial water source. This constraint on early agriculture kept the valley's two major industries—farming and ranching—in balance within the economy. Competition for real estate was minimized because agricultural interests had little reason to expand into pasturelands that were unsuitable for farming.

By the early 1870s the scales began to tip in favor of agriculture. The construction of extensive irrigation systems, financed by developers like A. Y. Easterby, converted the valley's dry soils into fertile farmlands. The 1874 “no fence” law underscored the growing dominance of agricultural interests and resulted in both operational and monetary repercussions for the sheep and cattle industry:

The “no fence” law obligated the stock owner to herd his cattle and sheep, whereas before the stock roamed at will and was not assembled except for the annual rodeo. He was also made responsible for damage done by his beasts. The farmer was not required to fence his holdings, though. .. he occasionally did so [Vandor 1919:163].

The “no fence” law was a major setback to ranching; the stockman no longer had the entire extent of the San Joaquin Valley at his disposal and was now burdened with the cost of fencing in his herds and flocks. Nevertheless, the industry continued to grow within the county, albeit not at the same pace as agriculture. The cattle empire of Miller and Lux, which operated well into the twentieth century, owned as much as 145,000 acres of pastureland in Madera County (Barcroft 1933) and utilized additional grazing lands within Kings County (Roberts 2008:79).

While much of the valley was covered in wheat fields in the mid-1870s (Clough 1986), farmers had been experimenting with grape vines and citrus trees since the 1850s. By the 1880s, a nationwide glut in the grain market and attendant drop in the price of wheat caused valley farmers to shift their attention to these newer crops. In a relatively short time, large-scale vineyards and orchards had replaced wheat fields in most regions of the valley.

2.2.3.3 Water Conveyance

Irrigation efforts near the city of Hanford began in the area known as “Mussel Slough,” which contained arid dry soils cut by a single slough connecting the Kings River with Tulare Lake. Early settlers saw the potential to irrigate this land before the SPR established a railroad through the area. In 1875, local citizens formed the Peoples Ditch Company and quickly began

construction on an irrigation canal through the heart of Mussel Slough country. Despite many setbacks, such as poor engineering, soft collapsing soils, and lack of capital, the Peoples Ditch canal was completed sometime in 1878 or 1879 (Menefee and Dodge 1913:192–193). A remnant segment of this canal is in the eastern half of the Project area, and a modern realignment of the Peoples Ditch intersects the Project area north–south just below Campus Drive (Figure 1-3).

Water typically has been distributed to farmers primarily at the county level through the water companies of the nineteenth century and more recently by such entities as irrigation districts. By the late 1920s and early 1930s, however, it became apparent to the state government that a valley-wide system was necessary to alleviate local shortages (JRP Historical Consulting Services and California Department of Transportation 2000:73–74). The solution was the Central Valley Project (CVP), a multicomponent water conveyance system that included, among other elements, the Delta-Mendota Canal and the Friant-Kern Canal. Funding for such a massive project was beyond the means of the local water concerns, and the State of California was unable to sell the necessary bond issues due to the monetary constraints of the depression.

The state then turned to the federal government, suggesting a role for construction of the CVP in President Franklin D. Roosevelt’s New Deal. Through a complicated series of negotiations, California officials were finally able to secure federal funding for the project, in part by promoting the project as a major job-creation undertaking—a convincing selling point during the early years of the Great Depression [JRP and Caltrans 2000:74].

Although construction of the CVP began in the late 1930s, labor and material shortages caused by World War II delayed many of the project’s components, and the final stage of construction was not completed until the 1970s.

2.2.3.4 Historical Use and Development of the Project Area

Numerous archival resources were consulted to identify historical land use and development in the Project area. These resources include General Land Office (GLO) survey plat maps (1855, 1867, and 1891); an 1892 property atlas; USGS topographic quadrangle maps (1926 and 1954); and aerial photographs from 1934, 1937, and 1942.

No historical structures or features (e.g., roads, trails, ditches) are depicted within the Project area on any of the GLO plats examined. Only an intermittent creek (Dry Creek) is shown meandering roughly east–west through the Project area on the 1855 GLO plat (Figure 2-2). However, the property atlas map (Thompson 1892:57) shows that most of the Project area consisted of agricultural land owned by H. F. Schumaker, with smaller portions owned by A. L. Cressey, H. F. Pepys, Mrs. Ada McKelvey, and J. Itin (Figure 2-3). Also depicted is a structure on the Schumaker property within the eastern portion of the Project area, and the Southern Pacific Railroad borders its northern edge. Dry Creek is shown following a southerly course through the Project area. It should also be noted that none of the property owners named above are listed in a contemporary history (Menefee and Dodge 1913) as significant contributors to the growth and development of Kings County.

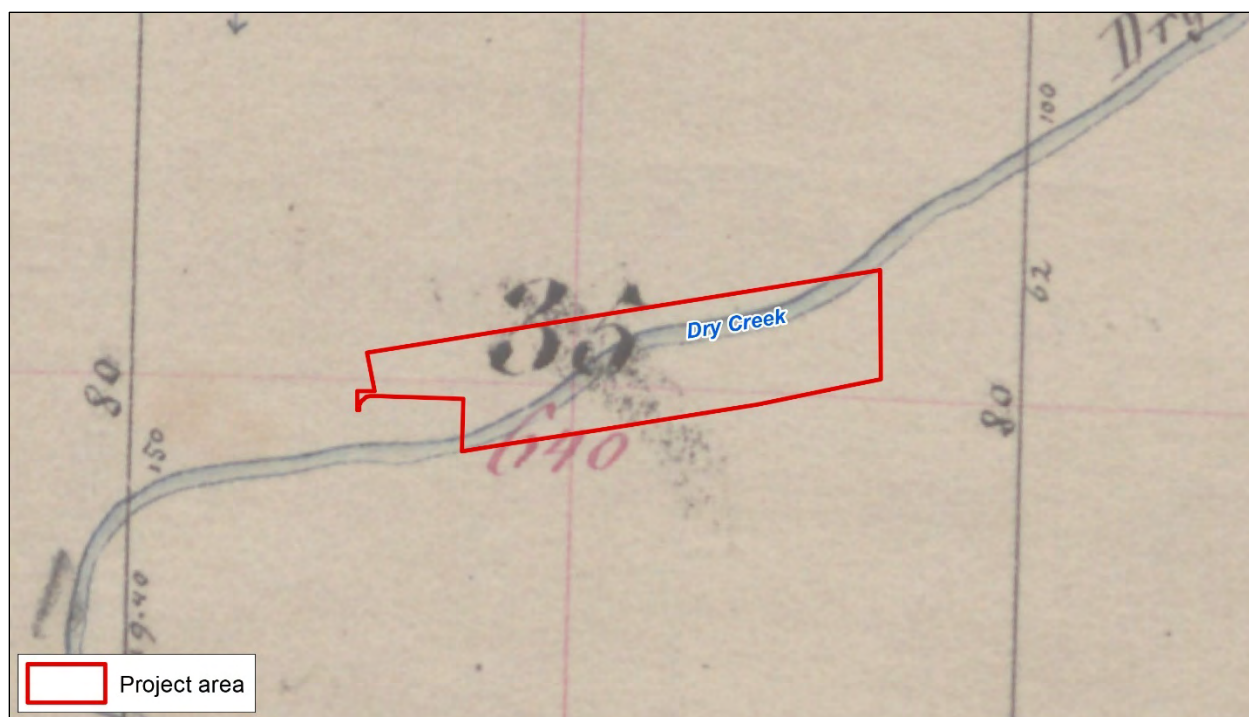


Figure 2-2 Dry Creek present within the Project area prior to irrigation, as depicted on an 1855 GLO Plat.

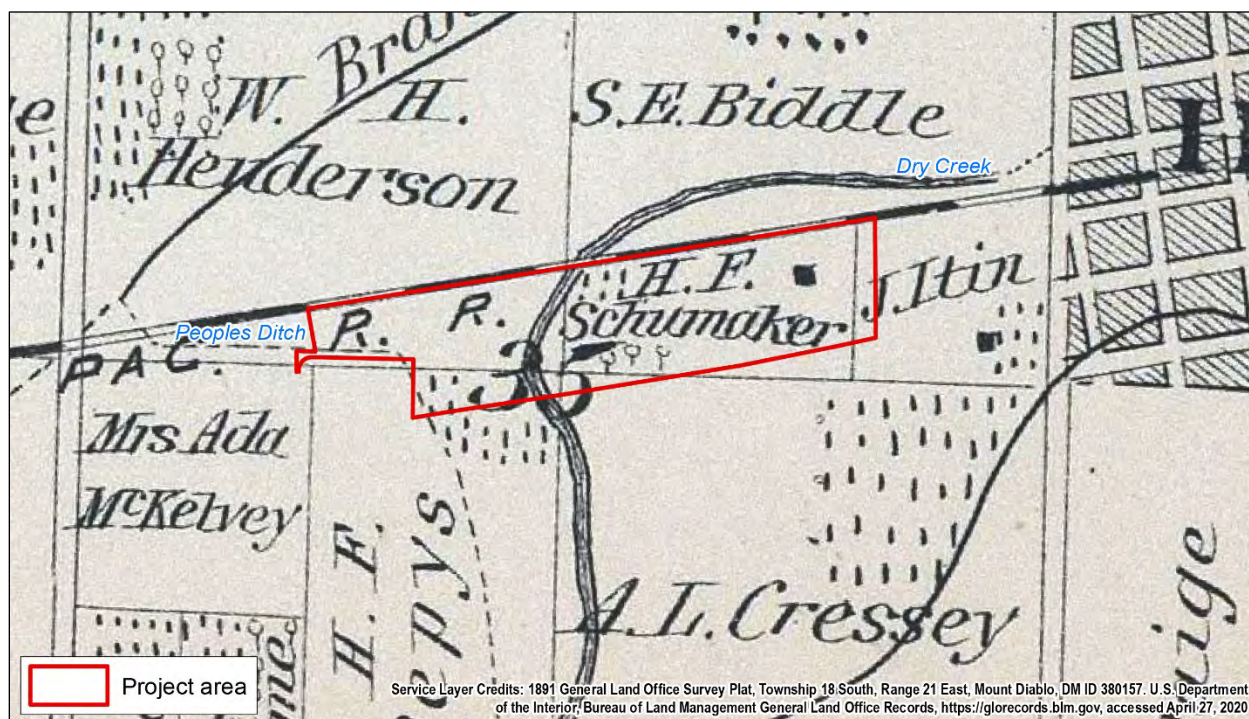


Figure 2-3 Project area on Thompson's 1892 Tulare County property atlas showing the structure on H. F. Schumaker's property.

A 1926 USGS topographic map (Figure 2-4) shows a structure within the Project area at the approximate location of the structure shown on the Schumaker property in 1892. The 1926 map

also depicts a dirt road leading to this structure from the adjacent property to the east (shown as the property owned by J. Itin in 1892; see Figure 2-3) as well as the Peoples Ditch within the western portion of the Project area and the Southern Pacific Railroad bordering its northern edge.

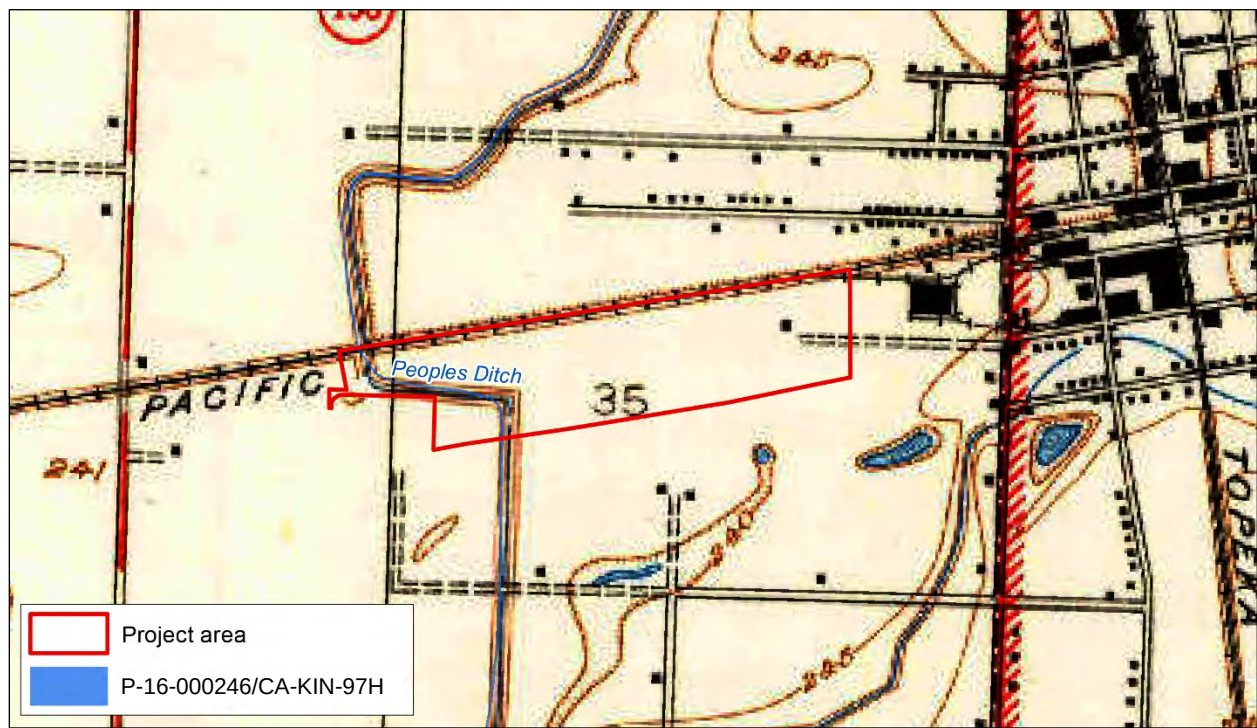


Figure 2-4 USGS Hanford, California, 1926 topographic map showing location of the structure identified on the 1892 Tulare County atlas and the historical alignment of Peoples Ditch within the Project area.

The structure shown within the eastern portion of the Project area in 1892 and 1926, the Peoples Ditch within the western Project area, and the Southern Pacific Railroad to the north continue to be shown at their respective locations on aerial photographs from 1934, 1937 (Figure 2-5), and 1942, as well as on the USGS Hanford, California, 7.5-minute topographic quadrangle photorevised in 1954 (Figure 2-6). No other structures or features are represented within the Project area. These same archival resources show continued use of the Project area as agricultural land throughout these years.

An aerial photograph of the Project area taken in 1976 (Figure 2-7) shows agricultural activity only in the western Project area. The structure in the eastern Project area has been removed by that year. Unfortunately, archival research did not identify maps or aerial images postdating 1954 and predating 1976 that could help refine the timing of when the structure was removed from the property; however, Figure 2-7 does show that the original alignment of Peoples Ditch in the western Project area was still in use in 1976. Archival data indicate that the original alignment of Peoples Ditch was abandoned sometime between 1994 and 2003, when it was realigned to its present configuration within the Project area (see Appendix D).



Figure 2-5 1937 aerial photo depicting the alignment of the Peoples Ditch, the history-era residence, and the Southern Pacific/San Joaquin Valley Railroad within the Project area.

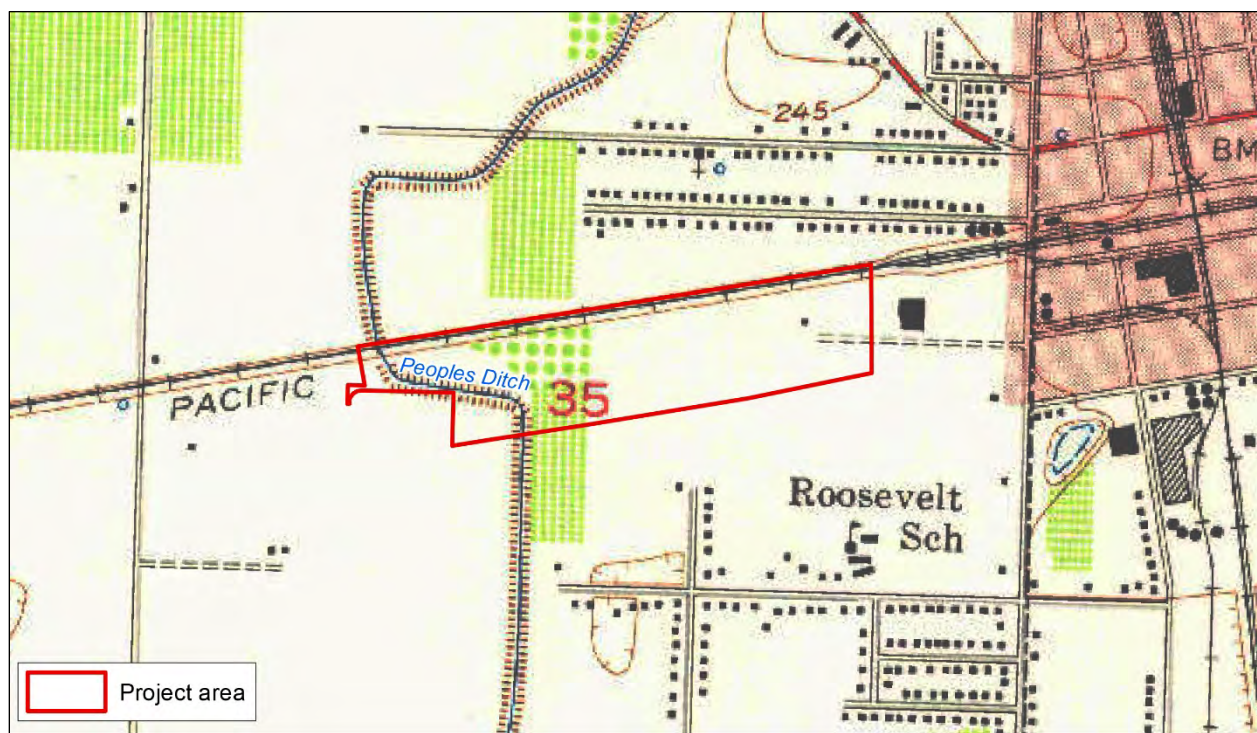


Figure 2-6 USGS Hanford, CA 1954 photorevised topographic map showing historical building in eastern portion of the Project area and Peoples Ditch in the western portion.

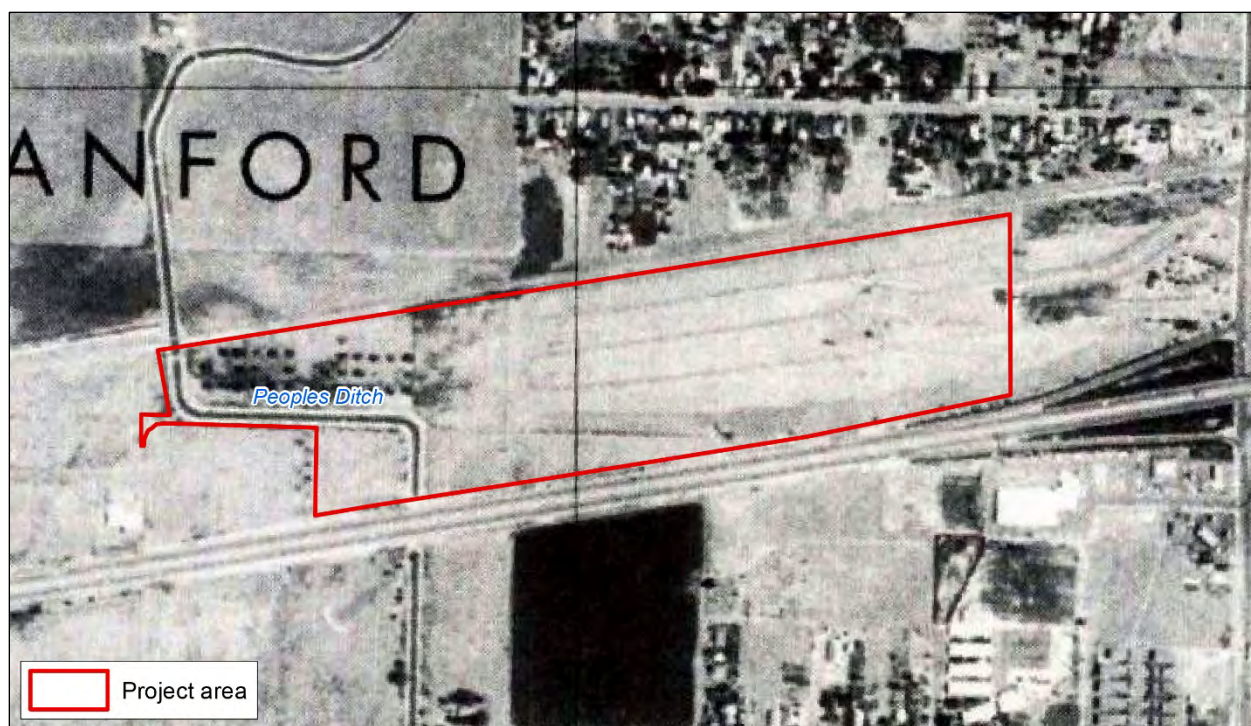


Figure 2-7 1976 aerial photograph demonstrating removal of historical building in the eastern portion of the Project area and the alignment of the Peoples Ditch at that time in the western portion.

3 METHODS

3.1 RECORDS SEARCH

On April 21, 2020, Æ requested a records search of the CHRIS from the SSJVIC at California State University, Bakersfield, to identify previously recorded resources and prior surveys within the Project area and surrounding 0.5-mile area. SSJVIC staff examined site records, files, and maps, and completed searches of the Historic Property Data File, National Register of Historic Places, California Register of Historical Resources, and California Historical Resources databases.

3.2 ARCHIVAL RESEARCH

The purpose of archival research is to provide information regarding the history of land use and to assess the potential for prehistoric and historic-era archaeological deposits within the Project area. Æ's investigation compiled information from several sources, including:

- Map and Aerial Locator Tool (MALT) (<http://malt.library.fresnostate.edu/MALT/>);
- U.S. Geological Survey TopoView (<https://ngmdb.usgs.gov/topoview/>);
- GLO survey plats (<https://gloreCORDS.blm.gov/default.aspx>); and
- Æ's in-house library, which includes maps and local histories.

3.3 NATIVE AMERICAN OUTREACH

On April 21, 2020, Æ requested that the Native American Heritage Commission (NAHC) conduct a search of its Sacred Lands File to identify previously recorded sacred sites or cultural resources of special importance to tribes and provide contact information for local Native American representatives who may have information about the Project area. The NAHC responded on April 22, 2020, with its findings and attached a list of Native American tribes and individuals culturally affiliated with the Project area. On August 5, 2020, Æ mailed an outreach letter to each of the contacts identified by the NAHC and kept a log of all responses (Appendix C). The outreach letter and follow-up calls are considered best practices within cultural resource management. Æ's outreach efforts thus do not qualify as CEQA Assembly Bill 52 government-to-government consultation, which would be the responsibility of the CEQA lead agency (City of Hanford).

3.4 BURIED SITE SENSITIVITY ASSESSMENT

Æ conducted a geologic and hydrologic review of the Project area to assess the potential for paleosols that may contain intact prehistoric cultural deposits. Æ consulted geological maps, historical maps, the U.S. Department of Agriculture Natural Resources Conservation Service

Web Soil Survey online database, and regional geoarchaeological studies (e.g., Meyer et al. 2010). These sources provided information regarding the natural watercourses in the area as well as data about local soils and sediments, parent rock formations, and historical vegetation. This information was used to estimate the age of the sediments surrounding the study area, consider the hydrologic and geologic forces that created and placed these sediments, and assess the likelihood of encountering buried cultural resources within the vertical Project area during proposed construction activity as described in a preliminary geotechnical investigation report for the Project area (AhTye et al. 2020).

3.5 ARCHAEOLOGICAL SURVEY

On May 23 and 24, 2020, Æ Staff Archaeologist Ward Stanley conducted an intensive archaeological pedestrian survey of the entire Project area. Stanley used parallel transects spaced 15–20 meters apart and took photographs of the area using an iPhone 11 camera. Methods and observations were recorded on Æ Daily Work Record and Survey Field Record forms. Stanley used a Trimble Global Positioning System (GPS) unit to collect geospatial data. All photographs and field notes are on file at Æ's Fresno office.

3.5.1 Documentation of Cultural Resources

Æ recorded cultural resources by first establishing a site boundary that encompasses the distribution of artifacts across the ground surface and then examining potentially temporal diagnostic artifacts to establish the general age of the resource (e.g., prehistoric, historic, post-World War II, modern). A few artifacts were then collected from the ground surface and transported to the Æ laboratory in Fresno to confirm the age of the resource using Æ library resources and historic artifact guides. All collected artifacts were placed in archival bags labeled with provenience information, which included Project number, site number, Universal Transverse Mercator coordinates, date of collection, and surveyor's initials. The resources were then recorded on California Department of Parks and Recreation Primary Record and Location Map forms.

4 FINDINGS

4.1 RECORDS SEARCH RESULTS

The SSJVIC responded to Æ's records search request on May 5, 2020 (Records Search File No. 20-168). The SSJVIC reported nine previous cultural studies encompassing portions of the Project area that occurred between 1982 and 2015, and five additional studies in the surrounding 0.5-mile area (see Appendix B). Of the nine studies within the Project area, seven had negative results. The Peoples Ditch (P-16-000246/CA-KIN-97H) is the only previously recorded resource within the Project area. The Southern Pacific Railroad/San Joaquin Valley Railroad (P-16-000122/CA-KIN-177H) is just outside the Project area's northern boundary. Two additional built environment resources, the Burlington North and Santa Fe Railway (P-16-000120) and a Craftsman bungalow (P-16-000205) are within a 0.5-mile radius of the Project area (Appendix B).

Æ's in-house cultural resource database revealed that one additional resource, the Kingsburg-Lemoore transmission line, is also within 0.5 miles of the Project area.

4.2 ARCHIVAL RESEARCH

The desktop research resulted in key historical information presented in Section 2.2.3. Specific sources of map and aerial images consulted during archival research are identified in Appendix B.

4.3 NATIVE AMERICAN OUTREACH

The NAHC responded to Æ's request on April 22, 2020, and stated that its search of the Sacred Lands File did not identify any known cultural resources that could have special importance to Native American groups within the Project area or surrounding 0.5-mile area. However, the NAHC cautioned that the absence of information in the Sacred Lands File does not indicate the absence of Native American cultural resources within the Project area (see Appendix C). The NAHC supplied a list of Native American representatives to be contacted for information regarding sacred or special sites of cultural and spiritual significance in the Project area and surrounding 0.5-mile area, including:

- Stan Alec of the Kings River Choinumni Farm Tribe;
- Chairperson Leo Sisco of the Santa Rosa Rancheria of Tachi Yokut Tribe;
- Cultural Resource Director Bob Pennell of the Table Mountain Rancheria;
- Chairperson Neil Peyron of the Tule River Indian Tribe;
- Chairperson Kenneth Woodrow of the Wuksache Indian Tribe/Eshom Valley Band;
- and

- Chairperson Leanne Walker-Grant of the Table Mountain Rancheria.

On August 5, 2020, Æ sent a letter describing the Project to each of the Native American representatives identified above. Follow-up contact by email and telephone was completed on August 13, 2020. No responses have been received to date.

4.4 BURIED SITE SENSITIVITY ASSESSMENT

This section assesses the potential for the proposed Project to impact intact buried archaeological deposits in the Project area and identifies the conditions that may affect preservation of cultural materials, should any exist. Estimating the general sensitivity of soils to contain buried archaeological material is based on various factors, including the Project area's distance from water, age of geological deposits, landform, river formation patterns, ground slope, and soil types within the Project area and their respective characteristics (Rapp and Hill 2006; Waters 1992). In general, the potential for buried prehistoric resources increases with proximity to natural watercourses.

Geologic and soil data derived from the National Resources Conservation Service Web Soil Survey identify only one soil type within the Project area, consisting of Nord coarse to fine sandy loam. In general, the Nord series has high to very high sensitivity for containing paleosols with intact cultural deposits. Nord sandy loam soil consists of mixed alluvium formed from decomposed granite and sedimentary rock. These soils are found on alluvial fan remnants and floodplains with a slope between 0 and 2 percent. The soil type likely spans the Early to Late Holocene. It is a very deep (i.e., extending 35 feet below the ground surface), well-drained soil with variable salinity and low clay content that supports native grasses, herbs, and white oak (*Quercus lobata*) (Soil Survey Staff 1999). A geotechnical investigation prepared for the Project area described the soil within 10 feet below the ground surface level as having the potential for hydrocompaction (liquefaction) when exposed to moisture (AhTye et al. 2020:18).

Alluvial fan landforms are typically environments with high potential to contain anthropogenic paleosols, particularly near streams where the effects of continuous high-velocity helical water flow are comparatively less than is observed commonly in larger rivers. However, subsurface conditions composed of well-drained highly saline soils tend to only moderately preserve bone, teeth, and other organic materials (Schiffer 1987). Saline introduced into cultural deposits via groundwater percolation, which is common in agricultural areas, may contribute to an accelerated rate of decay of certain artifact classes. Metals and other porous materials would be most susceptible to corrosion resulting from saline-rich groundwater percolation, particularly with increasing acidic conditions (Kibblewhite et al. 2015; Rapp and Hill 2006). Yet, improved preservation of cultural deposits is expected below the hardpan, as the decomposing effects of excessive water percolation are slowed (Kibblewhite et al. 2015). Thus, the possibility of encountering moderately or well-preserved cultural deposits within the vertical Project area increases with depth. Therefore, the potential for encountering a well-preserved anthropogenic paleosol would be greatest where the hardpan would be encompassed by the vertical Project area. However, moderately preserved and intact cultural deposits could be encountered in any paleosol above the hardpan. An important concept to understand is that even poor to moderately preserved cultural remains may be eligible for listing in the California Register of Historical Resources or National Register of Historic Places.

In conclusion, the entire Project area is encompassed by a soil type and landform that have high or very high potential for containing anthropogenic paleosols with intact cultural deposits. Adding to this sensitivity is the presence of Dry Creek within the Project area during prehistory, which would have provided rich habitat and other resources for Native American groups. Dry Creek was a naturally occurring intermittent stream that was modified during Hanford's early settlement period (see Figure 2-2). However, as can be seen in historical GLO plats, atlases, and aerial images, it is likely that portions of the Project area have been disturbed by past infill of Dry Creek and the construction of Peoples Ditch in addition to impacts related to historic-era agricultural and domestic activities in the eastern portion of the Project area. In these areas of disturbance, the sensitivity for intact and well-preserved buried sites is moderate, low, or none.

This evidence of modern disturbance notwithstanding, due to the very high sensitivity of the soil type in the Project area, and because overexcavation and recompaction of soil is recommended to mitigate the effects of potential hydrocompaction "to at least 7 feet below the existing grade and to a distance of at least 10 feet beyond the perimeter of the planned buildings and surrounding improvements" (AhTye et al. 2020:21), limited subsurface archaeological testing to confirm the presence/absence of anthropogenic paleosols or intact cultural resource deposits is recommended. Based on the findings of subsurface archaeological testing, archaeological data recovery to assess prehistoric cultural deposits and cultural resource monitoring during ground disturbing construction activities may be needed.

4.5 ARCHAEOLOGICAL SURVEY FINDINGS

4.5.1 Visibility

The Project area is primarily utilized for agricultural purposes. As a result, the landscape is relatively flat and unobscured by pavement or buildings. At the time of survey, the ground surface within the Project area afforded 90–100 percent visibility (Figure 4-1). Isolated patches of dead grass obscured ground visibility in some areas. Moderate amounts of modern trash were encountered throughout the Project area. The inner bank of the modern alignment of Peoples Canal was obscured by dense vegetation and had no ground visibility. The canal bottom had excellent visibility (90–100 percent; Figure 4-2). A small portion of the Project area in the southwest corner was enclosed by a chain-link fence and was not accessible for survey (Figure 4-3).

4.5.2 Archaeological Resources

Æ archaeologists surveyed all accessible portions of the Project area, totaling 42.82 acres of intensive coverage, or approximately 99 percent of the total Project area (Figure 4-3). The southeastern corner of the Project area was inaccessible behind a secured fence and could not be surveyed. The portion not surveyed comprised less than 1 acre and was less than 1 percent of the Project area.

Field staff observed one historic-era refuse scatter (AE-4167-01) and one historic-era isolate (AE-4167-ISO-01). AE-4167-01 is a large historical refuse scatter extending across 6 acres in the northeast section of the Project area. Cultural constituents include glass of various colors, broken bottles, ceramic fragments, insulators, wood fragments, bricks, river cobbles with cement mortar attached, heavy metal pipe fragments, miscellaneous metal fragments, a toy marble, and a bottle



Figure 4-1 Survey conditions from the center of the Project area showing 100 percent ground surface visibility, facing west.



Figure 4-2 Survey conditions within and along the modern alignment of Peoples Ditch, facing north.

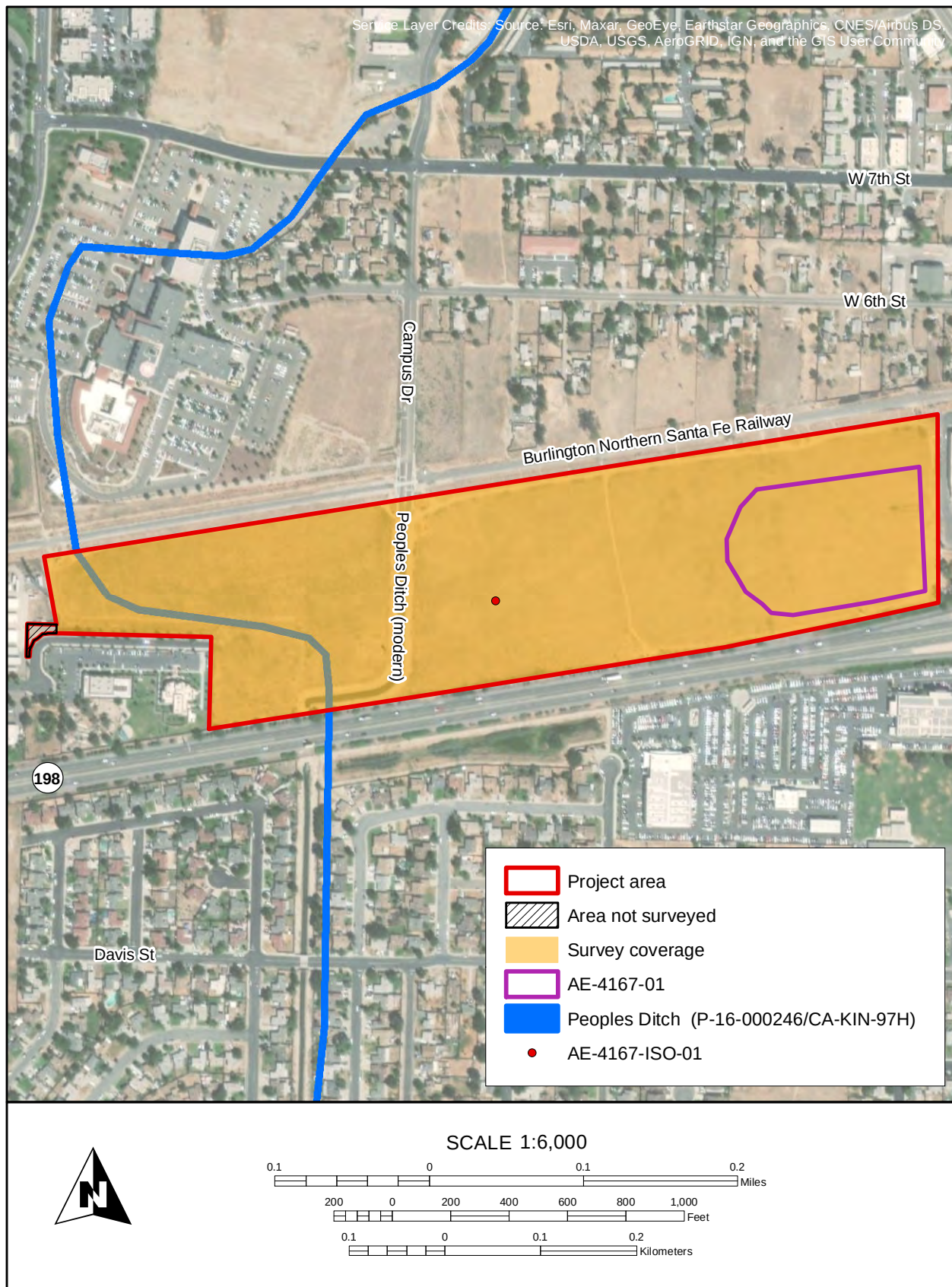


Figure 4-3 Survey coverage and cultural resources in the Project area.

base fragment showing pressure flaking along one edge. A total of 12 temporally diagnostic artifacts were identified; a sample of these are presented in Figure 4-4. The artifacts date to the first half of the twentieth century, suggesting the deposit may be associated with the nonextant historical structure visible on historic-era GLO plats, historical atlas maps, and aerial images. The site appears to have been impacted by previous agricultural activity that would have displaced artifacts within a few feet of their original placement. The condition of the subsurface deposit is unknown as it was not visible during the pedestrian survey.

AE-4167-ISO-01 is an aqua blue glass insulator fragment that was observed approximately 800 feet west of AE-4167-01 (Figure 4-5).

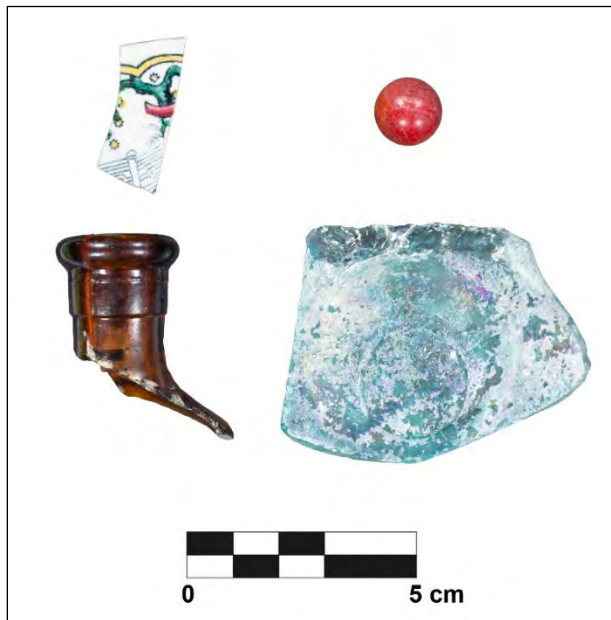


Figure 4-4 Various glass and ceramic artifact fragments and a toy marble from historic site AE-4167-01.



Figure 4-5 Detail view of historical glass insulator fragment (isolated artifact AE-4167-ISO-01).

No prehistoric artifact concentrations, isolated artifacts, features, or evidence of human skeletal material were observed during the survey.

4.5.3 Built Environment Resources

A modern segment of Peoples Ditch (P-16-000246/CA-KIN-97H) and the remnants of its older, now abandoned, route were observed during survey (Figure 4-6). Æ updated the site record to reflect the current condition of the historic-era remnant portion (Appendix D).

The Peoples Ditch was constructed in the 1870s by the Peoples Ditch Company to divert water from the Kings River to agricultural operations in the southern San Joaquin Valley and is still in use today (Jones 2017). According to Google Earth imagery, the historical segment of Peoples Ditch that intersects the Project area was abandoned sometime between 1994 and 2003, along with a segment north of the railroad, west of Campus Drive. At that time, Peoples Ditch was realigned and piped under Campus Drive and the railroad tracks for approximately 1,660 feet. It



Figure 4-6 Remnant scar of historical Peoples Ditch within survey area, facing east.

resurfaces in the Project area just south of the railroad track and continues to flow south in a J-shaped configuration between the railroad and State Route 198, east of its original alignment, before returning to its historical alignment at State Route 198 (see Figure 4-3). This new segment is less than 50 years old. The only remaining evidence of the original alignment of the ditch is its scar on the landscape and the remains of a concrete containment well at the northern end of the abandoned segment.

5 SUMMARY AND RECOMMENDATIONS

Æ provided cultural resource services for the Hanford Place Medical and Mixed-Use Property Project in Kings County, California. The Hanford Group proposes to build 15 structures that would be utilized for medical outpatient clinic services, hospitality, specialized education, retail, medical offices, skilled nursing and assisted living facilities, and multifamily housing. Ground disturbance resulting from proposed Project activities would include grading; trenching for installation of water, sewer, and electrical infrastructure; construction of a roundabout and buildings, structures, and facilities; and excavation of a storm water retention basin. Thus, the proposed Project requires compliance with CEQA.

Under contract to Epic Management Group, Inc., Æ conducted a cultural resource inventory of the Project area to determine if historical resources are present within the Project area. Accordingly, Æ performed background research, obtained a records search from the SSJVIC of the CHRIS, requested a search of the NAHC Sacred Lands File, contacted local Native American representatives identified by the NAHC for outreach purposes, assessed the sensitivity of the Project area for containing paleosols that have potential to contain buried archaeological deposits, and conducted an intensive pedestrian survey of the Project area.

The SSJVIC reported that nine previous cultural resource studies encompassing portions of the Project area occurred from 1981 to 2015, and five additional studies were completed in the surrounding 0.5-mile. The Peoples Ditch (P-16-000246/CA-KIN-97H) is the only previously recorded resource within the Project area. Four additional built environment resources were reported within a 0.5-mile of the Project area (Appendix B). The NAHC's Sacred Lands File search did not identify sacred places within the Project area, and Æ did not receive comments from Native American representatives identified by the NAHC. The buried site sensitivity assessment of the vertical Project area revealed high sensitivity for the presence of anthropogenic paleosols containing buried sites in areas of the Project that have not been disturbed previously by historic-era construction of the People's Ditch or its modern realignment, or by agricultural activities occurring at depths less than 24 inches below the ground surface. Æ's pedestrian survey of the Project area resulted in the identification of one historic-era refuse scatter (AE-4167-01), one historical isolated artifact (AE-4167-ISO-01). Æ additionally updated the existing California Department of Parks and Recreation cultural resource record for the Peoples Ditch to record its remnant historical alignment within the Project area.

To fully comply with CEQA and determine if the Project would cause a substantial adverse change in the significant qualities of a historical resource, Æ recommends additional mapping and subsurface testing of AE-4167-01 to evaluate its eligibility for inclusion in the California Register of Historical Resources, pursuant to California PRC 5024.1. Additional focused subsurface testing in areas not previously disturbed by historic-era activities is recommended to confirm presence/absence of high-sensitivity paleosols that may include intact prehistoric cultural deposits. If intact prehistoric cultural deposits are encountered during subsurface presence/absence testing, Æ recommends further investigation to determine if the deposit retains

integrity and is eligible for inclusion in the California Register of Historical Resources. The methods and findings of the additional studies would be presented as an addendum to this report and would include cultural resource management recommendations to guide mitigation of potential adverse effects to any identified historical resources within the Project area.

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APPENDIX A

Personnel Qualifications

Areas of Expertise

- Cultural resource management
- Ethnography
- Tribal consultation
- Zooarchaeological, paleoethnobotanical, and lithics analysis

Years of Experience

- 20

Education

Ph.D. candidate, Anthropology/
Feminist Studies, University of
California, Santa Barbara

M.A., Anthropology (Archaeology/
Cultural Resource Management
emphasis), University of California,
Santa Barbara, 2010

B.A., Anthropology, University of
California, Santa Barbara, 2002

A.A., Liberal Arts and Sciences,
Ventura College, 1999

Registrations/Certifications

- Registered Professional
Archaeologist 39362477

Permits/Licensure

- Principal Investigator, California
BLM Statewide Cultural
Resources Use Permit CA-18-22

Professional Affiliations

- American Anthropological
Association
- American Cultural Resources
Association
- Santa Barbara Museum of Natural
History
- Society for American Archaeology
- Society for California Archaeology
- World Archaeological Congress

Professional Experience

- | | |
|-----------|--|
| 2018– | Senior Archaeologist, Applied EarthWorks, Inc., Fresno, California |
| 2015–2018 | Interim Cultural Resources Supervisor and Senior Archaeologist/Ethnographer, Aspen Environmental Group |
| 2007–2009 | Archaeologist (GS-9), U.S. Department of Agriculture, Los Padres National Forest |
| 2005–2007 | Archaeologist (GS-7), U.S. Department of Agriculture, Los Padres National Forest |
| 2004–2005 | Archaeological Contractor, Padre, Inc., Ventura, California |
| 2000–2005 | Archaeologist (GS-4/5), U.S. Department of Agriculture, Los Padres National Forest |

Technical Qualifications

Ms. Dyste has 20 years of experience in cultural resources management and meets the Secretary of the Interior's qualification criteria as an archaeologist. She has extensive experience preparing environmental documents and managing complex projects pursuant to applicable federal, state, and local regulations. Her work includes senior review or prime authorship of cultural resources documents for National Historical Preservation Act Section 106, National Environmental Policy Act, and California Environmental Quality Act compliance, including public and tribal comment and response; development of research designs; design and implementation of cultural resources plans. Ms. Dyste is qualified to conduct archaeological survey, including the supervision of small to large sized field crews, as well as zooarchaeological, paleoethnobotanical, lithics, and ethnographic analyses. She is able to analyze cultural spatial patterns via use of Total Station and Geographic Information Systems software. Ms. Dyste's Assembly Bill 52 and NHPA Section 106 tribal consultation services are informed by her knowledge and training in Native American jurisprudence, cultural sensitivity training, and graduate seminars in Native American environmental law, indigenous research methodologies, and community-based Participatory Action Research with tribal and special interest groups. She has project experience in coastal, highlands, grasslands, desert, and remote mountain settings across the state of California, although her academic region of specialty is in central and southern California with a focus on Salinan, Esselan, northern/interior/coastal Chumash prehistoric and modern political tribal groups. Ms. Dyste is a native Spanish speaker and assists clients with the translation of English to Spanish signage and public notices.

Areas of Expertise

- Geographic Information Systems (GIS) in archaeology
- Computer-generated maps and graphics
- Archaeological survey and excavation

Years of Experience

- 7

Education

B.A., Anthropology, California State University, Sacramento, 2013

Archaeological Technician Certificate, Anthropology Department, Fresno City College, Fresno, California, 2011

Affiliations

Society for California Archaeology

Professional Experience

- | | |
|-----------|--|
| 2020– | Staff Archaeologist/Project Manager, Applied EarthWorks, Inc. Fresno, California |
| 2017– | Staff Archaeologist/GIS Specialist, Applied EarthWorks, Inc. Fresno, California |
| 2015–2017 | Geographic Information Systems (GIS) Technician, Applied EarthWorks, Inc., Fresno, California |
| 2012–2013 | Laboratory Technician (volunteer), Archaeological Research Center, California State University, Sacramento |
| 2009–2010 | Laboratory Technician (volunteer), Fresno City College, Fresno, California |

Technical Qualifications

As a Staff Archaeologist, Ms. Jones performs Native American outreach, archival research, pedestrian archaeological and built environment survey, site recordation and evaluation, and partakes in archaeological excavation for projects throughout the Central Valley and Sierra Nevada foothills. She serves as a primary author or contributor for cultural resource inventory reports and is experienced in the preparation of California Department of Parks and Recreation (DPR) cultural resource record forms (523 series) and California Department of Transportation cultural resource documents. Ms. Jones has managed several water infrastructure improvement projects in the Central Valley and has working knowledge of Section 106 of the National Historic Preservation Act and California Environmental Quality Act regulatory frameworks. Her expertise also includes work as a Geographic Information Systems (GIS) technical specialist. She has extensive experience as a cartographer and spatial data manager for large and small projects involving both prehistoric and historic-era built environment cultural resources, particularly linear resources such as historic-era canal systems and related pumps, basins, and other components. Ms. Jones is a critical component of Æ's digital technology program, responsible for instructing cultural and paleontological staff in the use of ESRI ArcGIS software. Her background also includes extensive experience volunteering in archaeological repositories where she gained expertise in laboratory processing, cataloging, and management of archaeological collections.

Areas of Expertise

- California archaeology—Sierra Nevada
- Survey, excavation, and Geographic Information System applications
- Project administration support

Years of Experience

- 10

Education

B.A., Kansas State University, 2008

Permits/Licensure

- Field Director, California BLM Statewide Cultural Resources Use Permit CA-18-22

Registrations/Certifications

Wildland Firefighter Qualified (Arduous)

Professional Experience

2015–	Staff Archaeologist, Applied EarthWorks, Inc., Fresno, California
2011–2017	Archaeological Field Technician/Crew Supervisor, Sierra National Forest and Lassen National Forest
2009–2011	Archaeological Field Technician/Crew Supervisor, Malheur National Forest
2008–2009	Archaeological Field Technician, Plumas National Forest

Technical Qualifications

Mr. Stanley's archaeological experience includes survey, archaeological testing, data recovery excavation, and documentation of both prehistoric and historical resources in the Central Valley and Sierra National Forest in California. He has supervised field crews for several large-scale projects for the Sierra, Lassen, and Malheur National Forests. This work included prefield research, pedestrian survey, site recording, and report preparation. Mr. Stanley is knowledgeable about Section 106 of the National Historic Preservation Act and associated regulations and processes; he also has experience working with local Native American tribes. He is well versed in the use of Geographic Information System (GIS) applications, including those for data gathering and modeling, and has prepared maps using ESRI ArcGIS software for use in technical reports and in the field. In addition to working for the Sierra National Forest, he has served as lead archaeological resource advisor on three separate wildland fires and was responsible for coordinating protection of archaeological resources from suppression efforts. Additionally, he produced assessment damage reports for all fires. For Applied EarthWorks, Mr. Stanley has served as field supervisor for implementation of the Crane Valley Hydroelectric Power Project Historic Properties Management Plan, which includes monitoring of impacts to resources and implementing management measures to avoid or minimize adverse effects to historic properties within the Crane Valley Archaeological District.

Areas of Expertise

- Cultural Resource Management
- Architectural History
- Historic Preservation

Years of Experience

- 8

Education

Ph.D. candidate, Architectural History, Utrecht University, 2013–present

M.A., Architectural History and Historic Preservation, Utrecht University, 2010–2011

B.A., Art History, Utrecht University, 2007–2010

Professional Experience

2019–	Senior Architectural Historian, Applied EarthWorks, Inc., Fresno, California
2017–2019	Editor/Translator, SDI Media, Los Angeles, California
2016–2017	Subcontractor, GPA Consulting, Los Angeles, California
2015–2016	Project Manager, City of Amsterdam, The Netherlands
2014–2015	Visiting Scholar, Columbia University, New York
2011–2014	Advisor on Cultural History and Urban Development, City of Amsterdam, The Netherlands
2010–2011	Intern, Amsterdam Centre for Architecture, The Netherlands

Technical Qualifications

Mr. van Onna has been involved in cultural resources management since 2011. His areas of expertise include built environment investigations, preparation of historic resource evaluation reports, and other required documentation for cultural resource management projects. As a Senior Architectural Historian for Applied EarthWorks, Mr. van Onna meets the Secretary of the Interior's professional qualification standards in architectural history. He has prepared technical reports for historical built environment resources to satisfy compliance requirements under the National Historic Preservation Act (NHPA) Section 106 and the California Environmental Quality Act (CEQA), including significance evaluations and eligibility recommendations for inclusion in the National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR). Mr. van Onna has previously worked for the City of Amsterdam, The Netherlands, coordinating its Municipal Landmarks Project and completing numerous built environment surveys, studies, and historical significance assessments for environmental impact reports, zoning plans, and other policy documents. At Applied EarthWorks, he provides guidance and assistance to project managers and staff alongside his core tasks as an architectural historian. Additional skills include archival research, architectural photography, editing, and quality assurance. Through his pursuit of a doctoral degree at Utrecht University, he explores the role of historic preservation in urban public spaces in the United States.

APPENDIX B

Records Search Results

*Archaeological site location information is exempt from the Freedom of Information Act (FOIA) and California Public Records Act (CPRA).



5/5/2020

Diana Dyste
Applied Earthworks, Inc.
1391 W. Shaw Ave., Suite C
Fresno, CA 93711

Re: Hanford Place Medical and Mixed-Use Property Project in the City of Hanford
Records Search File No.: 20-168

The Southern San Joaquin Valley Information Center received your record search request for the project area referenced above, located on the Hanford USGS 7.5' quad. The following reflects the results of the records search for the project area and the 0.5 mile radius:

As indicated on the data request form, the locations of resources and reports are provided in the following format: ☐ custom GIS maps ☒ shapefiles

Resources within project area:	P-16-000122, 000246
Resources within 0.5 mile radius:	P-16-000120, 000205
Reports within project area:	KI-00028, 00042, 00093, 00100, 00109, 00111, 00238, 00268, 00269
Reports within 0.5 mile radius:	KI-00079, 00094, 00110, 00192, 00310

Resource Database Printout (list): ☒ enclosed ☐ not requested ☐ nothing listed

Resource Database Printout (details): ☒ enclosed ☐ not requested ☐ nothing listed

Resource Digital Database Records: ☒ enclosed ☐ not requested ☐ nothing listed

Report Database Printout (list): ☒ enclosed ☐ not requested ☐ nothing listed

Report Database Printout (details): ☒ enclosed ☐ not requested ☐ nothing listed

Report Digital Database Records: ☒ enclosed ☐ not requested ☐ nothing listed

Resource Record Copies: ☒ enclosed ☐ not requested ☐ nothing listed

Report Copies: ☒ enclosed ☐ not requested ☐ nothing listed

Note: PDFs for "Other" Reports were omitted, per the Data Request Form

OHP Built Environment Resources Directory: ☒ enclosed ☐ not requested ☐ nothing listed

Archaeological Determinations of Eligibility: ☐ enclosed ☐ not requested ☒ nothing listed

CA Inventory of Historic Resources (1976): ☐ enclosed ☐ not requested ☒ nothing listed

Caltrans Bridge Survey: Not available at SSJVIC; please see
<http://www.dot.ca.gov/hq/structur/strmaint/historic.htm>

Ethnographic Information: Not available at SSJVIC

Historical Literature: Not available at SSJVIC

Historical Maps: Not available at SSJVIC; please see
<http://historicalmaps.arcgis.com/usgs/>

Local Inventories: Not available at SSJVIC

GLO and/or Rancho Plat Maps: Not available at SSJVIC; please see
<http://www.glorerecords.blm.gov/search/default.aspx#searchTabIndex=0&searchByTypeIndex=1> and/or
<http://www.oac.cdlib.org/view?docId=hb8489p15p;developer=local;style=oac4;doc.view=items>

Shipwreck Inventory: Not available at SSJVIC; please see
<http://www.slc.ca.gov/Info/Shipwrecks.html>

Soil Survey Maps: Not available at SSJVIC; please see
<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Invoices for Information Center services will be sent under separate cover from the California State University, Bakersfield Accounting Office.

Thank you for using the California Historical Resources Information System (CHRIS).

Sincerely,

Celeste M. Thomson Digitally signed by Celeste M. Thomson
Date: 2020.05.05 12:34:07 -07'00'

Celeste M. Thomson
Coordinator

Resource List

SSJVIC Record Search 20-168

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-16-000120		Resource Name - Burlington Northern and Santa Fe Railway (formerly Atchison, Topeka, and Santa Fe); Resource Name - CRM TECH 607-7H	Structure	Historic	AH07	2001 (Bai "Tom" Tang, Daniel Ballester, CRM Tech)	
P-16-000122	CA-KIN-000117H	Resource Name - San Joaquin Valley Railroad, Southern Pacific Railroad	Structure, Site	Historic	AH07; HP37	2001 (Bai "Tom" Tang, CRM Tech); 2013 (A. Gardner, L. Bennett, S. Lewis, Far Western Anthropological Research Group, Inc.); 2017 (Jessica Jones, Applied EarthWorks, Inc.)	KI-00109, KI-00245, KI-00310
P-16-000205		Resource Name - 10130 Seventh Avenue, Hanford Vicinity, Kings County; OHP Property Number - 127866; OTIS Resource Number - 570326	Building	Historic	HP02	1999 (Douglas W. Dodd, Caltrans District 6)	
P-16-000246	CA-KIN-000097H	Resource Name - JKI-002; Resource Name - People's Ditch; OTIS Resource Number - 666092	Structure	Historic	HP20	2001 (Bai "Tom" Tang, Daniel Ballester, CRM TECH); 2009 (Joseph Freeman, Jarma Jones, JRP Historical Consulting, LLC); 2017 (Jessica Jones, Applied EarthWorks, Inc.)	KI-00196, KI-00310

Report List

SSJVIC Record Search 20-168

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
KI-00028	NADB-R - 1140863	1995	Hatoff, Brian, Voss, Barb, Waechter, Sharon, Benté, Vance, and Wee, Stephen	Cultural Resources Inventory Report for the Proposed Mojave Northward Expansion Project	Woodward-Clyde Consultants	16-000067, 16-000068
KI-00042		1981	O'Connor, Denise and Clayton, A.B.	Archaeological Survey Report for an Interchange at 12th Avenue on Route 198, Kings County 06-KIN-198, R16.4/R17.4 06100-178200	Caltrans	
KI-00079		1998	Price, Barry A.	Cultural Resources Assessment for Pacific Bell Mobile Services Facility CV-503-01	Applied EarthWorks Inc.	
KI-00093		2000	Ryan, Christopher	Supplemental Archaeological Survey for te Laguna Irrigation District Transmission Line Improvement Project, Fresno and Kings Counties, California	Applied EarthWorks Inc.	
KI-00094	Submitter - Project Number 27101	2000	Nelson, Wendy J.	Cultural Resources Survey for the Level (3) Communications Long Haul Fiber Optics Project Segment WS04: Sacramento to Bakersfield	Far Western Anthropological Research Group, Inc.	16-000084
KI-00100		2000	Pastron, Allen G. and Brown, Keith R.	Historical and Cultural Resource Assessment Update Exising Telecommunications Facility Site No. CV-503-01 Glendale Ave Kings County, California	Brown and Mills, Inc. Geotechnical and Environmental Consultants.	
KI-00109	Submitter - Contract #675	2002	Love, Bruce and Tang, Bai "Tom"	Historic Property Survey Report: Cross Valley Rail Corridor Project Between the Cities of Visalia and Huron Tulare, Kings, and Fresno Counties, California	CRM TECH	16-000067, 16-000068, 16-000086, 16-000122, 16-000123, 16-000124, 16-000127, 16-000128
KI-00110	Submitter - Contact #675	2002	Love, Bruce and Tang, Bai "Tom"	Archaeological Survey Report: Cross Valley Rail Corridor Project Between the Cities of Visalia and Huron Tulare, Kings, and Fresno Counties, California	CRM TECH	
KI-00111	Submitter - Contract #675	2002	Love, Bruce and Tang, Bai "Tom"	Historic Study Report/Historical Resources Evaluation Report: Cross Valley Rail Corridor Project Between the Cities of Visalia and Huron Tulare, Kings, and Fresno Counties, California	CRM TECH	
KI-00192	Caltrans - 06-Kin-198, PM R16.9 (KP R27.2) EA 06-48750; Submitter - Contract No. 06A0852, Task 22	2007	Lanner, David and Wohlgemuth, Eric	Archaeological Survey Report for the 12th Avenue Interchange on State Route 198, Hanford, Kings County, California	Far Western Anthropological Research Group, Inc.	

Report List

SSJVIC Record Search 20-168

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
KI-00238		2010	Meyer, Jack, Young, D. Craig, and Rosenthal, Jeffrey	Volume I: A Geoarchaeological Overview and Assessment of Caltrans Districts 6 and 9 - Cultural Resources Inventory of Caltrans District 6/9 Rural Conventional Highways - EA 06-0A7408 TEA Grant	Far Western Anthropological Research Group, Inc.	
KI-00238A		2010	Meyer, Jack, Young, D. Craig, and Rosenthal, Jeffrey S.	Volume II: Appendices A Georchaological Overview and Assessment of Caltrans District 6 and 9 - Cultural Resources Inventory of Caltrans District 6/9 Rural Conventional Highways - EA06-0A7408 TEA Grant	Far Western Anthropological Research Group, Inc.	
KI-00268		2011	Greenwald, Alexandra	Archaeological Survey Report for the California High Speed Train - Fresno to Bakersfield Section	URS Corporation	
KI-00269		2015	Schiffman, Robert A.	Archaeological Evaluation of Areas Selected for Possible Nuclear Power Plants by the LADWP	Bakersfield College	
KI-00310	Other - PM 74000707	2017	Jones, Jessica	Cultural Resources Contstraints Report Kingsburg-Lemoore Recondutor, Kings County, California	Applied EarthWorks, Inc.	16-000122, 16-000128, 16-000129, 16-000246, 16-000447

Historical Topographic Maps and Aerial Images Consulted

Date	Name	Author	Reference	Notes
1934	State Division of Highways	C-3094_z-104	1934 State Division of Highways. Flown by Fairchild Aerial Surveys. Aerial Survey No. C-3094_z-104, http://mil.library.ucsb.edu/ap_indexes/FrameFinder/ , accessed April 29, 2020.	Historic residence is in the field in the project area. Southern Pacific Railroad visible. City is primarily agricultural/industrial.
1937	Fresno County Aerial Survey 1937 13-ABJ 67-78	Agricultural Adjustment Administration	1937 Fresno County, California, Aerial Survey 1937 13-ABJ 67-78, http://cdmweb.lib.csufresno.edu/cdm/singleitem/collection/aerial/id/1178 , accessed through Map and Aerial Locator Tool (MALT), Henry Madden Library, California State University, Fresno, April 28, 2020.	Historic residence is in the field in the project area. Southern Pacific Railroad visible. City is primarily agricultural/industrial.
1942	Fresno County Aerial Survey 1942 ABJ 8B-157	Agricultural Adjustment Administration	1937 Fresno County, California, Aerial Survey 1942 ABJ 8B-157, http://cdmweb.lib.csufresno.edu/cdm/singleitem/collection/aerial/id/1178 , accessed through Map and Aerial Locator Tool (MALT), Henry Madden Library, California State University, Fresno, April 28, 2020.	Historic residence is still shown in the project area. Southern Pacific Railroad visible. City is primarily agricultural/industrial. No other updates to historic landscape.
1926	Hanford, CA 1:31,680	U.S. Geological Survey	1926 Hanford, <i>Calif.</i> , 1:31,680 scale. U.S. National Geologic Map Database, Historical Topographic Map Collection (topo View), https://ngmdb.usgs.gov/topoview/ , accessed April 27, 2020.	The Peoples Ditch is shown on the westside of the project area. The project area is shown to have been used for agriculture.
1954	Hanford, CA 1:24:000	U.S. Geological Survey	1954 Hanford, <i>Calif.</i> , 1:24,000 scale. U.S. National Geologic Map Database, Historical Topographic Map Collection (topoView), https://ngmdb.usgs.gov/topoview/ , accessed April 27, 2020.	The Peoples Ditch is shown on the westside of the project area. The project area is shown to have been used for agriculture. No buildings are shown in the project area.
1891	Township 18 South, Range 21 East	General Land Office	1891 General Land Office Survey Plat, Township 18 South, Range 21 East, Mount Diablo, DM ID 380157. U.S. Department of the Interior, Bureau of Land Management General Land Office Records, https://glorerecords.blm.gov , accessed April 27, 2020.	No roads or other built environment shown.
1867	Township 18 South, Range 21 East	General Land Office	1867 General Land Office Survey Plat, Township 18 South, Range 21 East, Mount Diablo, DM ID 380161. U.S. Department of the Interior, Bureau of Land Management General Land Office Records, https://glorerecords.blm.gov , accessed April 27, 2020.	No roads or other built environment shown.
1989	Township 18 South, Range 21 East	General Land Office	1989 General Land Office Survey Plat, Township 18 South, Range 21 East, Mount Diablo, DM ID 380163. U.S. Department of the Interior, Bureau of Land Management General Land Office Records, https://glorerecords.blm.gov , accessed April 27, 2020.	No roads or other built environment shown.

APPENDIX C

Native American Outreach

*Archaeological site location information is exempt from the Freedom of Information Act (FOIA) and California Public Records Act (CPRA).

NATIVE AMERICAN HERITAGE COMMISSION

April 22, 2020

Diane Dyste

Applied EarthWorks, Inc.

Via Email to: DDyste@appliedearthworks.com

Re: Hanford Place Medical and Mixed-Use Property Project, Kings County

Dear Ms. Dyste:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Nancy.Gonzalez-Lopez@nahc.ca.gov.

Sincerely,



Nancy Gonzalez-Lopez
Staff Services Analyst

Attachment



CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

SECRETARY
Merri Lopez-Keifer
Luiseño

PARLIAMENTARIAN
Russell Attebery
Karuk

COMMISSIONER
Marshall McKay
Wintun

COMMISSIONER
William Mungary
Paiute/White Mountain Apache

COMMISSIONER
[Vacant]

COMMISSIONER
Julie Tumamait-Stenslie
Chumash

COMMISSIONER
[Vacant]

EXECUTIVE SECRETARY
Christina Snider
Pomo

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

**Native American Heritage Commission
Native American Contacts List
April 22, 2020**

Kings River Choinumni Farm Tribe Stan Alec 3515 East Fedora Avenue Fresno CA 93726 (559) 647-3227 Cell	Foothill Yokuts Choinumni	Wuksache Indian Tribe/Eshom Valley Band Kenneth Woodrow, Chairperson 1179 Rock Haven Ct. Salinas CA 93906 kwood8934@aol.com (831) 443-9702	Foothill Yokuts Mono Wuksache
Santa Rosa Rancheria Tachi Yokut Tribe Leo Sisco, Chairperson P.O. Box 8 Lemoore CA 93245 (559) 924-1278 (559) 924-3583 Fax	Tache Tachi Yokut		
Table Mountain Rancheria Leanne Walker-Grant, Chairperson P.O. Box 410 Friant CA 93626 rpennell@tmr.org (559) 822-2587 (559) 822-2693 Fax	Yokuts		
Table Mountain Rancheria Bob Pennell, Cultural Resources Director P.O. Box 410 Friant CA 93626 rpennell@tmr.org (559) 325-0351 (559) 325-0394 Fax	Yokuts		
Tule River Indian Tribe Neil Peyron, Chairperson P.O. Box 589 Porterville CA 93258 neil.peyron@tulerivertribe-nsn.gov (559) 781-4271 (559) 781-4610 Fax	Yokuts		

This list is current as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code, or Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans Tribes for the proposed:
Hanford Place Medical and Mixed-Use Property Project, Kings County.



August 4, 2020

Leo Sisco
Chairperson
Santa Rosa Rancheria Tachi Yokut Tribe
P.O. Box 8
Lemoore, CA 93245

RE: Hanford Place Medical and Mixed-Use Project in the City of Hanford, Kings County, California.

Dear Mr. Leo Sisco,

Applied EarthWorks, Inc. (Æ) is currently providing cultural resource services to Epic Management Group, Inc. for its Hanford Place Medical and Mixed-Use Project (Project) in the City of Hanford. The 45-acre development would include 15 structures that would cover medical outpatient clinic services, hospitality, specialized education, retail, medical office, skilled nursing and assisted living, and multi-family residences. The project would include a round-about over the top of the Peoples Ditch, and a 5-acre infiltration basin. The project is subject to the requirements of the California Environmental Quality Act.

The Project area is within Townships 18 south, Range 21 east, Section 35 of the Hanford, CA USGS quadrangle (see attached map). If you would like more detailed maps, please contact Æ and we would be more than happy to provide them. A search of the Native American Heritage Commission's (NAHC) Sacred Lands File was completed on April 22, 2020. The NA HC reported negative results in the Project area; however, the NAHC provided your contact information as someone who may have specific information about the Project area and vicinity.

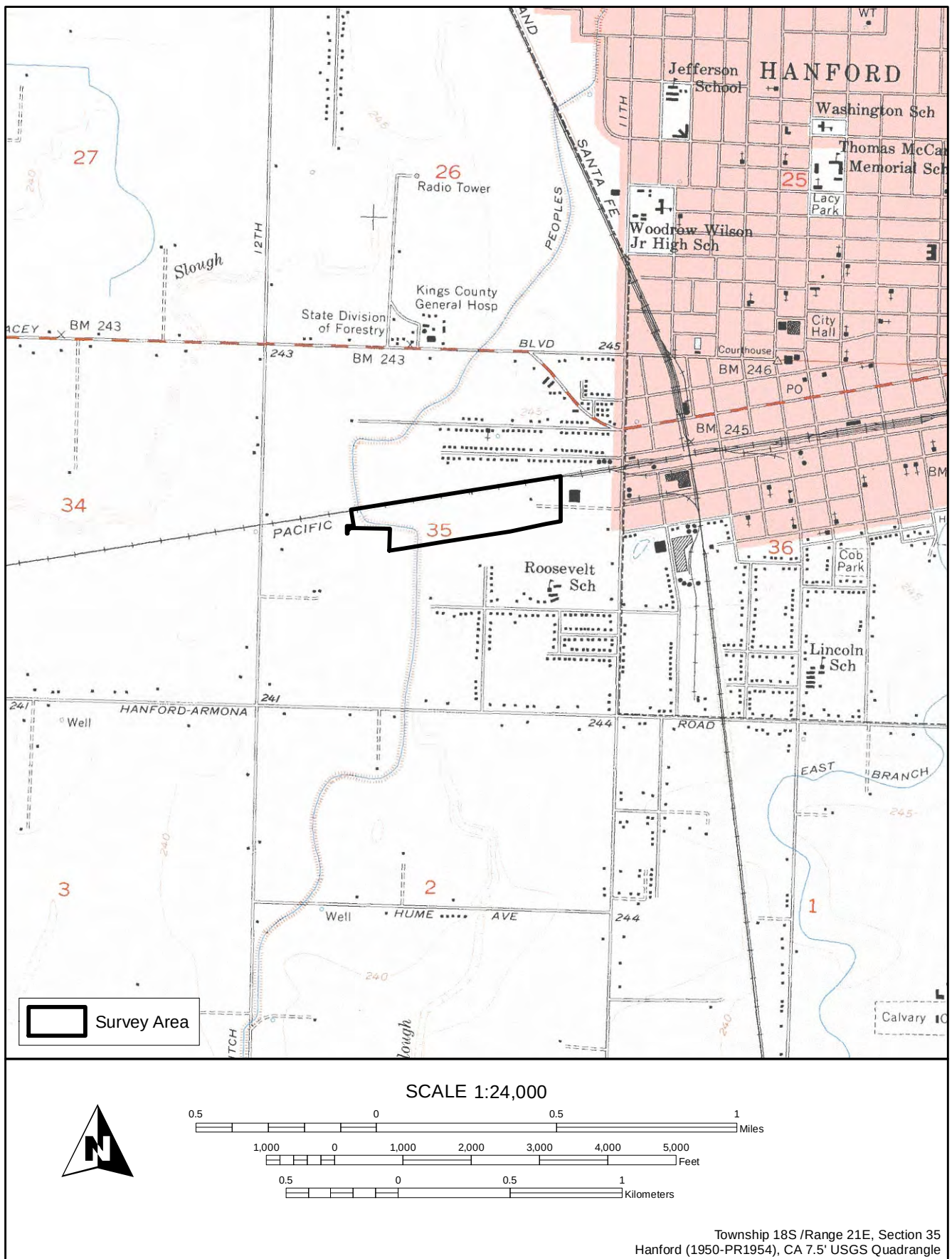
A record search from the Southern San Joaquin Valley Information Center has been performed for the Project, and no previously recorded cultural resources were identified within the Project area. Resources identified within 0.5-mile of the Project area include Peoples Ditch (CA-KIN-97H) and the Southern Pacific Railroad (CA-KIN-00177H). Æ's archaeological and built environment pedestrian survey identified a historic-era refuse scatter and isolated historic-era glass fragment, as well as a previously unrecorded segment of the People's Ditch. No prehistoric archaeological sites, features, or isolated artifacts were observed.

Your name and address were provided to us by the NAHC. If you have information on sacred or special sites in the area or if you have an interest in the Project, please call or send a letter to my attention using the address in the header. With your written permission, information shared with Æ about this Project will be included in the technical report documenting this investigation. Pursuant to state and federal laws protecting the confidentiality of archaeological sites and tribal cultural resources will be protected from release to the general public (Pub. Resources Code § 21082.3[c][1]; NHPA Section 304). I can be reached at the office desk at (559) 229-1856 X123, by cell at (559) 907-6028, or by email at ddyste@appliedearthworks.com.

Sincerely,

Diana Dyste,
Senior Archaeologist

encl.: Project Map



NAHC location map for the Hanford Place Medical and Mixed-Use Property Project - AE4167.

APPENDIX D

Cultural Resource Records

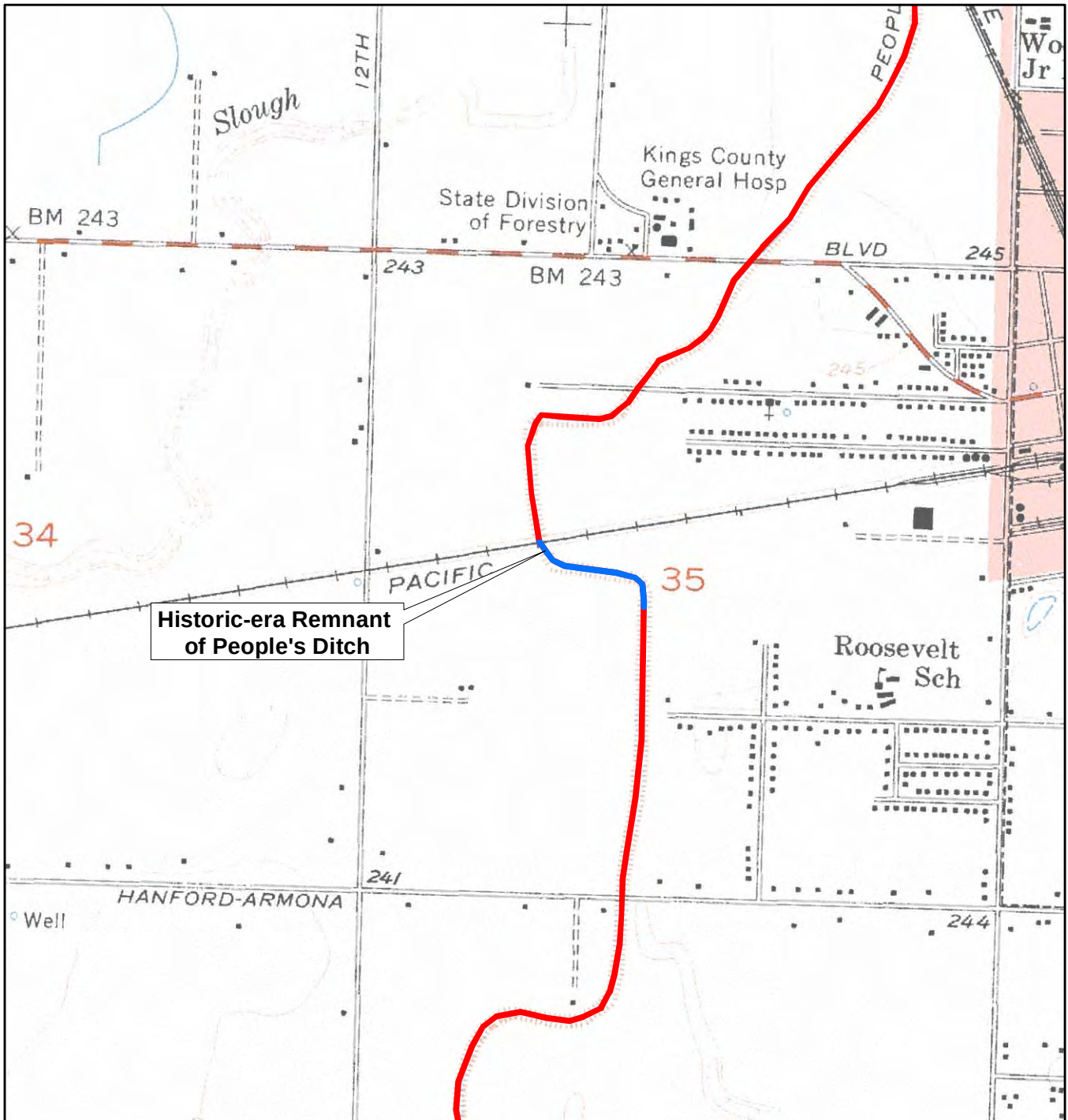
☐ Continuation ☒ Update

Page 1 of 4

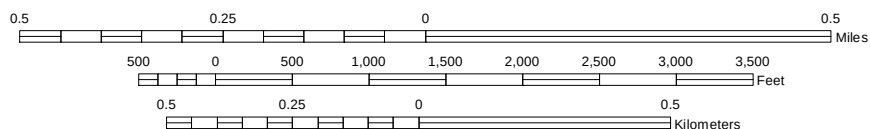
Resource Name or #: People's Ditch

- *P2. Location: a. County: Kings ☐ Not for Publication ☒ Unrestricted
b. USGS 7.5' Quad: Hanford, CA Date: 1950, photorev. 1954 T18S, R21E; SE ¼ of NW ¼ of Sec. 35 MD B.M.
c. Address: N/A
d. UTM:
e. Other Locational Data: From the intersection of 11th Street and West Lacey Blvd. in Hanford, CA, drive west for 0.4 miles on West Lacey Blvd. Turn left (south) onto Campus Drive and proceed for 0.4 miles. At this point the road terminates and the modern segment of the People's Ditch continues south. The remnant of the historical alignment is west of the modern segment and north of State Route 198.
- *P3a. Description: This update includes a 1,327-foot remnant segment of People's Ditch between the Burlington Northern Santa Fe Railway tracks in the north and State Route 198 in the south. According to Google Earth imagery, this segment was abandoned sometime between 1994 and 2003, along with a segment north of the railroad west of Campus Drive. At that time, People's Ditch was realigned and piped under Campus Drive and the railroad tracks for a distance of approximately 1,660 feet. It resurfaces just south of the railroad tracks and continues to flow south in a J-shaped configuration between the railroad and State Route 198 east of its original alignment before crossing under the highway and continuing south parallel to its historical alignment. This new segment is less 50 years old. The ditch's remnant historical segment has been all but erased from the landscape in this area. Remains of a concrete containment well are visible at the northern end of the remnant segment.
- *P3b. Resource Attributes: HP11. Engineering Structure
- *P7. Owner and Address: Peoples Ditch Company, 870 Greenfield Ave, Hanford, CA 93230
- *P8. Recorded By: Carlos van Onna, Applied EarthWorks, Inc., 1391 W. Shaw Ave., Suite C, Fresno, CA 93711
- *P9. Date Recorded: 5/23/2020
- *P10. Survey Type: ☒ Intensive ☐ Reconnaissance ☐ Other Describe:
- *P11. Report Citation: Dyste, Diana T., Jessica Jones, Dennis McDougall, Ward Stanley, and Carlos van Onna 2020 *Cultural Resource Inventory for the Hanford Place Medical and Mixed-Use Property Project in the City of Hanford, Kings County, California*. Applied EarthWorks, Inc., Fresno, California. Prepared for The Hanford Group, c/o Epic Management Group, Inc., Temecula, California.

*Attachments: ☐ NONE ☒ Location Map ☒ Sketch Map ☐ Continuation Sheet
☐ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record
☐ Photograph Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record
☒ Other (list): Location Map showing route entire ditch



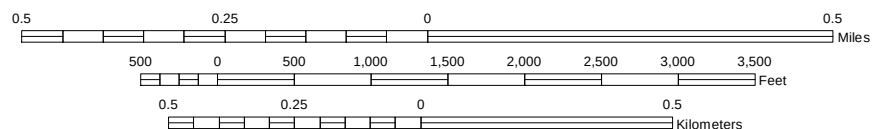
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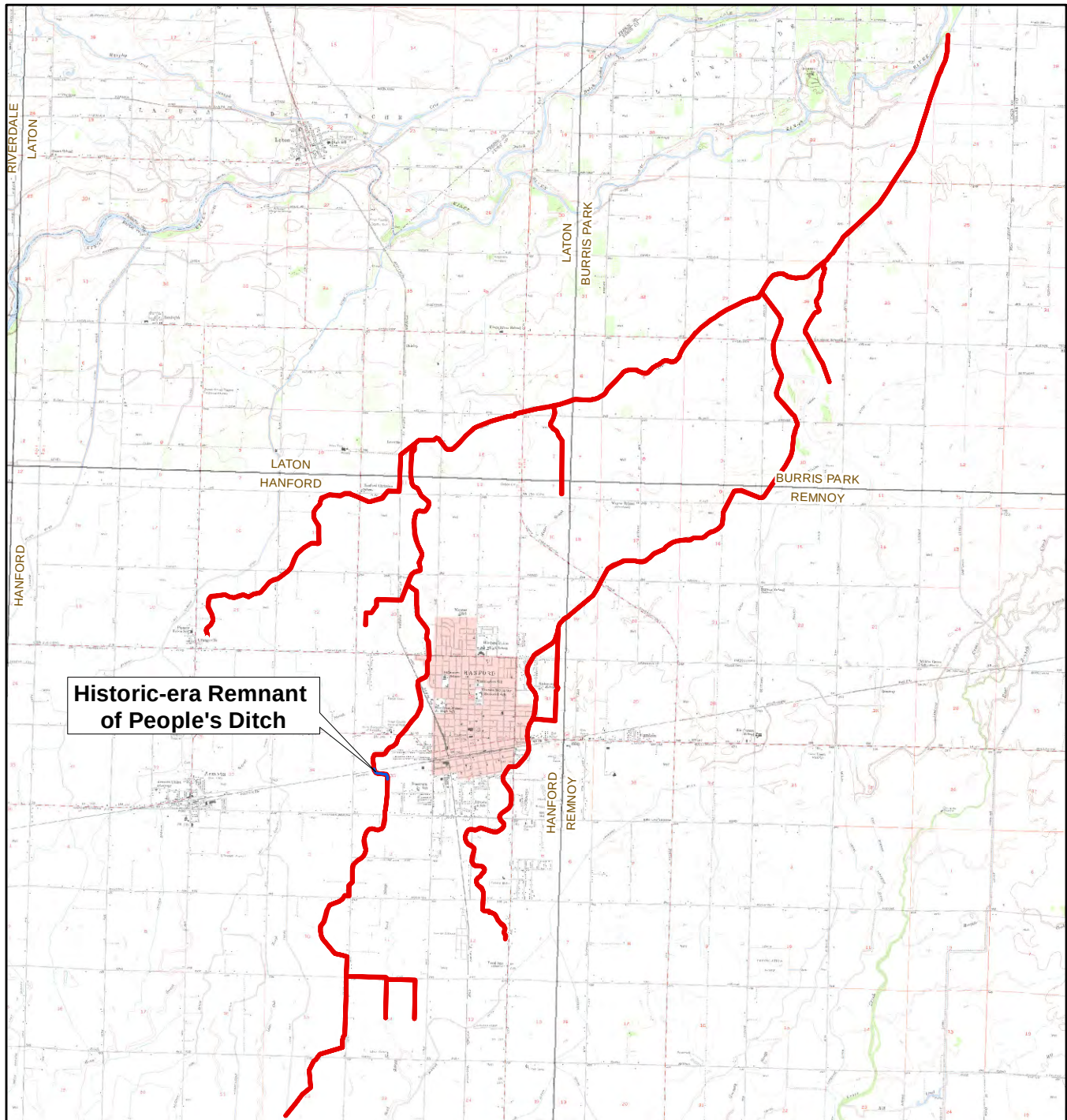
TRUE NORTH



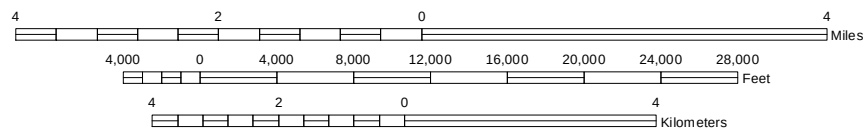
SCALE 1:15,000



TRUE NORTH



SCALE 1:120,000



TRUE NORTH

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code

Reviewer

Date

Page 1 of 2

Resource Name or # AE-4167-01

P1. Other Identifier:

***P2. Location: a. County:** Kings County

☒ Not for Publication ☐ Unrestricted

b. USGS 7.5' Quad: Hanford, CA **Date:** 1950, photorev.1954 T 18S, R 21E; SW ¼ of NE ¼ of Sec. 35 MD B.M.

c. Address: n/a

d. UTM: NAD 83, Zone 11; 261204 mE / 4022976 mN

e. Other Locational Data: From the intersection of 11th Street and West Lacey Blvd. in Hanford, drive west for 0.4 miles on West Lacey Blvd. Turn left (south) on Campus Drive and proceed for 0.4 miles. At this point the road terminates. The site is at 88° at 357 meters (northwest corner of site) in a vacant lot north of State Route 198.

***P3a. Description:** The site is a broad historical refuse scatter extending across 6 acres. It consists of domestic refuse, including, but not limited to, window glass of various colors, broken bottles, ceramic fragments, insulators, wood fragments, bricks, river cobbles with cement mortar attached, heavy metal pipe fragments, miscellaneous metal fragments, a toy marble, and a bottle base fragment showing possible pressure flaking along one edge. The scatter is most dense within the northwest corner of the site. A diffuse scatter of isolated artifacts extends beyond this concentration to the south and east site boundaries. A slight topographic rise is present along the entire northern boundary, which is elevated 2 feet high and then levels off. A total of 12 diagnostic artifacts were observed and recorded. Although not formally dated, the artifacts appear to be from the first half of the twentieth century. A 1937 aerial photograph depicts a residence in the site location (Fresno County, California, Aerial Survey 1937 13-ABJ 67-78, <http://cdmweb.lib.csufresno.edu/cdm/singleitem/collection/aerial/id/1178>).

***P3b. Resource Attributes:** AH.4

***P4. Resources Present:** ☐ Building ☐ Structure ☐ Object ☒ Site ☐ District ☐ Element of District ☐ Other:

***P5a. Photograph or Drawing:**



P5b. Description of Photo: View of site from the northeast corner, looking west.

***P6. Date Constructed/Age and Sources:**
☐ Prehistoric ☒ Historic ☐ Both

***P7. Owner and Address:**
The Hanford Group
c/o Epic Management Group,
Inc. 44045 Margarita Road,
Suite #100 Temecula, CA 92592

***P8. Recorded By:** Ward Stanley
Applied EarthWorks, Inc.
1391 W. Shaw Ave., Suite C
Fresno, CA 93711

***P9. Date Recorded:** 5/23/2020

***P10. Survey Type:** ☒ Intensive
☐ Reconnaissance ☐ Other

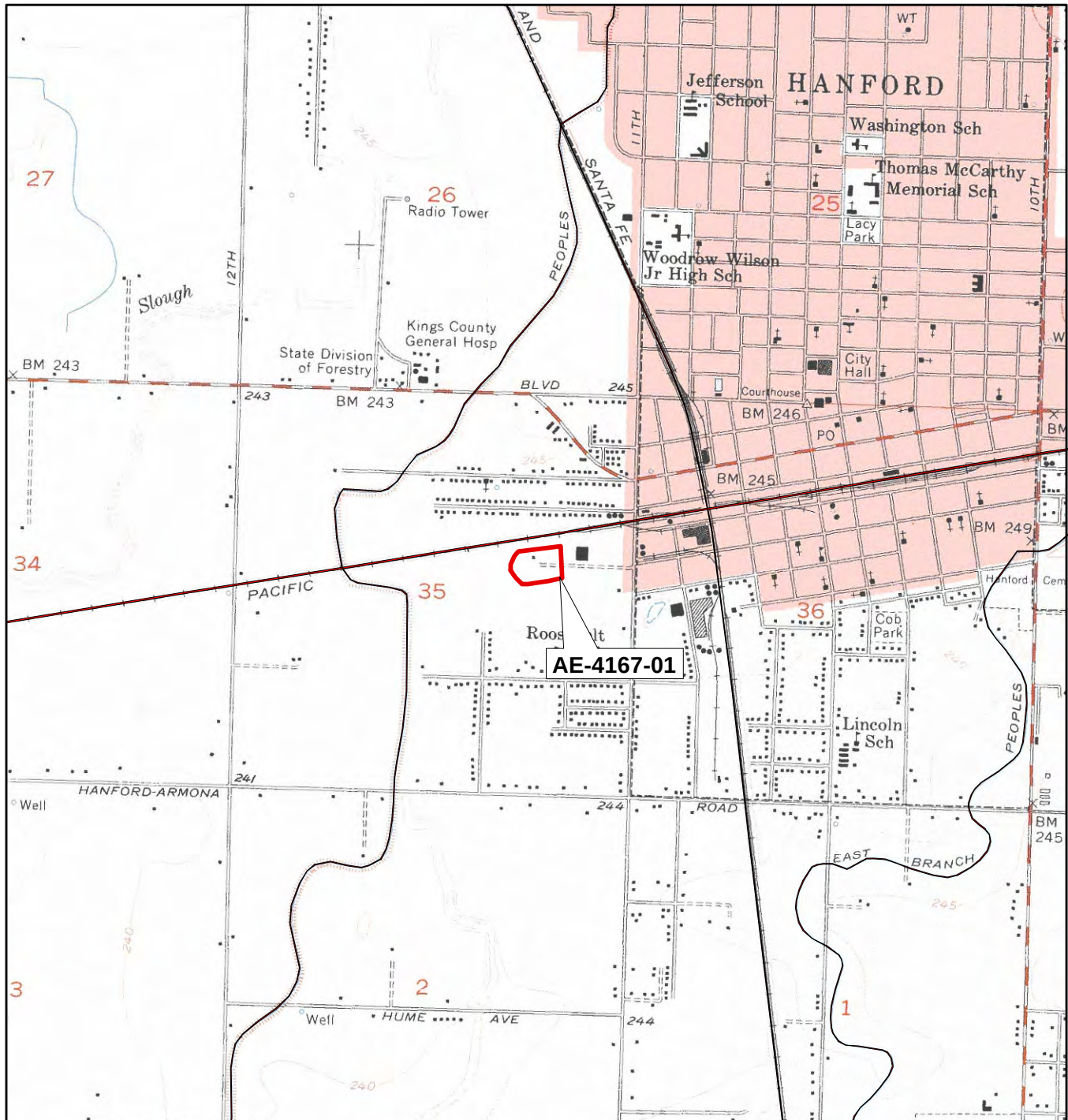
Describe: Pedestrian survey at 15-meter interval transects.

***P11. Report Citation:** Dyste, Diana T., Jessica Jones, Dennis McDougall, Ward Stanley, and Carlos van Onna
2020 *Cultural Resource Inventory for the Hanford Place Medical and Mixed-Use Property Project in the City of Hanford, Kings County, California*. Applied EarthWorks, Inc., Fresno, California. Prepared for The Hanford Group, c/o Epic Management Group, Inc., Temecula, California.

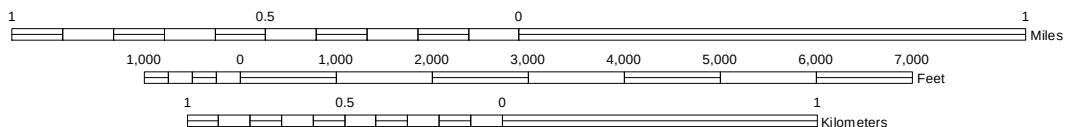
***Attachments:** ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet
☐ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record
☐ Photograph Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record
☐ Other (list):

DPR 523A (1/95)

***Required Information**



SCALE 1:24,000



TRUE NORTH

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code

Reviewer

Date

Page 1 of 2

Resource Name or # AE-4167-ISO-01

P1. Other Identifier:

***P2. Location:** a. County: Kings County

☒ Not for Publication ☐ Unrestricted

b. USGS 7.5' Quad: Hanford, CA Date: 1950, photorev. 1954 T 18S, R 21E; SW ¼ of NE ¼ of Sec. 35 MD B.M.

c. Address: N/A

d. UTM: NAD 83, Zone 11; 2610931 mE / 4022861 mN

e. **Other Locational Data:** From the intersection of 11th Street and West Lacey Blvd. in Hanford, drive west for 0.4 miles on West Lacey Blvd. Turn left (south) on Campus Drive and proceed for 0.4 miles. At this point the road terminates and the isolated find was located 141° at 146 meters from this point.

***P3a. Description:** The isolated artifact is an aqua blue glass insulator fragment. The insulator was found on the ground surface east of the Peoples Canal. The artifact was collected.

***P3b. Resource Attributes:**

***P4. Resources Present:** ☐ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☒ Other: Isolate

***P5a. Photograph or Drawing:**



P5b. Description of Photo: Fragmented aqua blue glass insulator.

***P6. Date Constructed/Age and Sources:**
☐ Prehistoric ☒ Historic ☐ Both

***P7. Owner and Address:**
The Hanford Group
c/o Epic Management Group, Inc.
44045 Margarita Road, Suite #100
Temecula, CA 92592

***P8. Recorded By:** Ward Stanley
Applied EarthWorks, Inc.
1391 W. Shaw Ave., Suite C
Fresno, CA 93711

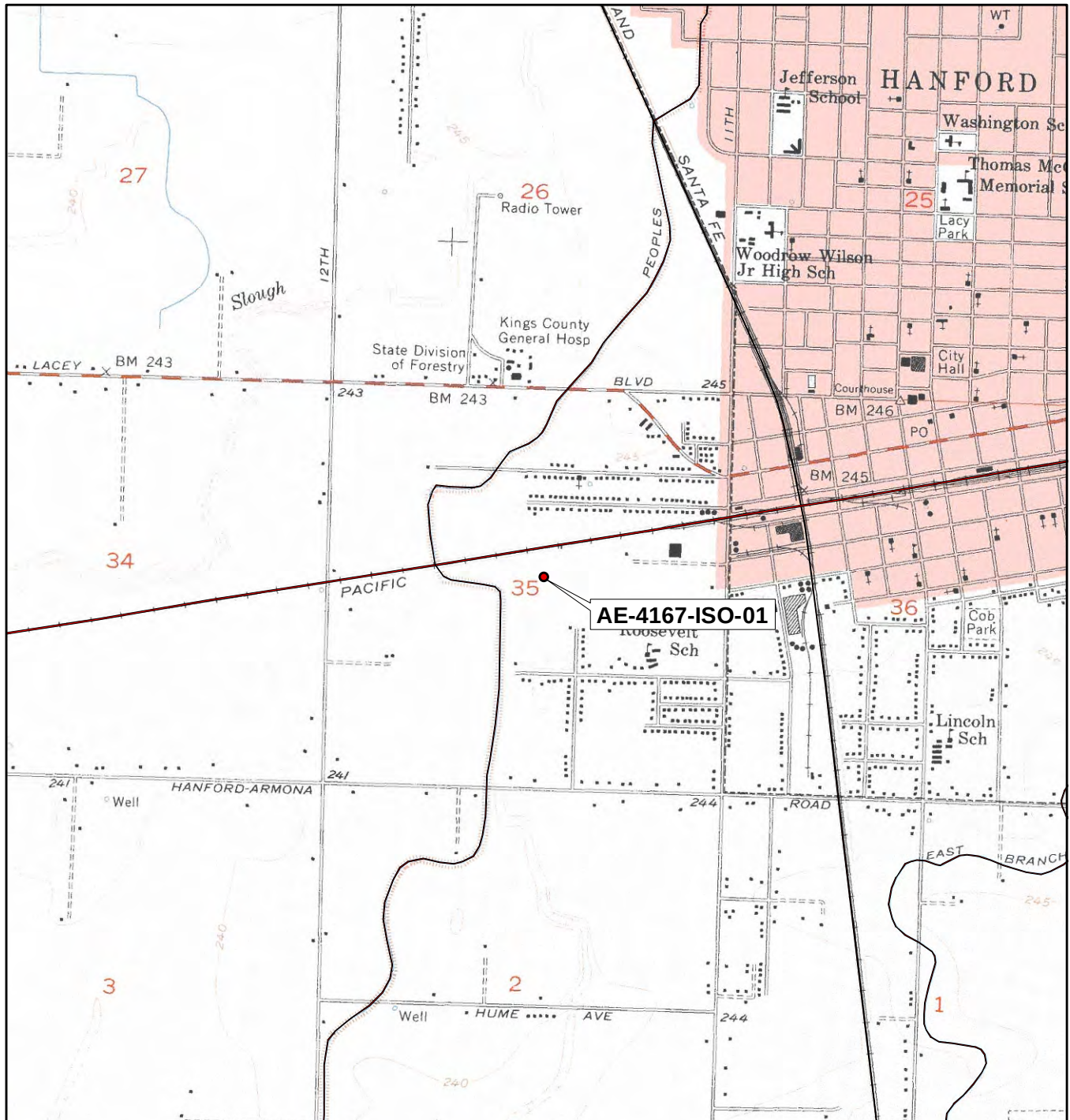
***P9. Date Recorded:** 5/23/2020

***P10. Survey Type:** ☒ Intensive
☐ Reconnaissance ☐ Other

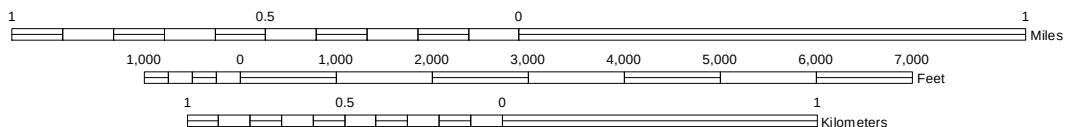
Describe: Pedestrian survey at 15-meter interval transects.

***P11. Report Citation:** Dyste, Diana T., Jessica Jones, Dennis McDougall, Ward Stanley, and Carlos van Onna
2020 *Cultural Resource Inventory for the Hanford Place Medical and Mixed-Use Property Project in the City of Hanford, Kings County, California*. Applied EarthWorks, Inc., Fresno, California. Prepared for The Hanford Group, c/o Epic Management Group, Inc., Temecula, California.

***Attachments:** ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet
☐ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record
☐ Photograph Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record
☐ Other (list):



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TRUE NORTH

APPENDIX D

PRELIMINARY GEOTECHNICAL INVESTIGATION AND GEOLOGIC AND SEISMIC HAZARDS EVALUATION REPORT

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June 9, 2020
Kleinfelder Project No.: 20210045.001A

Mr. Burley Wright
Vice President, Development
Epic Management Group, Inc.
44045 Margarita Rd., Suite 100
Temecula, California 92592
Direct: (951) 746-0012
Office: (951) 331-3583

**Subject: Preliminary Geotechnical Investigation and
Geologic and Seismic Hazards Evaluation Report
Propose Hanford Place, Medical and Mixed-Use Property
Hanford, California**

Dear Mr. Wright,

The attached report presents the results of Preliminary Geotechnical Investigation and Geologic and Seismic Hazards Evaluation performed for the proposed Hanford Place, Medical and Mixed-Use Property to be located in Hanford, California. The report describes the study, findings, conclusions and recommendations for use in project design.

The primary concern for development of the site is presence of compressible soils residing in the upper approximately 10 feet of native soils across the project site. These soils are subject to hydrocompaction, which is a common soil condition in the Hanford area. Hydrocompactive soil has a loose skeletal structure, which is weakly cemented by soluble salts and/or minor amounts of clay. Increases in soil moisture reduce the interparticle cementation (dry strength) of the soil resulting in a decrease in the volume of the soil structure. This condition can lead to post construction settlement of structures if soils subsequently become wetted. At the present moisture content, the on-site natural soil has sufficient strength to support the proposed preliminary improvements. However, should the soil be subject to post-construction moisture increases, moderate soil compression will likely occur below structures and related site improvements.

The effects of hydrocompactive soil can be mitigated through earthwork excavation and recompaction of the soils. Disposal of the soils is not necessary. From a development perspective, the efforts associated with the additional earthwork to mitigate the hydrocompactive soils will increase site development costs.

Kleinfelder considered an alternative option to mitigate against the settlement of the structures due to hydrocompaction, which involved the use of deep foundation systems (such as drilled pier foundations, auger cast piles, underpinning piers, etc.). However, supporting building structures on deepened foundation systems does not mitigate the occurrence of liquefaction and therefore, would invariably require the use of grade beams and structural slabs in addition to deepened foundations. The deepened foundations, grade beams, and structural would likely be cost

prohibitive as compared to conventional grading techniques and therefore was excluded deep foundations as an option.

Kleinfelder appreciates the opportunity to provide geotechnical engineering and geologic services to Epic Management Group, Inc. during the design phase of this project. If there are any questions concerning the information presented in this report, please contact this office at your convenience.

Respectfully submitted,

KLEINFELDER, INC.



Adam AhTye, PE
Project Engineer



James A. Wetenkamp, CEG #2556
Project Engineering Geologist



Stephen P. Plauson, PE, GE
Principle Geotechnical Engineer



**PRELIMINARY GEOTECHNICAL INVESTIGATION
AND GEOLOGIC AND SEISMIC HAZARDS
EVALUATION REPORT
PROPOSED HANFORD PLACE, MEDICAL AND
MIXED-USE PROPERTY
HANFORD, CALIFORNIA
KLEINFELDER PROJECT NO. 20190494.001A**

JUNE 9, 2020

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ONLY THE CLIENT OR ITS DESIGNATED REPRESENTATIVES MAY USE THIS DOCUMENT AND ONLY FOR THE SPECIFIC
PROJECT FOR WHICH THIS REPORT WAS PREPARED.

Prepared For:

Epic Management Group, Inc.
44045 Margarita Rd., Suite 100
Temecula, California 92592

**PRELIMINARY GEOTECHNICAL INVESTIGATION AND
GEOLOGIC AND SEISMIC HAZARDS EVALUATION REPORT
PROPOSED HANFORD PLACE, MEDICAL AND MIXED-USE PROPERTY
HANFORD, CALIFORNIA**

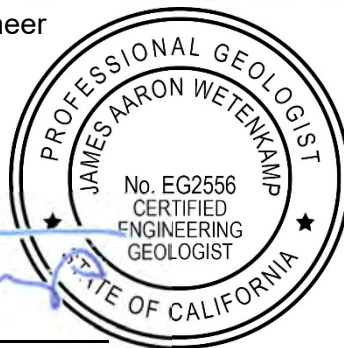
Prepared by:



Adam AhTye, PE
Project Engineer



Stephen P. Plauson, PE, GE
Principal Geotechnical Engineer



James A. Wetenkamp, PG, CEG #2556
Project Engineering Geologist

KLEINFELDER, INC.
3731 W. Ashcroft Avenue
Fresno, California 93722
Phone: 559.486.0750
Fax: 559.442.5081

June 9, 2020
Kleinfelder Project No.: 20190494.001A

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
1 INTRODUCTION.....	1
1.1 GENERAL	1
1.2 PROPOSED CONSTRUCTION	1
1.3 PURPOSE AND SCOPE OF SERVICES.....	2
2 FIELD EXPLORATION AND LABORATORY TESTING	5
2.1 FIELD EXPLORATION.....	5
2.2 FIELD AND LABORATORY TESTING.....	5
3 SITE CONDITIONS.....	7
3.1 SURFACE CONDITIONS	7
3.2 EARTH MATERIALS	7
3.3 GROUNDWATER CONDITIONS	8
4 GEOLOGIC AND SEISMIC CONDITIONS.....	9
4.1 REGIONAL GEOLOGY	9
4.2 AREA AND SITE GEOLOGY	9
4.3 FAULTS LOCAL TO THE PROPOSED SITE	10
4.4 SIGNIFICANT FAULTS	10
4.5 HISTORICAL SEISMICITY.....	11
4.6 SOIL SITE CLASS	12
4.7 POTENTIAL SEISMIC HAZARDS.....	14
4.7.1 Surface Fault Rupture.....	14
4.7.2 Liquefaction and Seismic Settlement.....	14
4.7.3 Lateral Spreading	15
4.7.4 Dynamic Compaction.....	16
4.7.5 Cyclic Softening	16
4.8 POTENTIAL GEOLOGIC HAZARDS	16
4.8.1 Flooding.....	16
4.8.1.1 Tsunamis, Seiches, Earthquake Induced Flooding.....	16
4.8.1.2 Potential for Dam Failure	17
4.8.1.3 Flood Insurance Rate Maps	17
4.8.2 Expansive Soils	17
4.8.3 Hydrocompaction (Soil Collapse)	17
4.8.4 Corrosive Soils.....	18
4.8.5 Regional Subsidence.....	18
4.8.6 Naturally-Occurring Asbestos	18
4.9 RADON GAS	19
5 EARTHWORK	20
5.1 GENERAL	20
5.2 HYDROCOMPACTION	20
5.3 SITE PREPARATION.....	22
5.3.1 Stripping	22

5.3.2	Disturbed Soil, Undocumented Fill, and Subsurface Obstructions	22
5.3.3	Over-excavation and Scarification	23
5.4	ENGINEERED FILL	24
5.4.1	Materials	24
5.4.2	Benching.....	25
5.4.3	Compaction Criteria	26
5.4.4	Construction Considerations.....	26
5.5	TEMPORARY EXCAVATIONS	27
5.5.1	General.....	27
5.5.2	Excavations and Slopes	27
5.5.3	Construction Considerations.....	27
5.6	PIPELINE AND TRENCH BACKFILL.....	28
5.6.1	Materials	28
5.6.2	Compaction Criteria	28
5.6.3	Pipeline Thrust.....	29
5.7	ESTIMATED VOLUME LOSS	30
6	DESIGN RECOMMENDATIONS	31
6.1	SPREAD FOUNDATIONS	31
6.1.1	General.....	31
6.1.2	Allowable Vertical Bearing Pressures and Settlements.....	31
6.1.3	Lateral Resistance	32
6.2	EARTH RETAINING STRUCTURES	33
6.3	CONCRETE SLABS-ON-GRADE	34
6.3.1	Subgrade Preparation.....	34
6.3.2	Capillary and Moisture/Vapor Break	34
6.3.3	Conventional Slab Design	35
6.4	PIER/POLE FOUNDATIONS	35
6.4.1	Allowable Vertical Axial Capacity and Settlement	35
6.4.2	Lateral Resistance	36
6.4.3	Design and Construction Considerations	37
6.5	PAVEMENT DESIGN	37
6.5.1	General.....	37
6.5.2	Flexible Pavement	38
6.5.3	Moisture Considerations	39
6.5.4	Construction Considerations.....	40
6.5.5	Construction Observation and Testing	40
6.6	CORROSION POTENTIAL	40
6.7	SITE DRAINAGE.....	42
6.7.1	General.....	42
6.7.2	On-Site Infiltration Basin.....	43
7	ADDITIONAL SERVICES.....	44
7.1	ADDITIONAL ENGINEERING INVESTIGATIONS.....	44
7.2	PLANS AND SPECIFICATIONS REVIEW	44
7.3	CONSTRUCTION OBSERVATION AND TESTING	44
8	LIMITATIONS	45
9	REFERENCES.....	46

FIGURES

- 1 Site Vicinity Map
- 2 Exploration Location Map
- 3 Site Plan and Geology Map
- 4 Area Geology Map
- 5 Regional Geology Map
- 6 Cross Section A-A'
- 7 Cross Section B-B'
- 8 Regional Fault Map And Earthquake Epicenters
- 9 Fema Flood Map
- 10 Dam Inundation Map

APPENDICES

- A Boring Logs
- B Laboratory Results
- C Liquefaction Analysis

1 INTRODUCTION

1.1 GENERAL

This report presents the results of a preliminary geotechnical investigation and geologic and seismic hazards evaluation for the proposed Hanford Place medical and mixed-use property to be located in Hanford, California. The purpose of the investigation was to explore and evaluate the subsurface conditions at the site, identify and assess potential geologic hazards, and develop preliminary geotechnical engineering recommendations to aid in project design. The Site Vicinity Map, presented on Figure 1, shows the location of the project and the Exploration Location Map, presented on Figure 2, shows the approximate boring locations.

This report includes preliminary recommendations related to the geotechnical and geologic aspects of project design. Conclusions and recommendations presented in this report are based on subsurface conditions encountered at the boring locations, as well as the provisions and requirements outlined in the “Additional Services” and “Limitations” Sections of this report. Recommendations presented herein should not be extrapolated to other areas or used for other projects without prior review.

1.2 PROPOSED CONSTRUCTION

An understanding of the project is based on an email correspondence with representatives of the developer’s design team, Zumwalt-Hansen and Associates (Zumwalt) and Epic Management Group, and a conceptual site plan of the proposed building locations. It is understood that approximately 43 acres of undeveloped land are part of a preliminary plan for development of a medical and mixed-use facilities project.

The development is anticipated to include multi-story (up to 4-story) care and treatment facilities, multifamily residential, a hospitality/conference center, 1 to 2 story medical offices and retail buildings, and a storm water infiltration basin. The structures are anticipated to consist of wood, steel, or concrete structures supported on shallow spread foundations and concrete slab-on-grade floors. For the preliminary study, maximum wall and column loads are assumed to be less than 5 kips per foot and 200 kips, respectively.

Appurtenant improvements are anticipated to include off-site asphalt concrete pavements, on-site asphalt and Portland cement concrete pavements, underground utilities, sound walls, hardscape, and landscaping. It is assumed that other improvements may include covered parking and storm water basins. Grading plans were not available at the time of this proposal. However, cuts and fills of up to 3 feet in vertical extent are anticipated to create parking/pad grades and positive site drainage. The infiltration basin is anticipated to be a depth of approx. 15 feet.

The project scope also includes relocating the existing open-cut Peoples Ditch to an underground reinforced concrete pipe. The existing ditch is approx. 3.5 feet deep, measured from the original ground, with approx. 2.5-foot tall embankments. The proposed pipe is anticipated to be a diameter of 5.5 feet and maintain the existing alignment.

1.3 PURPOSE AND SCOPE OF SERVICES

The purpose of the geotechnical investigation was to explore the site subsurface conditions and develop recommendations and professional opinions to assist in project design. The scope of our services was outlined in Kleinfelder's proposal dated May 21, 2019 and included the following:

- A description of the proposed project, including a vicinity map showing the location of the site, a site plan showing the locations of the exploration points for this study, and a geologic cross-section
- A description of the site surface and subsurface conditions encountered during the field investigation, including boring logs
- A summary of the field exploration and laboratory testing program
- Comments on depth to groundwater and potential impact on design and construction
- Recommendations for site preparation and earthwork grading, including a discussion concerning the use of on-site soils for engineered fill
- Recommendations for conventional foundation design, including available bearing capacity of foundation soil for sustained and total combined loading and estimated settlement
- Recommendations for frictional coefficient and passive pressure for resistance of lateral loads

- Recommendations to aid in design of concrete slabs-on-grade, including modulus of subgrade reaction
- Recommendations for earth retaining structures
- Recommendations to aid in design of pier/pole foundations for miscellaneous sign, light, and canopy structures
- Recommendations for asphalt and Portland cement concrete pavement sections paced on a range of truck traffic indexes
- Discussion of the general corrosion characteristics of the site soils, and
- Comments to aid in the design of site drainage.

The purpose of the geologic and seismic hazards assessment is to identify and assess potential geologic and seismic hazards at the site. We understand that the facility does not fall under the jurisdiction of the California Office of Statewide Health Planning and Development (OSHPD); however, to meet the standard of care for medical facilities this report has been prepared in accordance with the requirements for such studies set forth by the Essential Services Buildings Seismic Safety Act of 1986 and defined in the California Code of Regulations, Title 24, 2019 California Building Code (CBC) using guidelines outlined by the California Geological Survey (CGS). In addition to these documents, this report is prepared in accordance with the guidelines established in the following documents:

- CGS Note 48 (Checklist for the Review of Engineering Geology and Seismology Reports for California Public Schools, Hospitals, and Essential Services Buildings),
- CGS Note 44 (Recommended Guidelines for Preparing Engineering Geologic Reports),
- CGS Note 42 (Guidelines to Geologic/Seismic Reports),
- CGS Special Publication 42 (Fault Rupture Hazard Zones in California),
- CGS Note 41 (Guidelines for Reviewing Geologic Reports), and
- CGS Special Publication 117A (Guidelines for Evaluating and Mitigating Seismic Hazards in California).

The geologic and seismic hazards evaluation includes the following items:

- Research and review of pertinent geologic, geotechnical, and seismologic publications and maps covering the site and vicinity in Kleinfelder's library;
- Evaluation of geologic conditions including the results of the boring and laboratory testing of soil samples completed during the geotechnical investigation;
- Estimate of Site Class per Table 1613A.5.2 of 2019 CBC;
- Provide seismic design parameters per Chapter 1613A of 2019 CBC;
- Conclusions regarding fault rupture, ground accelerations, and ground failure potential;
- Conclusions regarding the potential for liquefaction, seismic settlement and compaction, flooding, tsunamis, seiches, seismically induced landsliding, lurching and lateral spreading; and
- Preparation of this written report for the site with conclusions and recommendations as required regarding geologic and seismic hazards.

The references reviewed for compilation of this report are listed in the "References" section of this report. Observations and conclusions presented herein specifically exclude the assessment of environmental characteristics, particularly those involving hazardous substances.

2 FIELD EXPLORATION AND LABORATORY TESTING

2.1 FIELD EXPLORATION

The field exploration, conducted on April 20 and 21, 2020 consisted of drilling nine (9) exploratory test borings. The test borings were drilled with a CME-75 truck-mounted drill rig utilizing hollow stem auger techniques. The borings were advanced to depths ranging from approximately 16.5 to 51.5 feet below the existing ground surface (bgs). Additionally, seven (7) bulk samples of the near surface soils in areas of proposed pavements were collected for R-value testing. The approximate locations of the test borings and R-values are indicated on the Exploration Location Map, Figure 2.

The soils encountered in the borings were visually classified in the field and a continuous log was recorded. Relatively undisturbed samples were collected from the test borings at selected depths by driving a 2.5-inch I.D. split barrel sampler containing brass liners into the undisturbed soil with a 140-pound automatic hammer free falling a distance of 30 inches and having an energy efficiency rating of 89 percent. In addition, samples of the subsurface material were obtained using a 1.5-inch I.D. standard penetrometer, driven 18 inches in accordance with American Society for Testing and Materials (ASTM) D1586 test procedures. The sampler was used without liners. Resistance to sampler penetration was noted on the boring logs as the number of blows per foot over the last 12 inches of sampler penetration. The blow counts listed in the boring logs have not been corrected for the effects of overburden pressure, rod length, sampler size, or hammer efficiency. Bulk samples were also obtained from auger cuttings at one boring location.

2.2 FIELD AND LABORATORY TESTING

Penetration rates, determined in general accordance with ASTM D1586, were used to aid in evaluating the consistency, relative density, compression and strength characteristics of the foundation soils. Extensive experience in the central and southern San Joaquin Valley has shown correlations and design methodologies utilizing the standard penetration test (SPT) data best defines performance in the local unsaturated soil.

Laboratory tests were performed on selected samples to evaluate certain physical characteristics. The following laboratory tests were used to develop the design geotechnical parameters:

- Unit weight (ASTM D2937)
- Moisture content (ASTM D2216)
- Amount of Material in Soils Finer Than the No. 200 Sieve (ASTM D1140)
- Atterberg Limits (ASTM D4318)
- Collapse Potential (ASTM D5333)
- Direct Shear (ASTM 3080)
- Modified Proctor (ASTM D1557)
- Soluble Sulfate Content (California Test Method No. 417)
- Soluble Chloride Content (California Test Method No. 422)
- pH and Minimum Resistivity (California Test Method No. 532)
- R-Value (ASTM D2844)

The dry density and moisture content test results are shown on the boring logs in Appendix A. The soluble sulfate, soluble chloride, pH and minimum resistivity are discussed in the “Corrosion Potential” section (Section 6.7). The remaining test results are provided in Appendix B.

3 SITE CONDITIONS

3.1 SURFACE CONDITIONS

The project site consists of approximately 43 acres of undeveloped land located between 11th and 12th Avenues, and Highway 198 and Union Pacific railroad tracks. The western approx. third and eastern approx. two thirds of the site are currently divided by Peoples Ditch, an open-cut canal traversing the site. It is understood that the People's Ditch is anticipated to be converted to an underground reinforced concrete pipe within the project limits. Based on Google Earth imagery, it appears Peoples Ditch traversed the site along the western boundary of the project site. This alignment was abandoned circa early- to mid-2000s, coincident with the construction of the Adventist Health Medical Center located north, north-west of the project site.

At the time of field reconnaissance, the project site supported a moderate growth of annual grasses and weeds. The project site appeared to be relatively flat and at the same relative elevation of the nearby roads. It is understood the project site is periodically plowed for fire hazard mitigation.

At the time of the investigation, loose sediments within Peoples Ditch was probed to a depth of approximately 2 to 2.5 feet below the ditch bottom.

3.2 EARTH MATERIALS

The following description provides a general summary of the subsurface conditions encountered during the field exploration and as further evaluated through the laboratory testing program. For a more thorough description of the actual conditions encountered at specific boring locations, refer to the boring logs presented in Appendix A. The soils were classified according to the Unified Soil Classification System (ASTM D2487).

The subsurface soils consist Holocene aged Great Valley fan deposits. The general soil profile encountered by the subsurface exploration consisted primarily of silty sand and sandy silt to depth of approximately 10 to 15 feet bgs underlain by laterally discontinuous layers of silty clay, sandy silt, silty sand, and poorly graded sand. The granular soils had a relative consistency of medium dense to very dense and the fine-grained soils had a relative consistency of stiff to very stiff.

Geologic cross sections, interpreted from the test borings, are presented on Figure 6. The site geology and locations of the cross sections are presented on Figure 3.

3.3 GROUNDWATER CONDITIONS

Groundwater was not encountered in the explorations. However, perched water was encountered within boring B-7 at a depth of approximately 45 feet bgs at the time of investigation. It is anticipated that the observed groundwater at the time of drilling was a perched on a dense layer of silty clay. Research utilizing the California Department of Water Resources (DWR) Water Data Library website indicate groundwater levels to be greater than 50 feet bgs in 2011 (Well No. 18S21E34B002M) located approximately ½ mile northwest of the site. Additional research utilizing the DWR website indicated that the historic high groundwater depth was recorded at 15 feet in the late 1960's. However, a steady decline in the depth to groundwater can be observed to current depths shown on the DWR website.

It is possible that groundwater conditions at the site could change at some time in the future due to variations in rainfall, groundwater withdrawal, regional agricultural production, construction activities, groundwater recharge practices, or other factors not apparent at the time our test borings were performed. However, groundwater is not anticipated to impact design or construction. Considering the elevated groundwater levels in the early 1970's due to reservoir management practices (15 feet) and elevated groundwater levels in the mid-1980's due to precipitation (51 feet), it is suggested that the high groundwater level of 15 feet will not realistically occur in the future. It is understood that recharge programs such as Sustainable Groundwater Management Act (SGMA) may increase the current groundwater levels. However, it is anticipated the City will limit the amount of recharge and subsequent rise in groundwater due to potential damage to underground infrastructure. Therefore, Kleinfelder recommends a design high groundwater depth to be 25 feet bgs.

4 GEOLOGIC AND SEISMIC CONDITIONS

4.1 REGIONAL GEOLOGY

The proposed facility lies in the southern portion of the Great Valley geomorphic province near its boundary with the Sierra Nevada geomorphic province in Central California. The filling of a large structural trough or downwarp in the underlying bedrock formed the Great Valley province of California. The trough is situated between the Sierra Nevada Range on the east and the Coast Range on the west. Both of these mountain ranges were initially formed by uplifts, which occurred during the Jurassic and Cretaceous periods (greater than 65 million years ago). Renewed uplift began in the Sierra Nevada during late Tertiary time and is continuing today. The trough, which underlies the Valley, is asymmetrical with the greatest depth of sediments near the western margin. The sediments, which fill the trough, originated as erosional material from the adjacent mountains and foothills. The upper and youngest sediments in the basin are continental deposits consisting of alluvial fan deposits and flood-basin, lake, and marsh deposits. Figure 5 provides a detailed regional geologic map of the area by the California Geologic Survey (CGS) (Geologic Map of California, v. 2.0, 2010).

4.2 AREA AND SITE GEOLOGY

The majority of the native sediments in the project area have been mapped (Fresno geologic sheet) by CGS (Geologic Map of California, Fresno Sheet, Matthews and Burnett 1965). The site is located within the Holocene age Recent Alluvial Fan Deposits in the Great Valley (map symbol Qf). The soil subgrade characteristics encountered during the field investigation (i.e. soil type, blow count, etc.) appear to be consistent with this mapped unit. Figure 4 presents a site-specific geologic map of the project. The U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) has mapped the soils on the entire project site as Nord Complex (149). Based on the map unit description of the NRCS, soils designated with map units of 149 consist of alluvial deposits derived from igneous rock sources which corresponds to Unified Soil Classification group symbol of SM (Silty Sand) and ML (Sandy Silt).

4.3 FAULTS LOCAL TO THE PROPOSED SITE

Based on the information provided in the California Geological Survey Special Publication 42 (CGS, 2018), the site is not located within a State-designated Alquist-Priolo Earthquake Fault Zone, where site-specific studies addressing the potential for surface fault rupture are required. No known active faults traverse the site. The project site is situated within a region traditionally characterized by few active faults and a low to moderate potential for seismic activity.

An active fault is a fault that has experienced seismic activity during historic time (since roughly 1800) or exhibits evidence of surface displacement during Holocene time (CGS, 2018). The terms “sufficiently active” and “well-defined” are used by the CGS as criteria for zoning faults under the Alquist-Priolo Earthquake Fault Act. A “sufficiently active fault” is a fault that shows evidence of Holocene surface displacement along one or more of its segments and branches, while a “well-defined fault” is a fault whose trace is clearly detectable by a trained geologist as a physical feature at or just below the ground surface. The definition “inactive” generally implies that a fault has not been active since the beginning of the Pleistocene Epoch (older than 2.6 million years).

Locations of the significant active and well-defined faults are shown on Figure 7. The site is located approximately 94 km east from the San Andreas fault and 42 km east of the Great Valley fault. A major seismic event on these fault segments may cause significant ground shaking at the site.

4.4 SIGNIFICANT FAULTS

The faults within 100 km of the site, and their seismic parameters are listed in Table 4.4-1. For faults with multiple segmentation scenarios, Kleinfelder has only listed parameters for the scenario rupturing the most segments (i.e., the most severe scenario). The locations of the faults, presented on Figure 7, and associated parameters, presented on Table 4.4-1, are based on the USGS 2008 National Seismic Hazard Maps (Petersen et al., 2008). The maximum earthquake magnitudes presented in this table are based on the moment magnitude scale developed by Kanamori (1977).

**Table 4.4-1
Significant Faults**

Fault Name	Fault Length (km)	Closest Distance¹ (km)	Maximum Earthquake Magnitude²	Slip Rate (mm/yr)
Great Valley 14	24	42	7.2	1.5
Great Valley 13	32	45	7.1	1.5
Great Valley 12	17	62	6.4	1.5
Great Valley 11	24	73	6.6	1.5
San Andreas	245	85	8.0	34
San Juan	68	91	7.1	1.5
Great Valley 10	22	95	6.5	1.5

¹Closest distance to the potential rupture.

²*Moment magnitude*: An estimate of an earthquake's magnitude based on the seismic moment (measure of an earthquake's size utilizing rock rigidity, amount of slip, and area of rupture).

Table 4.4-1 represents the scenarios of rupturing all the segments for these faults. Other rupture scenarios can be found in Field et al. (2008).

4.5 HISTORICAL SEISMICITY

The project site and vicinity are located in an area characterized by historically low seismicity. A number of earthquakes have occurred within a 100 km radius of the site during historic time (since 1800). Some of the significant regional earthquake events include the 1857 (M7.9) Fort Tejon earthquake, located approximately 90 km to the southwest of the site; the 1983 (M6.7) Coalinga earthquake, located about 59 km to the southwest; and the 1922 (M6.5) Parkfield earthquake, located about 83 km to the southwest.

Epicenters of some significant earthquakes ($M \geq 4.0$) within the vicinity of the site are shown on Figure 7. The earthquake database used in the search contains in excess of 5,500 seismic events and covers the period from 1800 through May 2020. The earthquake database is primarily comprised of an earthquake catalog for the State of California prepared by the CGS (formerly Division of Mines and Geology, DMG). The catalog contains earthquake records from January 1, 1900 through December 31, 1974. Updates prepared by the CGS in 1979 and 1982 extend the coverage through 1982. In addition to the CGS updates, the data for earthquakes that occurred during the period between 1910 through May 2020 has been obtained from a composite catalog

by the Advanced National Seismic System (ANSS). The ANSS catalog is a worldwide earthquake catalog which is created by merging the master earthquake catalogs from contributing ANSS member networks and then removing duplicate events, or non-unique solutions from the same event. The ANSS network includes the Northern and Southern California Seismic Networks, the Pacific Northwest Seismic Network, the University of Nevada, Reno Seismic Network, the University of Utah Seismographic Stations, and the United States National Earthquake Information Service. The earthquake database also consists of earthquake records between 1800 and 1900 from Seeburger and Bolt (1976) and Topozada et al. (1978, 1981). In addition, we have also utilized the data from DMG Map Sheet 49 (Topozada et al., 2000).

The parameters used to define the limits of the historical earthquake search include geographical limits (within 100 km of the site), dates (1800 through May 2020), and magnitudes ($M \geq 4$). A summary of the results of the historical search is presented in Table 4.5-1.

Table 4.5-1
Historical Seismicity

Time Period (1800 to May 2020)	220+ years
Maximum Magnitude ¹	7.9
Approximate distance to nearest historical $M \geq 4$ earthquake	20 km
Number of events exceeding magnitude 4 within search area	170

¹Moment magnitude

4.6 SOIL SITE CLASS

Based on the borings in the above referenced report, the supplemental borings performed, and a review of the geologic conditions within the vicinity of the project site, Site Class D would be appropriate for the seismic design of the new facility using the 2019 California Building Code (CBC). The parameters provided below are based on the 2019 CBC. The 2019 CBC is based on the 2018 International Building Code (IBC) and ASCE 7-16. For a 2019 CBC based design, the estimated Maximum Considered Earthquake (MCE) mapped spectral accelerations for 0.2 second and 1 second periods (SS and S1), associated soil amplification factor (F_a), and mapped peak ground acceleration (PGA) are presented in Table 4.6-1. Corresponding site modified (SMS) and design (SDS) spectral accelerations, PGA modification coefficient (FPGA), PGAM, risk coefficients (CRS and CR1), and long-period transition period (TL) are also presented in the table below. Presented values were estimated using Section 1613.3 of the 2019 California Building Code (CBC), chapters 11 and 22 of ASCE 7-16, and the Structural Engineers Association of

California (SEAOC) and California Office of Statewide Health Planning and Development (OSHPD) U.S. seismic design maps.

Table 4.6-1
2019 CBC/ASCE 7-16 seismic design parameters

Parameter	Value ¹	ASCE 7-16 Reference
Latitude	36.321241°	-
Longitude	-119.664210°	-
S _s	0.750g	Fig 22-1
S ₁	0.271g	Fig 22-2
Site Class	D	Table 20.3-1
F _a	1.200	Table 11.4-1
F _v	NA	Table 11.4-2, Supplement 1
PGA	0.325g	Fig 22-9
S _{MS}	0.900g	Eq. 11.4-1
S _{M1}	NA	Eq. 11.4-2
S _{DS}	0.600g	Eq. 11.4-3
S _{D1}	NA	Eq. 11.4-4
F _{PGA}	1.275	Table 11.8-1
PGA _M	0.414g	Eq. 11.8-1
C _{RS}	0.922	Fig 22-18A
C _{R1}	0.927	Fig 22-19A
T _L	12 seconds	

¹N/A* = Not Applicable (refer to explanation below)

It should be noted that Section 11.4.8 of ASCE 7-16 requires a site-specific ground motion hazard analysis be performed for Site Class D sites with S₁ values greater than or equal to 0.2g unless structural design exceptions are taken. The subject site meets these criteria. We understand that CGS will assume the structural design exceptions will not be taken and that a site-specific ground motion hazard analysis will be performed. If exceptions are taken, then an F_v value of 2.058 can be used only to calculate the T_s, S_{M1}, and S_{D1} values and only for the purpose of invoking the exceptions in Section 11.4.8 of ASCE 7-16. The calculated S_{M1} and S_{D1} values based on the F_v value of 2.058 shall not be used for any other calculations. The structural engineer is required to prepare a letter for submittal to OSHPD and CGS that confirms the exceptions will be taken, otherwise if the exceptions are not taken, a site-specific ground motion hazard analysis will be required.

4.7 POTENTIAL SEISMIC HAZARDS

A discussion of specific seismic hazards that could impact the site is included below. The hazards considered include: surface fault rupture; liquefaction and seismic settlement; lateral spreading; dynamic compaction; and cyclic softening.

4.7.1 Surface Fault Rupture

Earthquakes are caused by the sudden displacement of earth along faults with a consequent release of stored strain energy. The fault slippage can often extend to the ground surface where it is manifested by sudden and abrupt relative ground displacement. Damage resulting from fault rupture occurs where structures are located astride the fault traces that move. The subject site is not located within, nor is it adjacent to, a state designated Alquist-Priolo Earthquake Fault Zone (CGS, 2018). Based on the reviewed geologic/seismologic reports and maps, no known active, or potentially active faults cross or project toward the site. Therefore, the potential for fault-related surface rupture at the site is considered very low.

4.7.2 Liquefaction and Seismic Settlement

A common secondary hazard of strong ground shaking is the potential for soil liquefaction. Liquefaction describes a phenomenon in which saturated soil loses shear strength and deforms as a result of increased pore water pressure induced by strong ground shaking during an earthquake. Dissipation of the excess pore pressures will produce volume changes within the liquefied soil layer, which can manifest at the ground surface as settlement of structures, floating of buried structures, failure of retaining walls, lateral migration (lateral spreading), and extensional ground cracking of liquefied material. Factors known to influence liquefaction include soil type, structure, geologic age, grain size, relative density, confining pressure, depth to groundwater, and the intensity and duration of ground shaking. Soils most susceptible to liquefaction are saturated, loose, sandy soils.

Saturated granular sediments can experience liquefaction if subject to seismically induced ground motion of sufficient intensity and duration. Liquefaction analysis used procedures by Youd et. Al. (2001) and considered the relative density and fines content of the granular settlement. The liquefaction analysis also included screening for the potential for liquefaction utilizing the moisture content and Plasticity Index of fine grained non-cohesive and cohesive soils in accordance with

procedures set forth in Seed et al. (2003). The analysis considered a historic high groundwater depth of 25 feet bgs, ground acceleration (PGA_M) of 0.414g, and earthquake moment magnitude $M_w = 6.21$.

A screening analysis was not performed for the potential of cyclic liquefaction occurring in the fine grained soils encountered within the boring but were included in the liquefaction analysis for conservatism. Therefore, the coarse and fine grained soil layers were evaluated for potential liquefaction using the cyclic liquefaction analysis model by Seed (2003). Liquefaction analysis performed on the fine grained and granular sediments indicates that liquefaction and seismically induced settlement may occur in the poorly graded sand layers encountered in borings B-6 at depths between 30 to 33 feet and 40 to 43 feet bgs. Also, liquefaction and seismically induced settlement may occur in poorly graded sand layers and deeper silty clay layers encountered in boring B-7 at depths between 38 to 40 feet and 46 to 51.5 feet bgs. However, due to the significant thickness of non-liquefiable overburden soil with moderate to high density, bearing loss is not likely to occur.

Seismically induced settlement due to liquefaction was evaluated to be 0.4 inches by Seed (2003) and 0.1-inch by Idriss and Boulanger (2008) in boring B-6 and 1.5 inches by Seed (2003) and 0.5 inches by Idriss and Boulanger (2008) in boring B-7. The general guidelines of the CGS indicate the differential seismically induced settlement between adjacent supports in a building would be about one-half the total settlement. This would result in an average differential settlement between adjacent supports of approximately 0.15-inch in boring B-6 and 0.5 inches in boring B-7. The anticipated differential settlements are low to moderate and are anticipated to be within the tolerance of the proposed structures and will not result in significant damage or collapse. We assume the structural engineer can accommodate this amount of settlement; therefore, no ground modification for mitigation against liquefaction and/or settlement is recommended.

4.7.3 Lateral Spreading

Lateral spreading is a movement in a nearly horizontal soil zone (usually attributable to liquefaction) that causes the overlying soil mass to shift down a gentle slope or toward a free face such as incised water bodies. Because the site and surrounding areas have generally insignificant topographic relief and the site is not likely to experience significant liquefaction, the potential for lateral spreading is considered very low.

4.7.4 Dynamic Compaction

Dry, loose sands and non-plastic silts may experience some dynamic compaction resulting in surface settlement when subjected to cyclic application of loads such as ground shaking from near-by-seismic events. Given the subsurface conditions encountered above groundwater, it is estimated (Tokimatsu and Seed, 1987) seismic settlement of the non-saturated soil at the site is anticipated to be less than 3/4-inch for analysis based on soil encountered in Borings B-6 and B-7 for both the current groundwater and historic high groundwater conditions.

4.7.5 Cyclic Softening

While liquefaction describes a phenomenon in which saturated “sand-like” (or cohesionless) soils lose strength during an earthquake, cyclic softening describes the loss of strength of “clay-like” (or cohesive) soils during an earthquake. Various researchers agree that plasticity index (PI) is useful in determining if a soil behaves clay-like or sand-like; however, the value of PI for which a clay behaves like a sand is not agreed upon. For this investigation, we have relied upon the methods presented in Idriss and Boulanger (2008) which indicates that soils with a $PI \geq 7$ behave like a clay. Based on the results of our field and laboratory investigation, and the depth to groundwater, no soft soils susceptible to cyclic softening were encountered at the site.

4.8 POTENTIAL GEOLOGIC HAZARDS

The following discusses potential geologic hazards that could impact construction at the project site, including: flooding; expansive soils; hydrocompaction; corrosive soils; regional subsidence; naturally occurring asbestos; and radon. Other geologic hazards such as landslide and volcanic eruption are not considered a potential hazard at this site.

4.8.1 Flooding

4.8.1.1 Tsunamis, Seiches, Earthquake Induced Flooding

Tsunamis are sea waves of unusual size that occur from significant earthquakes either under the ocean floor or adjacent to shorelines and can travel great distances to impact low-lying communities and developments. Considering that the Coast Range protects the site from the sea, the potential to be affected by a tsunami is nil.

A seiche is a free or standing wave oscillation that occurs in a confined body of water, such as a reservoir or lake. Earthquake-generated ground waves, which have a period that matches the natural period of the lake or reservoir, may cause the water to oscillate, which can cause damage to shore line improvements. The Kings County General Plan (KCGP) indicates that earthquake-induced seiches are not considered a risk within the vicinity of the project site.

4.8.1.2 Potential for Dam Failure

According to the KCGP, two major dams could cause substantial flooding in Kings County in the event of a failure: Pine Flat and Terminus Dams. The project site is located within an area of potential flooding due to dam failure of Pine Flat Dam (see Figure 9). However, the KCGP does not state the potential inundation depth in the event of failure of Pine Flat Dam. The project site is not located within potential flooding of the Terminus Dam.

4.8.1.3 Flood Insurance Rate Maps

According to the Federal Emergency Management Agency (FEMA), the majority of the project site lies within a Zone X flood designation (Map Number 06031C0185C, dated June 16, 2009) indicating areas of minimal flood hazard (see Figure 8). As such, the civil designer should plan site grades accordingly.

4.8.2 Expansive Soils

Expansive soils were not encountered within the borings drilled for this study. Furthermore, based on review of soil survey by the NRCS, expansive soil was not identified within the project area. Expansive soils are not anticipated within the influence of foundation systems or zone of cyclic moisture changes therefore, will not dictate the need for special grading or special footing and concrete slab-on-grade design.

4.8.3 Hydrocompaction (Soil Collapse)

Our experience has found that some of the alluvial soils in the San Joaquin Valley are subject to hydrocompaction. Hydrocompactive soil has a relatively loose skeletal structure, which is weakly cemented by soluble salts or a slight clay mineral content. Moisture increase breaks down the inter-particle cementation causing a collapse of the skeletal structure. The significant loss in soil volume can result in settlement of overlying structures. The project geotechnical exploration and

associated laboratory testing identified the in-place relative density of the subsurface soil was relatively low and compression characteristics were moderate. Based on laboratory testing, post saturation of four soil samples (Borings B-3 at 1-foot, B-9 at 2 feet, B-1 at 5.5 feet, and B-7 at 7.5 feet bgs) obtained from the site had compression characteristics that were low to moderate (approx. 2.0 to 5.0 percent compression upon induction with a normal load equal to 1,000 to 2,000 psf), indicating a possibility of collapse potential.

4.8.4 Corrosive Soils

Kleinfelder has completed laboratory testing to provide data regarding corrosivity of onsite soils. Our scope of services does not include corrosion engineering and, therefore, a detailed analysis of the corrosion test results is not included in this report. A qualified corrosion engineer should be retained to review the test results and design protective systems that may be required. Kleinfelder may be able to provide those services. However, the results of the laboratory testing regarding corrosivity can be seen in Section 6.7.

4.8.5 Regional Subsidence

Land subsidence occurs when a large portion of land is displaced vertically, usually due to the withdrawal of groundwater, oil, or natural gas. The KCGP does not identify subsidence within Kings County; however, the KCGP acknowledges soils particularly subject to subsidence include those with high silt or clay content and a high water table. Due to the significant depth to groundwater withdraw in the San Joaquin Valley, the occurrence of subsidence is typically regional and unlikely to affect isolated locations, as such, the potential for damaging differential settlement of the proposed new structures due to subsidence is very low.

4.8.6 Naturally-Occurring Asbestos

CGS Open File Report 2000-019 (Churchill and Hill, 2000) indicates the most proximal ultramafic bedrock likely to contain naturally occurring asbestos (NOA) is located approximately 35 miles east of the site. The project site is underlain by fluvial and alluvial deposits derived from Sierra Nevada and foothills which may contain small amounts of NOA. However, NOA is not likely to be a significant risk at the site.

4.9 Radon Gas

Radon gas is a naturally occurring colorless, tasteless, and odorless radioactive gas that forms in soils from the decay of trace amounts of uranium that are naturally present in soils. Radon enters buildings from the surrounding soil through cracks or other openings in foundations, floors over crawlspaces, or basement walls. Once inside a building, radon can become trapped and concentrate to become a health hazard unless the building is properly ventilated to remove radon. Long-term exposure to elevated levels of radon increases one's risk of developing lung cancer.

The U.S. Environmental Protection Agency (EPA) recommends that all homes (or structures intended for human occupancy) be tested for radon whatever their geographic location. The U.S. EPA recommends that action be taken to reduce radon in structures with an average annual level higher than four picocuries per liter (4.0pCi/l).

The California Department of Health Services (2016) performed 88 tests within Kings County (last updated on February 2016) where the project site is located. Of the 88 tests, 10 reported a minimum of four (4) picocuries per liter.

The noted testing is not intended to represent the entire county area for determining which buildings have excessive indoor radon levels. In addition to geology, indoor radon levels can be influenced by local variability in factors such as soil permeability and climatic conditions, and by factors such as building design, construction, condition, and usage. Consequently, building specific radon levels can only be determined by indoor radon testing. No warranty as to actual radon levels at specific sites in Kings County is expressed or implied by the noted test results. Consideration should be given to consult a radon specialist to provide appropriate tests and recommendations to review Radon gas concerns.

5 EARTHWORK

5.1 GENERAL

Based on the results of the various field and laboratory testing, and the geotechnical analysis conducted by Kleinfelder, it is geotechnically feasible to develop the site using conventional grading and foundation construction techniques.

5.2 HYDROCOMPACTION

The near surface soils to a depth of about 10 feet bgs are subject to moderate hydrocompaction. Hydrocompactive soil has a loose skeletal structure, which is weakly cemented by soluble salts and/or minor amounts of clay. Increases in soil moisture reduce the interparticle cementation (dry strength) of the soil resulting in a decrease in the volume of the soil structure. This condition can lead to post construction settlement of structures if soils subsequently become wetted.

At the present moisture content, the on-site natural soil has sufficient strength to support the proposed preliminary improvements. However, should the soil be subject to post-construction moisture increases, minor to moderate soil compression will likely occur. The amount of compression will be dependent upon imposed loads, depth of moisture increase, and the amount of moisture increase. The potential post construction settlement in building areas due to the presence of these hydrocompactive soils is anticipated to range from approximately 2.7 to 3.6 inches for strip footings supporting loads up to 5 kips per lineal foot and approximately 3.5 to 4.0 inches for column footings supporting loads up to 200 kips. These settlements include an assumed 12 inches of building pad fill above the current site grade and the bottom of footings founded at a depth of 18 inches below the assumed building pad elevation. Based on past experience and the variability of future moisture increase, the potential settlement could be totally differential over a distance of about 15 feet. The collapse potential test data indicated that most of the post construction settlement is due to overburden pressure of the existing in-place soil. Therefore, should moisture levels increase in the upper 10 feet, post construction settlement below hardscape areas (i.e. driveways, sidewalks, pavements, etc.) is anticipated to be approximately 1.8 inches due to the self-weight of the in-place soil. Most of the settlement below buildings and site improvements occurs between depths of approximately 5 and 10 feet bgs.

For preliminary purposes, it is assumed future structures may not tolerate the potential post construction settlement described above. Consequently, mitigating the potential effect of these soils will be necessary to support foundations. Over-excavation is an effective means of mitigating the potential settlement due to hydrocompaction. Excavation and recompaction of the hydrocompactive soils is recommended to a depth of 7 feet below existing grade and to a distance of at least 10 feet beyond the perimeter of the planned buildings and surrounding improvements (i.e. hardscape, planters, awnings, etc.) that could be sensitive to settlement. The perimeter of the overexcavated areas should be sloped at a gradient of 1.5:1 H:V, or flatter, to provide a transition between deep and shallow excavated areas. The recompaction depth of 7 feet may be accomplished by a combination of overexcavation and scarification depths. For example: the contractor may choose to overexcavate the soil to a depth of 5.5 feet bgs scarify the exposed soil to a depth of 18 inches, moisture condition to at, or above optimum moisture and compacted with a vibratory open hub ring compactor (e.g. Rex compactor) capable of compacting thicker lifts. If conventional sheepsfoot drum compactors are utilized, the scarified depth would need to be decreased and overexcavation depth increased to achieve the overall recompaction depth of 7 feet. The excavated soil could be used as engineered fill (refer to Section 5.4.1). With these recommendations, the post construction settlement due to hydrocompaction below structures would be reduced to approximately 1-inch.

Site improvements outside of the building envelopes described above (e.g. general hardscape, pavements, utilities, etc.) would also be subject to settlement due to hydrocompaction under the self-weight of the overburden soil and surface improvements. The total depth of overexcavation plus scarification and recompaction is 7 feet to reduce settlement below site improvements to less than 1-inch. However, the depth of earthwork to mitigate hydrocompactive soil to protect surface improvements outside of the building envelopes may be cost prohibitive. Therefore, consideration could be given to supporting these improvements on partial overexcavation and recompaction to a depth of 18 inches to provide uniform bearing support only without mitigating the potential total settlement of 1.8 inches.

With the above earthwork mitigation recommendations, controlling infiltration into the subgrade soils is very important in reducing the chance for post construction settlement. Sources of water or moisture intrusion would likely be limited to rainfall and runoff from the roof of proposed buildings, landscape irrigation, and utility leaks/failures. To aid in reducing potential saturation of subgrade soils, roof run-off is encouraged to be piped to the storm drain system and landscape irrigation be held to a minimum and use only sufficient water to sustain and promote plant growth (e.g. drip irrigation).

If site grades will be raised more than 1-foot above existing site grade, Kleinfelder should be contacted to provide further recommendations as additional over-excavation of the hydrocompactive soil below improvements may be warranted due to higher surcharge loads and greater settlement than estimated above.

If the described amount of remaining post construction settlement after overexcavation and recompaction exceeds the tolerance of structures and surface improvements or the settlement presents an adverse risk to the developer, then the hydrocompactive soils would require recompaction to a depth of 10 feet bgs.

5.3 SITE PREPARATION

5.3.1 Stripping

At the time of the reconnaissance, the project site was covered with a moderate growth of seasonal grasses and weeds. All surface vegetation, organic material, and any miscellaneous surface obstructions (including pavement) should be removed from the project area, prior to any site grading. It is anticipated stripping of surface vegetation could involve the upper 2 to 3 inches. Surface strippings should not be incorporated into fill unless they can be sufficiently blended to result in an organic content less 3 percent by weight (ASTM D2974).

5.3.2 Disturbed Soil, Undocumented Fill, and Subsurface Obstructions

Initial site grading should include a reasonable search to locate any disturbed soil, undocumented fill soils and underground structures (such as irrigation pipes) or utilities that may exist within the area of construction. Any such obstructions should be removed from the project area. Undocumented fill or loose soil should be excavated and may be reused provided it meets the applicable requirements for engineered fill (see Section 5.4). Any disturbed soil, pockets of soft or loose soils, void spaces created by burrowing animals or undocumented fill, which are encountered, should be excavated to expose firm native material.

At the time of the investigation, loose sediments within Peoples Ditch was probed to a depth of approximately 2 to 2.5 feet below the ditch bottom. All vegetation, soft sediments, organic material, and debris should be removed from the ditch profile and bottom to expose firm unyielding

soil conditions. The exposed subgrade should be approved prior to placement of pipe bedding and or pipeline construction.

5.3.3 Over-excavation and Scarification

Over-excavation is typically reserved for soils that, in their natural state, will not provide adequate bearing for structures. The native soils are hydrocomapactive and could lead to non-uniform bearing conditions and differential settlement of the proposed building improvements. Therefore, mitigation by over-excavation and recompaction is recommended to mitigate potential post construction settlement below structures and site improvements. The perimeter of overexcavated areas should be sloped and benched to receive fill in accordance with Section 5.4.2.

The recompaction depths discussed below may be accomplished by a combination of overexcavation, scarification, and recompaction. The depth of scarification and recompaction is dependent on the ability of the equipment to successfully moisture condition and compact the scarified zone and may be adjusted buy the contractor for compatibility of the equipment provided the overall re compaction depth specified is met.

Note that the overexcavation and scarification depths described herein are minimum depths. If additional depths of earthwork are specified in the Project Plans and Specifications or by the developer, the contractor shall perform the required overexcavation and recompaction to meet the more stringent requirements.

Building Envelope

After performing removals described in Sections 5.3.1 and 5.3.2, the planned buildings and surrounding improvements (i.e. hardscape, planters, awnings, etc.) that are sensitive to settlement should be over-excavated to a minimum depth of 5.5 feet bgs. The bottom of the excavation should be scarified to a depth of 18 inches, moisture conditioned, and recompacted as described in Section 5.4. The lateral limits of the over-excavation should include the building area and extend at least 10 feet beyond the perimeter of the outer lines of the foundations and surrounding improvements (i.e. hardscape, planters, awnings, etc.). The excavated soil may be reused as engineered fill when placed, moisture conditioned, and compacted as described in Section 5.4.

Outside Building Envelope

After performing removals described in Sections 5.3.1 and 5.3.2, site improvements outside the building envelope described in Section 5.2 Hydrocompaction, areas to receive surface improvements (e.g. general hardscape, pavements, utilities, etc.) should be over-excavated to a depth of 1-foot bgs. The bottom of the excavation should be scarified to a depth of 6 inches, moisture conditioned, and recompact as described in Section 5.4. The lateral limits of the over-excavation in planned foundation areas should include the surface improvements area and extend at least 3 feet beyond the perimeter of improvements. The excavated soil may be reused as engineered fill when placed, moisture conditioned, and compacted as described in Section 5.4.

5.4 ENGINEERED FILL

5.4.1 Materials

All engineered fill soils should be nearly free of organic or other deleterious debris and less than 3 inches in maximum dimension. The native soil materials, exclusive of debris, may be used as engineered fill provided they contain less than 3 percent organics by weight (ASTM D2974).

Recommended requirements for any imported soil to be used as engineered fill, as well as applicable test procedures to verify material suitability, are provided on Table 5.4-1.

**Table 5.4-1
Soil Materials Test Procedures**

Gradation		Test Procedures	
Sieve Size	Percent Passing	ASTM ¹	Caltrans ²
76 mm (3 inch)	100	C136	202
19 mm (¾ inch)	80 – 100	C136	202
No. 4	70 – 100	C136	202
No. 200	20 – 70	C136	202
<u>Plasticity</u>			
<u>Liquid Limit</u>	<u>Plasticity Index</u>		
< 25	< 12	D4318	204
<u>Expansion Index</u>			
< 20		D4829	-
<u>Soluble Sulfates</u>			
< 2000 ppm		-	417
<u>Soluble Chloride</u>			
<300 ppm		-	422
<u>Resistivity</u>			
>1000 ohm-cm		-	532

Notes:

¹ American Society for Testing and Materials Standards (latest edition)

² State of California, Department of Transportation, Standard Test Methods (latest edition)

Any imported fill materials to be used for engineered fill should be sampled and tested by a representative of the project Geotechnical Engineer prior to being transported to the site.

5.4.2 Benching

Where fill will be placed on slopes steeper than 5:1 (H:V), it will be necessary to bench the slope to receive fill as successive filling operations are performed. Benches should be constructed approximately every 1.5 feet (slope height less than 5 feet) or every 2.5 feet (slope height greater than 5 feet) of vertical fill thickness. Benching should begin at one bench height above the toe of the slope. Where fill will be placed in small pits or excavations, benching is not required, however, all loose soil should be removed from the invert and sides and the area made dish-shaped to

receive fill. Any loose soil excavated during site preparation may be used as fill, provided it meets the requirement for engineered fill.

Compaction equipment should provide kneading effort (e.g. with sheeps foot rollers) to enhance uniformity and minimize stratification.

5.4.3 Compaction Criteria

Soils used for engineered fill should be uniformly moisture conditioned to at, or above optimum moisture, placed in horizontal lifts less than 8 inches in loose thickness, and compacted to at least 90% relative compaction. Disking and/or blending may be required to uniformly moisture-condition soils used for engineered fill. The specified compaction shall be increased to at least 95% relative compaction in the top 12 inches of the subgrade soil in pavement areas as indicated in Section 6.5, Pavements.

5.4.4 Construction Considerations

Should site grading be performed during or subsequent to wet weather, near-surface site soils may be significantly above optimum moisture content. These conditions could hamper equipment maneuverability and efforts to compact site soils to the recommended compaction criteria. Disking to aerate, chemical treatment, replacement with drier material, stabilization with a geotextile fabric or grid, or other methods may be required to mitigate the effects of excessive soil moisture and facilitate earthwork operations. Any consideration of chemical treatment (e.g. lime) to facilitate construction would require additional soil chemistry evaluation and could affect landscape areas and some construction materials (e.g. aluminum).

If construction is performed during dry, hot or windy weather, it may be necessary to periodically apply surface watering to counter evaporative loss or re-establish moisture prior to constructing slabs (see Section 6.3.1).

5.5 TEMPORARY EXCAVATIONS

5.5.1 General

All excavations must comply with applicable local, State, and Federal safety regulations including the current OSHA Excavation and Trench Safety Standards. Construction site safety is generally the responsibility of the contractor, who shall also be solely

responsible for the means, methods, and sequencing of construction operations. The information below is provided as a service to the client. Under no circumstances should the information provided be interpreted to mean that Kleinfelder is assuming responsibility for construction site safety or the contractor's activities; such responsibility is not being implied and should not be inferred.

5.5.2 Excavations and Slopes

The contractor should be aware that slope height, slope inclination, or excavation depths (including utility trench excavations) should in no case exceed those specified in local, State, and/or Federal safety regulations (e.g., OSHA Health and Safety Standards for Excavations, 29 CFR Part 1926, or successor regulations). Such regulations are strictly enforced and, if they are not followed, the owner, contractor, and/or earthwork and utility subcontractors could be liable for substantial penalties.

All excavations should be constructed and maintained in conformance with current OSHA requirements (29 CFR Part 1926). The on-site soils are best represented by OSHA Type C soil.

5.5.3 Construction Considerations

Heavy construction equipment, building materials, excavated soil, and vehicular traffic should be kept sufficiently away from the top of any excavation to prevent any unanticipated surcharging. If it is necessary to encroach upon the top of an excavation, Kleinfelder can provide comments on slope gradients or loads on shoring to address surcharging, if provided with the geometry. Shoring, bracing, or underpinning required for the project (if any), should be designed by a professional engineer registered in the State of California.

During wet weather, earthen berms or other methods should be used to prevent runoff water from entering all excavations. All runoff should be collected and disposed of outside the construction limits.

5.6 PIPELINE AND TRENCH BACKFILL

5.6.1 Materials

Pipe embedment zone backfill (i.e., bedding, haunching, pipe zone and initial backfill per ASTM D2321) should consist of soil compatible with design requirements for the specific types of pipes. It is recommended the project designer or pipe supplier develop the final material specifications based on planned pipe types, bedding conditions, tolerable deflection and other factors beyond the scope of this study. Randomly excavated on-site soil from the predominate site profile will likely be a combination of Class III and IVa material per ASTM D2321.

With respect to the design of the Peoples Ditch pipeline, Kleinfelder recommends a minimum Type 2 installation and use of select bedding and haunching material consisting of Category II (GM, SM, GC, and SC with less than 20 percent passing the #200 sieve). The thickness of the bedding (inches) should be based on the outer diameter $D_o/24$.¹

Trench zone backfill (i.e., material placed between the pipe zone backfill and finished subgrade) may consist of native soil that meets the requirements for engineered fill.

5.6.2 Compaction Criteria

All trench backfill should be placed and compacted in accordance with recommendations provided above for engineered fill. Reduced compaction (85% minimum) could be specified for trench zone backfill in non-structural areas. Mechanical compaction is recommended; ponding or jetting should not be used.

Table 5.6-1 provides estimated geotechnical parameters for designers to consider in evaluating pipe zone backfill criteria that is compatible with pipe types and deformation tolerances.

¹ *Concrete Pipe Design Manual, American Concrete Pipe Association*

**Table 5.6-1
Pipe Zone Backfill Parameters**

Soil Stiffness Modulus (psi)			Backfill Density (pcf)	
E'_n (Trench Sidewall)	E'_b (Backfill)		85% Compaction	90% Compaction
	85% Compaction	90% Compaction		
3000	900	1350	118	125

E'_n represents the modulus for the undisturbed natural soil and is based on relative density data by Howard (1996). E'_b is the modulus for backfill derived from random excavation of on-site soil and is based on data by Hartley and Duncan (1982) and Watkins and Anderson (2000). The design E' will be dependent upon the pipe diameter and trench width, which dictates the relative influence of E'_n and E'_b. Methods by Howard (1996) are suggested for evaluating the design E'. Kleinfelder can furnish a recommended design E', if provided with pipe diameter and specifications for trench construction.

In evaluating the maximum load (W_d) on pipes, a kμ' (k=0.31 and μ'=0.62) of 0.19 can be used in determining the load coefficient factor C_d.

5.6.3 Pipeline Thrust

The lateral thrust on pipelines can be resisted by friction between the pipe and native or imported backfill soil and lateral bearing on thrust blocks. The allowable frictional resistance between the pipe and backfill comprised of on-site soil or select import sand backfill is provided in Table 5.6-2.

**Table 5.6-2
Frictional Coefficients**

Pipe Material	Allowable Frictional Coefficient	
	Sustained Loading	Test Loading
Smooth Plastic or Steel (native soil or imported sand backfill)	0.19	0.23

The lateral load on shallow thrust blocks (block height greater than 70 percent of depth to center of pipeline) poured against undisturbed soil can be resisted by the passive lateral bearing provided in Table 6.1-3. The estimated horizontal deflection in Table 6.1-3 would also be applicable to shallow thrust blocks.

5.7 ESTIMATED VOLUME LOSS

Based on the in-place densities obtained from the test borings and the Modified Proctor tests, it is estimated the volume loss from cut to fill in the upper 5 feet across the proposed project area may range from about 5 percent to 22 percent, depending on the relative compaction achieved. Table 5.7-1 provides the estimated volume loss due to recompaction of the near surface soils of the site to relative compaction levels of 90 and 95 percent for engineered fill below improvement areas.

The volume loss associated with recompaction was based on an average maximum dry density of 123 lbs/ft³ and an average compaction during construction of 2 percent above the required compaction levels of 90 and 95 percent. The estimated volume loss considers the in-place density in the upper 5 feet of the site soils. Volume loss within the deeper portions of the proposed improvements are anticipated to equal, or less.

**Table 5.7-1
Average Volume Loss**

Depth (ft)	Average Volume Loss	
	92% Compaction	97% Compaction
0 – 5	12.5	17.0

The calculations for developing estimates of an earthwork factor are based on very limited data, and caution should be exercised in the application of this factor in cost estimating and volume calculations. The volume of material tested for in-place density is commonly as small as one ten-thousandth of one percent of the total volume of material to be excavated. Subjective assumptions must be made to perform the calculations, which can affect the accuracy of the results. These include the anticipated relative compaction of the material when placed as fill and uniformity of the materials. In addition, the volume loss estimates in Table 5.7-1 are based only on undisturbed density tests and two (2) Modified Proctor tests and do not consider other forms of loss (e.g. stripping, grubbing, spillage, wastage, or subsidence), which can be substantial.

6 DESIGN RECOMMENDATIONS

6.1 SPREAD FOUNDATIONS

6.1.1 General

The proposed structures may be supported by conventional shallow footings supported on approved properly engineered fill. The following preliminary recommendations are based on the assumption that the recommendations in Section 5, "Earthwork", have been implemented. Recommendations regarding the geotechnical aspects of building design are presented below.

6.1.2 Allowable Vertical Bearing Pressures and Settlements

Generally, two geotechnical issues determine the design bearing pressure for conventional spread footing foundations: (1) strength of the foundation soil and (2) tolerable settlement. The on-site soil in its current condition has enough strength to support the proposed improvements. However, due to the hydrocompactive soils present at the site, the available bearing capacity should be limited to reduce the anticipated settlement of the proposed improvements. Table 6.1-1 provides the net allowable bearing pressures for use in foundation design.

Table 6.1-1
Available Allowable Bearing

	Available Allowable Bearing (psf)
Static Loading	1500
Total Combined Loading	3000
Unfactored Ultimate Bearing	4000

The above values are appropriated for design using the Basic and Alternate Load Combinations in Section 1605.3 of the 2019 CBC.

Analysis, based on Schmertmann, determined the following estimate static settlement based on a range of assumed structural loads. The settlement assumes the sustained load on the footings is equal to 80 percent of the net bearing pressure. Settlement is expected to occur primarily throughout the construction process.

Table 6.1-2
Estimated Settlement

Footing Type	Loading (DL +LL)	Estimated Settlement (inch)
Strip	To 5.0 kip/ft	Less than 0.25
Square	50 kips	Less than 0.25
	100 kips	0.50
	200 kips	0.85

The differential settlement between similarly loaded footings would equal approximately half of the anticipated settlement represented in Table 6.1-2. The post construction settlement due to hydrocompaction if the soils subsequently become saturated would be differential over a distance of approximately 15 feet. Therefore, the total differential settlement between foundations would be the sum of the differential settlement between footings from Table 6.1-2 plus the differential settlement due to hydrocompaction after earthwork mitigation discussed in Section 5.2.

If deemed necessary by the design engineer, Kleinfelder can provide the estimated settlement for other loading conditions. The design bearing pressures are net values so the weight of embedded concrete does not need to be included in the foundation loading.

A modulus of subgrade reaction, K_1 ($B_p = 1$ foot), of 315 pci can be used for undisturbed on-site soil and 315 pci can be used for engineered fill. If the fill thickness is less than 2 feet, a composite K_1 could be evaluated. It should be noted the subgrade modulus reflects the response of the subgrade under primarily elastic conditions and small deflections. It is not a characteristic intended to define soil compressibility (settlement) or load-bearing capacity.

6.1.3 Lateral Resistance

Lateral loads applied to foundations can be resisted by a combination of lateral bearing and frictional resistance. The allowable lateral bearing and frictional coefficient for the foundations are presented in Table 6.1-3.

Table 6.1-3
Passive Pressures and Frictional Coefficients

	Allowable		Ultimate
	Static	Total Combined	
Frictional Coefficient	0.42	0.50	0.62
Passive Pressure (psf/ft of depth)	290	387	580
Lateral Translation Needed to Develop Passive Pressure	0.003D	0.006D	0.018D

Note: D is the footing depth

If the deflection resulting from the strain necessary to develop the passive pressure is with structural tolerance, the passive pressure and frictional resistance can be used in combination. Otherwise, additional passive pressure values could be provided based on tolerable deflection. The allowable values already incorporate a factor of safety and, as such, would be compared directly to the driving loads. If analytical approaches require the input of a safety factor, the ultimate values would be used.

6.2 EARTH RETAINING STRUCTURES

The lateral earth pressure against retaining structures will be dependent upon the ability of the wall to deflect. Presented in Table 6.2-1 is the active, at-rest and braced lateral earth pressure for level on-site soil. The active pressure is applicable to walls able to translate to 0.0005 radians at the top or bottom. The at-rest soil pressure is applicable to retaining structures that are fully fixed against both rotation and translation. Walls restrained from translation at the top and bottom, but able to deflect 0.0005 radian between restrained points should be designed for the braced lateral pressure. The at-rest pressures are applicable to walls fully fixed against translation or rotation. The at-rest pressures include the Jaky solution for normally consolidated soil plus consideration for the locked-in pressure associated with the pre-stressing due to backfill compaction (over-consolidation).

Table 6.2-1
Lateral Earth Pressure

Loading Conditions	Lateral Earth Pressures
Active Pressure (psf/ft of depth)	38
Braced Pressure (psf)	25 H
At-Rest Pressure (psf/ft of depth)	84

H in the expression represents the retained height in feet (measured from finished grade to bottom of footing). The earth pressures presented above assume saturated conditions. The earth pressures do not include hydrostatic pressures; therefore, wall should be adequately drained to prevent the build-up of hydrostatic pressure.

Retaining wall foundation design can utilize the passive pressures and sliding resistance given in Table 6.1-3 and allowable bearing capacity given in Section 6.1-1. When utilizing the available allowable bearing capacities of Table 6.1-1, the value for static loading would represent the average bearing for the footing and the value for total combined loading would represent the allowable maximum toe pressure.

6.3 CONCRETE SLABS-ON-GRADE

6.3.1 Subgrade Preparation

Any building slabs-on-grade should be supported on engineered fill placed as described in Section 5 of this report. The slab subgrade, to a depth of 12 inches, should have a moisture content of at least optimum immediately prior to pouring the slab or placing a vapor retarding membrane.

6.3.2 Capillary and Moisture/Vapor Break

Considering the soil type and regional groundwater depth, a capillary break (i.e. clean sand or gravel layer) is not necessary.

If the building contains component which might be adversely affected by moisture, it is recommended that the slab subgrade be covered by vapor retarding membrane, such as 10-mil polyorfin. If design should incorporate a gravel subgrade layer, the membrane should have a minimum thickness of 15-mil. The subgrade surface should be smooth and care should be exercised to avoid tearing, ripping, or otherwise puncturing the vapor retarding membrane. If the vapor retarding membrane becomes torn or disturbed, it should be removed and replaced or properly patched. It is recommended consideration be given to placing concrete directly on the vapor retarding membrane. If desired by designers, the vapor retarding membrane could be covered with approximately 1 to 2 inches of saturated surface dry (SSD), relatively clean sand to protect it during construction. Concrete should not be placed if sand overlying the vapor barrier

has been allowed to attain a moisture content greater than about 5% (due to precipitation or excessive moistening). Excessive water beneath interior floor slabs could result in future significant vapor transmission through the slab, adversely affecting moisture-sensitive floor coverings and the indoor environment.

It should be noted that, although the slab support discussed above is currently the industry standard, this system might not be completely effective in preventing floor slab moisture vapor transmission problems. This system will not necessarily assure that floor slab moisture transmission rates will meet floor-covering manufacturer standards and that indoor humidity levels will not inhibit mold growth. A qualified specialist(s) with knowledge of slab moisture protection systems, flooring design and other potential components that may be influenced by moisture, should address these post-construction conditions separately. The purpose of a geotechnical study is to address subgrade conditions only, and consequently, it does not evaluate future potential conditions.

6.3.3 Conventional Slab Design

There are no geotechnical considerations (e.g. expansive soil), which would require special design of slabs. Therefore, the thickness and reinforcement of slabs-on-grade should be determined by structural considerations and should be designed by the project structural engineer or building designer. A modulus of subgrade reaction, K_1 ($B_p = 1$ foot), of 315 pci may be used for elastic analysis of slabs on at least 8 inches of properly compacted native or similar soil.

Slab concrete should have good density, a low water/cement ratio, and proper curing to promote a low porosity. It is recommended the water/cement ratio not exceed 0.45 to minimize vapor transfer.

Consideration should be given to construction/control joint spacing and/or some form of reinforcement of exterior slabs to aid in crack control.

6.4 PIER/POLE FOUNDATIONS

6.4.1 Allowable Vertical Axial Capacity and Settlement

Structures such as light poles, signs, canopies, etc., can be supported by pier/pole foundations. Should design incorporate the use of pier/pole foundations, Table 6.4-1 provides expressions for

the allowable and ultimate axial capacity using friction to resist axial loads. If the design of the pier/pole foundations includes end bearing to resist axial loads, the design may utilize the bearing capacity expressions given in Table 6.2-1, up to an allowable bearing capacity of 1,500 psf for static loading (D.L. + long term L.L.). The end bearing capacity may be increased 50 percent for total combined loading (D.L. + L.L. + transient loading, such as wind or seismic).

Table 6.4-1
Allowable Axial Capacity

	Frictional Resistance for Vertical Loads in Compression (lbs)
Static Loading	50 DL ²
Total Combined Loading	65 DL ²
Unfactored Ultimate Capacity	100 DL ²

Note: 1) D is pier diameter in feet and L is embedment length in feet.
 2) The allowable uplift resistance would be 70 percent of the compressional resistance.

The total settlement of friction piers designed in accordance with the above recommendations should be less than 0.002 times the pier diameter in inches. If design incorporates end bearing to resist axial loading, the estimated settlement would increase to approximately 0.018 times the pier diameter in inches. The concrete mix and reinforcement for drilled pier/caisson foundations should be designed by the project structural engineer.

6.4.2 Lateral Resistance

Methods by ASHTO and Caltrans can be used to evaluate the lateral capacity of pier footings. The allowable passive pressure to resist lateral loads on isolated piers for use in these methods may be taken as 510 psf per foot of depth of embedment. The passive pressure may be increased by one-third for the total combined loads, including wind and seismic. The passive pressure values already consider arching and, as such, should not be increased further.

The allowable passive pressure provided above would not be appropriate for use in place of the values given in Table No. 1806.2 of the 2019 California Building Code (CBC) if pier foundation design utilizes the pole formulas in the CBC. If design uses the pole formulas in the CBC, the appropriate class of material in Table 1806.2 would be No. 4 (Silty Sand). Based on the strength of the on-site soils, a lateral bearing pressure of 170 psf/ft of embedment below the site grade may be used in place of the value given in Table 1806.2.

The passive pressure only considers soil strength. Tolerable pier deflection may govern the design lateral resistance. If provided with pier geometry, lateral load, and loading eccentricity, Kleinfelder can provide the estimated pier head deflection.

6.4.3 Design and Construction Considerations

Prior to placing steel or concrete, footing excavations should be cleaned of all debris, loose or soft soil, and water. All footing excavations should be observed by the project Geotechnical Engineer just prior to placing steel or concrete. The purpose of these observations is to check that the bearing soils actually encountered in the foundation excavations are similar to those assumed in analysis and to verify the recommendations contained herein are implemented during construction.

6.5 PAVEMENT DESIGN

6.5.1 General

The subgrade R-value for the on-site soil was evaluated in the laboratory on seven (7) near surface soil samples taken throughout the project site. The locations of the tested R-values were chosen in areas of proposed pavements based on a preliminary site plan. The laboratory tests were performed in conformance to Caltrans Test Method 301 and were evaluated based on stabilometer and expansion dial readings. The soil tested revealed that expansion pressure generally governs the design R-value. The R-value test results included in Appendix B indicate the R-value by exudation and includes the expansion pressures. The design R-value is dictated by expansion pressure and Traffic Index (TI). Consequently, the design R-value varies with Traffic Index.

Detailed vehicular load and frequency information is not available for the on-site pavements. Traffic within the project site is anticipated to consist of access for automobiles, trash collection, and delivery truck traffic. Consequently, a range of pavement sections have been provided for the on-site based on Traffic Indexes (T.I.'s) of 4.5 through 8.0. These traffic design assumptions should be reviewed for compatibility with the actual development, and revised pavement sections developed, as necessary.

6.5.2 Flexible Pavement

The preliminary flexible pavement design recommendations presented below are based upon the California Department of Transportation (Caltrans) design procedures. The flexible asphalt concrete pavement sections associated with the assumed T.I.'s and design R-value for on-site asphalt pavements are summarized in Table 6.5-1.

**Table 6.5-1
Recommended Minimum Pavement Sections**

Traffic Index	Design R-Value (Expansion)	Asphalt Concrete	Aggregate Base (Min. R-value: 78)	Aggregate Subbase (Min. R-value: 50)
4.5	11	2.5"	8.5" 2.0"	- 7.0"
5	12	3.0"	8.5" 2.0"	- 7.0"
5.5	13	3.0"	10.5" 3.0"	- 8.0"
6.0	14	3.5"	11.0" 3.5"	- 8.0"
6.5	16	4.0"	11.5" 3.5"	- 8.5"
7.0	17	4.0"	12.5" 4.5"	- 9.0"
7.5	18	4.5"	13.0" 5.0"	- 9.0"
8.0	19	5.0"	13.5" 5.0"	- 9.5"

The design criteria assume a 20-year design period and that normal maintenance (crack sealing, etc.) is performed. The traffic index is a measure of the volume of truck traffic that will be applied to a pavement section in the design life. The allowable average daily truck traffic (ADTT) for the assumed traffic indexes is presented in Table 6.5-2.

**Table 6.5-2
Average Daily Truck Traffic**

Traffic Index	2-Axle Vehicle	or	3-Axle Vehicle	or	5-Axle Vehicle
4.5	2.2		0.8		0.2
5.0	5.2		2.0		0.5
5.5	11.6		4.3		1.1
6.0	24.1		9.0		2.4
6.5	47.3		17.7		4.7
7.0	88.1		33.0		8.8
7.5	157.3		59.0		15.8
8.0	270.6		101.5		27.1

The flexible pavement should conform to, and be placed in accordance with, Caltrans Standard Specification (2019). The aggregate base (Class 2) should comply with Section 26 of the Caltrans Standard Specifications. The aggregate subbase (Class 2) should comply with the specifications in Section 25. The aggregate base, aggregate subbase, and upper 12 inches of subgrade should be compacted to 95 percent relative compaction as determined by Caltrans Test Method No. 216 (dry weight comparison) or ASTM D1557 test procedures. The upper 12 inches of pavement subgrade should be moisture conditioned to at, or above optimum moisture content.

6.5.3 Moisture Considerations

The pavement design should consider both the vehicular loading, as well as the environmental factors. The vehicular loading will depend on the amount and type of traffic anticipated for the pavement design life. Environmental factors include the potential for moisture variations beneath the pavement structural section. It is recommended that all pavement areas conform to the following criteria:

- All trench backfill should be properly placed and adequately compacted to provide a stable subgrade.
- Adequate drainage should be provided to prevent ponding of surface water which could saturate the subgrade soil.

- A periodic maintenance program should be incorporated to include sealing cracks and other measures.
- Any concrete curbs and gutters should extend to the subgrade.

6.5.4 Construction Considerations

In the event unstable (pumping) subgrades are encountered within planned pavement areas, it is recommended a heavy, rubber-tired vehicle (typically a loaded water truck) be used to test the load/deflection characteristics of the finished subgrade materials. It is recommended this vehicle have a minimum rear axle load (at the time of testing) of 16,000 pounds with tires inflated to at least 65 psi pressure. If the tested surface shows a visible deflection extending more than 6 inches from the wheel track at the time of loading, or a visible crack remains after loading, corrective measures should be implemented. Such measures could include diskings to aerate, chemical treatment, replacement with drier material, or other methods. It is recommended Kleinfelder be retained to assist in developing which method (or methods) would be applicable for this project.

6.5.5 Construction Observation and Testing

It is recommended that all earthwork during construction be monitored by a representative from Kleinfelder, including site preparation, placement of all engineered fill and trench backfill, construction of slab and pavement subgrades. The purpose of these services would be to provide Kleinfelder the opportunity to observe the soil conditions encountered during construction, evaluate the applicability of the recommendations presented in this report to the soil conditions encountered, and recommend appropriate changes in design or construction procedures if conditions differ from those described herein.

6.6 CORROSION POTENTIAL

Kleinfelder has completed laboratory testing to provide data regarding corrosivity of onsite soils. Our scope of services does not include corrosion engineering and, therefore, a detailed analysis of the corrosion test results is not included in this report. A qualified corrosion engineer should be retained to review the test results and design protective systems that may be required. Kleinfelder may be able to provide those services.

Laboratory chloride concentration, sulfate concentration, pH, and electrical resistivity tests were performed on near-surface composite soil samples from the upper 3 feet of Boring B-6 and B-7. The results of the tests are summarized in Table 6.6-1. If fill materials will be imported to the project site, similar corrosion potential laboratory testing should be completed on the imported material.

**Table 6.6-1
Soil Corrosion Potential Laboratory Test Results**

Boring	Depth, Feet	Material	Minimum Resistivity, ohm-cm	pH	Water-Soluble Ion Concentration, ppm	
					Chloride	Sulfate
B-6	0 to 3	Silty Sand	24,900	7.32	3.9	0.2
B-7	0 to 3	Sandy Silt	17,400	7.77	30.7	37.5

The following summary is provided with respect to the results presented in Table 6.7-1 and applicable references. Not that the 2019 CBC refers to ACI 318, Section 4.2, for corrosion exposure potential for concrete in contact with soils.

- The measured saturated minimum resistivity values indicates the soil is “moderately corrosive” to buried ferrous metals. These correlations are based on Corrosion Basics, 2nd edition, Roberge, 2006.
- A water-soluble chloride content of less than 500 ppm is generally considered non-corrosive to reinforced concrete. The samples tested had 3.9 and 30.7 ppm soluble Chloride contents. According to the American Concrete Institute (ACI) 318-08, Table 4.2.1, the Exposure Severity and Class for corrosion protection of reinforcement are “Not Applicable” and “C0” if the concrete is dry or protected from moisture, and “Moderate” and “C1” if the concrete is exposed to moisture but not to external sources of chlorides. For both classes, concrete should have a minimum compressive strength of 2,500 psi and there is no restriction on the maximum water cement ratio used. If concrete is exposed to moisture and an external source of chlorides, the Exposure Severity and Class for corrosion protection of reinforcement are “Severe” and “C2”. For C2 or Severe conditions concrete should have a minimum compressive strength of 5,000 psi and a maximum water cement ratio of 0.40.

- According to the American Concrete Institute (ACI) 318-08, Table 4.2.1, the Exposure Severity is “not applicable” and the Exposure Class is “S0” for soils with a water soluble sulfate content of less than 1,000 ppm. According to Table 4.3.1 of ACI 318-08, for an Exposure Class of “S0”, there is no specification for maximum water cement ratio, and concrete should have a minimum compressive strength of 2,500 psi.

The provided preliminary corrosion tests are only an indicator of potential soil corrosivity for the sample tested. Kleinfelder’s scope of work did not include corrosion engineering. If more detailed information is required, it is recommended a competent corrosion engineer be retained to evaluate the corrosion potential of the site to proposed improvements, to recommend further testing as required, and to provide specific corrosion mitigation methods appropriate for the project.

6.7 SITE DRAINAGE

6.7.1 General

It is important that drainage away from the improvements be provided to prevent ponding and/or saturation of the soils in the vicinity of foundations, concrete slabs-on-grade, or pavements. Poor surface drainage could cause reduced subgrade support. The site should be graded to carry surface water away from the improvements and convey it to proper discharge points. Proper drainage needs to be a partnering between design and maintenance of the facility.

The development should incorporate the basis for good drainage. This includes:

- Sufficient pad height to allow for proper drainage.
- Defined drainage gradients away from the structures to points of conveyance, such as drainage swales and/or area drains and discharge pipe.
- Roof downspouts connected to proper areas of discharge.

The maintenance personnel must maintain the established drainage by not blocking or obstructing gradients away from structures without providing some alternative drainage means (e.g. area drains and subsurface pipes). If planter areas are established near the structures, it is important to prevent surface run-off from entering the planter. Where planted areas are adjacent to the structures, care must be taken not to over irrigate and to maintain a leak-free sprinkler piping

system. Consideration should be given to use of low volume emitter irrigation systems for planters. Well-maintained low-volume emitter irrigation (drip system) is best suited for planters adjacent to structures. Watering practices must strive to use only sufficient water to sustain and promote plant growth.

6.7.2 On-Site Infiltration Basin

The proposed infiltration basin to be located on the east end of the site may be a source of moisture infiltration that could trigger hydrocompaction of the foundation soils and subsequent settlement. As such, if the hydrocompactive soils are to remain without recompaction to minimize post construction settlement due to hydrocompaction, then it is recommended that the pond design incorporate dry wells to direct and infiltrate storm water at a depth below 10 feet from the existing site grade.

7 ADDITIONAL SERVICES

7.1 ADDITIONAL ENGINEERING INVESTIGATIONS

As the planning evolves to conceptual and eventual design, detailed design-level Geotechnical Investigation Report(s) and additional soil borings should be conducted that are site specific and address the loading conditions and development schemes for the final designs.

7.2 PLANS AND SPECIFICATIONS REVIEW

It is recommended Kleinfelder conduct a general review of plans and specifications to evaluate that the earthwork and foundation recommendations have been properly interpreted and implemented during design. In the event Kleinfelder is not retained to perform this recommended review, no responsibility will be assumed for misinterpretation of the recommendations.

7.3 CONSTRUCTION OBSERVATION AND TESTING

It is recommended that all earthwork during construction be monitored by a representative from Kleinfelder, including site preparation, placement of all engineered fill and trench backfill, construction of slab and pavement subgrades, and all foundation excavations. The purpose of these services would be to provide Kleinfelder the opportunity to observe the soil conditions encountered during construction, evaluate the applicability of the recommendations presented in this report to the soil conditions encountered, and recommend appropriate changes in design or construction procedures if conditions differ from those described herein.

8 LIMITATIONS

Recommendations contained in this report are based on the field observations and subsurface explorations, laboratory tests, and present knowledge of the proposed construction. It is possible that soil conditions could vary between or beyond the points explored. If soil conditions are encountered during construction that differ from those described herein, Kleinfelder should be notified immediately in order that a review may be made and any supplemental recommendations provided. If the scope of the proposed construction changes from that described in this report, the recommendations provided should also be reviewed.

This report has been prepared in substantial accordance with the generally accepted geotechnical engineering practice, as it exists in the general area at the time of the study. No warranty or guarantee, express or implied, is intended or provided. The recommendations provided in this report are based on the assumption that Kleinfelder will conduct an adequate program of tests and observations during the construction phase in order to evaluate compliance with the recommendations.

This report may be used only by the Epic Management Group, Inc. and their designated representatives for the purposes stated, within a reasonable time from its issuance, but in no event later than one year (without review) from the date of the report. Land use, site conditions or other factors may change over time, and additional work may be required with the passage of time. Any other party who wishes to use this report shall notify Kleinfelder of such intended use. Based on the intended use of the report, Kleinfelder may require that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements by the client or anyone else will release Kleinfelder from any liability resulting from the use of this report by any unauthorized party.

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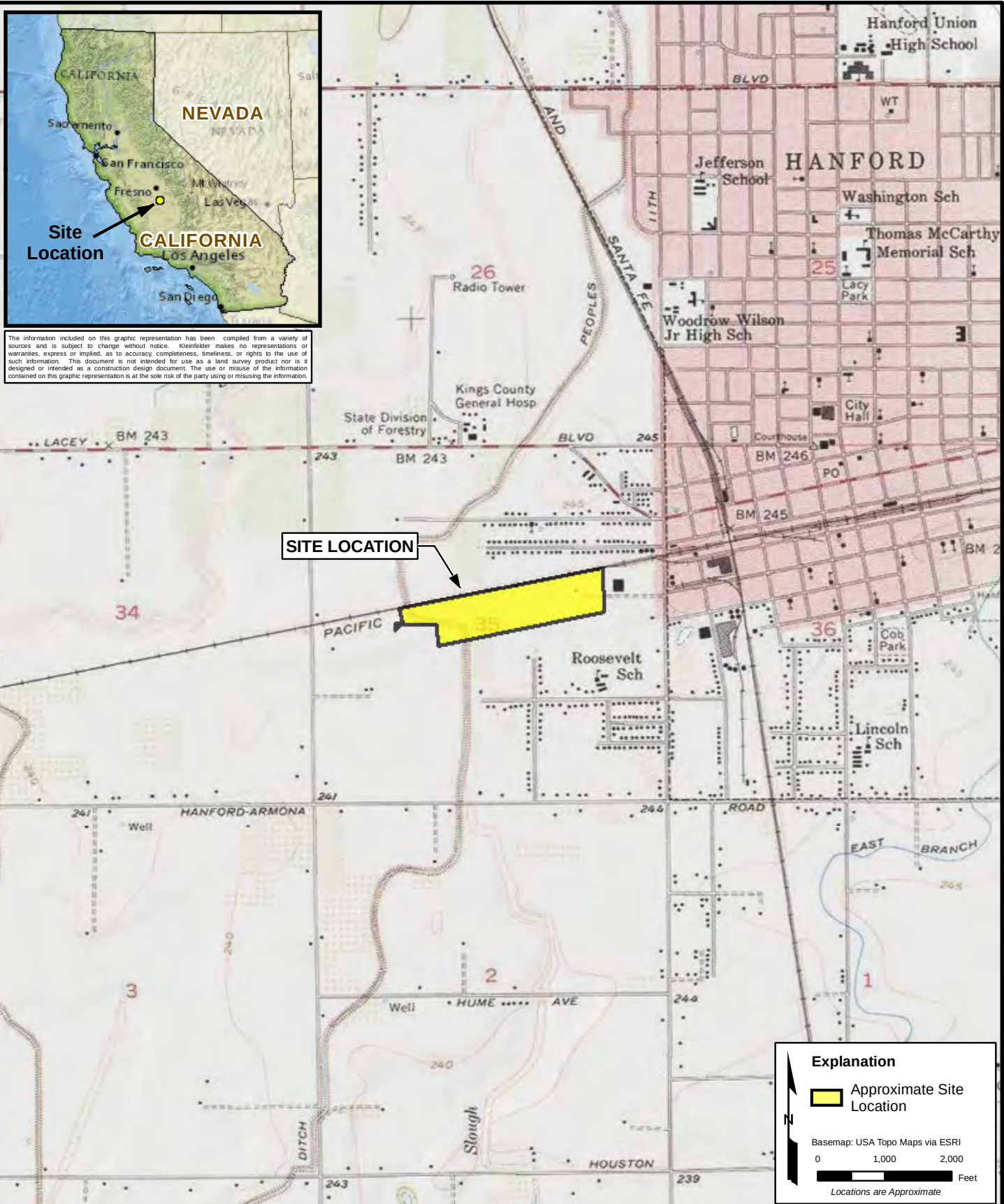
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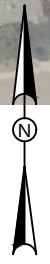
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FIGURES

Site Vicinity Map	1
Exploration Location Map	2
Site Plan and Geology Map	3
Area Geology Map	4
Regional Geology Map	5
Cross Section A-A'	6
Cross Section B-B'	7
Regional Fault Map and Earthquake Epicenters	8
FEMA Flood Map	9
Dan Inundation Map	10



	PROJECT:	20210045	SITE VICINITY MAP	FIGURE 1
	DRAWN:	JUNE 2020		
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200 100 0 200
APPROXIMATE SCALE (feet)

EXPLANATION

- B-9 APPROXIMATE BORING LOCATION
- R-7 APPROXIMATE R-VALUE LOCATION

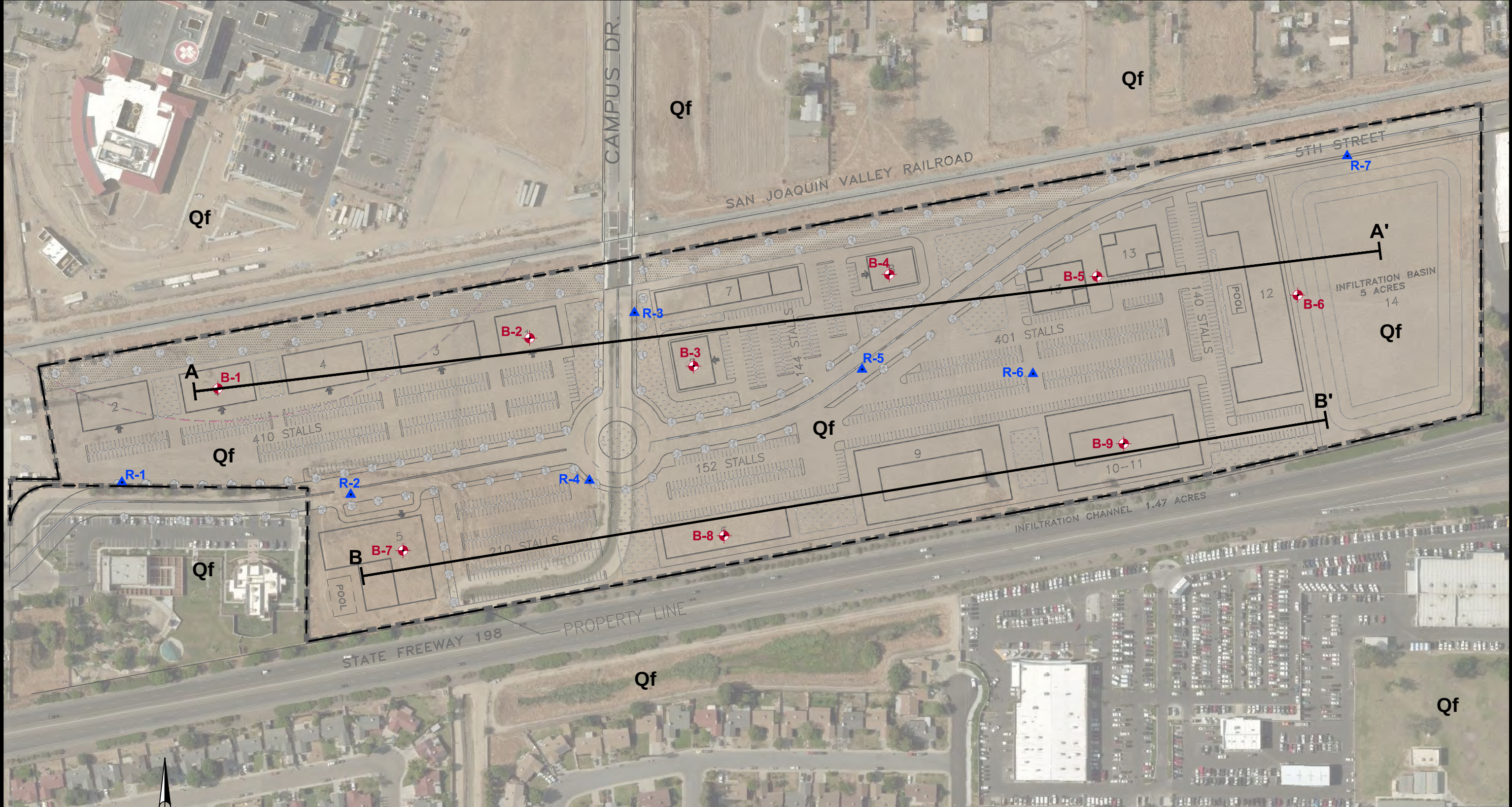
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EXPLORATION LOCATION MAP	FIGURE 2
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EXPLANATION

- B-9 APPROXIMATE BORING LOCATION
- R-7 APPROXIMATE R-VALUE LOCATION

CROSS-SECTION LOCATION

GEOLOGIC UNITS

Qf FAN DEPOSITS

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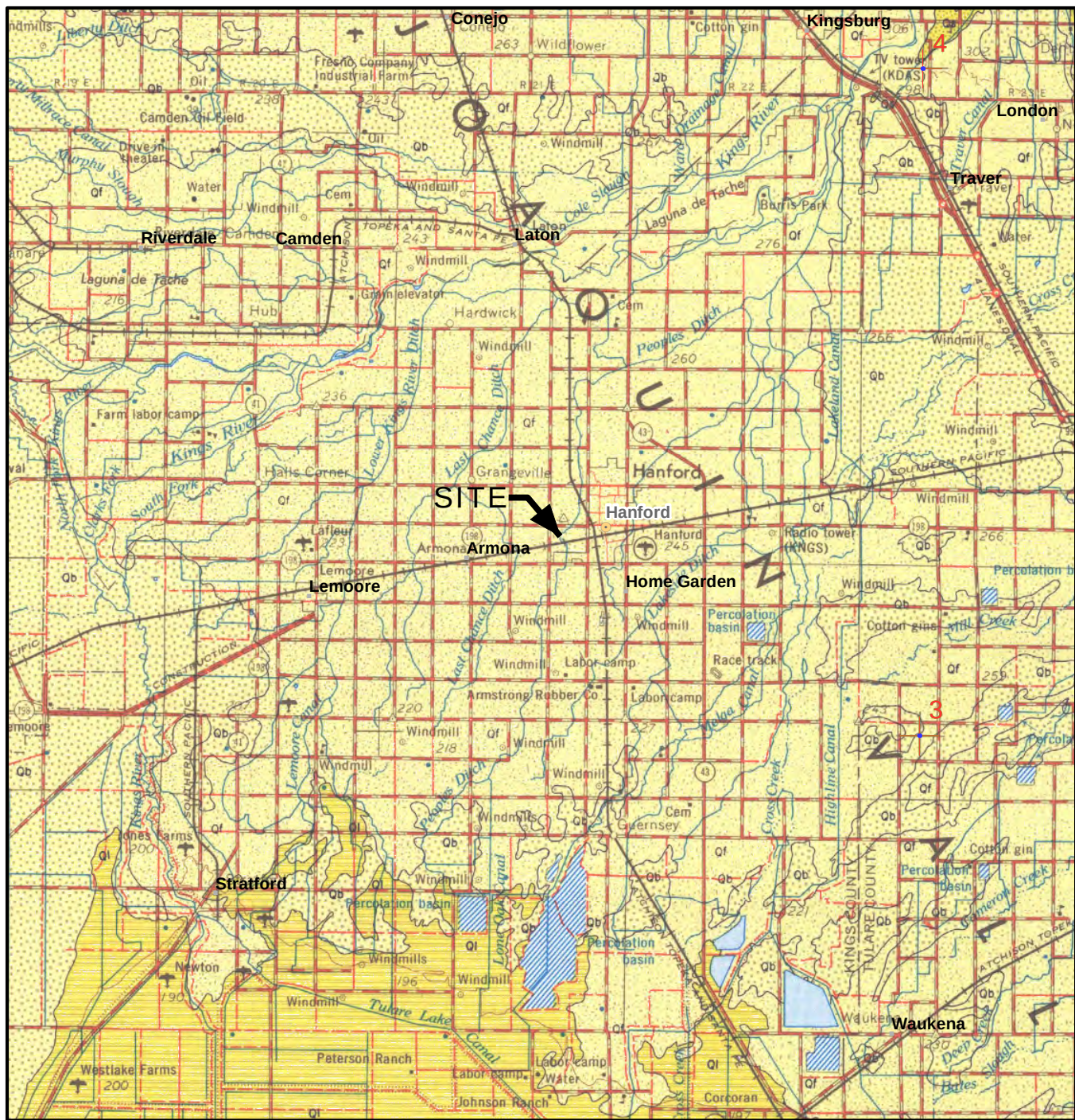
SITE PLAN AND GEOLOGY MAP

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HANFORD, CALIFORNIA

FIGURE

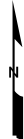
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- Qf Fan deposits
- Qb Basin deposits
- Ql Quaternary lake deposits

0 1 2 4
Miles



REFERENCE:

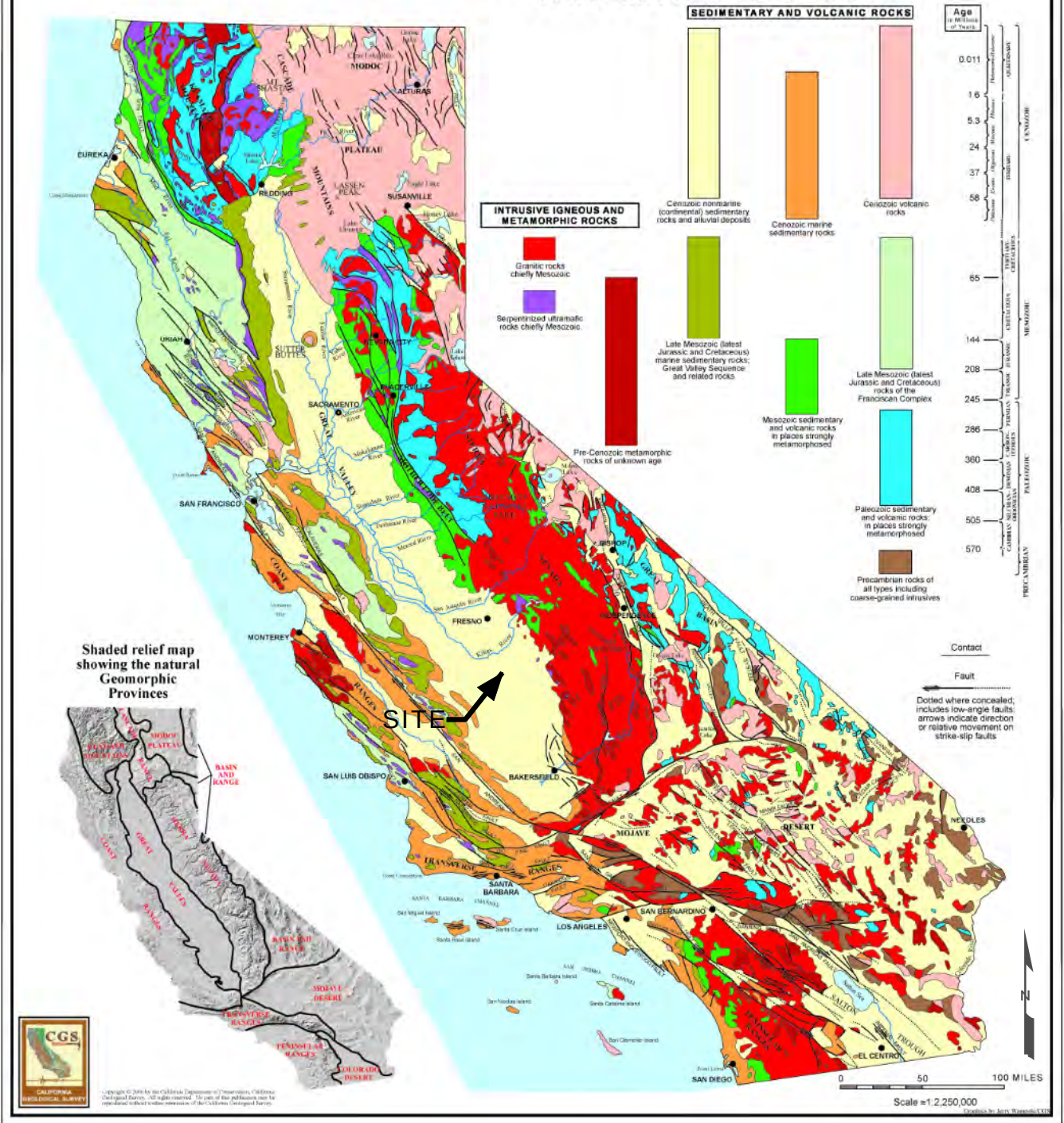
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SIMPLIFIED GEOLOGIC MAP OF CALIFORNIA

CORRELATION OF MAP UNITS



REFERENCE:

Simplified Geologic Map of California, California, a digital map sheet 57, Graphics by Jerry Wampole/CGS, dated 2006

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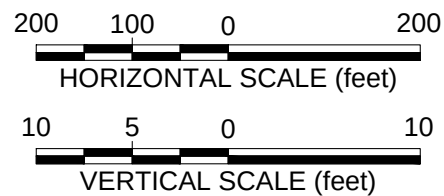
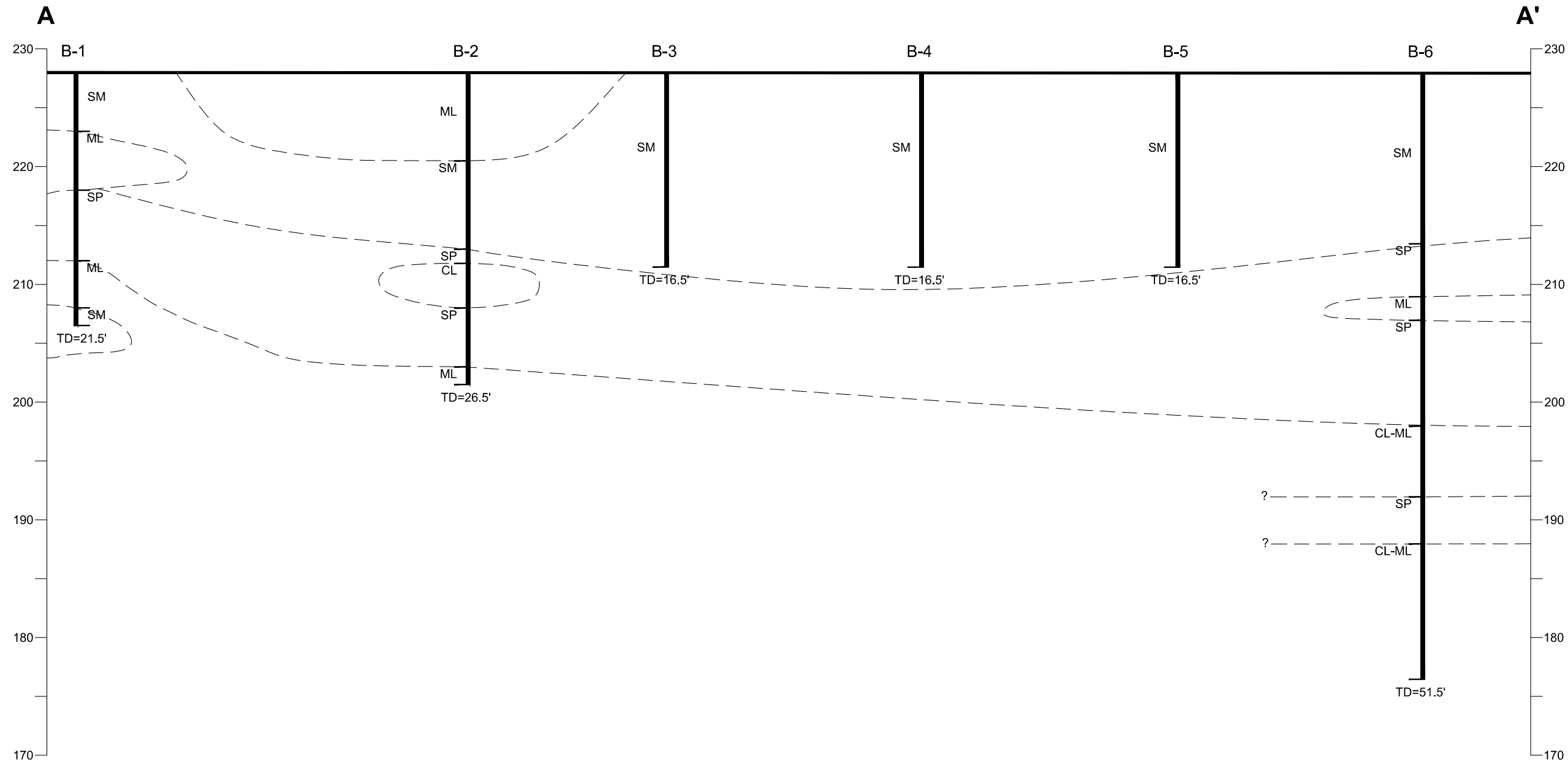
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REGIONAL GEOLOGIC MAP

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FIGURE

5



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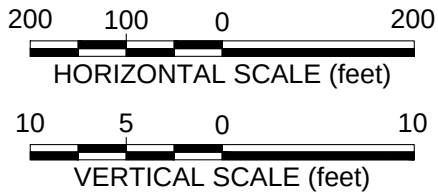
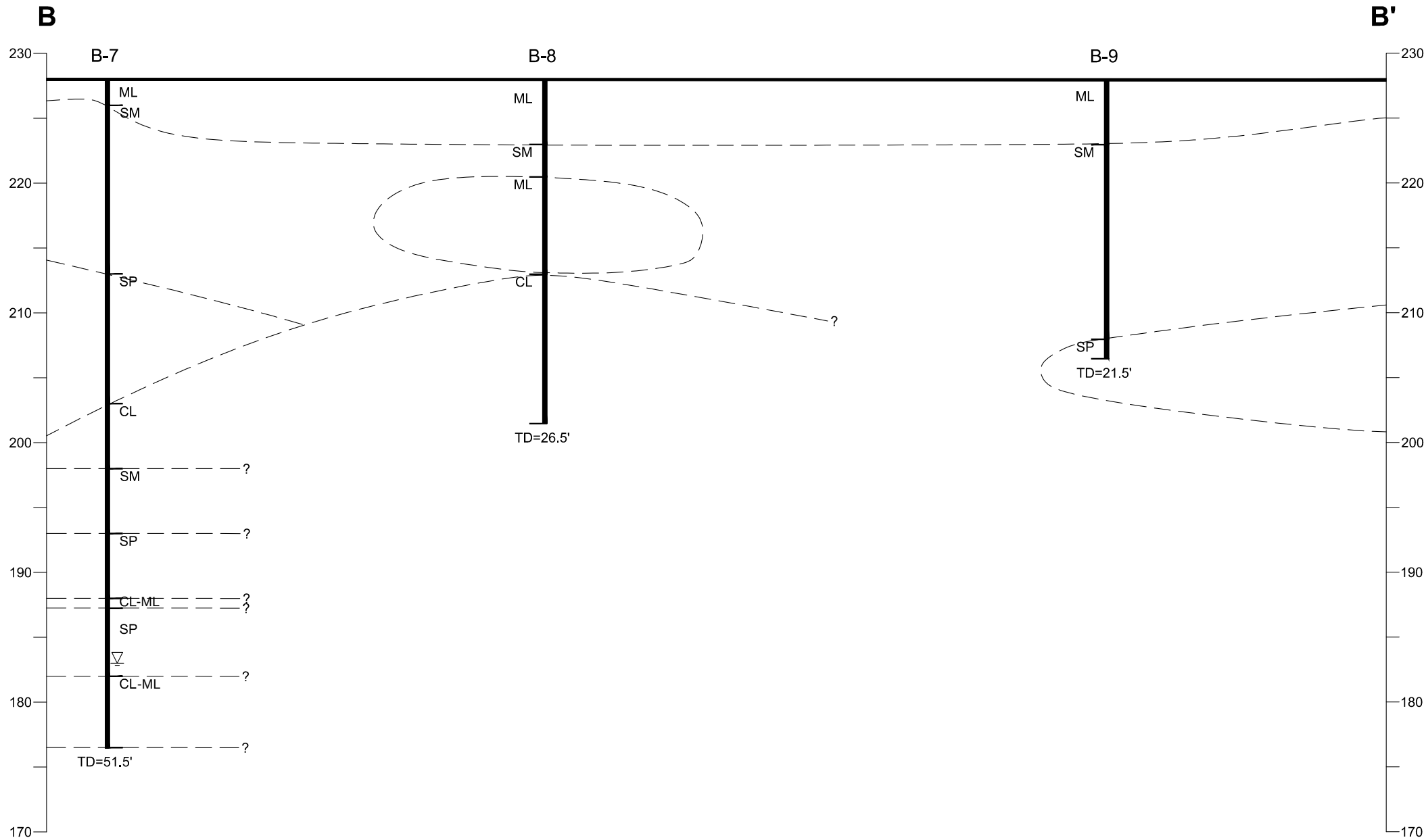
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CROSS-SECTION A-A'

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FIGURE

6



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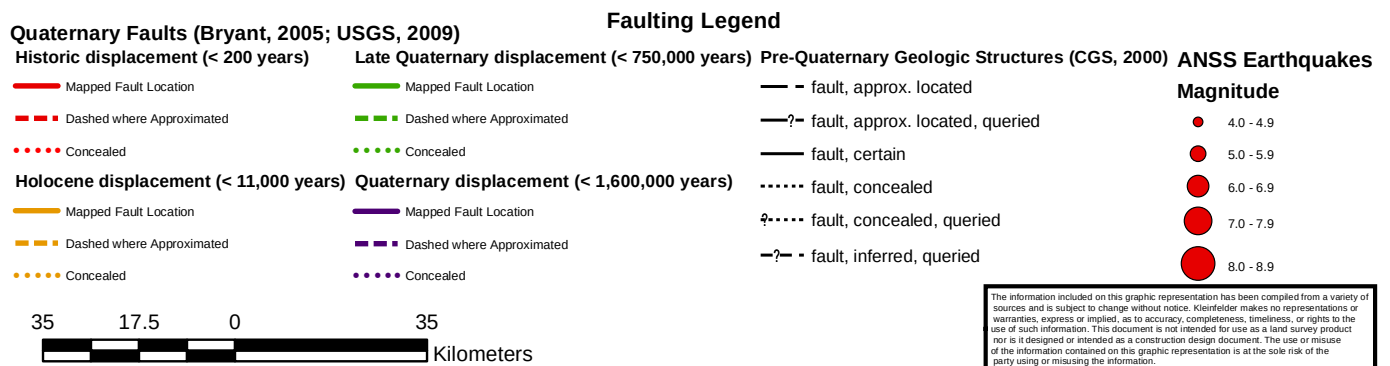
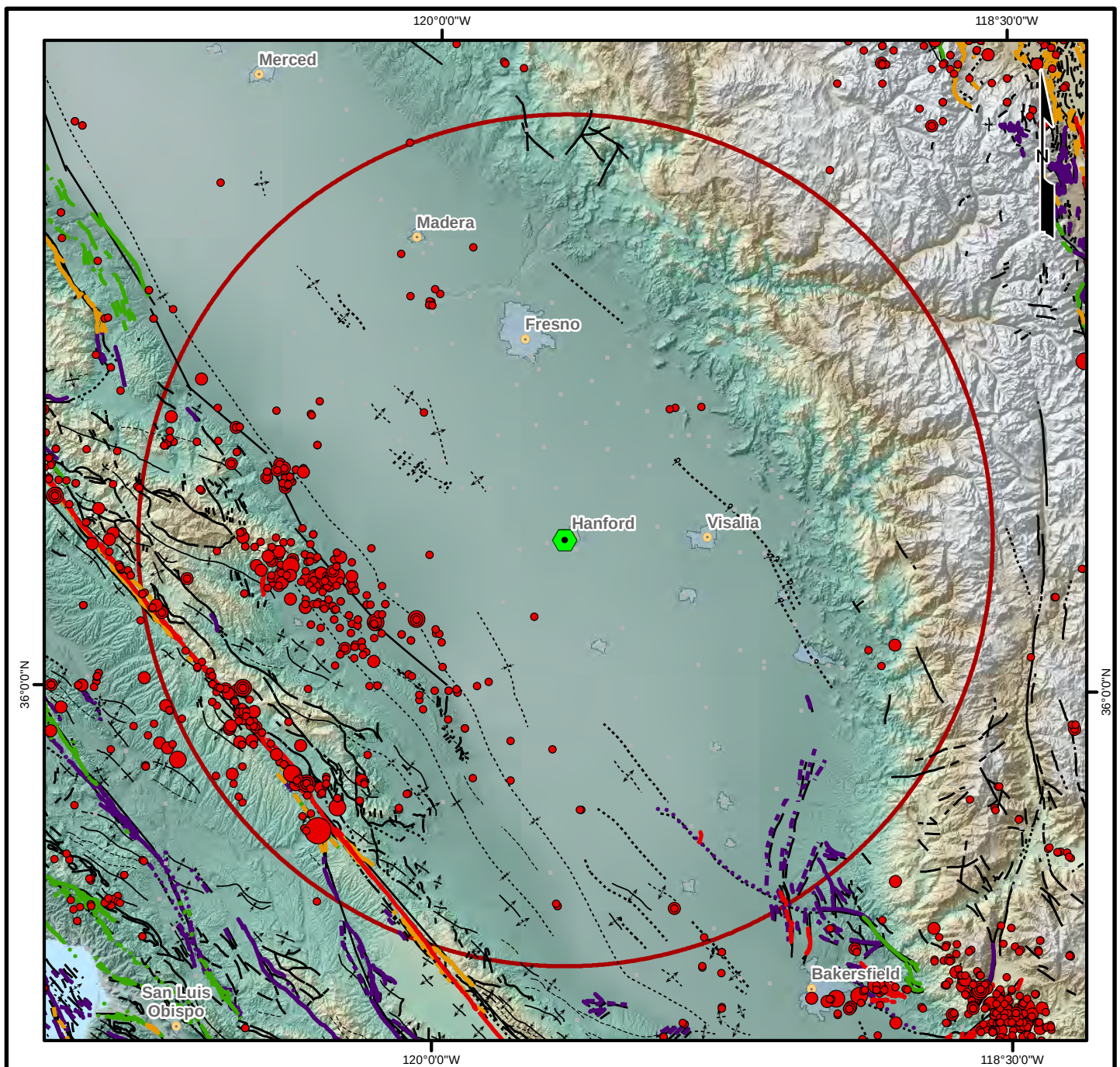
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REVISED: 06/2020

CROSS-SECTION B-B'

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FIGURE

7



 KLEINFELDER <i>Bright People. Right Solutions.</i> www.kleinfelder.com	PROJECT NO.	20210045	REGIONAL FAULT MAP AND EARTHQUAKE EPICENTERS (1800 - MAY 2020)	FIGURE 8
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LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- Floodplain boundary
- Floodway boundary
- Zone D Boundary
- CBRS and OPA Boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 Base Flood Elevation line and value; elevation in feet* (EL 987)
- Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the North American Vertical Datum of 1988

Cross section line

Transect line

Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere

1000-meter Universal Transverse Mercator grid values, zone 10 and 11

5000-foot grid ticks: California State Plane coordinate system, zone IV (FIPSZONE 0404), Lambert Conformal Conic Projection

Bench mark (see explanation in Notes to Users section of this FIRM panel)

• M1.5 River Mile

MAP REPOSITORIES

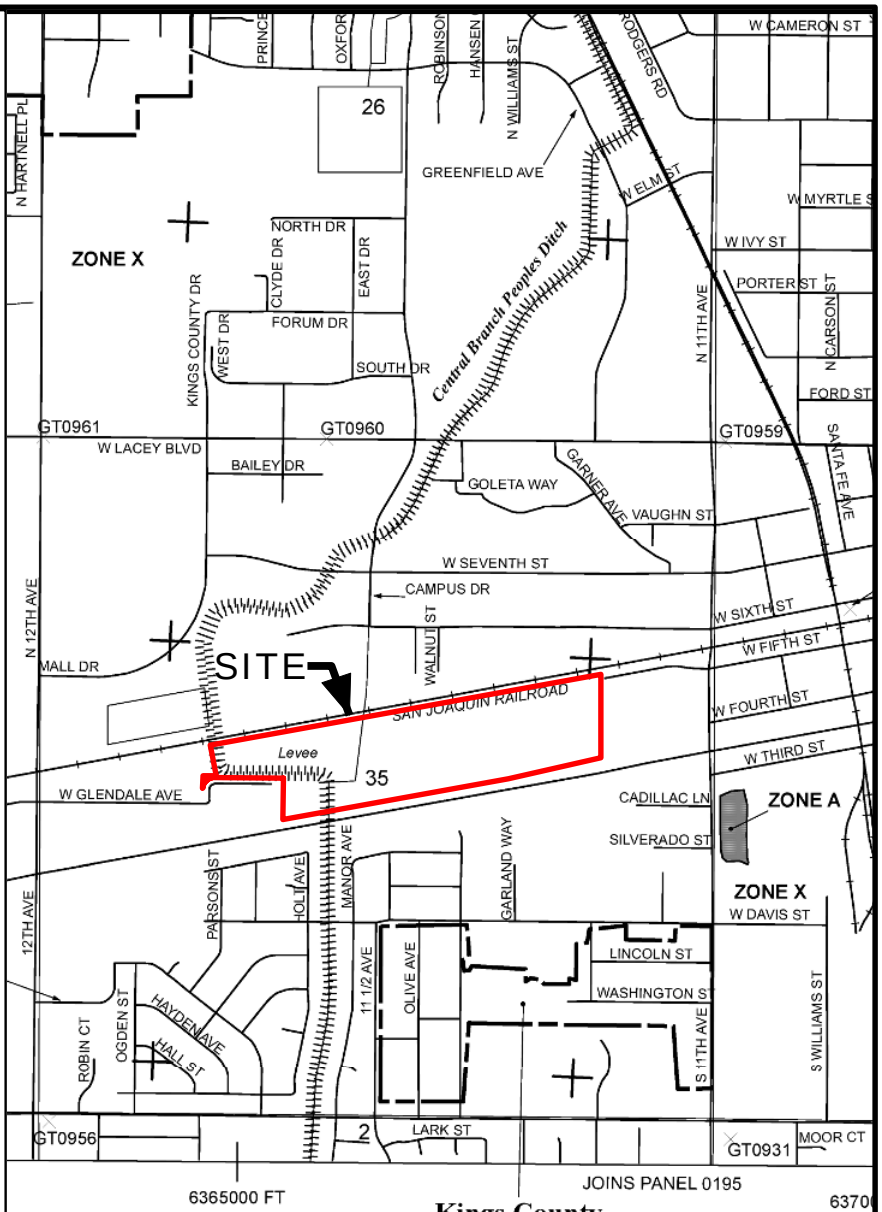
Refer to Map Repositories list on Map Index.

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP PANEL
JUNE 16, 2009

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.



0 1,500 3,000 Feet

REFERENCE:

FEMA Flood Insurance Rate map, Kings County, California, Map # 06031C0185C, dated 2009

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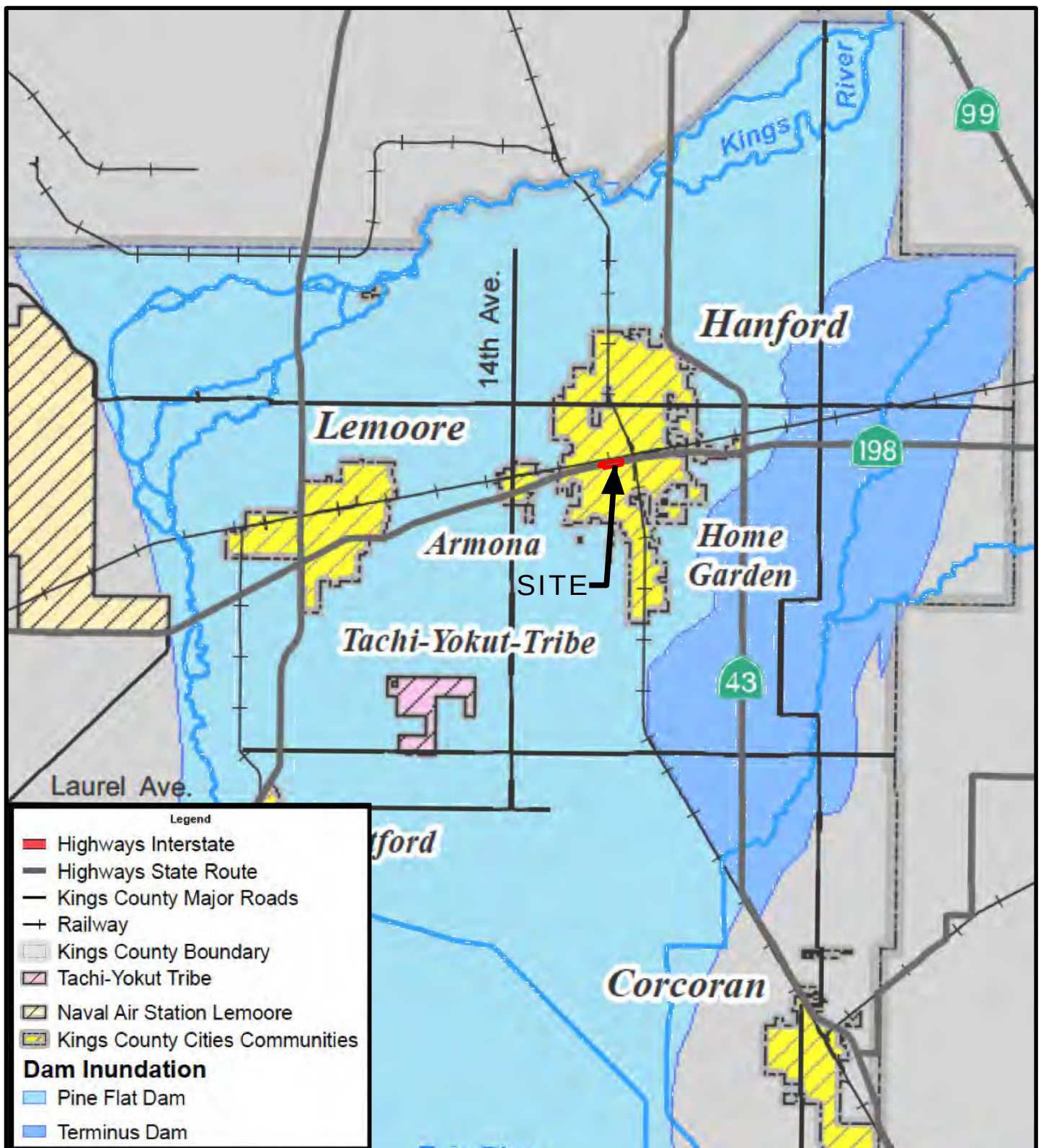
PROJECT NO. 20210045
DRAWN: JUNE 2020
DRAWN BY: RA
CHECKED BY: AA
FILE NAME: Figure_9.mxd

FEMA FLOOD MAP

PROPOSED HANFORD PLACE
MEDICAL & MIXED-USE PROPERTY
HANFORD, CALIFORNIA

FIGURE

9



REFERENCE:
Kings County Multi-jurisdictional Local
Hazard Mitigation Plan, December 2012

0 2 4
Miles

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DRAWN: JUNE 2020
DRAWN BY: RA
CHECKED BY: AA
FILE NAME: Figure_10.mxd

DAM INUNDATION MAP

PROPOSED HANFORD PLACE
MEDICAL & MIXED-USE PROPERTY
HANFORD, CALIFORNIA

FIGURE

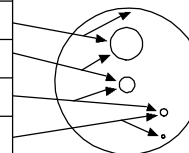
10

APPENDIX A

Graphics Key	A-1
Soil Description Key	A-2
Boring Logs	A-3/A-11

GRAIN SIZE

DESCRIPTION	SIEVE SIZE	GRAIN SIZE	APPROXIMATE SIZE
Boulders	>12 in. (304.8 mm.)	>12 in. (304.8 mm.)	Larger than basketball-sized
Cobbles	3 - 12 in. (76.2 - 304.8 mm.)	3 - 12 in. (76.2 - 304.8 mm.)	Fist-sized to basketball-sized
Gravel	coarse 3/4 - 3 in. (19 - 76.2 mm.)	3/4 - 3 in. (19 - 76.2 mm.)	Thumb-sized to fist-sized
	fine #4 - 3/4 in. (#4 - 19 mm.)	0.19 - 0.75 in. (4.8 - 19 mm.)	Pea-sized to thumb-sized
Sand	coarse #10 - #4	0.075 - 0.19 in. (2 - 4.9 mm.)	Rock salt-sized to pea-sized
	medium #40 - #10	0.017 - 0.075 in. (0.43 - 2 mm.)	Sugar-sized to rock salt-sized
	fine #200 - #40	0.0029 - 0.017 in. (0.07 - 0.43 mm.)	Flour-sized to sugar-sized
Fines	Passing #200	<0.0029 in. (<0.07 mm.)	Flour-sized and smaller

**SECONDARY CONSTITUENT**

	AMOUNT	
Term of Use	Secondary Constituent is Fine Grained	Secondary Constituent is Coarse Grained
Trace	<5%	<15%
With	≥5 to <15%	≥15 to <30%
Modifier	≥15%	≥30%

MOISTURE CONTENT

DESCRIPTION	FIELD TEST
Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water, usually soil is below water table

CEMENTATION

DESCRIPTION	FIELD TEST
Weakly	Crumbles or breaks with handling or slight finger pressure
Moderately	Crumbles or breaks with considerable finger pressure
Strongly	Will not crumble or break with finger pressure

CONSISTENCY - FINE-GRAINED SOIL

CONSISTENCY	SPT - N ₆₀ (# blows / ft)	Pocket Pen (tsf)	UNCONFINED COMPRESSIVE STRENGTH (Q _u)(psf)	VISUAL / MANUAL CRITERIA
Very Soft	<2	PP < 0.25	<500	Thumb will penetrate more than 1 inch (25 mm). Extrudes between fingers when squeezed.
Soft	2 - 4	0.25 ≤ PP < 0.5	500 - 1000	Thumb will penetrate soil about 1 inch (25 mm). Remolded by light finger pressure.
Medium Stiff	4 - 8	0.5 ≤ PP < 1	1000 - 2000	Thumb will penetrate soil about 1/4 inch (6 mm). Remolded by strong finger pressure.
Stiff	8 - 15	1 ≤ PP < 2	2000 - 4000	Can be imprinted with considerable pressure from thumb.
Very Stiff	15 - 30	2 ≤ PP < 4	4000 - 8000	Thumb will not indent soil but readily indented with thumbnail.
Hard	>30	4 ≤ PP	>8000	Thumbnail will not indent soil.

REACTION WITH HYDROCHLORIC ACID

DESCRIPTION	FIELD TEST
None	No visible reaction
Weak	Some reaction, with bubbles forming slowly
Strong	Violent reaction, with bubbles forming immediately

APPARENT / RELATIVE DENSITY - COARSE-GRAINED SOIL

APPARENT DENSITY	SPT-N ₆₀ (# blows/ft)	MODIFIED CA SAMPLER (# blows/ft)	CALIFORNIA SAMPLER (# blows/ft)	RELATIVE DENSITY (%)
Very Loose	<4	<4	<5	0 - 15
Loose	4 - 10	5 - 12	5 - 15	15 - 35
Medium Dense	10 - 30	12 - 35	15 - 40	35 - 65
Dense	30 - 50	35 - 60	40 - 70	65 - 85
Very Dense	>50	>60	>70	85 - 100

FROM TERZAGHI AND PECK, 1948

PLASTICITY

DESCRIPTION	LL	PI
Non-Plastic	NP	NP
Low	< 30	< 15
Medium	30 - 50	15 - 25
High	> 50	> 25

LL is from Casagrande, 1948. PI is from Holtz, 1959.

STRUCTURE

DESCRIPTION	CRITERIA
Stratified	Alternating layers of varying material or color with layers at least 1/4-in. thick, note thickness.
Laminated	Alternating layers of varying material or color with the layer less than 1/4-in. thick, note thickness.
Fissured	Breaks along definite planes of fracture with little resistance to fracturing.
Slickensided	Fracture planes appear polished or glossy, sometimes striated.
Blocky	Cohesive soil that can be broken down into small angular lumps which resist further breakdown.
Lensed	Inclusion of small pockets of different soils, such as small lenses of sand scattered through a mass of clay; note thickness.

ANGULARITY

DESCRIPTION	CRITERIA
Angular	Particles have sharp edges and relatively plane sides with unpolished surfaces.
Subangular	Particles are similar to angular description but have rounded edges.
Subrounded	Particles have nearly plane sides but have well-rounded corners and edges.
Rounded	Particles have smoothly curved sides and no edges.

PROJECT NO.:
20210045.001A

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CHECKED BY:

DATE:

SOIL DESCRIPTION KEYPROPOSED HANFORD PLACE
MEDICAL & MIXED-USE PROPERTY
HANFORD, CALIFORNIA**APPENDIX****A-2**

Date Begin - End: 4/20/2020	Drilling Company: Moore Twining	BORING LOG B-1
Logged By: J. Green	Drill Crew:	
Hor.-Vert. Datum: Not Available	Drilling Equipment: CME-75	
Plunge: -90 degrees	Drilling Method: Hollow Stem Auger	
Weather: Not Available	Auger Diameter: 8 in. O.D.	
Hammer Type - Drop: 140 lb. Auto - 30 in.		
Hammer Efficiency: 86.4%		
Hammer Cal. Date: 5/14/2019		

Depth (feet)	Graphical Log	FIELD EXPLORATION				LABORATORY RESULTS							
		Surface Condition: Grass & Weeds	Sample Type	Blow Counts(BC)= Uncorr. Blows/6 in. Pocket Pen(PP)= tsf	Recovery (NR=No Recovery)	N ₆₀ Value	Water Content (%)	Dry Unit Wt. (pcf)	Passing #4 (%)	Passing #200 (%)	Liquid Limit	Plasticity Index (NP=NonPlastic)	Additional Tests/ Remarks
		Lithologic Description											
		Silty SAND (SM): medium dense, brown, moist, fine to medium-grained											

	PROJECT NO.: 20210045.001A	BORING LOG B-1	APPENDIX
	DRAWN BY: AA CHECKED BY: ES DATE: 6/4/2020		
PAGE: 1 of 1			A-3

Date Begin - End:	4/20/2020	Drilling Company:	Moore Twining	BORING LOG B-2
Logged By:	J. Green	Drill Crew:		
Hor.-Vert. Datum:	Not Available	Drilling Equipment:	CME-75	Hammer Type - Drop: 140 lb. Auto - 30 in.
Plunge:	-90 degrees	Drilling Method:	Hollow Stem Auger	Hammer Efficiency: 86.4%
Weather:	Not Available	Auger Diameter:	8 in. O.D.	Hammer Cal. Date: 5/14/2019

Depth (feet)	Graphical Log	FIELD EXPLORATION					LABORATORY RESULTS						
		Surface Condition: Grass & Weeds	Sample Type	Blow Counts(BC)= Uncorr. Blows/6 in. Pocket Pen(PP)= tsf	Recovery (NR=No Recovery)	N ₆₀ Value	Water Content (%)	Dry Unit Wt. (pcf)	Passing #4 (%)	Passing #200 (%)	Liquid Limit	Plasticity Index (NP=NonPlastic)	Additional Tests/ Remarks
		Lithologic Description											
		Sandy SILT (ML): medium stiff, light brown, moist, low plasticity											
				BC=6 6 9		22				60			
5		hard		BC=25 27 25		75							
		Silty SAND (SM): medium dense, light brown, moist, fine-grained		BC=6 7 8		22							
10				BC=8 10 11		30	6.5	98.8					
15		Poorly Graded SAND (SP): medium dense, grayish brown, moist, fine-grained		BC=3 3 3		9							
		Sandy Lean CLAY (CL): medium stiff, dark brown, moist, low to medium plasticity											
20		Poorly Graded SAND (SP): medium dense, gray, moist, fine-grained		BC=8 9 12		30							
25		Sandy SILT (ML): medium stiff, gray, moist, non-plastic to low plasticity		BC=8 7 9		23							
30		The boring was terminated at approximately 26.5 ft. below ground surface. The boring was backfilled with auger cuttings on April 20, 2020.					GROUNDWATER LEVEL INFORMATION: Groundwater was not observed during drilling or after completion. GENERAL NOTES:						

PROJECT NO.:
20210045.001A

DRAWN BY: AA

CHECKED BY: ES

DATE: 6/4/2020

BORING LOG B-2

PROPOSED HANFORD PLACE
MEDICAL & MIXED-USE PROPERTY
HANFORD, CALIFORNIA

APPENDIX

A-4

PAGE: 1 of 1

Date Begin - End: 4/20/2020	Drilling Company: Moore Twining	BORING LOG B-3
Logged By: J. Green	Drill Crew:	
Hor.-Vert. Datum: Not Available	Drilling Equipment: CME-75	
Plunge: -90 degrees	Drilling Method: Hollow Stem Auger	
Weather: Not Available	Auger Diameter: 8 in. O.D.	
Hammer Type - Drop: 140 lb. Auto - 30 in.		
Hammer Efficiency: 86.4%		
Hammer Cal. Date: 5/14/2019		

Depth (feet)	Graphical Log	FIELD EXPLORATION					LABORATORY RESULTS						
		Surface Condition: Grass & Weeds	Sample Type	Blow Counts(BC)= Uncorr. Blows/6 in. Pocket Pen(PP)= tsf	Recovery (NR=No Recovery)	N ₆₀ Value	Water Content (%)	Dry Unit Wt. (pcf)	Passing #4 (%)	Passing #200 (%)	Liquid Limit	Plasticity Index (NP=NonPlastic)	Additional Tests/ Remarks
		Lithologic Description											
5		Silty SAND (SM): medium dense, yellowish brown, moist, fine-grained, pinholes		BC=10 9 10		27							Consolidation Direct Shear= Peak Cohesion: 740 psf Peak Friction Angle: 27.0° Peak Tangent Angle: 0.52
				BC=8 12 13		36	3.2	96.0					
10		light grayish brown		BC=10 11 13		35							
15		reddish brown		BC=7 8 10		26							
20		The boring was terminated at approximately 16.5 ft. below ground surface. The boring was backfilled with auger cuttings on April 20, 2020.					GROUNDWATER LEVEL INFORMATION: Groundwater was not observed during drilling or after completion. <u>GENERAL NOTES:</u>						
25													
30													

PROJECT NO.:
20210045.001A

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CHECKED BY: ES

DATE: 6/4/2020

BORING LOG B-3

PROPOSED HANFORD PLACE
MEDICAL & MIXED-USE PROPERTY
HANFORD, CALIFORNIA

APPENDIX

A-5

PAGE: 1 of 1

Date Begin - End: 4/21/2020	Drilling Company: Moore Twining	BORING LOG B-4
Logged By: J. Green	Drill Crew:	
Hor.-Vert. Datum: Not Available	Drilling Equipment: CME-75	
Plunge: -90 degrees	Drilling Method: Hollow Stem Auger	
Weather: Not Available	Auger Diameter: 8 in. O.D.	
Hammer Type - Drop: 140 lb. Auto - 30 in.		
Hammer Efficiency: 86.4%		
Hammer Cal. Date: 5/14/2019		

Depth (feet)	Graphical Log	FIELD EXPLORATION				LABORATORY RESULTS							
		Surface Condition: Grass & Weeds	Sample Type	Blow Counts(BC)= Uncorr. Blows/6 in. Pocket Pen(PP)= tsf	Recovery (NR=No Recovery)	N ₆₀ Value	Water Content (%)	Dry Unit Wt. (pcf)	Passing #4 (%)	Passing #200 (%)	Liquid Limit	Plasticity Index (NP=NonPlastic)	Additional Tests/ Remarks
		Lithologic Description											
		Silty SAND (SM): medium dense, light brown, moist, fine-grained, non-plastic, pinholes											
5			 BC=10 14 15		42								
			 BC=6 9 14		33	3.5	95.5						
10		dense, brown	 BC=31 32 35		96								
15		medium dense, reddish brown	 BC=3 8 7		22								
20		The boring was terminated at approximately 16.5 ft. below ground surface. The boring was backfilled with auger cuttings on April 21, 2020.				GROUNDWATER LEVEL INFORMATION: Groundwater was not observed during drilling or after completion. <u>GENERAL NOTES:</u>							
25													
30													

PROJECT NO.:
20210045.001A

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DATE: 6/4/2020

BORING LOG B-4

PROPOSED HANFORD PLACE
MEDICAL & MIXED-USE PROPERTY
HANFORD, CALIFORNIA

APPENDIX

A-6

PAGE: 1 of 1

Date Begin - End:	4/21/2020	Drilling Company:	Moore Twining	BORING LOG B-5
Logged By:	J. Green	Drill Crew:		
Hor.-Vert. Datum:	Not Available	Drilling Equipment:	CME-75	Hammer Type - Drop: 140 lb. Auto - 30 in.
Plunge:	-90 degrees	Drilling Method:	Hollow Stem Auger	Hammer Efficiency: 86.4%
Weather:	Not Available	Auger Diameter:	8 in. O.D.	Hammer Cal. Date: 5/14/2019

Depth (feet)	Graphical Log	FIELD EXPLORATION					LABORATORY RESULTS						
		Surface Condition: Grass & Weeds	Sample Type	Blow Counts(BC)= Uncorr. Blows/6 in. Pocket Pen(PP)= tsf	Recovery (NR=No Recovery)	N ₆₀ Value	Water Content (%)	Dry Unit Wt. (pcf)	Passing #4 (%)	Passing #200 (%)	Liquid Limit	Plasticity Index (NP=NonPlastic)	Additional Tests/ Remarks
		Silty SAND (SM): medium dense, brown, moist, fine-grained, non-plastic, pinholes											
5			BC=18 19 20		56	4.8	101.5						
			BC=9 13 15		40	6.6	94.9						
10		light brown	BC=11 7 7		20								
15		dense	BC=11 20 24		63								
20		The boring was terminated at approximately 16.5 ft. below ground surface. The boring was backfilled with auger cuttings on April 21, 2020.					GROUNDWATER LEVEL INFORMATION: Groundwater was not observed during drilling or after completion. <u>GENERAL NOTES:</u>						
25													
30													

PROJECT NO.:
20210045.001A

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DATE: 6/4/2020

BORING LOG B-5

PROPOSED HANFORD PLACE
MEDICAL & MIXED-USE PROPERTY
HANFORD, CALIFORNIA

APPENDIX

A-7

PAGE: 1 of 1

Date Begin - End: 4/21/2020		Drilling Company: Moore Twining		BORING LOG B-6									
Logged By: J. Green		Drill Crew:											
Hor.-Vert. Datum: Not Available		Drilling Equipment: CME-75		Hammer Type - Drop: 140 lb. Auto - 30 in.									
Plunge: -90 degrees		Drilling Method: Hollow Stem Auger		Hammer Efficiency: 86.4%									
Weather: Not Available		Auger Diameter: 8 in. O.D.		Hammer Cal. Date: 5/14/2019									
Depth (feet)	Graphical Log	FIELD EXPLORATION				LABORATORY RESULTS							
		Surface Condition: Grass & Weeds	Sample Type	Blow Counts(BC)= Uncorr. Blows/6 in. Pocket Pen(PP)= tsf	Recovery (NR=No Recovery)	N ₆₀ Value	Water Content (%)	Dry Unit Wt. (pcf)	Passing #4 (%)	Passing #200 (%)	Liquid Limit	Plasticity Index (NP=NonPlastic)	Additional Tests/ Remarks
		Lithologic Description											
5		Silty SAND (SM): medium dense, brown, moist, fine-grained, non-plastic, pin holes and organics	BC=7 4 8		17	5.0	97.3						ASTM D1557 Method A= Max. Dry Unit Wt.: 121.8 pcf Opt. Water Content: 9.8%
			BC=3 5 6		16								
			BC=14 11 13		35	3.1	95.9						
10		reddish brown	BC=2 2 4		9								
15		Poorly Graded SAND (SP): medium dense, grayish brown, moist	BC=8 9 11		29								
20		Sandy SILT (ML): stiff, dark brown, moist	BC=2 4 8		17			70					
25		Poorly Graded SAND (SP): medium dense, grayish brown, moist, fine-grained	BC=13 8 25		48	1.9	100.9						
30		SILTY CLAY (CL-ML): medium stiff, dark gray, moist, medium plasticity	BC=7 8 10		26					24	7		
		PROJECT NO.: 20210045.001A		BORING LOG B-6								APPENDIX	
		DRAWN BY: AA CHECKED BY: ES DATE: 6/4/2020		PROPOSED HANFORD PLACE MEDICAL & MIXED-USE PROPERTY HANFORD, CALIFORNIA								A-8 PAGE: 1 of 2	

Date Begin - End: 4/21/2020	Drilling Company: Moore Twining	BORING LOG B-6
Logged By: J. Green	Drill Crew:	
Hor.-Vert. Datum: Not Available	Drilling Equipment: CME-75	
Plunge: -90 degrees	Drilling Method: Hollow Stem Auger	
Weather: Not Available	Auger Diameter: 8 in. O.D.	
Hammer Type - Drop: 140 lb. Auto - 30 in.		
Hammer Efficiency: 86.4%		
Hammer Cal. Date: 5/14/2019		

Depth (feet)	Graphical Log	FIELD EXPLORATION				LABORATORY RESULTS							Additional Tests/ Remarks
		Surface Condition: Grass & Weeds	Sample Type	Blow Counts(BC)= Uncorr. Blows/6 in. Pocket Pen(PP)= tsf	Recovery (NR=No Recovery)	N ₆₀ Value	Water Content (%)	Dry Unit Wt. (pcf)	Passing #4 (%)	Passing #200 (%)	Liquid Limit	Plasticity Index (NP=NonPlastic)	
				BC=9 13 25		55							
		Poorly Graded SAND (SP): medium dense, light brownish gray, moist, fine-grained, non-plastic											
40		Sandy SILTY CLAY (CL-ML): very stiff, dark gray, moist, low to medium plasticity, fine-grained sand		BC=6 8 11		27					26	7	
45				BC=8 13 19		46	2.9	99.6					
50				BC=11 12 14		37							
55		The boring was terminated at approximately 51.5 ft. below ground surface. The boring was backfilled with auger cuttings on April 21, 2020.				GROUNDWATER LEVEL INFORMATION: Groundwater was not observed during drilling or after completion. GENERAL NOTES:							
60													
65													

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DATE: 6/4/2020

BORING LOG B-6

PROPOSED HANFORD PLACE
MEDICAL & MIXED-USE PROPERTY
HANFORD, CALIFORNIA

APPENDIX

A-8

PAGE: 2 of 2

Date Begin - End:	4/20/2020	Drilling Company:	Moore Twining	BORING LOG B-7
Logged By:	J. Green	Drill Crew:		
Hor.-Vert. Datum:	Not Available	Drilling Equipment:	CME-75	Hammer Type - Drop: 140 lb. Auto - 30 in.
Plunge:	-90 degrees	Drilling Method:	Hollow Stem Auger	Hammer Efficiency: 86.4%
Weather:	Not Available	Auger Diameter:	8 in. O.D.	Hammer Cal. Date: 5/14/2019

Depth (feet)	Graphical Log	FIELD EXPLORATION					LABORATORY RESULTS						
		Surface Condition: Grass & Weeds	Sample Type	Blow Counts(BC)= Uncorr. Blows/6 in. Pocket Pen(PP)= tsf	Recovery (NR=No Recovery)	N ₆₀ Value	Water Content (%)	Dry Unit Wt. (pcf)	Passing #4 (%)	Passing #200 (%)	Liquid Limit	Plasticity Index (NP=NonPlastic)	Additional Tests/ Remarks
		Lithologic Description											
		Sandy SILT (ML): light brown, moist, non-plastic, fine-grained sand											ASTM D1557 Method A= Max. Dry Unit Wt.: 124.8 pcf Opt. Water Content: 8.5%
		Silty SAND (SM): medium dense, light brown, moist, fine-grained, non-plastic to low plasticity			58	4.5	111.0						
5					24	6.3	94.6						
					30	7.9	97.8						
10					19								
15		Poorly Graded SAND (SP): medium dense, gray with light orange, moist, fine to medium-grained			6								
20		reddish brown			35								
25		Lean CLAY (CL): very stiff, gray, moist, medium plasticity, trace fine-grained sand			23								
30		Silty SAND (SM): dense, brown, moist, fine-grained, non-plastic to low plasticity			86	11.6	112.9						

PROJECT NO.:
20210045.001A

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DATE: 6/4/2020

BORING LOG B-7

PROPOSED HANFORD PLACE
MEDICAL & MIXED-USE PROPERTY
HANFORD, CALIFORNIA

APPENDIX

A-9

PAGE: 1 of 2

Date Begin - End:	4/20/2020	Drilling Company:	Moore Twining	BORING LOG B-7
Logged By:	J. Green	Drill Crew:		
Hor.-Vert. Datum:	Not Available	Drilling Equipment:	CME-75	Hammer Type - Drop: 140 lb. Auto - 30 in.
Plunge:	-90 degrees	Drilling Method:	Hollow Stem Auger	Hammer Efficiency: 86.4%
Weather:	Not Available	Auger Diameter:	8 in. O.D.	Hammer Cal. Date: 5/14/2019

Depth (feet)	Graphical Log	FIELD EXPLORATION				LABORATORY RESULTS								
		Surface Condition: Grass & Weeds	Sample Type	Blow Counts(BC)= Uncorr. Blows/6 in. Pocket Pen(PP)= tsf	Recovery (NR=No Recovery)	N ₆₀ Value	Water Content (%)	Dry Unit Wt. (pcf)	Passing #4 (%)	Passing #200 (%)	Liquid Limit	Plasticity Index (NP=NonPlastic)	Additional Tests/ Remarks	
		Lithologic Description												
		Poorly Graded SAND (SP): medium dense, light gray, moist, fine-grained		BC=11 13 16		42								
40		Silty CLAY (CL-ML): hard, light brown, moist, low plasticity		BC=20 25 31		81								
		Poorly Graded SAND (SP): dense, light gray, moist, fine-grained												
45		wet		BC=5 7 9		23								
		Silty CLAY (CL-ML): very stiff, dark greenish gray, wet, low plasticity												
50				BC=10 11 15		37	28.3							
55		The boring was terminated at approximately 51.5 ft. below ground surface. The boring was backfilled with auger cuttings on April 20, 2020.				<u>GROUNDWATER LEVEL INFORMATION:</u> ⚡ Perched groundwater was observed at approximately 45 ft. below ground surface during drilling. <u>GENERAL NOTES:</u>								
60														
65														

PROJECT NO.:
20210045.001A

DRAWN BY: AA

CHECKED BY: ES

DATE: 6/4/2020

BORING LOG B-7

PROPOSED HANFORD PLACE
MEDICAL & MIXED-USE PROPERTY
HANFORD, CALIFORNIA

APPENDIX

A-9

PAGE: 2 of 2

Date Begin - End:	4/20/2020	Drilling Company:	Moore Twining	BORING LOG B-8
Logged By:	J. Green	Drill Crew:		
Hor.-Vert. Datum:	Not Available	Drilling Equipment:	CME-75	Hammer Type - Drop: 140 lb. Auto - 30 in.
Plunge:	-90 degrees	Drilling Method:	Hollow Stem Auger	Hammer Efficiency: 86.4%
Weather:	Not Available	Auger Diameter:	8 in. O.D.	Hammer Cal. Date: 5/14/2019

Depth (feet)	Graphical Log	FIELD EXPLORATION					LABORATORY RESULTS						
		Surface Condition: Grass & Weeds	Sample Type	Blow Counts(BC)= Uncorr. Blows/6 in. Pocket Pen(PP)= tsf	Recovery (NR=No Recovery)	N ₆₀ Value	Water Content (%)	Dry Unit Wt. (pcf)	Passing #4 (%)	Passing #200 (%)	Liquid Limit	Plasticity Index (NP=NonPlastic)	Additional Tests/ Remarks
		Lithologic Description											
		SILT (ML): medium dense, light brown, moist, fine-grained, non-plastic to low plasticity, pinholes		BC=9 11 12		33	5.1	100.3					Direct Shear= Peak Cohesion: 133.33 psf Peak Friction Angle: 30.5° Peak Tangent Angle: 0.57
5		Silty SAND (SM): medium dense, light brown, moist, low plasticity, weakly to moderately cemented, pinholes		BC=9 11 15		37							
		Sandy SILT (ML): very stiff, brown, moist, fine-grained, low plasticity		BC=18 21 17		55	2.4	99.5					
10		stiff		BC=4 4 5		13							
15		Sandy Lean CLAY (CL): medium stiff, dark brown, moist, low to medium plasticity		BC=3 4 8		17	20.6	104.6					
20		stiff, gray		BC=8 8 9		24							
25				BC=7 10 25		50							
30		The boring was terminated at approximately 26.5 ft. below ground surface. The boring was backfilled with auger cuttings on April 20, 2020.					<u>GROUNDWATER LEVEL INFORMATION:</u> Groundwater was not observed during drilling or after completion. <u>GENERAL NOTES:</u>						

PROJECT NO.:
20210045.001A

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DATE: 6/4/2020

BORING LOG B-8

PROPOSED HANFORD PLACE
MEDICAL & MIXED-USE PROPERTY
HANFORD, CALIFORNIA

APPENDIX

A-10

PAGE: 1 of 1

Date Begin - End:	<u>4/20/2020</u>	Drilling Company:	<u>Moore Twining</u>	BORING LOG B-9
Logged By:	<u>J. Green</u>	Drill Crew:	<u></u>	
Hor.-Vert. Datum:	<u>Not Available</u>	Drilling Equipment:	<u>CME-75</u>	Hammer Type - Drop: <u>140 lb. Auto - 30 in.</u>
Plunge:	<u>-90 degrees</u>	Drilling Method:	<u>Hollow Stem Auger</u>	Hammer Efficiency: <u>86.4%</u>
Weather:	<u>Not Available</u>	Auger Diameter:	<u>8 in. O.D.</u>	Hammer Cal. Date: <u>5/14/2019</u>

Depth (feet)	Graphical Log	FIELD EXPLORATION				LABORATORY RESULTS							Additional Tests/ Remarks
		Surface Condition: Grass & Weeds	Sample Type	Blow Counts(BC)= Uncorr. Blows/6 in. Pocket Pen(PP)= tsf	Recovery (NR=No Recovery)	N ₆₀ Value	Water Content (%)	Dry Unit Wt. (pcf)	Passing #4 (%)	Passing #200 (%)	Liquid Limit	Plasticity Index (NP=NonPlastic)	
		Sandy SILT (ML): very stiff, grayish brown, moist, non-plastic											
			BC=9 12 17			42	7.1	92.0		57			Consolidation
5		Silty SAND (SM): medium dense, grayish brown, moist, fine-grained, non-plastic	BC=7 7 9			23							
10		brown	BC=7 18 23			59							
15		reddish brown	BC=6 6 11			24							
20		Poorly Graded SAND (SP): dense, gray, moist, fine-grained, non-plastic	BC=25 26 28			78							
25		The boring was terminated at approximately 21.5 ft. below ground surface. The boring was backfilled with auger cuttings on April 20, 2020.						GROUNDWATER LEVEL INFORMATION: Groundwater was not observed during drilling or after completion. GENERAL NOTES:					
30													

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BORING LOG B-9

PROPOSED HANFORD PLACE
MEDICAL & MIXED-USE PROPERTY
HANFORD, CALIFORNIA

APPENDIX

A-11

PAGE: 1 of 1

APPENDIX B

Laboratory Summary	B-1/B-2
Sieve Analysis	B-3
Atterberg Limits	B-4
Direct Shear	B-5/B-6
Collapse Potential	B-7/B-10
Resistance Value	B-11/B-17

Exploration ID	Depth (ft.)	Sample Description	Water Content (%)	Dry Unit Wt. (pcf)	Sieve Analysis (%)			Atterberg Limits			Additional Tests
					Passing 3/4"	Passing #4	Passing #200	Liquid Limit	Plastic Limit	Plasticity Index	
B-1	3.0	SILTY SAND (SM)	2.4	108.6							
B-1	5.0	SANDY SILT (ML)	4.8	88.1							
B-1	6.0	SANDY SILT (ML)	4.7	106.4							Consolidation
B-1	17.0	SANDY SILT (ML)	10.9	107.9							
B-2	2.0	SANDY SILT (ML)					60				
B-2	10.0	SILTY SAND (SM)	6.5	98.8							
B-3	1.0	SILTY SAND (SM)	6.9	96.8							Consolidation
B-3	1.5	SILTY SAND (SM)									Direct Shear=
											Peak Cohesion: 740 psf
											Peak Friction Angle: 27.0°
											Peak Tangent Angle: 0.52
B-3	5.0	SILTY SAND (SM)	3.2	96.0							
B-4	5.0	SILTY SAND (SM)	3.5	95.5							
B-5	3.0	SILTY SAND (SM)	4.8	101.5							
B-5	5.0	SILTY SAND (SM)	6.6	94.9							
B-6	0.0 - 0.5	SILTY SAND (SM)									ASTM D1557 Method A=
											Maximum Dry Unit Weight: 121.8 pcf
											Optimum Water Content: 9.8%
B-6	2.0	SILTY SAND (SM)	5.0	97.3							
B-6	7.5	SILTY SAND (SM)	3.1	95.9							
B-6	20.0	SANDY SILT (ML)					70				
B-6	25.0	POORLY GRADED SAND (SP)	1.9	100.9							
B-6	30.0	SILTY CLAY (CL-ML)						24	17	7	
B-6	40.0	SANDY SILTY CLAY (CL-ML)						26	19	7	
B-6	45.0	SANDY SILTY CLAY (CL-ML)	2.9	99.6							
B-7	0.0 - 2.0	SANDY SILT (ML)									ASTM D1557 Method A=
											Maximum Dry Unit Weight: 124.8 pcf
											Optimum Water Content: 8.5%

Refer to the Geotechnical Evaluation Report or the supplemental plates for the method used for the testing performed above.
NP = NonPlastic



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LABORATORY TEST RESULT SUMMARY

PROPOSED HANFORD PLACE
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HANFORD, CALIFORNIA

APPENDIX

B-1

Exploration ID	Depth (ft.)	Sample Description	Water Content (%)	Dry Unit Wt. (pcf)	Sieve Analysis (%)			Atterberg Limits			Additional Tests
					Passing 3/4"	Passing #4	Passing #200	Liquid Limit	Plastic Limit	Plasticity Index	
B-7	2.0	SILTY SAND (SM)	4.5	111.0							
B-7	6.0	SILTY SAND (SM)	6.3	94.6							
B-7	7.5	SILTY SAND (SM)	7.9	97.8							Consolidation
B-7	30.0	SILTY SAND (SM)	11.6	112.9							
B-7	50.0	SILTY CLAY (CL-ML)	28.3								
B-8	2.0	SILT (ML)	5.1	100.3							Direct Shear=
											Peak Cohesion: 133.33 psf
											Peak Friction Angle: 30.5°
											Peak Tangent Angle: 0.57
B-8	7.5	SANDY SILT (ML)	2.4	99.5							
B-8	15.0	SANDY LEAN CLAY (CL)	20.6	104.6							
B-9	2.0	SANDY SILT (ML)	7.1	92.0			57				Consolidation
RV-1	0.0 - 3.0	SILTY SAND (SM)									R-Value= 70
RV-2	0.0 - 3.0	SILTY SAND (SM)									R-Value= 63
RV-3	0.0 - 3.0	SANDY SILT (ML)									R-Value= 41
RV-4	0.0 - 3.0	SANDY SILT (ML)									R-Value= 53
RV-5	0.0 - 3.0	SILT (ML)									R-Value= 14
RV-6	0.0 - 3.0	SILTY SAND (SM)									R-Value= 62
RV-7	0.0 - 3.0	SANDY SILT (ML)									R-Value= 21

Refer to the Geotechnical Evaluation Report or the supplemental plates for the method used for the testing performed above.
NP = NonPlastic



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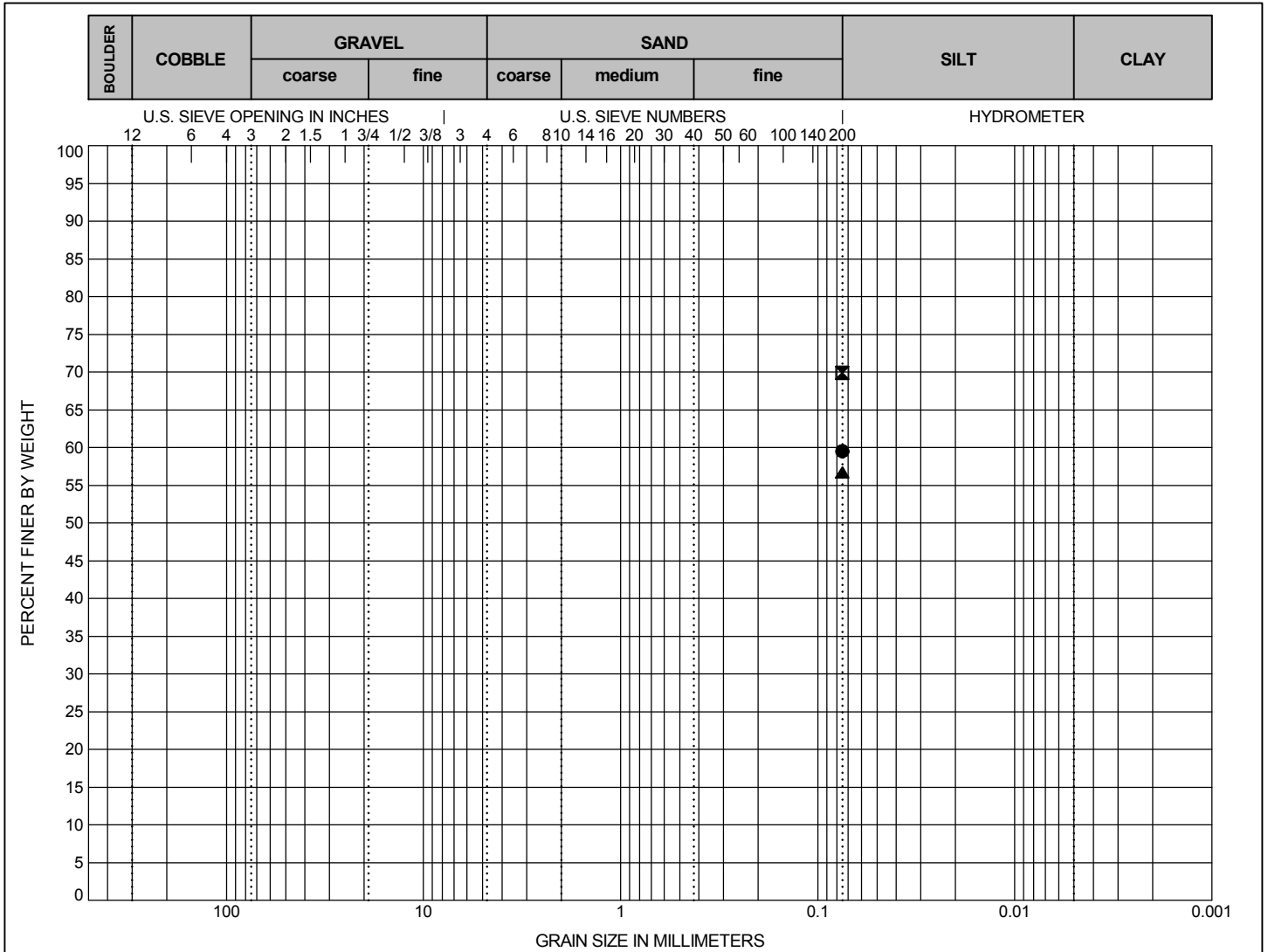
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LABORATORY TEST RESULT SUMMARY

PROPOSED HANFORD PLACE
MEDICAL & MIXED-USE PROPERTY
HANFORD, CALIFORNIA

APPENDIX

B-2

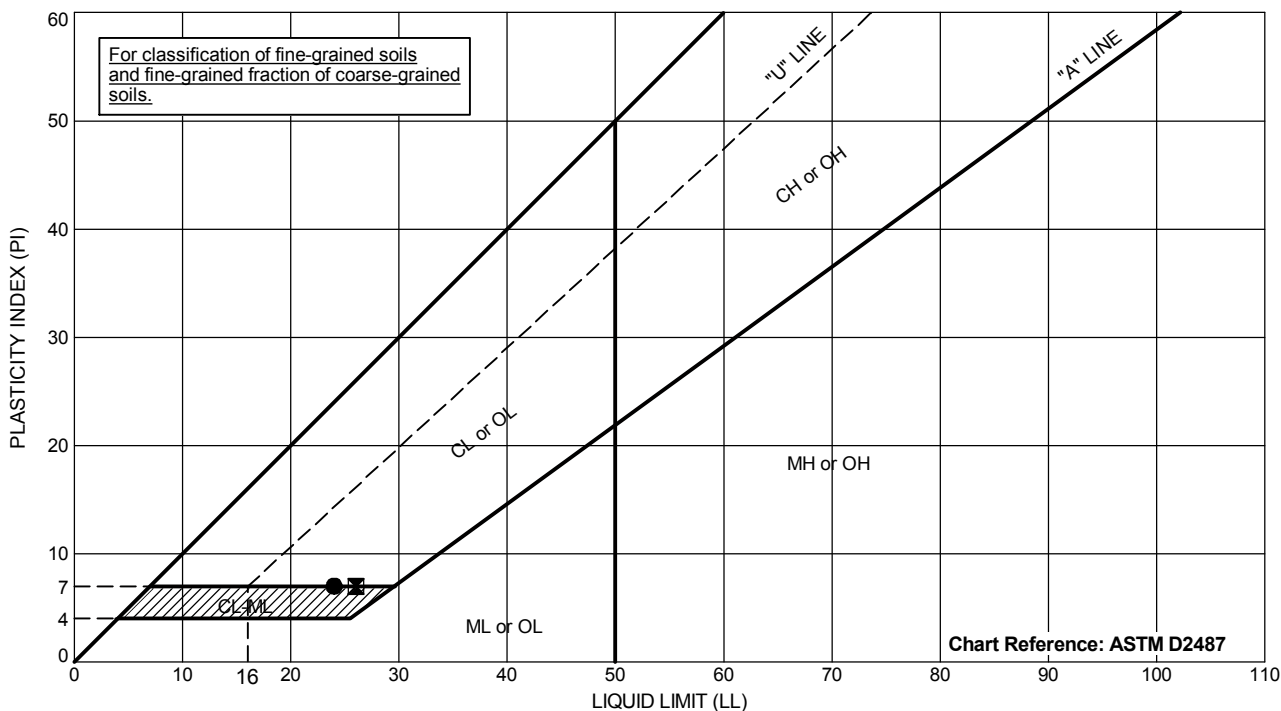


Exploration ID		Depth (ft.)	Sample Description								LL	PL	PI
●	B-2	2	SANDY SILT (ML)								NM	NM	NM
☒	B-6	20	SANDY SILT (ML)								NM	NM	NM
▲	B-9	2	SANDY SILT (ML)								NM	NM	NM
Exploration ID		Depth (ft.)	D ₁₀₀	D ₆₀	D ₃₀	D ₁₀	Cc	Cu	Passing 3/4"	Passing #4	Passing #200	%Silt	%Clay
●	B-2	2	0.075	NM	NM	NM	NM	NM			60	NM	NM
☒	B-6	20	0.075	NM	NM	NM	NM	NM			70	NM	NM
▲	B-9	2	0.075	NM	NM	NM	NM	NM			57	NM	NM

Sieve Analysis and Hydrometer Analysis testing performed in general accordance with ASTM D6913 (Sieve Analysis) and ASTM D7928 (Hydrometer Analysis).
 NP = Nonplastic
 NM = Not Measured

Coefficients of Uniformity - $C_u = D_{60} / D_{10}$
 Coefficients of Curvature - $C_c = (D_{30})^2 / D_{60} D_{10}$
 D₆₀ = Grain diameter at 60% passing
 D₃₀ = Grain diameter at 30% passing
 D₁₀ = Grain diameter at 10% passing

	PROJECT NO.: 20210045.001A	SIEVE ANALYSIS	APPENDIX B-3
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PROJECT NUMBER: 20210045.001A
 GINT TEMPLATE: E:\KLF_STANDARD_GINT_LIBRARY_2021.GLB [KLF_ATTERBERG (ASTM)]

Exploration ID	Depth (ft.)	Sample Description	Passing #200	LL	PL	PI
● B-6	30	SILTY CLAY (CL-ML)	NM	24	17	7
☒ B-6	40	SANDY SILTY CLAY (CL-ML)	NM	26	19	7

Testing performed in general accordance with ASTM D4318.
 NP = Nonplastic
 NM = Not Measured



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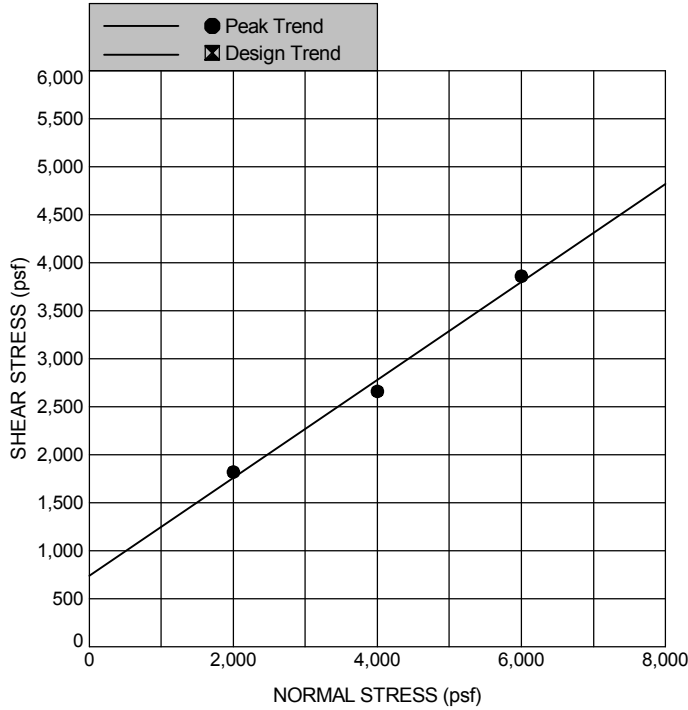
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ATTERBERG LIMITS

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 MEDICAL & MIXED-USE PROPERTY
 HANFORD, CALIFORNIA

APPENDIX

B-4



Exploration ID		Depth (ft.)		Sample Description			
B-3		1.5		SILTY SAND (SM)			
Passing #4 (%)		Passing #200 (%)		Liquid Limit	Plastic Limit	Plasticity Index	Specific Gravity
NM		NM		NM	NM	NM	2.65
Initial	Specimen No.	Water Content (%)	Dry Unit Weight (pcf)	Saturation (%)	Void Ratio	Area (in ²)	Height (in)
	1	6.1	94.7	21.6	0.746	4.60	0.96
	2	6.2	95.6	22.5	0.730	4.60	0.96
	3	7.0	95.5	25.5	0.731	4.60	0.96
At Test	Specimen No.	Water Content (%)	Dry Unit Weight (pcf)	Saturation (%)	Void Ratio	Area (in ²)	Height (in)
	1	25.3	105.5	26.7	0.621	4.60	0.89
	2	23.8	111.4	26.5	0.559	4.60	0.87
	3	22.7	111.7	25.4	0.539	4.60	0.85
Specimen No.	Peak Shear Stress (psf)		Design Shear Stress (psf)		Horizontal Displacement (in)	Normal Stress (psf)	Strain Rate (in/min)
1	1820				0.2600	2000	0.002
2	2660				0.4000	4000	0.002
3	3860				0.2600	6000	0.002
Results	Cohesion (psf)			Friction ϕ (deg)		Tan δ (deg)	
Peak	740			27.02		0.52	
Design							

Testing performed in general accordance with ASTM D3080.
 NP = Nonplastic
 NM = Not Measured



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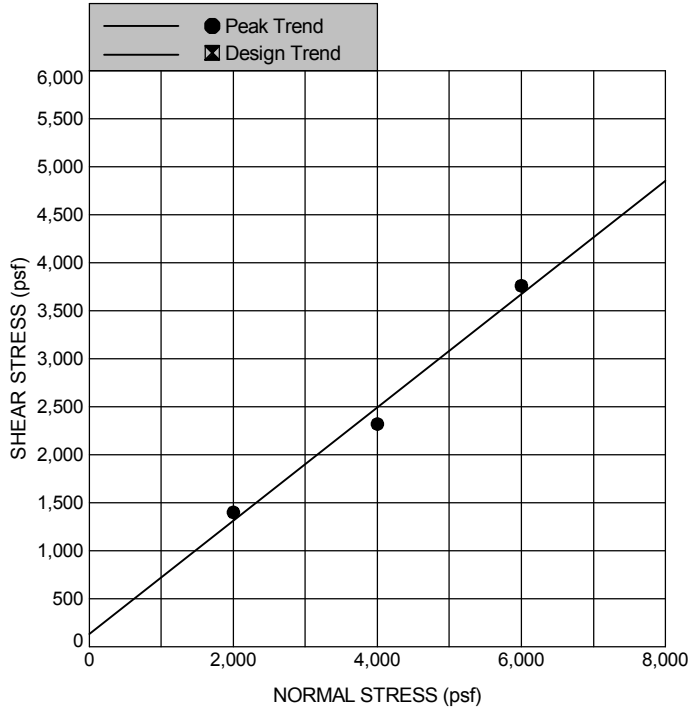
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DIRECT SHEAR

PROPOSED HANFORD PLACE
MEDICAL & MIXED-USE PROPERTY
HANFORD, CALIFORNIA

APPENDIX

B-5



Exploration ID		Depth (ft.)	Sample Description				
B-8		2	SILT (ML)				
Passing #4 (%)		Passing #200 (%)		Liquid Limit	Plastic Limit	Plasticity Index	Specific Gravity
NM		NM		NM	NM	NM	2.65
Initial	Specimen No.	Water Content (%)	Dry Unit Weight (pcf)	Saturation (%)	Void Ratio	Area (in ²)	Height (in)
	1	6.2	98.6	24.4	0.677	4.60	0.96
	2	5.4	96.6	20.3	0.711	4.60	0.96
	3	5.6	101.3	23.3	0.633	4.60	0.96
At Test	Specimen No.	Water Content (%)	Dry Unit Weight (pcf)	Saturation (%)	Void Ratio	Area (in ²)	Height (in)
	1	22.4	108.6		0.591	4.60	0.97
	2	22.2	112.9		0.530	4.60	0.86
	3	20.9	116.3		0.497	4.60	0.88
Specimen No.	Peak Shear Stress (psf)		Design Shear Stress (psf)	Horizontal Displacement (in)	Normal Stress (psf)	Strain Rate (in/min)	
1	1400			0.4000	2000	0.002	
2	2320			0.4000	4000	0.002	
3	3760			0.3800	6000	0.002	
Results	Cohesion (psf)			Friction ϕ (deg)		Tan δ (deg)	
Peak	133.33			30.54		0.57	
Design							

Testing performed in general accordance with ASTM D3080.
 NP = Nonplastic
 NM = Not Measured



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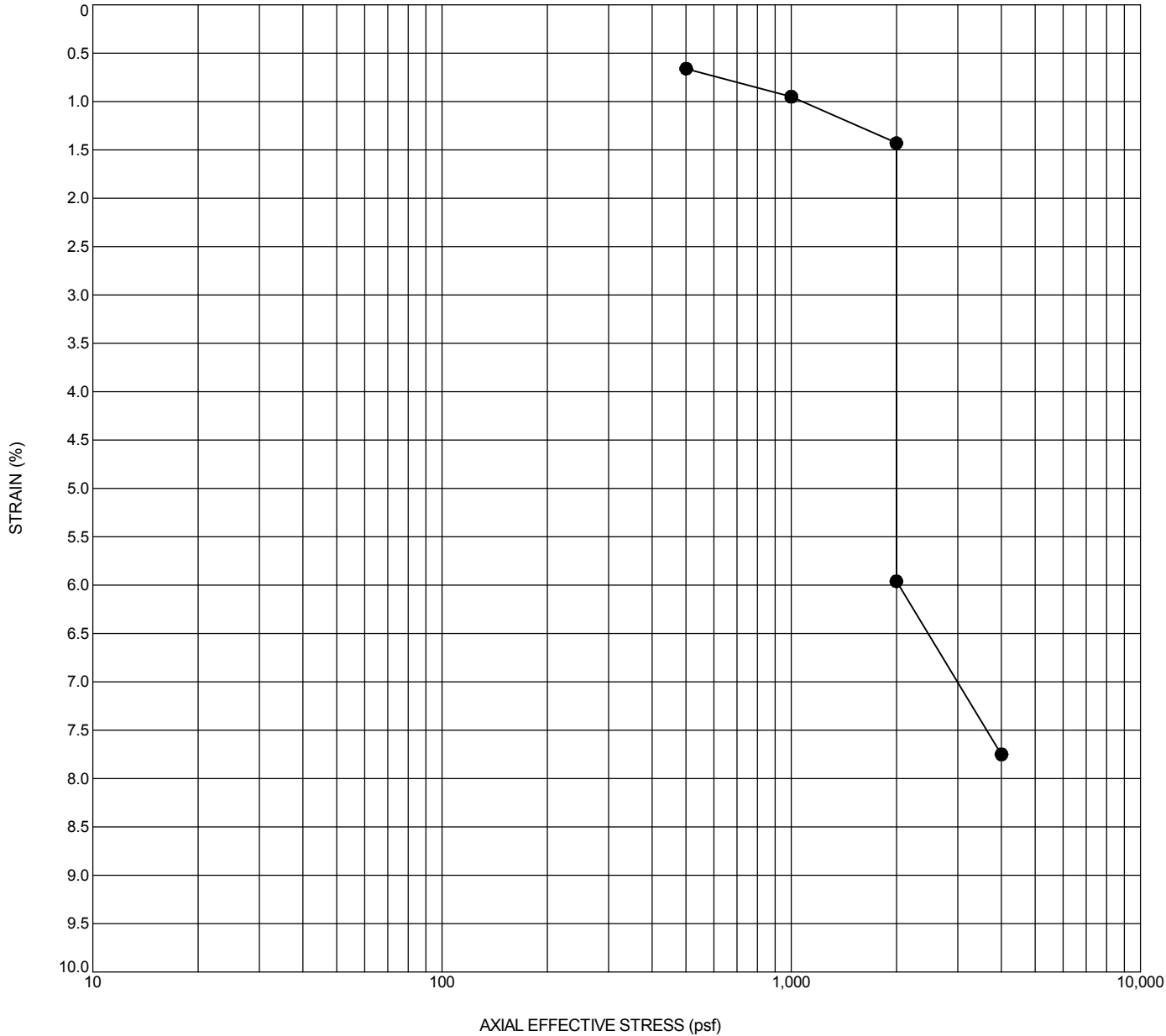
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DIRECT SHEAR

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 MEDICAL & MIXED-USE PROPERTY
 HANFORD, CALIFORNIA

APPENDIX

B-6



Exploration ID		Depth (ft.)	Sample Description										
B-1		6	SANDY SILT (ML)										
	Sample Condition Type	Sample Diameter (mm)	Height (mm)	Water Content (%)	Dry Unit Wt. (pcf)	Wet Unit Wt. (pcf)	Saturation (%)	Void Ratio	Specific Gravity (Assumed)	Passing #200	LL	PL	PI
Initial		2.4	25.4	4.7	106.4	111.4	4.7	0.880	2.65	NM	NM	NM	NM
Final		NM	0.9	20.7	111.3	134.3	20.7	0.730	2.65				

Testing performed in general accordance with ASTM D2435 Method A.
NP = Nonplastic
NM = Not Measured



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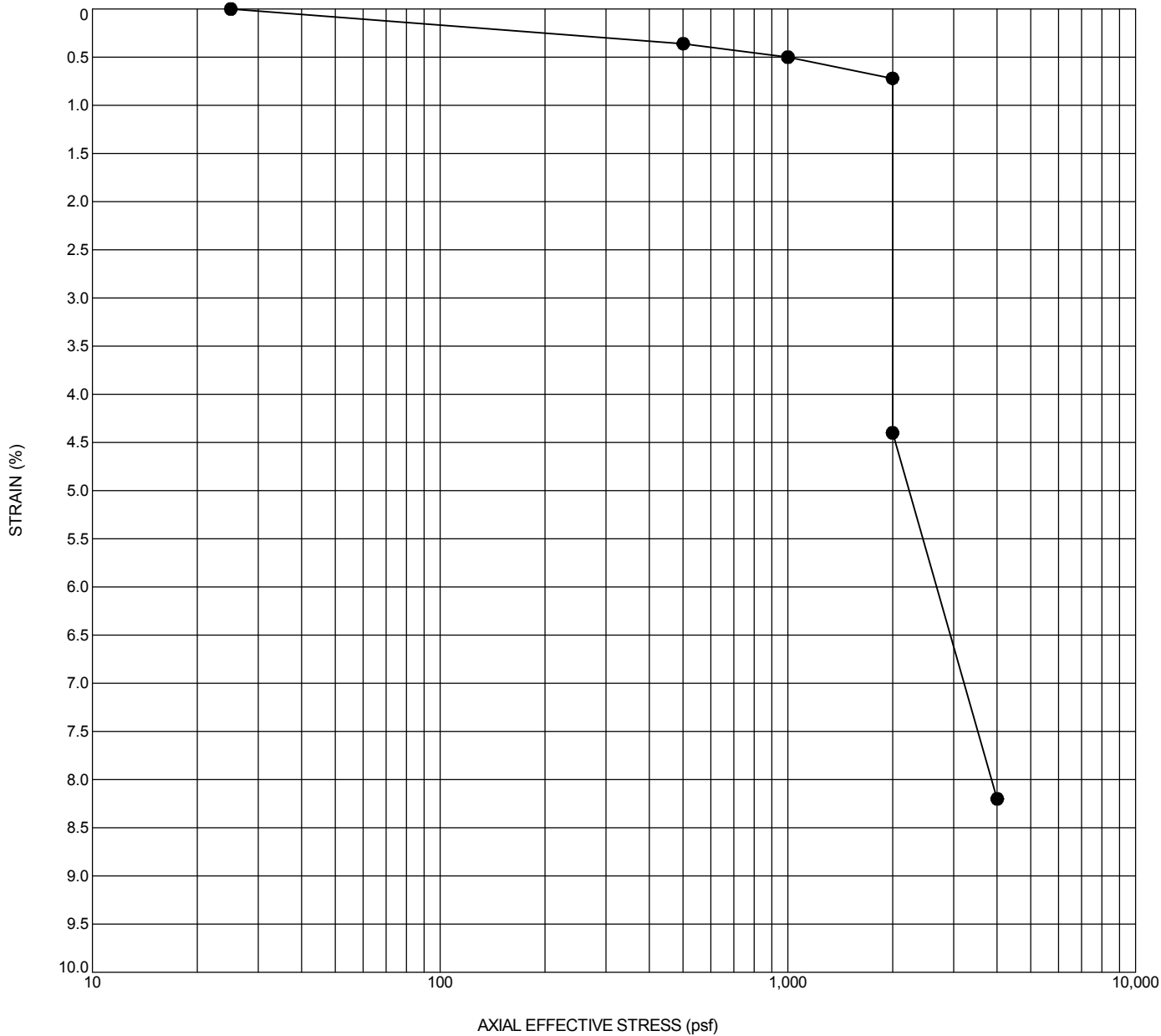
ONE DIMENSIONAL CONSOLIDATION TEST

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MEDICAL & MIXED-USE PROPERTY
HANFORD, CALIFORNIA

APPENDIX

B-7

PAGE: 1 of 2



Exploration ID		Depth (ft.)		Sample Description									
B-3		1		SILTY SAND (SM)									
	Sample Condition Type	Sample Diameter (mm)	Height (mm)	Water Content (%)	Dry Unit Wt. (pcf)	Wet Unit Wt. (pcf)	Saturation (%)	Void Ratio	Specific Gravity (Assumed)	Passing #200	LL	PL	PI
Initial		61.5	25.4	6.9	96.8	103.4	25.7	0.710	2.65	NM	NM	NM	NM
Final		61.5	25.4	21.2	104.3	126.4	97.0	0.570	2.65				

Testing performed in general accordance with ASTM D2435 Method A.
NP = Nonplastic
NM = Not Measured



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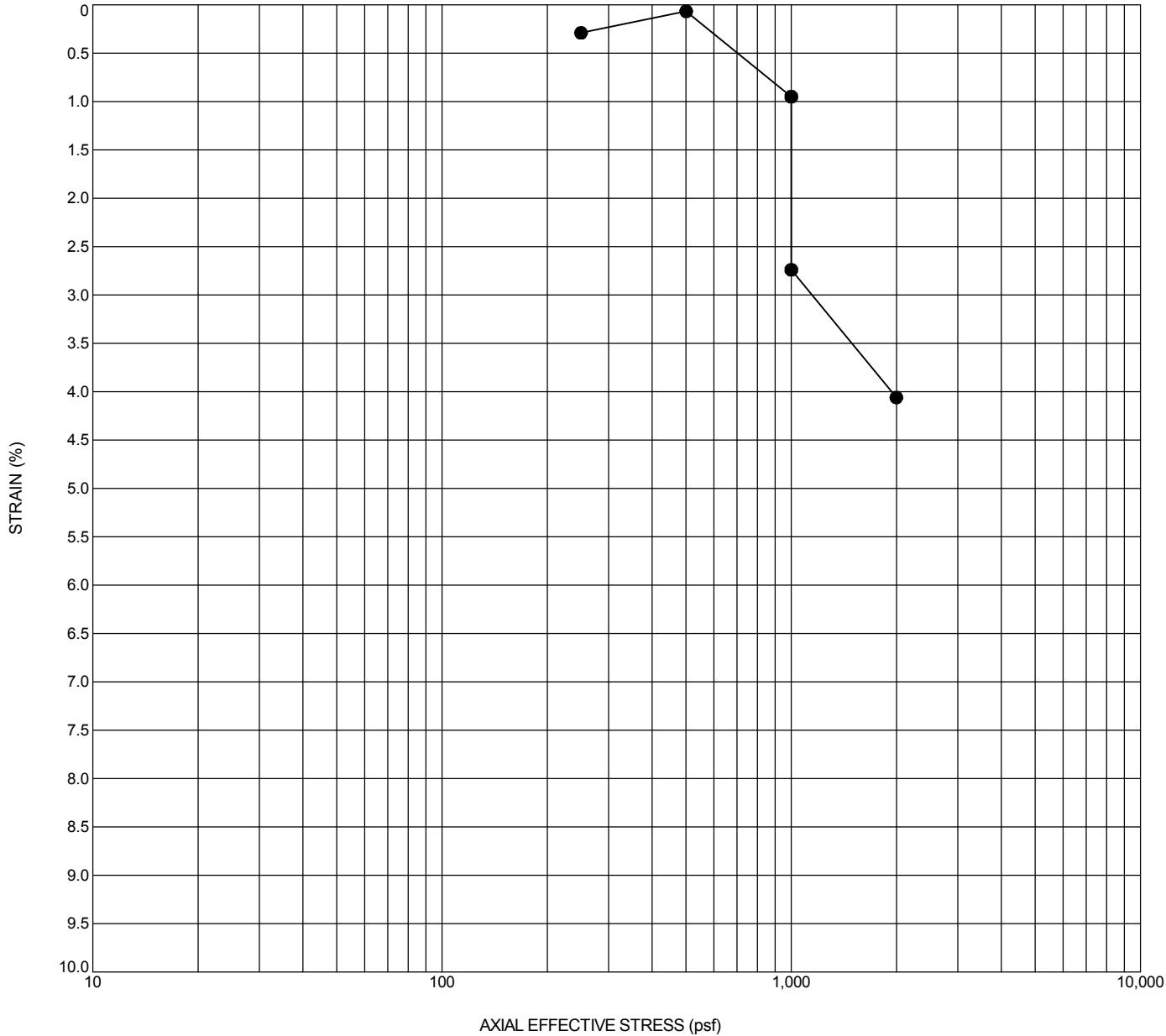
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MEDICAL & MIXED-USE PROPERTY
HANFORD, CALIFORNIA

APPENDIX

B-8

PAGE: 1 of 2



Exploration ID		Depth (ft.)	Sample Description										
B-7		7.5	SILTY SAND (SM)										
	Sample Condition Type	Sample Diameter (mm)	Height (mm)	Water Content (%)	Dry Unit Wt. (pcf)	Wet Unit Wt. (pcf)	Saturation (%)	Void Ratio	Specific Gravity	Passing #200	LL	PL	PI
Initial		NM	NM	7.9	97.8	105.5	NM	NM	NM	NM	NM	NM	NM
Final		NM	NM	25.9	101.9	128.3	NM	NM	NM				

Testing performed in general accordance with ASTM D2435 Method A.
NP = Nonplastic
NM = Not Measured



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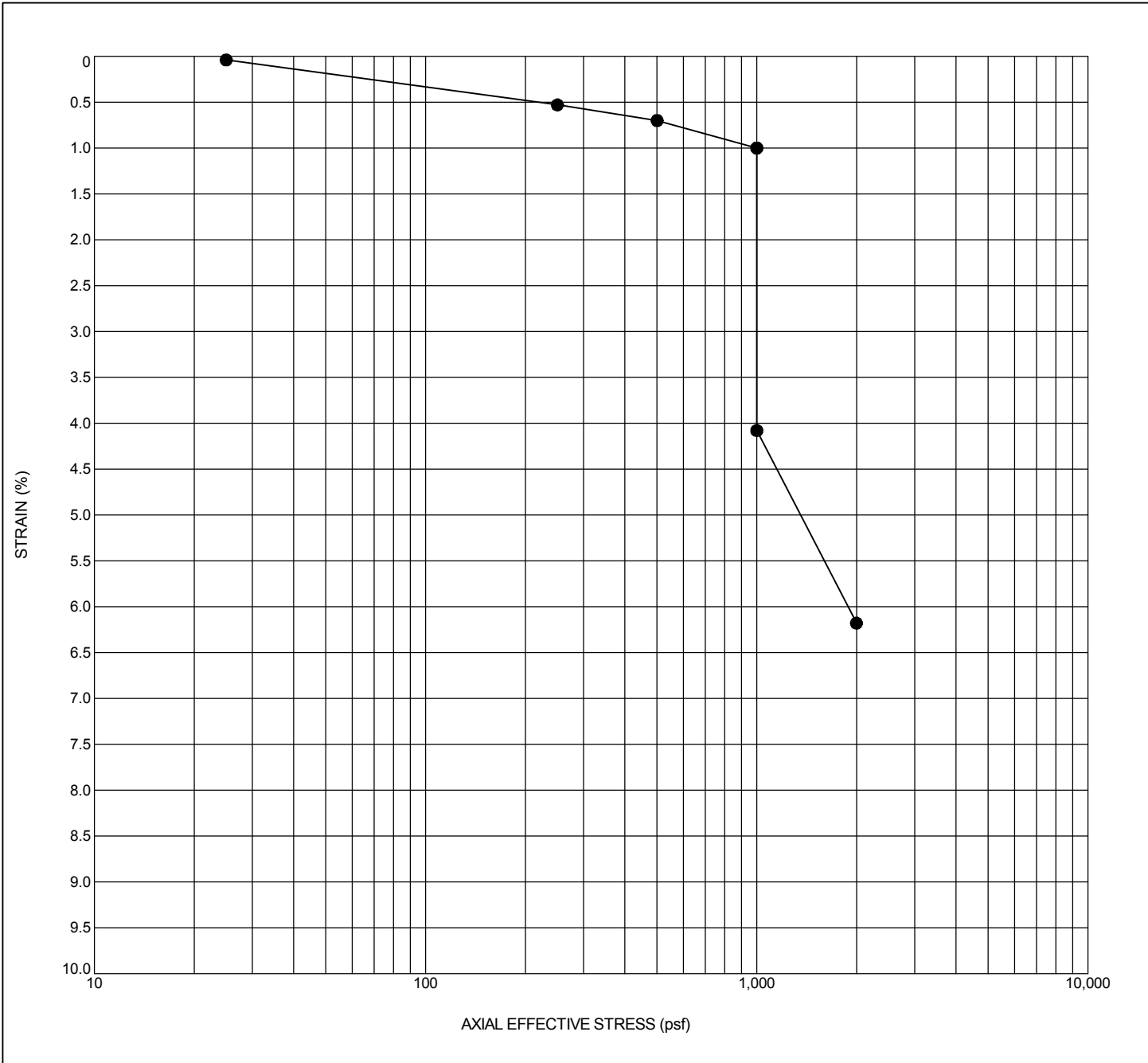
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ONE DIMENSIONAL
CONSOLIDATION TEST

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HANFORD, CALIFORNIA

APPENDIX

B-9

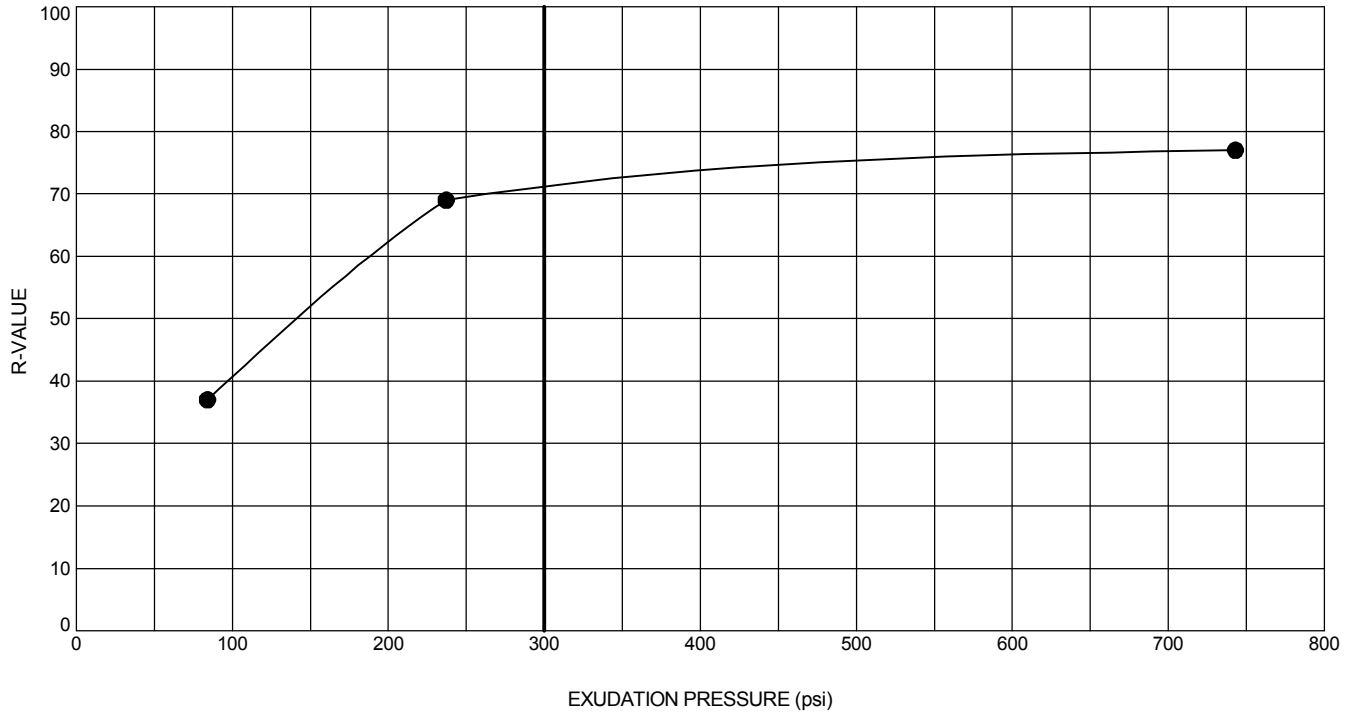


Exploration ID		Depth (ft.)	Sample Description										
B-9		2	SANDY SILT (ML)										
	Sample Condition Type	Sample Diameter (mm)	Height (mm)	Water Content (%)	Dry Unit Wt. (pcf)	Wet Unit Wt. (pcf)	Saturation (%)	Void Ratio	Specific Gravity (Assumed)	Passing #200	LL	PL	PI
Initial		61.5	25.4	7.1	92.0	98.5	23.6	0.800	2.65	57	NM	NM	NM
Final		61.5	23.9	24.3	98.5	122.4	94.1	0.690	2.65				

Testing performed in general accordance with ASTM D2435 Method A.
 NP = Nonplastic
 NM = Not Measured

	PROJECT NO.: 20210045.001A	ONE DIMENSIONAL CONSOLIDATION TEST	APPENDIX
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PAGE: 1 of 2



Exploration ID	Depth (ft.)	Sample Description			R-Value @ 300 psi Exudation Pressure
RV-1	0 - 3	SILTY SAND (SM)			70
Specimen No.	Moisture at Time of Test (%)	Dry Unit Weight (pcf)	Expansion Pressure (psi)	Exudation Pressure (psi)	Corrected Resistance Value
1	10.9	118.3	229	743	77
2	13.1	116.3	22	84	37
3	12.2	116.1	134	237	69

Testing performed in general accordance with ASTM D2844.



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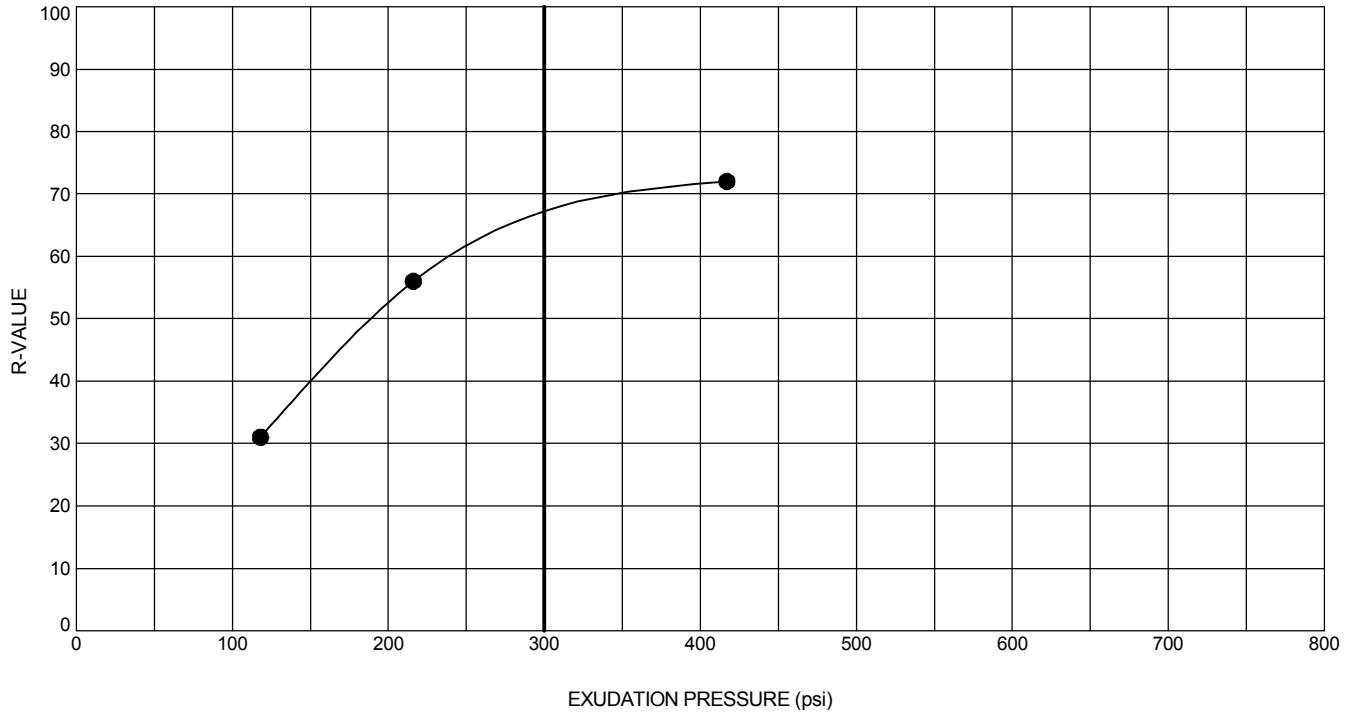
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R-VALUE

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 HANFORD, CALIFORNIA

APPENDIX

B-11



Exploration ID	Depth (ft.)	Sample Description			R-Value @ 300 psi Exudation Pressure
RV-2	0 - 3	SILTY SAND (SM)			63
Specimen No.	Moisture at Time of Test (%)	Dry Unit Weight (pcf)	Expansion Pressure (psi)	Exudation Pressure (psi)	Corrected Resistance Value
1	10.3	121.4	178	417	72
2	12.0	119.5	4	118	31
3	11.1	120.7	48	216	56

Testing performed in general accordance with ASTM D2844.



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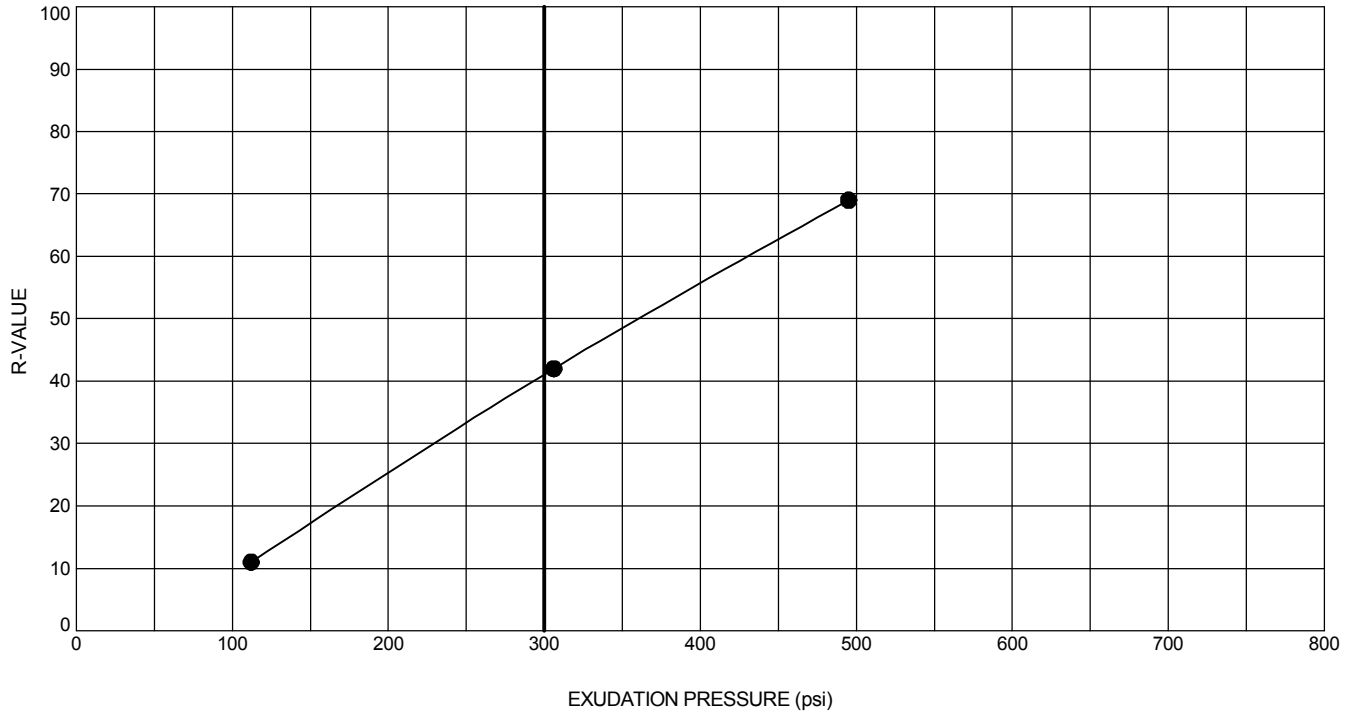
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R-VALUE

PROPOSED HANFORD PLACE
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 HANFORD, CALIFORNIA

APPENDIX

B-12



Exploration ID	Depth (ft.)	Sample Description			R-Value @ 300 psi Exudation Pressure
RV-3	0 - 3	SANDY SILT (ML)			41
Specimen No.	Moisture at Time of Test (%)	Dry Unit Weight (pcf)	Expansion Pressure (psi)	Exudation Pressure (psi)	Corrected Resistance Value
1	13.7	115.8	26	112	11
2	12.0	122.1	186	306	42
3	11.1	122.5	325	495	69

Testing performed in general accordance with ASTM D2844.



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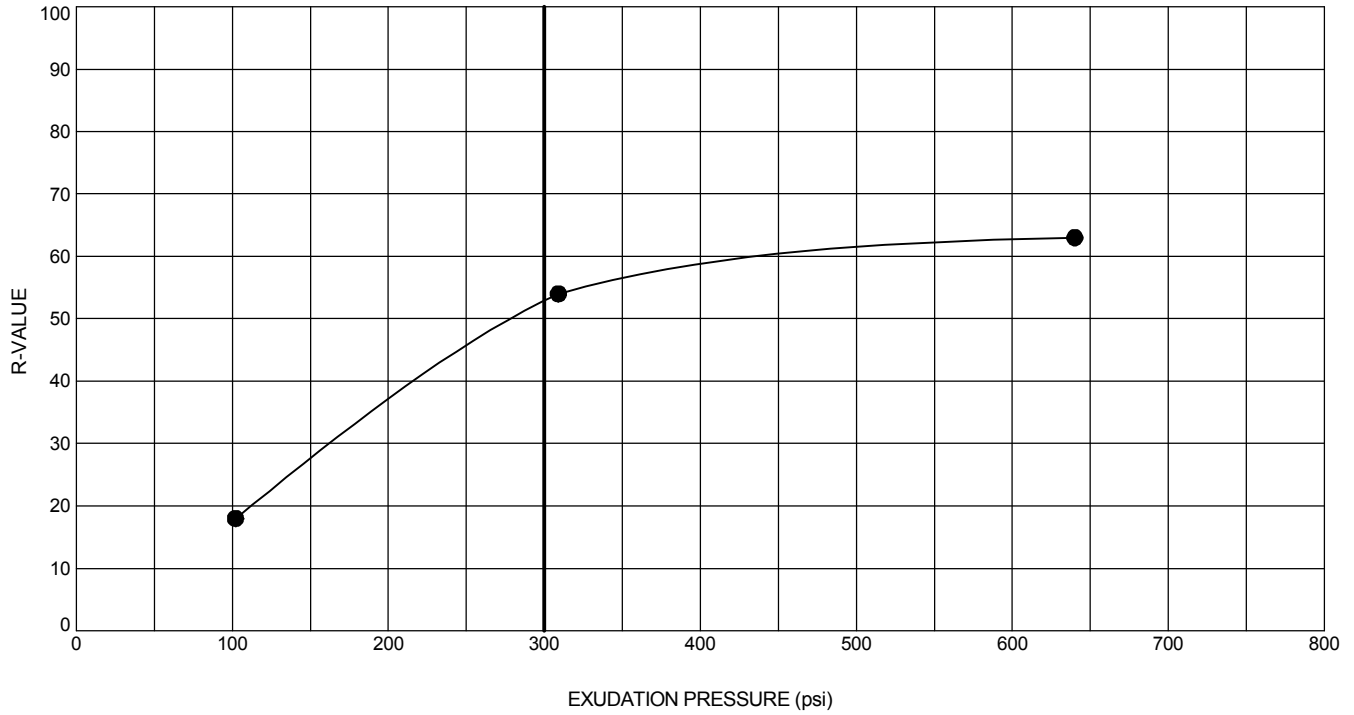
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R-VALUE

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 HANFORD, CALIFORNIA

APPENDIX

B-13



Exploration ID	Depth (ft.)	Sample Description			R-Value @ 300 psi Exudation Pressure
RV-4	0 - 3	SANDY SILT (ML)			53
Specimen No.	Moisture at Time of Test (%)	Dry Unit Weight (pcf)	Expansion Pressure (psi)	Exudation Pressure (psi)	Corrected Resistance Value
1	11.8	118.6	450	309	54
2	13.6	118.1	147	102	18
3	11.4	121.4	688	640	63

Testing performed in general accordance with ASTM D2844.



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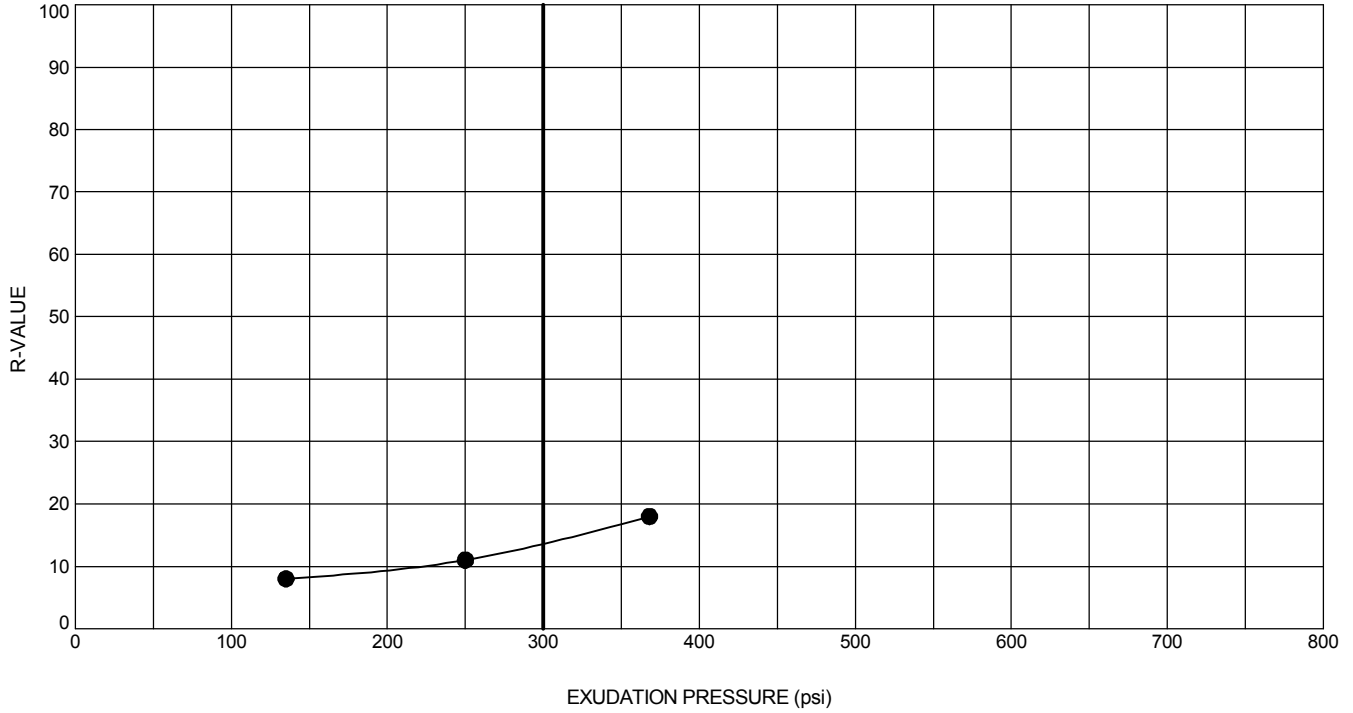
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R-VALUE

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APPENDIX

B-14



Exploration ID	Depth (ft.)	Sample Description			R-Value @ 300 psi Exudation Pressure
RV-5	0 - 3	SILT (ML)			14
Specimen No.	Moisture at Time of Test (%)	Dry Unit Weight (pcf)	Expansion Pressure (psi)	Exudation Pressure (psi)	Corrected Resistance Value
1	13.8	117.3	208	368	18
2	14.7	114.5	121	250	11
3	15.5	112.6	61	135	8

Testing performed in general accordance with ASTM D2844.



PROJECT NO.:
20210045.001A

DRAWN BY: AA

CHECKED BY: ES

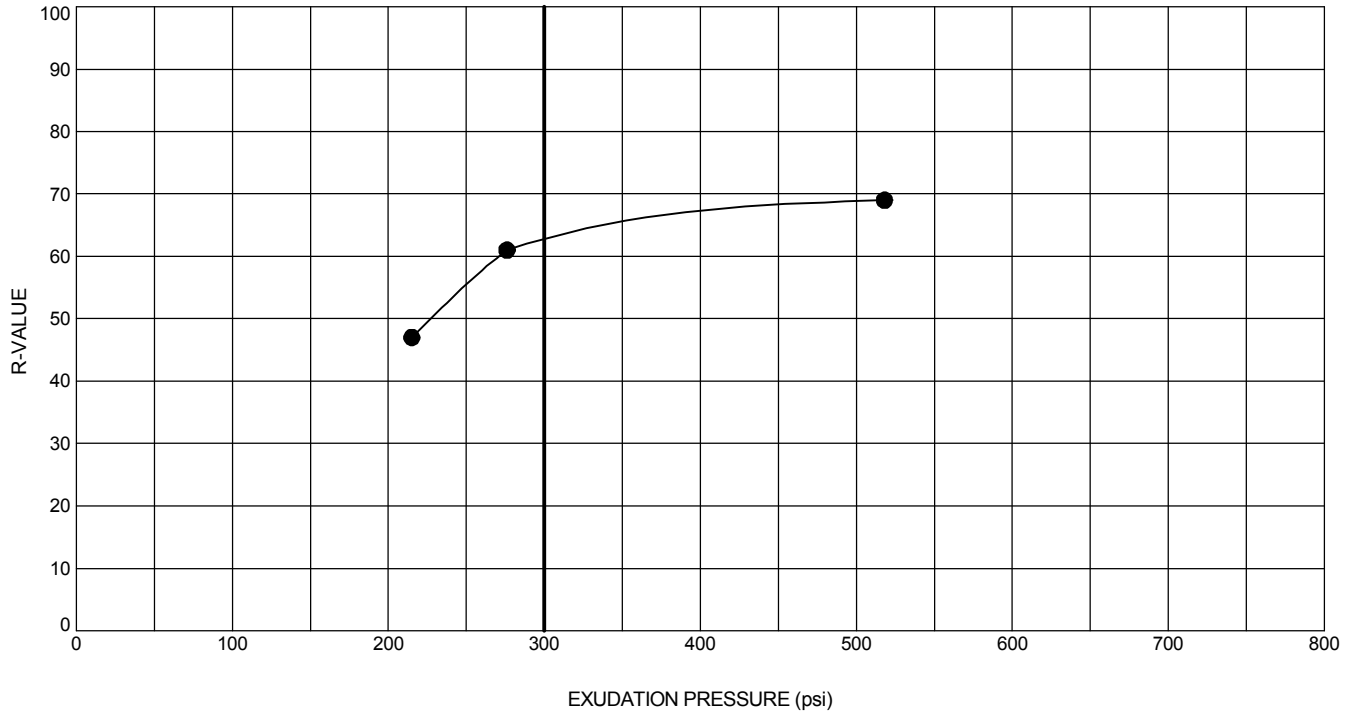
DATE: 6/4/2020

R-VALUE

PROPOSED HANFORD PLACE
 MEDICAL & MIXED-USE PROPERTY
 HANFORD, CALIFORNIA

APPENDIX

B-15



Exploration ID	Depth (ft.)	Sample Description			R-Value @ 300 psi Exudation Pressure
RV-6	0 - 3	SILTY SAND (SM)			62
Specimen No.	Moisture at Time of Test (%)	Dry Unit Weight (pcf)	Expansion Pressure (psi)	Exudation Pressure (psi)	Corrected Resistance Value
1	12.6	116.4	178	215	47
2	11.8	117.5	368	518	69
3	12.2	117.0	255	276	61

Testing performed in general accordance with ASTM D2844.



PROJECT NO.:
20210045.001A

DRAWN BY: AA

CHECKED BY: ES

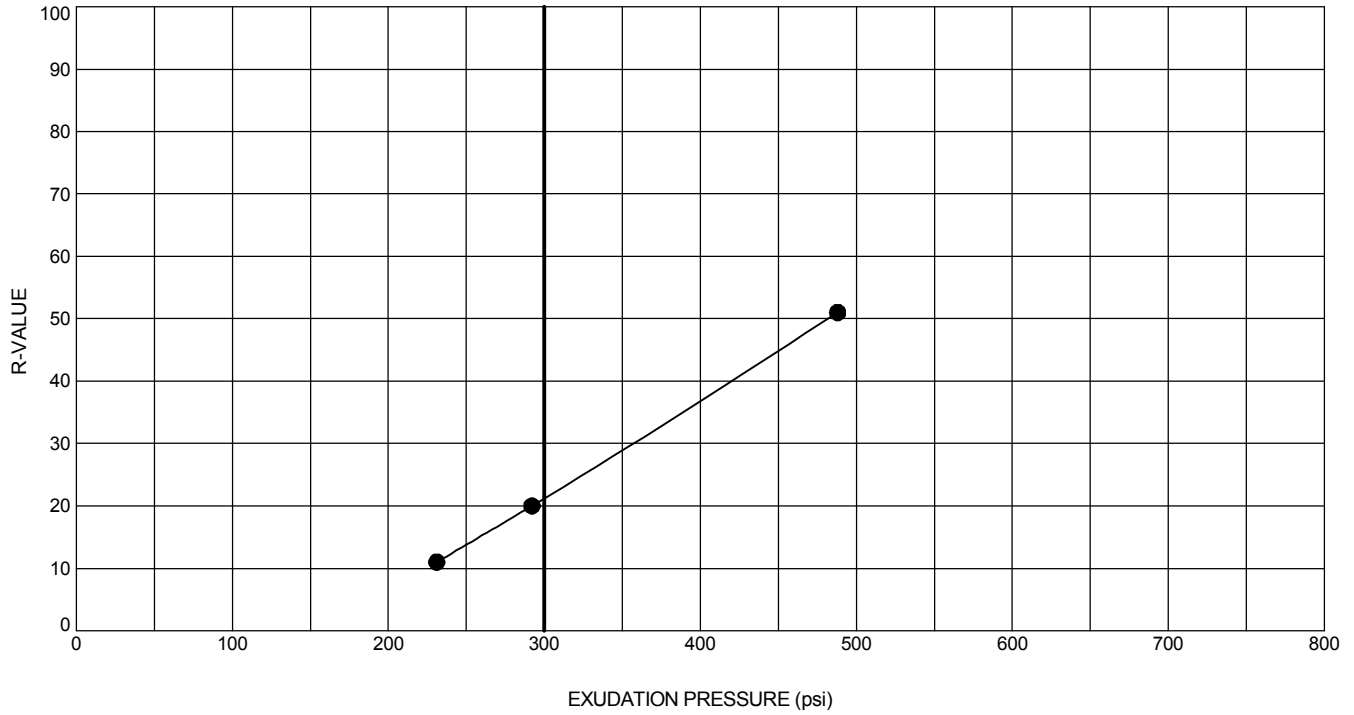
DATE: 6/4/2020

R-VALUE

PROPOSED HANFORD PLACE
 MEDICAL & MIXED-USE PROPERTY
 HANFORD, CALIFORNIA

APPENDIX

B-16



Exploration ID	Depth (ft.)	Sample Description			R-Value @ 300 psi Exudation Pressure
RV-7	0 - 3	SANDY SILT (ML)			21
Specimen No.	Moisture at Time of Test (%)	Dry Unit Weight (pcf)	Expansion Pressure (psi)	Exudation Pressure (psi)	Corrected Resistance Value
1	14.0	116.8	104	292	20
2	14.8	113.4	39	231	11
3	13.1	115.2	299	488	51

Testing performed in general accordance with ASTM D2844.



PROJECT NO.:
20210045.001A

DRAWN BY: AA

CHECKED BY: ES

DATE: 6/4/2020

R-VALUE

PROPOSED HANFORD PLACE
 MEDICAL & MIXED-USE PROPERTY
 HANFORD, CALIFORNIA

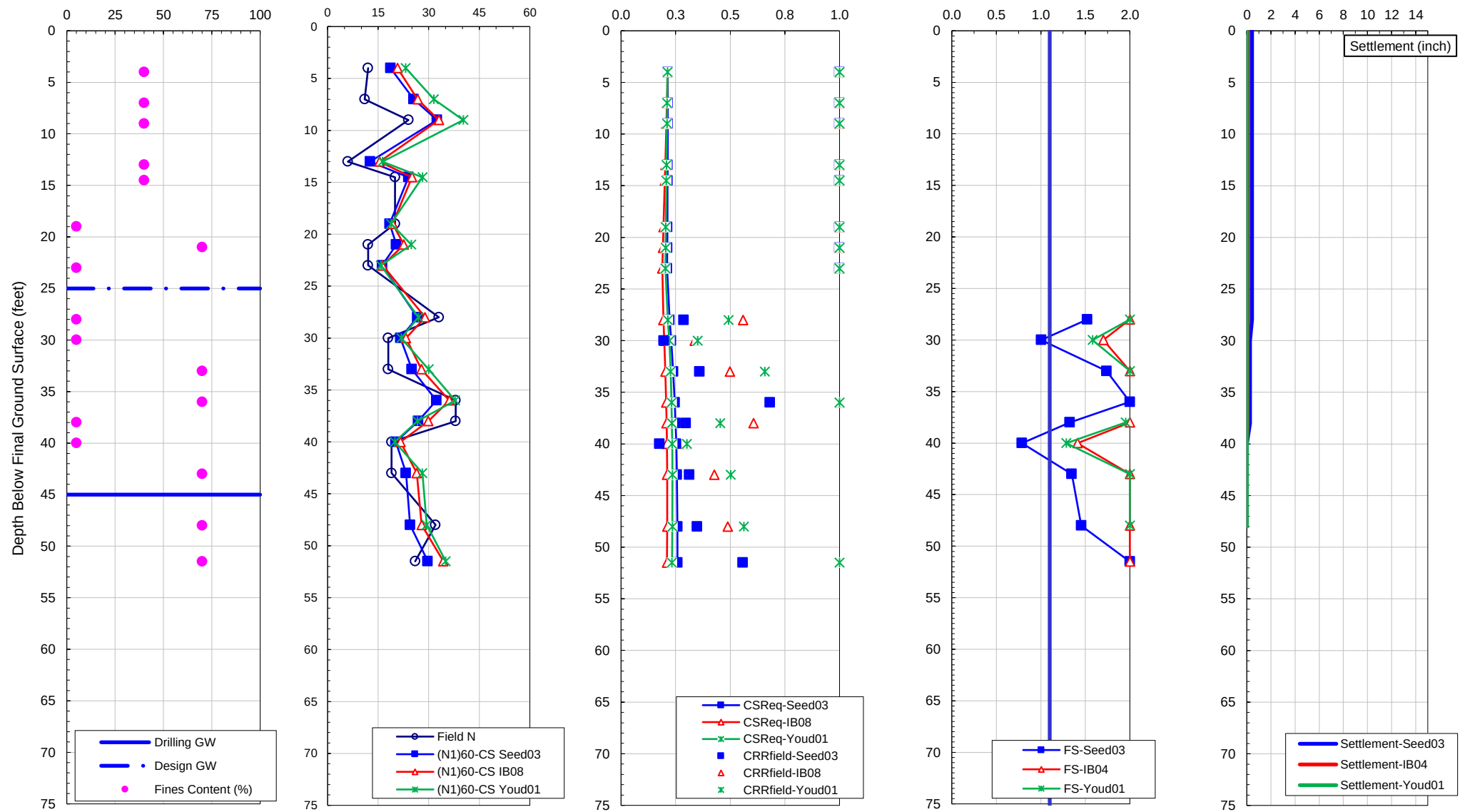
APPENDIX

B-17

APPENDIX C

Liquefaction Analysis
Dry Sand Settlement Analysis

Boring ID: **B-6 (5% in 50 yrs)** $M_w = 6.2$ $PGA = 0.33g$ Groundwater Depth During Drilling (ft) = **45.0 ft** Existing Ground Elevation = **100.0 ft** Ana. by: A AhTye
 Design Groundwater Depth (ft) = **25.0 ft** Final Ground Elevation = **100.0 ft** Checked by: S. Plauson



1. (N₁)₆₀-CS capped at 60; 2. CRRfield = 1 for non-liquefiable soils; 3. FS is capped at 2.0 for liquefiable soils and not plotted for non-liquefiable soils including soils above G.W.T.



1330 Broadway, #1200
Oakland, California 94612
t: 510628 9000 f: 510 628 9009

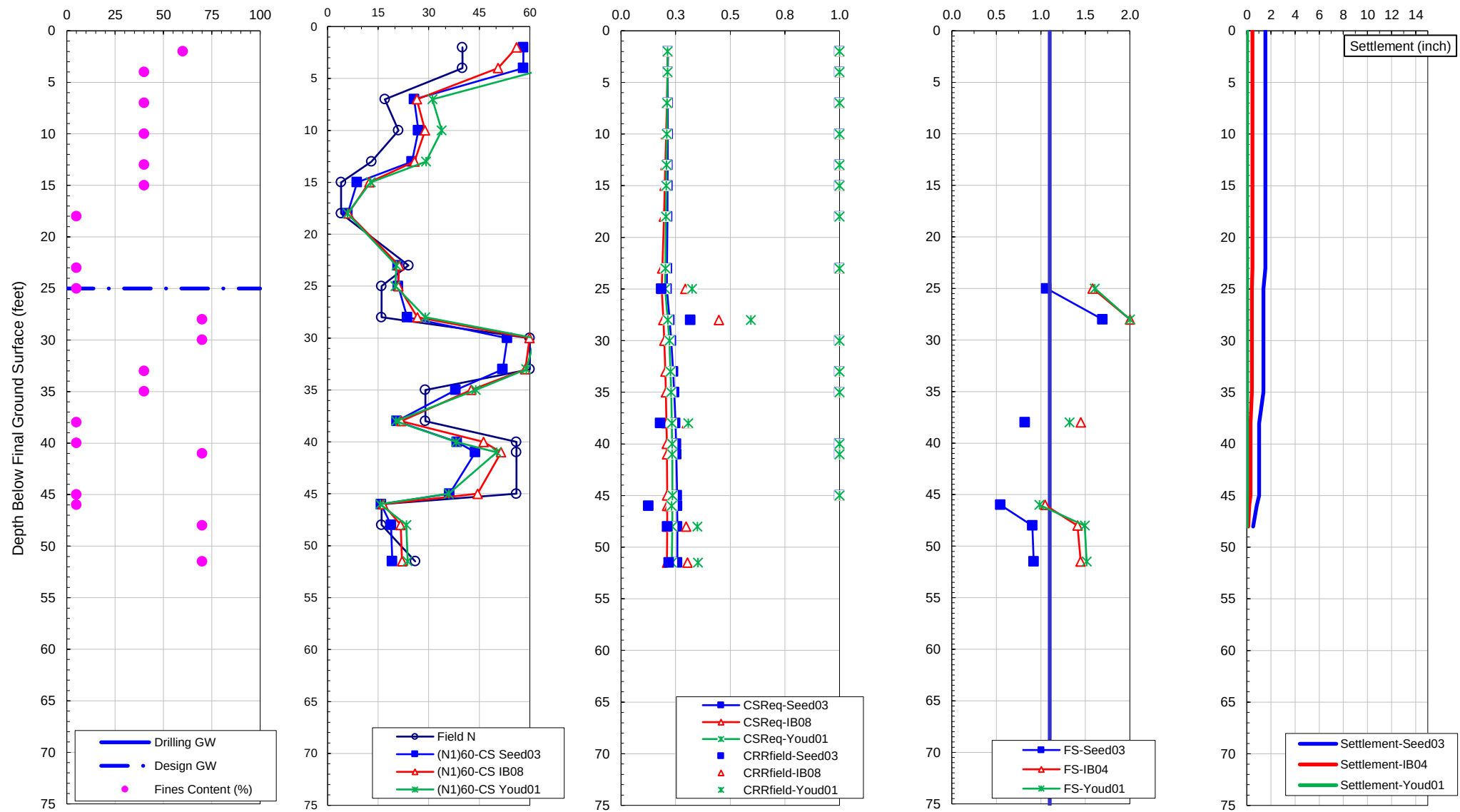
Project Name: Hanford Place
Project No.: 20210045
Project Location: Hanford, CA

LIQUEFACTION ANALYSIS

Date 5/26/2020

FIGURE A-1

Boring ID: **B-7 (5% in 50 yrs)** $M_w = 6.2$ $PGA = 0.33g$ Groundwater Depth During Drilling (ft) = **100.0 ft** Existing Ground Elevation = **100.0 ft** Ana. by: A AhTye
 Design Groundwater Depth (ft) = **25.0 ft** Final Ground Elevation = **100.0 ft** Checked by: S. Plauson



1. $(N_1)_{60-CS}$ capped at 60; 2. CRRfield = 1 for non-liquefiable soils; 3. FS is capped at 2.0 for liquefiable soils and not plotted for non-liquefiable soils including soils above G.W.T.



1330 Broadway, #1200
 Oakland, California 94612
 t: 510628 9000 f: 510 628 9009

Project Name: Hanford Place
 Project No.: 20210045
 Project Location: Hanford, CA

LIQUEFACTION ANALYSIS

Date 5/26/2020

FIGURE A-1

Seismic Settlement of Dry Sands
Tokimatsu & Seed (1987)

M = 6.21 Moment Magnitude (Use Modal value)
PHA = 0.33 g (Peak horizontal acceleration; use PG₀)
γ = 105 pcf (unit weight of soil)
K₀ = 0.47 (at-rest coefficient)

Project No. 20210045
Project Name Hanford Place
Analysis by A. AhTye

																		Results						
Boring	Depth at middle of sampler (ft)	Layer Thickness (ft)	Soil Classification	Anticipated Fines Content (%)	r _d	σ _v (psf)	σ _{v'} (psf)	σ _{v''} (tsf)	N (blows/ft)	SAMPLER TYPE (1) SPT w/out liners (2) SPT w/ liners (3) MC (4) CAL	Sampler Correction, C _s	Overburden Correction, C _N	Fine Content Correction	N _t (blows/ft)	Gmax (psf)	Effective Shear Strain,	Effective Shear Strain,	Effective Shear Strain,	Volumetric Strain (from Figure 13) (%)	Seismic Settlement for M7.5 (in)	Seismic Settlement for M5.25 (in)	Seismic Settlement for M6 (in)	Seismic Settlement for M6.75 (in)	Seismic Settlement for M8.5 (in)
																γ _{sh} (Geff/Gmax)	γ _{sh} (from Fig. 11)	γ _{sh} (%)						
B-6	2	4	SM	40	0.996	210	135.8	0.0679	12	4	0.65	1.70	3.2	16	592866	7.56E-05	1.2E-04	1.2E-02	0.0200	0.019	0.01	0.01	0.02	0.02
	5.5	3	SM	40	0.988	577.5	373.45	0.186725	11	1	1.1	1.70	3.2	24	1111278	1.10E-04	3.0E-04	3.0E-02	0.0220	0.016	0.01	0.01	0.01	0.02
	8	2	SM	40	0.983	840	543.2	0.2716	24	4	0.65	1.54	3.2	27	1403068	1.26E-04	3.0E-04	3.0E-02	0.0200	0.010	0.00	0.01	0.01	0.01
	11	4	SM	40	0.976	1155	746.9	0.37345	6	1	1.1	1.32	3.2	12	1247366	1.94E-04	4.0E-04	4.0E-02	0.0800	0.077	0.03	0.05	0.07	0.10
	13.75	1.5	SM	40	0.970	1443.75	933.625	0.4668125	20	4	0.65	1.18	3.2	19	1616265	1.86E-04	4.0E-04	4.0E-02	0.0420	0.015	0.01	0.01	0.01	0.02
	16.75	4.5	SP	5	0.964	1758.75	1137.325	0.5686625	20	4	0.65	1.07	1.0	15	1658342	2.19E-04	6.0E-04	6.0E-02	0.1000	0.108	0.04	0.06	0.09	0.14
	20	2	ML	70	0.957	2100	1358	0.679	12	1	1.1	0.98	4.8	18	1920095	2.24E-04	5.0E-04	5.0E-02	0.0600	0.029	0.01	0.02	0.02	0.04
	22	2	SP	5	0.952	2310	1493.8	0.7469	12	1	1.1	0.93	1.0	13	1830635	2.58E-04	5.2E-04	5.2E-02	0.1000	0.048	0.02	0.03	0.04	0.06
	25.5	5	SP	5	0.939	2677.5	1731.45	0.865725	33	4	0.65	0.86	1.0	20	2241470	2.41E-04	5.0E-04	5.0E-02	0.0500	0.060	0.02	0.04	0.05	0.08
	29	2	SP	5	0.924	3045	1969.1	0.98455	18	1	1.1	0.81	1.0	17	2284078	2.64E-04	4.8E-04	4.8E-02	0.0600	0.029	0.01	0.02	0.02	0.04
	31.5	3	CL-ML	70	0.911	3307.5	2138.85	1.069425	18	1	1.1	0.78	4.8	20	2518920	2.57E-04	4.8E-04	4.8E-02	0.0500	0.036	0.01	0.02	0.03	0.05
	34.5	3	CL-ML	70	0.893	3622.5	2342.55	1.171275	38	4	0.65	0.74	4.8	23	2758949	2.52E-04	5.0E-04	5.0E-02	0.0480	0.035	0.01	0.02	0.03	0.04
	37	2	SP	5	0.878	3885	2512.3	1.25615	38	4	0.65	0.72	1.0	19	2661855	2.75E-04	5.0E-04	5.0E-02	0.0500	0.024	0.01	0.01	0.02	0.03
	39	2	SP	5	0.866	4095	2648.1	1.32405	19	1	1.1	0.70	1.0	16	2571947	2.96E-04	6.0E-04	6.0E-02	0.0900	0.043	0.02	0.03	0.04	0.05
	41.5	3	CL-ML	70	0.845	4357.5	2817.85	1.408925	19	1	1.1	0.68	4.8	19	2830935	2.79E-04	6.0E-04	6.0E-02	0.0700	0.050	0.02	0.03	0.04	0.06
	45.5	5	CL-ML	70	0.805	4777.5	3089.45	1.544725	32	4	0.65	0.65	4.8	18	2927213	2.82E-04	6.0E-04	6.0E-02	0.0700	0.084	0.03	0.05	0.07	0.11
	49.75	3.5	CL-ML	70	0.763	5223.75	3378.025	1.6890125	26	1	1.1	0.62	4.8	22	3281460	2.60E-04	5.0E-04	5.0E-02	0.0480	0.040	0.02	0.02	0.03	0.05

0.723 0.29 0.43 0.61 0.90
MAG 6.21 0.4841688
Double the value for bi-directional shaking
Select= 1/4 for M 6.21
6 6.75

↑
(use to read Fig. 11)

↑
(use to read Fig. 13)

↑
(use to read Fig. 11)

↑
(use to read Fig. 13)

Seismic Settlement of Dry Sands
Tokimatsu & Seed (1987)

M = 6.21 Moment Magnitude (Use Modal value)
PHA = 0.33 g (Peak horizontal acceleration; use PG₀)
γ = 105 pcf (unit weight of soil)
K₀ = 0.47 (at-rest coefficient)

Project No. 20210045
Project Name Hanford Place
Analysis by A. AhTye

																			Results					
Boring	Depth at middle of sampler (ft)	Layer Thickness (ft)	Soil Classification	Anticipated Fines Content (%)	r _s	σ _v (psf)	σ' _v (psf)	σ _v (tsf)	N (blows/ft)	SAMPLER TYPE (1) SPT w/out liners (2) SPT w/ liners (3) MC (4) CAL	Sampler Correction, C _s	Overburden Correction, C _N	Fine Content Correction	N ₆₀ (blows/ft)	Gmax (psf)	Effective Shear Strain, γ _h (Geff/Gmax)	Effective Shear Strain, γ _h (from Fig. 11)	Effective Shear Strain, γ _h (%)	Volumetric Strain (from Figure 13) (%)	Seismic Settlement for M7.5 (in)	Seismic Settlement for M5.25 (in)	Seismic Settlement for M6 (in)	Seismic Settlement for M6.75 (in)	Seismic Settlement for M8.5 (in)
B-7	1	2	ML	60	0.998	105	67.9	0.03395	40	4	0.65	1.70	4.4	49	601419	3.74E-05	5.0E-05	5.0E-03	0.0014	0.001	0.00	0.00	0.00	0.00
	3	2	SM	40	0.993	315	203.7	0.10185	40	4	0.65	1.70	3.2	47	1033043	6.50E-05	8.5E-05	8.5E-03	0.0015	0.001	0.00	0.00	0.00	0.00
	5.5	3	SM	40	0.988	577.5	373.45	0.186725	17	4	0.65	1.70	3.2	22	1082734	1.13E-04	2.0E-04	2.0E-02	0.0180	0.013	0.01	0.01	0.01	0.02
	8.5	3	SM	40	0.982	892.5	577.15	0.288575	21	4	0.65	1.50	3.2	24	1378851	1.36E-04	2.1E-04	2.1E-02	0.0150	0.011	0.00	0.01	0.01	0.01
	11.5	3	SM	40	0.975	1207.5	780.85	0.390425	13	1	1.1	1.29	3.2	22	1556529	1.62E-04	2.8E-04	2.8E-02	0.0220	0.016	0.01	0.01	0.01	0.02
	14	2	SM	40	0.970	1470	950.6	0.4753	4	1	1.1	1.17	3.2	8	1250115	2.45E-04	7.0E-04	7.0E-02	0.2000	0.096	0.04	0.06	0.08	0.12
	16.5	3	SP	5	0.964	1732.5	1120.35	0.560175	4	1	1.1	1.07	1.0	6	1197738	2.99E-04	1.0E-03	1.0E-01	0.4000	0.288	0.12	0.17	0.24	0.36
	20.5	5	SP	5	0.955	2152.5	1391.95	0.695975	24	4	0.65	0.96	1.0	16	1881705	2.34E-04	5.5E-04	5.5E-02	0.0800	0.096	0.04	0.06	0.08	0.12
	24	2	SP	5	0.946	2520	1629.6	0.8148	16	1	1.1	0.89	1.0	17	2062830	2.48E-04	5.0E-04	5.0E-02	0.0700	0.034	0.01	0.02	0.03	0.04
	26.5	3	CL	70	0.935	2782.5	1799.35	0.899675	16	1	1.1	0.85	4.8	20	2292102	2.43E-04	5.0E-04	5.0E-02	0.0500	0.036	0.01	0.02	0.03	0.05
	29	2	CL	70	0.924	3045	1969.1	0.98455	60	4	0.65	0.81	4.8	36	2941437	2.05E-04	3.2E-04	3.2E-02	0.0220	0.011	0.00	0.01	0.01	0.01
	31.5	3	SM	40	0.911	3307.5	2138.85	1.069425	60	4	0.65	0.78	3.2	34	2982532	2.17E-04	3.5E-04	3.5E-02	0.0160	0.012	0.00	0.01	0.01	0.01
	34	2	SM	40	0.896	3570	2308.6	1.1543	29	1	1.1	0.75	3.2	27	2885595	2.38E-04	4.5E-04	4.5E-02	0.0330	0.016	0.01	0.01	0.01	0.02
	36.5	3	SP	5	0.881	3832.5	2478.35	1.239175	29	4	0.65	0.72	1.0	15	2434437	2.97E-04	6.0E-04	6.0E-02	0.1000	0.072	0.03	0.04	0.06	0.09
	39	2	SP	5	0.866	4095	2648.1	1.32405	56	4	0.65	0.70	1.0	26	3066023	2.48E-04	4.4E-04	4.4E-02	0.0320	0.015	0.01	0.01	0.01	0.02
	40.5	1	CL	70	0.855	4252.5	2749.95	1.374975	56	4	0.65	0.69	4.8	30	3250254	2.40E-04	4.5E-04	4.5E-02	0.0280	0.007	0.00	0.00	0.01	0.01
	43	4	SP	5	0.830	4515	2919.7	1.45985	56	4	0.65	0.67	1.0	25	3169449	2.54E-04	4.5E-04	4.5E-02	0.0320	0.031	0.01	0.02	0.03	0.04
	45.5	1	SP	5	0.805	4777.5	3089.45	1.544725	16	1	1.1	0.65	1.0	12	2572161	3.21E-04	7.0E-04	7.0E-02	0.1300	0.031	0.01	0.02	0.03	0.04
	47	2	CL	70	0.790	4935	3191.3	1.59565	16	1	1.1	0.64	4.8	16	2847252	2.94E-04	5.8E-04	5.8E-02	0.0800	0.038	0.02	0.02	0.03	0.05
	49.75	3.5	CL	70	0.763	5223.75	3378.025	1.6890125	26	4	0.65	0.62	4.8	15	2883048	2.96E-04	5.5E-04	5.5E-02	0.0800	0.067	0.03	0.04	0.06	0.08

0.890 0.36 0.53 0.76 1.11
MAG 6.21 0.59637504
Double the value for bi-directional shaking
Select= 1/4 for M 6.21
6 6.75

↑
(use to read Fig. 11)

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(use to read Fig. 13)

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(use to read Fig. 11)

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(use to read Fig. 13)

APPENDIX E

ACOUSTICAL ANALYSIS

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ACOUSTICAL ANALYSIS

**HANFORD PLACE
HANFORD, CALIFORNIA**

WJVA Report No. 20-016

PREPARED FOR

**THE HANFORD GROUP/EPIC MANAGEMENT GROUP
4405 MARGARITA ROAD, SUITE 100
TEMECULA, CALIFORNIA 92592**

PREPARED BY

**WJV ACOUSTICS, INC.
VISALIA, CALIFORNIA**



MAY 12, 2021

1. INTRODUCTION

Project Description:

The proposed project would develop a medical and mixed-use development and would construct fifteen (15) buildings consisting of medical outpatient clinic services, hotel and conference center, specialized education, retail, medical office, skilled nursing and assisted living, and multi-family residential uses, as well as a bio infiltration basin, associated open space, circulation and parking, and infrastructure improvements.

The proposed project would include the following: a 22,525-square-foot ambulatory surgery center; a 12,445-square-foot specialty clinic; two 12,445-square-foot medical office buildings; a 12,445-square-foot psychiatric health facility; a 10,000-square-foot, a four-story 105-room hotel with a conference center and pool; a 35,000-square-foot nursing college; four 15,55-square-foot strip retail buildings; two 15,000-square-foot retail/drive-through/medical commercial buildings; a 54,611-square-foot skilled nursing facility; a 34,480-square-foot memory care facility; a three-story 90-unit multi-family apartment; two 11,000 medical/commercial buildings; and a 5-acre bio infiltration basin.

Environmental Noise Assessment:

This environmental noise assessment has been prepared to determine if significant noise impacts will be produced by the project and to describe mitigation measures for noise if significant impacts are determined. The environmental noise assessment, prepared by WJV Acoustics, Inc. (WJVA), is based upon the project Site Plan provided by the applicant (Figure 1), traffic data provided by VRPA Technologies, Inc. and a project site visit on May 5-6, 2021. Revisions to the Site Plan, project traffic information or other project-related information available to WJVA at the time the analysis was prepared may require a reevaluation of the findings and/or recommendations of the report.

Appendix A provides definitions of the acoustical terminology used in this report. Unless otherwise stated, all sound levels reported in this analysis are A-weighted sound pressure levels in decibels (dB). A-weighting de-emphasizes the very low and very high frequencies of sound in a manner similar to the human ear. Most community noise standards utilize A-weighted sound levels, as they correlate well with public reaction to noise. Appendix B provides examples of sound levels for reference.

2. THRESHOLDS OF SIGNIFICANCE

The CEQA Guidelines apply the following questions for the assessment of significant noise impacts for a project:

- a. Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
- b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels?
- c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

a. Noise Level Standards

CITY OF HANFORD

General Plan

The City of Hanford Noise Element of the General Plan¹ (adopted April 2017) provides generalized Noise Goals and Policies for various noise sources and land uses, related to development within the City. These noise goals and policies are provided below.

Noise Goals

- Goal H7: Protection from the harmful and annoying effect of excessive noise.
- Goal H8: Protection of the City's economic base by preventing incompatible land uses from encroaching upon existing or planned noise-producing uses.

Major Noise Sources

- Policy H39 Aircraft Noise: Evaluate proposed development proposals against the land use policies of the Kings County Airport Land Use Compatibility Plan.
- Policy H40 Ground Transportation Noise: Limit the effects of vehicle noise generation by designating truck routes, limiting vehicle speeds, standards relating to vehicle noise emission levels and muffler systems.
- Policy H41 Interior Noise Exposure: Adopt State Noise Insulation Standards (California Code of Regulations, Title 24) and Chapter 35 of the Uniform Building Code (UBC)

concerning interior noise exposure for new single, multi-family housing, hotels and motels.

- Policy H42 Noise Evaluation for New Development: Evaluate proposed development proposals against existing and future noise levels from ground transportation noise sources.
- Policy H43 Non-Transportation Noise: Mitigate noise created by non-transportation noise sources so as not to exceed the maximum allowable interior and exterior noise level standards.

Noise Exposure

- Policy H45 Minimizing Noise for Residences in Mixed-use Developments: Require mixed-use projects to minimize noise exposure within the indoor areas of residential areas through design and construction techniques such as separating residential space from mechanical equipment, loading bays, and parking lots, and through management and operating procedures.

The 2017 General Plan does not provide specific noise standards applicable to development projects. Therefore, WJVA consulted with City staff who provided the noise level standards from the City's 2002 General Plan. The standards provided in the 2002 General Plan are the same as those provided in the Kings County General Plan, and will be considered the applicable standards for this project.

The 2002 General Plan provided noise level compatibility standards for transportation and non-transportation (stationary) noise sources. Table 1 provides the City of Hanford 2002 General Plan noise standards for transportation noise sources and Table 2 provides the City of Hanford 2002 General Plan noise standards for non-transportation (stationary) noise sources.

For transportation noise sources, the General Plan sets noise compatibility standards for transportation noise sources in terms of the Day-Night Average Level (L_{dn}) or CNEL. The L_{dn} represents the time-weighted energy average noise level for a 24-hour day, with a 10 dB penalty added to noise levels occurring during the nighttime hours (10:00 p.m.-7:00 a.m.). The L_{dn} represents cumulative exposure to noise over an extended period of time and are therefore calculated based upon *annual average* conditions. For non-transportation (stationary) noise sources, the General plan sets noise compatibly standards in terms of the L_{max} (maximum) and L_{eq} (equivalent sound level) metrics.

TABLE 1
CITY OF HANFORD
MAXIMUM ALLOWABLE NOISE EXPOSURE
TRANSPORTATION NOISE SOURCES

Land Use	Outdoor Activity Areas ^a L _{dn} /CNEL, dB	Interior Spaces	
		L _{dn} /CNEL, dB	L _{eq} , dB ^b
Residential	60 ^c	45	--
Transient Lodging	60 ^c	45	--
Hospitals, Nursing Homes	60 ^c	45	--
Theaters, Auditoriums, Music Halls	--	--	35
Churches, Meeting Halls	60 ^c	--	40
Office Buildings	--	--	45
Schools, Libraries, Museums	--	--	45
Playgrounds, Neighborhood Parks	70	--	--

Notes:

a Where the location of outdoor activity areas is unknown, the exterior noise-level standard shall be applied to the property line of the receiving land use.

b As determined for a typical worst case hour during periods of use.

c Where it is not possible to reduce noise in outdoor activity areas to 60 dB L_{dn}/CNEL or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB L_{dn}/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

Source: City of Hanford 2002 General Plan

TABLE 2
CITY OF HANFORD
NOISE-LEVEL PERFORMANCE STANDARDS FOR NEW PROJECTS AFFECTED
BY OR INCLUDING NON-TRANSPORTATION (STATIONARY) NOISE SOURCES

Category	Noise-Level Descriptor	Exterior Noise Level Standard (Applicable at Property Line)		Interior Noise Level Standard	
		Daytime	Nighttime	Daytime	Nighttime
Residential	L _{eq}	50	45	40	35
	L _{max}	70	65	60	55
Transient Lodging Hospitals, Nursing Homes	L _{eq}	--	--	40	35
	L _{max}	--	--	60	55
Theaters, Auditoriums, Music Halls	L _{eq}	--	--	35	35
Churches, Meeting Halls	L _{eq}	--	--	40	40
Office Buildings	L _{eq}	--	--	45	--
Schools, Libraries, Museums	L _{eq}	--	--	45	--
Playgrounds, Neighborhood Parks	L _{eq}	65	--	--	--

Notes:

Notes: Each of the noise levels specified above shall be lowered by 5 dB for simple tone noises, noises consisting primarily of speech or music, or recurring impulsive noises. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings).

Source: City of Hanford 2002 General Plan

State of California

There are no state noise standards that are applicable to the project.

Federal Noise Standards

There are no federal noise standards that are applicable to the project.

b. Construction Noise and Vibration

Section 9.10.060(10) (Noises Prohibited) of the City of Hanford Municipal Code² provides limitations on hours of construction. The Municipal codes states that the following is prohibited:

The construction, demolition, alteration or repair of any building or the excavation of streets and highways other than between the hours of 7:00 a.m. and 8:00 p.m.

Additional guidance can be provided by section 14-8.02A of the California Department of Transportation (Caltrans) Standard Specifications document which suggests that construction equipment should *not exceed 86 dBA L_{max} at a distance of 50 feet from job site activities from 9 p.m. to 6 a.m.*

There are no state or federal standards that specifically address construction vibration. Some guidance is provided by the Caltrans Transportation and Construction Vibration Guidance Manual³. The Manual provides guidance for determining annoyance potential criteria and damage potential threshold criteria. These criteria are provided below in Table 3 and Table 4, and are presented in terms of peak particle velocity (PPV) in inches per second (in/sec).

TABLE 3		
GUIDELINE VIBRATION ANNOYANCE POTENTIAL CRITERIA		
Human Response	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely Perceptible	0.04	0.01
Distinctly Perceptible	0.25	0.04
Strongly Perceptible	0.9	0.1
Severe	2.0	0.4

Source: Caltrans

TABLE 4		
GUIDELINE VIBRATION DAMAGE POTENTIAL THRESHOLD CRITERIA		
Structure and Condition	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile, historic buildings, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5
Source: Caltrans		

3. SETTING

The proposed Hanford Place Mixed-Use project site is situated north of State Route 198 (SR 198) in the southwest section of the City of Hanford. The project site is generally bound by SR 198 to the south, San Joaquin Valley Railroad (SJVR) to the north, and existing retail shopping center to the east, with a mini-storage facility and former amusement/water park located west of the project site.

The project consists of approximately 43 acres and is currently undeveloped land. In addition to the above-described adjacent land uses, there are existing residential land uses located to the north (across the SJVR line) and the south (across SR 198), along with a car dealership, hotel and other retail and commercial land uses as well.

a. Background Noise Level Measurements

Existing noise levels in the project vicinity are dominated by traffic noise along SR 198 and other local roadways as well railroad operations associated with the San Joaquin Valley Railroad (SJVR) and occasional aircraft overflights associated with Lemoore Naval Air Station and other local airports and airstrips. Measurements of existing ambient noise levels in the project vicinity were conducted between May 5, 2021 and May 6, 2021. Long-term (24-hour) ambient noise level measurements were conducted at two (2) locations (sites LT-1 and LT-2) within and adjacent to the project site. Ambient noise levels were measured for a period of 48 continuous hours at monitoring site LT-1 and LT-2.

Ambient noise monitoring equipment consisted of Larson-Davis Laboratories Model LDL 820 sound level analyzers equipped with Bruel & Kjaer (B&K) Type 4176 ½" microphones. The monitors were calibrated with a B&K Type 4230 acoustical calibrator to ensure the accuracy of the measurements. The equipment complies with applicable specifications of the American National Standards Institute (ANSI) for Type 1 (precision) sound level meters.

Site LT-1 was located within the central portion of the project site, approximately 300 feet from the centerline of SR 198. Site LT-1 was exposed to traffic noise associated with vehicles on SR 198, as well as train operations along the SJVR line and occasional aircraft overflights. Site LT-2 was located near the northern portion of the project site, adjacent to the existing residential land uses, and approximately fifty (50) feet from the SJVR line. The locations of the long-term noise monitoring sites are provided on Figure 2.

Measured hourly energy average noise levels (L_{eq}) at site LT-1 ranged from a low of 56.8 dB between 1:00 a.m. and 2:00 a.m. on May 5th to a high of 68.2 dBA between 8:00 a.m. and 9:00 a.m. on May 6th. Hourly maximum (L_{max}) noise levels at site LT-1 ranged from 69.4 to 96.4 dBA. Residual noise levels at the monitoring site, as defined by the L_{90} , ranged from 43.3 to 64.1 dBA. The L_{90} is a statistical descriptor that defines the noise level exceeded 90% of the time during each hour of the sample period. The L_{90} is generally considered to represent the residual (or

background) noise level in the absence of identifiable single noise events from traffic, aircraft and other local noise sources. The measured L_{dn} value at site LT-1 for May 5th and May 6th was 68.8 dB L_{dn} and 68.9 dB L_{dn} , respectively. Figure 3 graphically depicts hourly variations in ambient noise levels at site LT-1 for each of the two monitoring days. Table 5 provides the measured hourly noise levels at ambient noise monitoring site LT-1, in terms of the City's noise standards (as described above in Table 2).

TABLE 5 SUMMARY OF 24-HOUR AMBIENT NOISE MEASUREMENT DATA, SITE LT-1 HANFORD PLACE MAY 5 & 6, 2021				
Time	A-Weighted Decibels, dBA			
	May 5, 2021		May 6, 2021	
	L_{eq}	L_{max}	L_{eq}	L_{max}
0:00:00	57.0	71.4	56.9	74.7
1:00:00	56.8	69.6	57.0	81.1
2:00:00	58.1	75.4	58.1	76.4
3:00:00	57.6	81.4	57.9	72.3
4:00:00	62.4	81.1	62.7	69.9
5:00:00	65.5	76.4	64.8	72.8
6:00:00	66.0	77.7	66.0	83.6
7:00:00	66.4	76.2	66.1	76.0
8:00:00	65.2	83.2	65.0	77.0
9:00:00	64.2	79.9	67.5	75.5
10:00:00	67.4	82.0	64.5	79.6
11:00:00	63.7	86.8	63.4	83.4
12:00:00	61.1	88.0	63.1	77.1
13:00:00	63.2	77.3	63.4	73.5
14:00:00	64.0	82.5	63.9	74.9
15:00:00	66.2	81.8	66.1	76.2
16:00:00	66.0	79.4	66.5	74.8
17:00:00	65.9	78.0	66.4	82.8
18:00:00	63.7	69.4	66.1	80.4
19:00:00	63.1	77.3	65.2	83.2
20:00:00	63.2	79.8	63.0	77.7
21:00:00	63.6	79.1	62.3	75.4
22:00:00	61.5	77.0	61.8	87.2
23:00:00	58.1	75.6	59.6	79.1
Daytime (7 am to 10 pm) Average (Range)	64.5 (61.1-67.4)	81.0 (69.4-90.4)	65.0 (62.3-68.2)	79.1 (73.5-96.4)
Nighttime (10 pm to 7 am) Average (Range)	60.3 (56.8-66.0)	76.2 (69.6-81.4)	60.5 (56.9-66.0)	77.5 (69.9-87.2)

Source: WJV Acoustics, Inc.

Measured hourly energy average noise levels (L_{eq}) at site LT-2 ranged from a low of 42.9 dB between midnight and 1:00 a.m. on May 5th to a high of 75.2 dBA between 8:00 a.m. and 9:00 p.m. on May 6th. Hourly maximum (L_{max}) noise levels at site LT-2 ranged from 61.3 to 113.2 dBA.

Residual noise levels at the monitoring site, as defined by the L_{90} , ranged from 68.7 to 57.0 dBA. The measured L_{dn} value at site LT-2 for May 5th and May 6th was 67.6 dB L_{dn} and 64.9 dB L_{dn} , respectively. Figure 4 graphically depicts hourly variations in ambient noise levels at site LT-2 for each of the two monitoring days. Table 6 provides the measured hourly noise levels at ambient noise monitoring site LT-2, in terms of the City's performance standards (as described above in Table 2).

TABLE 6 SUMMARY OF 24-HOUR AMBIENT NOISE MEASUREMENT DATA, SITE LT-2 HANFORD PLACE MAY 5 & 6, 2021				
Time	A-Weighted Decibels, dBA			
	May 5, 2021		May 6, 2021	
	L_{eq}	L_{max}	L_{eq}	L_{max}
0:00:00	54.7	67.6	42.9	62.8
1:00:00	49.7	66.9	44.3	61.3
2:00:00	51.8	62.4	46.7	63.7
3:00:00	48.5	65.2	48.3	63.0
4:00:00	55.8	81.2	54.5	72.8
5:00:00	61.3	78.6	62.6	82.8
6:00:00	57.6	67.0	58.7	74.5
7:00:00	59.8	79.5	56.0	74.7
8:00:00	59.0	83.1	75.2	113.2
9:00:00	57.2	74.2	56.1	74.8
10:00:00	77.5	106.8	56.5	78.6
11:00:00	59.7	82.8	57.8	84.1
12:00:00	57.7	77.6	60.2	83.9
13:00:00	55.5	77.2	58.4	81.3
14:00:00	56.5	72.7	54.7	69.9
15:00:00	55.7	72.9	60.0	86.2
16:00:00	56.7	73.9	56.8	77.7
17:00:00	75.9	104.9	55.8	72.4
18:00:00	56.1	73.4	56.2	73.1
19:00:00	57.6	80.1	56.8	84.3
20:00:00	56.5	76.2	54.0	68.6
21:00:00	57.1	76.4	55.9	65.2
22:00:00	56.8	79.2	53.6	63.7
23:00:00	53.8	69.0	53.6	69.2
Daytime (7 am to 10 pm) Average (Range)	59.9 (55.5-77.5)	80.8 (72.7-106.8)	58.0 (54.0-75.2)	79.2 (65.2-113.2)
Nighttime (10 pm to 7 am) Average (Range)	54.4 (48.5-61.3)	70.8 (62.4-81.2)	51.7 (42.9-62.6)	68.2 (61.3-82.8)

Source: WJV Acoustics, Inc.

Additionally, short-term (15-minute) ambient noise level measurements were conducted at four (4) locations (Sites ST-1 through ST-4). Two (2) individual measurements were taken at each of

the four short-term sites to quantify ambient noise levels in the morning and afternoon hours. The locations of the long-term and short-term noise monitoring sites are shown in Figure 2.

Table 7 summarizes short-term noise measurement results. The noise measurement data included energy average (L_{eq}) maximum (L_{max}) as well as five individual statistical parameters. Observations were made of the dominant noise sources affecting the measurements. The statistical parameters describe the percent of time a noise level was exceeded during the measurement period. For instance, the L_{90} describes the noise level exceeded 90 percent of the time during the measurement period, and is generally considered to represent the residual (or background) noise level in the absence of identifiable single noise events from traffic, aircraft and other local noise sources.

Short-term noise measurements were conducted for 15-minute periods at each of the four sites. Sites ST-1 was located near the northeast portion of the project site, in the vicinity of existing retail/commercial land uses adjacent to the project site. Site ST-2 was located near the project site access point along Campus Drive. Site ST-3 was located near the northwestern portion of the project site, in the parking lot of Adventist Health Hospital. Site ST-4 was located at the intersection of Campus Drive and 7th Street, north of the project site. The overall noise measurement data indicate that noise in the project vicinity is highly influenced by vehicular traffic and noise associated with landscaping activities, retail/commercial activities and other sources typical of residential land uses (barking dogs, roosters, birds, voices, etc.).

TABLE 7 SUMMARY OF SHORT-TERM NOISE MEASUREMENT DATA HANFORD PLACE MAY 5 & 6, 2021									
Site	Time	A-Weighted Decibels, dBA							Sources
		L_{eq}	L_{max}	L_2	L_8	L_{25}	L_{50}	L_{90}	
ST-1	7:35 a.m.	51.8	56.0	54.7	53.5	52.3	51.6	50.1	TR, V, R
ST-1	4:25 p.m.	53.7	62.1	55.4	54.1	53.3	52.0	49.8	TR, D, AC
ST-2	8:05 a.m.	62.6	76.3	72.0	68.1	61.1	53.0	50.3	TR, AG
ST-2	4:45 p.m.	56.7	62.3	55.0	54.1	53.2	49.7	48.5	TR
ST-3	8:30 a.m.	51.9	70.1	55.0	52.0	49.9	49.3	48.2	TR, V, B
ST-3	5:10 p.m.	52.1	66.6	54.7	52.2	48.9	47.8	47.0	TR, AC
ST-4	8:50 a.m.	60.3	77.0	69.6	63.4	59.1	55.3	50.8	TR, B, D
ST-4	5:30 p.m.	61.4	74.2	71.0	65.2	60.7	56.3	51.4	TR, AC, D

TR: Traffic AC: Aircraft AG: Agricultural Activities V: Voices B: Birds D: Barking Dogs R:Rooster
Source: WJV Acoustics, Inc.

4. NOISE IMPACTS TO OFF-SITE SENSITIVE RECEPTORS, AND MITIGATION MEASURES

a. Project Traffic Noise Impacts on Existing Noise-Sensitive Land Uses Outside Project Site (Less Than Significant)

WJVA utilized the FHWA Traffic Noise Model⁴ to quantify expected project-related increases in traffic noise exposure along roadways in the project vicinity. The FHWA Model is a standard analytical method used by state and local agencies for roadway traffic noise prediction. The model is based upon reference energy emission levels for automobiles, medium trucks (2 axles) and heavy trucks (3 or more axles), with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA Model was developed to predict hourly L_{eq} values for free-flowing traffic conditions, and is generally considered to be accurate within ± 1.5 dB. To predict L_{dn} values, it is necessary to determine the hourly distribution of traffic for a typical day and adjust the traffic volume input data to yield an equivalent hourly traffic volume.

Average Daily Traffic (ADT) volumes for the analyzed receptor locations were provided by the project traffic consultant, VRPA Technologies, Inc.⁵. Truck percentages and the day/night distribution of traffic were estimated by WJVA, based upon previous studies conducted in the project vicinity since project-specific data were not available from government sources. The Noise modeling assumptions used to calculate project traffic noise are provided as Appendix C.

Traffic noise exposure levels for specific scenarios were calculated based upon the FHWA Model and the above-described model inputs and assumptions. Project-related significant impacts would occur if an increase in traffic noise associated with the project would result in noise levels exceeding the City's applicable noise level standards at the location(s) of sensitive receptors. For the purpose of this analysis a significant impact was also assumed to occur if traffic noise levels were to increase by 3 dB at sensitive receptor locations where noise levels already exceed the City's applicable noise level standards (without the project), as 3 dB generally represents the threshold of perception in change for the human ear.

The City's exterior noise level standard for residential land uses is 60 dB L_{dn} (an exterior noise exposure of up to 65 dB L_{dn} is allowed in instances where it is not possible to reduce noise exposure in outdoor activity areas to 60 L_{dn} or less using a practical application of available noise reduction measures.). Traffic noise was modeled at seven (7) receptor locations. The seven modeled receptors are located at roadway setback distances representative of the sensitive receptors (residences) along each analyzed roadway segment. The receptor locations are described below and provided graphically on Figure 5.

- R-1: Residential land use located approximately 90 feet from the centerline of Lacey Blvd.
- R-2: Residential land use located approximately 60 feet from the centerline of 7th St.
- R-3: Residential land use located approximately 95 feet from the centerline of 7th St.
- R-4: Residential land use located approximately 60 feet from the centerline of 6th St.
- R-5: Residential land use located approximately 100 feet from the centerline of Campus Dr.

- R-6: Residential land use located approximately 95 feet from the centerline of 7th St.
- R-7: Residential land use located approximately 90 feet from the centerline of 6th St.

Existing Conditions

Table 8 provides Existing and Existing Plus Project traffic noise exposure levels at the seven analyzed receptor locations. The receptor locations are representative of existing residential land uses located along the analyzed roadway segments.

TABLE 8 PROJECT-RELATED INCREASES IN TRAFFIC NOISE, dB, L_{dn} HANFORD PLACE EXISTING CONDITIONS				
Modeled Receptor	Existing	Existing Plus Project	Change (Maximum)	Significant Impact?
R-1	63	63	0	No
R-2	62	62	0	No
R-3	58	59	+1	No
R-4	55	58	+3	No
R-5	51	51	0	No
R-6	59	59	0	No
R-7	52	52	0	No

Source: WJV Acoustics, Inc.
VRPA Technologies, Inc.

Reference to Table 8 indicates that project-related traffic would not result in noise levels at any sensitive receptors to exceed the City's noise level standard, nor result in an increase of 3 dB in any sensitive receptor locations where noise levels already exceed the City's noise level standard without the implementation of the project.

Cumulative 2042 Conditions

Table 9 provides Cumulative 2042 traffic noise exposure levels at the seven analyzed representative receptor locations, and also provides what the project contribution would be to Cumulative 2042 traffic noise exposure conditions.

TABLE 9 PROJECT CONTRIBUTION TO CUMULATIVE TRAFFIC NOISE, dB, L_{dn} HANFORD PLACE CUMULATIVE CONDITIONS				
Modeled Receptor	Cumulative Conditions Without Project Contribution	Cumulative Conditions	Project Contribution	Significant Impact?
R-1	64	64	0	No
R-2	64	64	0	No
R-3	60	60	0	No
R-4	56	59	+3	No
R-5	53	53	0	No
R-6	61	61	0	No
R-7	54	54	0	No

Source: WJV Acoustics, Inc.
VRPA Technologies, Inc.

Reference to Table 9 indicates that the project's contribution to Cumulative 2042 traffic noise exposure levels at the modeled representative receptor locations would not result in noise levels to exceed the City's noise level standard, nor result in an increase of 3 dB in any sensitive receptor locations where noise levels already exceed the City's noise level standard without the implementation of the project. Consequently, the project contribution to cumulative noise levels would be less than considerable and the project would not have a significant cumulative impact.

Noise levels described in Table 8 and Table 9 do not take into account any site-specific acoustic shielding that may be provided by existing sound walls, buildings or intervening topography, and should therefore be considered a worst-case assessment of traffic noise exposure at the analyzed receptor locations.

b. Proposed Impacts From Operational On-Site Sources (Less Than Significant With Mitigation)

The project would include a variety of medical buildings, hotel and conference center, medical instruction facilities, retail/drive thru buildings, commercial buildings and a multi-family apartment building. A wide variety of noise sources can be associated with these land use designations. The noise levels produced by such sources can also be highly variable and could potentially impact existing off-site and proposed on-site sensitive receptors. Typical examples of stationary noise sources associated with such land uses include:

- HVAC/Mechanical equipment
- Truck deliveries
- Parking lot activities (closing of car doors and trunks, stereos, alarms etc.)
- Drive Thru operations

Mechanical Equipment

It is assumed that the project would include roof-mounted HVAC units on the proposed buildings. The heating, ventilating, and air conditioning (HVAC) requirements for the buildings would likely require the use of multiple packaged roof-top units. For the purpose of noise and aesthetics, roof-mounted HVAC units are typically shielded by means of a roof parapet. WJVA has conducted reference noise level measurements at numerous commercial and retail buildings with roof-mounted HVAC units, and associated noise levels typically range between approximately 45-50 dB at a distance of 50 feet from the building façade.

For this project, the closest residential property lines to any potential roof-mounted HVAC equipment would be located at a minimum setback distance of 200 feet. Taking into account the standard rate of noise attenuation with increased distance from a point source (-6 dB/doubling of distance), noise levels associated with the operation of roof-mounted HVAC units would be approximately 33-38 dB at the closest sensitive receptor property line. Such levels do not exceed any City of Hanford noise level standard or exceed existing (without project) ambient noise levels.

Truck Movements

At the time of this analysis, a specific truck access route (or routes) had not been designated. However, trucks would access the project site by one of three (3) access points, Glendale Avenue from the west, Campus Drive from the north or 5th Street from the east. It is assumed that truck deliveries would occur at various times and locations throughout the overall project area. Precise details on truck deliveries were not known at the time of this analysis.

WJVA has conducted measurements of the noise levels produced by slowly moving trucks for a number of studies. Such truck movements would be expected to produce noise levels in the range of 65 to 71 dBA at a distance of 100 feet. The range in measured truck noise levels is due to differences in the size of trucks, their speed of movement and whether they have refrigeration units in operation during the pass-by.

If truck movements were to access the project site via the 5th Street access point, truck movements could occur as close as approximately 130 feet from the closest residential property lines to the north. At this distance, noise levels associated with truck movements would produce maximum noise levels in the range of approximately 63 to 69 dB. Such noise levels do not exceed the City's daytime (7:00 a.m. to 10:00 p.m.) noise level standard of 70 dB L_{max} , but could potentially exceed the City's nighttime (10:00 p.m. to 7:00 a.m.) noise level standard of 65 dB L_{max} . It should be noted that existing ambient noise levels in the vicinity of the future 5th Street access point (noise monitoring site LT-2) exceeded the City's nighttime 65 dB L_{max} standard during twelve of the eighteen nighttime hours measured over the two-day monitoring period.

Potential Impact:

Noise levels associated with truck movements could exceed the City's 65 dB L_{max} nighttime noise level standard at the residential property lines north of the 5th Street access point, if truck deliveries were to occur between the nighttime hours of 10:00 p.m. to 7:00 a.m.

Mitigation Measures:

Noise levels associated with nighttime (10:00 p.m. to 7:00 a.m.) truck movements could be mitigated by applying the following condition:

- Require truck movements occurring during nighttime hours of 10:00 p.m. to 7:00 a.m. to use the Glendale Avenue access point only.

Parking Lot Activities

Noise due to traffic in parking lots is typically limited by low speeds and is not usually considered to be significant. Human activity in parking lots that can produce noise includes voices, stereo systems and the opening and closing of car doors and trunk lids. Such activities can occur at any time. The noise levels associated with these activities cannot be precisely defined due to variables such as the number of parking movements, time of day and other factors. It is typical for a passing car in a parking lot to produce a maximum noise level of 60 to 65 dBA at a distance of 50 feet, which is comparable to the level of a raised voice.

For this project, parking would be dispersed throughout the overall project area. The closest proposed parking areas would be located at least 150 feet from the closest existing residential property lines to the north. At this distance, maximum (L_{max}) parking lot vehicle movements would be expected to be approximately 51 to 56 dB. Such levels would not exceed any of the City's applicable noise levels standards or exceed existing ambient noise levels at the closest residential land uses. Due to existing elevated ambient noise levels at the closest sensitive receptor locations (residential land uses north of the project site), noise levels associated with parking lot activities would generally not be audible over existing (without project) noise levels.

Drive Thru Retail

The proposed project would include two (2) retail areas that would likely include drive thru operations. While the exact tenants and type of retail store was not known at this time, it is assumed that amplified speech would be incorporated into drive thru operations.

In order to assess potential project noise levels associated with drive-thru operations, WJVA utilized reference noise levels measured at a Wendy's drive-thru restaurant located on South Mooney Boulevard in Visalia. Measurements were conducted during the early afternoon of July 11, 2011 between 12:45 p.m. and 1:45 p.m. using the previously-described noise monitoring equipment.

The microphone used by customers to order food and the loudspeaker used by employees to confirm orders are both integrated into a menu board that is located a few feet from the drive-thru lane at the approximate height of a typical car window. Vehicles would enter the drive-thru lane from the west and then turn to the north along the east side of the restaurant.

Reference noise measurements were obtained at a distance of approximately 40 feet from the menu board containing the microphone/loudspeaker system at an angle of about 45° toward the

rear of the vehicle being served. This provided a worst-case exposure to sound from the loudspeaker system since the vehicle was not located directly between the loudspeaker and measurement location. Cars were lined up in the access lane during the noise measurement period indicating that the drive-through lane was operating at or near a peak level of activity.

Each ordering cycle was observed to take approximately 60 seconds including vehicle movements. A typical ordering cycle included 5-10 seconds of loudspeaker use with typical maximum noise levels in the range of 60-62 dBA at the 40 foot-reference location. Vehicles moving through the drive-thru lane produced noise levels in the range of 55-60 dBA at the same distance. Vehicles parked at the ordering position (between the menu board and measurement site) were observed to provide significant acoustic shielding during the ordering sequence. The effects of such shielding are reflected by the noise measurement data. Noise levels were measured to approximately 60 dB L_{eq} at the measurement site, and included noise from all sources, including the loudspeaker, vehicle movements and HVAC equipment.

The closest noise-sensitive receptors (residential land uses) to the proposed retail drive thru operations are located approximately 190 feet to the north. At this setback distance, noise levels associated with drive thru retail operations would be expected to produce noise levels of approximately 47-49 dB L_{max} and approximately 46 dB L_{eq} . Potential project-related noise exposure at that locations of the closest residential land uses was calculated based upon the above-described reference noise measurement data, the existing sound walls and the normal rate of sound attenuation over distance for a "point" noise source (6 dB/doubling of distance).

It is unknown if nighttime operations would occur at the drive thru retail locations. The above-described noise level of 46 dB L_{eq} at the closest residential property line assumes the drive thru would be in constant operation, and should therefore we consider a worst-case assessment of drive thru noise levels. While drive thru operational noise levels (46 dB L_{eq}) slightly exceed the City's nighttime noise level standard of 45 dB L_{eq} , such levels are below existing (without project) nighttime ambient noise levels at the residential property lines, and would therefore not be considered a significant impact.

c. Noise from Construction (Less Than Significant With Mitigation)

Construction noise would occur at various locations within the project site through the buildout period and at locations where off-site infrastructure improvements may be required. Existing sensitive receptors could be located as close as 150 feet from construction activities. Table 10 provides typical construction-related noise levels at distances of 100 feet, 200 feet, and 300 feet.

Construction noise is not considered to be a significant impact if construction is limited to the allowed hours and construction equipment is adequately maintained and muffled. The City of Hanford limits hours of construction to occur only between the hours of 7:00 a.m. to 8:00 p.m. Construction noise impacts could result in annoyance or sleep disruption for nearby residents if nighttime operations were to occur or if equipment is not properly muffled or maintained.

TABLE 10
TYPICAL CONSTRUCTION EQUIPMENT
MAXIMUM NOISE LEVELS, dBA

Type of Equipment	100 Ft.	200 Ft.	300 Ft.
Concrete Saw	84	78	74
Crane	75	69	65
Excavator	75	69	65
Front End Loader	73	67	63
Jackhammer	83	77	73
Paver	71	65	61
Pneumatic Tools	79	73	69
Dozer	76	70	66
Rollers	74	68	64
Trucks	80	72	70
Pumps	74	68	64
Scrapers	81	75	71
Portable Generators	74	68	64
Backhoe	80	74	70
Grader	80	74	70

Source: FHWA

Noise Control for Buildings and Manufacturing Plants, Bolt, Beranek & Newman, 1987

Potential Impact:

A noise impact could occur if construction activities do not incorporate appropriate mitigation measures and best management practices.

Mitigation Measures:

Noise levels associated with construction activities may be effectively mitigated by incorporating noise mitigation measures and appropriate best management practices. The following mitigation measures and best management practices should be applied during periods of project construction.

- Per the City of Hanford Municipal Code, construction activities should not occur outside the hours of 7:00 a.m. to 8:00 p.m.
- All construction equipment shall be properly maintained and muffled as to minimize noise generation at the source.
- Noise-producing equipment shall not be operating, running, or idling while not in immediate use by a construction contractor.
- All noise-producing construction equipment shall be located and operated, to the extent possible, at the greatest possible distance from any noise-sensitive land uses.

- Locate construction staging areas, to the extent possible, at the greatest possible distances from any noise-sensitive land uses.
- Signs shall be posted at the construction site and near adjacent sensitive receptors displaying hours of construction activities and providing the contact phone number of a designated noise disturbance coordinator.

d. Vibration Impacts (Less Than Significant)

The dominant sources of man-made vibration are sonic booms, blasting, pile driving, pavement breaking, demolition, diesel locomotives, and rail-car coupling. None of these activities are anticipated to occur with construction or operation of the proposed project. Vibration from construction activities could be detected at the closest sensitive land uses, especially during movements by heavy equipment or loaded trucks and during some paving activities (if they were to occur). Typical vibration levels at distances of 100 feet and 300 feet are summarized by Table 11. These levels would not be expected to exceed any significant threshold levels for annoyance or damage, as provided above in Table 3 and Table 4.

TABLE 11 TYPICAL VIBRATION LEVELS DURING CONSTRUCTION		
Equipment	PPV (in/sec)	
	@ 100'	@ 300'
Bulldozer (Large)	0.011	0.006
Bulldozer (Small)	0.0004	0.00019
Loaded Truck	0.01	0.005
Jackhammer	0.005	0.002
Vibratory Roller	.03	0.013
Caisson Drilling	.01	0.006

Source: *Caltrans*

After full project build out, it is not expected that ongoing operational activities will result in any vibration impacts at nearby sensitive uses. Activities involved in trash bin collection could result in minor on-site vibrations as the bin is placed back onto the ground. Such vibrations would not be expected to be felt at the closest off-site sensitive uses. Additional mitigation is not required.

5. NOISE IMPACTS TO PROPOSED ON-SITE SENSITIVE RECEPTORS, AND MITIGATION MEASURES

The project includes proposed sensitive receptors (residential land uses, transient lodging, nursing homes, offices, etc.) that could be impacted by exterior and interior noise exposure associated with existing transportation noise sources (SR 198 and SJVR line). The applicable exterior and interior noise level standards for such land uses are provided above as Table 1.

a. Project Transportation Noise Impacts on Proposed On-Site Noise-Sensitive Land Uses (Less Than Significant With Mitigation)

Exterior Noise Exposure

Exterior noise exposure within the project site is dominated by vehicle traffic associated with State Route 198 to the south and railroad operations associated with the San Joaquin Valley Railroad line to the north. Noise levels measured at ambient noise monitoring sites LT-1 and LT-2 indicate that overall project site noise exposure is approximately 65-70 dB L_{dn} .

The exterior noise level standard applicable to the above-described sensitive receptors is 60 dB L_{dn} . The General Plan also states that where it is not possible to reduce noise in outdoor activity areas to 60 dB L_{dn} /CNEL or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB L_{dn} /CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

Exterior noise level compatibility standards for transportation noise sources are applied at the outdoor activity areas of sensitive receptors. Outdoor activity areas typically include backyards of single-family residential uses and outdoor common use areas (pools, BBQ/picnic areas, playgrounds, etc.) as well as individual patios, balconies and decks of multi-family residential uses and transient lodging land uses. The exact locations of such outdoor activity areas were not known at the time of this analysis; however, the project site plan (Figure 1) provides preliminary locations of pool areas for both the apartment development and the hotel development. Other proposed sensitive receptors (memory care facility, assisted living facility, skilled nursing facility, etc.) may also include outdoor activity areas, at which this exterior noise level standard would apply.

Potential Impact:

Transportation noise exposure levels would be expected to exceed the City's 60 dB L_{dn} exterior noise level standard at outdoor activity areas associated with the multi-family apartment land use and the hotel land use. Additionally, depending on the locations (if included into final project design) of any outdoor activity areas associated with other noise-sensitive land uses (as defined above in Table 1), transportation noise exposure levels could exceed the City's exterior noise level standard at such land uses as well.

Mitigation Measures:

Based upon project site noise exposure (approximately 65-70 dB L_{dn}) and the preliminary locations of the apartment and hotel pool areas (outdoor activity areas), mitigating exterior noise levels at these locations to at or below 60 dB L_{dn} would likely not be feasible. However, a preliminary analysis using a sound wall insertion loss model indicates that a sound wall constructed to a minimum height of six-and-a-half (6.5) feet above ground level constructed around the two pool areas (apartment and hotel land uses) would mitigate exterior noise levels to below 65 dB L_{dn} within these outdoor activity areas.

Other proposed sensitive receptors (memory care facility, assisted living facility, skilled nursing facility, etc.) may also include outdoor activity areas, at which this exterior noise level standard would apply. The potential locations of outdoor activity areas associated with these land uses was not known at the time of this analysis. However, a similarly constructed sound wall around such uses would reduce noise levels to below 65 dB L_{dn} . Such noise levels are allowed by the City.

Interior Noise Exposure

As described above, exterior project site noise exposure throughout the overall project area is approximately 65-70 dB L_{dn} , as a result of varying levels of proximity to both State Route 198 and the San Joaquin Valley Railroad line. Additionally, peak hour exterior noise levels would be approximately 70 dB L_{eq} at the exterior of the office land uses to the north and the nursing college to the south. Interior noise level standards applicable to the project site vary, based upon proposed land uses. These interior noise level standards applicable to the project are:

- 45 dB L_{dn} : Multi-family apartment, Hotel, skilled nursing facility, memory care facility, assisted living facility, and any additional facility where people are residing and sleep disturbance is considered.
- 45 dB L_{eq} : Office buildings, Nursing College (as determined for a typical worst case hour during periods of use)

Based upon the above-described exterior noise exposure levels and applicable interior noise level standards, the proposed construction measures must be capable of providing approximately 25 dB of outdoor-to-indoor noise level reduction (NLR) ($70-45=25$).

Generally speaking, construction measures complying with current building code standards would typically be expected to provide approximately 20-25 dB of outdoor-to-indoor NLR, provided windows and doors can remain closed for sound insulation purposes. However, additional sound attenuation measures may be required in conditions where the exterior façade consists of large portions of window or storefront glazing assemblies. Once construction plans are developed, an acoustical consultant should review to determine if additional interior noise level mitigation measures may be required.

Potential Impact:

Interior noise level standards applicable to the project's proposed noise-sensitive land uses are described above. Exterior exposure levels at the exterior facades of proposed noise-sensitive land uses would be in the range of approximately 60-75 dB L_{dn} and 70 dB L_{eq} (peak hour). Depending

on final construction design, interior noise levels could potentially exceed the various applicable noise level standards of 45 dB L_{dn} and 45 dB L_{eq} .

Mitigation Measures:

Once building-specific construction plans become available, interior noise levels should be reviewed and calculated by a qualified acoustical consultant to determine if additional noise attenuation mitigation measures are required to comply with interior noise level standards.

b. Noise Impacts from Nearby Airports or Airstrips (No Impact)

The Project site is located approximately 1.5 miles west of Hanford Municipal Airport. WJVA has reviewed the Kings County Airport Land Use Compatibility Plan⁶ to determine if the project would result in any noise compatibility concerns associated with airport operations. No portion of the project site is contained within any airport noise contours, and would therefore not result in any noise compatibility issues. The Hanford Municipal Airport noise contours are provided as Figure 6.

6. IMPACT SUMMARY

This impact summary addresses only the noise impacts determined to be “potentially significant” and summarizes the mitigation measures that would be required to reduce noise levels to a “less than significant” level or states that the impact may be significant and unavoidable. Potential impacts and correlating mitigation measures are described in detail above, and summarized below.

Potential Impact:

Noise levels associated with truck movements could exceed the City’s 65 dB L_{max} nighttime noise level standard at the residential property lines north of the 5th Street access point, if truck deliveries were to occur between the nighttime hours of 10:00 p.m. to 7:00 a.m.

Mitigation Measures:

Noise levels associated with nighttime (10:00 p.m. to 7:00 a.m.) truck movements could be mitigated by implementing the following condition:

- Require truck movements occurring during nighttime hours to use the Glendale Avenue access point only.

Potential Impact:

A noise impact could occur if construction activities do not incorporate appropriate mitigation measures and best management practices.

Mitigation Measures:

Noise levels associated with construction activities may be effectively mitigated by incorporating noise mitigation measures and appropriate best management practices. The following mitigation measures and best management practices should be applied during periods of project construction.

- Per the City of Hanford Municipal Code, construction activities should not occur outside the hours of 7:00 a.m. to 8:00 p.m.
- All construction equipment shall be properly maintained and muffled as to minimize noise generation at the source.
- Noise-producing equipment shall not be operating, running, or idling while not in immediate use by a construction contractor.

- All noise-producing construction equipment shall be located and operated, to the extent possible, at the greatest possible distance from any noise-sensitive land uses.
- Locate construction staging areas, to the extent possible, at the greatest possible distances from any noise-sensitive land uses.
- Signs shall be posted at the construction site and near adjacent sensitive receptors displaying hours of construction activities and providing the contact phone number of a designated noise disturbance coordinator.

Potential Impact:

Transportation noise exposure levels would be expected to exceed the City's 60 dB L_{dn} exterior noise level standard at outdoor activity areas associated with the multi-family apartment land use and the hotel land use. Additionally, depending on the locations (if included into final project design) of any outdoor activity areas associated with other noise-sensitive land uses (as defined above in Table 1), transportation noise exposure levels could exceed the City's exterior noise level standard at such land uses as well.

Mitigation Measures:

Based upon project site noise exposure (approximately 65-70 dB L_{dn}) and the preliminary locations of the apartment and hotel pool areas (outdoor activity areas), mitigating exterior noise levels at these locations to at or below 60 dB L_{dn} would likely not be feasible. However, a preliminary analysis using a sound wall insertion loss model indicates that a sound wall constructed to a minimum height of six-and-a-half (6.5) feet above ground level constructed around the two pool areas (apartment and hotel land uses) would mitigate exterior noise levels to below 65 dB L_{dn} within these outdoor activity areas. Such noise levels are allowed by the City.

Other proposed sensitive receptors (memory care facility, assisted living facility, skilled nursing facility, etc.) may also include outdoor activity areas, at which the exterior noise level standard would apply. The potential locations of outdoor activity areas associated with these land uses was not known at the time of this analysis. However, a similarly constructed sound wall around such uses would reduce noise levels to below 65 dB L_{dn} .

Potential Impact:

Interior noise level standards applicable to the project's proposed noise-sensitive land uses are described above. Exterior exposure levels at the exterior facades of proposed noise-sensitive land uses would be in the range of approximately 60-75 dB L_{dn} and 70 dB L_{eq} . Depending on final construction design, interior noise levels could potentially exceed the various applicable noise level standards of 45 dB L_{dn} and 45 dB L_{eq} .

Mitigation Measures:

Based upon the above-described exterior noise exposure levels and applicable interior noise level standards, the proposed construction measures must be capable of providing approximately 25 dB of outdoor-to-indoor noise level reduction (NLR) ($70-45=25$).

Generally speaking, construction measures complying with current building code standards would typically be expected to provide approximately 20-25 dB of outdoor-to-indoor NLR, provided windows and doors can remain closed for sound insulation purposes. However, additional sound attenuation measures may be required in conditions where the exterior façade consists of large portions of windows and/or storefront glazing assemblies. Once construction plans are developed, an acoustical consultant should review to determine if additional interior noise level mitigation measures may be required. Such measures would typically include the incorporation of sound-rated (higher STC) windows and assemblies.

7. **SOURCES CONSULTED**

1. *City of Hanford 2035 General Plan*, April 2017
2. *City of Hanford Municipal Code*, 2016
3. California Department of Transportation, *Transportation and Construction Vibration Guidance Manual*, September 2013.
4. Federal Highway Administration, *Traffic Noise Model, Version 2.5*, April 14, 2004
5. Hodges & Shutt, *Kings County Airport Land Use Compatibility Plan*, July 1994

FIGURE 1: PROJECT SITE PLAN



FIGURE 3

LSA

NOT TO SCALE
N

SOURCE: LANGDON WILSON INTERNATIONAL, 2020.

FILE: \\P:\EPI2001 Hanford Place\PRODUCTS\Figure_3.ai (4/22/2020)

*Hanford Place Project
Hanford, Kings County, California
Site Plan*

FIGURE 2: PROJECT VICINITY AND AMBIENT NOISE MONITORING SITES



FIGURE 3: HOURLY NOISE LEVELS AT SITE LT-1

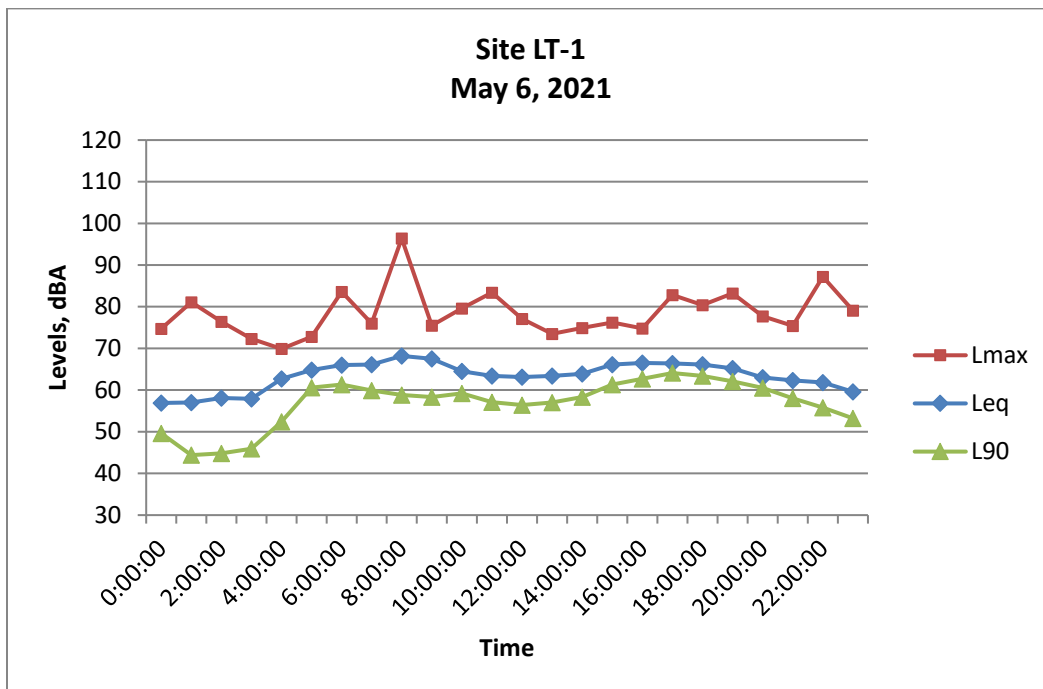
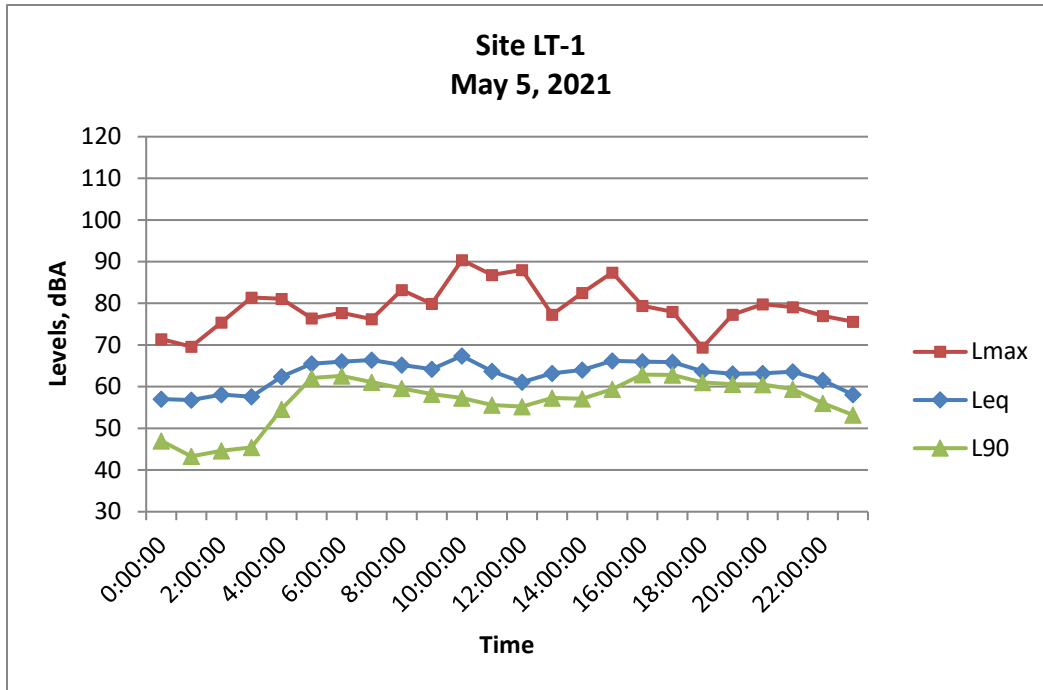
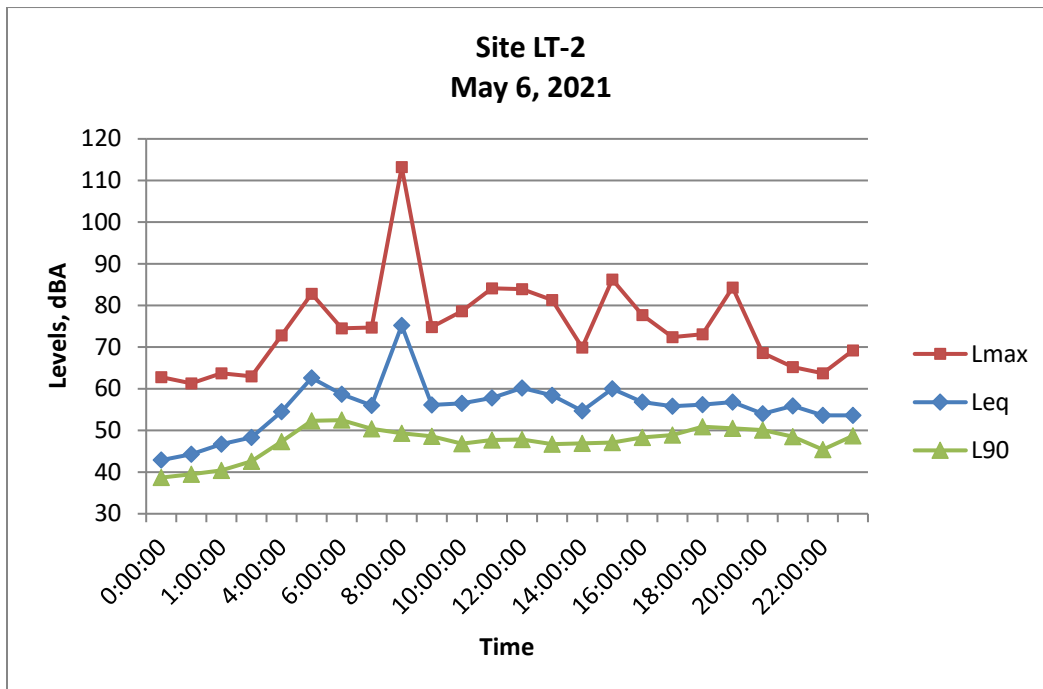
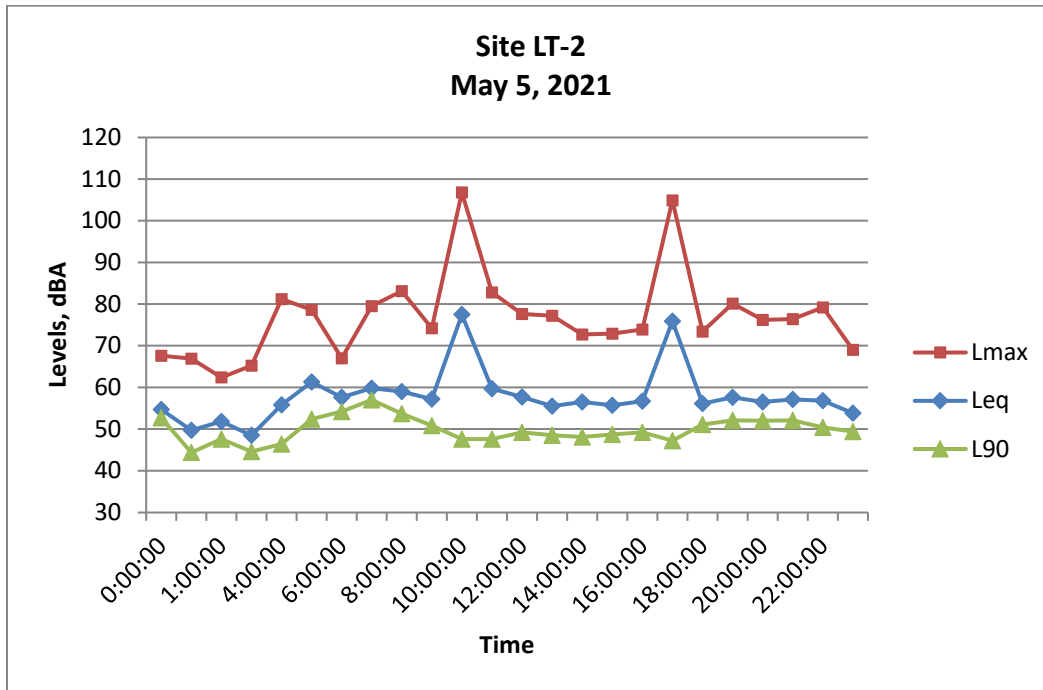


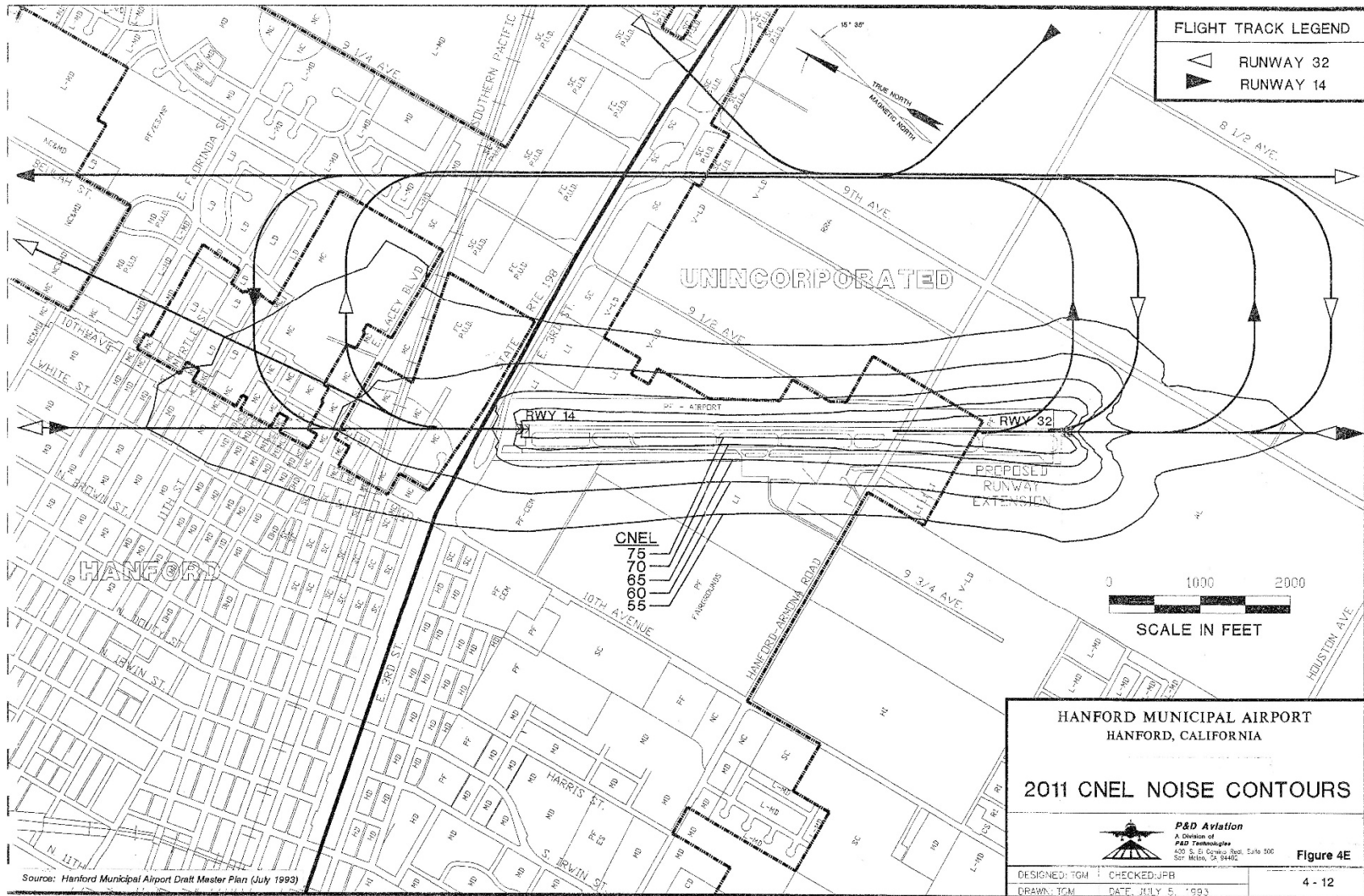
FIGURE 4: HOURLY NOISE LEVELS AT SITE LT-2



This aerial map illustrates the proposed light rail alignment and the seven Right-of-Way (R.O.W.) segments (R-1 through R-7) for the study area in Glendale, AZ. The alignment is shown as a yellow line running east-west. The map includes the following features:

- Streets:** W Lacey Blvd, Bailey Dr, Cousins Dr, Main Dr, Henderson St, W 5th St, W 3rd St, N 4th Ave, N Williams St, S Williams St, and Glendale Ave.
- Highway:** Highway 198 is visible at the bottom of the map.
- Scale and Orientation:** A scale bar indicates 1000 feet, and a north arrow is located in the bottom right corner.
- Right-of-Way Segments:** Seven segments are labeled R-1 through R-7, with arrows pointing to their respective locations along the alignment.

FIGURE 6: HANFORD MUNICIPAL AIRPORT NOISE CONTOURS



APPENDIX A-1

ACOUSTICAL TERMINOLOGY

AMBIENT NOISE LEVEL:	The composite of noise from all sources near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.
CNEL:	Community Noise Equivalent Level. The average equivalent sound level during a 24-hour day, obtained after addition of approximately five decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and ten decibels to sound levels in the night before 7:00 a.m. and after 10:00 p.m.
DECIBEL, dB:	A unit for describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).
DNL/L_{dn}:	Day/Night Average Sound Level. The average equivalent sound level during a 24-hour day, obtained after addition of ten decibels to sound levels in the night after 10:00 p.m. and before 7:00 a.m.
L_{eq}:	Equivalent Sound Level. The sound level containing the same total energy as a time varying signal over a given sample period. L _{eq} is typically computed over 1, 8 and 24-hour sample periods.
NOTE:	The CNEL and DNL represent daily levels of noise exposure averaged on an annual basis, while L _{eq} represents the average noise exposure for a shorter time period, typically one hour.
L_{max}:	The maximum noise level recorded during a noise event.
L_n:	The sound level exceeded "n" percent of the time during a sample interval (L ₉₀ , L ₅₀ , L ₁₀ , etc.). For example, L ₁₀ equals the level exceeded 10 percent of the time.

A-2

ACOUSTICAL TERMINOLOGY

NOISE EXPOSURE CONTOURS:

Lines drawn about a noise source indicating constant levels of noise exposure. CNEL and DNL contours are frequently utilized to describe community exposure to noise.

NOISE LEVEL REDUCTION (NLR):

The noise reduction between indoor and outdoor environments or between two rooms that is the numerical difference, in decibels, of the average sound pressure levels in those areas or rooms. A measurement of “noise level reduction” combines the effect of the transmission loss performance of the structure plus the effect of acoustic absorption present in the receiving room.

SEL or SENEL:

Sound Exposure Level or Single Event Noise Exposure Level. The level of noise accumulated during a single noise event, such as an aircraft overflight, with reference to a duration of one second. More specifically, it is the time-integrated A-weighted squared sound pressure for a stated time interval or event, based on a reference pressure of 20 micropascals and a reference duration of one second.

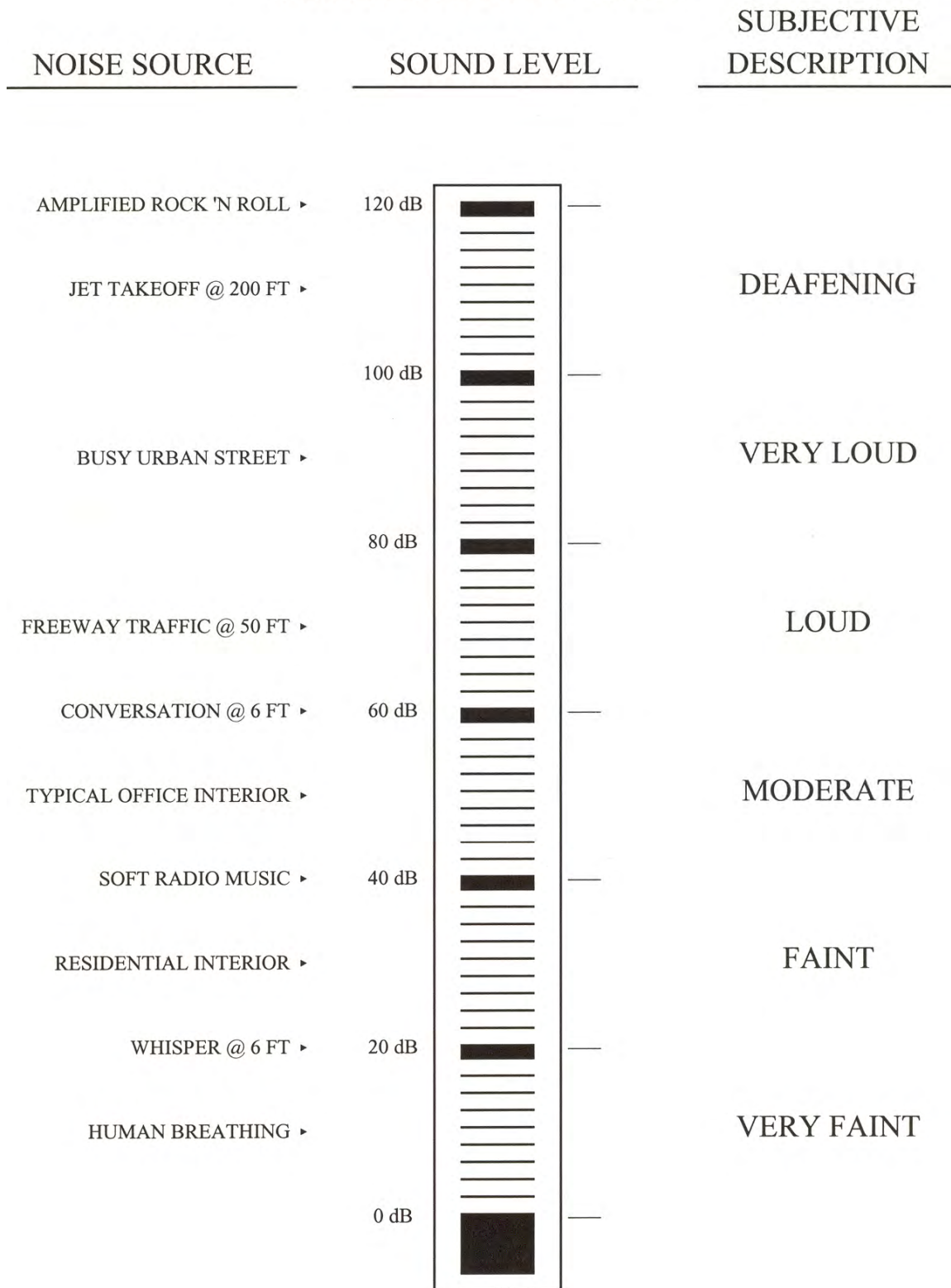
SOUND LEVEL:

The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the response of the human ear and gives good correlation with subjective reactions to noise.

SOUND TRANSMISSION CLASS (STC):

The single-number rating of sound transmission loss for a construction element (window, door, etc.) over a frequency range where speech intelligibility largely occurs.

APPENDIX B EXAMPLES OF SOUND LEVELS



APPENDIX C

TRAFFIC NOISE MODELING CALCULATIONS

WJV Acoustics, Inc
FHWA-RD-77-108
Calculation Sheets
 May 7, 2021

Project #:	20-016
Description:	Existing
Ldn/Cnel:	Ldn
Site Type:	Soft

Contour Levels (dB)	60	65	70	75					
----------------------------	----	----	----	----	--	--	--	--	--

[illegible]

WJV Acoustics, Inc
FHWA-RD-77-108
Calculation Sheets
 May 7, 2021

Project #:	20-016
Description:	Existing + project
Ldn/Cnel:	Ldn
Site Type:	Soft

Contour Levels (dB)

60	65	70	75					
----	----	----	----	--	--	--	--	--

[illegible]

Project #:	20-016
Description:	2042 No Projrect
Ldn/Cnel:	Ldn
Site Type:	Soft

Contour Levels (dB)	60	65	70	75					
---------------------	----	----	----	----	--	--	--	--	--

Project #:	20-016
Description:	2042 No Projrect
Ldn/Cnel:	Ldn
Site Type:	Soft

Project #:	20-016
Description:	2042 + Pojrect
Ldn/Cnel:	Ldn
Site Type:	Soft

[illegible]

APPENDIX F

TRAFFIC IMPACT STUDY

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DRAFT

Hanford Place Development

Traffic Impact Study
December 2020

Prepared by:

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Hanford Place Development Traffic Impact Study

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Table of Contents

Section	Description	Page
	Executive Summary	E-1
1.0	Introduction	1
1.1	Description of the Region/Project	1
1.1.1	Project Access	4
1.1.2	Study Area	4
1.1.3	Study Scenarios	5
1.2	Methodology	5
1.2.1	Intersection Analysis	5
1.2.2	Roadway Segment Analysis	6
1.3	Policies to Maintain Level of Service	10
1.3.1	City of Hanford	10
1.3.2	California Department of Transportation	10
1.4	VMT Analysis	11
2.0	Existing Conditions	12
2.1	Existing Traffic Counts and Roadway Geometrics	12
2.2	Existing Functional Roadway Classification System	12
2.3	Affected Streets and Highways	13
2.4	Level of Service	14
2.4.1	Intersection Capacity Analysis	14
2.4.2	Queuing Analysis	15
2.4.3	Roadway Segment Capacity Analysis	15
3.0	Traffic Impacts	22
3.1	Trip Generation	22
3.2	Trip Distribution	23
3.3	Project Traffic	23
3.4	Existing Plus Project Traffic Conditions	23
3.5	Near-Term Traffic Conditions	23
3.6	Cumulative Year 2042 Without Project Traffic Conditions	32
3.7	Cumulative Year 2042 Plus Project Traffic Conditions	32
3.8	Impacts	32
3.8.1	Intersection Capacity Analysis	32
3.8.2	Queuing Analysis	32

	3.8.3 Roadway Segment Capacity Analysis	32
3.9	VTM Analysis	33
4.0	Mitigation	42
4.1	Recommended Improvements	42
	4.1.1 Intersections	42
	4.1.2 Roadway Segments	43
4.2	Equitable Share Responsibility	47

Appendices

Appendix A – Modified Arterial Level of Service Tables
Appendix B – Traffic Count Data Worksheets
Appendix C – Synchro 10 (HCM 6 th Edition) Worksheets
Appendix D – Chapter 400 of Caltrans' Highway Design Manual (HDM)
Appendix E – Peak Hour Traffic Signal Warrant
Appendix F – VMT Analysis Maps

List of Tables

1-1	Project Components	1
1-2	Signalized Intersection Level of Service Definitions	7
1-3	Unsignalized Intersections Level of Service Definitions	8
1-4	Roadway Segment Level of Service Definitions	9
1-5	Peak Hour Two-Way Volumes	10
2-1	Existing Intersection Operations	19
2-2	Existing Queuing Operations	20
2-3	Existing Segment Operations	21
3-1	Project Trip Generation	22
3-2	Intersection Operations	39
3-3	Queuing Operations	40
3-4	Segment Operations	41
4-1	Intersection Operations with Mitigation	44
4-2	Segment Operations with Mitigation	45
4-3	Left Turn and Right Turn Storage Requirements	46
4-4	Equitable Share Responsibility	47

List of Figures

1-1	Regional Location	2
1-2	Project Location	3
2-1	Existing Lane Geometry	16
2-2	Existing AM Peak Hour Traffic	17
2-3	Existing PM Peak Hour Traffic	18

3-1a	Project Trip Distribution - Inbound	24
3-1b	Project Trip Distribution - Outbound	25
3-2	AM Peak Hour Project Traffic	26
3-3	PM Peak Hour Project Traffic	27
3-4	Existing Plus Project AM Peak Hour Traffic	28
3-5	Existing Plus Project PM Peak Hour Traffic	29
3-6	Near-Term Plus Project AM Peak Hour Traffic	30
3-7	Near-Term Plus Project PM Peak Hour Traffic	31
3-8	Cumulative Year 2042 Without Project AM Peak Hour Traffic	35
3-9	Cumulative Year 2042 Without Project PM Peak Hour Traffic	36
3-10	Cumulative Year 2042 Plus Project AM Peak Hour Traffic	37
3-11	Cumulative Year 2042 Plus Project PM Peak Hour Traffic	38

Executive Summary

This Traffic Impact Study (TIS) has been prepared for the purpose of analyzing traffic conditions related to the Hanford Place Development (Project). The various components of the Project are detailed in Table E-1 below. The Project site is generally bound to the north by the San Joaquin Valley Railroad, to the east by commercial land uses, to the south by State Route 198, and to the west by commercial land uses. Regional access to the site is provided by State Route 198, which is located adjacent to the southern border of the project site.

The vacant project site is comprised of four parcels and is located between State Route 198 and the San Joaquin Valley Railroad in the City of Hanford (City), in Kings County (Kings). 5th Street cuts through the project site in an east/west direction and Campus Drive cuts through the project in a north/south direction. In addition, the Peoples Ditch runs through the project site.

The city of Hanford is located 30 miles south of the City of Fresno and 20 miles west of the City of Visalia. Hanford was incorporated in 1891 and is the county seat of Kings County. Hanford is located in the northern portion of Kings County at an elevation of 249 feet above sea level. The city has a total area of 16.6 square miles, all of which is land not covered by water. The only natural watercourse is Mussel Slough, remnants of which still exist on the city's western edge. The People's Ditch, an irrigation canal dug in the 1870s, traverses Hanford from north to south.

Vehicular access to the site would be provided by Glendale Avenue, 5th Street, and Campus Drive. The extension of these roadways would be constructed to City standards and would be dedicated as public right of way. The proposed project would also construct a roundabout, which would also be dedicated as public right of way and would be constructed to Caltrans or City-approved standards. As part of the project, Glendale Avenue would be realigned at the northwest corner of the Hanford Veterinary Hospital development. The existing knuckle would be removed, and Glendale Avenue would be realigned using speed-specific design curves. Any new portions of Glendale Avenue would be dedicated as public right of way and any portion of existing right of way not used would be abandoned. 5th Street would be extended starting at the existing alignment before realigning to the roundabout. In addition, the proposed project would provide 1,466 parking spaces throughout the project site.

The TIS completed for the Project includes level of service (LOS) analysis for the following traffic scenarios.

- ✓ Existing Conditions
- ✓ Existing Plus Project
- ✓ Near-Term Plus Project
- ✓ Cumulative Year 2042 Without Project
- ✓ Cumulative Year 2042 Plus Project

Table E-1
Project Components

PROJECT COMPONENTS	SIZE/UNIT	DESCRIPTION
Ambulatory Surgery Center	22,525 sf	This facility is used to handle approximately 25 surgical procedures per day. There will be approximately 12 employees. This only operates weekdays.
Specialty Clinic	12,445 sf	This will be an Office of Statewide Health Planning and Development's (OSHDP) 3 facility, which in turn will approve advanced scope for medical care (i.e.: radiology/oncology. This will be a Monday-Saturday facility.
Medical Office Building	24,890 sf	This will be standard weekday medical offices.
Psychiatric Health Facility	12,445 sf	This is a psychiatric health care facility. This will consist of 24 patients who stay an average of 5 days. There will be approximately 10 employees and this use will operate 24/7. There will be approximately 4 admissions/discharges per day all done via ambulance.
Hotel & Conference Center	105 Rooms	This will be a standard traffic count for hotels and will be a limited service hotel. The conference center will be used on an average of 2 times per week including weekends.
Nursing College	35,000 sf	This is a m-sat operation. The School hosts 4 classes per scheduling window and offer three scheduling windows per day. Average class length is 2.5 hours. Average student enrollment is 8 students per class. Total classes of 12 per day and start at 8am and finish at 930pm.
Skilled Nursing Facility	54,611 sf	Skilled nursing facility with average of 1.5 admits per day and 1 discharge per day. Staff ratio of 1:6 with a total of 59 beds. It is a 24/7 operation and there are usually approximately 20 visitors/service provider visits per day. No patients/residents have access to vehicles
Memory Care	34,480 sf	Like above SNF, however longer length of stay (average stay of 45 days) so less vehicle traffic inbound and outbound. Same staff ratio and same visit count by visitors/service providers.
Assisted Living Facility	34,380 sf	Limited use of vehicles for residents. On average ¼ of residents have vehicles parked full time at facility. Majority of residents use facilities bus transportation. This is 24/7 as well and staff ratio is 1:8.
Multi-Family Apartment	90 Units	Standard
Medical/Commercial	114,000 sf	This will be standard weekday medical offices.

IMPACTS

Intersections

Table E-2 provides the intersection level of service analysis for the study intersections considering the study scenarios discussed above. Potential mitigation measures are discussed below. Results of the analysis show that the Project will contribute to an unacceptable LOS at five (5) of the study intersections when comparing the Cumulative Year 2042 scenarios.

Segments

Table E-3 shows roadway segments that are expected to fall short of desirable operating conditions for various scenarios. Potential mitigation measures are discussed below. Results of the analysis also show that the Project will result in a cumulative impact at two (2) of the study roadway segments when comparing the Cumulative Year 2042 scenarios.

Table E-2
Intersection Operations

INTERSECTION	CONTROL	TARGET LOS	PEAK HOUR	EXISTING		EXISTING PLUS PROJECT		NEAR-TERM PLUS PROJECT		CUMULATIVE YEAR 2042 WITHOUT PROJECT		CUMULATIVE YEAR 2042 PLUS PROJECT	
				DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS
1. 12th Avenue / Glendale Avenue	Two-Way Stop Sign	D	AM	22.7	C	30.2	D	37.2	E	74.4	F	154.4	F+
			PM	100.4	F+	184.6	F+	269.9	F+	++	F	++	F+
2. 12th Avenue / SR 198 WB Ramps	Signalized	-- ¹	AM	13.8	B	13.7	B	14.5	B	18.8	B	19.9	B
			PM	17.8	B	19.4	B	23.0	C	64.5	E	75.1	E
3. 12th Avenue / SR 198 EB Ramps	Signalized	-- ¹	AM	11.9	B	12.5	B	12.7	B	13.2	B	13.7	B
			PM	13.0	B	13.6	B	14.3	B	19.0	B	20.1	C
4. Campus Drive / Lacey Boulevard	Signalized	D	AM	25.0	C	25.2	C	25.4	C	25.7	C	25.5	C
			PM	28.0	C	29.2	C	31.4	C	52.2	D	52.9	D
5. Campus Drive / 7th Street	All-Way Stop Sign	D	AM	9.9	A	11.9	B	12.6	B	12.1	B	15.0	B
			PM	15.6	C	23.7	C	31.8	D	92.9	F	146.9	F
6. Campus Drive / 6th Street	Two-Way Stop Sign	D	AM	10.4	B	13.3	B	13.6	B	10.7	B	13.1	B
			PM	10.6	B	13.9	B	14.3	B	11.5	B	14.7	B
7. 11th Avenue / Lacey Boulevard	Signalized	D	AM	20.4	C	20.3	C	21.0	C	25.3	C	25.9	C
			PM	27.5	C	28.5	C	31.6	C	49.9	D	52.7	D
8. 11th Avenue / 7th Street	Signalized	D	AM	18.9	C	18.9	B	19.7	B	24.2	C	24.4	C
			PM	28.8	C	29.0	C	31.8	C	55.6	E	57.6	E
9. 11th Avenue / 6th Street	Two-Way Stop Sign	D	AM	12.6	B	12.7	B	13.3	B	17.1	C	17.3	C
			PM	17.4	C	18.1	C	20.6	C	74.3	F	83.6	F
10. 11th Avenue / 5th Street	Signalized	D	AM	4.9	A	9.6	A	9.7	A	6.5	A	10.7	B
			PM	12.1	B	18.1	B	19.5	B	23.8	C	42.3	D
11. 11th Avenue / 4th Street-SR 198 WB On Ramp	Signalized	-- ¹	AM	12.0	B	15.3	B	15.9	B	16.4	B	20.8	C
			PM	12.7	B	14.6	B	15.6	B	21.0	C	28.4	C
12. 11th Avenue / 3rd Street-SR 198 EB Off Ramp	Signalized	-- ¹	AM	18.6	B	21.0	C	22.9	C	27.0	C	30.2	C
			PM	25.1	C	30.6	C	35.4	D	76.3	E	97.4	F

DELAY is measured in seconds

LOS = Level of Service / **BOLD** denotes LOS standard has been exceeded

For signalized and all-way stop intersections, delay results show the average for the entire intersection. For one-way and two-way stop controlled intersections, delay results show the delay for the worst movement.

1 - With the changes brought about by SB 743, Caltrans no longer uses level of service to determine the need for transportation improvements. Instead, focus is on providing adequate facilities for pedestrians, bicycles, and transit as well as safety considerations for all transportation modes. Guidance is provided in the Transportation Impact Study Guide dated May 20, 2020 and the Interim Land Development and Intergovernmental Review Safety Review Practitioners Guidance dated July 2020. This guidance will be used in determining the need for roadway improvements on Caltrans facilities.

+ Meets peak hour signal warrants.

++ Delay Exceeds 300 seconds.

Table E-3
Segment Operations

STREET SEGMENT	SEGMENT DESCRIPTION	TARGET LOS	PEAK HOUR	EXISTING		EXISTING PLUS PROJECT		NEAR-TERM PLUS PROJECT		CUMULATIVE YEAR 2042 WITHOUT PROJECT		CUMULATIVE YEAR 2042 PLUS PROJECT	
				VOLUME	LOS	VOLUME	LOS	VOLUME	LOS	VOLUME	LOS	VOLUME	LOS
Lacey Boulevard													
12th Avenue to Campus Drive	4 Lanes Divided	D	AM	855	C	919	C	990	C	1,322	C	1,386	C
			PM	1,693	C	1,767	C	1,907	C	2,617	D	2,691	D
Campus Drive to 11th Avenue	4 Lanes Divided	D	AM	963	C	1,027	C	1,107	C	1,489	C	1,553	C
			PM	1,873	C	1,947	C	2,101	C	2,896	D	2,970	E
7th Street													
Campus Drive to 11th Avenue	2 Lanes Undivided	D	AM	346	D	378	D	407	D	535	D	567	D
			PM	743	D	780	D	841	D	1,149	E	1,186	E
6th Street													
Campus Drive to 11th Avenue	2 Lanes Undivided	D	AM	127	C	127	C	137	C	196	C	196	C
			PM	142	C	142	C	154	C	220	C	220	C
Glendale Avenue													
East of 12th Avenue	2 Lanes Undivided	D	AM	130	C	323	C	334	D	201	C	394	D
			PM	163	C	385	D	399	D	252	C	474	D
5th Avenue													
West of 11th Avenue	2 Lanes Undivided	D	AM	101	C	359	D	367	D	156	C	414	D
			PM	464	D	760	D	799	D	717	D	1,014	D
Campus Drive													
Lacey Bouloevard to Glendale Avenue	2 Lanes Undivided	D	AM	251	C	380	D	400	D	388	D	517	D
			PM	393	D	541	D	574	D	608	D	756	D

LOS = Level of Service / **BOLD** denotes LOS standard has been exceeded

MITIGATION

As discussed above, the potentially significant impacts resulting from the Project relate to the generation of unacceptable LOS at various intersections and road segments in the long term. Considering the criteria provided in Section 1.3 and the results presented above, the following improvements are recommended to alleviate project-specific impacts.

INTERSECTIONS

- ✓ 12th Avenue at Glendale Avenue
No Recommended improvements.

Installation of a traffic signal would alleviate level of service deficiencies at the intersection for all study scenarios. However, providing a traffic signal at this location is not practical given the close spacing of adjacent intersections. In lieu of the traffic signal, dual right turn lanes for the eastbound and westbound approaches to the intersection should be considered to alleviate queuing at the eastbound and westbound approaches.

- ✓ Campus Drive at 7th Street
Recommended improvements to achieve acceptable levels of service:
 - Cumulative Year 2042 Plus Project scenario:
 - Install Traffic Signal

The improvements identified above for the Cumulative Year 2042 Plus Project scenario are sufficient to meet the City of Hanford's acceptable LOS standard of 'D'.

- ✓ 11th Avenue at 7th Street
No Recommended improvements.

Providing additional turning movement lanes along 11th Avenue and 7th Street is not possible due to design constraints or infeasible/impractical due to the presence of commercial development that currently exists along the north and south side of 7th Street.

- ✓ 11th Avenue at 6th Street
No Recommended improvements.

This intersection is forecasted to operate at unacceptable LOS 'F' (PM) under Cumulative Year 2042 Without Project and Cumulative Year 2042 Plus Project conditions; however, this intersection does not meet the peak hour traffic signal warrant because the minor approaches do not carry enough traffic to justify signalization. Therefore, no improvements are recommended for the Project's contribution of traffic at the intersection for the Cumulative Year 2042 Plus Project condition.

- ✓ 12th Avenue at SR 198 WB Ramps
No Recommended improvements.

Providing additional turning movement lanes at the 12th Avenue and SR 198 WB Ramps intersection is not possible due to design constraints or infeasible/impractical due to the presence of development that currently exists along the north side of the SR 198 WB Ramps. As noted in Section 1.3, Caltrans no longer uses level of service to determine the need for transportation improvements. Instead, focus is on providing adequate facilities for pedestrians, bicycles, and transit as well as safety considerations for all transportation modes.

- ✓ 11th Avenue at 3rd Street-SR 198 EB Off Ramp
No Recommended improvements.

Providing additional turning movement lanes at the 11th Avenue and 3rd Street-SR 198 EB Off Ramp intersection is not possible due to design constraints or infeasible/impractical due to the presence of development that currently exists along the south side of 3rd Street and the SR 198 EB Off Ramp. As noted in Section 1.3, Caltrans no longer uses level of service to determine the need for transportation improvements. Instead, focus is on providing adequate facilities for pedestrians, bicycles, and transit as well as safety considerations for all transportation modes.

ROADWAY SEGMENTS

- ✓ Lacey Boulevard between Campus Drive and 11th Avenue
No Recommended improvements.

Providing additional travel lanes along Lacey Boulevard is not possible due to design constraints or infeasible/impractical due to the presence of retail development that currently exists along the north and south side of Lacey Boulevard. In addition, accommodating additional travel lanes along Lacey Boulevard could result in the elimination of parking along Lacey Boulevard.

- ✓ 7th Street between Campus Drive and 11th Avenue
Recommended improvements:

- Cumulative Year 2042 Plus Project scenario:
 - Restripe to provide two-way left turn lane with removal of parking as necessary

Providing additional travel lanes along 7th Street is not possible due to right-of-way constraints.

Post-Mitigation Level of Significance

The level of service resulting from the potential improvements identified above is shown in Tables E-4 and E-5.

This section documents the Project's fair-share responsibility towards the costs of improvements that are identified for the Cumulative Year 2042 scenario. The City of Hanford and the applicant have determined that the payment of the City's impact fees will satisfy the Project's obligations to pay for an equitable share of the improvements.

The formulas used to calculate the equitable share responsibility to City of Hanford facilities is as follows:

$$\text{Equitable Share} = (\text{Project Trips}) / (\text{Future Year Plus Project Traffic})$$

Table E-6 shows the Project's equitable fair share responsibility on a percentage basis for improvements to City of Hanford facilities as described above. The equitable fair share responsibility shown in Table E-6 is the result of LOS enhancements related to capacity.

Table E-4
Intersection Operations with Mitigation

INTERSECTION	CONTROL	TARGET LOS	PEAK HOUR	EXISTING PLUS PROJECT		NEAR-TERM PLUS PROJECT		CUMULATIVE YEAR 2042 PLUS PROJECT	
				DELAY	LOS	DELAY	LOS	DELAY	LOS
1. 12th Avenue / Glendale Avenue	Two-Way Stop Sign	D	AM	30.2	D	37.2	E²	154.4	F²
			PM	184.6	F²	269.9	F²	++	F²
2. 12th Avenue / SR 198 WB Ramps	Signalized	-- ¹	AM					19.9	B
			PM					75.1	E³
5. Campus Drive / 7th Street	Signalized	D	AM					12.8	B
			PM					20.4	C
8. 11th Avenue / 7th Street	Signalized	D	AM					24.4	C
			PM					57.6	E³
9. 11th Avenue / 6th Street	Two-Way Stop Sign	D	AM					17.3	C
			PM					83.6	F⁴
12. 11th Avenue / 3rd Street-SR 198 EB Off Ramp	Signalized	-- ¹	AM					30.2	C
			PM					97.4	F³

DELAY is measured in seconds

LOS = Level of Service / **BOLD** denotes LOS standard has been exceeded

For signalized and all-way stop intersections, delay results show the average for the entire intersection. For one-way and two-way stop controlled intersections, delay results show the delay for the worst movement.

1 - With the changes brought about by SB 743, Caltrans no longer uses level of service to determine the need for transportation improvements. Instead, focus is on providing adequate facilities for pedestrians, bicycles, and transit as well as safety considerations for all transportation modes. Guidance is provided in the Transportation Impact Study Guide dated May 20, 2020 and the Interim Land Development and Intergovernmental Review Safety Review Practitioners Guidance dated July 2020. This guidance will be used in determining the need for roadway improvements on Caltrans facilities. **The recommended improvements are for informational purposes only and would allow for the intersection to meet the City of Hanford LOS criteria.**

2 Installation of a traffic signal would alleviate LOS deficiencies at the intersection. A traffic signal is not recommended given the close spacing of adjacent intersections.

3 Improvements to the intersection aren't recommended given the presence of abutting commercial development at the intersection.

4 Intersection does not meet the peak hour traffic signal warrant.

++ Delay Exceeds 300 seconds.

Table E-5

Table E-5
Segment Operations with Mitigation

STREET SEGMENT	TARGET LOS	PEAK HOUR	CUMULATIVE YEAR 2042 PLUS PROJECT	
			VOLUME	LOS
Lacey Boulevard				
Campus Drive to 11th Avenue	D	AM	1,553	C
		PM	2,970	E *
7th Street				
Campus Drive to 11th Avenue	D	AM	567	D
		PM	1,186	E *

* Capacity Increasing Improvements to the roadway segment aren't recommended given the presence of abutting commercial development.

Table E-6
Cumulative Year 2042 Equitable Share Responsibility

INTERSECTION	PEAK HOUR	PROJECT TRIPS	CUMULATIVE YEAR 2042 PLUS PROJECT	FAIR SHARE PERCENTAGE
Campus Drive / 7th Street	AM	193	1,098	17.6%
	PM	223	1,830	12.2%
ROADWAY SEGMENT				
7th Street between Campus Drive and 11th Avenue	AM	32	567	5.6%
	PM	37	1,186	3.1%

1.0 Introduction

1.1 Description of the Region/Project

This Traffic Impact Study (TIS) has been prepared for the purpose of analyzing traffic conditions related to the Hanford Place Development (Project). The various components of the Project are detailed in Table 1-1 below. The Project site is generally bound to the north by the San Joaquin Valley Railroad, to the east by commercial land uses, to the south by State Route 198, and to the west by commercial land uses. Regional access to the site is provided by State Route 198, which is located adjacent to the southern border of the project site. Figure 1-1 shows the site's regional context. Figure 1-2 shows the Project location within the City of Hanford.

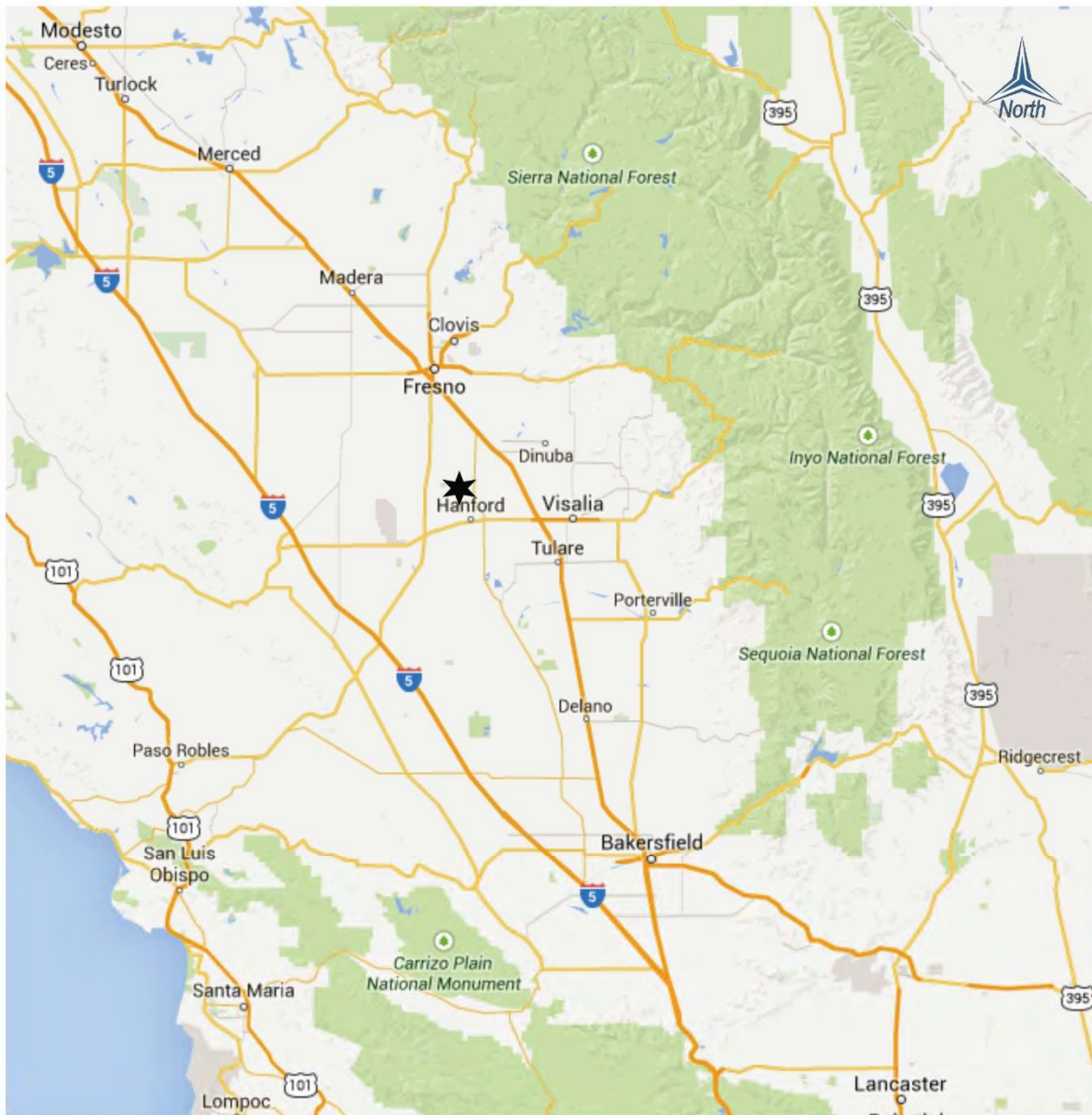
The vacant project site is comprised of four parcels and is located between State Route 198 and the San Joaquin Valley Railroad in the City of Hanford (City), in Kings County (Kings). 5th Street cuts through the project site in an east/west direction and Campus Drive cuts through the project in a north/south direction. In addition, the Peoples Ditch runs through the project site.

Table 1-1
Project Components

PROJECT COMPONENTS	SIZE/UNIT	DESCRIPTION
Ambulatory Surgery Center	22,525 sf	This facility is used to handle approximately 25 surgical procedures per day. There will be approximately 12 employees. This only operates weekdays.
Specialty Clinic	12,445 sf	This will be an Office of Statewide Health Planning and Development's (OSHPD) 3 facility, which in turn will approve advanced scope for medical care (i.e.: radiology/oncology. This will be a Monday-Saturday facility.
Medical Office Building	24,890 sf	This will be standard weekday medical offices.
Psychiatric Health Facility	12,445 sf	This is a psychiatric health care facility. This will consist of 24 patients who stay an average of 5 days. There will be approximately 10 employees and this use will operate 24/7. There will be approximately 4 admissions/discharges per day all done via ambulance.
Hotel & Conference Center	105 Rooms	This will be a standard traffic count for hotels and will be a limited service hotel. The conference center will be used on an average of 2 times per week including weekends.
Nursing College	35,000 sf	This is a m-sat operation. The School hosts 4 classes per scheduling window and offer three scheduling windows per day. Average class length is 2.5 hours. Average student enrollment is 8 students per class. Total classes of 12 per day and start at 8am and finish at 930pm.
Skilled Nursing Facility	54,611 sf	Skilled nursing facility with average of 1.5 admits per day and 1 discharge per day. Staff ratio of 1:6 with a total of 59 beds. It is a 24/7 operation and there are usually approximately 20 visitors/service provider visits per day. No patients/residents have access to vehicles
Memory Care	34,480 sf	Like above SNF, however longer length of stay (average stay of 45 days) so less vehicle traffic inbound and outbound. Same staff ratio and same visit count by visitors/service providers.
Assisted Living Facility	34,380 sf	Limited use of vehicles for residents. On average ¼ of residents have vehicles parked full time at facility. Majority of residents use facilities bus transportation. This is 24/7 as well and staff ratio is 1:8.
Multi-Family Apartment	90 Units	Standard
Medical/Commercial	114,000 sf	This will be standard weekday medical offices.

**Hanford Place Development
Regional Location**

**Figure
1-1**



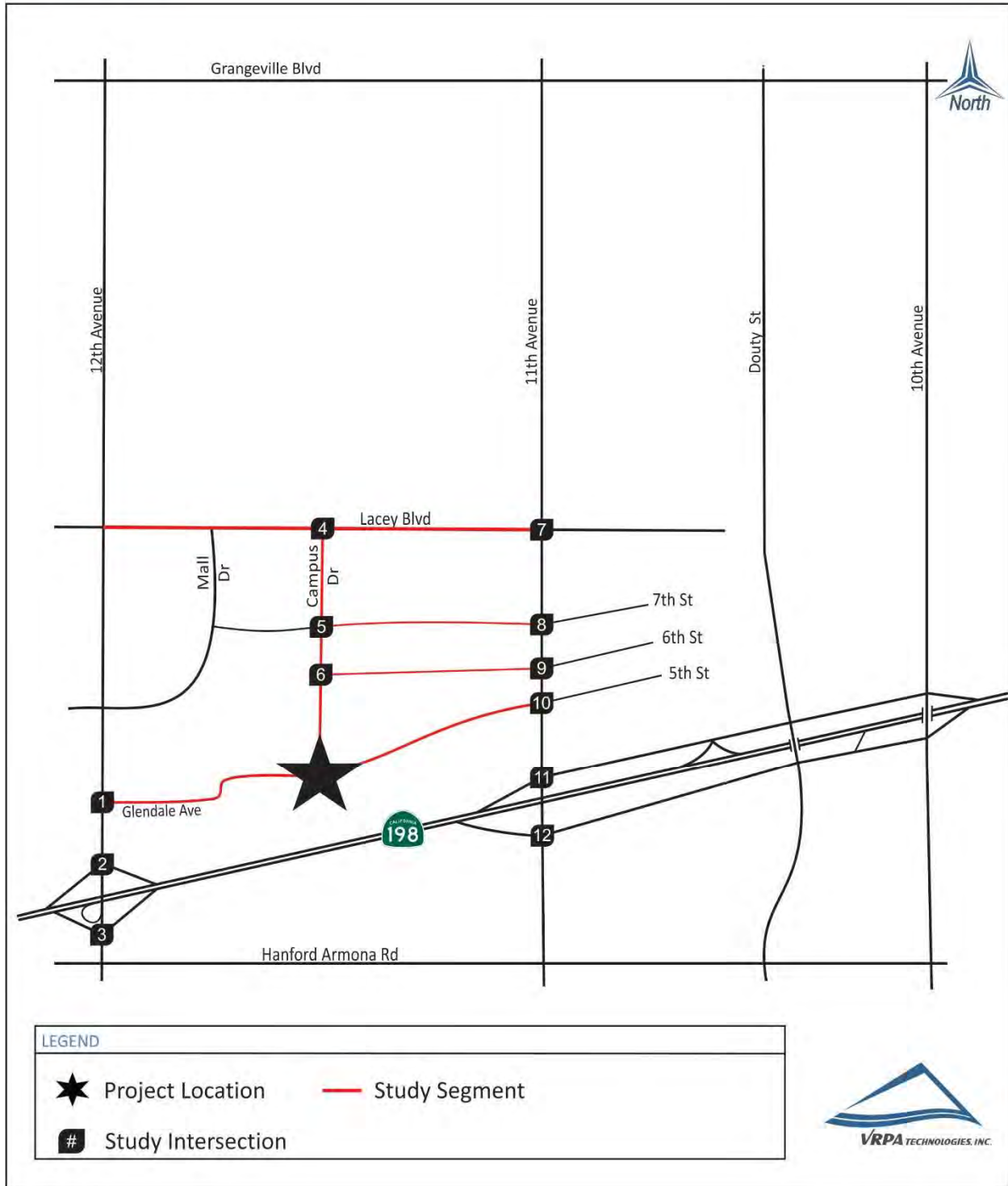
LEGEND

★ Project Location



**Hanford Place Development
Project Location**

**Figure
1-2**



1.1.1 Project Access

Vehicular access to the site would be provided by Glendale Avenue, 5th Street, and Campus Drive. The extension of these roadways would be constructed to City standards and would be dedicated as public right of way. The proposed project would also construct a roundabout, which would also be dedicated as public right of way and would be constructed to Caltrans or City-approved standards. As part of the project, Glendale Avenue would be realigned at the northwest corner of the Hanford Veterinary Hospital development. The existing knuckle would be removed, and Glendale Avenue would be realigned using speed-specific design curves. Any new portions of Glendale Avenue would be dedicated as public right of way and any portion of existing right of way not used would be abandoned. 5th Street would be extended starting at the existing alignment before realigning to the roundabout. In addition, the proposed project would provide 1,466 parking spaces throughout the project site.

1.1.2 Study Area

The study intersections and roadway segments included in this TIS are listed below and shown in Figure 1-2. The study area outlined below was developed in consultation with City of Hanford staff.

Intersections

- ✓ 12th Avenue / Glendale Avenue
- ✓ 12th Avenue / SR 198 WB Ramps
- ✓ 12th Avenue / SR 198 EB Ramps
- ✓ Campus Drive / Lacey Boulevard
- ✓ Campus Drive / 7th Street
- ✓ Campus Drive / 6th Street
- ✓ 11th Avenue / Lacey Boulevard
- ✓ 11th Avenue / 7th Street
- ✓ 11th Avenue / 6th Street
- ✓ 11th Avenue / 5th Street
- ✓ 11th Avenue / 4th Street-SR 198 WB On Ramp
- ✓ 11th Avenue / 3rd Street-SR 198 EB Off Ramp

Segments

- ✓ Lacey Boulevard
 - 12th Avenue to Campus Drive
 - Campus Drive to 11th Avenue
- ✓ 7th Street
 - Campus Drive to 11th Avenue

- ✓ 6th Street
 - Campus Drive to 11th Avenue
- ✓ Glendale Avenue
 - East of 12th Avenue
- ✓ 5th Avenue
 - West of 11th Avenue
- ✓ Campus Drive
 - Lacey Boulevard to Glendale Avenue

1.1.3 Study Scenarios

The TIS completed for the Project includes level of service (LOS) analysis for the following traffic scenarios.

- ✓ Existing Conditions
- ✓ Existing Plus Project
- ✓ Near-Term Plus Project
- ✓ Cumulative Year 2042 Without Project
- ✓ Cumulative Year 2042 Plus Project

1.2 Methodology

When preparing a TIS, guidelines set by affected agencies are followed. In analyzing street and intersection capacities the Level of Service (LOS) methodologies are applied. LOS standards are applied by transportation agencies to quantitatively assess a street and highway system's performance. In addition, safety concerns are analyzed to determine the need for appropriate mitigation resulting from increased traffic near sensitive uses, the need for dedicated ingress and egress access lanes to the project, and other evaluations such as the need for signalized intersections or other improvements. Guidelines incorporated in the Highway Capacity Manual (HCM), 6th Edition, published in 2016 were also used in the development of this TIS.

1.2.1 Intersection Analysis

Intersection LOS analysis was conducted using the Synchro software program. Synchro supports HCM methodologies and is deemed an acceptable program by City of Hanford staff for assessment of traffic impacts. Levels of Service can be determined for both signalized and unsignalized intersections.

Tables 1-2 and 1-3 indicate the ranges in the amounts of average delay for a vehicle at signalized and unsignalized intersections for the various levels of service ranging from LOS "A" to "F".

The signalized LOS standards applied to calculate intersection LOS are in accordance with the current edition of the HCM. Intersection turning movement counts and roadway geometrics used to develop LOS calculations were obtained from field review findings and count data provided from the traffic count sources identified in Section 2.1.

When an unsignalized intersection does not meet acceptable LOS standards, the investigation of the need for a traffic signal shall be evaluated. The latest edition of the California Manual on Uniform Traffic Control Devices for Streets and Highways (California MUTCD) introduces standards for determining the need for traffic signals. The California MUTCD indicates that the satisfaction of one or more traffic signal warrants does not in itself require the installation of a traffic signal. In addition to the warrant analysis, an engineering study of the current or expected traffic conditions should be conducted to determine whether the installation of a traffic signal is justified. The California MUTCD Peak Hour Warrant (Warrant 3) was used to determine if a traffic signal is warranted at unsignalized intersections that fall below current LOS standards.

1.2.2 Roadway Segment Analysis

According to the HCM, LOS is categorized by two parameters of traffic: uninterrupted and interrupted flow. Uninterrupted flow facilities do not have fixed elements such as traffic signals that cause interruptions in traffic flow. Interrupted flow facilities do have fixed elements that cause an interruption in the flow of traffic, such as stop signs and signalized intersections along arterial roads. A roadway segment is defined as a stretch of roadway generally located between signalized or controlled intersections.

Segment LOS is important in order to understand whether the capacity of a roadway can accommodate future traffic volumes. Table 1-4 provides a definition of segment LOS. The performance criteria used for evaluating volumes and capacities on the road and highway system for this study were estimated using the Modified HCM-Based LOS Tables which are widely accepted throughout the central valley, including Kings County. The tables consider the capacity of individual road and highway segments based on numerous roadway variables (design speed, passing opportunities, signalized intersections per mile, number of lanes, saturation flow, etc.). These variables were identified and applied to reflect segment LOS conditions. Street segment capacity was determined using information shown in Table 1-5 which comes from the Modified Arterial Level of Service Tables included in Appendix A.

Table 1-2
Signalized Intersections
Level of Service Definitions
(Highway Capacity Manual)

LEVEL OF SERVICE	DEFINITION		AVERAGE TOTAL DELAY (sec/veh)
A	Describes operations with very low delay. This level of service occurs when there is no conflicting traffic for a minor street.		≤ 10.0
B	Describes operations with moderately low delay. This level generally occurs with a small amount of conflicting traffic causing higher levels of average delay.		$> 10.0 - 20.0$
C	Describes operations with average delays. These higher delays may result from a moderate amount of minor street traffic. Queues begin to get longer.		$> 20.0 - 35.0$
D	Describes a crowded operation, with below average delays. At level D, the influence of congestion becomes more noticeable. Longer delays may result from shorter gaps on the mainline and an increase of minor street traffic. The queues of vehicles are increasing.		$> 35.0 - 55.0$
E	Describes operations at or near capacity. This level is considered by many agencies to be the limit of acceptable delay. These high delay values generally indicate poor gaps for the minor street to cross and large queues.		$> 55.0 - 80.0$
F	Describes operations that are at the failure point. This level, considered to be unacceptable to most drivers, often occurs with over-saturation, that is, when arrival flow rates exceed the capacity of the intersection. Insufficient gaps of suitable size exist to allow minor traffic to cross the intersection safely.		> 80.0

Table 1-3
Unsignalized Intersections
Level of Service Definitions
(Highway Capacity Manual)

LEVEL OF SERVICE	DEFINITION		AVERAGE TOTAL DELAY (sec/veh)
A	No delay for stop-controlled approaches.		0 - 10.0
B	Describes operations with minor delay.		> 10.0 - 15.0
C	Describes operations with moderate delays.		> 15.0 - 25.0
D	Describes operations with some delays.		> 25.0 - 35.0
E	Describes operations with high delays and long queues.		> 35.0 - 50.0
F	Describes operations with extreme congestion, with very high delays and long queues unacceptable to most drivers.		> 50.0

Table 1-4
Roadway Segment
Level of Service Definitions
(Highway Capacity Manual)

LEVEL OF SERVICE	DEFINITION	
A	Represents free flow. Individual vehicles are virtually unaffected by the presence of others in the traffic stream.	
B	Is in the range of stable flow, but the presence of other vehicles in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver.	
C	Is in the range of stable flow, but marks the beginning of the range of flow in which the operation of individual vehicles becomes significantly affected by interactions with other vehicles in the traffic stream.	
D	Is a crowded segment of roadway with a large number of vehicles restricting mobility and a stable flow. Speed and freedom to maneuver are severely restricted, and the driver experiences a generally poor level of comfort and convenience.	
E	Represents operating conditions at or near the level capacity. All speeds are reduced to a low, but relatively uniform value. Small increases in flow will cause breakdowns in traffic movement.	
F	Is used to define forced or breakdown flow (stop-and-go gridlock). This condition exists when the amount of traffic approaches a point where the amount of traffic exceeds the amount that can travel to a destination. Operations within the queues are characterized by stop and go waves, and they are extremely unstable.	

Table 1-5
Peak Hour Two-Way Volumes

Lanes	Division	Level of Service			
		B	C	D	E
2	Undivided	*	324	1,125	1,521
2	Divided	*	340	1,181	1,597
4	Undivided	77	2,083	2,763	2,890
4	Divided	81	2,205	2,925	3,060
6	Divided	135	3,339	4,401	4,617

* Cannot be achieved using table input value defaults.

1.3 Policies to Maintain Level of Service

1.3.1 City of Hanford

An important goal is to maintain acceptable levels of service along the highway, street, and road network. To accomplish this, the City of Hanford adopts minimum levels of service to control congestion that may result as new development occurs.

The City of Hanford General Plan Circulation Element states: “The City of Hanford has adopted an overall LOS standard of C with peak hour LOS standard of D acceptable in some instances. Due to the nature of the roadway system, improvements to existing developed areas are extremely difficult. As a result, there may be instances where a lower LOS is acceptable.”

The City of Hanford General Plan Objective CI 2 states: “Provide timely and effective means of programming and constructing street and highway improvements to maintain an overall Level of Service of “C”, with a peak hour Level of Service of “D” as defined in the Highway Capacity Manual (published by the Transportation Research Board of the National Research Council) or better unless the City’s design considerations or other public health, safety, or welfare factors determine otherwise.”

The City of Hanford General Plan Policy CI 2.2 states: “Street improvements shall be prioritized with emphasis on current and forecasted service levels. Roadways experiencing or forecasted to experience conditions less than Level-of-Service “D” shall require improvements, unless the City’s design considerations or other public health, safety or welfare factors determine otherwise.”

1.3.2 California Department of Transportation (Caltrans)

With the changes brought about by SB 743, Caltrans no longer uses level of service to determine the need for transportation improvements. Instead, the focus is on providing adequate facilities for pedestrians, bicycles, and transit as well as safety considerations for all transportation modes. Guidance is provided in the Transportation Impact Study Guide dated May 20, 2020 and the

Interim Land Development and Intergovernmental Review Safety Review Practitioners Guidance dated July 2020. This guidance was used in determining the need for roadway improvements on Caltrans facilities.

1.4 VMT Analysis

Senate Bill 743 (SB 743) went into effect throughout California on July 1, 2020. This legislation changed the performance measure for CEQA transportation studies from level of service to vehicle miles traveled (VMT). An assessment of potential VMT impacts associated with the Project is provided in Chapter 3 to address changes in CEQA requirements.

Since the City of Hanford has not adopted methodologies or thresholds for VMT analyses related to SB 743, the VMT analysis was conducted using statewide guidance provided by the Governor's Office of Planning and Research (OPR) in their Technical Advisory on Evaluating Transportation Impacts in CEQA (OPR, December 2018). OPR recommends comparing project VMT/capita and VMT/employee to regional averages to determine the level of significance of project impacts. VMT/capita and VMT/employee values for the project as well as regional averaged were obtained from an online VMT analysis tool provided by the Kings County Association of Governments (KCAG).

2.0 Existing Conditions

2.1 Existing Traffic Counts and Roadway Geometrics

The first step toward assessing Project traffic impacts is to assess existing traffic conditions. Existing traffic counts were estimated considering the Kings County Association of Governments (KCAG) travel model and historic traffic counts in the study area given the on-going COVID-19 pandemic. Following is the methodology used for the development of existing traffic counts:

- ✓ A comparison of the KCAG base year and future year travel model showed that the growth in the study area is approximately 2% per year. The 2% per year growth rate was applied to historical ADT counts collected in the study area to estimate Year 2020 pre-COVID conditions.
- ✓ The estimated pre-COVID year 2020 ADT values (obtained using the 2% per year growth rate) were compared to October 2020 ADT values. Results of the comparison indicated that traffic counts taken in October 2020 ADT (i.e. during COVID) should be increased by a factor of 1.30 to estimate 2020 pre-COVID levels.
- ✓ Where intersection turning movement counts in years prior to 2020 are available, a 2% per year growth rate was applied to estimate year 2020 conditions.
- ✓ Where intersection turning movement counts are not available in years prior to 2020, a factor of 1.3 was applied to the October 2020 turning movement counts collected in the study area.

Traffic count data worksheets are provided in Appendix B.

2.2 Existing Functional Roadway Classification System

Functional classification is the process by which streets and highways are grouped into classes, or systems, according to the type of service they are intended to provide. Fundamental to this process is the recognition that individual streets and highways do not serve travel independently in any major way. Rather, most travel involves movement through a network of roads.

The following are general descriptions of the roadway types shown in the City of Hanford Circulation Element:

- ✓ **State Freeways and Highways** – There are two state facilities serving the Hanford Planning Area, State Highway 198 and State Highway 43. The segment of State Highway 198, which passes through the Planning Area, is considered a freeway. State Highway 43 is a two-lane facility and functions as an arterial and major transportation route between Hanford and Fresno to the north and Corcoran to the south.

- ✓ **Arterial** – Hanford's arterial street pattern is generally one-mile spacing between the existing arterials. Exceptions to this spacing include Third, Fourth, Sixth and Seventh Streets, which are in the downtown area and provide for both mobility (to and through downtown), as well as access. These streets do not meet the right-of-way requirements or improvement standards for arterial streets; however, they function as arterial streets.
 - **Lacey Boulevard**
 - **12th Avenue**
 - **11th Avenue**
- ✓ **Collectors** – The streets shown below are designated as Collector streets, with their own set of development criteria. Similar to some Arterials, Collector streets have evolved from heavy use as opposed to formal development standards. Because of this, some streets may be designated Collectors, but not have all of the improvements required for new Collectors such as right-of-way width, travel way paving, and limited access.
 - **Campus Drive**
 - **7th Street**
 - **Glendale Avenue**
 - **5th Street**
- ✓ **Local Streets** – Roadways that provide access to individual homes and businesses. Local streets have one lane in each direction. Local streets connect single family homes and other uses not appropriate adjacent to major roadways, to the arterial-collector network.

2.3 Affected Streets and Highways

Street and highway intersections and segments near and adjacent to the Project site were analyzed to determine levels of service utilizing HCM-based methodologies described previously. The study intersections and street and highway segments included in this TIS are listed below. Counts were taken on Wednesday, July 18, 2018.

Intersections

- ✓ 12th Avenue / Glendale Avenue
- ✓ 12th Avenue / SR 198 WB Ramps
- ✓ 12th Avenue / SR 198 EB Ramps
- ✓ Campus Drive / Lacey Boulevard
- ✓ Campus Drive / 7th Street
- ✓ Campus Drive / 6th Street
- ✓ 11th Avenue / Lacey Boulevard
- ✓ 11th Avenue / 7th Street
- ✓ 11th Avenue / 6th Street

- ✓ 11th Avenue / 5th Street
- ✓ 11th Avenue / 4th Street-SR 198 WB On Ramp
- ✓ 11th Avenue / 3rd Street-SR 198 EB Off Ramp

Segments

- ✓ Lacey Boulevard
 - 12th Avenue to Campus Drive
 - Campus Drive to 11th Avenue
- ✓ 7th Street
 - Campus Drive to 11th Avenue
- ✓ 6th Street
 - Campus Drive to 11th Avenue
- ✓ Glendale Avenue
 - East of 12th Avenue
- ✓ 5th Avenue
 - West of 11th Avenue
- ✓ Campus Drive
 - Lacey Boulevard to Glendale Avenue

The existing lane geometry at study area intersections is shown in Figure 2-1. Figures 2-2 and 2-3 show existing traffic volumes for the AM and PM peak hours in the study area.

2.4 Level of Service

2.4.1 Intersection Capacity Analysis

All intersection LOS analyses were estimated using Synchro 10 Software. Various roadway geometrics, traffic volumes, and properties (peak hour factors, storage pocket length, etc) were input into the Synchro 10 Software program to accurately determine the travel delay and LOS for each Study scenario. The intersection LOS and delays reported represent the 6th Edition HCM outputs. Synchro assumptions, listed below, show the various Synchro inputs and methodologies used in the analysis.

- ✓ **Lane Geometry**
 - Storage lengths for turn lanes for existing intersections were obtained from aerial photos and rounded to the nearest 25 feet
 - VRPA conducted a field study of the specified intersections and segments to verify lane

geometry and intersection control as well as to obtain other pertinent data such as signal timing and phasing, where applicable.

✓ **Traffic Conditions**

- Peak hour factors (PHF) for each intersection approach was obtained from traffic counts in the study area and were utilized for Existing Conditions, Existing Plus Project, and Near-term (Opening Year) Plus Project conditions. For all future scenarios, a PHF of 0.92 was applied unless the existing PHF was greater than 0.92
- Heavy vehicle percentages were based on the HCM default
- Roadway link speed limits were observed in the field and input into the Synchro network to determine roadway link speeds
- Queuing conditions for left and right-turn lanes at all study intersections was based upon Section 400 of Caltrans' Highway Design Manual

Results of the analysis show that the 12th Avenue at Glendale Avenue intersection currently exceeds the City of Hanford's minimum level of service criteria during the PM peak hour. Table 2-1 shows the intersection LOS for the existing conditions. Synchro 10 (HCM 6th Edition) Worksheets are provided in Appendix C.

2.4.2 *Queuing Analysis*

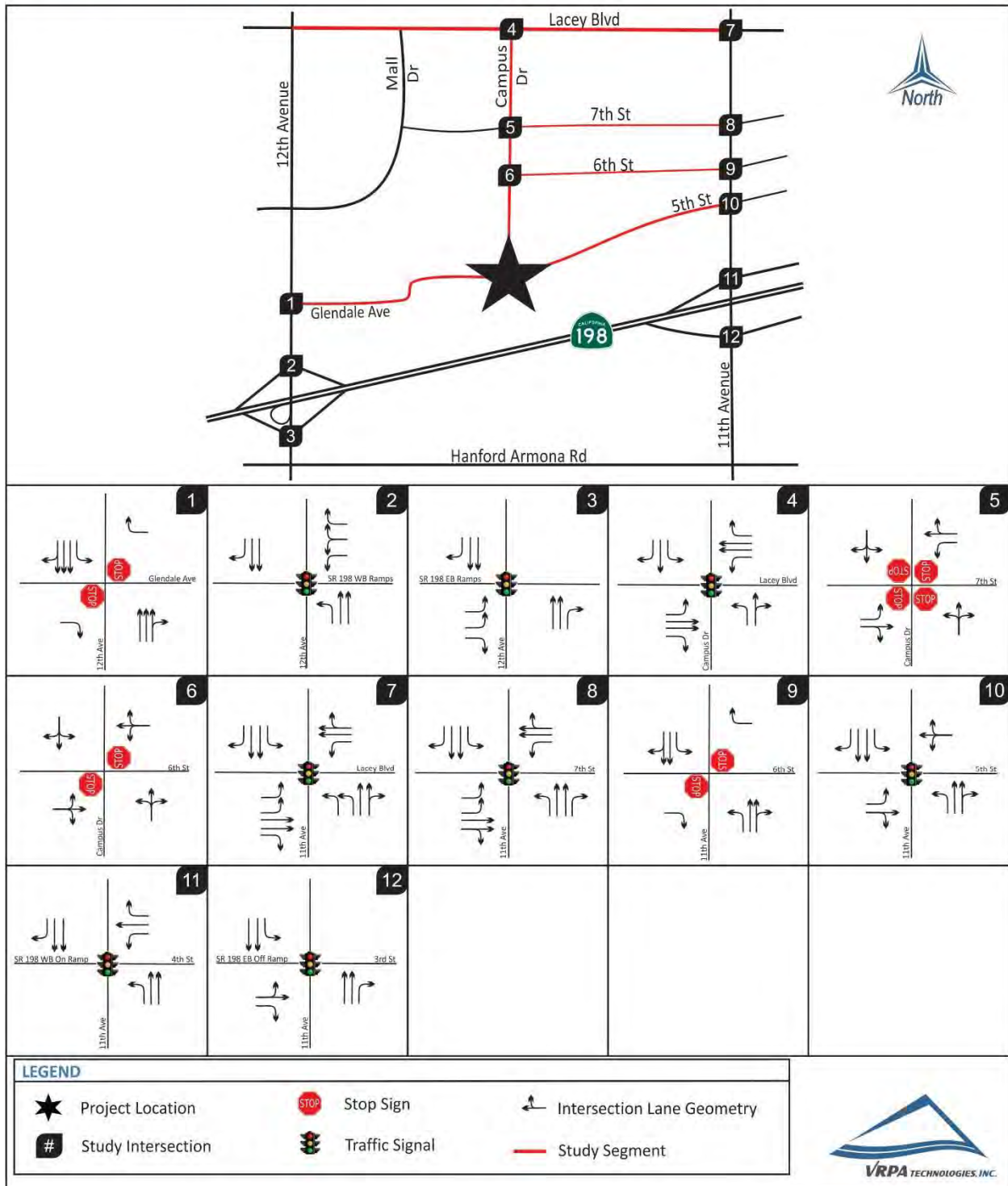
Table 2-2 provides a queue length summary for study intersections for the Existing scenario. Traffic queue lengths at an intersection or along a roadway segment assist in the determination of a roadway's overall performance. Excessive queuing at an intersection increases vehicle delay and reduces capacity. If a dedicated left turn lane doesn't provide adequate storage, vehicles will queue beyond the left turn storage pocket and into other travel lanes, thus increasing vehicle delay and reducing capacity. The queuing analyses is based upon methodology presented in Chapter 400 of Caltrans' Highway Design Manual (HDM), which is included in Appendix D. The queue results shown in Table 2-2 represent the approximate queue lengths for the respective lane movements.

2.4.2 *Roadway Segment Capacity Analysis*

Results of the segment analysis along the existing street and highway system are reflected in Table 2-3. The performance criteria used for evaluating volumes and capacities on the road and highway system for this study were estimated using the Modified Arterial Level of Service Tables included in Table 1-5 and Appendix A. Results of the analysis show that study roadway segments are currently operating at acceptable levels of service.

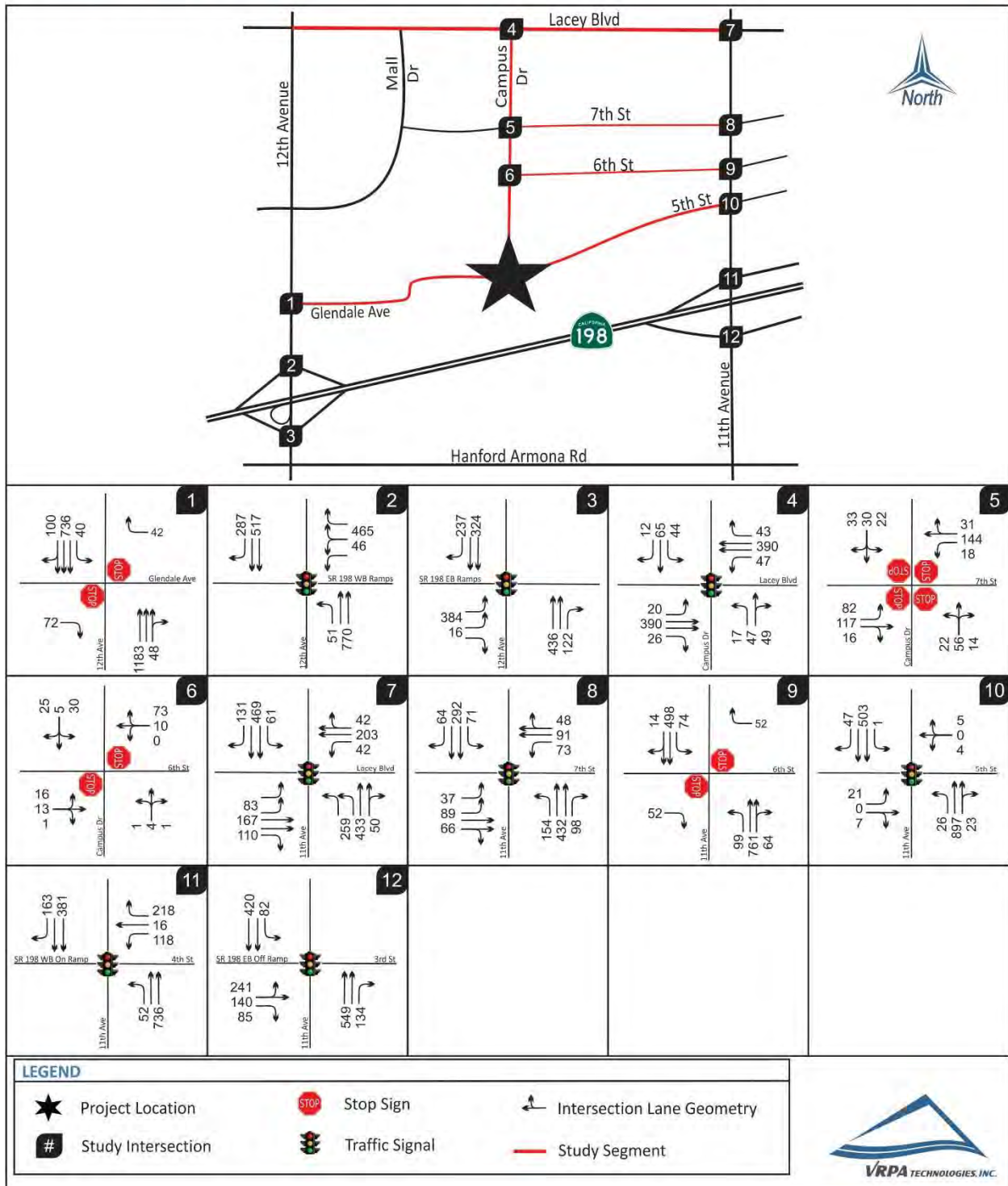
Hanford Place Development Existing Lane Geometry

Figure
2-1



Hanford Place Development Existing AM Peak Hour Traffic

Figure
2-2



Hanford Place Development Existing PM Peak Hour Traffic

Figure
2-3

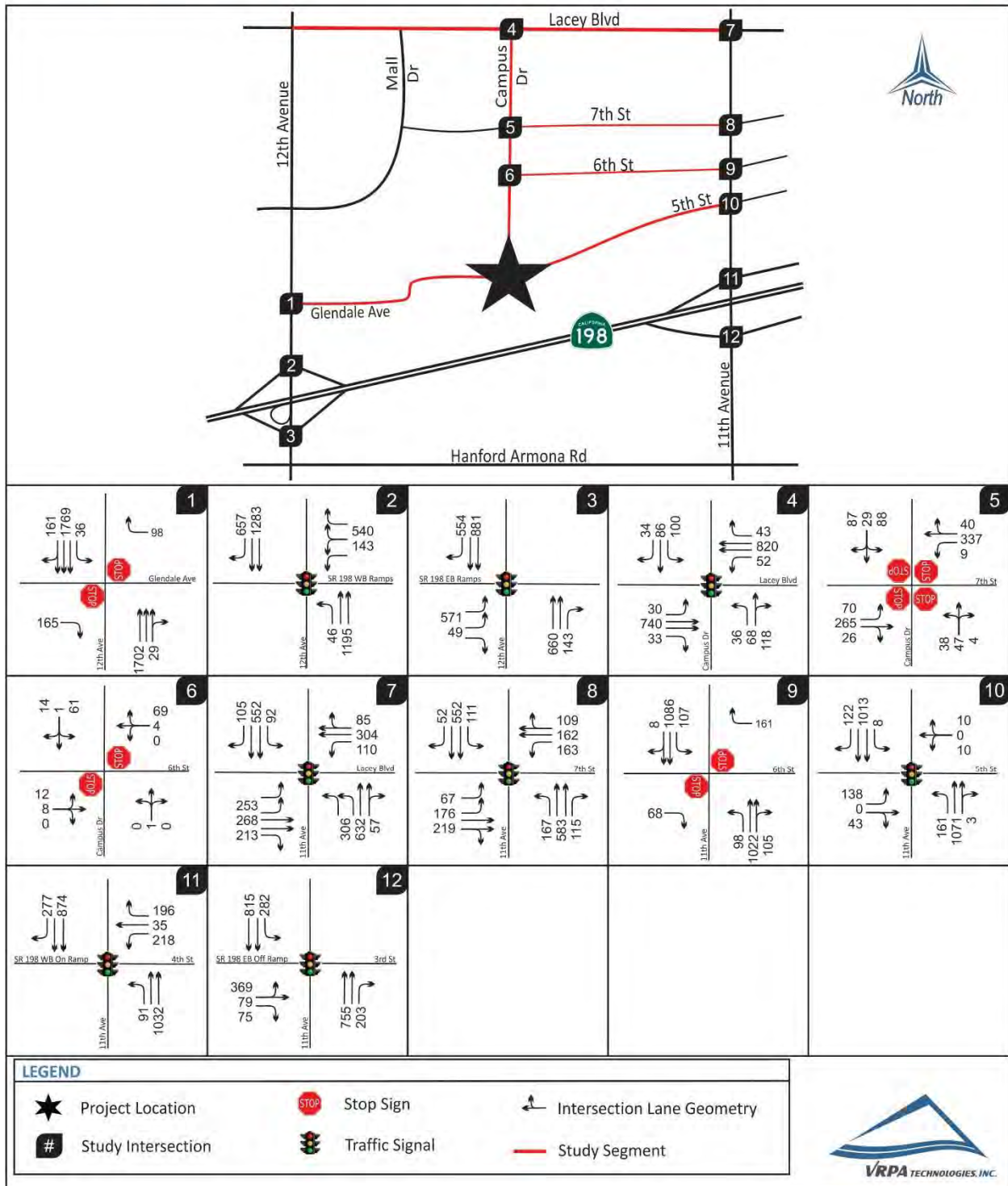


Table 2-1
Existing Intersection Operations

INTERSECTION	CONTROL	TARGET LOS	PEAK HOUR	EXISTING	
				DELAY	LOS
1. 12th Avenue / Glendale Avenue	Two-Way Stop Sign	D	AM	22.7	C
			PM	100.4	F +
2. 12th Avenue / SR 198 WB Ramps	Signalized	-- ¹	AM	13.8	B
			PM	17.8	B
3. 12th Avenue / SR 198 EB Ramps	Signalized	-- ¹	AM	11.9	B
			PM	13.0	B
4. Campus Drive / Lacey Boulevard	Signalized	D	AM	25.0	C
			PM	28.0	C
5. Campus Drive / 7th Street	All-Way Stop Sign	D	AM	9.9	A
			PM	15.6	C
6. Campus Drive / 6th Street	Two-Way Stop Sign	D	AM	10.4	B
			PM	10.6	B
7. 11th Avenue / Lacey Boulevard	Signalized	D	AM	20.4	C
			PM	27.5	C
8. 11th Avenue / 7th Street	Signalized	D	AM	18.9	C
			PM	28.8	C
9. 11th Avenue / 6th Street	Two-Way Stop Sign	D	AM	12.6	B
			PM	17.4	C
10. 11th Avenue / 5th Street	Signalized	D	AM	4.9	A
			PM	12.1	B
11. 11th Avenue / 4th Street-SR 198 WB On Ramp	Signalized	-- ¹	AM	12.0	B
			PM	12.7	B
12. 11th Avenue / 3rd Street-SR 198 EB Off Ramp	Signalized	-- ¹	AM	18.6	B
			PM	25.1	C

DELAY is measured in seconds

LOS = Level of Service / **BOLD** denotes LOS standard has been exceeded

For signalized and all-way stop intersections, delay results show the average for the entire intersection. For one-way and two-way stop controlled intersections, delay results show the delay for the worst movement.

1 - With the changes brought about by SB 743, Caltrans no longer uses level of service to determine the need for transportation improvements. Instead, focus is on providing adequate facilities for pedestrians, bicycles, and transit as well as safety considerations for all transportation modes. Guidance is provided in the Transportation Impact Study Guide dated May 20, 2020 and the Interim Land Development and Intergovernmental Review Safety Review Practitioners Guidance dated July 2020. This guidance will be used in determining the need for roadway improvements on Caltrans facilities.

+ Meets peak hour signal warrants.

Table 2-2
Existing Queuing Operations

INTERSECTION	EXISTING QUEUE STORAGE LENGTH (ft)		EXISTING CONDITIONS	
			AM Queue	PM Queue
12th Avenue / Glendale Avenue	SB Left	125	33	30
12th Avenue / SR 198 WB Ramps	NB Left	400	43	38
	WB Approach	3 @ 275	426	569
12th Avenue / SR 198 EB Ramps	SB Right	600	198	462
	EB Left	2 @ 875	320	476
	EB Right	850	13	41
Campus Drive / Lacey Boulevard	NB Left	75	14	30
	SB Left	200	37	83
	SB Right	100	10	28
	EB Left	200	17	25
	EB Right	100	22	28
	WB Left	125	39	43
	WB Right	100	36	36
Campus Drive / 7th Street	EB Left	100	68	58
	WB Left	100	15	8
11th Avenue / Lacey Boulevard	NB Left	2 @ 200	216	255
	SB Left	150	51	77
	SB Right	150	109	88
	EB Left	2 @ 125	69	211
	EB Right	100	92	178
	WB Left	100	35	92
11th Avenue / 7th Street	NB Left	125	128	139
	NB Right	100	82	96
	SB Left	100	59	93
	SB Right	100	53	43
	EB Left	2 @ 75	31	56
	WB Left	125	61	136
11th Avenue / 6th Street	NB Left	75	83	82
	SB Left	125	62	89
11th Avenue / 5th Street	NB Left	150	22	134
	SB Left	50	1	7
	SB Right	50	39	102
	EB Left	50	18	115
11th Avenue / 4th Street-SR 198 WB On Ramp	NB Left	75	43	76
	SB Right	75	136	231
	WB Left	125	98	182
11th Avenue / 3rd Street-SR 198 EB Off Ramp	NB Right	75	112	169
	SB Left	150	68	235
	EB Right	25	71	63

Queue is measured in feet / **BOLD** denotes exceedance

Table 2-3
Existing Segment Operations

STREET SEGMENT	SEGMENT DESCRIPTION	TARGET LOS	PEAK HOUR	EXISTING	
				VOLUME	LOS
Lacey Boulevard					
12th Avenue to Campus Drive	4 Lanes Divided	D	AM	855	C
			PM	1,693	C
Campus Drive to 11th Avenue	4 Lanes Divided	D	AM	963	C
			PM	1,873	C
7th Street					
Campus Drive to 11th Avenue	2 Lanes Undivided	D	AM	346	D
			PM	743	D
6th Street					
Campus Drive to 11th Avenue	2 Lanes Undivided	D	AM	127	C
			PM	142	C
Glendale Avenue					
East of 12th Avenue	2 Lanes Undivided	D	AM	130	C
			PM	163	C
5th Avenue					
West of 11th Avenue	2 Lanes Undivided	D	AM	101	C
			PM	464	D
Campus Drive					
Lacey Bouloevard to Glendale Avenue	2 Lanes Undivided	D	AM	251	C
			PM	393	D

LOS = Level of Service / **BOLD** denotes LOS standard has been exceeded

3.0 Traffic Impacts

This chapter provides an assessment of the traffic the Project is expected to generate and the impact of that traffic on the surrounding street system.

3.1 Trip Generation

To assess the impacts that the Project may have on the surrounding roadway network, the first step is to determine Project trip generation. Project trip generation was determined using trip generation rates from the Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition), the ITE Trip Generation Handbook (3rd Edition), information provided by the Project proponent, and engineering judgement. The considerations described above led to the recommended trip generation for weekday AM (7:00-9:00am) and PM (4:00-6:00pm) peak hours shown in Table 3-1.

Table 3-1
Project Trip Generation

LAND USE	Quantity	DAILY TRIP ENDS (ADT)		WEEKDAY AM PEAK HOUR					WEEKDAY PM PEAK HOUR				
		RATE	VOLUME	RATE	IN:OUT SPLIT	VOLUME			RATE	IN:OUT SPLIT	VOLUME		
						IN	OUT	TOTAL			IN	OUT	TOTAL
Ambulatory Surgery Center ¹	22,525 s.f	6.57	148	2.62	78:22	46	13	59	1.33	29:71	9	21	30
Specialty Clinic (630)	12,445 s.f	38.16	475	3.69	78:22	36	10	46	3.28	29:71	13	31	44
Medical Office Building (720)	24,890 s.f	34.91	869	2.61	78:22	51	14	65	3.46	28:72	24	62	86
Psychiatric Health Facility ¹	12,445 s.f	4.50	56	1.77	55:45	12	10	22	1.77	45:55	10	12	22
Hotel & Conference Center (310)	105 Rooms	7.22	758	0.45	59:41	28	19	47	0.50	51:49	27	26	53
Nursing College (540)	35,000 s.f	20.25	709	2.07	77:23	55	17	72	1.61	50:50	32	33	65
Skilled Nursing Facility (620)	54,611 s.f	6.64	363	0.55	78:22	23	7	30	0.59	41:59	13	19	32
Memory Care (620)	34,480 s.f	6.64	229	0.55	78:22	15	4	19	0.59	41:59	9	12	21
Assisted Living Facility (254)	34,380 s.f	4.19	144	0.38	78:22	10	3	13	0.49	30:70	5	12	17
Multi-Family Apartment (220)	90 Units	7.11	640	0.48	23:77	10	33	43	0.60	63:37	34	20	54
Medical/Commercial (720)	114,200 s.f.	34.45	3,934	2.63	78:22	234	66	300	3.50	28:72	112	288	400
SUBTOTAL TRIP GENERATION			8,325			520	196	716			288	536	824
Internal Vehicle Trips (NCHRP Internal Trip Capture Estimation Tool) ²			833			52	20	72			29	54	82
TOTAL EXTERNAL TRIP GENERATION			7,493			468	176	644			259	482	742

Source: Generation factors from ITE Trip Generation Manual, 10th Edition.
Trip ends are one-way traffic movements, entering or leaving.
The numbers in parenthesis are ITE land use codes.

1. Information provided by Project Representatives.

2. Internal trip capture rate = 10%.

3.2 Trip Distribution

Project trip distribution percentages for inbound and outbound traffic are shown in Figure 3-1a and 3-1b, respectively. These percentages are based upon knowledge of the study area, engineering judgement, prevailing traffic patterns in the study area, major routes, population centers, other existing development and review and comment by the City of Hanford and Caltrans.

Vehicular access to the site would be provided by Glendale Avenue, 5th Street, and Campus Drive. The extension of these roadways would be constructed to City standards and would be dedicated as public right of way. The proposed project would also construct a roundabout, which would also be dedicated as public right of way and would be constructed to Caltrans or City-approved standards. As part of the project, Glendale Avenue would be realigned at the northwest corner of the Hanford Veterinary Hospital development. The existing knuckle would be removed, and Glendale Avenue would be realigned using speed-specific design curves. Any new portions of Glendale Avenue would be dedicated as public right of way and any portion of existing right of way not used would be abandoned. 5th Street would be extended starting at the existing alignment before realigning to the roundabout. In addition, the proposed project would provide 1,466 parking spaces throughout the project site.

3.3 Project Traffic

Project traffic as shown in Table 3-1 was distributed to the roadway system using the trip distribution percentages shown in Figures 3-1a and 3-1b. A graphical representation of the resulting AM and PM peak hour Project trips used is shown in Figures 3-2 and 3-3.

3.4 Existing Plus Project Traffic Conditions

An Existing Plus Project Scenario was analyzed to include existing traffic plus traffic generated by the Project. The resulting traffic is shown in Figures 3-4 and 3-5.

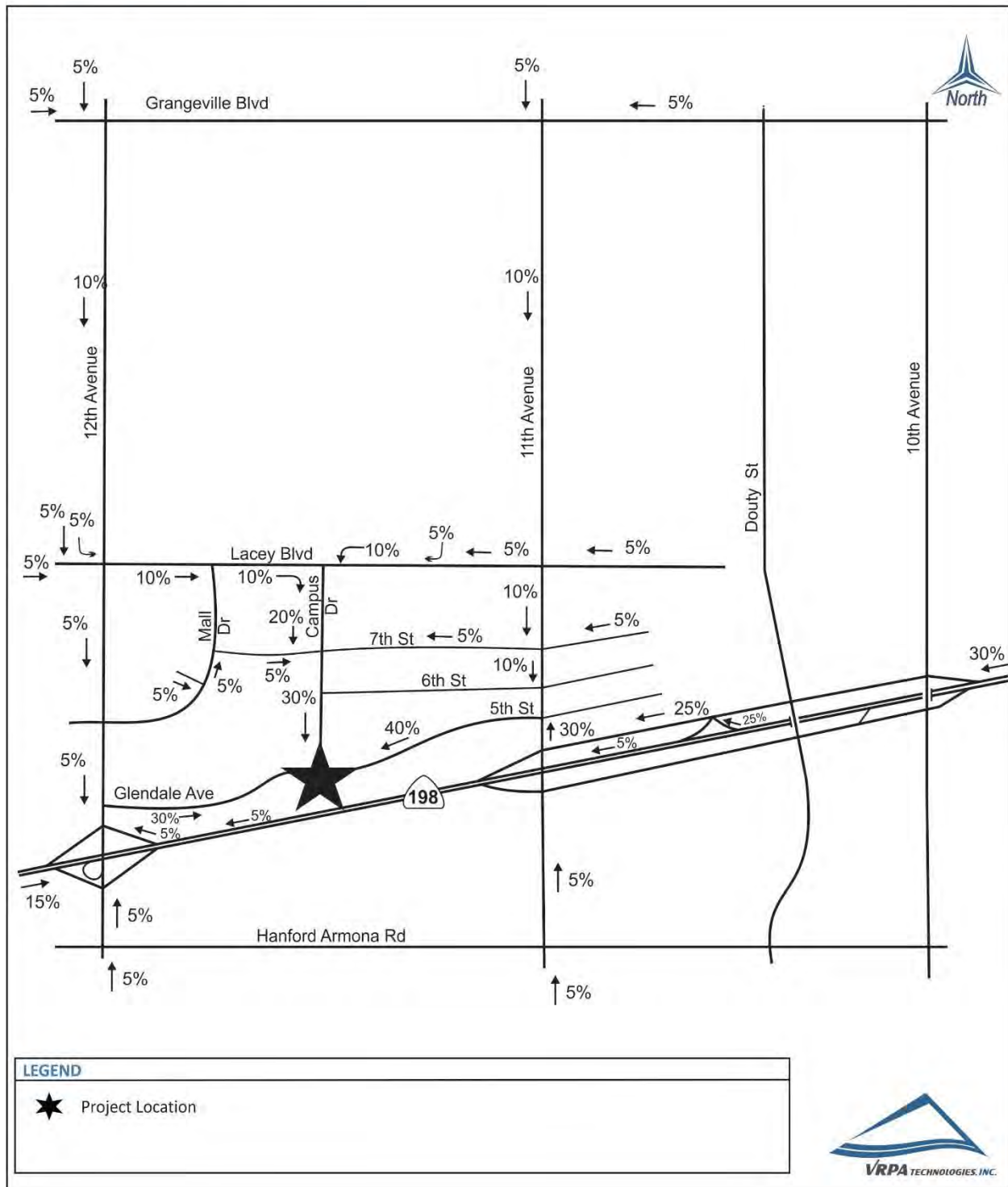
3.5 Near-Term Traffic Conditions

Traffic conditions with the Project in the Year 2024 were estimated by applying a growth rate of 2% per year to the existing traffic volumes. A comparison of the KCAG base year and future year travel model showed that the growth in the study area is approximately 2% per year.

The resulting traffic for the Near-Term scenario is shown in Figures 3-6 and 3-7.

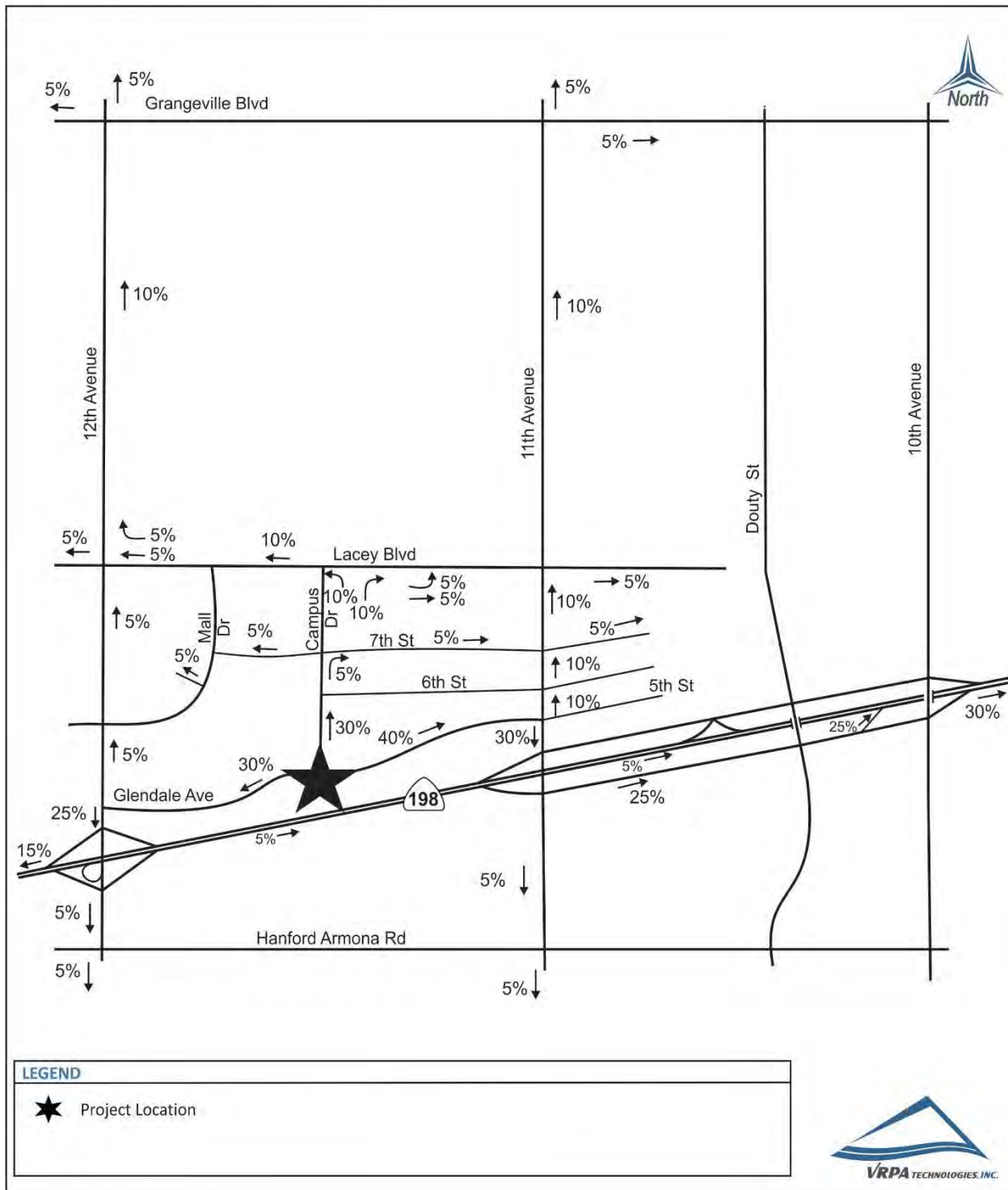
Hanford Place Development
Project Trip Distribution - Inbound

Figure
3-1a



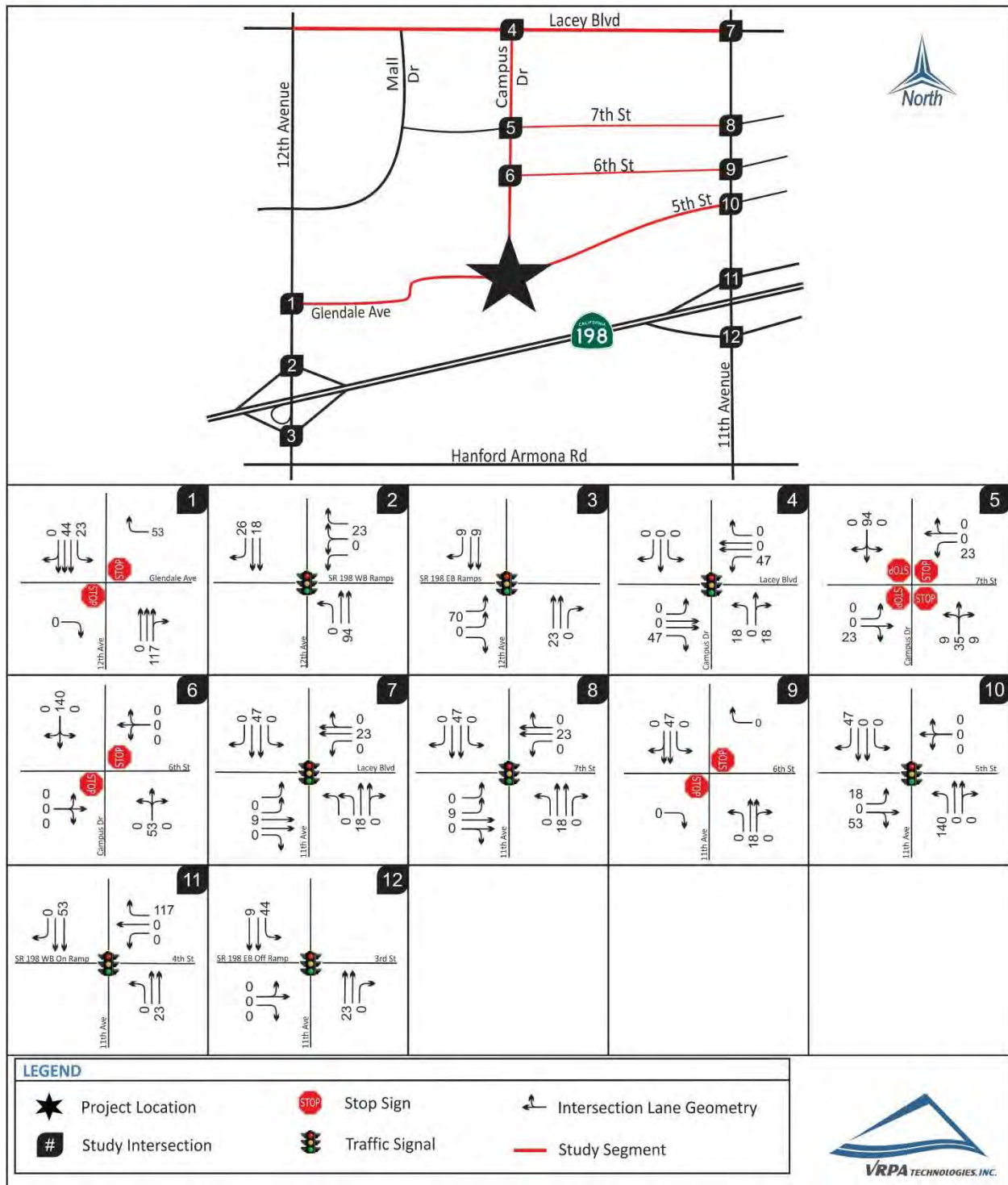
Hanford Place Development
Project Trip Distribution - Outbound

Figure
3-1b



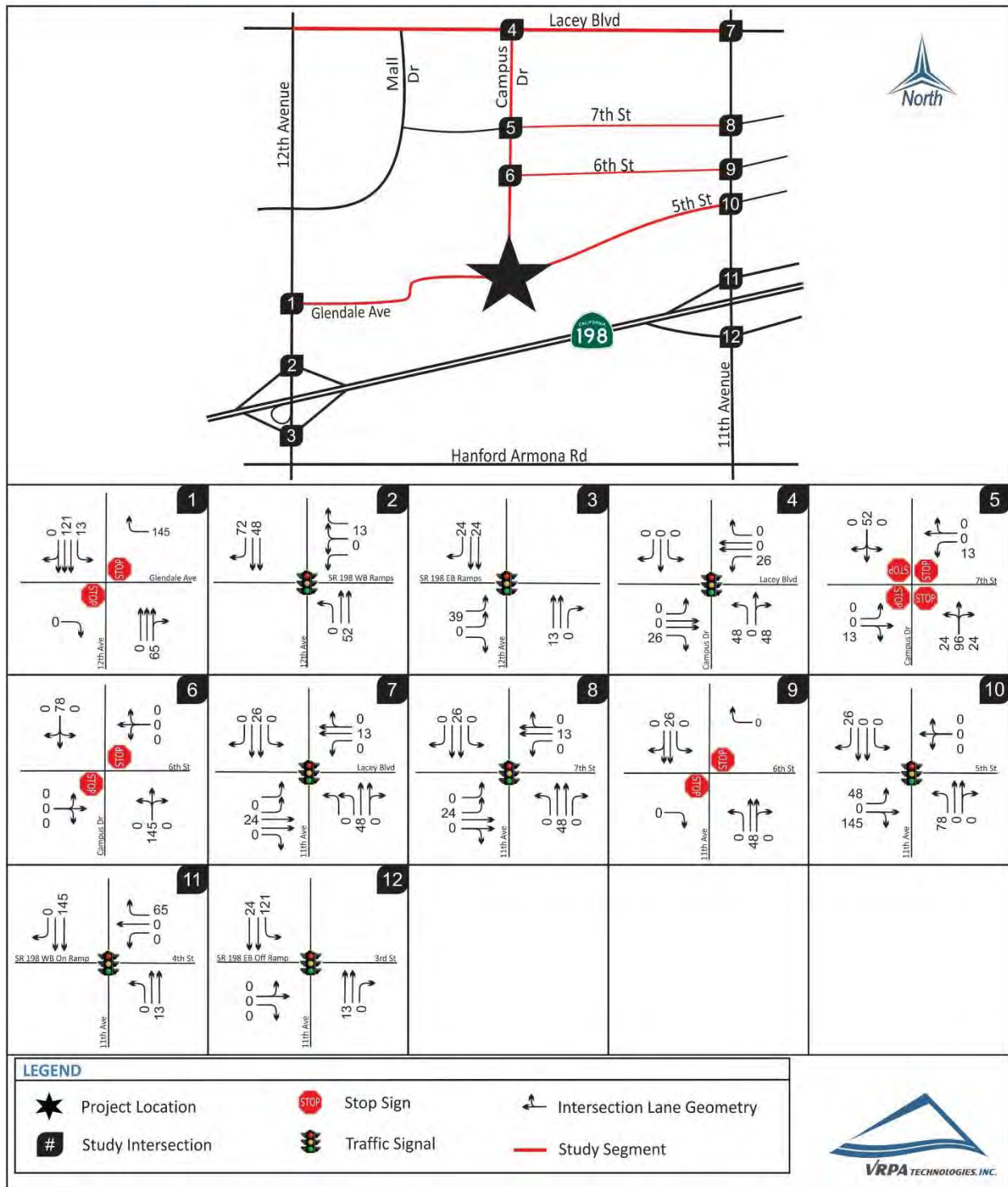
Hanford Place Development
AM Peak Hour Project Traffic

Figure
3-2



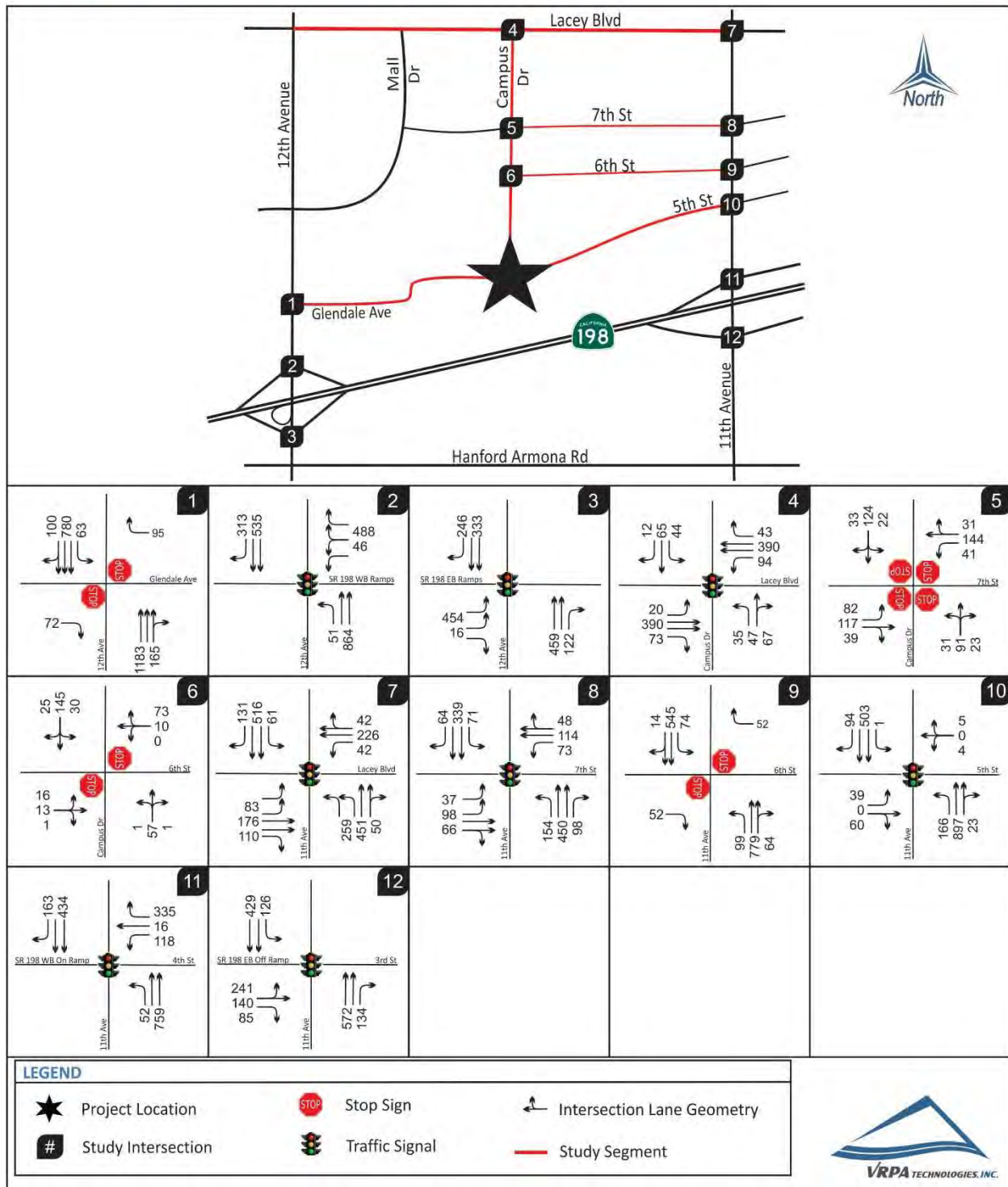
Hanford Place Development PM Peak Hour Project Traffic

Figure
3-3



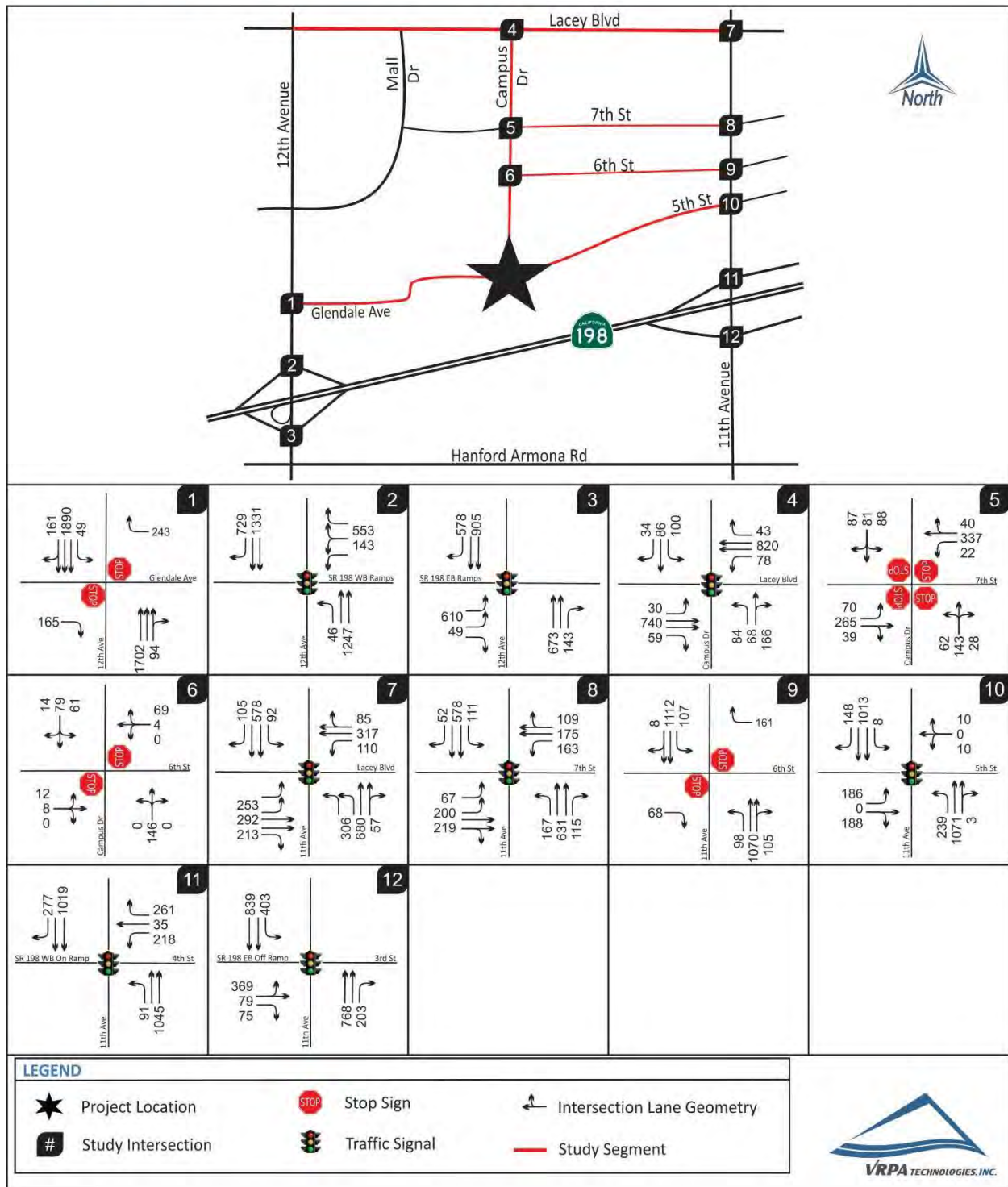
Hanford Place Development
Existing Plus Project AM Peak Hour Traffic

Figure
3-4



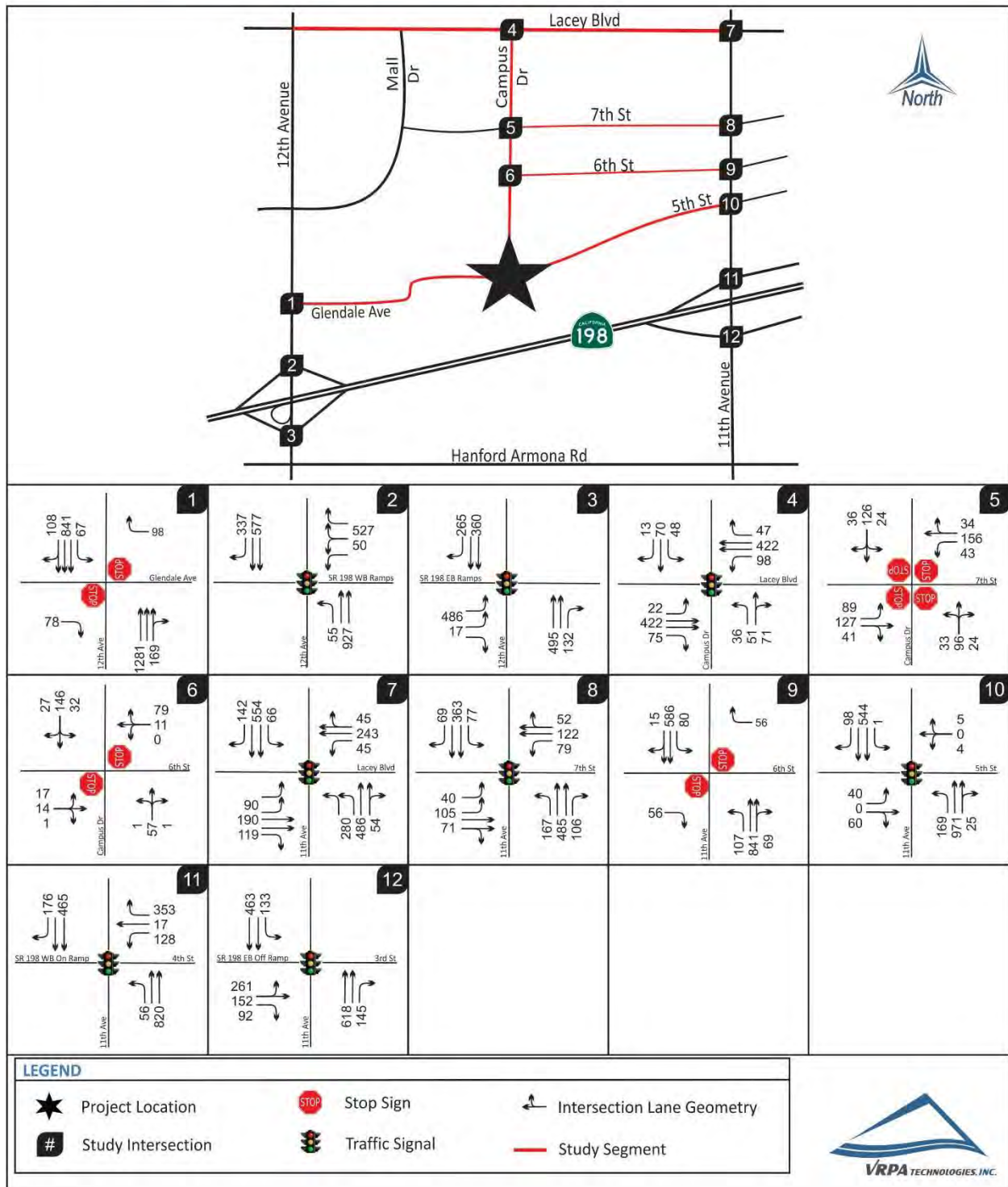
Hanford Place Development
Existing Plus Project PM Peak Hour Traffic

Figure
3-5



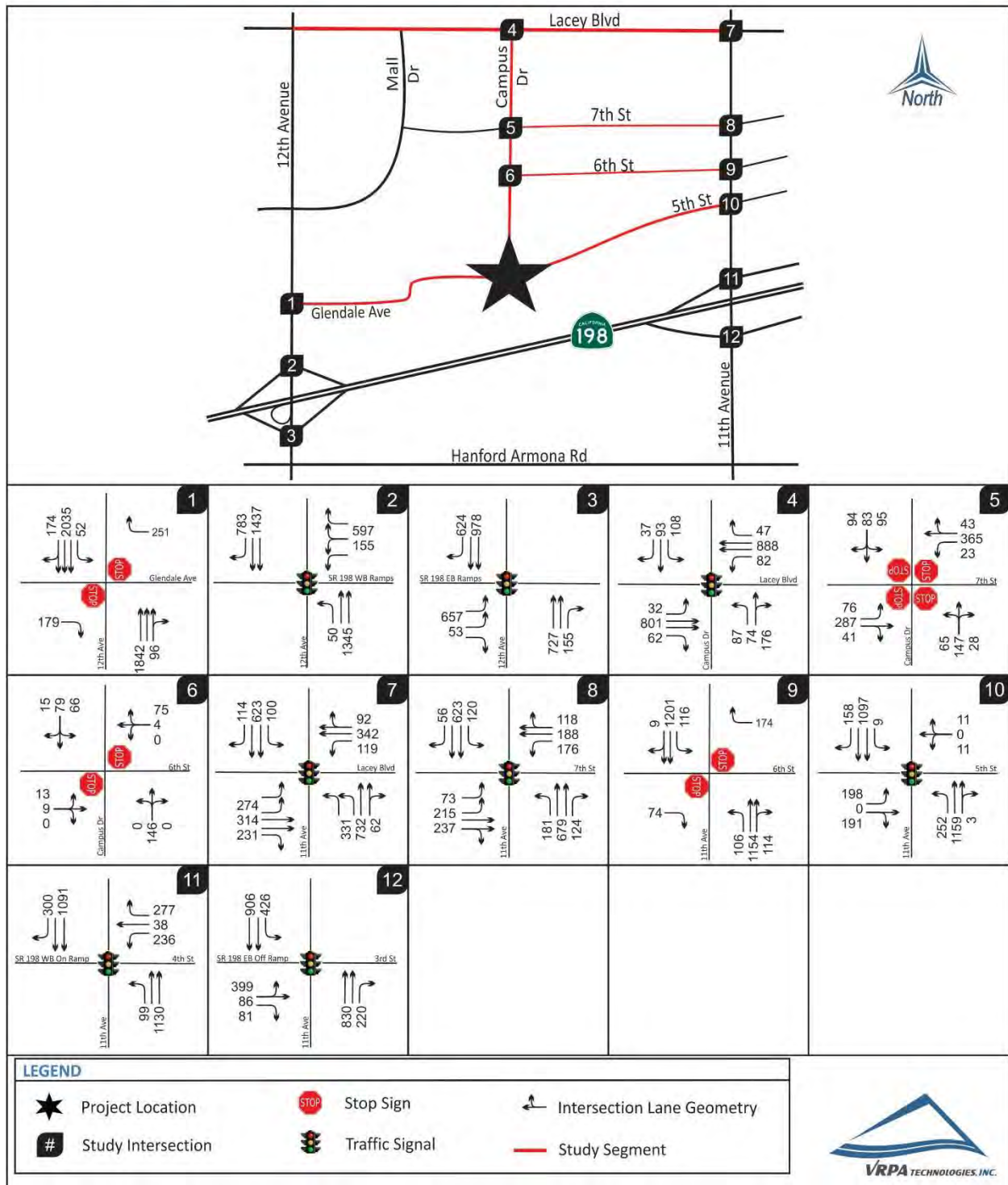
Hanford Place Development
Near-Term Plus Project AM Peak Hour Traffic

Figure
3-6



Hanford Place Development
Near-Term Plus Project PM Peak Hour Traffic

Figure
3-7



3.6 Cumulative Year 2042 Without Project Traffic Conditions

The impacts of the Project were analyzed considering future traffic conditions in the year 2042. The levels of traffic expected in 2042 relate to the cumulative effect of traffic increases resulting from the implementation of the General Plans of local agencies, including the City of Hanford and Kings County. Traffic conditions without the Project in the Year 2042 were estimated by applying a growth rate of 2% per year to the existing traffic volumes. A comparison of the KCAG base year and future year travel model showed that the growth in the study area is approximately 2% per year. The resulting traffic is shown in Figures 3-8 and 3-9.

3.7 Cumulative Year 2042 Plus Project Traffic Conditions

The addition of Project trips, as shown in Figures 3-2 and 3-3 (Section 3.3), were added to Cumulative Year 2042 Without Project traffic volumes. This leads to the results shown in Figures 3-10 and 3-11.

3.8 Impacts

3.8.1 Intersection Capacity Analysis

Table 3-2 provides the intersection level of service analysis for the study intersections considering the study scenarios discussed above. Potential mitigation measures are discussed in Chapter 4 of this report. Results of the analysis show that the Project will contribute to an unacceptable LOS at five (5) of the study intersections when comparing the Cumulative Year 2042 scenarios.

3.8.2 Queuing Analysis

Table 3-3 provides a queue length summary for left and right turn lanes at study intersections. The queuing analyses is based upon methodology presented in Chapter 400 of Caltrans' Highway Design Manual (HDM). The queue results shown in Table 3-3 represent the approximate queue lengths for the respective lane movements. Results of the queuing analysis show that several movements exceed the existing queue lane storage lengths.

3.8.3 Roadway Segment Capacity Analysis

Table 3-4 shows roadway segments that are expected to fall short of desirable operating conditions for various scenarios. Potential mitigation measures are discussed in Chapter 4 of this report. Results of the analysis also show that the Project will result in a cumulative impact at two (2) of the study roadway segments when comparing the Cumulative Year 2042 scenarios.

3.9 VMT Analysis

Since the City of Hanford has not adopted methodologies or thresholds for VMT analyses related to SB 743, the VMT analysis was conducted using statewide guidance provided by the Governor's Office of Planning and Research (OPR) in their Technical Advisory on Evaluating Transportation Impacts in CEQA (OPR, December 2018). OPR recommends comparing project VMT/capita and VMT/employee to regional averages to determine the level of significance of project impacts. VMT/capita and VMT/employee values for the project as well as regional averaged were obtained from an online VMT analysis tool provided by the Kings County Association of Governments (KCAG).

For mixed-use projects (such as the proposed Project), OPR recommends analyzing the individual components of the project separately with respect to VMT analysis and taking a reduction for trips that are made within the project site that would have very low VMT values. Since VMT for internal trips is difficult to quantify, no reductions were taken leading to a somewhat conservative approach. OPR also allows for conducting the analysis of mixed-use projects based on the dominant land use if applicable. In the case of the proposed Project, none of the project components (residential, employment, or retail) is considered to be dominant.

The VMT analysis conducted for the residential, employment, and retail components of the project is described below:

- ✓ Residential: The project is located within two traffic analysis zones (TAZ's) of the Kings County Association of Governments (KCAG) model that have little or no existing residential development and therefore no data on which to form a VMT analysis based on these TAZ's. Instead, the VMT analysis was conducted based on the average VMT/capita of the five TAZ's adjacent to the project site. The resulting daily VMT/capita value is 6.562. For residential projects OPR recommends use of a threshold for VMT/capita 15% below either the regional or city average. Anything below either of these values would result in a less than significant impact. The regional average was used since the city average is not currently available from KCAG. Since the regional average daily VMT/capita is 9.562, the project VMT/capita of 6.56 is 31.7% below the regional average. Since this is more than 15% below the regional average, the residential component of the project has a less than significant transportation impact and no mitigation measures are needed.
- ✓ Employment: The project is located within two traffic analysis zones (TAZ's) of the Kings County Association of Governments (KCAG) model, each with a separate VMT/employee value. The project VMT/employee was calculated based on the average VMT/employee value for the two TAZ's. It should be noted that a larger portion of the project area falls within the TAZ that has a higher VMT/employee level of the two zones and the analysis is therefore somewhat conservative. The resulting daily VMT/capita value is 12.565. For employment projects OPR recommends use of a threshold for VMT/capita 15% below the

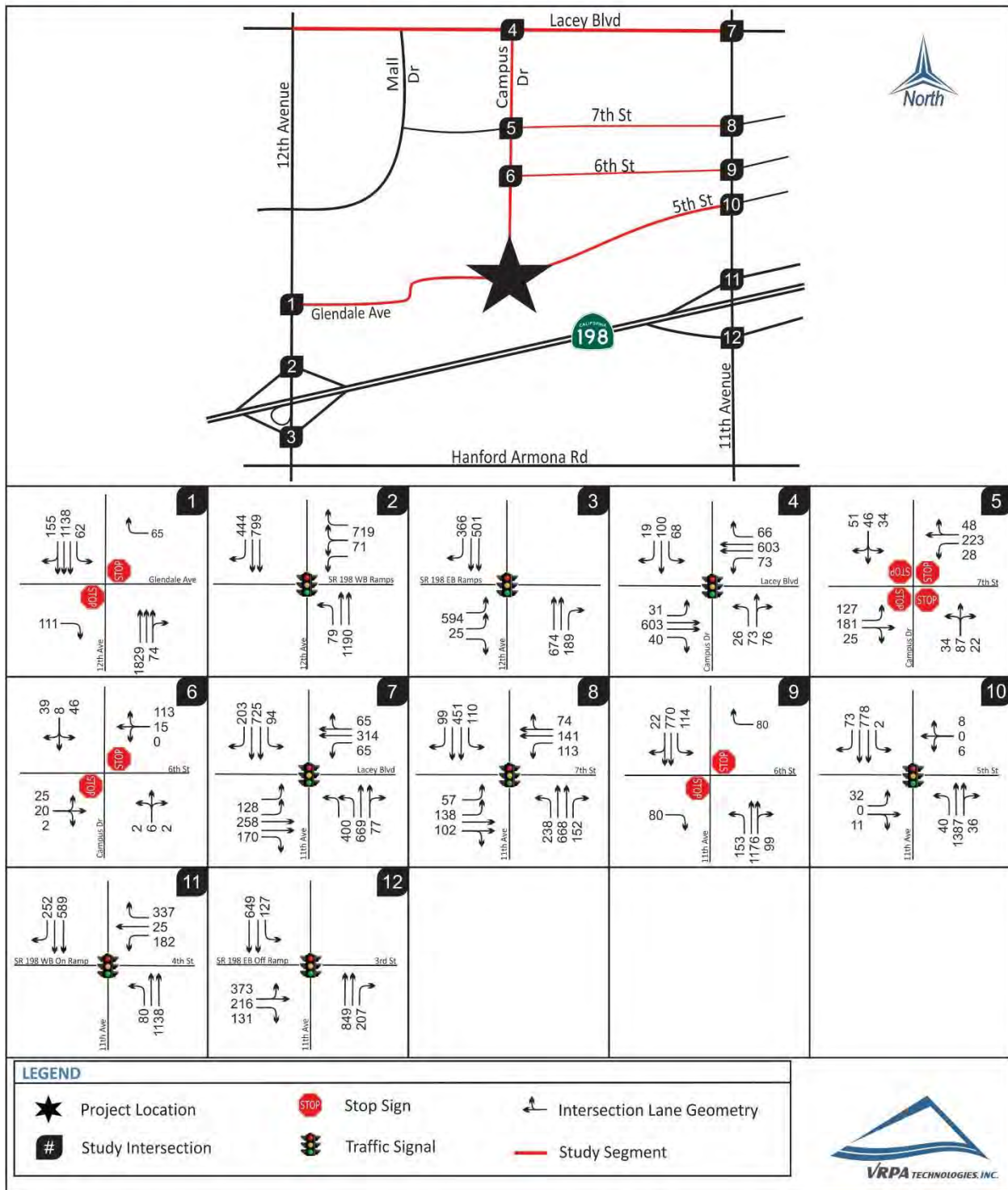
regional average. Anything below this value would result in a less than significant impact. The regional average was used since the city average is not currently available from KCAG. Since the regional average daily VMT/employee is 17.7, the project VMT/capita of 12.565 is 29.0% below the regional average. Since this is more than 15% below the regional average, the employment component of the project has a less than significant transportation impact and no mitigation measures are needed.

- ✓ Retail: For local-serving retail projects, such as the retail component of the proposed Project, OPR recommends that the transportation impact of the project be presumed to be less than significant. This is because local-serving retail developments will generally draw trips from the nearby area and will replace trips currently made to more distant retail locations. Therefore, the retail component of the project has a less than significant transportation impact and no mitigation measures are needed.

Copies of the VMT analysis maps used to conduct this analysis are included in Appendix F.

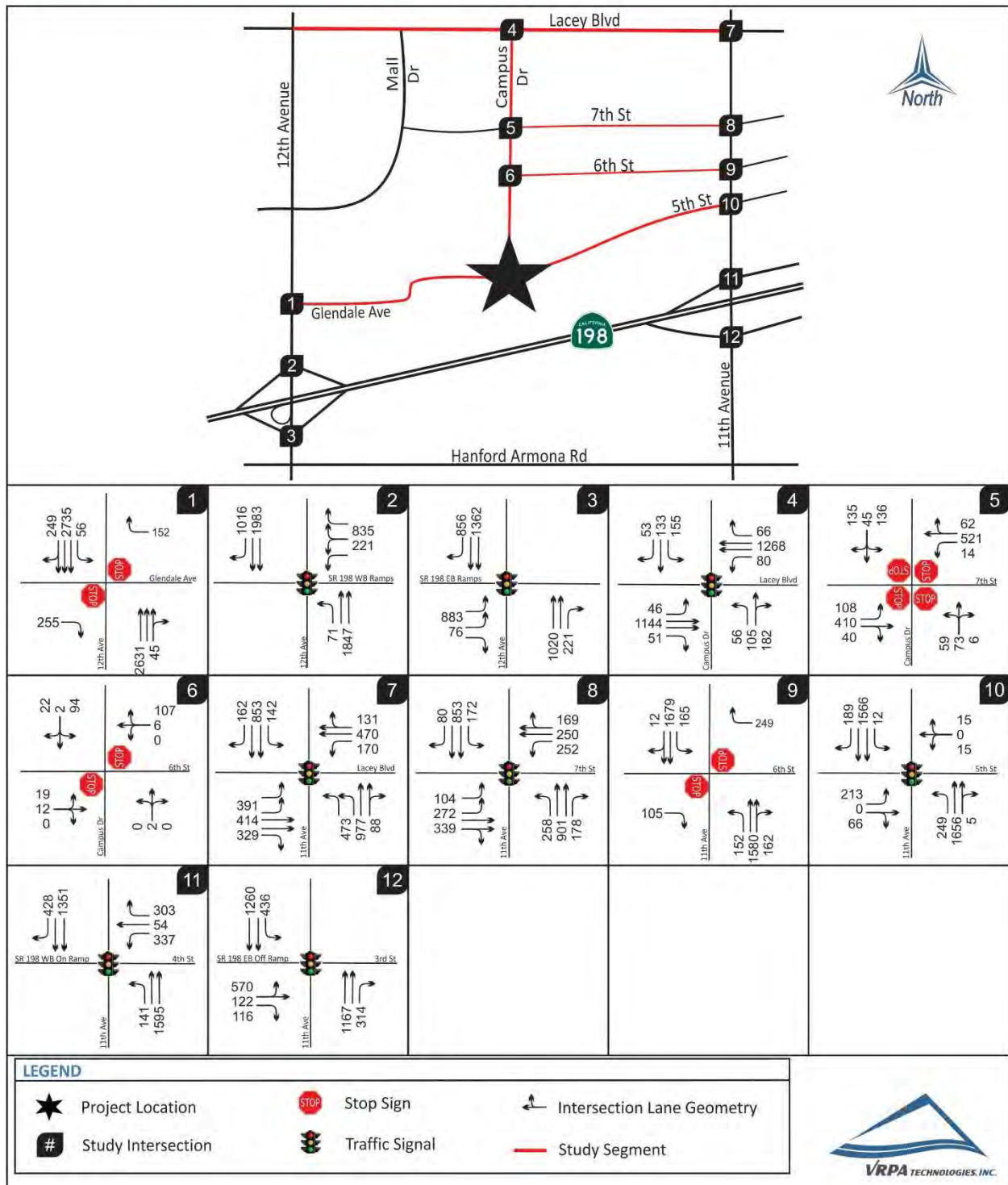
Hanford Place Development
Cumulative Year 2042 Without Project AM Peak Hour Traffic

Figure
3-8



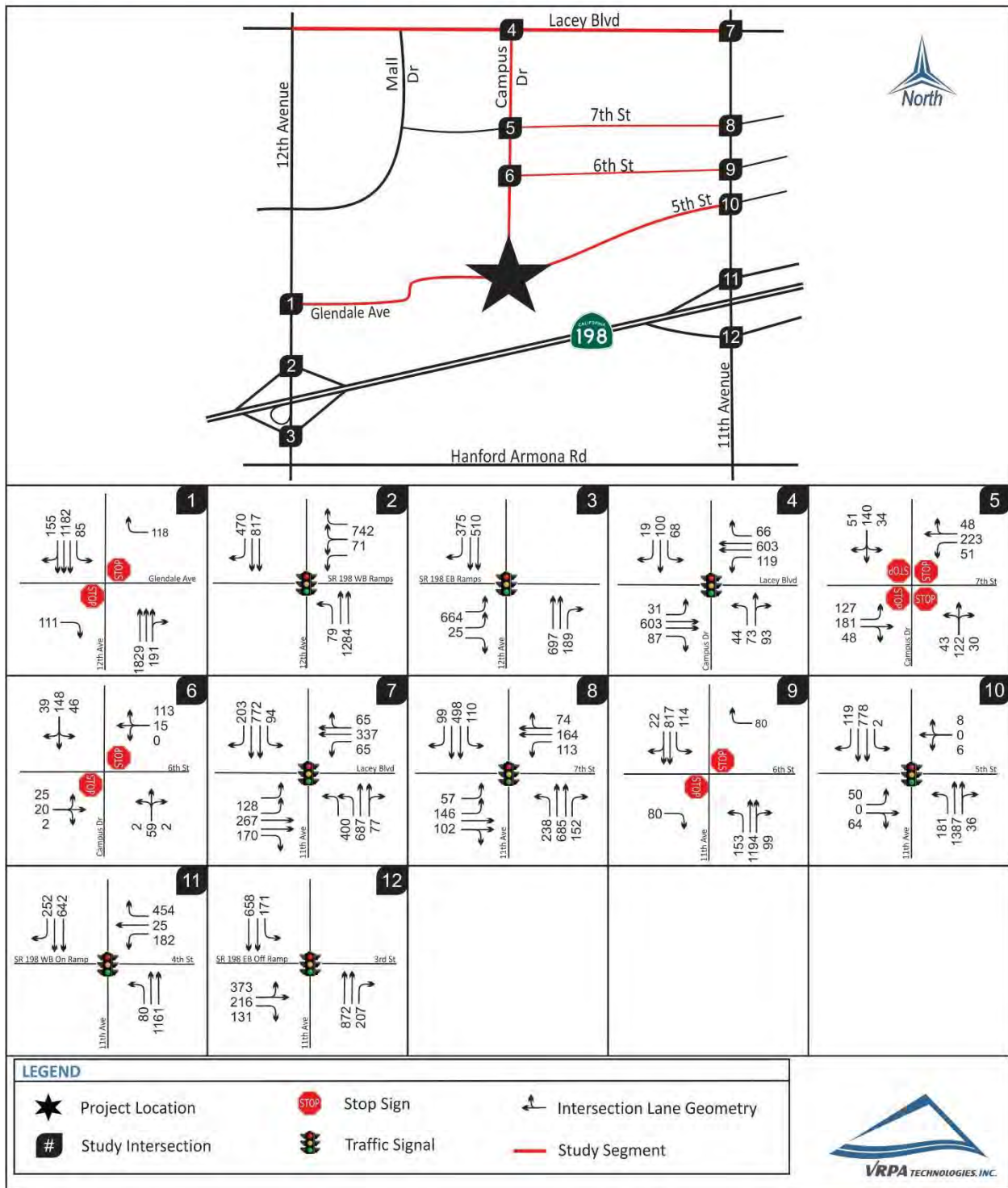
Hanford Place Development
Cumulative Year 2042 Without Project PM Peak Hour Traffic

Figure
3-9



Hanford Place Development
Cumulative Year 2042 Plus Project AM Peak Hour Traffic

Figure
3-10



Hanford Place Development
Cumulative Year 2042 Plus Project PM Peak Hour Traffic

Figure
3-11

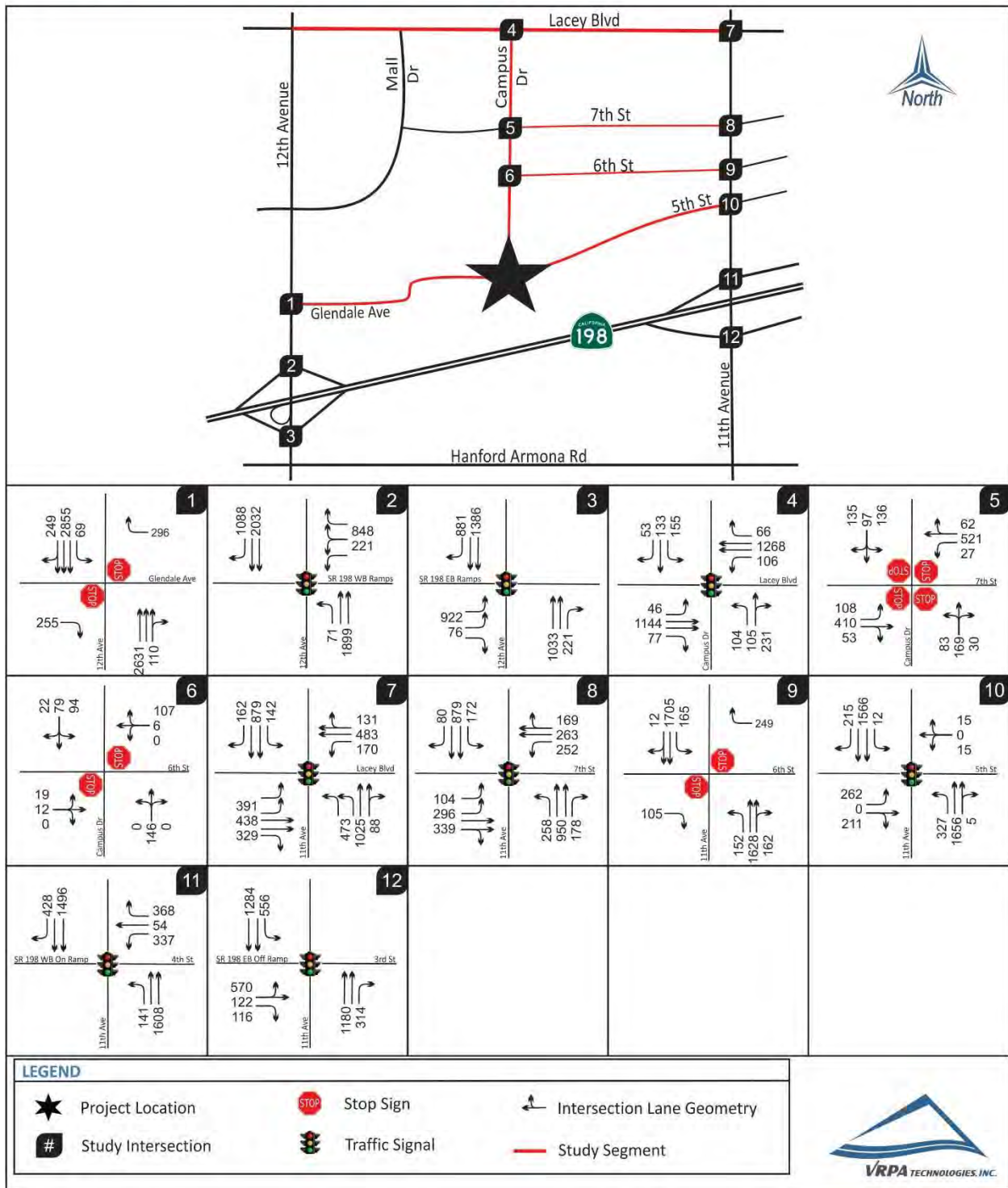


Table 3-2
Intersection Operations

INTERSECTION	CONTROL	TARGET LOS	PEAK HOUR	EXISTING PLUS PROJECT		NEAR-TERM PLUS PROJECT		CUMULATIVE YEAR 2042 WITHOUT PROJECT		CUMULATIVE YEAR 2042 PLUS PROJECT	
				DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS
1. 12th Avenue / Glendale Avenue	Two-Way Stop Sign	D	AM	30.2	D	37.2	E	74.4	F	154.4	F +
			PM	184.6	F +	269.9	F +	++	F	++	F +
2. 12th Avenue / SR 198 WB Ramps	Signalized	-- ¹	AM	13.7	B	14.5	B	18.8	B	19.9	B
			PM	19.4	B	23.0	C	64.5	E	75.1	E
3. 12th Avenue / SR 198 EB Ramps	Signalized	-- ¹	AM	12.5	B	12.7	B	13.2	B	13.7	B
			PM	13.6	B	14.3	B	19.0	B	20.1	C
4. Campus Drive / Lacey Boulevard	Signalized	D	AM	25.2	C	25.4	C	25.7	C	25.5	C
			PM	29.2	C	31.4	C	52.2	D	52.9	D
5. Campus Drive / 7th Street	All-Way Stop Sign	D	AM	11.9	B	12.6	B	12.1	B	15.0	B
			PM	23.7	C	31.8	D	92.9	F	146.9	F
6. Campus Drive / 6th Street	Two-Way Stop Sign	D	AM	13.3	B	13.6	B	10.7	B	13.1	B
			PM	13.9	B	14.3	B	11.5	B	14.7	B
7. 11th Avenue / Lacey Boulevard	Signalized	D	AM	20.3	C	21.0	C	25.3	C	25.9	C
			PM	28.5	C	31.6	C	49.9	D	52.7	D
8. 11th Avenue / 7th Street	Signalized	D	AM	18.9	B	19.7	B	24.2	C	24.4	C
			PM	29.0	C	31.8	C	55.6	E	57.6	E
9. 11th Avenue / 6th Street	Two-Way Stop Sign	D	AM	12.7	B	13.3	B	17.1	C	17.3	C
			PM	18.1	C	20.6	C	74.3	F	83.6	F
10. 11th Avenue / 5th Street	Signalized	D	AM	9.6	A	9.7	A	6.5	A	10.7	B
			PM	18.1	B	19.5	B	23.8	C	42.3	D
11. 11th Avenue / 4th Street-SR 198 WB On Ramp	Signalized	-- ¹	AM	15.3	B	15.9	B	16.4	B	20.8	C
			PM	14.6	B	15.6	B	21.0	C	28.4	C
12. 11th Avenue / 3rd Street-SR 198 EB Off Ramp	Signalized	-- ¹	AM	21.0	C	22.9	C	27.0	C	30.2	C
			PM	30.6	C	35.4	D	76.3	E	97.4	F

DELAY is measured in seconds

LOS = Level of Service / **BOLD** denotes LOS standard has been exceeded

For signalized and all-way stop intersections, delay results show the average for the entire intersection. For one-way and two-way stop controlled intersections, delay results show the delay for the worst movement.

1 - With the changes brought about by SB 743, Caltrans no longer uses level of service to determine the need for transportation improvements. Instead, focus is on providing adequate facilities for pedestrians, bicycles, and transit as well as safety considerations for all transportation modes. Guidance is provided in the Transportation Impact Study Guide dated May 20, 2020 and the Interim Land Development and Intergovernmental Review Safety Review Practitioners Guidance dated July 2020. This guidance will be used in determining the need for roadway improvements on Caltrans facilities.

+ Meets peak hour signal warrants.

++ Delay Exceeds 300 seconds.

Table 3-3
Queuing Operations

INTERSECTION	EXISTING QUEUE STORAGE LENGTH (ft)		EXISTING PLUS PROJECT		NEAR-TERM PLUS PROJECT		CUMULATIVE YEAR 2042 WITHOUT PROJECT		CUMULATIVE YEAR 2042 PLUS PROJECT	
			AM Queue	PM Queue	AM Queue	PM Queue	AM Queue	PM Queue	AM Queue	PM Queue
12th Avenue / Glendale Avenue	SB Left	125	53	41	56	43	52	47	71	58
12th Avenue / SR 198 WB Ramps	NB Left	400	43	38	46	42	66	59	66	59
	WB Approach	3 @ 275	445	580	481	627	658	880	678	891
12th Avenue / SR 198 EB Ramps	SB Right	600	205	482	221	520	305	713	313	734
	EB Left	2 @ 875	378	508	405	548	495	736	553	768
	EB Right	850	13	41	14	44	21	63	21	63
Campus Drive / Lacey Boulevard	NB Left	75	29	70	30	73	22	47	37	87
	SB Left	200	37	83	40	90	57	129	57	129
	SB Right	100	10	28	11	31	16	44	16	44
	EB Left	200	17	25	18	27	26	38	26	38
	EB Right	100	61	49	63	52	33	43	73	64
	WB Left	125	78	65	82	68	61	67	99	88
	WB Right	100	36	36	39	39	55	55	55	55
Campus Drive / 7th Street	EB Left	100	68	58	74	63	106	90	106	90
	WB Left	100	34	18	36	19	23	12	43	23
11th Avenue / Lacey Boulevard	NB Left	2 @ 200	216	255	233	276	333	394	333	394
	SB Left	150	51	77	55	83	78	118	78	118
	SB Right	150	109	88	118	95	169	135	169	135
	EB Left	2 @ 125	69	211	75	228	107	326	107	326
	EB Right	100	92	178	99	193	142	274	142	274
	WB Left	100	35	92	38	99	54	142	54	142
11th Avenue / 7th Street	NB Left	125	128	139	139	151	198	215	198	215
	NB Right	100	82	96	88	103	127	148	127	148
	SB Left	100	59	93	64	100	92	143	92	143
	SB Right	100	53	43	58	47	83	67	83	67
	EB Left	2 @ 75	31	56	33	61	48	87	48	87
	WB Left	125	61	136	66	147	94	210	94	210
11th Avenue / 6th Street	NB Left	75	83	82	89	88	128	127	128	127
	SB Left	125	62	89	67	97	95	138	95	138
11th Avenue / 5th Street	NB Left	150	138	199	141	210	33	208	151	273
	SB Left	50	1	7	1	8	2	10	2	10
	SB Right	50	78	123	82	132	61	158	99	179
	EB Left	50	33	155	33	165	27	178	42	218
11th Avenue / 4th Street-SR 198 WB On Ramp	NB Left	75	43	76	47	83	67	118	67	118
	SB Right	75	136	231	147	250	210	357	210	357
	WB Left	125	98	182	107	197	152	281	152	281
11th Avenue / 3rd Street-SR 198 EB Off Ramp	NB Right	75	112	169	121	183	173	262	173	262
	SB Left	150	105	336	111	355	106	363	143	463
	EB Right	25	71	63	77	68	109	97	109	97

Queue is measured in feet / **BOLD** denotes exceedance

Table 3-4
Segment Operations

STREET SEGMENT	SEGMENT DESCRIPTION	TARGET LOS	PEAK HOUR	EXISTING PLUS PROJECT		NEAR-TERM PLUS PROJECT		CUMULATIVE YEAR 2042 WITHOUT PROJECT		CUMULATIVE YEAR 2042 PLUS PROJECT	
				VOLUME	LOS	VOLUME	LOS	VOLUME	LOS	VOLUME	LOS
Lacey Boulevard											
12th Avenue to Campus Drive	4 Lanes Divided	D	AM	919	C	990	C	1,322	C	1,386	C
			PM	1,767	C	1,907	C	2,617	D	2,691	D
Campus Drive to 11th Avenue	4 Lanes Divided	D	AM	1,027	C	1,107	C	1,489	C	1,553	C
			PM	1,947	C	2,101	C	2,896	D	2,970	E
7th Street											
Campus Drive to 11th Avenue	2 Lanes Undivided	D	AM	378	D	407	D	535	D	567	D
			PM	780	D	841	D	1,149	E	1,186	E
6th Street											
Campus Drive to 11th Avenue	2 Lanes Undivided	D	AM	127	C	137	C	196	C	196	C
			PM	142	C	154	C	220	C	220	C
Glendale Avenue											
East of 12th Avenue	2 Lanes Undivided	D	AM	323	C	334	D	201	C	394	D
			PM	385	D	399	D	252	C	474	D
5th Avenue											
West of 11th Avenue	2 Lanes Undivided	D	AM	359	D	367	D	156	C	414	D
			PM	760	D	799	D	717	D	1,014	D
Campus Drive											
Lacey Bouloevard to Glendale Avenue	2 Lanes Undivided	D	AM	380	D	400	D	388	D	517	D
			PM	541	D	574	D	608	D	756	D

LOS = Level of Service / **BOLD** denotes LOS standard has been exceeded

4.0 Mitigation

As discussed in Section 3.0 Impacts, the potentially significant impacts resulting from the Project relate to the generation of unacceptable LOS at various intersections and road segments in the long term. Considering the criteria provided in Section 1.3 and the results presented in Section 3.0, the following improvements are recommended to alleviate project-specific impacts.

4.1 Recommended Improvements

4.1.1 Intersections

- ✓ 12th Avenue at Glendale Avenue
No Recommended improvements.

Installation of a traffic signal would alleviate level of service deficiencies at the intersection for all study scenarios. However, providing a traffic signal at this location is not practical given the close spacing of adjacent intersections. In lieu of the traffic signal, dual right turn lanes for the eastbound and westbound approaches to the intersection should be considered to alleviate queuing at the eastbound and westbound approaches.

- ✓ Campus Drive at 7th Street
Recommended improvements to achieve acceptable levels of service:
 - Cumulative Year 2042 Plus Project scenario:
 - Install Traffic Signal

The improvements identified above for the Cumulative Year 2042 Plus Project scenario are sufficient to meet the City of Hanford's acceptable LOS standard of 'D'.

- ✓ 11th Avenue at 7th Street
No Recommended improvements.

Providing additional turning movement lanes along 11th Avenue and 7th Street is not possible due to design constraints or infeasible/impractical due to the presence of commercial development that currently exists along the north and south side of 7th Street.

- ✓ 11th Avenue at 6th Street
No Recommended improvements.

This intersection is forecasted to operate at unacceptable LOS 'F' (PM) under Cumulative Year 2042 Without Project and Cumulative Year 2042 Plus Project conditions; however, this intersection does not meet the peak hour traffic signal warrant because the minor approaches do not carry enough traffic to justify signalization. Therefore, no improvements

are recommended for the Project's contribution of traffic at the intersection for the Cumulative Year 2042 Plus Project condition.

- ✓ 12th Avenue at SR 198 WB Ramps
No Recommended improvements.

Providing additional turning movement lanes at the 12th Avenue and SR 198 WB Ramps intersection is not possible due to design constraints or infeasible/impractical due to the presence of development that currently exists along the north side of the SR 198 WB Ramps. As noted in Section 1.3, Caltrans no longer uses level of service to determine the need for transportation improvements. Instead, focus is on providing adequate facilities for pedestrians, bicycles, and transit as well as safety considerations for all transportation modes.

- ✓ 11th Avenue at 3rd Street-SR 198 EB Off Ramp
No Recommended improvements.

Providing additional turning movement lanes at the 11th Avenue and 3rd Street-SR 198 EB Off Ramp intersection is not possible due to design constraints or infeasible/impractical due to the presence of development that currently exists along the south side of 3rd Street and the SR 198 EB Off Ramp. As noted in Section 1.3, Caltrans no longer uses level of service to determine the need for transportation improvements. Instead, focus is on providing adequate facilities for pedestrians, bicycles, and transit as well as safety considerations for all transportation modes.

4.1.2 Roadway Segments

- ✓ Lacey Boulevard between Campus Drive and 11th Avenue
No Recommended improvements.

Providing additional travel lanes along Lacey Boulevard is not possible due to design constraints or infeasible/impractical due to the presence of retail development that currently exists along the north and south side of Lacey Boulevard. In addition, accommodating additional travel lanes along Lacey Boulevard could result in the elimination of parking along Lacey Boulevard.

- ✓ 7th Street between Campus Drive and 11th Avenue
Recommended improvements:

- Cumulative Year 2042 Plus Project scenario:
 - Restripe to provide two-way left turn lane with removal of parking as necessary

Providing additional travel lanes along 7th Street is not possible due to right-of-way constraints.

Post-Mitigation Level of Significance

The level of service resulting from the potential improvements identified above is shown in Tables 4-1 and 4-2. Table 4-3 identifies left turn and right turn lane pocket lengths required for the Cumulative Year 2042 scenario. Although the need for extended turn lane pockets would occur at some locations prior to the Cumulative Year 2042 scenario, this scenario provides the maximum length needed and therefore these lengths would also provide for projected traffic volumes under the Existing Plus Project and Near-Term Plus Project scenarios. The left turn and right turn pocket length do not include deceleration lengths.

Table 4-1
Intersection Operations with Mitigation

INTERSECTION	CONTROL	TARGET LOS	PEAK HOUR	EXISTING PLUS PROJECT		NEAR-TERM PLUS PROJECT		CUMULATIVE YEAR 2042 PLUS PROJECT	
				DELAY	LOS	DELAY	LOS	DELAY	LOS
1. 12th Avenue / Glendale Avenue	Two-Way Stop Sign	D	AM	30.2	D	37.2	E²	154.4	F²
			PM	184.6	F²	269.9	F²	++	F²
2. 12th Avenue / SR 198 WB Ramps	Signalized	-- ¹	AM					19.9	B
			PM					75.1	E ³
5. Campus Drive / 7th Street	Signalized	D	AM					12.8	B
			PM					20.4	C
8. 11th Avenue / 7th Street	Signalized	D	AM					24.4	C
			PM					57.6	E³
9. 11th Avenue / 6th Street	Two-Way Stop Sign	D	AM					17.3	C
			PM					83.6	F⁴
12. 11th Avenue / 3rd Street-SR 198 EB Off Ramp	Signalized	-- ¹	AM					30.2	C
			PM					97.4	F ³

DELAY is measured in seconds

LOS = Level of Service / **BOLD** denotes LOS standard has been exceeded

For signalized and all-way stop intersections, delay results show the average for the entire intersection. For one-way and two-way stop controlled intersections, delay results show the delay for the worst movement.

1 - With the changes brought about by SB 743, Caltrans no longer uses level of service to determine the need for transportation improvements. Instead, focus is on providing adequate facilities for pedestrians, bicycles, and transit as well as safety considerations for all transportation modes. Guidance is provided in the Transportation Impact Study Guide dated May 20, 2020 and the Interim Land Development and Intergovernmental Review Safety Review Practitioners Guidance dated July 2020. This guidance will be used in determining the need for roadway improvements on Caltrans facilities.

2 Installation of a traffic signal would alleviate LOS deficiencies at the intersection. A traffic signal is not recommended given the close spacing of adjacent intersections.

3 Improvements to the intersection aren't recommended given the presence of abutting commercial development at the intersection.

4 Intersection does not meet the peak hour traffic signal warrant.

++ Delay Exceeds 300 seconds.

Table 4-2
Segment Operations with Mitigation

STREET SEGMENT	TARGET LOS	PEAK HOUR	CUMULATIVE YEAR 2042 PLUS PROJECT	
			VOLUME	LOS
Lacey Boulevard				
Campus Drive to 11th Avenue	D	AM	1,553	C
		PM	2,970	E *
7th Street				
Campus Drive to 11th Avenue	D	AM	567	D
		PM	1,186	E *

* Capacity Increasing Improvements to the roadway segment aren't recommended given the presence of abutting commercial development.

Table 4-3
Left Turn and Right Turn Storage Requirements

INTERSECTION	EXISTING QUEUE STORAGE LENGTH (ft)		CUMULATIVE YEAR 2042 PLUS PROJECT RECOMMENDED STORAGE LENGTH (ft)
12th Avenue / Glendale Avenue	SB Left	125	125
12th Avenue / SR 198 WB Ramps	NB Left	400	400
	WB Approach	3 @ 275	3 @ 300
12th Avenue / SR 198 EB Ramps	SB Right	600	600
	EB Left	2 @ 875	2 @ 875
	EB Right	850	850
Campus Drive / Lacey Boulevard	NB Left	75	100
	SB Left	200	200
	SB Right	100	100
	EB Left	200	200
	EB Right	100	100
	WB Left	125	125
	WB Right	100	100
Campus Drive / 7th Street	EB Left	100	100
	WB Left	100	100
11th Avenue / Lacey Boulevard	NB Left	2 @ 200	2 @ 200
	SB Left	150	150
	SB Right	150	175
	EB Left	2 @ 125	2 @ 125
	EB Right	100	100
	WB Left	100	100
11th Avenue / 7th Street	NB Left	125	125
	NB Right	100	100
	SB Left	100	100
	SB Right	100	100
	EB Left	2 @ 75	2 @ 75
	WB Left	125	125
11th Avenue / 6th Street	NB Left	75	75
	SB Left	125	125
11th Avenue / 5th Street	NB Left	150	250
	SB Left	50	50
	SB Right	50	50
	EB Left	50	225
11th Avenue / 4th Street-SR 198 WB On Ramp	NB Left	75	75
	SB Right	75	75
	WB Left	125	125
11th Avenue / 3rd Street-SR 198 EB Off Ramp	NB Right	75	75
	SB Left	150	150
	EB Left	--	2 @ 250
	EB Right	25	25

BOLD denotes change in storage length

4.2 Equitable Share Responsibility

This section documents the Project's fair-share responsibility towards the costs of improvements that are identified for the Cumulative Year 2042 scenario. The intent of determining the equitable responsibility for the improvements identified above for the Cumulative Year 2042 scenario, is to provide information for the applicant and the City of Hanford to address traffic mitigation equitability and to calculate the equitable share for mitigating traffic impacts. The formulas used to calculate the equitable share responsibility to City of Hanford facilities is as follows:

$$\text{Equitable Share} = (\text{Project Trips}) / (\text{Future Year Plus Project Traffic})$$

Table 4-4 shows the Project's equitable fair share responsibility on a percentage basis for improvements to City of Hanford facilities as described above. The equitable fair share responsibility shown in Table 4-4 is the result of LOS enhancements related to capacity.

Table 4-4
Cumulative Year 2042 Equitable Share Responsibility

INTERSECTION	PEAK HOUR	PROJECT TRIPS	CUMULATIVE YEAR 2042 PLUS PROJECT	FAIR SHARE PERCENTAGE
Campus Drive / 7th Street	AM	193	1,098	17.6%
	PM	223	1,830	12.2%
ROADWAY SEGMENT				
7th Street between Campus Drive and 11th Avenue	AM	32	567	5.6%
	PM	37	1,186	3.1%

Based on a review of the information provided in this section and the remainder of the traffic impact study, the City of Hanford and the applicant have determined that the payment of the City's impact fees will satisfy the Project's obligations to pay for an equitable share of the improvements.

APPENDIX A

Modified Arterial Level of Service Tables

**Generalized Peak Hour Two-Way Volumes for Florida's
Urbanized Areas¹**

TABLE 4

03/14/2018

03/14/2018

INTERRUPTED FLOW FACILITIES						UNINTERRUPTED FLOW FACILITIES					
STATE SIGNALIZED ARTERIALS						FREEWAYS					
Principal (1 signal per half mile)						Lanes	B	C	D	E	
Lanes	Median	B	C	D	E	4	4,560	6,200	7,690	7,870	
2	Undivided	*	360	1,250	1,690	6	6,650	9,150	11,350	11,820	
4	Divided	90	2,450	3,250	3,400	8	8,760	12,130	15,110	15,760	
6	Divided	150	3,710	4,890	5,130	10	11,960	16,800	19,710	**	
						12	14,820	19,980	23,640	**	
Minor (1 signal per quarter mile)						Freeway Adjustments					
Lanes	Median	B	C	D	E	Auxiliary Lanes			Ramp		
2	Undivided	*	*	380	1,290	Present in Both Directions			Metering		
4	Divided	*	850	2,530	3,350	+ 1,800			+ 5%		
6	Divided	*	1,600	3,980	5,050						
Non-State Signalized Roadway Adjustments											
(Alter corresponding state volumes by the indicated percent.)											
Non-State Signalized Roadways - 10%											
Median & Turn Lane Adjustments						UNINTERRUPTED FLOW HIGHWAYS					
Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors		Lanes	Median	B	C	D	E
2	Divided	Yes	No	+5%		2	Undivided	1,110	1,690	2,290	3,070
2	Undivided	No	No	-20%		4	Divided	3,350	4,840	6,090	6,840
Multi	Undivided	Yes	No	-5%		6	Divided	5,040	7,250	9,130	10,250
Multi	Undivided	No	No	-25%							
—	—	—	Yes	+ 5%							
One-Way Facility Adjustment						Uninterrupted Flow Highway Adjustments					
Multiply the corresponding two-directional volumes in this table by 0.6						Lanes	Median	Exclusive left lanes	Adjustment factors		
						2	Divided	Yes	+5%		
						Multi	Undivided	Yes	-5%		
						Multi	Undivided	No	-25%		
BICYCLE MODE ²						¹ Values shown are presented as peak hour directional volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the Highway Capacity Manual and the Transit Capacity and Quality of Service Manual.					
(Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)											
Paved Shoulder/Bicycle											
Lane Coverage	B	C	D	E		² Level of service for the bicycle and pedestrian modes in this table is based on number of motorized vehicles, not number of bicyclists or pedestrians using the facility.					
0-49%	*	260	680	1,770							
50-84%	190	600	1,770	>1,770							
85-100%	830	1,770	>1,770	**		³ Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.					
PEDESTRIAN MODE ²											
(Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)											
Sidewalk Coverage	B	C	D	E		* Cannot be achieved using table input value defaults.					
0-49%	*	*	260	850							
50-84%	*	150	780	1,420							
85-100%	340	960	1,560	>1,770		** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.					
BUS MODE (Scheduled Fixed Route) ³											
(Buses in peak hour in peak direction)						Source: Florida Department of Transportation Systems Planning Office www.dot.state.fl.us/planning/systems/sm/los/default.shtm					
Sidewalk Coverage	B	C	D	E							
0-84%	> 5	≥ 4	≥ 3	≥ 2							
85-100%	> 4	≥ 3	≥ 2	≥ 1							

TABLE 4
(continued)

Generalized Peak Hour Two-Way Volumes for Florida's Urbanized Areas

03/14/2018

INPUT VALUE ASSUMPTIONS	Uninterrupted Flow Facilities			Interrupted Flow Facilities					
	Freeways	Highways		Principal Arterials		Minor Arterials		Bicycle	Pedestrian
ROADWAY CHARACTERISTICS									
Area type (urban, rural)	urban								
Number of through lanes (both dir.)	4-12	2	4-6	2-4	6	2-4	6	4	4
Posted speed (mph)	70	50	50	50	50	40	40	45	45
Free flow speed (mph)	75	55	55	55	55	45	45	50	50
Auxiliary Lanes (n, y)	n								
Median (d, u, twlt)			d						
Terrain (l,r)	l	l	l	l	l	l	l	l	l
% no passing zone		80							
Exclusive left turn lane impact (n, y)		[n]	y	y	y	y	y	y	y
Exclusive right turn lanes (n, y)				n	y	n	y		
Facility length (mi)	3	5	5	2	2	2	2	2	2
Interchange Density (intch/mi)	1								
TRAFFIC CHARACTERISTICS									
Planning analysis hour factor (K)	0.090	0.090	0.090	0.090	0.090	0.090	0.090	0.090	0.090
Directional distribution factor (D)	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.565	0.565
Peak hour factor (PHF)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Base saturation flow rate (pcphpl)	2,400	1,700	2,100	1,950	1,950	1,950	1,950	1,950	1,950
Heavy vehicle percent	4.0	2.0	2.0	2.0	2.0	2.0	2.0	2.5	2.0
Speed Adjustment Factor (SAF)	0.950		0.950						
Capacity Adjustment Factor (CAF)	0.939		0.939						
% left turns				12	12	12	12	12	12
% right turns				12	12	12	12	12	12
CONTROL CHARACTERISTICS									
Number of signals				5	5	9	9	4	6
Arrival type (1-6)				3	3	3	3	4	4
Signal type (a, c, p)				c	c	c	c	c	c
Cycle length (C)				150	150	120	120	120	120
Effective green ratio (g/C)				0.44	0.44	0.44	0.44	0.44	0.44
MULTIMODAL CHARACTERISTICS									
Paved shoulder/bicycle lane (n, y)								n, 50%, y	n
Outside lane width								t	t
Pavement condition								t	
On-street parking								n	n
Sidewalk (n, y)									n, 50%, y
Sidewalk/roadway separation (a, t, w)									t
Sidewalk protective barrier (n, y)									n
LEVEL OF SERVICE THRESHOLDS									
Level of Service	Freeways	Highways		Arterials		Bicycle	Ped	Bus	
	Density pc/mi/ln	Two-Lane	Multilane	Principal & Minor		Score	Score	Buses/hr.	
		%ffs	Density pc/mi/ln	%bffs					
B	≤ 18	> 83.3	≤ 18	> 67		≤ 2.75	≤ 2.75	≤ 6	
C	≤ 26	> 75.0	≤ 26	> 50		≤ 3.50	≤ 3.50	≤ 4	
D	≤ 35	> 66.7	≤ 35	> 40		≤ 4.25	≤ 4.25	< 3	
E	≤ 45	≤ 66.7	≤ 45	> 30		≤ 5.00	≤ 5.00	< 2	

pc/mi/ln = passenger cars per mile per lane

%ffs = percent free flow speed

%bffs = percent base free flow speed

APPENDIX B

Traffic Count Data Worksheets

VOLUME

N 11th Ave Bet. W 6th St & W 7th St

Day: Thursday
Date: 10/1/2020City: Hanford
Project #: CA20_90150_008

DAILY TOTALS					NB	SB						EB	WB						Total
					11,082	11,303						0	0						22,385
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL							TOTAL
0:00	31	25			56		12:00	217	224			441							441
0:15	30	21			51		12:15	222	199			421							421
0:30	20	22			42		12:30	184	222			406							406
0:45	12	93	18	86	30	179	12:45	171	794	206	851	377	1645						1645
1:00	11	14			25		13:00	179	172			351							351
1:15	13	10			23		13:15	201	192			393							393
1:30	9	8			17		13:30	195	193			388							388
1:45	12	45	14	46	26	91	13:45	238	813	204	761	442	1574						1574
2:00	19	5			24		14:00	176	184			360							360
2:15	10	7			17		14:15	208	184			392							392
2:30	9	8			17		14:30	224	218			442							442
2:45	10	48	10	30	20	78	14:45	220	828	198	784	418	1612						1612
3:00	15	10			25		15:00	242	227			469							469
3:15	4	10			14		15:15	222	194			416							416
3:30	9	17			26		15:30	228	236			464							464
3:45	12	40	15	52	27	92	15:45	223	915	223	880	446	1795						1795
4:00	10	12			22		16:00	247	243			490							490
4:15	19	25			44		16:15	242	210			452							452
4:30	21	27			48		16:30	239	234			473							473
4:45	33	83	36	100	69	183	16:45	215	943	225	912	440	1855						1855
5:00	34	38			72		17:00	223	256			479							479
5:15	43	61			104		17:15	207	229			436							436
5:30	33	75			108		17:30	183	220			403							403
5:45	51	161	75	249	126	410	17:45	193	806	175	880	368	1686						1686
6:00	45	100			145		18:00	174	229			403							403
6:15	88	92			180		18:15	182	172			354							354
6:30	61	79			140		18:30	164	183			347							347
6:45	73	267	89	360	162	627	18:45	155	675	177	761	332	1436						1436
7:00	69	96			165		19:00	156	172			328							328
7:15	103	114			217		19:15	137	156			293							293
7:30	140	117			257		19:30	131	147			278							278
7:45	186	498	117	444	303	942	19:45	115	539	140	615	255	1154						1154
8:00	167	108			275		20:00	95	126			221							221
8:15	134	111			245		20:15	89	107			196							196
8:30	143	114			257		20:30	69	98			167							167
8:45	171	615	120	453	291	1068	20:45	72	325	75	406	147	731						731
9:00	153	139			292		21:00	59	102			161							161
9:15	134	155			289		21:15	45	82			127							127
9:30	166	127			293		21:30	55	69			124							124
9:45	171	624	133	554	304	1178	21:45	58	217	63	316	121	533						533
10:00	147	164			311		22:00	44	52			96							96
10:15	174	176			350		22:15	46	45			91							91
10:30	165	156			321		22:30	50	57			107							107
10:45	201	687	178	674	379	1361	22:45	37	177	40	194	77	371						371
11:00	171	187			358		23:00	43	26			69							69
11:15	190	201			391		23:15	38	24			62							62
11:30	169	200			369		23:30	33	42			75							75
11:45	206	736	179	767	385	1503	23:45	39	153	36	128	75	281						281
TOTALS	3897	3815			7712		TOTALS	7185	7488			14673							14673
SPLIT %	50.5%	49.5%			34.5%		SPLIT %	49.0%	51.0%			65.5%							65.5%

DAILY TOTALS					NB	SB						EB	WB						Total
					11,082	11,303						0	0						22,385
AM Peak Hour	11:45	11:45			11:45		PM Peak Hour	15:45	16:30			15:45							15:45
AM Pk Volume	829	824			1653		PM Pk Volume	951	944			1861							1861
Pk Hr Factor	0.934	0.920			0.937		Pk Hr Factor	0.963	0.922			0.949							0.949
7 - 9 Volume	1113	897	0	0	2010		4 - 6 Volume	1749	1792	0	0	3541							3541
7 - 9 Peak Hour	7:45	7:15			7:30		4 - 6 Peak Hour	16:00	16:30			16:00							16:00
7 - 9 Pk Volume	630	456	0	0	1080		4 - 6 Pk Volume	943	944	0	0	1855							1855
Pk Hr Factor	0.847	0.974	0.000	0.000	0.891		Pk Hr Factor	0.954	0.922	0.000	0.000	0.946							0.946

VOLUME

W 6th St Bet. Campus Dr & N 11th Ave

Day: Thursday
Date: 10/1/2020City: Hanford
Project #: CA20_90150_007

DAILY TOTALS					NB	SB						EB	WB	Total
					0	0						740	1,022	1,762
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL		
0:00			0	3	3		12:00			19	11	30		
0:15			2	1	3		12:15			17	28	45		
0:30			0	0	0		12:30			22	22	44		
0:45			2	4	2	6	12:45			20	78	26	87	165
1:00			2	0	2		13:00			13	24	37		
1:15			0	0	0		13:15			13	19	32		
1:30			1	0	1		13:30			18	23	41		
1:45			0	3	3	3	13:45			16	60	20	86	146
2:00			0	1	1		14:00			14	24	38		
2:15			0	1	1		14:15			15	19	34		
2:30			1	0	1		14:30			16	19	35		
2:45			1	2	3	5	14:45			10	55	18	80	135
3:00			1	1	2		15:00			19	18	37		
3:15			1	0	1		15:15			12	23	35		
3:30			0	1	1		15:30			13	19	32		
3:45			1	3	0	2	15:45			8	52	23	83	135
4:00			1	4	5		16:00			15	11	26		
4:15			0	2	2		16:15			15	18	33		
4:30			1	1	2		16:30			10	15	25		
4:45			2	4	1	8	16:45			12	52	22	66	118
5:00			0	1	1		17:00			17	20	37		
5:15			1	2	3		17:15			16	15	31		
5:30			2	14	16		17:30			13	11	24		
5:45			1	4	9	26	17:45			3	49	12	58	107
6:00			3	2	5		18:00			7	11	18		
6:15			4	3	7		18:15			7	18	25		
6:30			9	8	17		18:30			13	20	33		
6:45			9	25	15	28	18:45			7	34	13	62	96
7:00			2	5	7		19:00			9	10	19		
7:15			5	10	15		19:15			9	6	15		
7:30			13	12	25		19:30			9	9	18		
7:45			20	40	36	63	19:45			12	39	10	35	74
8:00			11	18	29		20:00			5	5	10		
8:15			6	16	22		20:15			2	6	8		
8:30			5	13	18		20:30			4	7	11		
8:45			20	42	17	64	20:45			6	17	6	24	41
9:00			9	32	41		21:00			8	4	12		
9:15			11	15	26		21:15			5	3	8		
9:30			9	7	16		21:30			2	2	4		
9:45			8	37	14	68	21:45			1	16	4	13	29
10:00			10	20	30		22:00			2	2	4		
10:15			11	16	27		22:15			2	3	5		
10:30			10	9	19		22:30			4	3	7		
10:45			9	40	19	64	22:45			3	11	5	13	24
11:00			20	17	37		23:00			2	2	4		
11:15			17	18	35		23:15			2	0	2		
11:30			8	14	22		23:30			3	4	7		
11:45			20	65	19	68	23:45			1	8	4	10	18
TOTALS			269	405	674		TOTALS			471	617	1088		
SPLIT %			39.9%	60.1%	38.3%		SPLIT %			43.3%	56.7%	61.7%		

DAILY TOTALS					NB	SB						EB	WB	Total
					0	0						740	1,022	1,762
AM Peak Hour			11:45	7:45	11:45		PM Peak Hour			12:00	12:15	12:15		
AM Pk Volume			78	83	158		PM Pk Volume			78	100	172		
Pk Hr Factor			0.886	0.576	0.878		Pk Hr Factor			0.886	0.893	0.935		
7 - 9 Volume	0	0	82	127	209		4 - 6 Volume	0	0	101	124	225		
7 - 9 Peak Hour			7:30	7:45	7:30		4 - 6 Peak Hour			16:45	16:15	16:15		
7 - 9 Pk Volume	0	0	50	83	132		4 - 6 Pk Volume	0	0	58	75	129		
Pk Hr Factor	0.000	0.000	0.625	0.576	0.589		Pk Hr Factor	0.000	0.000	0.853	0.852	0.872		

VOLUME

W 7th St Bet. Campus Dr & N 11th Ave

Day: Thursday
Date: 10/1/2020City: Hanford
Project #: CA20_90150_006

DAILY TOTALS					NB	SB						EB	WB	Total	
					0	0						3,085	3,870	6,955	
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL			
0:00			3	2	5		12:00			58	102	160			
0:15			2	4	6		12:15			59	78	137			
0:30			1	2	3		12:30			56	92	148			
0:45			4	10	6	20	12:45			73	246	63	335	136	581
1:00			5	3	8		13:00			64	92	156			
1:15			1	5	6		13:15			79	77	156			
1:30			2	2	4		13:30			61	82	143			
1:45			2	10	3	21	13:45			57	261	74	325	131	586
2:00			5	5	10		14:00			47	88	135			
2:15			0	0	0		14:15			48	88	136			
2:30			4	6	10		14:30			78	100	178			
2:45			5	14	8	28	14:45			58	231	89	365	147	596
3:00			1	2	3		15:00			64	85	149			
3:15			1	2	3		15:15			74	90	164			
3:30			4	2	6		15:30			65	82	147			
3:45			2	8	6	18	15:45			59	262	86	343	145	605
4:00			2	5	7		16:00			67	81	148			
4:15			4	1	5		16:15			68	76	144			
4:30			3	6	9		16:30			71	64	135			
4:45			4	13	12	33	16:45			61	267	79	300	140	567
5:00			3	7	10		17:00			80	76	156			
5:15			5	16	21		17:15			53	84	137			
5:30			13	8	21		17:30			60	65	125			
5:45			3	24	14	66	17:45			48	241	58	283	106	524
6:00			10	10	20		18:00			60	49	109			
6:15			8	24	32		18:15			40	55	95			
6:30			9	30	39		18:30			49	61	110			
6:45			9	36	35	126	18:45			44	193	60	225	104	418
7:00			21	21	42		19:00			54	51	105			
7:15			26	24	50		19:15			41	34	75			
7:30			23	42	65		19:30			41	35	76			
7:45			29	99	85	242	19:45			40	176	34	154	74	330
8:00			28	30	58		20:00			28	40	68			
8:15			39	44	83		20:15			22	29	51			
8:30			37	27	64		20:30			19	20	39			
8:45			43	147	93	298	20:45			16	85	21	110	37	195
9:00			39	57	96		21:00			10	16	26			
9:15			56	41	97		21:15			19	28	47			
9:30			45	71	116		21:30			15	16	31			
9:45			55	195	113	422	21:45			9	53	16	76	25	129
10:00			49	73	122		22:00			12	6	18			
10:15			58	66	124		22:15			11	9	20			
10:30			50	64	114		22:30			12	9	21			
10:45			56	213	125	485	22:45			9	44	7	31	16	75
11:00			45	73	118		23:00			8	8	16			
11:15			68	87	155		23:15			4	6	10			
11:30			54	71	125		23:30			8	7	15			
11:45			65	232	140	538	23:45			5	25	6	27	11	52
TOTALS			1001	1296	2297		TOTALS			2084	2574	4658			
SPLIT %			43.6%	56.4%	33.0%		SPLIT %			44.7%	55.3%	67.0%			

DAILY TOTALS					NB	SB						EB	WB	Total	
					0	0						3,085	3,870	6,955	
AM Peak Hour			11:15	11:45	11:45		PM Peak Hour			16:15	14:00	14:30			
AM Pk Volume			245	347	585		PM Pk Volume			280	365	638			
Pk Hr Factor			0.901	0.850	0.914		Pk Hr Factor			0.875	0.913	0.896			
7 - 9 Volume	0	0	246	294	540		4 - 6 Volume	0	0	508	583	1091			
7 - 9 Peak Hour			8:00	7:30	8:00		4 - 6 Peak Hour			16:15	16:45	16:15			
7 - 9 Pk Volume	0	0	147	172	298		4 - 6 Pk Volume	0	0	280	304	575			
Pk Hr Factor	0.000	0.000	0.855	0.768	0.801		Pk Hr Factor	0.000	0.000	0.875	0.905	0.921			

VOLUME

Campus Dr Bet. W Lacey Blvd & W 7th St

Day: Thursday
Date: 10/1/2020City: Hanford
Project #: CA20_90150_005

DAILY TOTALS					NB	SB	EB					WB	Total
					1,511	1,394						0	0
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL		
0:00	2	3			5	12:00	48	40			88		
0:15	1	2			3	12:15	30	27			57		
0:30	3	1			4	12:30	39	46			85		
0:45	1	7	0	6	13	12:45	56	173	42	155	328		
1:00	0	1			1	13:00	36	42			78		
1:15	0	0			0	13:15	31	32			63		
1:30	0	0			0	13:30	28	31			59		
1:45	3	3	0	1	4	13:45	38	133	21	126	259		
2:00	1	0			1	14:00	30	26			56		
2:15	0	1			1	14:15	28	17			45		
2:30	2	0			2	14:30	30	35			65		
2:45	2	5	1	2	7	14:45	31	119	25	103	222		
3:00	1	1			2	15:00	30	34			64		
3:15	1	0			1	15:15	25	23			48		
3:30	1	2			3	15:30	29	28			57		
3:45	0	3	3	6	9	15:45	24	108	22	107	215		
4:00	1	2			3	16:00	28	26			54		
4:15	3	3			6	16:15	40	38			78		
4:30	0	2			2	16:30	33	39			72		
4:45	2	6	3	10	16	16:45	27	128	32	135	263		
5:00	1	3			4	17:00	45	49			94		
5:15	1	3			4	17:15	24	25			49		
5:30	3	5			8	17:30	27	24			51		
5:45	5	10	6	17	27	17:45	19	115	14	112	227		
6:00	3	3			6	18:00	16	10			26		
6:15	4	11			15	18:15	11	14			25		
6:30	4	16			20	18:30	19	19			38		
6:45	6	17	14	44	61	18:45	15	61	11	54	115		
7:00	9	11			20	19:00	15	13			28		
7:15	22	14			36	19:15	17	8			25		
7:30	19	13			32	19:30	13	11			24		
7:45	45	95	19	57	152	19:45	13	58	12	44	102		
8:00	28	22			50	20:00	11	4			15		
8:15	15	18			33	20:15	7	6			13		
8:30	20	19			39	20:30	4	7			11		
8:45	19	82	26	85	167	20:45	1	23	7	24	47		
9:00	26	19			45	21:00	3	3			6		
9:15	28	20			48	21:15	4	4			8		
9:30	20	17			37	21:30	7	0			7		
9:45	22	96	32	88	184	21:45	3	17	4	11	28		
10:00	30	16			46	22:00	1	3			4		
10:15	26	21			47	22:15	6	1			7		
10:30	23	16			39	22:30	2	3			5		
10:45	24	103	26	79	182	22:45	2	11	2	9	20		
11:00	31	22			53	23:00	1	3			4		
11:15	36	30			66	23:15	0	1			1		
11:30	28	28			56	23:30	4	0			4		
11:45	37	132	32	112	244	23:45	1	6	3	7	13		
TOTALS	559	507			1066	TOTALS	952	887			1839		
SPLIT %	52.4%	47.6%			36.7%	SPLIT %	51.8%	48.2%			63.3%		

DAILY TOTALS					NB	SB						EB	WB						Total
					1,511	1,394						0	0						2,905
AM Peak Hour	11:45	11:45				11:45	PM Peak Hour	12:00	12:30				12:00						
AM Pk Volume	154	145				299	PM Pk Volume	173	162				328						
Pk Hr Factor	0.802	0.788				0.849	Pk Hr Factor	0.772	0.880				0.837						
7 - 9 Volume	177	142	0	0	319	4 - 6 Volume	243	247	0	0	490								
7 - 9 Peak Hour	7:15	8:00				7:45	4 - 6 Peak Hour	16:15	16:15				16:15						
7 - 9 Pk Volume	114	85	0	0	186	4 - 6 Pk Volume	145	158	0	0	303								
Pk Hr Factor	0.633	0.817	0.000	0.000	0.727	Pk Hr Factor	0.806	0.806	0.000	0.000	0.806								

VOLUME

W Lacey Blvd Bet. Cousins Dr & Campus Dr

Day: Thursday
Date: 10/1/2020City: Hanford
Project #: CA20_90150_004

DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						7,648	7,723						15,371
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL							TOTAL
0:00			11	5	16		12:00			155	190	345							
0:15			6	8	14		12:15			207	187	394							
0:30			5	7	12		12:30			186	204	390							
0:45			4	26	5	25	12:45			184	732	156	737	340	1469				
1:00			11	7	18		13:00			160	163	323							
1:15			5	5	10		13:15			186	187	373							
1:30			4	4	8		13:30			159	150	309							
1:45			5	25	11	27	13:45			161	666	168	668	329	1334				
2:00			3	5	8		14:00			158	142	300							
2:15			5	3	8		14:15			142	131	273							
2:30			1	1	2		14:30			145	158	303							
2:45			5	14	5	14	14:45			136	581	148	579	284	1160				
3:00			2	4	6		15:00			165	145	310							
3:15			3	6	9		15:15			141	154	295							
3:30			6	2	8		15:30			180	166	346							
3:45			2	13	5	17	15:45			149	635	160	625	309	1260				
4:00			4	3	7		16:00			165	181	346							
4:15			5	6	11		16:15			157	164	321							
4:30			6	7	13		16:30			146	171	317							
4:45			12	27	8	24	16:45			133	601	180	696	313	1297				
5:00			8	8	16		17:00			186	186	372							
5:15			9	8	17		17:15			148	165	313							
5:30			8	18	26		17:30			133	164	297							
5:45			10	35	18	52	17:45			116	583	141	656	257	1239				
6:00			15	24	39		18:00			133	140	273							
6:15			17	21	38		18:15			118	128	246							
6:30			29	26	55		18:30			123	113	236							
6:45			32	93	31	102	18:45			127	501	87	468	214	969				
7:00			32	33	65		19:00			134	103	237							
7:15			51	42	93		19:15			125	111	236							
7:30			59	58	117		19:30			105	95	200							
7:45			85	227	64	197	19:45			112	476	80	389	192	865				
8:00			86	69	155		20:00			71	66	137							
8:15			75	75	150		20:15			75	61	136							
8:30			85	86	171		20:30			50	53	103							
8:45			85	331	86	316	20:45			60	256	31	211	91	467				
9:00			90	88	178		21:00			34	49	83							
9:15			81	105	186		21:15			37	30	67							
9:30			113	112	225		21:30			40	32	72							
9:45			136	420	124	429	21:45			32	143	24	135	56	278				
10:00			127	112	239		22:00			21	24	45							
10:15			115	158	273		22:15			24	27	51							
10:30			135	127	262		22:30			26	14	40							
10:45			144	521	170	567	22:45			20	91	19	84	39	175				
11:00			150	151	301		23:00			16	11	27							
11:15			153	175	328		23:15			19	11	30							
11:30			133	156	289		23:30			16	8	24							
11:45			153	589	183	665	23:45			11	62	10	40	21	102				
TOTALS			2321	2435	4756		TOTALS			5327	5288	10615							
SPLIT %			48.8%	51.2%	30.9%		SPLIT %			50.2%	49.8%	69.1%							

DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						7,648	7,723						15,371
AM Peak Hour			11:45	11:45	11:45		PM Peak Hour			12:15	12:00	12:00							
AM Pk Volume			701	764	1465		PM Pk Volume			737	737	1469							
Pk Hr Factor			0.847	0.936	0.930		Pk Hr Factor			0.890	0.903	0.932							
7 - 9 Volume	0	0	558	513	1071		4 - 6 Volume	0	0	1184	1352	2536							
7 - 9 Peak Hour			7:45	8:00	8:00		4 - 6 Peak Hour			16:15	16:30	16:15							
7 - 9 Pk Volume	0	0	331	316	647		4 - 6 Pk Volume	0	0	622	702	1323							
Pk Hr Factor	0.000	0.000	0.962	0.919	0.946		Pk Hr Factor	0.000	0.000	0.836	0.944	0.889							

VOLUME

Glendale Ave W/O 12th Ave

Day: Thursday
Date: 10/1/2020City: Hanford
Project #: CA20_90150_003

DAILY TOTALS					NB	SB						EB	WB	Total	
					0	0						1,622	1,183	2,805	
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL			
0:00			6	4	10		12:00			24	19	43			
0:15			10	2	12		12:15			26	17	43			
0:30			11	0	11		12:30			31	25	56			
0:45			5	32	2	8	12:45			22	103	18	79	40	182
1:00			4	1	5		13:00			23	17	40			
1:15			6	0	6		13:15			26	28	54			
1:30			2	2	4		13:30			21	11	32			
1:45			10	22	3	6	13:45			19	89	12	68	31	157
2:00			2	0	2		14:00			25	20	45			
2:15			2	0	2		14:15			31	18	49			
2:30			4	1	5		14:30			33	24	57			
2:45			3	11	0	1	14:45			29	118	21	83	50	201
3:00			7	8	15		15:00			33	24	57			
3:15			3	2	5		15:15			37	22	59			
3:30			3	0	3		15:30			28	16	44			
3:45			7	20	2	12	15:45			34	132	16	78	50	210
4:00			6	1	7		16:00			36	30	66			
4:15			10	3	13		16:15			20	27	47			
4:30			10	2	12		16:30			28	22	50			
4:45			8	34	3	9	16:45			35	119	37	116	72	235
5:00			10	0	10		17:00			33	36	69			
5:15			18	3	21		17:15			40	27	67			
5:30			11	0	11		17:30			21	20	41			
5:45			14	53	4	7	17:45			29	123	37	120	66	243
6:00			7	5	12		18:00			34	20	54			
6:15			12	6	18		18:15			17	22	39			
6:30			12	9	21		18:30			29	15	44			
6:45			11	42	10	30	18:45			25	105	10	67	35	172
7:00			7	17	24		19:00			25	10	35			
7:15			17	17	34		19:15			28	21	49			
7:30			14	16	30		19:30			31	9	40			
7:45			13	51	22	72	19:45			18	102	12	52	30	154
8:00			11	21	32		20:00			23	13	36			
8:15			10	24	34		20:15			17	8	25			
8:30			9	14	23		20:30			16	9	25			
8:45			10	40	12	71	20:45			20	76	12	42	32	118
9:00			13	20	33		21:00			15	6	21			
9:15			11	18	29		21:15			23	5	28			
9:30			12	18	30		21:30			19	7	26			
9:45			25	61	11	67	21:45			12	69	2	20	14	89
10:00			18	22	40		22:00			10	3	13			
10:15			17	13	30		22:15			13	3	16			
10:30			16	13	29		22:30			9	2	11			
10:45			21	72	32	80	22:45			4	36	5	13	9	49
11:00			20	17	37		23:00			8	4	12			
11:15			23	12	35		23:15			9	5	14			
11:30			18	20	38		23:30			7	3	10			
11:45			21	82	18	67	23:45			6	30	3	15	9	45
TOTALS			520	430	950		TOTALS			1102	753	1855			
SPLIT %			54.7%	45.3%	33.9%		SPLIT %			59.4%	40.6%	66.1%			

DAILY TOTALS					NB	SB						EB	WB	Total	
					0	0						1,622	1,183	2,805	
AM Peak Hour			11:45	7:30	11:45		PM Peak Hour			16:30	16:15	16:30			
AM Pk Volume			102	83	181		PM Pk Volume			136	122	258			
Pk Hr Factor			0.823	0.865	0.808		Pk Hr Factor			0.850	0.824	0.896			
7 - 9 Volume	0	0	91	143	234		4 - 6 Volume	0	0	242	236	478			
7 - 9 Peak Hour			7:15	7:30	7:15		4 - 6 Peak Hour			16:30	16:15	16:30			
7 - 9 Pk Volume	0	0	55	83	131		4 - 6 Pk Volume	0	0	136	122	258			
Pk Hr Factor	0.000	0.000	0.809	0.865	0.936		Pk Hr Factor	0.000	0.000	0.850	0.824	0.896			

VOLUME

12th Ave Bet. Mall Dr & Glendale Ave

Day: Thursday
Date: 10/1/2020City: Hanford
Project #: CA20_90150_002

DAILY TOTALS					NB	SB						EB	WB						Total
					16,391	17,139						0	0						33,530
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL							TOTAL
0:00	33	39			72		12:00	271	313			584							584
0:15	26	26			52		12:15	283	267			550							550
0:30	13	21			34		12:30	296	280			576							576
0:45	17	89	22	108	39	197	12:45	314	1164	268	1128	582	2292						2292
1:00	17	39			56		13:00	264	293			557							557
1:15	14	27			41		13:15	260	295			555							555
1:30	17	17			34		13:30	261	287			548							548
1:45	25	73	23	106	48	179	13:45	314	1099	292	1167	606	2266						2266
2:00	17	16			33		14:00	241	338			579							579
2:15	11	17			28		14:15	290	307			597							597
2:30	4	15			19		14:30	295	304			599							599
2:45	17	49	12	60	29	109	14:45	298	1124	312	1261	610	2385						2385
3:00	17	20			37		15:00	281	349			630							630
3:15	10	6			16		15:15	307	317			624							624
3:30	23	13			36		15:30	314	319			633							633
3:45	43	93	17	56	60	149	15:45	337	1239	322	1307	659	2546						2546
4:00	22	30			52		16:00	333	350			683							683
4:15	29	35			64		16:15	310	345			655							655
4:30	40	38			78		16:30	336	338			674							674
4:45	44	135	50	153	94	288	16:45	348	1327	345	1378	693	2705						2705
5:00	54	83			137		17:00	355	431			786							786
5:15	48	79			127		17:15	339	399			738							738
5:30	63	92			155		17:30	344	343			687							687
5:45	102	267	91	345	193	612	17:45	303	1341	350	1523	653	2864						2864
6:00	90	112			202		18:00	293	322			615							615
6:15	91	89			180		18:15	310	327			637							637
6:30	112	117			229		18:30	295	311			606							606
6:45	171	464	128	446	299	910	18:45	286	1184	307	1267	593	2451						2451
7:00	138	137			275		19:00	248	310			558							558
7:15	202	152			354		19:15	203	287			490							490
7:30	223	195			418		19:30	214	302			516							516
7:45	303	866	157	641	460	1507	19:45	198	863	251	1150	449	2013						2013
8:00	216	165			381		20:00	160	236			396							396
8:15	199	158			357		20:15	145	206			351							351
8:30	195	125			320		20:30	143	221			364							364
8:45	220	830	130	578	350	1408	20:45	142	590	164	827	306	1417						1417
9:00	176	167			343		21:00	89	156			245							245
9:15	187	176			363		21:15	88	142			230							230
9:30	203	173			376		21:30	87	142			229							229
9:45	233	799	168	684	401	1483	21:45	87	351	103	543	190	894						894
10:00	215	163			378		22:00	61	115			176							176
10:15	242	201			443		22:15	57	88			145							145
10:30	245	191			436		22:30	70	89			159							159
10:45	264	966	246	801	510	1767	22:45	51	239	79	371	130	610						610
11:00	273	225			498		23:00	39	60			99							99
11:15	267	242			509		23:15	43	55			98							98
11:30	296	270			566		23:30	32	53			85							85
11:45	263	1099	296	1033	559	2132	23:45	26	140	38	206	64	346						346
TOTALS	5730	5011			10741		TOTALS	10661	12128			22789							22789
SPLIT %	53.3%	46.7%			32.0%		SPLIT %	46.8%	53.2%			68.0%							68.0%

DAILY TOTALS					NB	SB						EB	WB						Total
					16,391	17,139						0	0						33,530
AM Peak Hour	11:30	11:45			11:45		PM Peak Hour	16:45	17:00			16:45							16:45
AM Pk Volume	1113	1156			2269		PM Pk Volume	1386	1523			2904							2904
Pk Hr Factor	0.940	0.923			0.971		Pk Hr Factor	0.976	0.883			0.924							0.924
7 - 9 Volume	1696	1219	0	0	2915		4 - 6 Volume	2668	2901	0	0	5569							5569
7 - 9 Peak Hour	7:15	7:30			7:30		4 - 6 Peak Hour	16:45	17:00			16:45							16:45
7 - 9 Pk Volume	944	675	0	0	1616		4 - 6 Pk Volume	1386	1523	0	0	2904							2904
Pk Hr Factor	0.779	0.865	0.000	0.000	0.878		Pk Hr Factor	0.976	0.883	0.000	0.000	0.924							0.924

VOLUME

Grangeville Blvd W/O 12th Ave

Day: Thursday
Date: 10/1/2020City: Hanford
Project #: CA20_90150_001

DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						4,956	5,086						10,042
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL							TOTAL
00:00			4	9	13		12:00			85	83	168							
00:15			12	12	24		12:15			54	63	117							
00:30			5	4	9		12:30			66	83	149							
00:45			4	25	7	32	11	57	110	315	84	313	194	628					
01:00			7	4	11		13:00			86	81	167							
01:15			8	4	12		13:15			80	81	161							
01:30			6	2	8		13:30			72	75	147							
01:45			3	24	2	12	5	36	70	308	74	311	144	619					
02:00			6	4	10		14:00			84	81	165							
02:15			3	2	5		14:15			72	85	157							
02:30			3	3	6		14:30			103	95	198							
02:45			11	23	3	12	14	35	107	366	78	339	185	705					
03:00			3	5	8		15:00			94	88	182							
03:15			3	5	8		15:15			121	81	202							
03:30			6	4	10		15:30			113	83	196							
03:45			12	24	10	24	22	48	120	448	86	338	206	786					
04:00			5	9	14		16:00			89	114	203							
04:15			4	11	15		16:15			113	79	192							
04:30			8	8	16		16:30			115	105	220							
04:45			8	25	27	55	35	80	127	444	98	396	225	840					
05:00			10	28	38		17:00			104	119	223							
05:15			21	38	59		17:15			104	92	196							
05:30			23	34	57		17:30			106	93	199							
05:45			26	80	33	133	59	213	69	383	100	404	169	787					
06:00			25	58	83		18:00			73	109	182							
06:15			24	54	78		18:15			76	76	152							
06:30			36	62	98		18:30			67	77	144							
06:45			37	122	64	238	101	360	66	282	78	340	144	622					
07:00			46	60	106		19:00			67	77	144							
07:15			66	57	123		19:15			79	79	158							
07:30			73	72	145		19:30			62	52	114							
07:45			111	296	103	292	214	588	57	265	54	262	111	527					
08:00			68	86	154		20:00			36	54	90							
08:15			65	71	136		20:15			50	43	93							
08:30			70	60	130		20:30			40	42	82							
08:45			66	269	64	281	130	550	31	157	32	171	63	328					
09:00			60	53	113		21:00			34	43	77							
09:15			63	65	128		21:15			23	48	71							
09:30			57	52	109		21:30			27	30	57							
09:45			66	246	82	252	148	498	29	113	26	147	55	260					
10:00			73	58	131		22:00			19	26	45							
10:15			68	77	145		22:15			14	14	28							
10:30			76	64	140		22:30			16	15	31							
10:45			80	297	78	277	158	574	19	68	14	69	33	137					
11:00			72	80	152		23:00			17	22	39							
11:15			87	87	174		23:15			15	12	27							
11:30			64	65	129		23:30			23	18	41							
11:45			77	300	93	325	170	625	21	76	11	63	32	139					
TOTALS			1731	1933	3664		TOTALS			3225	3153	6378							
SPLIT %			47.2%	52.8%	36.5%		SPLIT %			50.6%	49.4%	63.5%							

DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						4,956	5,086						10,042
AM Peak Hour			07:15	07:30	07:30		PM Peak Hour			16:15	16:30	16:30							
AM Pk Volume			318	332	649		PM Pk Volume			459	414	864							
Pk Hr Factor			0.716	0.806	0.758		Pk Hr Factor			0.904	0.870	0.960							
7 - 9 Volume	0	0	565	573	1138		4 - 6 Volume	0	0	827	800	1627							
7 - 9 Peak Hour			07:15	07:30	07:30		4 - 6 Peak Hour			16:15	16:30	16:30							
7 - 9 Pk Volume	0	0	318	332	649		4 - 6 Pk Volume	0	0	459	414	864							
Pk Hr Factor	0.000	0.000	0.716	0.806	0.758		Pk Hr Factor	0.000	0.000	0.904	0.870	0.960							

National Data & Surveying Services

Intersection Turning Movement Count

Location: 11th Ave & 7th St
City: Hanford
Control: Signalized

Project ID: Historical
Date: 7/23/2019

Total

NS/EW Streets:		11th Ave				11th Ave				7th St				7th St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	1 NL	2 NT	1 NR	0 NU	1 SL	2 ST	1 SR	0 SU	2 EL	1.5 ET	0.5 ER	0 EU	1 WL	1.5 WT	0.5 WR	0 WU		
7:00 AM	17	51	3	0	13	71	4	0	6	10	10	0	18	7	6	0	216	
7:15 AM	18	67	11	5	8	79	7	0	5	19	20	0	10	14	5	0	268	
7:30 AM	28	76	22	1	11	83	8	0	9	20	10	0	14	26	9	0	317	
7:45 AM	42	134	27	6	20	87	21	0	8	20	15	0	7	25	8	0	420	
8:00 AM	34	94	29	2	15	65	15	0	10	17	9	0	22	18	16	0	346	
8:15 AM	27	108	23	1	14	62	14	1	6	21	15	0	18	20	14	0	344	
8:30 AM	35	88	17	4	20	72	13	0	12	29	26	0	25	26	9	0	376	
8:45 AM	25	114	27	1	19	80	16	0	12	26	23	0	23	25	14	0	405	
TOTAL VOLUMES : APPROACH %'s :		NL 226 19.88%	NT 732 64.38%	NR 159 13.98%	NU 20 1.76%	SL 120 14.67%	ST 599 73.23%	SR 98 11.98%	SU 1 0.12%	EL 68 18.99%	ET 162 45.25%	ER 128 35.75%	EU 0 0.00%	WL 137 36.15%	WT 161 42.48%	WR 81 21.37%	WU 0 0.00%	TOTAL 2692
PEAK HR :		07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :		138	424	96	13	69	286	63	1	36	87	65	0	72	89	47	0	1486
PEAK HR FACTOR :		0.821	0.791	0.828	0.542	0.863	0.822	0.750	0.250	0.750	0.750	0.625	0.000	0.720	0.856	0.734	0.000	0.885
		0.803				0.818				0.701				0.867				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	1 NL	2 NT	1 NR	0 NU	1 SL	2 ST	1 SR	0 SU	2 EL	1.5 ET	0.5 ER	0 EU	1 WL	1.5 WT	0.5 WR	0 WU		
4:00 PM	22	161	28	4	26	140	15	1	21	36	45	0	39	46	22	0	606	
4:15 PM	38	142	35	10	19	119	18	4	18	40	34	0	37	38	29	0	581	
4:30 PM	32	142	33	6	27	120	8	1	21	52	61	0	43	38	30	0	614	
4:45 PM	33	132	26	7	31	126	12	1	16	43	48	0	37	38	21	0	571	
5:00 PM	35	156	19	3	23	176	13	3	11	38	72	0	43	45	27	0	664	
5:15 PM	38	127	29	10	20	152	17	0	18	45	41	0	27	30	23	0	577	
5:30 PM	30	123	24	5	20	133	4	0	15	39	38	0	36	34	18	0	519	
5:45 PM	23	128	29	7	12	119	11	2	12	30	32	0	34	32	18	0	489	
TOTAL VOLUMES : APPROACH %'s :		NL 251 15.33%	NT 1111 67.87%	NR 223 13.62%	NU 52 3.18%	SL 178 12.96%	ST 1085 79.02%	SR 98 7.14%	SU 12 0.87%	EL 132 15.98%	ET 323 39.10%	ER 371 44.92%	EU 0 0.00%	WL 296 37.71%	WT 301 38.34%	WR 188 23.95%	WU 0 0.00%	TOTAL 4621
PEAK HR :		04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :		138	572	113	26	100	541	51	9	66	173	215	0	160	159	107	0	2430
PEAK HR FACTOR :		0.908	0.917	0.807	0.650	0.806	0.768	0.708	0.563	0.786	0.832	0.747	0.000	0.930	0.883	0.892	0.000	0.915
		0.943				0.815				0.847				0.926				

National Data & Surveying Services

Intersection Turning Movement Count

Location: S 11th Ave & W 6th St
City: Hanford
Control: 2-Way Stop(EB/WB)

Project ID: 20-090149-010
Date: 10/1/2020

Total

NS/EW Streets:		S 11th Ave				S 11th Ave				W 6th St				W 6th St				
AM		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
		1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	1 SR	0 SU	0 EL	0 ET	1 ER	0 EU	0 WL	0 WT	1 WR	0 WU	TOTAL
	7:00 AM	10	64	3	1	6	89	0	0	0	0	4	0	0	0	8	0	185
	7:15 AM	9	91	5	0	9	103	2	0	0	0	5	0	0	0	11	0	235
	7:30 AM	13	127	11	0	13	104	1	2	0	0	14	0	0	0	12	0	297
	7:45 AM	26	182	15	0	9	99	6	0	0	0	10	0	0	0	9	0	356
	8:00 AM	22	147	11	1	20	90	0	0	0	0	12	0	0	0	14	0	317
	8:15 AM	14	129	12	0	11	90	4	2	0	0	4	0	0	0	5	0	271
	8:30 AM	15	126	12	0	15	99	2	0	0	0	6	0	0	0	20	0	295
8:45 AM	16	154	16	0	20	91	6	0	0	0	18	0	0	0	13	0	334	
TOTAL VOLUMES:		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:		125	1020	85	2	103	765	21	4	0	0	73	0	0	0	92	0	2290
		10.15%	82.79%	6.90%	0.16%	11.53%	85.67%	2.35%	0.45%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR:		07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL:		75	585	49	1	53	383	11	4	0	0	40	0	0	0	40	0	1241
PEAK HR FACTOR:		0.721	0.804	0.817	0.250	0.663	0.921	0.458	0.500	0.000	0.000	0.714	0.000	0.000	0.000	0.714	0.000	0.871
		0.796				0.940				0.714				0.714				

PM		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
		1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	1 SR	0 SU	0 EL	0 ET	1 ER	0 EU	0 WL	0 WT	1 WR	0 WU	TOTAL
	4:00 PM	11	214	11	0	20	215	1	1	0	0	18	0	0	0	35	0	526
	4:15 PM	19	216	18	1	17	188	2	1	0	0	14	0	0	0	23	0	499
	4:30 PM	13	209	20	0	21	218	1	2	0	0	10	0	0	0	32	0	526
	4:45 PM	24	181	18	0	12	202	1	4	0	0	12	0	0	0	34	0	488
	5:00 PM	18	180	25	0	25	227	2	0	0	0	16	0	0	0	35	0	528
	5:15 PM	11	177	10	0	17	209	2	3	0	0	14	0	0	0	27	0	470
	5:30 PM	12	167	12	0	20	193	5	1	0	0	14	0	0	0	17	0	441
5:45 PM	9	167	15	1	16	162	2	1	0	0	4	0	0	0	23	0	400	
TOTAL VOLUMES:		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:		117	1511	129	2	148	1614	16	13	0	0	102	0	0	0	226	0	3878
		6.65%	85.90%	7.33%	0.11%	8.26%	90.12%	0.89%	0.73%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR:		04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL:		74	786	81	1	75	835	6	7	0	0	52	0	0	0	124	0	2041
PEAK HR FACTOR:		0.771	0.910	0.810	0.250	0.750	0.920	0.750	0.438	0.000	0.000	0.813	0.000	0.000	0.000	0.886	0.000	0.966
		0.927				0.908				0.813				0.886				

National Data & Surveying Services

Intersection Turning Movement Count

Location: S 11th Ave & W 5th St
City: Hanford
Control: Signalized

Project ID: 20-090149-009
Date: 10/1/2020

Total

NS/EW Streets:		S 11th Ave				S 11th Ave				W 5th St				W 5th St					
AM		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND					
		1	2	0	0	1	2	1	0	1	0	1	0	0	1	0	0		
		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
	7:00 AM	5	74	0	0	0	84	8	0	3	0	1	0	0	0	0	0	175	
	7:15 AM	5	105	3	0	2	97	11	0	2	0	1	0	0	0	0	0	226	
	7:30 AM	4	146	5	0	1	113	2	0	3	0	3	0	1	0	0	0	278	
	7:45 AM	3	220	6	0	0	103	8	0	3	0	0	0	1	0	0	0	344	
	8:00 AM	9	179	4	0	0	95	8	0	4	0	1	0	1	0	2	0	303	
	8:15 AM	4	145	3	0	0	76	18	0	6	0	1	0	0	0	2	0	255	
	8:30 AM	7	143	0	0	1	96	5	0	7	0	1	0	2	0	1	0	263	
	8:45 AM	11	179	2	0	2	102	8	0	8	0	2	0	1	1	1	0	317	
TOTAL VOLUMES :		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
APPROACH %'s :		48	1191	23	0	6	766	68	0	36	0	10	0	6	1	6	0	2161	
		3.80%	94.37%	1.82%	0.00%	0.71%	91.19%	8.10%	0.00%	78.26%	0.00%	21.74%	0.00%	46.15%	7.69%	46.15%	0.00%		
PEAK HR :		07:30 AM - 08:30 AM																	TOTAL
PEAK HR VOL :		20	690	18	0	1	387	36	0	16	0	5	0	3	0	4	0	1180	
PEAK HR FACTOR :		0.556	0.784	0.750	0.000	0.250	0.856	0.500	0.000	0.667	0.000	0.417	0.000	0.750	0.000	0.500	0.000	0.858	
		0.795				0.914				0.750				0.583					

PM		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND					
		1	2	0	0	1	2	1	0	1	0	1	0	0	1	0	0		
		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
	4:00 PM	25	204	2	0	1	208	28	1	31	0	6	0	1	0	2	0	509	
	4:15 PM	28	210	1	1	1	166	26	3	36	0	10	0	2	0	3	0	487	
	4:30 PM	26	214	0	0	0	210	19	2	28	0	8	0	6	0	0	0	513	
	4:45 PM	35	205	0	1	0	186	24	0	13	0	7	0	0	0	1	0	472	
	5:00 PM	31	195	1	2	0	217	25	0	29	0	8	0	0	0	4	0	512	
	5:15 PM	19	178	0	0	1	208	20	0	18	0	9	0	3	0	0	0	456	
	5:30 PM	29	168	0	1	0	189	19	1	24	0	14	0	3	0	1	0	449	
	5:45 PM	26	172	0	0	0	153	12	0	16	0	7	0	1	0	1	0	388	
TOTAL VOLUMES :		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
APPROACH %'s :		219	1546	4	5	3	1537	173	7	195	0	69	0	16	0	12	0	3786	
		12.34%	87.15%	0.23%	0.28%	0.17%	89.36%	10.06%	0.41%	73.86%	0.00%	26.14%	0.00%	57.14%	0.00%	42.86%	0.00%		
PEAK HR :		04:15 PM - 05:15 PM																	TOTAL
PEAK HR VOL :		120	824	2	4	1	779	94	5	106	0	33	0	8	0	8	0	1984	
PEAK HR FACTOR :		0.857	0.963	0.500	0.500	0.250	0.897	0.904	0.417	0.736	0.000	0.825	0.000	0.333	0.000	0.500	0.000	0.967	
		0.985				0.908				0.755				0.667					

National Data & Surveying Services

Intersection Turning Movement Count

Location: S 11th Ave & SR 198 WB On Ramp/W 4th St
 City: Hanford
 Control: Signalized

Project ID: 20-090149-008
 Date: 10/1/2020

Total

NS/EW Streets:	S 11th Ave				S 11th Ave				SR 198 WB On Ramp/W 4th St				SR 198 WB On Ramp/W 4th St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	0 SL	2 ST	1 SR	0 SU	0 EL	0 ET	0 ER	0 EU	1 WL	1 WT	1 WR	0 WU	
7:00 AM	13	68	0	0	0	56	34	0	0	0	0	0	13	5	14	0	203
7:15 AM	5	82	0	1	0	64	33	0	0	0	0	0	30	1	27	0	243
7:30 AM	13	109	0	0	0	83	43	0	0	0	0	0	18	1	51	0	318
7:45 AM	10	173	0	0	0	77	21	0	0	0	0	0	39	1	55	0	376
8:00 AM	7	151	0	1	0	76	33	0	0	0	0	0	23	2	38	0	331
8:15 AM	9	133	0	0	0	57	28	0	0	0	0	0	11	8	24	0	270
8:30 AM	6	125	0	0	0	80	22	0	0	0	0	0	18	9	23	0	283
8:45 AM	4	161	0	0	0	84	26	0	0	0	0	0	28	3	32	0	338
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	67	1002	0	2	0	577	240	0	0	0	0	0	180	30	264	0	2362
	6.26%	93.56%	0.00%	0.19%	0.00%	70.62%	29.38%	0.00%					37.97%	6.33%	55.70%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	39	566	0	1	0	293	125	0	0	0	0	0	91	12	168	0	1295
PEAK HR FACTOR :	0.750	0.818	0.000	0.250	0.000	0.883	0.727	0.000	0.000	0.000	0.000	0.000	0.583	0.375	0.764	0.000	0.861
			0.828				0.829								0.713		
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	0 SL	2 ST	1 SR	0 SU	0 EL	0 ET	0 ER	0 EU	1 WL	1 WT	1 WR	0 WU	
4:00 PM	10	198	0	0	0	163	58	0	0	0	0	0	45	8	36	0	518
4:15 PM	14	195	0	0	0	154	37	0	0	0	0	0	53	8	43	0	504
4:30 PM	17	203	0	0	0	171	63	0	0	0	0	0	40	5	33	0	532
4:45 PM	15	202	0	0	0	156	55	0	0	0	0	0	34	9	38	0	509
5:00 PM	23	194	0	1	0	191	58	0	0	0	0	0	41	5	37	0	550
5:15 PM	10	171	0	0	0	187	50	0	0	0	0	0	44	11	28	0	501
5:30 PM	15	163	0	0	0	156	38	0	0	0	0	0	43	8	33	0	456
5:45 PM	12	169	0	0	0	127	40	0	0	0	0	0	44	5	33	0	430
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	116	1495	0	1	0	1305	399	0	0	0	0	0	344	59	281	0	4000
	7.20%	92.74%	0.00%	0.06%	0.00%	76.58%	23.42%	0.00%					50.29%	8.63%	41.08%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	69	794	0	1	0	672	213	0	0	0	0	0	168	27	151	0	2095
PEAK HR FACTOR :	0.750	0.978	0.000	0.250	0.000	0.880	0.845	0.000	0.000	0.000	0.000	0.000	0.792	0.750	0.878	0.000	0.952
			0.982				0.889								0.832		

National Data & Surveying Services

Intersection Turning Movement Count

Location: S 11th Ave & SR 198 EB Off Ramp/W 3rd St

City: Hanford

Control: Signalized

Project ID: 20-090149-007

Date: 10/1/2020

Total

NS/EW Streets:	S 11th Ave				S 11th Ave				SR 198 EB Off Ramp/W 3rd St				SR 198 EB Off Ramp/W 3rd St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	2 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	1 ER	0 EU	0 WL	0 WT	0 WR	0 WU	
7:00 AM	0	59	24	0	14	51	0	0	23	14	3	0	0	0	0	0	188
7:15 AM	0	59	23	0	12	86	0	0	25	21	6	0	0	0	0	0	232
7:30 AM	0	85	28	0	15	83	0	1	37	26	14	0	0	0	0	0	289
7:45 AM	0	131	32	0	19	100	0	0	57	38	22	0	0	0	0	0	399
8:00 AM	0	104	23	0	12	83	0	0	50	22	16	0	0	0	0	0	310
8:15 AM	0	102	20	0	16	57	0	0	41	22	13	0	0	0	0	0	271
8:30 AM	0	84	27	0	22	76	0	0	46	18	11	0	0	0	0	0	284
8:45 AM	0	109	30	0	26	84	0	0	60	22	11	0	0	0	0	0	342
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	733	207	0	136	620	0	1	339	183	96	0	0	0	0	0	2315
	0.00%	77.98%	22.02%	0.00%	17.97%	81.90%	0.00%	0.13%	54.85%	29.61%	15.53%	0.00%					
PEAK HR :	07:30 AM - 08:30 AM				62	323	0	1	185	108	65	0	0	0	0	0	TOTAL
PEAK HR VOL :	0	422	103	0	62	323	0	1	185	108	65	0	0	0	0	0	1269
PEAK HR FACTOR :	0.000	0.805	0.805	0.000	0.816	0.808	0.000	0.250	0.811	0.711	0.739	0.000	0.000	0.000	0.000	0.000	0.795
			0.805				0.811				0.765						
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	2 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	1 ET	1 ER	0 EU	0 WL	0 WT	0 WR	0 WU	
4:00 PM	0	146	45	0	42	163	0	0	59	8	18	0	0	0	0	0	481
4:15 PM	0	133	38	0	47	163	0	0	79	23	19	0	0	0	0	0	502
4:30 PM	0	152	35	0	57	153	0	1	65	17	16	0	0	0	0	0	496
4:45 PM	0	148	42	0	47	141	0	0	68	12	13	0	0	0	0	0	471
5:00 PM	0	148	41	0	65	170	0	0	72	9	10	0	0	0	0	0	515
5:15 PM	0	118	37	0	46	184	0	0	61	16	16	0	0	0	0	0	478
5:30 PM	0	126	33	0	39	160	0	1	53	8	9	0	0	0	0	0	429
5:45 PM	0	131	25	0	24	144	0	0	53	8	10	0	0	0	0	0	395
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	1102	296	0	367	1278	0	2	510	101	111	0	0	0	0	0	3767
	0.00%	78.83%	21.17%	0.00%	22.28%	77.60%	0.00%	0.12%	70.64%	13.99%	15.37%	0.00%					
PEAK HR :	04:15 PM - 05:15 PM				216	627	0	1	284	61	58	0	0	0	0	0	TOTAL
PEAK HR VOL :	0	581	156	0	216	627	0	1	284	61	58	0	0	0	0	0	1984
PEAK HR FACTOR :	0.000	0.956	0.929	0.000	0.831	0.922	0.000	0.250	0.899	0.663	0.763	0.000	0.000	0.000	0.000	0.000	0.963
			0.970				0.898				0.833						

National Data & Surveying Services

Intersection Turning Movement Count

Location: 12th Ave & SR 198 EB Off/On Ramps

City: Hanford

Control: Signalized

Project ID: 20-090149-006

Date: 10/1/2020

Total

NS/EW Streets:		12th Ave				12th Ave				SR 198 EB Off/On Ramps				SR 198 EB Off/On Ramps				
AM		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
		0 NL	2 NT	1 NR	0 NU	0 SL	2 ST	1 SR	0 SU	2 EL	0 ET	1 ER	0 EU	0 WL	0 WT	0 WR	0 WU	
7:00 AM		0	54	23	0	0	39	34	0	28	0	3	0	0	0	0	0	181
7:15 AM		0	84	16	0	0	57	51	0	62	0	2	0	0	0	0	0	272
7:30 AM		0	81	26	0	0	75	61	0	54	0	5	0	0	0	0	0	302
7:45 AM		0	100	27	0	0	53	35	0	106	0	2	0	0	0	0	0	323
8:00 AM		0	88	17	0	0	53	44	0	56	0	0	0	0	0	0	0	258
8:15 AM		0	66	24	0	0	68	42	0	79	0	5	0	0	0	0	0	284
8:30 AM		0	77	9	0	0	47	39	0	59	0	4	0	0	0	0	0	235
8:45 AM		0	81	22	0	0	60	37	0	63	0	1	0	0	0	0	0	264
TOTAL VOLUMES:		0	631	164	0	0	452	343	0	507	0	22	0	0	0	0	0	2119
APPROACH %'s:		0.00%	79.37%	20.63%	0.00%	0.00%	56.86%	43.14%	0.00%	95.84%	0.00%	4.16%	0.00%					
PEAK HR:		07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL:		0	335	94	0	0	249	182	0	295	0	12	0	0	0	0	0	1167
PEAK HR FACTOR:		0.000	0.838	0.870	0.000	0.000	0.830	0.746	0.000	0.696	0.000	0.600	0.000	0.000	0.000	0.000	0.000	0.903
		0.844				0.792				0.711								

PM		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
		0 NL	2 NT	1 NR	0 NU	0 SL	2 ST	1 SR	0 SU	2 EL	0 ET	1 ER	0 EU	0 WL	0 WT	0 WR	0 WU	
4:00 PM		0	119	29	0	0	156	101	0	130	0	7	0	0	0	0	0	542
4:15 PM		0	121	28	0	0	147	87	0	123	0	10	0	0	0	0	0	516
4:30 PM		0	114	34	0	0	145	107	0	109	0	7	0	0	0	0	0	516
4:45 PM		0	130	30	0	0	152	76	0	115	0	14	0	0	0	0	0	517
5:00 PM		0	133	23	0	0	184	138	0	104	0	10	0	0	0	0	0	592
5:15 PM		0	131	23	0	0	197	105	0	111	0	7	0	0	0	0	0	574
5:30 PM		0	128	26	0	0	168	81	0	100	0	10	0	0	0	0	0	513
5:45 PM		0	119	21	0	0	155	79	0	87	0	3	0	0	0	0	0	464
TOTAL VOLUMES:		0	995	214	0	0	1304	774	0	879	0	68	0	0	0	0	0	4234
APPROACH %'s:		0.00%	82.30%	17.70%	0.00%	0.00%	62.75%	37.25%	0.00%	92.82%	0.00%	7.18%	0.00%					
PEAK HR:		04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL:		0	508	110	0	0	678	426	0	439	0	38	0	0	0	0	0	2199
PEAK HR FACTOR:		0.000	0.955	0.809	0.000	0.000	0.860	0.772	0.000	0.954	0.000	0.679	0.000	0.000	0.000	0.000	0.000	0.929
		0.966				0.857				0.924								

National Data & Surveying Services

Intersection Turning Movement Count

Location: 12th Ave & SR 198 WB On/Off Ramps
City: Hanford
Control: Signalized

Project ID: 20-090149-005
Date: 10/1/2020

Total

NS/EW Streets:	12th Ave				12th Ave				SR 198 WB On/Off Ramps				SR 198 WB On/Off Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	0 SL	3 ST	1 SR	0 SU	0 EL	0 ET	0 ER	0 EU	1.5 WL	0 WT	1.5 WR	0 WU	
7:00 AM	8	76	0	0	0	65	58	0	0	0	0	0	7	0	60	0	274
7:15 AM	12	134	0	0	0	101	48	0	0	0	0	0	8	0	72	0	375
7:30 AM	12	123	0	0	0	123	59	0	0	0	0	0	12	0	100	0	429
7:45 AM	6	197	0	0	0	78	55	0	0	0	0	0	10	0	109	0	455
8:00 AM	9	138	0	0	0	96	59	0	0	0	0	0	5	0	77	0	384
8:15 AM	6	139	0	0	0	95	46	0	0	0	0	0	12	0	49	0	347
8:30 AM	3	131	0	0	0	85	42	0	0	0	0	0	11	0	65	0	337
8:45 AM	7	139	0	0	0	78	36	0	0	0	0	0	8	0	77	0	345
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	63	1077	0	0	0	721	403	0	0	0	0	0	73	0	609	0	2946
	5.53%	94.47%	0.00%	0.00%	0.00%	64.15%	35.85%	0.00%					10.70%	0.00%	89.30%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	39	592	0	0	0	398	221	0	0	0	0	0	35	0	358	0	1643
PEAK HR FACTOR :	0.813	0.751	0.000	0.000	0.000	0.809	0.936	0.000	0.000	0.000	0.000	0.000	0.729	0.000	0.821	0.000	0.903
	0.777				0.850								0.826				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	0 SL	3 ST	1 SR	0 SU	0 EL	0 ET	0 ER	0 EU	1.5 WL	0 WT	1.5 WR	0 WU	
4:00 PM	5	244	0	0	0	232	126	0	0	0	0	0	29	0	88	0	724
4:15 PM	5	232	0	0	0	202	113	0	0	0	0	0	30	0	80	0	662
4:30 PM	6	222	0	0	0	223	124	0	0	0	0	0	31	0	94	0	700
4:45 PM	9	238	0	0	0	196	118	0	0	0	0	0	29	0	98	0	688
5:00 PM	10	227	0	0	0	309	130	0	0	0	0	0	18	1	110	0	805
5:15 PM	9	231	0	0	0	249	134	0	0	0	0	0	46	0	97	0	766
5:30 PM	7	223	0	0	0	233	123	0	0	0	0	0	17	0	110	0	713
5:45 PM	11	192	0	0	0	209	132	0	0	0	0	0	27	0	100	0	671
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	62	1809	0	0	0	1853	1000	0	0	0	0	0	227	1	777	0	5729
	3.31%	96.69%	0.00%	0.00%	0.00%	64.95%	35.05%	0.00%					22.59%	0.10%	77.31%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	35	919	0	0	0	987	505	0	0	0	0	0	110	1	415	0	2972
PEAK HR FACTOR :	0.875	0.965	0.000	0.000	0.000	0.799	0.942	0.000	0.000	0.000	0.000	0.000	0.598	0.250	0.943	0.000	0.923
	0.966				0.850								0.920				

National Data & Surveying Services

Intersection Turning Movement Count

Location: 12th Ave & Glendale Ave
City: Hanford
Control: 2-Way Stop (EB/WB)

Project ID: 20-090149-004
Date: 10/1/2020

Total

NS/EW Streets:	12th Ave				12th Ave				Glendale Ave				Glendale Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	3	0	0	1	3	0	0	0	0	1	0	0	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	0	130	7	0	2	116	18	0	0	0	7	0	0	0	10	0	290
7:15 AM	0	200	6	0	4	133	12	1	0	0	16	0	0	0	4	0	376
7:30 AM	0	211	9	0	4	171	22	1	0	0	15	0	0	0	9	0	442
7:45 AM	0	296	12	0	14	126	16	0	0	0	12	0	0	0	11	0	487
8:00 AM	0	203	10	0	6	136	27	1	0	0	12	0	0	0	8	0	403
8:15 AM	0	182	8	0	6	136	17	0	0	0	10	0	0	0	12	0	371
8:30 AM	0	189	8	0	1	111	12	0	0	0	9	0	0	0	10	0	340
8:45 AM	0	203	13	0	6	106	16	0	0	0	9	0	0	0	12	0	365
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	1614	73	0	43	1035	140	3	0	0	90	0	0	0	76	0	3074
	0.00%	95.67%	4.33%	0.00%	3.52%	84.77%	11.47%	0.25%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM				28	566	77	3	0	0	55	0	0	0	32	0	TOTAL
PEAK HR VOL :	0	910	37	0	28	566	77	3	0	0	55	0	0	0	32	0	1708
PEAK HR FACTOR :	0.000	0.769	0.771	0.000	0.500	0.827	0.713	0.750	0.000	0.000	0.859	0.000	0.000	0.000	0.727	0.000	0.877
		0.769				0.851					0.859				0.727		
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	3	0	0	1	3	0	0	0	0	1	0	0	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	0	322	8	0	5	319	28	1	0	0	33	0	0	0	10	0	726
4:15 PM	0	302	12	0	9	302	30	2	0	0	24	0	0	0	15	0	696
4:30 PM	0	309	7	0	5	311	26	2	0	0	28	0	0	0	19	0	707
4:45 PM	0	328	8	0	8	295	36	3	0	0	32	0	0	0	22	0	732
5:00 PM	0	327	5	0	4	393	40	2	0	0	36	0	0	0	20	0	827
5:15 PM	0	328	5	0	3	357	25	0	0	0	35	0	0	0	14	0	767
5:30 PM	0	326	4	0	5	316	23	3	0	0	24	0	0	0	19	0	720
5:45 PM	0	288	7	0	6	315	34	0	0	0	28	0	0	0	11	0	689
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	2530	56	0	45	2608	242	13	0	0	240	0	0	0	130	0	5864
	0.00%	97.83%	2.17%	0.00%	1.55%	89.68%	8.32%	0.45%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM				20	1361	124	8	0	0	127	0	0	0	75	0	TOTAL
PEAK HR VOL :	0	1309	22	0	20	1361	124	8	0	0	127	0	0	0	75	0	3046
PEAK HR FACTOR :	0.000	0.998	0.688	0.000	0.625	0.866	0.775	0.667	0.000	0.000	0.882	0.000	0.000	0.000	0.852	0.000	0.921
		0.990				0.862					0.882				0.852		

National Data & Surveying Services

Intersection Turning Movement Count

Location: Campus Dr & W 6th St
City: Hanford
Control: 2-Way Stop (EB/WB)

Project ID: 20-090149-003
Date: 10/1/2020

Total

NS/EW Streets:		Campus Dr				Campus Dr				W 6th St				W 6th St				
AM		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
		0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
7:00 AM		0	0	0	0	2	0	2	0	0	0	0	0	0	1	4	0	9
7:15 AM		0	0	1	0	6	0	0	0	1	1	1	0	0	1	6	0	17
7:30 AM		0	0	1	0	5	0	8	0	6	6	0	0	0	1	8	0	35
7:45 AM		0	2	0	0	5	1	8	0	3	3	0	0	0	5	22	0	49
8:00 AM		0	0	0	0	9	1	2	0	2	0	0	0	0	0	18	0	32
8:15 AM		1	1	0	0	4	2	1	0	1	1	1	0	0	2	8	0	22
8:30 AM		1	0	0	0	8	0	1	0	2	0	1	0	0	3	5	0	21
8:45 AM		1	0	0	0	14	1	2	0	1	0	1	0	0	2	14	0	36
TOTAL VOLUMES : APPROACH %'s :		3 37.50%	3 37.50%	2 25.00%	0 0.00%	53 64.63%	5 6.10%	24 29.27%	0 0.00%	16 51.61%	11 35.48%	4 12.90%	0 0.00%	0 0.00%	15 15.00%	85 85.00%	0 0.00%	221
PEAK HR :		07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :		1 0.250	3 0.375	1 0.250	0 0.000	23 0.639	4 0.500	19 0.594	0 0.000	12 0.500	10 0.417	1 0.250	0 0.000	0 0.000	8 0.400	56 0.636	0 0.000	138 0.704
PEAK HR FACTOR :		0.625				0.821				0.479				0.593				

PM		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
		0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
4:00 PM		0	0	0	0	19	0	1	0	3	2	0	0	0	0	11	0	36
4:15 PM		0	0	0	0	10	0	3	0	1	2	0	0	0	1	10	0	27
4:30 PM		0	1	0	0	9	1	1	0	2	1	0	0	0	1	10	0	26
4:45 PM		0	0	0	0	9	0	6	0	3	1	0	0	0	1	22	0	42
5:00 PM		0	0	0	0	9	0	1	0	2	2	0	0	0	2	17	0	33
5:15 PM		0	0	0	0	10	0	2	0	2	1	0	0	0	1	9	0	25
5:30 PM		0	0	0	0	10	0	1	0	2	3	0	0	0	0	12	0	28
5:45 PM		0	0	0	0	3	0	2	0	1	0	0	0	0	2	4	0	12
TOTAL VOLUMES : APPROACH %'s :		0 0.00%	1 100.00%	0 0.00%	0 0.00%	79 81.44%	1 1.03%	17 17.53%	0 0.00%	16 57.14%	12 42.86%	0 0.00%	0 0.00%	0 0.00%	8 7.77%	95 92.23%	0 0.00%	229
PEAK HR :		04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :		0 0.000	1 0.250	0 0.000	0 0.000	47 0.618	1 0.250	11 0.458	0 0.000	9 0.750	6 0.750	0 0.000	0 0.000	0 0.000	3 0.750	53 0.602	0 0.000	131 0.780
PEAK HR FACTOR :		0.250				0.738				0.750				0.609				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Campus Dr & W 7th St
City: Hanford
Control: 4-Way Stop

Project ID: 20-090149-002
Date: 10/1/2020

Total

NS/EW Streets:	Campus Dr				Campus Dr				W 7th St				W 7th St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	1	0	0	0	1	0	0	1	1	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	2	2	0	0	1	2	5	0	6	16	2	0	1	18	2	0	57
7:15 AM	1	5	1	0	3	2	4	0	7	17	1	0	1	23	5	0	70
7:30 AM	2	8	4	0	3	8	10	0	13	14	3	0	4	32	2	0	103
7:45 AM	8	16	2	0	4	3	5	0	26	23	6	0	6	32	12	0	143
8:00 AM	5	14	2	0	1	7	5	0	17	24	2	0	1	19	5	0	102
8:15 AM	2	5	3	0	9	5	5	0	7	29	1	0	3	28	5	0	102
8:30 AM	3	4	0	0	6	4	10	0	8	31	7	0	0	26	4	0	103
8:45 AM	4	7	4	0	8	8	7	0	7	31	5	0	3	36	4	0	124
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	27	61	16	0	35	39	51	0	91	185	27	0	19	214	39	0	804
	25.96%	58.65%	15.38%	0.00%	28.00%	31.20%	40.80%	0.00%	30.03%	61.06%	8.91%	0.00%	6.99%	78.68%	14.34%	0.00%	
PEAK HR:	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL:	17	43	11	0	17	23	25	0	63	90	12	0	14	111	24	0	450
PEAK HR FACTOR:	0.531	0.672	0.688	0.000	0.472	0.719	0.625	0.000	0.606	0.776	0.500	0.000	0.583	0.867	0.500	0.000	0.787
	0.683				0.774				0.750				0.745				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	1	0	0	0	1	0	0	1	1	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	5	8	0	0	13	9	10	0	19	53	8	0	3	62	10	0	200
4:15 PM	4	8	0	0	11	5	14	0	14	53	9	0	0	71	9	0	198
4:30 PM	7	6	0	0	23	5	16	0	15	49	5	0	1	58	3	0	188
4:45 PM	10	13	1	0	9	5	11	0	14	53	3	0	6	73	7	0	205
5:00 PM	8	9	2	0	25	7	26	0	11	49	3	0	0	57	12	0	209
5:15 PM	4	6	2	0	13	6	9	0	11	34	3	0	3	66	6	0	163
5:30 PM	4	10	1	0	7	6	9	0	12	47	5	0	2	56	5	0	164
5:45 PM	2	3	0	0	7	2	7	0	9	40	2	0	0	46	6	0	124
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	44	63	6	0	108	45	102	0	105	378	38	0	15	489	58	0	1451
	38.94%	55.75%	5.31%	0.00%	42.35%	17.65%	40.00%	0.00%	20.15%	72.55%	7.29%	0.00%	2.67%	87.01%	10.32%	0.00%	
PEAK HR:	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL:	29	36	3	0	68	22	67	0	54	204	20	0	7	259	31	0	800
PEAK HR FACTOR:	0.725	0.692	0.375	0.000	0.680	0.786	0.644	0.000	0.900	0.962	0.556	0.000	0.292	0.887	0.646	0.000	0.957
	0.708				0.677				0.914				0.863				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Campus Dr & W Lacey Blvd
City: Hanford
Control: Signalized

Project ID: 20-090149-001
Date: 10/1/2020

Total

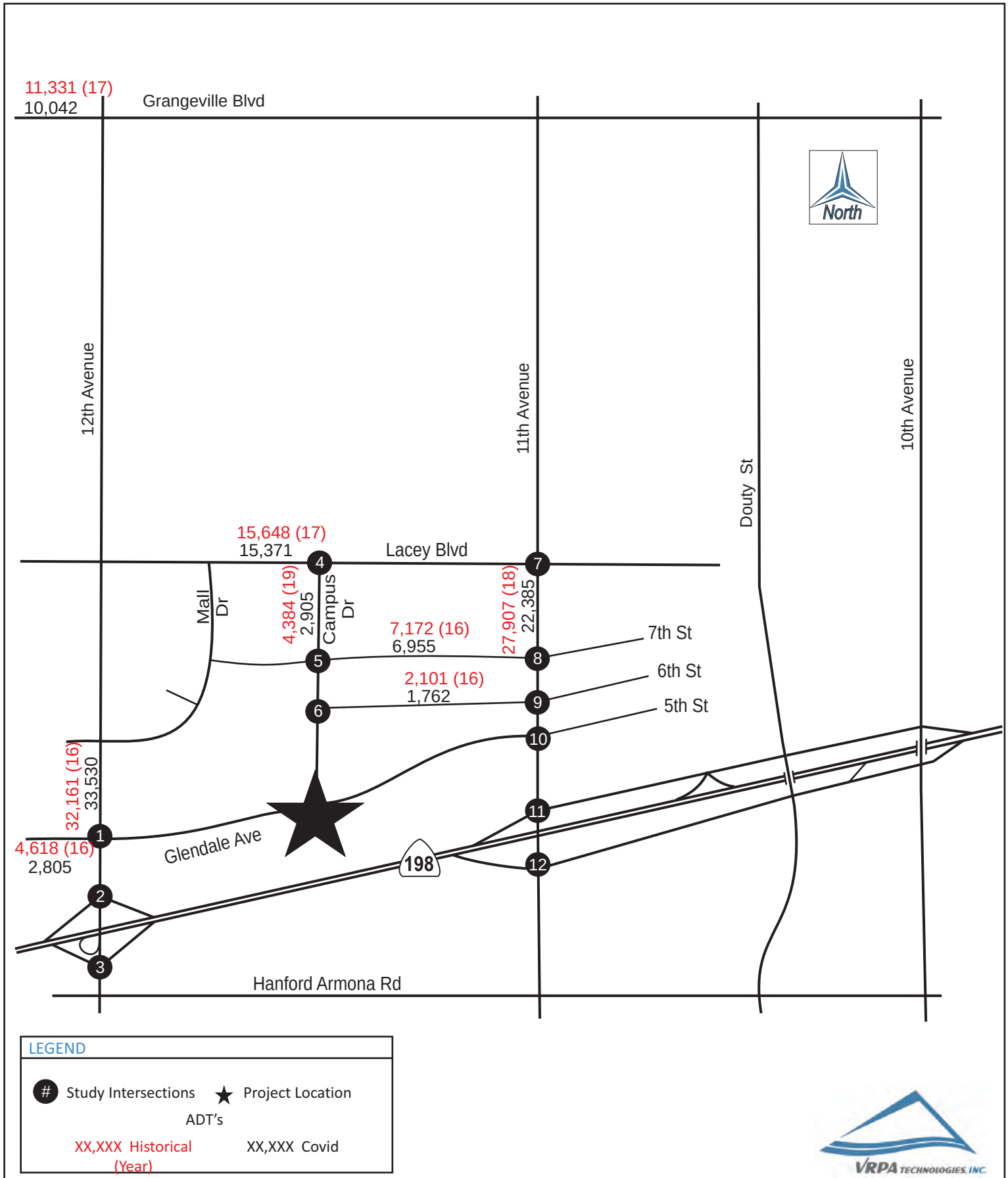
NS/EW Streets:	Campus Dr				Campus Dr				W Lacey Blvd				W Lacey Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	0 NR	0 NU	1 SL	1 ST	1 SR	0 SU	1 EL	2 ET	1 ER	0 EU	1 WL	2 WT	1 WR	0 WU	
7:00 AM	2	2	4	0	1	9	0	0	1	31	0	0	5	27	3	0	85
7:15 AM	3	4	8	0	3	4	2	0	2	44	3	1	4	43	8	0	129
7:30 AM	7	12	7	0	5	9	3	0	4	52	4	1	17	44	14	1	180
7:45 AM	9	19	11	0	3	11	1	0	2	68	9	0	15	60	24	0	232
8:00 AM	7	14	11	0	5	15	3	0	3	71	12	3	6	60	7	0	217
8:15 AM	1	6	4	0	10	11	2	0	2	70	2	1	11	75	8	0	203
8:30 AM	2	8	13	0	9	13	3	0	2	79	1	1	7	75	10	0	223
8:45 AM	3	8	10	0	10	11	1	0	3	80	5	0	12	90	8	0	241
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	34	73	68	0	46	83	15	0	19	495	36	7	77	474	82	1	1510
	19.43%	41.71%	38.86%	0.00%	31.94%	57.64%	10.42%	0.00%	3.41%	88.87%	6.46%	1.26%	12.15%	74.76%	12.93%	0.16%	
PEAK HR:	08:00 AM - 09:00 AM				34	50	9	0	10	300	20	5	36	300	33	0	TOTAL
PEAK HR VOL:	13	36	38	0													884
PEAK HR FACTOR:	0.464	0.643	0.731	0.000	0.850	0.833	0.750	0.000	0.833	0.938	0.417	0.417	0.750	0.833	0.825	0.000	0.917
			0.680				0.930				0.941				0.839		

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	0 NR	0 NU	1 SL	1 ST	1 SR	0 SU	1 EL	2 ET	1 ER	0 EU	1 WL	2 WT	1 WR	0 WU	
4:00 PM	4	14	19	0	20	13	8	0	11	149	4	1	9	173	9	0	434
4:15 PM	5	12	27	0	16	11	4	0	4	146	6	2	10	156	6	0	405
4:30 PM	4	11	21	0	24	25	11	0	4	136	2	0	7	144	8	0	397
4:45 PM	5	12	17	0	14	14	4	0	9	121	4	1	7	167	5	0	380
5:00 PM	14	17	26	0	23	16	7	0	3	166	13	0	16	164	14	0	479
5:15 PM	4	6	17	0	9	13	4	0	5	141	5	1	6	158	10	0	379
5:30 PM	3	13	15	0	5	9	9	0	5	126	3	0	6	152	8	0	354
5:45 PM	2	6	13	0	6	4	2	0	6	107	2	0	5	140	4	0	297
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	41	91	155	0	117	105	49	0	47	1092	39	5	66	1254	64	0	3125
	14.29%	31.71%	54.01%	0.00%	43.17%	38.75%	18.08%	0.00%	3.97%	92.31%	3.30%	0.42%	4.77%	90.61%	4.62%	0.00%	
PEAK HR:	04:15 PM - 05:15 PM				77	66	26	0	20	569	25	3	40	631	33	0	TOTAL
PEAK HR VOL:	28	52	91	0													1661
PEAK HR FACTOR:	0.500	0.765	0.843	0.000	0.802	0.660	0.591	0.000	0.556	0.857	0.481	0.375	0.625	0.945	0.589	0.000	0.867
			0.750				0.704				0.848				0.907		

Hanford Place Development Traffic Impact Study

Average Daily Traffic Historical vs Covid

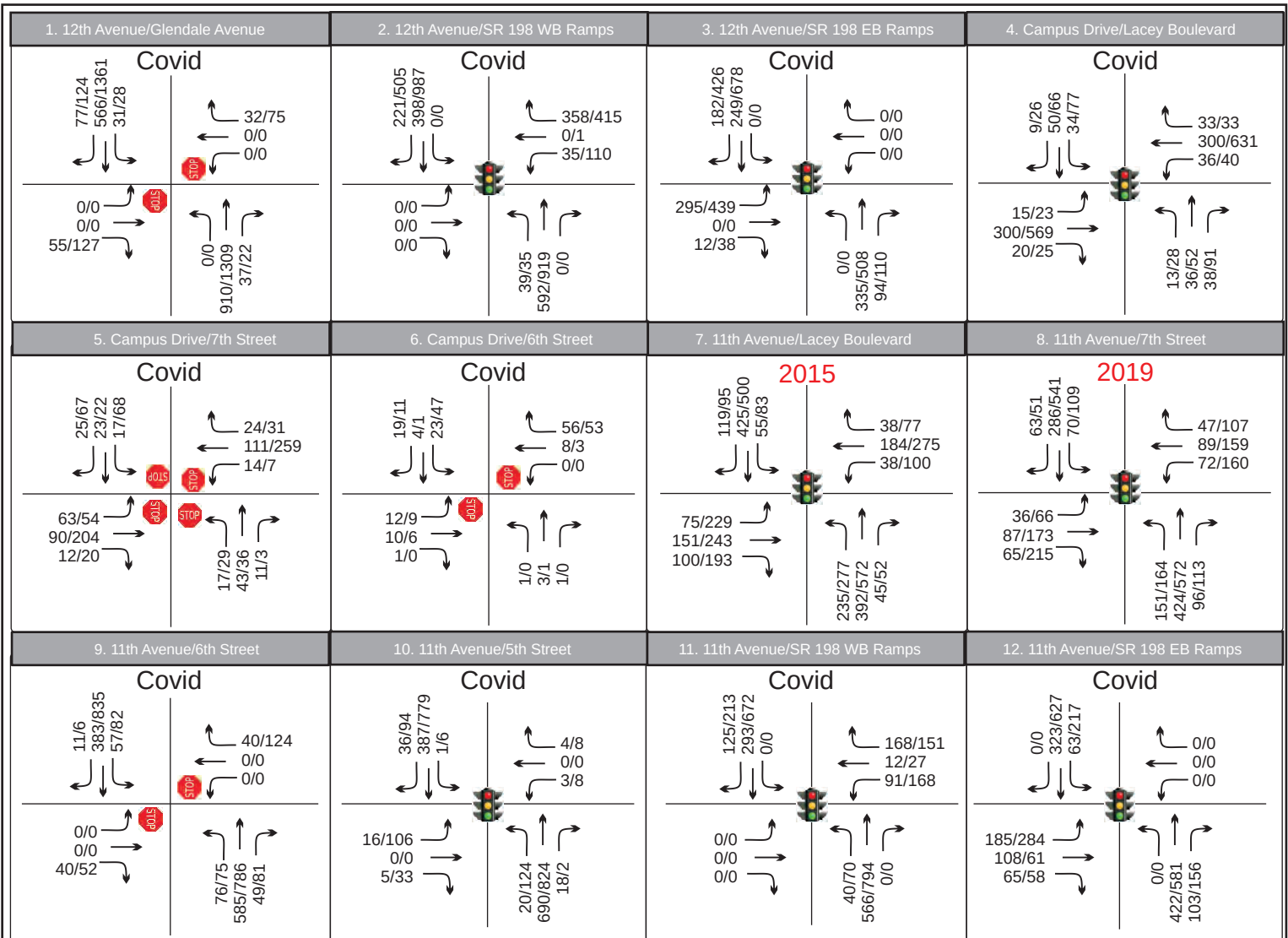
Figure
7



Hanford Place Development Traffic Impact Study

Historical vs Covid

Figure
7



LEGEND

Study Intersections ← AM/PM Peakhour



APPENDIX C

SYNCHRO 10 (HCM 6th Edition) Worksheets

EXISTING WORKSHEETS

HCM 6th TWSC
1: 12th Avenue & Glendale Avenue

10/31/2020

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	72	0	0	42	0	1183	48	40	736	100
Future Vol, veh/h	0	0	72	0	0	42	0	1183	48	40	736	100
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	125	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	82	0	0	48	0	1344	55	45	836	114

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	-	-	475	-	-	700	-	0
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.16	-	-	7.16	-	5.36
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.93	-	-	3.93	-	3.13
Pot Cap-1 Maneuver	0	0	456	0	0	326	0	248
Stage 1	0	0	-	0	0	-	-	-
Stage 2	0	0	-	0	0	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	456	-	-	326	-	248
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.6	17.9	0	1
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	456	326	248	-
HCM Lane V/C Ratio	-	-	0.179	0.146	0.183	-
HCM Control Delay (s)	-	-	14.6	17.9	22.7	-
HCM Lane LOS	-	-	B	C	C	-
HCM 95th %tile Q(veh)	-	-	0.6	0.5	0.7	-

HCM 6th TWSC
6: Campus Dr & 6th Street

10/31/2020

Intersection												
Int Delay, s/veh	7.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	13	1	0	10	73	1	4	1	30	5	25
Future Vol, veh/h	16	13	1	0	10	73	1	4	1	30	5	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	23	19	1	0	14	104	1	6	1	43	7	36
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	179	120	25	130	138	7	43	0	0	7	0	0
Stage 1	111	111	-	9	9	-	-	-	-	-	-	-
Stage 2	68	9	-	121	129	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	781	768	1048	840	751	1072	1559	-	-	1607	-	-
Stage 1	892	802	-	1010	886	-	-	-	-	-	-	-
Stage 2	940	886	-	881	787	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	679	746	1048	805	729	1072	1559	-	-	1607	-	-
Mov Cap-2 Maneuver	679	746	-	805	729	-	-	-	-	-	-	-
Stage 1	891	780	-	1009	885	-	-	-	-	-	-	-
Stage 2	834	885	-	835	765	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	10.4		9		1.2		3.7					
HCM LOS	B		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1559	-	-	715 1014	1607	-	-					
HCM Lane V/C Ratio	0.001	-	-	0.06 0.117	0.027	-	-					
HCM Control Delay (s)	7.3	0	-	10.4 9	7.3	0	-					
HCM Lane LOS	A	A	-	B A	A	A	-					
HCM 95th %tile Q(veh)	0	-	-	0.2 0.4	0.1	-	-					

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↰			↰	↰	↰↱		↰	↰↱	
Traffic Vol, veh/h	0	0	52	0	0	52	99	761	64	74	498	14
Future Vol, veh/h	0	0	52	0	0	52	99	761	64	74	498	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	75	-	-	125	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	60	0	0	60	114	875	74	85	572	16

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	-	-	294	-	-	475	588	0
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.96	-	-	6.96	4.16	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.33	-	-	3.33	2.23	-
Pot Cap-1 Maneuver	0	0	699	0	0	533	976	-
Stage 1	0	0	-	0	0	-	-	-
Stage 2	0	0	-	0	0	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	699	-	-	533	976	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.6	12.6	1	1.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	976	-	-	699	533	713	-
HCM Lane V/C Ratio	0.117	-	-	0.086	0.112	0.119	-
HCM Control Delay (s)	9.2	-	-	10.6	12.6	10.7	-
HCM Lane LOS	A	-	-	B	B	B	-
HCM 95th %tile Q(veh)	0.4	-	-	0.3	0.4	0.4	-

HCM 6th Signalized Intersection Summary

2: SR 198 WB Ramps & 12th Avenue

10/31/2020

										
Movement	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations										
Traffic Volume (veh/h)	46	465	51	770	0	0	517	287	0	0
Future Volume (veh/h)	46	465	51	770	0	0	517	287	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No			No			
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	0	0	1856	1856		
Adj Flow Rate, veh/h	51	517	57	856	0	0	574	319		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90		
Percent Heavy Veh, %	3	3	3	3	0	0	3	3		
Cap, veh/h	370	658	82	2366	0	0	1992	889		
Arrive On Green	0.21	0.21	0.05	0.67	0.00	0.00	0.57	0.57		
Sat Flow, veh/h	1767	3145	1767	3618	0	0	3618	1572		
Grp Volume(v), veh/h	51	517	57	856	0	0	574	319		
Grp Sat Flow(s),veh/h/ln	1767	1572	1767	1763	0	0	1763	1572		
Q Serve(g_s), s	1.8	11.7	2.4	7.9	0.0	0.0	6.4	8.3		
Cycle Q Clear(g_c), s	1.8	11.7	2.4	7.9	0.0	0.0	6.4	8.3		
Prop In Lane	1.00	1.00	1.00		0.00	0.00		1.00		
Lane Grp Cap(c), veh/h	370	658	82	2366	0	0	1992	889		
V/C Ratio(X)	0.14	0.79	0.70	0.36	0.00	0.00	0.29	0.36		
Avail Cap(c_a), veh/h	716	1275	247	2366	0	0	1992	889		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	24.2	28.2	35.4	5.4	0.0	0.0	8.5	8.9		
Incr Delay (d2), s/veh	0.2	2.1	10.2	0.4	0.0	0.0	0.4	1.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.7	4.2	1.2	2.1	0.0	0.0	2.1	2.6		
Unsig. Movement Delay, s/veh										
LnGrp Delay(d),s/veh	24.4	30.3	45.6	5.8	0.0	0.0	8.9	10.1		
LnGrp LOS	C	C	D	A	A	A	A	B		
Approach Vol, veh/h	568			913			893			
Approach Delay, s/veh	29.7			8.3			9.3			
Approach LOS	C			A			A			
Timer - Assigned Phs	2		5		6		8			
Phs Duration (G+Y+Rc), s	55.0		8.0		47.0		20.2			
Change Period (Y+Rc), s	4.5		4.5		4.5		4.5			
Max Green Setting (Gmax), s	50.5		10.5		35.5		30.5			
Max Q Clear Time (g_c+l1), s	9.9		4.4		10.3		13.7			
Green Ext Time (p_c), s	6.7		0.0		5.0		2.0			
Intersection Summary										
HCM 6th Ctrl Delay			13.8							
HCM 6th LOS			B							

HCM 6th Signalized Intersection Summary 3: 12th Avenue & SR 198 EB Off Ramps

10/31/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 							 			 	
Traffic Volume (veh/h)	384	0	16	0	0	0	0	436	122	0	324	237
Future Volume (veh/h)	384	0	16	0	0	0	0	436	122	0	324	237
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1856	0	1856				0	1856	1856	0	1856	1856
Adj Flow Rate, veh/h	427	0	18				0	484	0	0	360	0
Peak Hour Factor	0.90	0.90	0.90				0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	0	3				0	3	3	0	3	3
Cap, veh/h	588	0	270				0	2439		0	2439	
Arrive On Green	0.17	0.00	0.17				0.00	0.69	0.00	0.00	0.69	0.00
Sat Flow, veh/h	3428	0	1572				0	3618	1572	0	3618	1572
Grp Volume(v), veh/h	427	0	18				0	484	0	0	360	0
Grp Sat Flow(s),veh/h/ln	1714	0	1572				0	1763	1572	0	1763	1572
Q Serve(g_s), s	7.8	0.0	0.6				0.0	3.2	0.0	0.0	2.3	0.0
Cycle Q Clear(g_c), s	7.8	0.0	0.6				0.0	3.2	0.0	0.0	2.3	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	588	0	270				0	2439		0	2439	
V/C Ratio(X)	0.73	0.00	0.07				0.00	0.20		0.00	0.15	
Avail Cap(c_a), veh/h	1850	0	849				0	2439		0	2439	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	25.8	0.0	22.8				0.0	3.6	0.0	0.0	3.5	0.0
Incr Delay (d2), s/veh	1.7	0.0	0.1				0.0	0.2	0.0	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	0.2				0.0	0.7	0.0	0.0	0.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.5	0.0	22.9				0.0	3.8	0.0	0.0	3.6	0.0
LnGrp LOS	C	A	C				A	A		A	A	
Approach Vol, veh/h	445						484			360		
Approach Delay, s/veh	27.3						3.8			3.6		
Approach LOS	C						A			A		
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	50.0			15.8			50.0					
Change Period (Y+Rc), s	4.5			4.5			4.5					
Max Green Setting (Gmax), s	45.5			35.5			45.5					
Max Q Clear Time (g_c+I1), s	5.2			9.8			4.3					
Green Ext Time (p_c), s	3.3			1.5			2.4					
Intersection Summary												
HCM 6th Ctrl Delay	11.9											
HCM 6th LOS	B											
Notes												

HCM 6th Signalized Intersection Summary

4: Campus Drive & Lacey Boulevard

10/31/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	390	26	47	390	43	17	47	49	44	65	12
Future Volume (veh/h)	20	390	26	47	390	43	17	47	49	44	65	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	22	424	28	51	424	47	18	51	53	48	71	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	44	625	279	81	698	311	38	386	401	78	902	765
Arrive On Green	0.03	0.18	0.18	0.05	0.20	0.20	0.02	0.46	0.46	0.04	0.49	0.49
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	833	866	1767	1856	1572
Grp Volume(v), veh/h	22	424	28	51	424	47	18	0	104	48	71	13
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	0	1700	1767	1856	1572
Q Serve(g_s), s	0.8	7.5	1.0	1.9	7.3	1.7	0.7	0.0	2.3	1.8	1.4	0.3
Cycle Q Clear(g_c), s	0.8	7.5	1.0	1.9	7.3	1.7	0.7	0.0	2.3	1.8	1.4	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.51	1.00		1.00
Lane Grp Cap(c), veh/h	44	625	279	81	698	311	38	0	788	78	902	765
V/C Ratio(X)	0.50	0.68	0.10	0.63	0.61	0.15	0.48	0.00	0.13	0.62	0.08	0.02
Avail Cap(c_a), veh/h	198	1240	553	251	1345	600	172	0	788	251	902	765
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.2	25.7	23.0	31.3	24.4	22.2	32.3	0.0	10.2	31.4	9.2	8.9
Incr Delay (d2), s/veh	8.3	1.3	0.2	7.8	0.9	0.2	9.2	0.0	0.3	7.6	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	3.0	0.4	0.9	2.9	0.6	0.4	0.0	0.9	0.9	0.5	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.5	27.0	23.2	39.2	25.3	22.4	41.5	0.0	10.6	39.0	9.3	8.9
LnGrp LOS	D	C	C	D	C	C	D	A	B	D	A	A
Approach Vol, veh/h		474			522			122			132	
Approach Delay, s/veh		27.4			26.4			15.2			20.1	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.4	35.5	7.6	16.3	5.9	37.0	6.2	17.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.5	29.5	9.5	23.5	6.5	32.5	7.5	25.5				
Max Q Clear Time (g_c+I1), s	3.8	4.3	3.9	9.5	2.7	3.4	2.8	9.3				
Green Ext Time (p_c), s	0.0	0.5	0.0	2.3	0.0	0.4	0.0	2.5				
Intersection Summary												
HCM 6th Ctrl Delay			25.0									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary

7: 11th Avenue & Lacey Boulevard

10/31/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	167	110	42	203	42	259	433	50	61	469	131
Future Volume (veh/h)	83	167	110	42	203	42	259	433	50	61	469	131
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	92	186	122	47	226	47	288	481	56	68	521	146
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	214	445	198	113	372	76	402	1523	177	96	1466	654
Arrive On Green	0.06	0.13	0.13	0.06	0.13	0.13	0.12	0.48	0.48	0.05	0.42	0.42
Sat Flow, veh/h	3428	3526	1572	1767	2916	595	3428	3183	369	1767	3526	1572
Grp Volume(v), veh/h	92	186	122	47	135	138	288	266	271	68	521	146
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	1767	1763	1748	1714	1763	1789	1767	1763	1572
Q Serve(g_s), s	1.7	3.2	4.8	1.7	4.7	4.9	5.3	6.0	6.1	2.5	6.6	2.5
Cycle Q Clear(g_c), s	1.7	3.2	4.8	1.7	4.7	4.9	5.3	6.0	6.1	2.5	6.6	2.5
Prop In Lane	1.00		1.00	1.00		0.34	1.00		0.21	1.00		1.00
Lane Grp Cap(c), veh/h	214	445	198	113	225	223	402	843	856	96	1466	654
V/C Ratio(X)	0.43	0.42	0.62	0.42	0.60	0.62	0.72	0.31	0.32	0.71	0.36	0.22
Avail Cap(c_a), veh/h	290	1455	649	182	760	754	607	843	856	248	1466	654
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.3	26.2	26.9	29.2	26.8	26.8	27.6	10.4	10.4	30.2	13.0	5.3
Incr Delay (d2), s/veh	1.4	0.6	3.1	2.4	2.6	2.8	2.4	1.0	1.0	9.1	0.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.3	1.8	0.7	2.0	2.1	2.2	2.2	2.2	1.2	2.4	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.7	26.8	30.0	31.7	29.3	29.6	30.0	11.4	11.4	39.3	13.7	6.0
LnGrp LOS	C	C	C	C	C	C	C	B	B	D	B	A
Approach Vol, veh/h	400			320			825			735		
Approach Delay, s/veh	28.7			29.8			17.9			14.5		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.0	35.6	8.6	12.7	12.1	31.5	8.5	12.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.1	29.4	6.7	26.8	11.5	27.0	5.5	28.0				
Max Q Clear Time (g_c+I1), s	4.5	8.1	3.7	6.8	7.3	8.6	3.7	6.9				
Green Ext Time (p_c), s	0.0	3.1	0.0	1.4	0.4	3.7	0.0	1.4				
Intersection Summary												
HCM 6th Ctrl Delay	20.4											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary

8: 11th Avenue & 7th Street

10/31/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	89	66	73	91	48	154	432	98	71	292	64
Future Volume (veh/h)	37	89	66	73	91	48	154	432	98	71	292	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	42	101	75	83	103	55	175	491	111	81	332	73
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	143	198	135	109	270	135	221	1715	765	108	1489	664
Arrive On Green	0.04	0.10	0.10	0.06	0.12	0.12	0.12	0.49	0.49	0.06	0.42	0.42
Sat Flow, veh/h	3428	2002	1370	1767	2273	1140	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	42	88	88	83	78	80	175	491	111	81	332	73
Grp Sat Flow(s),veh/h/ln	1714	1763	1609	1767	1763	1650	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	0.7	2.9	3.2	2.8	2.5	2.7	5.9	5.1	1.4	2.8	3.7	1.7
Cycle Q Clear(g_c), s	0.7	2.9	3.2	2.8	2.5	2.7	5.9	5.1	1.4	2.8	3.7	1.7
Prop In Lane	1.00		0.85	1.00		0.69	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	143	174	159	109	209	196	221	1715	765	108	1489	664
V/C Ratio(X)	0.29	0.51	0.55	0.76	0.37	0.41	0.79	0.29	0.15	0.75	0.22	0.11
Avail Cap(c_a), veh/h	278	744	680	215	816	764	359	1715	765	281	1489	664
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.6	26.3	26.5	28.4	25.0	25.1	26.2	9.4	3.1	28.5	11.3	10.8
Incr Delay (d2), s/veh	1.1	2.3	3.0	10.5	1.1	1.4	6.3	0.4	0.4	10.1	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.2	1.3	1.5	1.1	1.1	2.7	1.7	0.8	1.4	1.3	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.8	28.6	29.5	38.9	26.1	26.5	32.5	9.9	3.5	38.5	11.7	11.1
LnGrp LOS	C	C	C	D	C	C	C	A	A	D	B	B
Approach Vol, veh/h	218			241			777			486		
Approach Delay, s/veh	29.2			30.6			14.0			16.1		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.2	34.4	8.3	10.6	12.2	30.5	7.1	11.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.8	28.7	7.5	26.0	12.5	26.0	5.0	28.5				
Max Q Clear Time (g_c+I1), s	4.8	7.1	4.8	5.2	7.9	5.7	2.7	4.7				
Green Ext Time (p_c), s	0.1	3.5	0.0	0.9	0.2	2.2	0.0	0.9				
Intersection Summary												
HCM 6th Ctrl Delay	18.9											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary

10: 11th Avenue & 5th Street

10/31/2020

																		
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR						
Lane Configurations																		
Traffic Volume (veh/h)	21	0	7	4	0	5	26	897	23	1	503	47						
Future Volume (veh/h)	21	0	7	4	0	5	26	897	23	1	503	47						
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0						
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00						
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
Work Zone On Approach	No			No			No			No								
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856						
Adj Flow Rate, veh/h	24	0	8	5	0	6	30	1043	27	1	585	55						
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86						
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3						
Cap, veh/h	179	0	66	110	2	33	58	2588	67	3	2489	1110						
Arrive On Green	0.04	0.00	0.04	0.04	0.00	0.04	0.03	0.74	0.74	0.00	0.71	0.71						
Sat Flow, veh/h	1399	0	1572	598	50	777	1767	3511	91	1767	3526	1572						
Grp Volume(v), veh/h	24	0	8	11	0	0	30	524	546	1	585	55						
Grp Sat Flow(s),veh/h/ln	1399	0	1572	1424	0	0	1767	1763	1839	1767	1763	1572						
Q Serve(g_s), s	0.3	0.0	0.3	0.2	0.0	0.0	1.0	6.8	6.8	0.0	3.6	0.7						
Cycle Q Clear(g_c), s	0.9	0.0	0.3	0.6	0.0	0.0	1.0	6.8	6.8	0.0	3.6	0.7						
Prop In Lane	1.00		1.00	0.45		0.55	1.00		0.05	1.00		1.00						
Lane Grp Cap(c), veh/h	179	0	66	145	0	0	58	1300	1356	3	2489	1110						
V/C Ratio(X)	0.13	0.00	0.12	0.08	0.00	0.00	0.52	0.40	0.40	0.35	0.24	0.05						
Avail Cap(c_a), veh/h	722	0	676	722	0	0	186	1300	1356	158	2489	1110						
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00						
Uniform Delay (d), s/veh	28.7	0.0	28.4	28.5	0.0	0.0	29.3	3.0	3.0	30.7	3.2	2.8						
Incr Delay (d2), s/veh	0.3	0.0	0.8	0.2	0.0	0.0	7.1	0.9	0.9	60.2	0.2	0.1						
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.1	0.2	0.0	0.0	0.5	1.5	1.6	0.1	0.8	0.1						
Unsig. Movement Delay, s/veh																		
LnGrp Delay(d),s/veh	29.0	0.0	29.2	28.7	0.0	0.0	36.4	4.0	3.9	90.9	3.4	2.8						
LnGrp LOS	C	A	C	C	A	A	D	A	A	F	A	A						
Approach Vol, veh/h	32			11			1100			641								
Approach Delay, s/veh	29.0			28.7			4.8			3.5								
Approach LOS	C			C			A			A								
Timer - Assigned Phs	1	2	4		5	6	8											
Phs Duration (G+Y+Rc), s	4.6	49.9	7.1		6.5	48.0	7.1											
Change Period (Y+Rc), s	4.5	4.5	4.5		4.5	4.5	4.5											
Max Green Setting (Gmax), s	5.5	44.5	26.5		6.5	43.5	26.5											
Max Q Clear Time (g_c+I1), s	2.0	8.8	2.9		3.0	5.6	2.6											
Green Ext Time (p_c), s	0.0	8.7	0.1		0.0	4.7	0.0											
Intersection Summary																		
HCM 6th Ctrl Delay	4.9																	
HCM 6th LOS	A																	

HCM 6th Signalized Intersection Summary

11: 11th Avenue & SR 198 WB On Ramp/4th Street

10/31/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰	↱	↰	↰	↱			↱	↰
Traffic Volume (veh/h)	0	0	0	118	16	218	52	736	0	0	381	163
Future Volume (veh/h)	0	0	0	118	16	218	52	736	0	0	381	163
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1856	1856	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				137	19	253	60	856	0	0	443	190
Peak Hour Factor				0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				357	374	317	89	2341	0	0	1927	859
Arrive On Green				0.20	0.20	0.20	0.05	0.66	0.00	0.00	0.55	0.55
Sat Flow, veh/h				1767	1856	1572	1767	3618	0	0	3618	1572
Grp Volume(v), veh/h				137	19	253	60	856	0	0	443	190
Grp Sat Flow(s),veh/h/ln				1767	1856	1572	1767	1763	0	0	1763	1572
Q Serve(g_s), s				4.5	0.6	10.3	2.2	7.2	0.0	0.0	4.4	4.2
Cycle Q Clear(g_c), s				4.5	0.6	10.3	2.2	7.2	0.0	0.0	4.4	4.2
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				357	374	317	89	2341	0	0	1927	859
V/C Ratio(X)				0.38	0.05	0.80	0.68	0.37	0.00	0.00	0.23	0.22
Avail Cap(c_a), veh/h				962	1010	856	330	2341	0	0	1927	859
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				23.1	21.6	25.4	31.3	5.0	0.0	0.0	7.9	7.8
Incr Delay (d2), s/veh				0.7	0.1	4.6	8.7	0.4	0.0	0.0	0.3	0.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.7	0.2	3.8	1.1	2.1	0.0	0.0	1.4	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				23.8	21.6	30.0	40.0	5.4	0.0	0.0	8.2	8.4
LnGrp LOS				C	C	C	D	A	A	A	A	A
Approach Vol, veh/h					409			916			633	
Approach Delay, s/veh					27.6			7.7			8.2	
Approach LOS					C			A			A	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		49.0			7.9	41.1		18.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		44.5			12.5	27.5		36.5				
Max Q Clear Time (g_c+I1), s		9.2			4.2	6.4		12.3				
Green Ext Time (p_c), s		7.2			0.1	3.4		1.3				
Intersection Summary												
HCM 6th Ctrl Delay				12.0								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary 12: 11th Avenue & SR 198 EB Off Ramp/3rd Street

10/31/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↩	↪					↩↪	↪	↩	↩↪	
Traffic Volume (veh/h)	241	140	85	0	0	0	0	549	134	82	420	0
Future Volume (veh/h)	241	140	85	0	0	0	0	549	134	82	420	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No					No				No	
Adj Sat Flow, veh/h/ln	1856	1856	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	301	175	106				0	686	168	102	525	0
Peak Hour Factor	0.80	0.80	0.80				0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3				0	3	3	3	3	0
Cap, veh/h	354	206	489				0	1541	687	132	2012	0
Arrive On Green	0.31	0.31	0.31				0.00	0.44	0.44	0.07	0.57	0.00
Sat Flow, veh/h	1137	661	1572				0	3618	1572	1767	3618	0
Grp Volume(v), veh/h	476	0	106				0	686	168	102	525	0
Grp Sat Flow(s),veh/h/ln	1799	0	1572				0	1763	1572	1767	1763	0
Q Serve(g_s), s	18.9	0.0	3.8				0.0	10.4	5.1	4.3	5.7	0.0
Cycle Q Clear(g_c), s	18.9	0.0	3.8				0.0	10.4	5.1	4.3	5.7	0.0
Prop In Lane	0.63		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	560	0	489				0	1541	687	132	2012	0
V/C Ratio(X)	0.85	0.00	0.22				0.00	0.45	0.24	0.78	0.26	0.00
Avail Cap(c_a), veh/h	885	0	774				0	1541	687	276	2012	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	24.6	0.0	19.4				0.0	15.0	13.5	34.6	8.3	0.0
Incr Delay (d2), s/veh	4.7	0.0	0.2				0.0	0.9	0.8	9.3	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	0.0	1.3				0.0	3.8	1.8	2.1	2.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.3	0.0	19.6				0.0	15.9	14.4	44.0	8.6	0.0
LnGrp LOS	C	A	B				A	B	B	D	A	A
Approach Vol, veh/h		582						854			627	
Approach Delay, s/veh		27.5						15.6			14.3	
Approach LOS		C						B			B	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	10.2	37.8		28.2		48.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	11.9	27.1		37.5		43.5						
Max Q Clear Time (g_c+l1), s	6.3	12.4		20.9		7.7						
Green Ext Time (p_c), s	0.1	4.4		2.8		4.0						
Intersection Summary												
HCM 6th Ctrl Delay			18.6									
HCM 6th LOS			B									

HCM 6th AWSC
5: Campus Dr/Campus Drive & 7th Street

10/31/2020

Intersection	
Intersection Delay, s/veh	9.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	82	117	16	18	144	31	22	56	14	22	30	33
Future Vol, veh/h	82	117	16	18	144	31	22	56	14	22	30	33
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	104	148	20	23	182	39	28	71	18	28	38	42
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	9.8	10.5	9.5	9.3
HCM LOS	A	B	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	24%	100%	0%	100%	0%	26%
Vol Thru, %	61%	0%	88%	0%	82%	35%
Vol Right, %	15%	0%	12%	0%	18%	39%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	92	82	133	18	175	85
LT Vol	22	82	0	18	0	22
Through Vol	56	0	117	0	144	30
RT Vol	14	0	16	0	31	33
Lane Flow Rate	116	104	168	23	222	108
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.172	0.17	0.248	0.038	0.326	0.156
Departure Headway (Hd)	5.329	5.888	5.298	5.931	5.302	5.21
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	666	604	672	599	671	681
Service Time	3.419	3.673	3.083	3.718	3.088	3.301
HCM Lane V/C Ratio	0.174	0.172	0.25	0.038	0.331	0.159
HCM Control Delay	9.5	9.9	9.8	9	10.7	9.3
HCM Lane LOS	A	A	A	A	B	A
HCM 95th-tile Q	0.6	0.6	1	0.1	1.4	0.6

HCM 6th TWSC
1: 12th Avenue & Glendale Avenue

10/31/2020

Intersection												
Int Delay, s/veh	5.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↰			↰		↑↑↑		↰	↑↑↑	
Traffic Vol, veh/h	0	0	165	0	0	98	0	1702	29	36	1769	161
Future Vol, veh/h	0	0	165	0	0	98	0	1702	29	36	1769	161
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	125	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	179	0	0	107	0	1850	32	39	1923	175

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	-	-	1049	-	-	941	-	0
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.16	-	-	7.16	-	5.36
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.93	-	-	3.93	-	3.13
Pot Cap-1 Maneuver	0	0	191	0	0	226	0	142
Stage 1	0	0	-	0	0	-	-	-
Stage 2	0	0	-	0	0	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	191	-	-	226	-	142
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	100.4	34.4	0	0.7
HCM LOS	F	D		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	191	226	142	-
HCM Lane V/C Ratio	-	-	0.939	0.471	0.276	-
HCM Control Delay (s)	-	-	100.4	34.4	39.7	-
HCM Lane LOS	-	-	F	D	E	-
HCM 95th %tile Q(veh)	-	-	7.5	2.3	1.1	-

HCM 6th TWSC
6: Campus Dr & 6th Street

10/31/2020

Intersection												
Int Delay, s/veh	7.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	12	8	0	0	4	69	0	1	0	61	1	14
Future Vol, veh/h	12	8	0	0	4	69	0	1	0	61	1	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	15	10	0	0	5	88	0	1	0	78	1	18

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	214	167	10	172	176	1	19	0	0	1	0	0
Stage 1	166	166	-	1	1	-	-	-	-	-	-	-
Stage 2	48	1	-	171	175	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	741	724	1068	789	716	1081	1591	-	-	1615	-	-
Stage 1	834	759	-	1019	893	-	-	-	-	-	-	-
Stage 2	963	893	-	829	752	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	651	689	1068	751	681	1081	1591	-	-	1615	-	-
Mov Cap-2 Maneuver	651	689	-	751	681	-	-	-	-	-	-	-
Stage 1	834	722	-	1019	893	-	-	-	-	-	-	-
Stage 2	879	893	-	777	715	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	10.6		8.8		0		5.9	
HCM LOS	B		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1591	-	-	666 1047	1615	-	-
HCM Lane V/C Ratio	-	-	-	0.039 0.089	0.048	-	-
HCM Control Delay (s)	0	-	-	10.6 8.8	7.3	0	-
HCM Lane LOS	A	-	-	B A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1 0.3	0.2	-	-

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↗	↗↘		↗	↗↘	
Traffic Vol, veh/h	0	0	68	0	0	161	98	1022	105	107	1086	8
Future Vol, veh/h	0	0	68	0	0	161	98	1022	105	107	1086	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	75	-	-	125	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	70	0	0	166	101	1054	108	110	1120	8
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	564	-	-	581	1128	0	0	1162	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.96	-	-	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.33	-	-	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	0	0	466	0	0	454	609	-	-	591	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	466	-	-	454	609	-	-	591	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	14.1		17.4		1		1.1					
HCM LOS	B		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	609	-	-	466	454	591	-	-				
HCM Lane V/C Ratio	0.166	-	-	0.15	0.366	0.187	-	-				
HCM Control Delay (s)	12.1	-	-	14.1	17.4	12.5	-	-				
HCM Lane LOS	B	-	-	B	C	B	-	-				
HCM 95th %tile Q(veh)	0.6	-	-	0.5	1.7	0.7	-	-				

HCM 6th Signalized Intersection Summary

2: SR 198 WB Ramps & 12th Avenue

10/31/2020

										
Movement	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations										
Traffic Volume (veh/h)	143	540	46	1195	0	0	1283	657	0	0
Future Volume (veh/h)	143	540	46	1195	0	0	1283	657	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No			No			
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	0	0	1856	1856		
Adj Flow Rate, veh/h	155	587	50	1299	0	0	1395	714		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	3	3	3	3	0	0	3	3		
Cap, veh/h	391	696	72	2373	0	0	2044	912		
Arrive On Green	0.22	0.22	0.04	0.67	0.00	0.00	0.58	0.58		
Sat Flow, veh/h	1767	3145	1767	3618	0	0	3618	1572		
Grp Volume(v), veh/h	155	587	50	1299	0	0	1395	714		
Grp Sat Flow(s),veh/h/ln	1767	1572	1767	1763	0	0	1763	1572		
Q Serve(g_s), s	6.4	15.3	2.4	16.3	0.0	0.0	23.5	29.8		
Cycle Q Clear(g_c), s	6.4	15.3	2.4	16.3	0.0	0.0	23.5	29.8		
Prop In Lane	1.00	1.00	1.00		0.00	0.00		1.00		
Lane Grp Cap(c), veh/h	391	696	72	2373	0	0	2044	912		
V/C Ratio(X)	0.40	0.84	0.70	0.55	0.00	0.00	0.68	0.78		
Avail Cap(c_a), veh/h	486	865	114	2373	0	0	2044	912		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	28.4	31.8	40.4	7.2	0.0	0.0	12.5	13.8		
Incr Delay (d2), s/veh	0.7	6.3	11.4	0.9	0.0	0.0	1.9	6.7		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	2.6	6.0	1.2	4.8	0.0	0.0	8.2	10.3		
Unsig. Movement Delay, s/veh										
LnGrp Delay(d),s/veh	29.0	38.1	51.9	8.1	0.0	0.0	14.3	20.5		
LnGrp LOS	C	D	D	A	A	A	B	C		
Approach Vol, veh/h	742			1349			2109			
Approach Delay, s/veh	36.2			9.8			16.4			
Approach LOS	D			A			B			
Timer - Assigned Phs	2		5		6		8			
Phs Duration (G+Y+Rc), s	62.0		8.0		54.0		23.4			
Change Period (Y+Rc), s	4.5		4.5		4.5		4.5			
Max Green Setting (Gmax), s	57.5		5.5		47.5		23.5			
Max Q Clear Time (g_c+l1), s	18.3		4.4		31.8		17.3			
Green Ext Time (p_c), s	12.1		0.0		10.9		1.6			
Intersection Summary										
HCM 6th Ctrl Delay			17.8							
HCM 6th LOS			B							
Notes										

HCM 6th Signalized Intersection Summary 3: 12th Avenue & SR 198 EB Off Ramps

10/31/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	571	0	49	0	0	0	0	660	143	0	881	554
Future Volume (veh/h)	571	0	49	0	0	0	0	660	143	0	881	554
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1856	0	1856				0	1856	1856	0	1856	1856
Adj Flow Rate, veh/h	614	0	53				0	710	0	0	947	0
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	0	3				0	3	3	0	3	3
Cap, veh/h	767	0	352				0	2323		0	2323	
Arrive On Green	0.22	0.00	0.22				0.00	0.66	0.00	0.00	0.66	0.00
Sat Flow, veh/h	3428	0	1572				0	3618	1572	0	3618	1572
Grp Volume(v), veh/h	614	0	53				0	710	0	0	947	0
Grp Sat Flow(s),veh/h/ln	1714	0	1572				0	1763	1572	0	1763	1572
Q Serve(g_s), s	13.0	0.0	2.1				0.0	6.6	0.0	0.0	9.6	0.0
Cycle Q Clear(g_c), s	13.0	0.0	2.1				0.0	6.6	0.0	0.0	9.6	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	767	0	352				0	2323		0	2323	
V/C Ratio(X)	0.80	0.00	0.15				0.00	0.31		0.00	0.41	
Avail Cap(c_a), veh/h	1364	0	626				0	2323		0	2323	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	28.1	0.0	23.9				0.0	5.6	0.0	0.0	6.1	0.0
Incr Delay (d2), s/veh	2.0	0.0	0.2				0.0	0.3	0.0	0.0	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	0.0	0.7				0.0	1.8	0.0	0.0	2.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.1	0.0	24.1				0.0	5.9	0.0	0.0	6.6	0.0
LnGrp LOS	C	A	C				A	A		A	A	
Approach Vol, veh/h	667						710			A		
Approach Delay, s/veh	29.6						5.9			6.6		
Approach LOS	C						A			A		
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	55.0			21.6			55.0					
Change Period (Y+Rc), s	4.5			4.5			4.5					
Max Green Setting (Gmax), s	50.5			30.5			50.5					
Max Q Clear Time (g_c+I1), s	8.6			15.0			11.6					
Green Ext Time (p_c), s	5.2			2.2			7.6					
Intersection Summary												
HCM 6th Ctrl Delay			13.0									
HCM 6th LOS			B									
Notes												

HCM 6th Signalized Intersection Summary

4: Campus Drive & Lacey Boulevard

10/31/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	740	33	52	820	43	36	68	118	100	86	34
Future Volume (veh/h)	30	740	33	52	820	43	36	68	118	100	86	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	34	851	38	60	943	49	41	78	136	115	99	39
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	59	1103	492	82	1149	513	66	200	349	147	696	590
Arrive On Green	0.03	0.31	0.31	0.05	0.33	0.33	0.04	0.33	0.33	0.08	0.38	0.38
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	607	1058	1767	1856	1572
Grp Volume(v), veh/h	34	851	38	60	943	49	41	0	214	115	99	39
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	0	1665	1767	1856	1572
Q Serve(g_s), s	1.5	17.3	1.3	2.6	19.4	1.7	1.8	0.0	7.8	5.0	2.8	1.3
Cycle Q Clear(g_c), s	1.5	17.3	1.3	2.6	19.4	1.7	1.8	0.0	7.8	5.0	2.8	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.64	1.00		1.00
Lane Grp Cap(c), veh/h	59	1103	492	82	1149	513	66	0	549	147	696	590
V/C Ratio(X)	0.58	0.77	0.08	0.73	0.82	0.10	0.62	0.00	0.39	0.78	0.14	0.07
Avail Cap(c_a), veh/h	123	1318	588	146	1363	608	143	0	549	235	696	590
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.6	24.6	19.1	37.1	24.5	18.5	37.4	0.0	20.3	35.5	16.3	15.8
Incr Delay (d2), s/veh	8.7	2.4	0.1	11.8	3.6	0.1	9.0	0.0	2.1	8.9	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	7.1	0.5	1.4	8.1	0.6	0.9	0.0	3.2	2.5	1.2	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.3	26.9	19.2	49.0	28.0	18.6	46.4	0.0	22.4	44.4	16.7	16.0
LnGrp LOS	D	C	B	D	C	B	D	A	C	D	B	B
Approach Vol, veh/h		923			1052			255			253	
Approach Delay, s/veh		27.3			28.8			26.3			29.2	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.0	30.5	8.2	29.2	7.5	34.1	7.1	30.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.5	25.5	6.5	29.5	6.4	29.6	5.5	30.5				
Max Q Clear Time (g_c+I1), s	7.0	9.8	4.6	19.3	3.8	4.8	3.5	21.4				
Green Ext Time (p_c), s	0.1	1.1	0.0	4.2	0.0	0.6	0.0	4.3				
Intersection Summary												
HCM 6th Ctrl Delay			28.0									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary

7: 11th Avenue & Lacey Boulevard

10/31/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	253	268	213	110	304	85	306	632	57	92	552	105
Future Volume (veh/h)	253	268	213	110	304	85	306	632	57	92	552	105
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	278	295	234	121	334	93	336	695	63	101	607	115
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	362	679	303	154	476	131	421	1325	120	129	1254	560
Arrive On Green	0.11	0.19	0.19	0.09	0.17	0.17	0.12	0.41	0.41	0.07	0.36	0.36
Sat Flow, veh/h	3428	3526	1572	1767	2733	750	3428	3269	296	1767	3526	1572
Grp Volume(v), veh/h	278	295	234	121	214	213	336	375	383	101	607	115
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	1767	1763	1721	1714	1763	1802	1767	1763	1572
Q Serve(g_s), s	5.9	5.5	7.3	5.0	8.5	8.7	7.1	11.9	12.0	4.2	10.0	3.8
Cycle Q Clear(g_c), s	5.9	5.5	7.3	5.0	8.5	8.7	7.1	11.9	12.0	4.2	10.0	3.8
Prop In Lane	1.00		1.00	1.00		0.44	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	362	679	303	154	307	299	421	715	731	129	1254	560
V/C Ratio(X)	0.77	0.43	0.77	0.79	0.70	0.71	0.80	0.52	0.52	0.78	0.48	0.21
Avail Cap(c_a), veh/h	368	1264	564	221	663	647	437	715	731	202	1254	560
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.4	26.5	13.9	33.3	28.9	29.0	31.8	16.7	16.7	33.9	18.7	16.7
Incr Delay (d2), s/veh	9.3	0.4	4.2	11.3	2.8	3.1	9.7	2.7	2.7	9.8	1.3	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	2.2	3.9	2.5	3.6	3.7	3.4	4.9	5.0	2.1	4.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.7	26.9	18.1	44.6	31.8	32.1	41.5	19.5	19.4	43.7	20.0	17.5
LnGrp LOS	D	C	B	D	C	C	D	B	B	D	C	B
Approach Vol, veh/h	807			548			1094			823		
Approach Delay, s/veh	29.5			34.7			26.2			22.6		
Approach LOS	C			C			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	34.7	11.0	18.9	13.6	31.0	12.4	17.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.5	27.5	9.3	26.7	9.5	26.5	8.0	28.0				
Max Q Clear Time (g_c+I1), s	6.2	14.0	7.0	9.3	9.1	12.0	7.9	10.7				
Green Ext Time (p_c), s	0.0	3.9	0.1	2.4	0.1	3.8	0.0	2.3				
Intersection Summary												
HCM 6th Ctrl Delay	27.5											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary

8: 11th Avenue & 7th Street

10/31/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	176	219	163	162	109	167	583	115	111	552	52
Future Volume (veh/h)	67	176	219	163	162	109	167	583	115	111	552	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	74	193	241	179	178	120	184	641	126	122	607	57
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	175	348	311	216	554	354	221	1277	569	154	1143	510
Arrive On Green	0.05	0.20	0.20	0.12	0.27	0.27	0.13	0.36	0.36	0.09	0.32	0.32
Sat Flow, veh/h	3428	1763	1572	1767	2063	1318	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	74	193	241	179	151	147	184	641	126	122	607	57
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	1767	1763	1618	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	1.6	7.7	11.3	7.7	5.3	5.7	7.9	11.1	2.7	5.3	11.0	2.0
Cycle Q Clear(g_c), s	1.6	7.7	11.3	7.7	5.3	5.7	7.9	11.1	2.7	5.3	11.0	2.0
Prop In Lane	1.00		1.00	1.00		0.81	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	175	348	311	216	474	435	221	1277	569	154	1143	510
V/C Ratio(X)	0.42	0.55	0.78	0.83	0.32	0.34	0.83	0.50	0.22	0.79	0.53	0.11
Avail Cap(c_a), veh/h	233	587	524	231	698	641	238	1277	569	213	1143	510
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.9	28.2	29.7	33.5	22.8	23.0	33.3	19.4	6.8	34.9	21.5	18.5
Incr Delay (d2), s/veh	1.6	1.4	4.2	20.5	0.4	0.5	20.4	1.4	0.9	12.8	1.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.2	4.4	4.5	2.2	2.2	4.5	4.4	1.6	2.7	4.5	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.5	29.6	33.8	54.0	23.2	23.4	53.7	20.8	7.7	47.7	23.3	18.9
LnGrp LOS	D	C	C	D	C	C	D	C	A	D	C	B
Approach Vol, veh/h		508			477			951			786	
Approach Delay, s/veh		32.8			34.8			25.4			26.8	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.3	32.8	14.0	19.9	14.3	29.8	8.5	25.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.4	26.4	10.2	26.0	10.5	25.3	5.3	30.9				
Max Q Clear Time (g_c+I1), s	7.3	13.1	9.7	13.3	9.9	13.0	3.6	7.7				
Green Ext Time (p_c), s	0.1	3.9	0.0	2.1	0.0	3.3	0.0	1.9				
Intersection Summary												
HCM 6th Ctrl Delay			28.8									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary

10: 11th Avenue & 5th Street

10/31/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	138	0	43	10	0	10	161	1071	3	8	1013	122
Future Volume (veh/h)	138	0	43	10	0	10	161	1071	3	8	1013	122
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	142	0	44	10	0	10	166	1104	3	8	1044	126
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	290	0	205	153	24	98	209	2391	6	18	1956	872
Arrive On Green	0.13	0.00	0.13	0.13	0.00	0.13	0.12	0.66	0.66	0.01	0.55	0.55
Sat Flow, veh/h	1394	0	1572	572	182	753	1767	3607	10	1767	3526	1572
Grp Volume(v), veh/h	142	0	44	20	0	0	166	540	567	8	1044	126
Grp Sat Flow(s),veh/h/ln	1394	0	1572	1507	0	0	1767	1763	1854	1767	1763	1572
Q Serve(g_s), s	5.9	0.0	1.7	0.0	0.0	0.0	6.3	10.2	10.2	0.3	12.9	2.7
Cycle Q Clear(g_c), s	6.6	0.0	1.7	0.7	0.0	0.0	6.3	10.2	10.2	0.3	12.9	2.7
Prop In Lane	1.00		1.00	0.50		0.50	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	290	0	205	275	0	0	209	1168	1229	18	1956	872
V/C Ratio(X)	0.49	0.00	0.21	0.07	0.00	0.00	0.79	0.46	0.46	0.44	0.53	0.14
Avail Cap(c_a), veh/h	637	0	596	636	0	0	373	1168	1229	129	1956	872
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.7	0.0	26.7	26.3	0.0	0.0	29.4	5.6	5.6	33.8	9.7	7.4
Incr Delay (d2), s/veh	1.3	0.0	0.5	0.1	0.0	0.0	6.6	1.3	1.3	15.7	1.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	0.7	0.3	0.0	0.0	2.9	3.2	3.3	0.2	4.4	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.0	0.0	27.2	26.4	0.0	0.0	36.1	6.9	6.9	49.5	10.7	7.7
LnGrp LOS	C	A	C	C	A	A	D	A	A	D	B	A
Approach Vol, veh/h	186			20			1273			1178		
Approach Delay, s/veh	29.4			26.4			10.7			10.7		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.2	50.0		13.4	12.6	42.6		13.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	45.5		26.0	14.5	36.0		26.0				
Max Q Clear Time (g_c+l1), s	2.3	12.2		8.6	8.3	14.9		2.7				
Green Ext Time (p_c), s	0.0	9.0		0.6	0.2	8.4		0.0				
Intersection Summary												
HCM 6th Ctrl Delay	12.1											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary 11: 11th Avenue & SR 198 WB On Ramp/4th Street

10/31/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰	↱	↰	↰	↱			↱	↰
Traffic Volume (veh/h)	0	0	0	218	35	196	91	1032	0	0	874	277
Future Volume (veh/h)	0	0	0	218	35	196	91	1032	0	0	874	277
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1856	1856	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				229	37	206	96	1086	0	0	920	292
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				305	320	271	124	2476	0	0	2008	896
Arrive On Green				0.17	0.17	0.17	0.07	0.70	0.00	0.00	0.57	0.57
Sat Flow, veh/h				1767	1856	1572	1767	3618	0	0	3618	1572
Grp Volume(v), veh/h				229	37	206	96	1086	0	0	920	292
Grp Sat Flow(s),veh/h/ln				1767	1856	1572	1767	1763	0	0	1763	1572
Q Serve(g_s), s				8.9	1.2	9.0	3.8	9.5	0.0	0.0	10.9	7.1
Cycle Q Clear(g_c), s				8.9	1.2	9.0	3.8	9.5	0.0	0.0	10.9	7.1
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				305	320	271	124	2476	0	0	2008	896
V/C Ratio(X)				0.75	0.12	0.76	0.77	0.44	0.00	0.00	0.46	0.33
Avail Cap(c_a), veh/h				750	787	667	261	2476	0	0	2008	896
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				28.3	25.1	28.3	32.9	4.6	0.0	0.0	9.0	8.2
Incr Delay (d2), s/veh				3.7	0.2	4.4	9.8	0.6	0.0	0.0	0.8	1.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.7	0.5	3.4	1.9	2.6	0.0	0.0	3.6	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				32.0	25.3	32.7	42.7	5.2	0.0	0.0	9.8	9.1
LnGrp LOS				C	C	C	D	A	A	A	A	A
Approach Vol, veh/h					472			1182			1212	
Approach Delay, s/veh					31.8			8.2			9.6	
Approach LOS					C			A			A	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		55.0			9.5	45.5		16.9				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		50.5			10.6	35.4		30.5				
Max Q Clear Time (g_c+l1), s		11.5			5.8	12.9		11.0				
Green Ext Time (p_c), s		10.2			0.1	7.9		1.4				
Intersection Summary												
HCM 6th Ctrl Delay				12.7								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary 12: 11th Avenue & SR 198 EB Off Ramp/3rd Street

10/31/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	369	79	75	0	0	0	0	755	203	282	815	0
Future Volume (veh/h)	369	79	75	0	0	0	0	755	203	282	815	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	384	82	78				0	786	211	294	849	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3				0	3	3	3	3	0
Cap, veh/h	432	92	463				0	1253	559	336	2111	0
Arrive On Green	0.29	0.29	0.29				0.00	0.36	0.36	0.19	0.60	0.00
Sat Flow, veh/h	1469	314	1572				0	3618	1572	1767	3618	0
Grp Volume(v), veh/h	466	0	78				0	786	211	294	849	0
Grp Sat Flow(s),veh/h/ln	1782	0	1572				0	1763	1572	1767	1763	0
Q Serve(g_s), s	21.1	0.0	3.1				0.0	15.6	8.4	13.6	10.7	0.0
Cycle Q Clear(g_c), s	21.1	0.0	3.1				0.0	15.6	8.4	13.6	10.7	0.0
Prop In Lane	0.82		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	525	0	463				0	1253	559	336	2111	0
V/C Ratio(X)	0.89	0.00	0.17				0.00	0.63	0.38	0.88	0.40	0.00
Avail Cap(c_a), veh/h	644	0	569				0	1253	559	430	2111	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	28.4	0.0	22.1				0.0	22.5	20.2	33.2	8.9	0.0
Incr Delay (d2), s/veh	12.3	0.0	0.2				0.0	2.4	1.9	15.1	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.0	0.0	1.1				0.0	6.4	3.2	7.1	3.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.8	0.0	22.3				0.0	24.9	22.2	48.3	9.5	0.0
LnGrp LOS	D	A	C				A	C	C	D	A	A
Approach Vol, veh/h	544						997			1143		
Approach Delay, s/veh	38.1						24.3			19.5		
Approach LOS	D						C			B		
Timer - Assigned Phs	1	2		4			6					
Phs Duration (G+Y+Rc), s	20.5	34.5		29.3			55.0					
Change Period (Y+Rc), s	4.5	4.5		4.5			4.5					
Max Green Setting (Gmax), s	20.5	25.5		30.5			50.5					
Max Q Clear Time (g_c+I1), s	15.6	17.6		23.1			12.7					
Green Ext Time (p_c), s	0.4	3.5		1.8			7.2					
Intersection Summary												
HCM 6th Ctrl Delay				25.1								
HCM 6th LOS				C								

HCM 6th AWSC
5: Campus Dr/Campus Drive & 7th Street

10/31/2020

Intersection	
Intersection Delay, s/veh	15.6
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	70	265	26	9	337	40	38	47	4	88	29	87
Future Vol, veh/h	70	265	26	9	337	40	38	47	4	88	29	87
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	73	276	27	9	351	42	40	49	4	92	30	91
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	14.2	19.4	11.2	12.7
HCM LOS	B	C	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	43%	100%	0%	100%	0%	43%
Vol Thru, %	53%	0%	91%	0%	89%	14%
Vol Right, %	4%	0%	9%	0%	11%	43%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	89	70	291	9	377	204
LT Vol	38	70	0	9	0	88
Through Vol	47	0	265	0	337	29
RT Vol	4	0	26	0	40	87
Lane Flow Rate	93	73	303	9	393	212
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.175	0.134	0.511	0.017	0.656	0.362
Departure Headway (Hd)	6.785	6.638	6.065	6.601	6.018	6.134
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	532	537	591	540	597	582
Service Time	4.785	4.413	3.84	4.373	3.789	4.222
HCM Lane V/C Ratio	0.175	0.136	0.513	0.017	0.658	0.364
HCM Control Delay	11.2	10.4	15.1	9.5	19.6	12.7
HCM Lane LOS	B	B	C	A	C	B
HCM 95th-tile Q	0.6	0.5	2.9	0.1	4.8	1.6

EXISTING PLUS PROJECT WORKSHEETS

HCM 6th TWSC
1: 12th Avenue & Glendale Avenue

10/31/2020

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	72	0	0	95	0	1183	165	63	780	100
Future Vol, veh/h	0	0	72	0	0	95	0	1183	165	63	780	100
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	125	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	82	0	0	108	0	1344	188	72	886	114

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	-	-	500	-	-	766	-	0
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.16	-	-	7.16	-	5.36
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.93	-	-	3.93	-	3.13
Pot Cap-1 Maneuver	0	0	440	0	0	295	0	213
Stage 1	0	0	-	0	0	-	-	-
Stage 2	0	0	-	0	0	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	440	-	-	295	-	213
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15	24.1	0	2
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	440	295	213	-
HCM Lane V/C Ratio	-	-	0.186	0.366	0.336	-
HCM Control Delay (s)	-	-	15	24.1	30.2	-
HCM Lane LOS	-	-	C	C	D	-
HCM 95th %tile Q(veh)	-	-	0.7	1.6	1.4	-

HCM 6th TWSC
6: Campus Dr & 6th Street

10/31/2020

Intersection												
Int Delay, s/veh	3.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	16	13	1	0	10	73	1	57	1	30	145	25
Future Vol, veh/h	16	13	1	0	10	73	1	57	1	30	145	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	23	19	1	0	14	104	1	81	1	43	207	36

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	454	395	225	405	413	82	243	0	0	82	0	0
Stage 1	311	311	-	84	84	-	-	-	-	-	-	-
Stage 2	143	84	-	321	329	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	515	540	812	554	528	975	1317	-	-	1509	-	-
Stage 1	697	656	-	922	823	-	-	-	-	-	-	-
Stage 2	857	823	-	689	645	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	438	522	812	524	510	975	1317	-	-	1509	-	-
Mov Cap-2 Maneuver	438	522	-	524	510	-	-	-	-	-	-	-
Stage 1	696	634	-	921	822	-	-	-	-	-	-	-
Stage 2	751	822	-	646	624	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	13.3		9.7		0.1		1.1	
HCM LOS	B		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1317	-	-	479	878	1509	-
HCM Lane V/C Ratio	0.001	-	-	0.089	0.135	0.028	-
HCM Control Delay (s)	7.7	0	-	13.3	9.7	7.5	0
HCM Lane LOS	A	A	-	B	A	A	A
HCM 95th %tile Q(veh)	0	-	-	0.3	0.5	0.1	-

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	52	0	0	52	99	779	64	74	545	14
Future Vol, veh/h	0	0	52	0	0	52	99	779	64	74	545	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	75	-	-	125	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	60	0	0	60	114	895	74	85	626	16

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	-	-	321	-	-	485	642	0
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.96	-	-	6.96	4.16	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.33	-	-	3.33	2.23	-
Pot Cap-1 Maneuver	0	0	672	0	0	525	932	-
Stage 1	0	0	-	0	0	-	-	-
Stage 2	0	0	-	0	0	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	672	-	-	525	932	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.9	12.7	1	1.3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	932	-	-	672	525	701	-
HCM Lane V/C Ratio	0.122	-	-	0.089	0.114	0.121	-
HCM Control Delay (s)	9.4	-	-	10.9	12.7	10.8	-
HCM Lane LOS	A	-	-	B	B	B	-
HCM 95th %tile Q(veh)	0.4	-	-	0.3	0.4	0.4	-

HCM 6th Signalized Intersection Summary

2: SR 198 WB Ramps & 12th Avenue

10/31/2020

										
Movement	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations										
Traffic Volume (veh/h)	46	488	51	864	0	0	535	313	0	0
Future Volume (veh/h)	46	488	51	864	0	0	535	313	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No			No			
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	0	0	1856	1856		
Adj Flow Rate, veh/h	51	542	57	960	0	0	594	348		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90		
Percent Heavy Veh, %	3	3	3	3	0	0	3	3		
Cap, veh/h	388	690	83	2321	0	0	1941	866		
Arrive On Green	0.22	0.22	0.05	0.66	0.00	0.00	0.55	0.55		
Sat Flow, veh/h	1767	3145	1767	3618	0	0	3618	1572		
Grp Volume(v), veh/h	51	542	57	960	0	0	594	348		
Grp Sat Flow(s),veh/h/ln	1767	1572	1767	1763	0	0	1763	1572		
Q Serve(g_s), s	1.7	12.0	2.3	9.4	0.0	0.0	6.7	9.4		
Cycle Q Clear(g_c), s	1.7	12.0	2.3	9.4	0.0	0.0	6.7	9.4		
Prop In Lane	1.00	1.00	1.00		0.00	0.00		1.00		
Lane Grp Cap(c), veh/h	388	690	83	2321	0	0	1941	866		
V/C Ratio(X)	0.13	0.79	0.69	0.41	0.00	0.00	0.31	0.40		
Avail Cap(c_a), veh/h	780	1387	228	2321	0	0	1941	866		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	23.1	27.1	34.6	5.9	0.0	0.0	9.0	9.6		
Incr Delay (d2), s/veh	0.2	2.0	9.8	0.5	0.0	0.0	0.4	1.4		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.7	4.3	1.2	2.6	0.0	0.0	2.2	3.0		
Unsig. Movement Delay, s/veh										
LnGrp Delay(d),s/veh	23.3	29.1	44.4	6.5	0.0	0.0	9.4	10.9		
LnGrp LOS	C	C	D	A	A	A	A	B		
Approach Vol, veh/h	593			1017			942			
Approach Delay, s/veh	28.6			8.6			9.9			
Approach LOS	C			A			A			
Timer - Assigned Phs	2		5		6		8			
Phs Duration (G+Y+Rc), s	53.0		7.9		45.1		20.7			
Change Period (Y+Rc), s	4.5		4.5		4.5		4.5			
Max Green Setting (Gmax), s	48.5		9.5		34.5		32.5			
Max Q Clear Time (g_c+I1), s	11.4		4.3		11.4		14.0			
Green Ext Time (p_c), s	7.7		0.0		5.2		2.2			
Intersection Summary										
HCM 6th Ctrl Delay			13.7							
HCM 6th LOS			B							
Notes										

HCM 6th Signalized Intersection Summary

3: 12th Avenue & SR 198 EB Off Ramps

10/31/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	454	0	16	0	0	0	0	459	122	0	333	246
Future Volume (veh/h)	454	0	16	0	0	0	0	459	122	0	333	246
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1856	0	1856				0	1856	1856	0	1856	1856
Adj Flow Rate, veh/h	504	0	18				0	510	0	0	370	0
Peak Hour Factor	0.90	0.90	0.90				0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	0	3				0	3	3	0	3	3
Cap, veh/h	675	0	310				0	2346		0	2346	
Arrive On Green	0.20	0.00	0.20				0.00	0.67	0.00	0.00	0.67	0.00
Sat Flow, veh/h	3428	0	1572				0	3618	1572	0	3618	1572
Grp Volume(v), veh/h	504	0	18				0	510	0	0	370	0
Grp Sat Flow(s),veh/h/ln	1714	0	1572				0	1763	1572	0	1763	1572
Q Serve(g_s), s	9.0	0.0	0.6				0.0	3.7	0.0	0.0	2.6	0.0
Cycle Q Clear(g_c), s	9.0	0.0	0.6				0.0	3.7	0.0	0.0	2.6	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	675	0	310				0	2346		0	2346	
V/C Ratio(X)	0.75	0.00	0.06				0.00	0.22		0.00	0.16	
Avail Cap(c_a), veh/h	1966	0	902				0	2346		0	2346	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	24.7	0.0	21.3				0.0	4.3	0.0	0.0	4.1	0.0
Incr Delay (d2), s/veh	1.7	0.0	0.1				0.0	0.2	0.0	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	0.2				0.0	0.9	0.0	0.0	0.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.4	0.0	21.4				0.0	4.5	0.0	0.0	4.2	0.0
LnGrp LOS	C	A	C				A	A		A	A	
Approach Vol, veh/h	522						510			A		
Approach Delay, s/veh	26.2						4.5			4.2		
Approach LOS	C						A			A		
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	48.0			17.4			48.0					
Change Period (Y+Rc), s	4.5			4.5			4.5					
Max Green Setting (Gmax), s	43.5			37.5			43.5					
Max Q Clear Time (g_c+I1), s	5.7			11.0			4.6					
Green Ext Time (p_c), s	3.5			1.8			2.4					
Intersection Summary												
HCM 6th Ctrl Delay			12.5									
HCM 6th LOS			B									
Notes												

HCM 6th Signalized Intersection Summary

4: Campus Drive & Lacey Boulevard

10/31/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	390	73	94	390	43	35	47	67	44	65	12
Future Volume (veh/h)	20	390	73	94	390	43	35	47	67	44	65	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	22	424	79	102	424	47	38	51	73	48	71	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	44	615	274	133	791	353	67	299	428	93	832	705
Arrive On Green	0.02	0.17	0.17	0.08	0.22	0.22	0.04	0.43	0.43	0.05	0.45	0.45
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	690	988	1767	1856	1572
Grp Volume(v), veh/h	22	424	79	102	424	47	38	0	124	48	71	13
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	0	1678	1767	1856	1572
Q Serve(g_s), s	0.8	7.7	3.0	3.9	7.2	1.2	1.4	0.0	3.1	1.8	1.5	0.3
Cycle Q Clear(g_c), s	0.8	7.7	3.0	3.9	7.2	1.2	1.4	0.0	3.1	1.8	1.5	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.59	1.00		1.00
Lane Grp Cap(c), veh/h	44	615	274	133	791	353	67	0	727	93	832	705
V/C Ratio(X)	0.50	0.69	0.29	0.77	0.54	0.13	0.57	0.00	0.17	0.52	0.09	0.02
Avail Cap(c_a), veh/h	169	1062	474	351	1425	636	195	0	727	221	832	705
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.7	26.4	24.4	30.9	23.3	12.2	32.2	0.0	11.8	31.4	10.8	10.4
Incr Delay (d2), s/veh	8.4	1.4	0.6	9.0	0.6	0.2	7.5	0.0	0.5	4.4	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	3.1	1.1	1.9	2.8	0.6	0.7	0.0	1.1	0.9	0.6	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.2	27.7	25.0	39.9	23.8	12.4	39.7	0.0	12.3	35.8	11.0	10.5
LnGrp LOS	D	C	C	D	C	B	D	A	B	D	B	B
Approach Vol, veh/h	525			573			162			132		
Approach Delay, s/veh	27.9			25.7			18.7			20.0		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.1	34.0	9.6	16.4	7.1	35.0	6.2	19.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.5	29.5	13.5	20.5	7.5	30.5	6.5	27.5				
Max Q Clear Time (g_c+I1), s	3.8	5.1	5.9	9.7	3.4	3.5	2.8	9.2				
Green Ext Time (p_c), s	0.0	0.7	0.1	2.2	0.0	0.4	0.0	2.7				
Intersection Summary												
HCM 6th Ctrl Delay	25.2											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary

7: 11th Avenue & Lacey Boulevard

10/31/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	176	110	42	226	42	259	451	50	61	516	131
Future Volume (veh/h)	83	176	110	42	226	42	259	451	50	61	516	131
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	92	196	122	47	251	47	288	501	56	68	573	146
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	212	541	242	77	403	74	400	1516	169	96	1451	647
Arrive On Green	0.06	0.15	0.15	0.04	0.14	0.14	0.12	0.47	0.47	0.05	0.41	0.41
Sat Flow, veh/h	3428	3526	1572	1767	2972	548	3428	3198	356	1767	3526	1572
Grp Volume(v), veh/h	92	196	122	47	147	151	288	275	282	68	573	146
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	1767	1763	1757	1714	1763	1791	1767	1763	1572
Q Serve(g_s), s	1.7	3.3	3.3	1.7	5.2	5.3	5.3	6.4	6.4	2.5	7.5	4.0
Cycle Q Clear(g_c), s	1.7	3.3	3.3	1.7	5.2	5.3	5.3	6.4	6.4	2.5	7.5	4.0
Prop In Lane	1.00		1.00	1.00		0.31	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	212	541	242	77	239	238	400	836	849	96	1451	647
V/C Ratio(X)	0.43	0.36	0.51	0.61	0.62	0.63	0.72	0.33	0.33	0.71	0.39	0.23
Avail Cap(c_a), veh/h	287	1440	642	180	752	750	601	836	849	245	1451	647
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.7	24.9	12.5	30.8	26.8	26.8	27.9	10.8	10.8	30.5	13.6	12.5
Incr Delay (d2), s/veh	1.4	0.4	1.6	7.4	2.6	2.8	2.4	1.1	1.0	9.3	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.3	1.7	0.9	2.2	2.3	2.2	2.4	2.4	1.2	2.8	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.1	25.3	14.1	38.2	29.3	29.6	30.4	11.8	11.8	39.8	14.4	13.3
LnGrp LOS	C	C	B	D	C	C	C	B	B	D	B	B
Approach Vol, veh/h	410			345			845			787		
Approach Delay, s/veh	23.3			30.7			18.1			16.4		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.1	35.6	7.4	14.6	12.2	31.5	8.6	13.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.1	29.4	6.7	26.8	11.5	27.0	5.5	28.0				
Max Q Clear Time (g_c+I1), s	4.5	8.4	3.7	5.3	7.3	9.5	3.7	7.3				
Green Ext Time (p_c), s	0.0	3.2	0.0	1.5	0.4	4.0	0.0	1.6				
Intersection Summary												
HCM 6th Ctrl Delay	20.3											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary

8: 11th Avenue & 7th Street

10/31/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	98	66	73	114	48	154	450	98	71	339	64
Future Volume (veh/h)	37	98	66	73	114	48	154	450	98	71	339	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	42	111	75	83	130	55	175	511	111	81	385	73
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	142	212	133	109	299	121	221	1709	762	107	1483	661
Arrive On Green	0.04	0.10	0.10	0.06	0.12	0.12	0.12	0.48	0.48	0.06	0.42	0.42
Sat Flow, veh/h	3428	2078	1305	1767	2450	990	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	42	93	93	83	92	93	175	511	111	81	385	73
Grp Sat Flow(s),veh/h/ln	1714	1763	1621	1767	1763	1677	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	0.7	3.1	3.4	2.9	3.0	3.2	5.9	5.4	1.4	2.8	4.4	1.7
Cycle Q Clear(g_c), s	0.7	3.1	3.4	2.9	3.0	3.2	5.9	5.4	1.4	2.8	4.4	1.7
Prop In Lane	1.00		0.81	1.00		0.59	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	142	180	165	109	215	204	221	1709	762	107	1483	661
V/C Ratio(X)	0.29	0.52	0.56	0.76	0.43	0.46	0.79	0.30	0.15	0.75	0.26	0.11
Avail Cap(c_a), veh/h	277	741	681	214	813	773	357	1709	762	280	1483	661
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.8	26.3	26.4	28.6	25.1	25.2	26.3	9.6	3.2	28.6	11.7	10.9
Incr Delay (d2), s/veh	1.1	2.3	3.0	10.6	1.3	1.6	6.3	0.4	0.4	10.2	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.3	1.4	1.5	1.3	1.3	2.7	1.8	0.8	1.4	1.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.9	28.6	29.4	39.2	26.5	26.8	32.6	10.1	3.6	38.8	12.1	11.2
LnGrp LOS	C	C	C	D	C	C	C	B	A	D	B	B
Approach Vol, veh/h	228			268			797			539		
Approach Delay, s/veh	29.2			30.5			14.1			16.0		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.3	34.5	8.3	10.8	12.2	30.5	7.1	12.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.8	28.7	7.5	26.0	12.5	26.0	5.0	28.5				
Max Q Clear Time (g_c+I1), s	4.8	7.4	4.9	5.4	7.9	6.4	2.7	5.2				
Green Ext Time (p_c), s	0.1	3.7	0.0	0.9	0.2	2.6	0.0	1.1				
Intersection Summary												
HCM 6th Ctrl Delay	18.9											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary

10: 11th Avenue & 5th Street

10/31/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	0	60	4	0	5	166	897	23	1	503	94
Future Volume (veh/h)	39	0	60	4	0	5	166	897	23	1	503	94
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	45	0	70	5	0	6	193	1043	27	1	585	109
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	233	0	115	103	22	50	246	2493	65	3	2018	900
Arrive On Green	0.07	0.00	0.07	0.07	0.00	0.07	0.14	0.71	0.71	0.00	0.57	0.57
Sat Flow, veh/h	1399	0	1572	269	302	686	1767	3511	91	1767	3526	1572
Grp Volume(v), veh/h	45	0	70	11	0	0	193	524	546	1	585	109
Grp Sat Flow(s),veh/h/ln	1399	0	1572	1257	0	0	1767	1763	1839	1767	1763	1572
Q Serve(g_s), s	0.0	0.0	2.7	0.0	0.0	0.0	6.6	7.7	7.7	0.0	5.3	2.0
Cycle Q Clear(g_c), s	1.5	0.0	2.7	2.7	0.0	0.0	6.6	7.7	7.7	0.0	5.3	2.0
Prop In Lane	1.00		1.00	0.45		0.55	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	233	0	115	175	0	0	246	1252	1306	3	2018	900
V/C Ratio(X)	0.19	0.00	0.61	0.06	0.00	0.00	0.79	0.42	0.42	0.35	0.29	0.12
Avail Cap(c_a), veh/h	722	0	665	681	0	0	606	1252	1306	155	2018	900
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.6	0.0	28.2	27.1	0.0	0.0	26.1	3.7	3.7	31.3	6.9	6.2
Incr Delay (d2), s/veh	0.4	0.0	5.1	0.1	0.0	0.0	5.5	1.0	1.0	62.4	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	1.1	0.2	0.0	0.0	3.0	2.0	2.0	0.1	1.7	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.0	0.0	33.3	27.2	0.0	0.0	31.5	4.8	4.7	93.6	7.2	6.4
LnGrp LOS	C	A	C	C	A	A	C	A	A	F	A	A
Approach Vol, veh/h	115			11			1263			695		
Approach Delay, s/veh	31.2			27.2			8.8			7.2		
Approach LOS	C			C			A			A		
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	4.6	49.0	9.1		13.2	40.4	9.1					
Change Period (Y+Rc), s	4.5	4.5	4.5		4.5	4.5	4.5					
Max Green Setting (Gmax), s	5.5	44.5	26.5		21.5	28.5	26.5					
Max Q Clear Time (g_c+I1), s	2.0	9.7	4.7		8.6	7.3	4.7					
Green Ext Time (p_c), s	0.0	8.7	0.5		0.4	4.4	0.0					
Intersection Summary												
HCM 6th Ctrl Delay	9.6											
HCM 6th LOS	A											

HCM 6th Signalized Intersection Summary 11: 11th Avenue & SR 198 WB On Ramp/4th Street

10/31/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	118	16	335	52	759	0	0	434	163
Future Volume (veh/h)	0	0	0	118	16	335	52	759	0	0	434	163
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1856	1856	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				137	19	390	60	883	0	0	505	190
Peak Hour Factor				0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				507	533	451	86	2074	0	0	1684	751
Arrive On Green				0.29	0.29	0.29	0.05	0.59	0.00	0.00	0.48	0.48
Sat Flow, veh/h				1767	1856	1572	1767	3618	0	0	3618	1572
Grp Volume(v), veh/h				137	19	390	60	883	0	0	505	190
Grp Sat Flow(s),veh/h/ln				1767	1856	1572	1767	1763	0	0	1763	1572
Q Serve(g_s), s				4.3	0.5	17.0	2.4	9.9	0.0	0.0	6.3	5.2
Cycle Q Clear(g_c), s				4.3	0.5	17.0	2.4	9.9	0.0	0.0	6.3	5.2
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				507	533	451	86	2074	0	0	1684	751
V/C Ratio(X)				0.27	0.04	0.86	0.70	0.43	0.00	0.00	0.30	0.25
Avail Cap(c_a), veh/h				942	989	838	257	2074	0	0	1684	751
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				19.9	18.5	24.4	33.9	8.2	0.0	0.0	11.5	11.2
Incr Delay (d2), s/veh				0.3	0.0	5.1	9.9	0.6	0.0	0.0	0.5	0.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.6	0.2	6.2	1.2	3.3	0.0	0.0	2.3	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				20.2	18.6	29.5	43.8	8.8	0.0	0.0	12.0	12.0
LnGrp LOS				C	B	C	D	A	A	A	B	B
Approach Vol, veh/h					546			943			695	
Approach Delay, s/veh					26.8			11.0			12.0	
Approach LOS					C			B			B	
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	47.0			8.0			39.0			25.2		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	42.5			10.5			27.5			38.5		
Max Q Clear Time (g_c+I1), s	11.9			4.4			8.3			19.0		
Green Ext Time (p_c), s	7.3			0.0			3.8			1.7		
Intersection Summary												
HCM 6th Ctrl Delay	15.3											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary 12: 11th Avenue & SR 198 EB Off Ramp/3rd Street

10/31/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	241	140	85	0	0	0	0	572	134	126	429	0
Future Volume (veh/h)	241	140	85	0	0	0	0	572	134	126	429	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	301	175	106				0	715	168	158	536	0
Peak Hour Factor	0.80	0.80	0.80				0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3				0	3	3	3	3	0
Cap, veh/h	348	202	481				0	1459	651	196	2049	0
Arrive On Green	0.31	0.31	0.31				0.00	0.41	0.41	0.11	0.58	0.00
Sat Flow, veh/h	1137	661	1572				0	3618	1572	1767	3618	0
Grp Volume(v), veh/h	476	0	106				0	715	168	158	536	0
Grp Sat Flow(s),veh/h/ln	1799	0	1572				0	1763	1572	1767	1763	0
Q Serve(g_s), s	20.0	0.0	4.0				0.0	11.9	5.6	7.0	6.0	0.0
Cycle Q Clear(g_c), s	20.0	0.0	4.0				0.0	11.9	5.6	7.0	6.0	0.0
Prop In Lane	0.63		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	551	0	481				0	1459	651	196	2049	0
V/C Ratio(X)	0.86	0.00	0.22				0.00	0.49	0.26	0.80	0.26	0.00
Avail Cap(c_a), veh/h	776	0	678				0	1459	651	320	2049	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.2	0.0	20.6				0.0	17.2	15.4	34.7	8.3	0.0
Incr Delay (d2), s/veh	7.3	0.0	0.2				0.0	1.2	1.0	7.5	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.8	0.0	1.4				0.0	4.6	2.0	3.3	2.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.5	0.0	20.9				0.0	18.4	16.3	42.2	8.6	0.0
LnGrp LOS	C	A	C				A	B	B	D	A	A
Approach Vol, veh/h	582						883			694		
Approach Delay, s/veh	31.2						18.0			16.2		
Approach LOS	C						B			B		
Timer - Assigned Phs	1	2		4			6					
Phs Duration (G+Y+Rc), s	13.4	37.6		29.0			51.0					
Change Period (Y+Rc), s	4.5	4.5		4.5			4.5					
Max Green Setting (Gmax), s	14.5	27.5		34.5			46.5					
Max Q Clear Time (g_c+I1), s	9.0	13.9		22.0			8.0					
Green Ext Time (p_c), s	0.2	4.4		2.5			4.1					
Intersection Summary												
HCM 6th Ctrl Delay	21.0											
HCM 6th LOS	C											

HCM 6th AWSC
5: Campus Dr/Campus Drive & 7th Street

10/31/2020

Intersection	
Intersection Delay, s/veh	11.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	82	117	39	41	144	31	31	91	23	22	124	33
Future Vol, veh/h	82	117	39	41	144	31	31	91	23	22	124	33
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	104	148	49	52	182	39	39	115	29	28	157	42
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	11.6	12.2	11.6	12.3
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	21%	100%	0%	100%	0%	12%
Vol Thru, %	63%	0%	75%	0%	82%	69%
Vol Right, %	16%	0%	25%	0%	18%	18%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	145	82	156	41	175	179
LT Vol	31	82	0	41	0	22
Through Vol	91	0	117	0	144	124
RT Vol	23	0	39	0	31	33
Lane Flow Rate	184	104	197	52	222	227
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.304	0.194	0.332	0.098	0.378	0.367
Departure Headway (Hd)	5.954	6.735	6.048	6.774	6.139	5.832
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	600	531	592	527	583	614
Service Time	4.025	4.499	3.811	4.539	3.904	3.9
HCM Lane V/C Ratio	0.307	0.196	0.333	0.099	0.381	0.37
HCM Control Delay	11.6	11.1	11.8	10.3	12.6	12.3
HCM Lane LOS	B	B	B	B	B	B
HCM 95th-tile Q	1.3	0.7	1.4	0.3	1.8	1.7

HCM 6th TWSC
1: 12th Avenue & Glendale Avenue

10/31/2020

Intersection												
Int Delay, s/veh	16.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗		↑↑↑		↗↑↑↑		
Traffic Vol, veh/h	0	0	165	0	0	243	0	1702	94	49	1890	161
Future Vol, veh/h	0	0	165	0	0	243	0	1702	94	49	1890	161
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	125	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	179	0	0	264	0	1850	102	53	2054	175

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	-	-	1115	-	-	976	-	0
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.16	-	-	7.16	-	5.36
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.93	-	-	3.93	-	3.13
Pot Cap-1 Maneuver	0	0	~ 172	0	0	~ 214	0	131
Stage 1	0	0	-	0	0	-	0	-
Stage 2	0	0	-	0	0	-	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	~ 172	-	-	~ 214	-	131
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	135.1	184.6	0	1.2
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	172 214	131	-	-
HCM Lane V/C Ratio	-	-	1.043 1.234	0.407	-	-
HCM Control Delay (s)	-	-	135.1 184.6	50.1	-	-
HCM Lane LOS	-	-	F F	F	-	-
HCM 95th %tile Q(veh)	-	-	8.7 13.6	1.7	-	-

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection												
Int Delay, s/veh	3.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	12	8	0	0	4	69	0	146	0	61	79	14
Future Vol, veh/h	12	8	0	0	4	69	0	146	0	61	79	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	15	10	0	0	5	88	0	187	0	78	101	18

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	500	453	110	458	462	187	119	0	0	187	0	0
Stage 1	266	266	-	187	187	-	-	-	-	-	-	-
Stage 2	234	187	-	271	275	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	480	501	941	511	495	852	1463	-	-	1381	-	-
Stage 1	737	687	-	812	743	-	-	-	-	-	-	-
Stage 2	767	743	-	733	681	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	407	470	941	479	465	852	1463	-	-	1381	-	-
Mov Cap-2 Maneuver	407	470	-	479	465	-	-	-	-	-	-	-
Stage 1	737	645	-	812	743	-	-	-	-	-	-	-
Stage 2	683	743	-	677	639	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	13.9		10		0		3.1	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1463	-	-	430 815	1381	-	-
HCM Lane V/C Ratio	-	-	-	0.06 0.115	0.057	-	-
HCM Control Delay (s)	0	-	-	13.9 10	7.8	0	-
HCM Lane LOS	A	-	-	B B	A A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2 0.4	0.2	-	-

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↗	↗↖		↗	↗↖	
Traffic Vol, veh/h	0	0	68	0	0	161	98	1070	105	107	1112	8
Future Vol, veh/h	0	0	68	0	0	161	98	1070	105	107	1112	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	75	-	-	125	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	70	0	0	166	101	1103	108	110	1146	8
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	577	-	-	606	1154	0	0	1211	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.96	-	-	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.33	-	-	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	0	0	457	0	0	438	595	-	-	566	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	457	-	-	438	595	-	-	566	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	14.3		18.1		0.9		1.1					
HCM LOS	B		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	595	-	-	457	438	566	-	-				
HCM Lane V/C Ratio	0.17	-	-	0.153	0.379	0.195	-	-				
HCM Control Delay (s)	12.3	-	-	14.3	18.1	12.9	-	-				
HCM Lane LOS	B	-	-	B	C	B	-	-				
HCM 95th %tile Q(veh)	0.6	-	-	0.5	1.7	0.7	-	-				

HCM 6th Signalized Intersection Summary

2: SR 198 WB Ramps & 12th Avenue

10/31/2020

										
Movement	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations	 			 			 			
Traffic Volume (veh/h)	143	553	46	1247	0	0	1331	729	0	0
Future Volume (veh/h)	143	553	46	1247	0	0	1331	729	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No			No			
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	0	0	1856	1856		
Adj Flow Rate, veh/h	155	601	50	1355	0	0	1447	792		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	3	3	3	3	0	0	3	3		
Cap, veh/h	393	699	71	2376	0	0	2051	915		
Arrive On Green	0.22	0.22	0.04	0.67	0.00	0.00	0.58	0.58		
Sat Flow, veh/h	1767	3145	1767	3618	0	0	3618	1572		
Grp Volume(v), veh/h	155	601	50	1355	0	0	1447	792		
Grp Sat Flow(s),veh/h/ln	1767	1572	1767	1763	0	0	1763	1572		
Q Serve(g_s), s	6.5	15.9	2.4	17.7	0.0	0.0	25.3	36.8		
Cycle Q Clear(g_c), s	6.5	15.9	2.4	17.7	0.0	0.0	25.3	36.8		
Prop In Lane	1.00	1.00	1.00		0.00	0.00		1.00		
Lane Grp Cap(c), veh/h	393	699	71	2376	0	0	2051	915		
V/C Ratio(X)	0.39	0.86	0.70	0.57	0.00	0.00	0.71	0.87		
Avail Cap(c_a), veh/h	458	815	112	2376	0	0	2051	915		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	28.8	32.4	41.1	7.5	0.0	0.0	12.9	15.3		
Incr Delay (d2), s/veh	0.6	8.2	11.8	1.0	0.0	0.0	2.1	10.8		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	2.6	6.4	1.3	5.3	0.0	0.0	8.9	13.5		
Unsig. Movement Delay, s/veh										
LnGrp Delay(d),s/veh	29.4	40.6	52.9	8.5	0.0	0.0	14.9	26.1		
LnGrp LOS	C	D	D	A	A	A	B	C		
Approach Vol, veh/h	756			1405			2239			
Approach Delay, s/veh	38.3			10.1			18.9			
Approach LOS	D			B			B			
Timer - Assigned Phs	2		5		6	8				
Phs Duration (G+Y+Rc), s	63.0		8.0		55.0	23.8				
Change Period (Y+Rc), s	4.5		4.5		4.5	4.5				
Max Green Setting (Gmax), s	58.5		5.5		48.5	22.5				
Max Q Clear Time (g_c+l1), s	19.7		4.4		38.8	17.9				
Green Ext Time (p_c), s	12.9		0.0		7.7	1.4				
Intersection Summary										
HCM 6th Ctrl Delay			19.4							
HCM 6th LOS			B							
Notes										

HCM 6th Signalized Intersection Summary

3: 12th Avenue & SR 198 EB Off Ramps

10/31/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	610	0	49	0	0	0	0	673	143	0	905	578
Future Volume (veh/h)	610	0	49	0	0	0	0	673	143	0	905	578
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1856	0	1856				0	1856	1856	0	1856	1856
Adj Flow Rate, veh/h	656	0	53				0	724	0	0	973	0
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	0	3				0	3	3	0	3	3
Cap, veh/h	808	0	371				0	2287		0	2287	
Arrive On Green	0.24	0.00	0.24				0.00	0.65	0.00	0.00	0.65	0.00
Sat Flow, veh/h	3428	0	1572				0	3618	1572	0	3618	1572
Grp Volume(v), veh/h	656	0	53				0	724	0	0	973	0
Grp Sat Flow(s),veh/h/ln	1714	0	1572				0	1763	1572	0	1763	1572
Q Serve(g_s), s	14.1	0.0	2.1				0.0	7.1	0.0	0.0	10.4	0.0
Cycle Q Clear(g_c), s	14.1	0.0	2.1				0.0	7.1	0.0	0.0	10.4	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	808	0	371				0	2287		0	2287	
V/C Ratio(X)	0.81	0.00	0.14				0.00	0.32		0.00	0.43	
Avail Cap(c_a), veh/h	1343	0	616				0	2287		0	2287	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	28.1	0.0	23.5				0.0	6.0	0.0	0.0	6.6	0.0
Incr Delay (d2), s/veh	2.0	0.0	0.2				0.0	0.4	0.0	0.0	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	0.0	0.7				0.0	2.0	0.0	0.0	3.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.1	0.0	23.7				0.0	6.4	0.0	0.0	7.2	0.0
LnGrp LOS	C	A	C				A	A		A	A	
Approach Vol, veh/h	709						724			973		
Approach Delay, s/veh	29.7						6.4			7.2		
Approach LOS	C						A			A		
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	55.0			22.9			55.0					
Change Period (Y+Rc), s	4.5			4.5			4.5					
Max Green Setting (Gmax), s	50.5			30.5			50.5					
Max Q Clear Time (g_c+I1), s	9.1			16.1			12.4					
Green Ext Time (p_c), s	5.4			2.3			7.9					
Intersection Summary												
HCM 6th Ctrl Delay	13.6											
HCM 6th LOS	B											
Notes												

HCM 6th Signalized Intersection Summary

4: Campus Drive & Lacey Boulevard

10/31/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	740	59	78	820	43	84	68	166	100	86	34
Future Volume (veh/h)	30	740	59	78	820	43	84	68	166	100	86	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	34	851	68	90	943	49	97	78	191	115	99	39
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	59	1045	466	116	1158	517	125	155	380	147	627	531
Arrive On Green	0.03	0.30	0.30	0.07	0.33	0.33	0.07	0.33	0.33	0.08	0.34	0.34
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	477	1168	1767	1856	1572
Grp Volume(v), veh/h	34	851	68	90	943	49	97	0	269	115	99	39
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	0	1645	1767	1856	1572
Q Serve(g_s), s	1.5	17.5	2.5	3.9	19.2	1.7	4.2	0.0	10.3	5.0	2.9	1.3
Cycle Q Clear(g_c), s	1.5	17.5	2.5	3.9	19.2	1.7	4.2	0.0	10.3	5.0	2.9	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.71	1.00		1.00
Lane Grp Cap(c), veh/h	59	1045	466	116	1158	517	125	0	535	147	627	531
V/C Ratio(X)	0.58	0.81	0.15	0.78	0.81	0.09	0.78	0.00	0.50	0.78	0.16	0.07
Avail Cap(c_a), veh/h	113	1237	552	192	1395	622	237	0	535	237	627	531
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.3	25.6	20.3	36.1	24.1	18.2	35.8	0.0	21.3	35.2	18.1	17.6
Incr Delay (d2), s/veh	8.6	3.7	0.1	10.7	3.2	0.1	9.9	0.0	3.3	8.9	0.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	7.4	0.9	2.0	7.9	0.6	2.1	0.0	4.3	2.5	1.3	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.9	29.3	20.4	46.7	27.3	18.3	45.7	0.0	24.7	44.1	18.7	17.9
LnGrp LOS	D	C	C	D	C	B	D	A	C	D	B	B
Approach Vol, veh/h	953			1082			366			253		
Approach Delay, s/veh	29.2			28.5			30.2			30.1		
Approach LOS	C			C			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.0	30.0	9.6	27.7	10.0	31.0	7.1	30.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.5	25.5	8.5	27.5	10.5	25.5	5.0	31.0				
Max Q Clear Time (g_c+I1), s	7.0	12.3	5.9	19.5	6.2	4.9	3.5	21.2				
Green Ext Time (p_c), s	0.1	1.3	0.0	3.6	0.1	0.6	0.0	4.5				
Intersection Summary												
HCM 6th Ctrl Delay	29.2											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary

7: 11th Avenue & Lacey Boulevard

10/31/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	253	292	213	110	317	85	306	680	57	92	578	105
Future Volume (veh/h)	253	292	213	110	317	85	306	680	57	92	578	105
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	278	321	234	121	348	93	336	747	63	101	635	115
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	361	701	313	154	498	131	420	1322	111	129	1243	554
Arrive On Green	0.11	0.20	0.20	0.09	0.18	0.18	0.12	0.40	0.40	0.07	0.35	0.35
Sat Flow, veh/h	3428	3526	1572	1767	2760	728	3428	3291	277	1767	3526	1572
Grp Volume(v), veh/h	278	321	234	121	221	220	336	400	410	101	635	115
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	1767	1763	1725	1714	1763	1806	1767	1763	1572
Q Serve(g_s), s	5.9	6.0	10.5	5.0	8.8	9.0	7.2	13.2	13.2	4.2	10.7	2.5
Cycle Q Clear(g_c), s	5.9	6.0	10.5	5.0	8.8	9.0	7.2	13.2	13.2	4.2	10.7	2.5
Prop In Lane	1.00		1.00	1.00		0.42	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	361	701	313	154	318	311	420	708	725	129	1243	554
V/C Ratio(X)	0.77	0.46	0.75	0.79	0.69	0.71	0.80	0.56	0.57	0.78	0.51	0.21
Avail Cap(c_a), veh/h	365	1252	558	219	656	642	433	708	725	200	1243	554
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.7	26.6	28.4	33.6	28.9	29.0	32.1	17.4	17.4	34.2	19.2	7.2
Incr Delay (d2), s/veh	9.6	0.5	3.6	11.6	2.7	3.0	10.0	3.2	3.2	10.1	1.5	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	2.5	4.1	2.6	3.8	3.8	3.4	5.5	5.6	2.1	4.3	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.3	27.0	31.9	45.3	31.6	31.9	42.1	20.7	20.6	44.3	20.7	8.1
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	C	A
Approach Vol, veh/h	833			562			1146			851		
Approach Delay, s/veh	33.5			34.7			26.9			21.8		
Approach LOS	C			C			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	34.7	11.0	19.4	13.7	31.0	12.4	18.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.5	27.5	9.3	26.7	9.5	26.5	8.0	28.0				
Max Q Clear Time (g_c+I1), s	6.2	15.2	7.0	12.5	9.2	12.7	7.9	11.0				
Green Ext Time (p_c), s	0.0	4.0	0.1	2.4	0.0	3.9	0.0	2.3				
Intersection Summary												
HCM 6th Ctrl Delay	28.5											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary

8: 11th Avenue & 7th Street

10/31/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	200	219	163	175	109	167	631	115	111	578	52
Future Volume (veh/h)	67	200	219	163	175	109	167	631	115	111	578	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	74	220	241	179	192	120	184	693	126	122	635	57
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	175	351	313	216	574	342	221	1274	568	154	1140	509
Arrive On Green	0.05	0.20	0.20	0.12	0.27	0.27	0.13	0.36	0.36	0.09	0.32	0.32
Sat Flow, veh/h	3428	1763	1572	1767	2125	1266	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	74	220	241	179	158	154	184	693	126	122	635	57
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	1767	1763	1628	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	1.6	8.9	11.3	7.7	5.6	6.0	8.0	12.2	2.7	5.3	11.6	2.0
Cycle Q Clear(g_c), s	1.6	8.9	11.3	7.7	5.6	6.0	8.0	12.2	2.7	5.3	11.6	2.0
Prop In Lane	1.00		1.00	1.00		0.78	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	175	351	313	216	476	440	221	1274	568	154	1140	509
V/C Ratio(X)	0.42	0.63	0.77	0.83	0.33	0.35	0.83	0.54	0.22	0.79	0.56	0.11
Avail Cap(c_a), veh/h	232	586	523	230	696	643	237	1274	568	212	1140	509
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.0	28.7	29.6	33.5	22.9	23.0	33.4	19.9	6.9	35.0	21.8	18.6
Incr Delay (d2), s/veh	1.6	1.8	4.0	20.7	0.4	0.5	20.5	1.7	0.9	12.9	2.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.8	4.4	4.5	2.3	2.3	4.5	4.9	1.6	2.7	4.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.6	30.5	33.6	54.2	23.3	23.5	53.9	21.5	7.8	47.9	23.8	19.0
LnGrp LOS	D	C	C	D	C	C	D	C	A	D	C	B
Approach Vol, veh/h	535			491			1003			814		
Approach Delay, s/veh	32.9			34.6			25.7			27.1		
Approach LOS	C			C			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.3	32.8	14.1	20.1	14.3	29.8	8.5	25.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.4	26.4	10.2	26.0	10.5	25.3	5.3	30.9				
Max Q Clear Time (g_c+I1), s	7.3	14.2	9.7	13.3	10.0	13.6	3.6	8.0				
Green Ext Time (p_c), s	0.1	4.0	0.0	2.2	0.0	3.4	0.0	1.9				
Intersection Summary												
HCM 6th Ctrl Delay	29.0											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary 10: 11th Avenue & 5th Street

10/31/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	186	0	188	10	0	10	239	1071	3	8	1013	148
Future Volume (veh/h)	186	0	188	10	0	10	239	1071	3	8	1013	148
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	192	0	194	10	0	10	246	1104	3	8	1044	153
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	344	0	311	130	23	80	292	2204	6	18	1607	717
Arrive On Green	0.20	0.00	0.20	0.20	0.00	0.20	0.17	0.61	0.61	0.01	0.46	0.46
Sat Flow, veh/h	1394	0	1572	289	115	404	1767	3607	10	1767	3526	1572
Grp Volume(v), veh/h	192	0	194	20	0	0	246	540	567	8	1044	153
Grp Sat Flow(s),veh/h/ln	1394	0	1572	807	0	0	1767	1763	1854	1767	1763	1572
Q Serve(g_s), s	2.8	0.0	8.4	0.1	0.0	0.0	10.1	12.8	12.8	0.3	17.0	4.4
Cycle Q Clear(g_c), s	11.3	0.0	8.4	8.5	0.0	0.0	10.1	12.8	12.8	0.3	17.0	4.4
Prop In Lane	1.00		1.00	0.50		0.50	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	344	0	311	232	0	0	292	1077	1133	18	1607	717
V/C Ratio(X)	0.56	0.00	0.62	0.09	0.00	0.00	0.84	0.50	0.50	0.44	0.65	0.21
Avail Cap(c_a), veh/h	556	0	549	436	0	0	415	1077	1133	119	1607	717
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.7	0.0	27.4	24.5	0.0	0.0	30.1	8.1	8.1	36.6	15.7	12.2
Incr Delay (d2), s/veh	1.4	0.0	2.1	0.2	0.0	0.0	10.3	1.7	1.6	16.0	2.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.0	3.2	0.3	0.0	0.0	4.9	4.5	4.7	0.2	6.7	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.1	0.0	29.4	24.7	0.0	0.0	40.5	9.8	9.7	52.7	17.7	12.9
LnGrp LOS	C	A	C	C	A	A	D	A	A	D	B	B
Approach Vol, veh/h	386			20			1353			1205		
Approach Delay, s/veh	29.8			24.7			15.3			17.3		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	5.3	50.0	19.2		16.8	38.4	19.2					
Change Period (Y+Rc), s	4.5	4.5	4.5		4.5	4.5	4.5					
Max Green Setting (Gmax), s	5.0	45.5	26.0		17.5	33.0	26.0					
Max Q Clear Time (g_c+I1), s	2.3	14.8	13.3		12.1	19.0	10.5					
Green Ext Time (p_c), s	0.0	8.8	1.5		0.3	6.8	0.0					
Intersection Summary												
HCM 6th Ctrl Delay	18.1											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary

11: 11th Avenue & SR 198 WB On Ramp/4th Street

10/31/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰	↱	↰	↰	↱			↱	↰
Traffic Volume (veh/h)	0	0	0	218	35	261	91	1045	0	0	1019	277
Future Volume (veh/h)	0	0	0	218	35	261	91	1045	0	0	1019	277
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1856	1856	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				229	37	275	96	1100	0	0	1073	292
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				377	396	336	123	2357	0	0	1902	849
Arrive On Green				0.21	0.21	0.21	0.07	0.67	0.00	0.00	0.54	0.54
Sat Flow, veh/h				1767	1856	1572	1767	3618	0	0	3618	1572
Grp Volume(v), veh/h				229	37	275	96	1100	0	0	1073	292
Grp Sat Flow(s),veh/h/ln				1767	1856	1572	1767	1763	0	0	1763	1572
Q Serve(g_s), s				8.9	1.2	12.7	4.1	11.5	0.0	0.0	15.4	8.0
Cycle Q Clear(g_c), s				8.9	1.2	12.7	4.1	11.5	0.0	0.0	15.4	8.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				377	396	336	123	2357	0	0	1902	849
V/C Ratio(X)				0.61	0.09	0.82	0.78	0.47	0.00	0.00	0.56	0.34
Avail Cap(c_a), veh/h				695	730	618	220	2357	0	0	1902	849
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				27.1	24.1	28.6	34.9	6.1	0.0	0.0	11.6	9.9
Incr Delay (d2), s/veh				1.6	0.1	4.9	10.0	0.7	0.0	0.0	1.2	1.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.6	0.5	4.8	2.0	3.5	0.0	0.0	5.5	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				28.7	24.2	33.5	44.9	6.8	0.0	0.0	12.8	11.0
LnGrp LOS				C	C	C	D	A	A	A	B	B
Approach Vol, veh/h					541			1196			1365	
Approach Delay, s/veh					30.8			9.8			12.5	
Approach LOS					C			A			B	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		55.5			9.8	45.7		20.8				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		51.0			9.5	37.0		30.0				
Max Q Clear Time (g_c+I1), s		13.5			6.1	17.4		14.7				
Green Ext Time (p_c), s		10.3			0.1	8.7		1.6				
Intersection Summary												
HCM 6th Ctrl Delay				14.6								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary 12: 11th Avenue & SR 198 EB Off Ramp/3rd Street

10/31/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	369	79	75	0	0	0	0	768	203	403	839	0
Future Volume (veh/h)	369	79	75	0	0	0	0	768	203	403	839	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	384	82	78				0	800	211	420	874	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3				0	3	3	3	3	0
Cap, veh/h	421	90	451				0	1062	474	456	2153	0
Arrive On Green	0.29	0.29	0.29				0.00	0.30	0.30	0.26	0.61	0.00
Sat Flow, veh/h	1469	314	1572				0	3618	1572	1767	3618	0
Grp Volume(v), veh/h	466	0	78				0	800	211	420	874	0
Grp Sat Flow(s),veh/h/ln	1782	0	1572				0	1763	1572	1767	1763	0
Q Serve(g_s), s	22.1	0.0	3.3				0.0	18.0	9.5	20.3	11.2	0.0
Cycle Q Clear(g_c), s	22.1	0.0	3.3				0.0	18.0	9.5	20.3	11.2	0.0
Prop In Lane	0.82		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	511	0	451				0	1062	474	456	2153	0
V/C Ratio(X)	0.91	0.00	0.17				0.00	0.75	0.45	0.92	0.41	0.00
Avail Cap(c_a), veh/h	559	0	494				0	1062	474	494	2153	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.2	0.0	23.5				0.0	27.7	24.7	31.6	8.8	0.0
Incr Delay (d2), s/veh	18.5	0.0	0.2				0.0	5.0	3.0	21.8	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.3	0.0	1.2				0.0	7.8	3.7	11.1	4.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.7	0.0	23.6				0.0	32.6	27.7	53.4	9.4	0.0
LnGrp LOS	D	A	C				A	C	C	D	A	A
Approach Vol, veh/h	544						1011			1294		
Approach Delay, s/veh	45.1						31.6			23.7		
Approach LOS	D						C			C		
Timer - Assigned Phs	1	2		4			6					
Phs Duration (G+Y+Rc), s	27.1	30.9		29.6			58.0					
Change Period (Y+Rc), s	4.5	4.5		4.5			4.5					
Max Green Setting (Gmax), s	24.5	24.5		27.5			53.5					
Max Q Clear Time (g_c+I1), s	22.3	20.0		24.1			13.2					
Green Ext Time (p_c), s	0.3	2.3		1.0			7.6					
Intersection Summary												
HCM 6th Ctrl Delay	30.6											
HCM 6th LOS	C											

HCM 6th AWSC
5: Campus Dr/Campus Drive & 7th Street

10/31/2020

Intersection	
Intersection Delay, s/veh	23.7
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	70	265	39	22	337	40	62	143	28	88	81	87
Future Vol, veh/h	70	265	39	22	337	40	62	143	28	88	81	87
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	73	276	41	23	351	42	65	149	29	92	84	91
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	21.2	32.3	18.3	19
HCM LOS	C	D	C	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	27%	100%	0%	100%	0%	34%
Vol Thru, %	61%	0%	87%	0%	89%	32%
Vol Right, %	12%	0%	13%	0%	11%	34%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	233	70	304	22	377	256
LT Vol	62	70	0	22	0	88
Through Vol	143	0	265	0	337	81
RT Vol	28	0	39	0	40	87
Lane Flow Rate	243	73	317	23	393	267
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.51	0.163	0.654	0.05	0.8	0.546
Departure Headway (Hd)	7.563	8.039	7.43	7.929	7.338	7.371
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	476	446	485	451	495	488
Service Time	5.622	5.792	5.183	5.68	5.088	5.427
HCM Lane V/C Ratio	0.511	0.164	0.654	0.051	0.794	0.547
HCM Control Delay	18.3	12.4	23.2	11.1	33.5	19
HCM Lane LOS	C	B	C	B	D	C
HCM 95th-tile Q	2.8	0.6	4.6	0.2	7.4	3.2

NEAR-TERM WORKSHEETS

HCM 6th TWSC
1: 12th Avenue & Glendale Avenue

11/03/2020

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	78	0	0	98	0	1281	169	67	841	108
Future Vol, veh/h	0	0	78	0	0	98	0	1281	169	67	841	108
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	125	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	89	0	0	111	0	1456	192	76	956	123

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	-	-	540	-	-	824	-	0
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.16	-	-	7.16	-	5.36
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.93	-	-	3.93	-	3.13
Pot Cap-1 Maneuver	0	0	414	0	0	270	0	186
Stage 1	0	0	-	0	0	-	-	-
Stage 2	0	0	-	0	0	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	414	-	-	270	-	186
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16	27.4	0	2.4
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	414	270	186	-
HCM Lane V/C Ratio	-	-	0.214	0.412	0.409	-
HCM Control Delay (s)	-	-	16	27.4	37.2	-
HCM Lane LOS	-	-	C	D	E	-
HCM 95th %tile Q(veh)	-	-	0.8	1.9	1.8	-

HCM 6th TWSC
6: Campus Dr & 6th Street

11/03/2020

Intersection												
Int Delay, s/veh	4.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	17	14	1	0	11	79	1	57	1	32	146	27
Future Vol, veh/h	17	14	1	0	11	79	1	57	1	32	146	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	24	20	1	0	16	113	1	81	1	46	209	39

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	469	405	229	415	424	82	248	0	0	82	0	0
Stage 1	321	321	-	84	84	-	-	-	-	-	-	-
Stage 2	148	84	-	331	340	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	503	533	808	546	520	975	1312	-	-	1509	-	-
Stage 1	689	650	-	922	823	-	-	-	-	-	-	-
Stage 2	852	823	-	680	637	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	422	513	808	514	501	975	1312	-	-	1509	-	-
Mov Cap-2 Maneuver	422	513	-	514	501	-	-	-	-	-	-	-
Stage 1	688	627	-	921	822	-	-	-	-	-	-	-
Stage 2	738	822	-	633	614	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	13.6		9.8		0.1		1.2	
HCM LOS	B		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1312	-	-	465 874	1509	-	-
HCM Lane V/C Ratio	0.001	-	-	0.098 0.147	0.03	-	-
HCM Control Delay (s)	7.7	0	-	13.6 9.8	7.5	0	-
HCM Lane LOS	A	A	-	B A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3 0.5	0.1	-	-

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↗	↗		↗	↗	
Traffic Vol, veh/h	0	0	56	0	0	56	107	841	69	80	586	15
Future Vol, veh/h	0	0	56	0	0	56	107	841	69	80	586	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	75	-	-	125	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	64	0	0	64	123	967	79	92	674	17

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	-	-	346	-	-	523	691	0
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.96	-	-	6.96	4.16	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.33	-	-	3.33	2.23	-
Pot Cap-1 Maneuver	0	0	647	0	0	496	893	-
Stage 1	0	0	-	0	0	-	-	-
Stage 2	0	0	-	0	0	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	647	-	-	496	893	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.2	13.3	1	1.3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	893	-	-	647	496	655	-
HCM Lane V/C Ratio	0.138	-	-	0.099	0.13	0.14	-
HCM Control Delay (s)	9.7	-	-	11.2	13.3	11.4	-
HCM Lane LOS	A	-	-	B	B	B	-
HCM 95th %tile Q(veh)	0.5	-	-	0.3	0.4	0.5	-

HCM 6th Signalized Intersection Summary

2: SR 198 WB Ramps & 12th Avenue

11/03/2020

										
Movement	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations										
Traffic Volume (veh/h)	50	527	55	927	0	0	577	337	0	0
Future Volume (veh/h)	50	527	55	927	0	0	577	337	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No			No			
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	0	0	1856	1856		
Adj Flow Rate, veh/h	56	586	61	1030	0	0	641	374		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90		
Percent Heavy Veh, %	3	3	3	3	0	0	3	3		
Cap, veh/h	413	735	85	2279	0	0	1898	847		
Arrive On Green	0.23	0.23	0.05	0.65	0.00	0.00	0.54	0.54		
Sat Flow, veh/h	1767	3145	1767	3618	0	0	3618	1572		
Grp Volume(v), veh/h	56	586	61	1030	0	0	641	374		
Grp Sat Flow(s),veh/h/ln	1767	1572	1767	1763	0	0	1763	1572		
Q Serve(g_s), s	1.9	13.2	2.6	11.0	0.0	0.0	7.7	10.8		
Cycle Q Clear(g_c), s	1.9	13.2	2.6	11.0	0.0	0.0	7.7	10.8		
Prop In Lane	1.00	1.00	1.00		0.00	0.00		1.00		
Lane Grp Cap(c), veh/h	413	735	85	2279	0	0	1898	847		
V/C Ratio(X)	0.14	0.80	0.72	0.45	0.00	0.00	0.34	0.44		
Avail Cap(c_a), veh/h	765	1362	224	2279	0	0	1898	847		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	22.8	27.1	35.2	6.6	0.0	0.0	9.8	10.5		
Incr Delay (d2), s/veh	0.1	2.0	10.9	0.6	0.0	0.0	0.5	1.7		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.7	4.7	1.3	3.1	0.0	0.0	2.6	3.5		
Unsig. Movement Delay, s/veh										
LnGrp Delay(d),s/veh	22.9	29.1	46.1	7.3	0.0	0.0	10.3	12.2		
LnGrp LOS	C	C	D	A	A	A	B	B		
Approach Vol, veh/h	642			1091			1015			
Approach Delay, s/veh	28.6			9.4			11.0			
Approach LOS	C			A			B			
Timer - Assigned Phs	2		5		6		8			
Phs Duration (G+Y+Rc), s	53.0		8.1		44.9		22.0			
Change Period (Y+Rc), s	4.5		4.5		4.5		4.5			
Max Green Setting (Gmax), s	48.5		9.5		34.5		32.5			
Max Q Clear Time (g_c+I1), s	13.0		4.6		12.8		15.2			
Green Ext Time (p_c), s	8.4		0.0		5.6		2.4			
Intersection Summary										
HCM 6th Ctrl Delay			14.5							
HCM 6th LOS			B							
Notes										

HCM 6th Signalized Intersection Summary 3: 12th Avenue & SR 198 EB Off Ramps

11/03/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	486	0	17	0	0	0	0	495	132	0	360	265
Future Volume (veh/h)	486	0	17	0	0	0	0	495	132	0	360	265
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1856	0	1856				0	1856	1856	0	1856	1856
Adj Flow Rate, veh/h	540	0	19				0	550	0	0	400	0
Peak Hour Factor	0.90	0.90	0.90				0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	0	3				0	3	3	0	3	3
Cap, veh/h	713	0	327				0	2314		0	2314	
Arrive On Green	0.21	0.00	0.21				0.00	0.66	0.00	0.00	0.66	0.00
Sat Flow, veh/h	3428	0	1572				0	3618	1572	0	3618	1572
Grp Volume(v), veh/h	540	0	19				0	550	0	0	400	0
Grp Sat Flow(s),veh/h/ln	1714	0	1572				0	1763	1572	0	1763	1572
Q Serve(g_s), s	9.8	0.0	0.6				0.0	4.2	0.0	0.0	2.9	0.0
Cycle Q Clear(g_c), s	9.8	0.0	0.6				0.0	4.2	0.0	0.0	2.9	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	713	0	327				0	2314		0	2314	
V/C Ratio(X)	0.76	0.00	0.06				0.00	0.24		0.00	0.17	
Avail Cap(c_a), veh/h	1939	0	890				0	2314		0	2314	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	24.7	0.0	21.0				0.0	4.6	0.0	0.0	4.4	0.0
Incr Delay (d2), s/veh	1.7	0.0	0.1				0.0	0.2	0.0	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	0.0	0.2				0.0	1.0	0.0	0.0	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.4	0.0	21.1				0.0	4.9	0.0	0.0	4.6	0.0
LnGrp LOS	C	A	C				A	A		A	A	
Approach Vol, veh/h	559						550			A		
Approach Delay, s/veh	26.2						4.9			4.6		
Approach LOS	C						A			A		
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	48.0			18.3			48.0					
Change Period (Y+Rc), s	4.5			4.5			4.5					
Max Green Setting (Gmax), s	43.5			37.5			43.5					
Max Q Clear Time (g_c+I1), s	6.2			11.8			4.9					
Green Ext Time (p_c), s	3.8			2.0			2.7					
Intersection Summary												
HCM 6th Ctrl Delay	12.7											
HCM 6th LOS	B											

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

4: Campus Drive & Lacey Boulevard

11/03/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	422	75	98	422	47	36	51	71	48	70	13
Future Volume (veh/h)	22	422	75	98	422	47	36	51	71	48	70	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	24	459	82	107	459	51	39	55	77	52	76	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	47	648	289	139	831	371	67	298	417	93	816	692
Arrive On Green	0.03	0.18	0.18	0.08	0.24	0.24	0.04	0.43	0.43	0.05	0.44	0.44
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	700	980	1767	1856	1572
Grp Volume(v), veh/h	24	459	82	107	459	51	39	0	132	52	76	14
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	0	1679	1767	1856	1572
Q Serve(g_s), s	0.9	8.5	3.1	4.1	7.9	1.4	1.5	0.0	3.4	2.0	1.7	0.3
Cycle Q Clear(g_c), s	0.9	8.5	3.1	4.1	7.9	1.4	1.5	0.0	3.4	2.0	1.7	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.58	1.00		1.00
Lane Grp Cap(c), veh/h	47	648	289	139	831	371	67	0	714	93	816	692
V/C Ratio(X)	0.51	0.71	0.28	0.77	0.55	0.14	0.58	0.00	0.18	0.56	0.09	0.02
Avail Cap(c_a), veh/h	166	1042	465	344	1398	624	191	0	714	217	816	692
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.3	26.5	24.4	31.3	23.3	12.1	32.8	0.0	12.4	32.1	11.3	11.0
Incr Delay (d2), s/veh	8.2	1.4	0.5	8.7	0.6	0.2	7.7	0.0	0.6	5.2	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	3.5	1.1	2.0	3.1	0.6	0.8	0.0	1.3	1.0	0.7	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.5	28.0	24.9	40.0	23.9	12.3	40.5	0.0	13.0	37.3	11.6	11.0
LnGrp LOS	D	C	C	D	C	B	D	A	B	D	B	B
Approach Vol, veh/h	565			617			171			142		
Approach Delay, s/veh	28.1			25.7			19.3			20.9		
Approach LOS	C			C			B			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.1	34.0	9.9	17.3	7.1	35.0	6.4	20.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.5	29.5	13.5	20.5	7.5	30.5	6.5	27.5				
Max Q Clear Time (g_c+I1), s	4.0	5.4	6.1	10.5	3.5	3.7	2.9	9.9				
Green Ext Time (p_c), s	0.0	0.7	0.1	2.3	0.0	0.4	0.0	2.9				
Intersection Summary												
HCM 6th Ctrl Delay	25.4											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary

7: 11th Avenue & Lacey Boulevard

11/03/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	190	119	45	243	45	280	486	54	66	554	142
Future Volume (veh/h)	90	190	119	45	243	45	280	486	54	66	554	142
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	100	211	132	50	270	50	311	540	60	73	616	158
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	216	564	251	80	423	77	421	1506	167	98	1422	634
Arrive On Green	0.06	0.16	0.16	0.05	0.14	0.14	0.12	0.47	0.47	0.06	0.40	0.40
Sat Flow, veh/h	3428	3526	1572	1767	2977	544	3428	3200	355	1767	3526	1572
Grp Volume(v), veh/h	100	211	132	50	158	162	311	297	303	73	616	158
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	1767	1763	1758	1714	1763	1792	1767	1763	1572
Q Serve(g_s), s	1.9	3.6	3.6	1.9	5.7	5.8	5.9	7.2	7.2	2.7	8.5	4.5
Cycle Q Clear(g_c), s	1.9	3.6	3.6	1.9	5.7	5.8	5.9	7.2	7.2	2.7	8.5	4.5
Prop In Lane	1.00		1.00	1.00		0.31	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	216	564	251	80	250	250	421	830	843	98	1422	634
V/C Ratio(X)	0.46	0.37	0.53	0.63	0.63	0.65	0.74	0.36	0.36	0.74	0.43	0.25
Avail Cap(c_a), veh/h	282	1411	629	177	737	735	589	830	843	240	1422	634
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.3	25.1	12.4	31.4	27.1	27.1	28.3	11.3	11.3	31.1	14.4	13.2
Incr Delay (d2), s/veh	1.5	0.4	1.7	7.8	2.6	2.8	3.1	1.2	1.2	10.6	1.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	1.4	1.9	0.9	2.4	2.5	2.4	2.7	2.7	1.4	3.2	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.8	25.5	14.1	39.2	29.7	30.0	31.4	12.5	12.5	41.7	15.4	14.2
LnGrp LOS	C	C	B	D	C	C	C	B	B	D	B	B
Approach Vol, veh/h	443			370			911			847		
Approach Delay, s/veh	23.6			31.1			18.9			17.4		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.2	36.0	7.5	15.2	12.7	31.5	8.7	14.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.1	29.4	6.7	26.8	11.5	27.0	5.5	28.0				
Max Q Clear Time (g_c+l1), s	4.7	9.2	3.9	5.6	7.9	10.5	3.9	7.8				
Green Ext Time (p_c), s	0.0	3.5	0.0	1.6	0.4	4.2	0.0	1.7				
Intersection Summary												
HCM 6th Ctrl Delay	21.0											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary 8: 11th Avenue & 7th Street

11/03/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	105	71	79	122	52	167	485	106	77	363	69
Future Volume (veh/h)	40	105	71	79	122	52	167	485	106	77	363	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	45	119	81	90	139	59	190	551	120	88	412	78
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	148	220	139	116	314	128	236	1692	755	114	1447	645
Arrive On Green	0.04	0.11	0.11	0.07	0.13	0.13	0.13	0.48	0.48	0.06	0.41	0.41
Sat Flow, veh/h	3428	2070	1312	1767	2447	993	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	45	100	100	90	98	100	190	551	120	88	412	78
Grp Sat Flow(s),veh/h/ln	1714	1763	1619	1767	1763	1677	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	0.8	3.4	3.7	3.2	3.3	3.5	6.6	6.1	1.6	3.1	4.9	1.9
Cycle Q Clear(g_c), s	0.8	3.4	3.7	3.2	3.3	3.5	6.6	6.1	1.6	3.1	4.9	1.9
Prop In Lane	1.00		0.81	1.00		0.59	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	148	187	172	116	226	215	236	1692	755	114	1447	645
V/C Ratio(X)	0.30	0.53	0.58	0.78	0.43	0.46	0.80	0.33	0.16	0.77	0.28	0.12
Avail Cap(c_a), veh/h	271	723	665	209	793	754	349	1692	755	273	1447	645
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.4	26.8	27.0	29.2	25.5	25.6	26.6	10.2	3.4	29.2	12.5	11.6
Incr Delay (d2), s/veh	1.1	2.4	3.1	10.7	1.3	1.5	8.2	0.5	0.5	10.7	0.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.5	1.5	1.7	1.4	1.4	3.1	2.1	0.9	1.6	1.8	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.5	29.2	30.1	39.8	26.8	27.1	34.8	10.7	3.8	39.8	13.0	12.0
LnGrp LOS	C	C	C	D	C	C	C	B	A	D	B	B
Approach Vol, veh/h	245			288			861			578		
Approach Delay, s/veh	29.8			31.0			15.0			16.9		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.6	34.9	8.6	11.2	13.0	30.5	7.2	12.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.8	28.7	7.5	26.0	12.5	26.0	5.0	28.5				
Max Q Clear Time (g_c+I1), s	5.1	8.1	5.2	5.7	8.6	6.9	2.8	5.5				
Green Ext Time (p_c), s	0.1	3.9	0.0	1.0	0.2	2.7	0.0	1.1				
Intersection Summary												
HCM 6th Ctrl Delay	19.7											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary 10: 11th Avenue & 5th Street

11/03/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	0	60	4	0	5	169	971	25	1	544	98
Future Volume (veh/h)	40	0	60	4	0	5	169	971	25	1	544	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	47	0	70	5	0	6	197	1129	29	1	633	114
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	234	0	116	103	22	51	250	2493	64	3	2008	896
Arrive On Green	0.07	0.00	0.07	0.07	0.00	0.07	0.14	0.71	0.71	0.00	0.57	0.57
Sat Flow, veh/h	1399	0	1572	272	301	687	1767	3512	90	1767	3526	1572
Grp Volume(v), veh/h	47	0	70	11	0	0	197	567	591	1	633	114
Grp Sat Flow(s),veh/h/ln	1399	0	1572	1260	0	0	1767	1763	1839	1767	1763	1572
Q Serve(g_s), s	0.0	0.0	2.7	0.0	0.0	0.0	6.8	8.6	8.6	0.0	5.9	2.1
Cycle Q Clear(g_c), s	1.6	0.0	2.7	2.7	0.0	0.0	6.8	8.6	8.6	0.0	5.9	2.1
Prop In Lane	1.00		1.00	0.45		0.55	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	234	0	116	176	0	0	250	1251	1305	3	2008	896
V/C Ratio(X)	0.20	0.00	0.61	0.06	0.00	0.00	0.79	0.45	0.45	0.35	0.32	0.13
Avail Cap(c_a), veh/h	722	0	665	681	0	0	606	1251	1305	155	2008	896
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.6	0.0	28.2	27.1	0.0	0.0	26.0	3.9	3.9	31.3	7.1	6.3
Incr Delay (d2), s/veh	0.4	0.0	5.0	0.1	0.0	0.0	5.4	1.2	1.1	62.4	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	1.1	0.2	0.0	0.0	3.1	2.2	2.3	0.1	1.9	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.1	0.0	33.2	27.2	0.0	0.0	31.4	5.1	5.0	93.7	7.5	6.6
LnGrp LOS	C	A	C	C	A	A	C	A	A	F	A	A
Approach Vol, veh/h	117			11			1355			748		
Approach Delay, s/veh	31.1			27.2			8.9			7.5		
Approach LOS	C			C			A			A		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.6	49.0		9.1	13.4	40.2		9.1				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.5	44.5		26.5	21.5	28.5		26.5				
Max Q Clear Time (g_c+I1), s	2.0	10.6		4.7	8.8	7.9		4.7				
Green Ext Time (p_c), s	0.0	9.7		0.5	0.4	4.7		0.0				
Intersection Summary												
HCM 6th Ctrl Delay	9.7											
HCM 6th LOS	A											

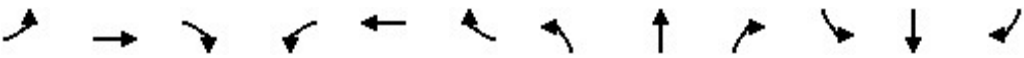
HCM 6th Signalized Intersection Summary 11: 11th Avenue & SR 198 WB On Ramp/4th Street

11/03/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	128	17	353	56	820	0	0	465	176
Future Volume (veh/h)	0	0	0	128	17	353	56	820	0	0	465	176
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1856	1856	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				149	20	410	65	953	0	0	541	205
Peak Hour Factor				0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				529	556	471	88	2038	0	0	1646	734
Arrive On Green				0.30	0.30	0.30	0.05	0.58	0.00	0.00	0.47	0.47
Sat Flow, veh/h				1767	1856	1572	1767	3618	0	0	3618	1572
Grp Volume(v), veh/h				149	20	410	65	953	0	0	541	205
Grp Sat Flow(s),veh/h/ln				1767	1856	1572	1767	1763	0	0	1763	1572
Q Serve(g_s), s				4.7	0.6	18.2	2.7	11.5	0.0	0.0	7.1	5.9
Cycle Q Clear(g_c), s				4.7	0.6	18.2	2.7	11.5	0.0	0.0	7.1	5.9
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				529	556	471	88	2038	0	0	1646	734
V/C Ratio(X)				0.28	0.04	0.87	0.74	0.47	0.00	0.00	0.33	0.28
Avail Cap(c_a), veh/h				926	972	824	252	2038	0	0	1646	734
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				19.7	18.2	24.4	34.4	9.0	0.0	0.0	12.3	12.0
Incr Delay (d2), s/veh				0.3	0.0	5.1	11.2	0.8	0.0	0.0	0.5	0.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.8	0.2	6.6	1.4	4.0	0.0	0.0	2.6	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				20.0	18.3	29.5	45.7	9.7	0.0	0.0	12.9	13.0
LnGrp LOS				B	B	C	D	A	A	A	B	B
Approach Vol, veh/h					579			1018			746	
Approach Delay, s/veh					26.7			12.0			12.9	
Approach LOS					C			B			B	
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	47.0			8.2			38.8			26.5		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	42.5			10.5			27.5			38.5		
Max Q Clear Time (g_c+I1), s	13.5			4.7			9.1			20.2		
Green Ext Time (p_c), s	7.9			0.0			4.0			1.8		
Intersection Summary												
HCM 6th Ctrl Delay	15.9											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary 12: 11th Avenue & SR 198 EB Off Ramp/3rd Street

11/03/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↩	↪					↩↪	↪	↩	↩↪	
Traffic Volume (veh/h)	261	152	92	0	0	0	0	618	145	133	463	0
Future Volume (veh/h)	261	152	92	0	0	0	0	618	145	133	463	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No					No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	326	190	115				0	772	181	166	579	0
Peak Hour Factor	0.80	0.80	0.80				0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3				0	3	3	3	3	0
Cap, veh/h	370	216	512				0	1391	621	204	1991	0
Arrive On Green	0.33	0.33	0.33				0.00	0.39	0.39	0.12	0.56	0.00
Sat Flow, veh/h	1136	662	1572				0	3618	1572	1767	3618	0
Grp Volume(v), veh/h	516	0	115				0	772	181	166	579	0
Grp Sat Flow(s),veh/h/ln	1799	0	1572				0	1763	1572	1767	1763	0
Q Serve(g_s), s	22.3	0.0	4.4				0.0	14.0	6.5	7.5	7.0	0.0
Cycle Q Clear(g_c), s	22.3	0.0	4.4				0.0	14.0	6.5	7.5	7.0	0.0
Prop In Lane	0.63		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	586	0	512				0	1391	621	204	1991	0
V/C Ratio(X)	0.88	0.00	0.22				0.00	0.55	0.29	0.81	0.29	0.00
Avail Cap(c_a), veh/h	754	0	659				0	1391	621	311	1991	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.2	0.0	20.2				0.0	19.3	17.0	35.5	9.3	0.0
Incr Delay (d2), s/veh	9.7	0.0	0.2				0.0	1.6	1.2	9.3	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.1	0.0	1.5				0.0	5.5	2.4	3.7	2.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.9	0.0	20.4				0.0	20.9	18.2	44.8	9.7	0.0
LnGrp LOS	D	A	C				A	C	B	D	A	A
Approach Vol, veh/h		631						953			745	
Approach Delay, s/veh		33.1						20.4			17.5	
Approach LOS		C						C			B	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	14.0	37.0		31.3		51.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	14.5	27.5		34.5		46.5						
Max Q Clear Time (g_c+I1), s	9.5	16.0		24.3		9.0						
Green Ext Time (p_c), s	0.2	4.3		2.5		4.5						
Intersection Summary												
HCM 6th Ctrl Delay			22.9									
HCM 6th LOS			C									

HCM 6th AWSC
5: Campus Dr/Campus Drive & 7th Street

11/03/2020

Intersection	
Intersection Delay, s/veh	12.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	89	127	41	43	156	34	33	96	24	24	126	36
Future Vol, veh/h	89	127	41	43	156	34	33	96	24	24	126	36
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	113	161	52	54	197	43	42	122	30	30	159	46
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	12.2	13	12.3	13
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	22%	100%	0%	100%	0%	13%
Vol Thru, %	63%	0%	76%	0%	82%	68%
Vol Right, %	16%	0%	24%	0%	18%	19%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	153	89	168	43	190	186
LT Vol	33	89	0	43	0	24
Through Vol	96	0	127	0	156	126
RT Vol	24	0	41	0	34	36
Lane Flow Rate	194	113	213	54	241	235
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.33	0.215	0.366	0.105	0.42	0.393
Departure Headway (Hd)	6.137	6.877	6.193	6.92	6.283	6.006
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	581	519	576	515	570	593
Service Time	4.228	4.657	3.973	4.701	4.063	4.092
HCM Lane V/C Ratio	0.334	0.218	0.37	0.105	0.423	0.396
HCM Control Delay	12.3	11.6	12.5	10.5	13.6	13
HCM Lane LOS	B	B	B	B	B	B
HCM 95th-tile Q	1.4	0.8	1.7	0.3	2.1	1.9

HCM 6th TWSC
1: 12th Avenue & Glendale Avenue

11/03/2020

Intersection												
Int Delay, s/veh	24.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗		↑↑↑		↗	↑↑↑	
Traffic Vol, veh/h	0	0	179	0	0	251	0	1842	96	52	2035	174
Future Vol, veh/h	0	0	179	0	0	251	0	1842	96	52	2035	174
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	125	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	195	0	0	273	0	2002	104	57	2212	189

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	-	-	1201	-	-	1053	-	0
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.16	-	-	7.16	-	5.36
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.93	-	-	3.93	-	3.13
Pot Cap-1 Maneuver	0	0	~ 151	0	0	~ 190	0	109
Stage 1	0	0	-	0	0	-	0	-
Stage 2	0	0	-	0	0	-	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	~ 151	-	-	~ 190	-	109
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	228.1	269.9	0	1.6
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	151	190	109	-
HCM Lane V/C Ratio	-	-	1.289	1.436	0.519	-
HCM Control Delay (s)	-	-	228.1	269.9	69.1	-
HCM Lane LOS	-	-	F	F	F	-
HCM 95th %tile Q(veh)	-	-	11.7	16.5	2.4	-

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC
6: Campus Dr & 6th Street

11/03/2020

Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	9	0	0	4	75	0	146	0	66	79	15
Future Vol, veh/h	13	9	0	0	4	75	0	146	0	66	79	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	17	12	0	0	5	96	0	187	0	85	101	19

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	519	468	111	474	477	187	120	0	0	187	0	0
Stage 1	281	281	-	187	187	-	-	-	-	-	-	-
Stage 2	238	187	-	287	290	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	466	491	940	499	486	852	1462	-	-	1381	-	-
Stage 1	724	677	-	812	743	-	-	-	-	-	-	-
Stage 2	763	743	-	718	670	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	389	459	940	465	454	852	1462	-	-	1381	-	-
Mov Cap-2 Maneuver	389	459	-	465	454	-	-	-	-	-	-	-
Stage 1	724	632	-	812	743	-	-	-	-	-	-	-
Stage 2	672	743	-	658	626	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	14.3		10		0		3.2	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1462	-	-	415 816	1381	-	-
HCM Lane V/C Ratio	-	-	-	0.068 0.124	0.061	-	-
HCM Control Delay (s)	0	-	-	14.3 10	7.8	0	-
HCM Lane LOS	A	-	-	B B	A A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2 0.4	0.2	-	-

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↗	↗↘		↗	↗↘	
Traffic Vol, veh/h	0	0	74	0	0	174	106	1154	114	116	1201	9
Future Vol, veh/h	0	0	74	0	0	174	106	1154	114	116	1201	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	75	-	-	125	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	76	0	0	179	109	1190	118	120	1238	9

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	624	-	-	654	1247	0	0	1308	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.96	-	-	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.33	-	-	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	0	0	426	0	0	407	549	-	-	520	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	426	-	-	407	549	-	-	520	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	15.3		20.6		1		1.2	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	549	-	-	426	407	520	-
HCM Lane V/C Ratio	0.199	-	-	0.179	0.441	0.23	-
HCM Control Delay (s)	13.2	-	-	15.3	20.6	14	-
HCM Lane LOS	B	-	-	C	C	B	-
HCM 95th %tile Q(veh)	0.7	-	-	0.6	2.2	0.9	-

HCM 6th Signalized Intersection Summary

2: SR 198 WB Ramps & 12th Avenue

11/03/2020

										
Movement	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations										
Traffic Volume (veh/h)	155	597	50	1345	0	0	1437	783	0	0
Future Volume (veh/h)	155	597	50	1345	0	0	1437	783	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No			No			
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	0	0	1856	1856		
Adj Flow Rate, veh/h	168	649	54	1462	0	0	1562	851		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	3	3	3	3	0	0	3	3		
Cap, veh/h	413	735	74	2341	0	0	2014	898		
Arrive On Green	0.23	0.23	0.04	0.66	0.00	0.00	0.57	0.57		
Sat Flow, veh/h	1767	3145	1767	3618	0	0	3618	1572		
Grp Volume(v), veh/h	168	649	54	1462	0	0	1562	851		
Grp Sat Flow(s),veh/h/ln	1767	1572	1767	1763	0	0	1763	1572		
Q Serve(g_s), s	7.1	17.6	2.7	21.0	0.0	0.0	30.0	44.5		
Cycle Q Clear(g_c), s	7.1	17.6	2.7	21.0	0.0	0.0	30.0	44.5		
Prop In Lane	1.00	1.00	1.00		0.00	0.00		1.00		
Lane Grp Cap(c), veh/h	413	735	74	2341	0	0	2014	898		
V/C Ratio(X)	0.41	0.88	0.73	0.62	0.00	0.00	0.78	0.95		
Avail Cap(c_a), veh/h	451	803	110	2341	0	0	2014	898		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	28.6	32.6	41.7	8.5	0.0	0.0	14.5	17.6		
Incr Delay (d2), s/veh	0.6	10.7	13.2	1.3	0.0	0.0	3.0	19.7		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	2.9	7.3	1.4	6.5	0.0	0.0	10.9	18.2		
Unsig. Movement Delay, s/veh										
LnGrp Delay(d),s/veh	29.2	43.3	54.9	9.8	0.0	0.0	17.5	37.3		
LnGrp LOS	C	D	D	A	A	A	B	D		
Approach Vol, veh/h	817			1516			2413			
Approach Delay, s/veh	40.4			11.4			24.5			
Approach LOS	D			B			C			
Timer - Assigned Phs	2		5		6		8			
Phs Duration (G+Y+Rc), s	63.0		8.2		54.8		25.1			
Change Period (Y+Rc), s	4.5		4.5		4.5		4.5			
Max Green Setting (Gmax), s	58.5		5.5		48.5		22.5			
Max Q Clear Time (g_c+l1), s	23.0		4.7		46.5		19.6			
Green Ext Time (p_c), s	14.1		0.0		1.8		1.0			
Intersection Summary										
HCM 6th Ctrl Delay			23.0							
HCM 6th LOS			C							
Notes										

HCM 6th Signalized Intersection Summary

3: 12th Avenue & SR 198 EB Off Ramps

11/03/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	657	0	53	0	0	0	0	727	155	0	978	624
Future Volume (veh/h)	657	0	53	0	0	0	0	727	155	0	978	624
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1856	0	1856				0	1856	1856	0	1856	1856
Adj Flow Rate, veh/h	706	0	57				0	782	0	0	1052	0
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	0	3				0	3	3	0	3	3
Cap, veh/h	857	0	393				0	2245		0	2245	
Arrive On Green	0.25	0.00	0.25				0.00	0.64	0.00	0.00	0.64	0.00
Sat Flow, veh/h	3428	0	1572				0	3618	1572	0	3618	1572
Grp Volume(v), veh/h	706	0	57				0	782	0	0	1052	0
Grp Sat Flow(s),veh/h/ln	1714	0	1572				0	1763	1572	0	1763	1572
Q Serve(g_s), s	15.4	0.0	2.2				0.0	8.2	0.0	0.0	12.3	0.0
Cycle Q Clear(g_c), s	15.4	0.0	2.2				0.0	8.2	0.0	0.0	12.3	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	857	0	393				0	2245		0	2245	
V/C Ratio(X)	0.82	0.00	0.15				0.00	0.35		0.00	0.47	
Avail Cap(c_a), veh/h	1318	0	605				0	2245		0	2245	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	28.1	0.0	23.2				0.0	6.7	0.0	0.0	7.5	0.0
Incr Delay (d2), s/veh	2.6	0.0	0.2				0.0	0.4	0.0	0.0	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	0.0	0.8				0.0	2.5	0.0	0.0	3.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.7	0.0	23.3				0.0	7.2	0.0	0.0	8.2	0.0
LnGrp LOS	C	A	C				A	A		A	A	
Approach Vol, veh/h	763						782			1052		
Approach Delay, s/veh	30.1						7.2			8.2		
Approach LOS	C						A			A		
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	55.0			24.3			55.0					
Change Period (Y+Rc), s	4.5			4.5			4.5					
Max Green Setting (Gmax), s	50.5			30.5			50.5					
Max Q Clear Time (g_c+l1), s	10.2			17.4			14.3					
Green Ext Time (p_c), s	5.9			2.4			8.7					
Intersection Summary												
HCM 6th Ctrl Delay	14.3											
HCM 6th LOS	B											
Notes												

HCM 6th Signalized Intersection Summary

4: Campus Drive & Lacey Boulevard

11/03/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	801	62	82	888	47	87	74	176	108	93	37
Future Volume (veh/h)	32	801	62	82	888	47	87	74	176	108	93	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	37	921	71	94	1021	54	100	85	202	124	107	43
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	62	1086	484	120	1203	537	128	153	364	157	612	519
Arrive On Green	0.03	0.31	0.31	0.07	0.34	0.34	0.07	0.31	0.31	0.09	0.33	0.33
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	488	1159	1767	1856	1572
Grp Volume(v), veh/h	37	921	71	94	1021	54	100	0	287	124	107	43
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	0	1647	1767	1856	1572
Q Serve(g_s), s	1.7	19.9	2.7	4.3	21.8	1.9	4.5	0.0	11.8	5.6	3.3	1.5
Cycle Q Clear(g_c), s	1.7	19.9	2.7	4.3	21.8	1.9	4.5	0.0	11.8	5.6	3.3	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.70	1.00		1.00
Lane Grp Cap(c), veh/h	62	1086	484	120	1203	537	128	0	517	157	612	519
V/C Ratio(X)	0.60	0.85	0.15	0.78	0.85	0.10	0.78	0.00	0.56	0.79	0.17	0.08
Avail Cap(c_a), veh/h	109	1193	532	185	1345	600	228	0	517	228	612	519
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.7	26.3	20.4	37.3	24.8	18.3	37.0	0.0	23.2	36.3	19.4	18.8
Incr Delay (d2), s/veh	9.1	5.5	0.1	11.0	4.9	0.1	9.7	0.0	4.3	11.1	0.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	8.6	0.9	2.1	9.3	0.7	2.3	0.0	5.0	2.8	1.5	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.7	31.9	20.5	48.2	29.7	18.3	46.8	0.0	27.4	47.4	20.0	19.1
LnGrp LOS	D	C	C	D	C	B	D	A	C	D	B	B
Approach Vol, veh/h		1029			1169			387			274	
Approach Delay, s/veh		31.6			30.7			32.4			32.3	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.7	30.0	10.0	29.5	10.4	31.3	7.3	32.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.5	25.5	8.5	27.5	10.5	25.5	5.0	31.0				
Max Q Clear Time (g_c+I1), s	7.6	13.8	6.3	21.9	6.5	5.3	3.7	23.8				
Green Ext Time (p_c), s	0.1	1.4	0.0	3.0	0.1	0.6	0.0	3.9				
Intersection Summary												
HCM 6th Ctrl Delay			31.4									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary

7: 11th Avenue & Lacey Boulevard

11/03/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	274	314	231	119	342	92	331	732	62	100	623	114
Future Volume (veh/h)	274	314	231	119	342	92	331	732	62	100	623	114
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	301	345	254	131	376	101	364	804	68	110	685	125
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	354	742	331	165	552	147	420	1267	107	140	1205	537
Arrive On Green	0.10	0.21	0.21	0.09	0.20	0.20	0.12	0.39	0.39	0.08	0.34	0.34
Sat Flow, veh/h	3428	3526	1572	1767	2755	731	3428	3290	278	1767	3526	1572
Grp Volume(v), veh/h	301	345	254	131	239	238	364	431	441	110	685	125
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	1767	1763	1724	1714	1763	1805	1767	1763	1572
Q Serve(g_s), s	6.7	6.6	11.8	5.6	9.7	9.9	8.1	15.4	15.4	4.7	12.3	2.9
Cycle Q Clear(g_c), s	6.7	6.6	11.8	5.6	9.7	9.9	8.1	15.4	15.4	4.7	12.3	2.9
Prop In Lane	1.00		1.00	1.00		0.42	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	354	742	331	165	353	345	420	679	695	140	1205	537
V/C Ratio(X)	0.85	0.47	0.77	0.80	0.68	0.69	0.87	0.63	0.63	0.79	0.57	0.23
Avail Cap(c_a), veh/h	354	1214	542	212	637	623	420	679	695	194	1205	537
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.2	26.8	28.8	34.4	28.7	28.8	33.4	19.4	19.4	35.0	20.8	8.1
Incr Delay (d2), s/veh	17.6	0.5	3.7	14.8	2.3	2.5	17.1	4.5	4.4	13.3	1.9	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	2.7	4.5	3.0	4.1	4.1	4.2	6.6	6.8	2.5	5.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.8	27.2	32.6	49.2	30.9	31.2	50.5	23.9	23.8	48.4	22.8	9.1
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	C	A
Approach Vol, veh/h	900			608			1236			920		
Approach Delay, s/veh	37.0			35.0			31.7			24.0		
Approach LOS	D			C			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.6	34.4	11.7	20.8	14.0	31.0	12.5	20.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.5	27.5	9.3	26.7	9.5	26.5	8.0	28.0				
Max Q Clear Time (g_c+l1), s	6.7	17.4	7.6	13.8	10.1	14.3	8.7	11.9				
Green Ext Time (p_c), s	0.0	3.8	0.0	2.5	0.0	4.0	0.0	2.5				
Intersection Summary												
HCM 6th Ctrl Delay	31.6											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary 8: 11th Avenue & 7th Street

11/03/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	215	237	176	188	118	181	679	124	120	623	56
Future Volume (veh/h)	73	215	237	176	188	118	181	679	124	120	623	56
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	80	236	260	193	207	130	199	746	136	132	685	62
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	177	369	330	223	601	361	229	1230	548	165	1102	491
Arrive On Green	0.05	0.21	0.21	0.13	0.28	0.28	0.13	0.35	0.35	0.09	0.31	0.31
Sat Flow, veh/h	3428	1763	1572	1767	2118	1272	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	80	236	260	193	171	166	199	746	136	132	685	62
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	1767	1763	1627	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	1.8	9.9	12.7	8.7	6.2	6.6	8.9	14.2	3.2	5.9	13.4	2.3
Cycle Q Clear(g_c), s	1.8	9.9	12.7	8.7	6.2	6.6	8.9	14.2	3.2	5.9	13.4	2.3
Prop In Lane	1.00		1.00	1.00		0.78	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	177	369	330	223	501	462	229	1230	548	165	1102	491
V/C Ratio(X)	0.45	0.64	0.79	0.87	0.34	0.36	0.87	0.61	0.25	0.80	0.62	0.13
Avail Cap(c_a), veh/h	224	566	505	223	673	621	229	1230	548	205	1102	491
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.3	29.2	30.3	34.7	23.0	23.1	34.6	21.8	7.6	36.0	23.8	19.9
Incr Delay (d2), s/veh	1.8	1.8	4.7	28.3	0.4	0.5	27.9	2.2	1.1	16.3	2.6	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	4.2	5.0	5.4	2.6	2.6	5.5	5.8	1.9	3.2	5.7	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.1	31.0	35.0	63.0	23.4	23.6	62.5	24.0	8.7	52.3	26.4	20.5
LnGrp LOS	D	C	C	E	C	C	E	C	A	D	C	C
Approach Vol, veh/h	576			530			1081			879		
Approach Delay, s/veh	33.9			37.9			29.2			29.9		
Approach LOS	C			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.1	32.7	14.7	21.5	15.0	29.8	8.7	27.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.4	26.4	10.2	26.0	10.5	25.3	5.3	30.9				
Max Q Clear Time (g_c+I1), s	7.9	16.2	10.7	14.7	10.9	15.4	3.8	8.6				
Green Ext Time (p_c), s	0.0	3.9	0.0	2.3	0.0	3.3	0.0	2.1				
Intersection Summary												
HCM 6th Ctrl Delay	31.8											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary

10: 11th Avenue & 5th Street

11/03/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	198	0	191	11	0	11	252	1159	3	9	1097	158
Future Volume (veh/h)	198	0	191	11	0	11	252	1159	3	9	1097	158
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	204	0	197	11	0	11	260	1195	3	9	1131	163
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	354	0	324	134	22	85	305	2177	5	20	1558	695
Arrive On Green	0.21	0.00	0.21	0.21	0.00	0.21	0.17	0.60	0.60	0.01	0.44	0.44
Sat Flow, veh/h	1392	0	1572	302	109	411	1767	3608	9	1767	3526	1572
Grp Volume(v), veh/h	204	0	197	22	0	0	260	584	614	9	1131	163
Grp Sat Flow(s),veh/h/ln	1392	0	1572	822	0	0	1767	1763	1854	1767	1763	1572
Q Serve(g_s), s	3.4	0.0	8.6	0.1	0.0	0.0	10.8	14.8	14.8	0.4	19.9	4.9
Cycle Q Clear(g_c), s	12.1	0.0	8.6	8.7	0.0	0.0	10.8	14.8	14.8	0.4	19.9	4.9
Prop In Lane	1.00		1.00	0.50		0.50	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	354	0	324	241	0	0	305	1064	1118	20	1558	695
V/C Ratio(X)	0.58	0.00	0.61	0.09	0.00	0.00	0.85	0.55	0.55	0.45	0.73	0.23
Avail Cap(c_a), veh/h	547	0	542	428	0	0	410	1064	1118	117	1558	695
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.8	0.0	27.2	24.4	0.0	0.0	30.3	8.9	8.9	37.0	17.3	13.1
Incr Delay (d2), s/veh	1.5	0.0	1.8	0.2	0.0	0.0	12.2	2.0	1.9	14.7	3.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	0.0	3.3	0.3	0.0	0.0	5.4	5.4	5.6	0.2	8.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.3	0.0	29.0	24.5	0.0	0.0	42.4	10.9	10.8	51.8	20.3	13.9
LnGrp LOS	C	A	C	C	A	A	D	B	B	D	C	B
Approach Vol, veh/h	401			22			1458			1303		
Approach Delay, s/veh	29.6			24.5			16.5			19.7		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	50.0		20.1	17.5	37.8		20.1				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	45.5		26.0	17.5	33.0		26.0				
Max Q Clear Time (g_c+l1), s	2.4	16.8		14.1	12.8	21.9		10.7				
Green Ext Time (p_c), s	0.0	9.7		1.5	0.3	6.3		0.0				
Intersection Summary												
HCM 6th Ctrl Delay	19.5											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary

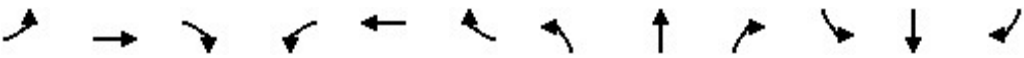
11: 11th Avenue & SR 198 WB On Ramp/4th Street

11/03/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰	↱	↰	↰	↱			↱	↰
Traffic Volume (veh/h)	0	0	0	236	38	277	99	1130	0	0	1091	300
Future Volume (veh/h)	0	0	0	236	38	277	99	1130	0	0	1091	300
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1856	1856	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				248	40	292	104	1189	0	0	1148	316
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				397	416	353	133	2324	0	0	1853	827
Arrive On Green				0.22	0.22	0.22	0.08	0.66	0.00	0.00	0.53	0.53
Sat Flow, veh/h				1767	1856	1572	1767	3618	0	0	3618	1572
Grp Volume(v), veh/h				248	40	292	104	1189	0	0	1148	316
Grp Sat Flow(s),veh/h/ln				1767	1856	1572	1767	1763	0	0	1763	1572
Q Serve(g_s), s				9.8	1.3	13.7	4.5	13.4	0.0	0.0	17.7	9.2
Cycle Q Clear(g_c), s				9.8	1.3	13.7	4.5	13.4	0.0	0.0	17.7	9.2
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				397	416	353	133	2324	0	0	1853	827
V/C Ratio(X)				0.63	0.10	0.83	0.78	0.51	0.00	0.00	0.62	0.38
Avail Cap(c_a), veh/h				685	720	610	217	2324	0	0	1853	827
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				27.1	23.8	28.6	35.1	6.8	0.0	0.0	12.9	10.9
Incr Delay (d2), s/veh				1.6	0.1	5.0	9.5	0.8	0.0	0.0	1.6	1.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.0	0.5	5.2	2.2	4.2	0.0	0.0	6.4	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				28.7	23.9	33.5	44.6	7.6	0.0	0.0	14.5	12.2
LnGrp LOS				C	C	C	D	A	A	A	B	B
Approach Vol, veh/h					580			1293			1464	
Approach Delay, s/veh					30.8			10.6			14.0	
Approach LOS					C			B			B	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		55.5			10.3	45.2		21.9				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		51.0			9.5	37.0		30.0				
Max Q Clear Time (g_c+I1), s		15.4			6.5	19.7		15.7				
Green Ext Time (p_c), s		11.4			0.1	8.8		1.7				
Intersection Summary												
HCM 6th Ctrl Delay				15.6								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary 12: 11th Avenue & SR 198 EB Off Ramp/3rd Street

11/03/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↩	↩					↩	↩	↩	↩	↩
Traffic Volume (veh/h)	399	86	81	0	0	0	0	830	220	426	906	0
Future Volume (veh/h)	399	86	81	0	0	0	0	830	220	426	906	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	416	90	84				0	865	229	444	944	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3				0	3	3	3	3	0
Cap, veh/h	443	96	475				0	982	438	475	2106	0
Arrive On Green	0.30	0.30	0.30				0.00	0.28	0.28	0.27	0.60	0.00
Sat Flow, veh/h	1465	317	1572				0	3618	1572	1767	3618	0
Grp Volume(v), veh/h	506	0	84				0	865	229	444	944	0
Grp Sat Flow(s),veh/h/ln	1782	0	1572				0	1763	1572	1767	1763	0
Q Serve(g_s), s	24.8	0.0	3.5				0.0	21.0	11.0	22.0	13.2	0.0
Cycle Q Clear(g_c), s	24.8	0.0	3.5				0.0	21.0	11.0	22.0	13.2	0.0
Prop In Lane	0.82		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	538	0	475				0	982	438	475	2106	0
V/C Ratio(X)	0.94	0.00	0.18				0.00	0.88	0.52	0.93	0.45	0.00
Avail Cap(c_a), veh/h	547	0	483				0	982	438	484	2106	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.5	0.0	23.0				0.0	30.9	27.3	32.0	9.9	0.0
Incr Delay (d2), s/veh	24.3	0.0	0.2				0.0	11.2	4.4	25.4	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.4	0.0	1.2				0.0	9.9	4.4	12.4	4.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.8	0.0	23.2				0.0	42.1	31.7	57.3	10.6	0.0
LnGrp LOS	D	A	C				A	D	C	E	B	A
Approach Vol, veh/h	590						1094			1388		
Approach Delay, s/veh	50.3						39.9			25.6		
Approach LOS	D						D			C		
Timer - Assigned Phs	1	2		4			6					
Phs Duration (G+Y+Rc), s	28.6	29.4		31.5			58.0					
Change Period (Y+Rc), s	4.5	4.5		4.5			4.5					
Max Green Setting (Gmax), s	24.5	24.5		27.5			53.5					
Max Q Clear Time (g_c+I1), s	24.0	23.0		26.8			15.2					
Green Ext Time (p_c), s	0.1	0.9		0.3			8.3					
Intersection Summary												
HCM 6th Ctrl Delay	35.4											
HCM 6th LOS	D											

HCM 6th AWSC
5: Campus Dr/Campus Drive & 7th Street

11/03/2020

Intersection	
Intersection Delay, s/veh	31.8
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	76	287	41	23	365	43	65	147	28	95	83	94
Future Vol, veh/h	76	287	41	23	365	43	65	147	28	95	83	94
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	79	299	43	24	380	45	68	153	29	99	86	98
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	27	48	21.1	22.8
HCM LOS	D	E	C	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	27%	100%	0%	100%	0%	35%
Vol Thru, %	61%	0%	88%	0%	89%	31%
Vol Right, %	12%	0%	12%	0%	11%	35%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	240	76	328	23	408	272
LT Vol	65	76	0	23	0	95
Through Vol	147	0	287	0	365	83
RT Vol	28	0	41	0	43	94
Lane Flow Rate	250	79	342	24	425	283
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.561	0.186	0.743	0.055	0.909	0.616
Departure Headway (Hd)	8.077	8.441	7.832	8.292	7.699	7.829
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	445	424	461	431	468	459
Service Time	6.171	6.224	5.615	6.068	5.474	5.918
HCM Lane V/C Ratio	0.562	0.186	0.742	0.056	0.908	0.617
HCM Control Delay	21.1	13.2	30.2	11.6	50	22.8
HCM Lane LOS	C	B	D	B	E	C
HCM 95th-tile Q	3.4	0.7	6.1	0.2	10.2	4.1

CUMULATIVE YEAR 2042 WORKSHEETS

HCM 6th TWSC
1: 12th Avenue & Glendale Avenue

11/02/2020

Intersection												
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	111	0	0	65	0	1829	74	62	1138	155
Future Vol, veh/h	0	0	111	0	0	65	0	1829	74	62	1138	155
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	125	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	121	0	0	71	0	1988	80	67	1237	168

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	-	-	703	-	-	1034	-	0
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.16	-	-	7.16	-	5.36
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.93	-	-	3.93	-	3.13
Pot Cap-1 Maneuver	0	0	324	0	0	195	0	114
Stage 1	0	0	-	0	0	-	-	-
Stage 2	0	0	-	0	0	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	324	-	-	195	-	114
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	22.6	33.6	0	3.4
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	324	195	114	-
HCM Lane V/C Ratio	-	-	0.372	0.362	0.591	-
HCM Control Delay (s)	-	-	22.6	33.6	74.4	-
HCM Lane LOS	-	-	C	D	F	-
HCM 95th %tile Q(veh)	-	-	1.7	1.6	2.9	-

HCM 6th TWSC
6: Campus Dr & 6th Street

11/02/2020

Intersection												
Int Delay, s/veh	7.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	25	20	2	0	15	113	2	6	2	46	8	39
Future Vol, veh/h	25	20	2	0	15	113	2	6	2	46	8	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	27	22	2	0	16	123	2	7	2	50	9	42
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	212	143	30	154	163	8	51	0	0	9	0	0
Stage 1	130	130	-	12	12	-	-	-	-	-	-	-
Stage 2	82	13	-	142	151	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	743	746	1042	811	728	1071	1549	-	-	1604	-	-
Stage 1	871	787	-	1006	884	-	-	-	-	-	-	-
Stage 2	924	883	-	859	770	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	630	721	1042	771	704	1071	1549	-	-	1604	-	-
Mov Cap-2 Maneuver	630	721	-	771	704	-	-	-	-	-	-	-
Stage 1	870	762	-	1005	883	-	-	-	-	-	-	-
Stage 2	802	882	-	806	745	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	10.7		9.1		1.5		3.6					
HCM LOS	B		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1549	-	-	678 1009	1604	-	-					
HCM Lane V/C Ratio	0.001	-	-	0.075 0.138	0.031	-	-					
HCM Control Delay (s)	7.3	0	-	10.7 9.1	7.3	0	-					
HCM Lane LOS	A	A	-	B A	A	A	-					
HCM 95th %tile Q(veh)	0	-	-	0.2 0.5	0.1	-	-					

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↗	↗↘		↗	↗↘	
Traffic Vol, veh/h	0	0	80	0	0	80	153	1176	99	114	770	22
Future Vol, veh/h	0	0	80	0	0	80	153	1176	99	114	770	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	75	-	-	125	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	87	0	0	87	166	1278	108	124	837	24
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	431	-	-	693	861	0	0	1386	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.96	-	-	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.33	-	-	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	0	0	570	0	0	384	770	-	-	485	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	570	-	-	384	770	-	-	485	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	12.4		17.1		1.2		1.9					
HCM LOS	B		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	770	-	-	570	384	485	-	-				
HCM Lane V/C Ratio	0.216	-	-	0.153	0.226	0.255	-	-				
HCM Control Delay (s)	11	-	-	12.4	17.1	15	-	-				
HCM Lane LOS	B	-	-	B	C	B	-	-				
HCM 95th %tile Q(veh)	0.8	-	-	0.5	0.9	1	-	-				

HCM 6th Signalized Intersection Summary

2: SR 198 WB Ramps & 12th Avenue

11/02/2020

										
Movement	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations										
Traffic Volume (veh/h)	71	719	79	1190	0	0	799	444	0	0
Future Volume (veh/h)	71	719	79	1190	0	0	799	444	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No			No			
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	0	0	1856	1856		
Adj Flow Rate, veh/h	77	782	86	1293	0	0	868	483		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	3	3	3	3	0	0	3	3		
Cap, veh/h	525	935	111	2076	0	0	1654	738		
Arrive On Green	0.30	0.30	0.06	0.59	0.00	0.00	0.47	0.47		
Sat Flow, veh/h	1767	3145	1767	3618	0	0	3618	1572		
Grp Volume(v), veh/h	77	782	86	1293	0	0	868	483		
Grp Sat Flow(s),veh/h/ln	1767	1572	1767	1763	0	0	1763	1572		
Q Serve(g_s), s	2.5	18.4	3.8	18.8	0.0	0.0	13.7	18.6		
Cycle Q Clear(g_c), s	2.5	18.4	3.8	18.8	0.0	0.0	13.7	18.6		
Prop In Lane	1.00	1.00	1.00		0.00	0.00		1.00		
Lane Grp Cap(c), veh/h	525	935	111	2076	0	0	1654	738		
V/C Ratio(X)	0.15	0.84	0.78	0.62	0.00	0.00	0.52	0.65		
Avail Cap(c_a), veh/h	772	1374	213	2076	0	0	1654	738		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	20.4	26.0	36.5	10.5	0.0	0.0	14.8	16.1		
Incr Delay (d2), s/veh	0.1	3.1	11.0	1.4	0.0	0.0	1.2	4.5		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.0	6.6	1.9	6.2	0.0	0.0	5.1	6.7		
Unsig. Movement Delay, s/veh										
LnGrp Delay(d),s/veh	20.5	29.0	47.4	12.0	0.0	0.0	16.0	20.6		
LnGrp LOS	C	C	D	B	A	A	B	C		
Approach Vol, veh/h	859			1379			1351			
Approach Delay, s/veh	28.3			14.2			17.6			
Approach LOS	C			B			B			
Timer - Assigned Phs	2		5		6		8			
Phs Duration (G+Y+Rc), s	51.0		9.5		41.5		28.0			
Change Period (Y+Rc), s	4.5		4.5		4.5		4.5			
Max Green Setting (Gmax), s	46.5		9.5		32.5		34.5			
Max Q Clear Time (g_c+l1), s	20.8		5.8		20.6		20.4			
Green Ext Time (p_c), s	10.4		0.0		5.9		3.1			
Intersection Summary										
HCM 6th Ctrl Delay			18.8							
HCM 6th LOS			B							
Notes										

HCM 6th Signalized Intersection Summary

3: 12th Avenue & SR 198 EB Off Ramps

11/02/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	594	0	25	0	0	0	0	674	189	0	501	366
Future Volume (veh/h)	594	0	25	0	0	0	0	674	189	0	501	366
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1856	0	1856				0	1856	1856	0	1856	1856
Adj Flow Rate, veh/h	646	0	27				0	733	0	0	545	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	0	3				0	3	3	0	3	3
Cap, veh/h	820	0	376				0	2231		0	2231	
Arrive On Green	0.24	0.00	0.24				0.00	0.63	0.00	0.00	0.63	0.00
Sat Flow, veh/h	3428	0	1572				0	3618	1572	0	3618	1572
Grp Volume(v), veh/h	646	0	27				0	733	0	0	545	0
Grp Sat Flow(s),veh/h/ln	1714	0	1572				0	1763	1572	0	1763	1572
Q Serve(g_s), s	12.4	0.0	0.9				0.0	6.8	0.0	0.0	4.7	0.0
Cycle Q Clear(g_c), s	12.4	0.0	0.9				0.0	6.8	0.0	0.0	4.7	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	820	0	376				0	2231		0	2231	
V/C Ratio(X)	0.79	0.00	0.07				0.00	0.33		0.00	0.24	
Avail Cap(c_a), veh/h	1780	0	816				0	2231		0	2231	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	25.1	0.0	20.7				0.0	6.0	0.0	0.0	5.6	0.0
Incr Delay (d2), s/veh	1.7	0.0	0.1				0.0	0.4	0.0	0.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	0.0	0.3				0.0	1.9	0.0	0.0	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.8	0.0	20.8				0.0	6.4	0.0	0.0	5.9	0.0
LnGrp LOS	C	A	C				A	A		A	A	
Approach Vol, veh/h	673						733			A		
Approach Delay, s/veh	26.6						6.4			5.9		
Approach LOS	C						A			A		
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	49.0			21.3			49.0					
Change Period (Y+Rc), s	4.5			4.5			4.5					
Max Green Setting (Gmax), s	44.5			36.5			44.5					
Max Q Clear Time (g_c+l1), s	8.8			14.4			6.7					
Green Ext Time (p_c), s	5.4			2.4			3.8					
Intersection Summary												
HCM 6th Ctrl Delay	13.2											
HCM 6th LOS	B											

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

4: Campus Drive & Lacey Boulevard

11/02/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	603	40	73	603	66	26	73	76	68	100	19
Future Volume (veh/h)	31	603	40	73	603	66	26	73	76	68	100	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	34	655	43	79	655	72	28	79	83	74	109	21
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	60	863	385	102	946	422	52	308	323	144	785	665
Arrive On Green	0.03	0.24	0.24	0.06	0.27	0.27	0.03	0.37	0.37	0.08	0.42	0.42
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	828	870	1767	1856	1572
Grp Volume(v), veh/h	34	655	43	79	655	72	28	0	162	74	109	21
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	0	1699	1767	1856	1572
Q Serve(g_s), s	1.4	12.7	1.6	3.2	12.3	1.9	1.1	0.0	4.9	3.0	2.6	0.6
Cycle Q Clear(g_c), s	1.4	12.7	1.6	3.2	12.3	1.9	1.1	0.0	4.9	3.0	2.6	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.51	1.00		1.00
Lane Grp Cap(c), veh/h	60	863	385	102	946	422	52	0	631	144	785	665
V/C Ratio(X)	0.57	0.76	0.11	0.78	0.69	0.17	0.53	0.00	0.26	0.51	0.14	0.03
Avail Cap(c_a), veh/h	156	1223	546	233	1377	614	137	0	631	228	785	665
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.0	25.7	21.6	34.2	24.2	10.7	35.2	0.0	16.1	32.4	13.0	12.4
Incr Delay (d2), s/veh	8.1	1.8	0.1	11.8	0.9	0.2	8.2	0.0	1.0	2.8	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	5.2	0.6	1.7	4.9	0.9	0.6	0.0	1.9	1.3	1.1	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.0	27.5	21.7	46.0	25.1	10.9	43.4	0.0	17.0	35.2	13.4	12.5
LnGrp LOS	D	C	C	D	C	B	D	A	B	D	B	B
Approach Vol, veh/h	732			806			190			204		
Approach Delay, s/veh	27.9			25.9			20.9			21.2		
Approach LOS	C			C			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.5	31.8	8.7	22.5	6.7	35.6	7.0	24.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.5	27.3	9.7	25.5	5.7	31.1	6.5	28.7				
Max Q Clear Time (g_c+I1), s	5.0	6.9	5.2	14.7	3.1	4.6	3.4	14.3				
Green Ext Time (p_c), s	0.0	0.9	0.1	3.3	0.0	0.6	0.0	4.0				
Intersection Summary												
HCM 6th Ctrl Delay	25.7											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary

7: 11th Avenue & Lacey Boulevard

11/02/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	128	258	170	65	314	65	400	669	77	94	725	203
Future Volume (veh/h)	128	258	170	65	314	65	400	669	77	94	725	203
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	139	280	185	71	341	71	435	727	84	102	788	221
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	221	639	285	93	492	101	529	1416	164	131	1285	573
Arrive On Green	0.06	0.18	0.18	0.05	0.17	0.17	0.15	0.44	0.44	0.07	0.36	0.36
Sat Flow, veh/h	3428	3526	1572	1767	2911	599	3428	3184	368	1767	3526	1572
Grp Volume(v), veh/h	139	280	185	71	205	207	435	402	409	102	788	221
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	1767	1763	1748	1714	1763	1789	1767	1763	1572
Q Serve(g_s), s	2.9	5.1	5.2	2.9	7.9	8.1	8.9	11.9	12.0	4.1	13.3	7.6
Cycle Q Clear(g_c), s	2.9	5.1	5.2	2.9	7.9	8.1	8.9	11.9	12.0	4.1	13.3	7.6
Prop In Lane	1.00		1.00	1.00		0.34	1.00		0.21	1.00		1.00
Lane Grp Cap(c), veh/h	221	639	285	93	298	296	529	784	796	131	1285	573
V/C Ratio(X)	0.63	0.44	0.65	0.77	0.69	0.70	0.82	0.51	0.51	0.78	0.61	0.39
Avail Cap(c_a), veh/h	236	1290	575	156	679	673	589	784	796	207	1285	573
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.2	26.5	12.0	34.0	28.4	28.5	29.8	14.5	14.5	33.1	18.9	17.1
Incr Delay (d2), s/veh	4.7	0.5	2.5	12.4	2.8	3.0	8.4	2.4	2.4	9.6	2.2	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.1	2.9	1.5	3.4	3.5	4.1	4.7	4.8	2.0	5.3	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.9	26.9	14.5	46.4	31.2	31.5	38.2	16.9	16.9	42.7	21.1	19.0
LnGrp LOS	D	C	B	D	C	C	D	B	B	D	C	B
Approach Vol, veh/h	604			483			1246			1111		
Approach Delay, s/veh	25.7			33.6			24.3			22.7		
Approach LOS	C			C			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.9	36.8	8.3	17.7	15.7	31.0	9.2	16.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.5	30.5	6.4	26.6	12.5	26.5	5.0	28.0				
Max Q Clear Time (g_c+I1), s	6.1	14.0	4.9	7.2	10.9	15.3	4.9	10.1				
Green Ext Time (p_c), s	0.0	4.6	0.0	2.2	0.3	4.6	0.0	2.2				
Intersection Summary												
HCM 6th Ctrl Delay	25.3											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary

8: 11th Avenue & 7th Street

11/02/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	138	102	113	141	74	238	668	152	110	451	99
Future Volume (veh/h)	57	138	102	113	141	74	238	668	152	110	451	99
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	62	150	111	123	153	80	259	726	165	120	490	108
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	171	247	171	155	370	184	303	1571	701	153	1272	567
Arrive On Green	0.05	0.12	0.12	0.09	0.16	0.16	0.17	0.45	0.45	0.09	0.36	0.36
Sat Flow, veh/h	3428	1990	1380	1767	2280	1134	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	62	132	129	123	116	117	259	726	165	120	490	108
Grp Sat Flow(s),veh/h/ln	1714	1763	1607	1767	1763	1651	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	1.2	5.0	5.4	4.8	4.2	4.5	10.0	10.1	2.8	4.7	7.3	3.3
Cycle Q Clear(g_c), s	1.2	5.0	5.4	4.8	4.2	4.5	10.0	10.1	2.8	4.7	7.3	3.3
Prop In Lane	1.00		0.86	1.00		0.69	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	171	219	199	155	286	268	303	1571	701	153	1272	567
V/C Ratio(X)	0.36	0.60	0.65	0.79	0.41	0.44	0.85	0.46	0.24	0.78	0.39	0.19
Avail Cap(c_a), veh/h	243	651	594	176	701	657	341	1571	701	233	1272	567
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.4	29.2	29.4	31.5	26.5	26.6	28.3	13.6	4.5	31.5	16.7	15.4
Incr Delay (d2), s/veh	1.3	2.6	3.5	19.3	0.9	1.1	17.2	1.0	0.8	9.2	0.9	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.2	2.2	2.8	1.8	1.8	5.4	3.8	1.6	2.3	2.8	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.6	31.8	32.9	50.7	27.4	27.7	45.5	14.6	5.3	40.7	17.6	16.2
LnGrp LOS	C	C	C	D	C	C	D	B	A	D	B	B
Approach Vol, veh/h	323			356			1150			718		
Approach Delay, s/veh	32.6			35.6			20.2			21.2		
Approach LOS	C			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.6	35.9	10.7	13.2	16.6	29.9	8.0	15.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.3	29.7	7.0	26.0	13.6	25.4	5.0	28.0				
Max Q Clear Time (g_c+I1), s	6.7	12.1	6.8	7.4	12.0	9.3	3.2	6.5				
Green Ext Time (p_c), s	0.1	5.1	0.0	1.3	0.1	3.2	0.0	1.4				
Intersection Summary												
HCM 6th Ctrl Delay	24.2											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary

10: 11th Avenue & 5th Street

11/02/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	0	11	6	0	8	40	1387	36	2	778	73
Future Volume (veh/h)	32	0	11	6	0	8	40	1387	36	2	778	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	35	0	12	7	0	9	43	1508	39	2	846	79
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	191	0	83	110	8	45	74	2566	66	5	2438	1087
Arrive On Green	0.05	0.00	0.05	0.05	0.00	0.05	0.04	0.73	0.73	0.00	0.69	0.69
Sat Flow, veh/h	1395	0	1572	523	145	859	1767	3511	91	1767	3526	1572
Grp Volume(v), veh/h	35	0	12	16	0	0	43	756	791	2	846	79
Grp Sat Flow(s),veh/h/ln	1395	0	1572	1526	0	0	1767	1763	1839	1767	1763	1572
Q Serve(g_s), s	0.8	0.0	0.5	0.0	0.0	0.0	1.5	12.8	12.8	0.1	6.2	1.0
Cycle Q Clear(g_c), s	1.4	0.0	0.5	0.6	0.0	0.0	1.5	12.8	12.8	0.1	6.2	1.0
Prop In Lane	1.00		1.00	0.44		0.56	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	191	0	83	163	0	0	74	1288	1344	5	2438	1087
V/C Ratio(X)	0.18	0.00	0.14	0.10	0.00	0.00	0.58	0.59	0.59	0.41	0.35	0.07
Avail Cap(c_a), veh/h	693	0	649	698	0	0	187	1288	1344	143	2438	1087
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.0	0.0	28.6	28.6	0.0	0.0	29.7	4.0	4.0	31.5	4.0	3.2
Incr Delay (d2), s/veh	0.5	0.0	0.8	0.3	0.0	0.0	7.0	2.0	1.9	48.3	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.2	0.2	0.0	0.0	0.8	3.2	3.3	0.1	1.5	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.4	0.0	29.3	28.9	0.0	0.0	36.7	6.0	5.9	79.7	4.3	3.3
LnGrp LOS	C	A	C	C	A	A	D	A	A	E	A	A
Approach Vol, veh/h	47			16			1590			927		
Approach Delay, s/veh	29.4			28.9			6.8			4.4		
Approach LOS	C			C			A			A		
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	4.7	50.7	7.8		7.1	48.2	7.8					
Change Period (Y+Rc), s	4.5	4.5	4.5		4.5	4.5	4.5					
Max Green Setting (Gmax), s	5.1	45.3	26.1		6.7	43.7	26.1					
Max Q Clear Time (g_c+I1), s	2.1	14.8	3.4		3.5	8.2	2.6					
Green Ext Time (p_c), s	0.0	14.6	0.1		0.0	7.4	0.0					
Intersection Summary												
HCM 6th Ctrl Delay	6.5											
HCM 6th LOS	A											

HCM 6th Signalized Intersection Summary

11: 11th Avenue & SR 198 WB On Ramp/4th Street

11/02/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	182	25	337	80	1138	0	0	589	252
Future Volume (veh/h)	0	0	0	182	25	337	80	1138	0	0	589	252
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1856	1856	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				198	27	366	87	1237	0	0	640	274
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				475	499	422	113	2175	0	0	1748	780
Arrive On Green				0.27	0.27	0.27	0.06	0.62	0.00	0.00	0.50	0.50
Sat Flow, veh/h				1767	1856	1572	1767	3618	0	0	3618	1572
Grp Volume(v), veh/h				198	27	366	87	1237	0	0	640	274
Grp Sat Flow(s),veh/h/ln				1767	1856	1572	1767	1763	0	0	1763	1572
Q Serve(g_s), s				7.3	0.8	17.4	3.8	16.3	0.0	0.0	8.8	8.4
Cycle Q Clear(g_c), s				7.3	0.8	17.4	3.8	16.3	0.0	0.0	8.8	8.4
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				475	499	422	113	2175	0	0	1748	780
V/C Ratio(X)				0.42	0.05	0.87	0.77	0.57	0.00	0.00	0.37	0.35
Avail Cap(c_a), veh/h				730	767	650	258	2175	0	0	1748	780
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				23.7	21.3	27.4	36.2	8.9	0.0	0.0	12.2	12.1
Incr Delay (d2), s/veh				0.6	0.0	7.7	10.7	1.1	0.0	0.0	0.6	1.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.8	0.3	6.8	1.9	5.6	0.0	0.0	3.2	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				24.3	21.4	35.1	46.9	10.0	0.0	0.0	12.8	13.3
LnGrp LOS				C	C	D	D	A	A	A	B	B
Approach Vol, veh/h					591			1324			914	
Approach Delay, s/veh					30.9			12.4			13.0	
Approach LOS					C			B			B	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		53.0			9.5	43.5		25.6				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		48.5			11.5	32.5		32.5				
Max Q Clear Time (g_c+I1), s		18.3			5.8	10.8		19.4				
Green Ext Time (p_c), s		11.4			0.1	5.3		1.7				
Intersection Summary												
HCM 6th Ctrl Delay				16.4								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary 12: 11th Avenue & SR 198 EB Off Ramp/3rd Street

11/02/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	373	216	131	0	0	0	0	849	207	127	649	0
Future Volume (veh/h)	373	216	131	0	0	0	0	849	207	127	649	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	405	235	142				0	923	225	138	705	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3				0	3	3	3	3	0
Cap, veh/h	445	258	615				0	1247	556	171	1775	0
Arrive On Green	0.39	0.39	0.39				0.00	0.35	0.35	0.10	0.50	0.00
Sat Flow, veh/h	1138	660	1572				0	3618	1572	1767	3618	0
Grp Volume(v), veh/h	640	0	142				0	923	225	138	705	0
Grp Sat Flow(s),veh/h/ln	1799	0	1572				0	1763	1572	1767	1763	0
Q Serve(g_s), s	28.7	0.0	5.2				0.0	19.5	9.2	6.5	10.6	0.0
Cycle Q Clear(g_c), s	28.7	0.0	5.2				0.0	19.5	9.2	6.5	10.6	0.0
Prop In Lane	0.63		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	703	0	615				0	1247	556	171	1775	0
V/C Ratio(X)	0.91	0.00	0.23				0.00	0.74	0.40	0.81	0.40	0.00
Avail Cap(c_a), veh/h	804	0	703				0	1247	556	212	1775	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	24.5	0.0	17.4				0.0	24.1	20.8	37.7	13.1	0.0
Incr Delay (d2), s/veh	13.3	0.0	0.2				0.0	4.0	2.2	16.8	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.3	0.0	1.7				0.0	8.1	3.5	3.6	4.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.8	0.0	17.6				0.0	28.1	22.9	54.5	13.8	0.0
LnGrp LOS	D	A	B				A	C	C	D	B	A
Approach Vol, veh/h	782						1148			843		
Approach Delay, s/veh	34.1						27.1			20.5		
Approach LOS	C						C			C		
Timer - Assigned Phs	1	2	4		6							
Phs Duration (G+Y+Rc), s	12.7	34.7	37.8		47.4							
Change Period (Y+Rc), s	4.5	4.5	4.5		4.5							
Max Green Setting (Gmax), s	10.2	28.2	38.1		42.9							
Max Q Clear Time (g_c+I1), s	8.5	21.5	30.7		12.6							
Green Ext Time (p_c), s	0.1	3.6	2.7		5.5							
Intersection Summary												
HCM 6th Ctrl Delay	27.0											
HCM 6th LOS	C											

HCM 6th AWSC
5: Campus Dr/Campus Drive & 7th Street

11/02/2020

Intersection	
Intersection Delay, s/veh	12.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	127	181	25	28	223	48	34	87	22	34	46	51
Future Vol, veh/h	127	181	25	28	223	48	34	87	22	34	46	51
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	138	197	27	30	242	52	37	95	24	37	50	55
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	11.7	13.5	11.2	10.8
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	24%	100%	0%	100%	0%	26%
Vol Thru, %	61%	0%	88%	0%	82%	35%
Vol Right, %	15%	0%	12%	0%	18%	39%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	143	127	206	28	271	131
LT Vol	34	127	0	28	0	34
Through Vol	87	0	181	0	223	46
RT Vol	22	0	25	0	48	51
Lane Flow Rate	155	138	224	30	295	142
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.26	0.247	0.363	0.055	0.479	0.234
Departure Headway (Hd)	6.014	6.43	5.837	6.489	5.856	5.913
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	595	558	616	551	616	605
Service Time	4.074	4.178	3.584	4.237	3.604	3.976
HCM Lane V/C Ratio	0.261	0.247	0.364	0.054	0.479	0.235
HCM Control Delay	11.2	11.3	11.9	9.6	13.9	10.8
HCM Lane LOS	B	B	B	A	B	B
HCM 95th-tile Q	1	1	1.7	0.2	2.6	0.9

HCM 6th TWSC
1: 12th Avenue & Glendale Avenue

11/02/2020

Intersection												
Int Delay, s/veh	66.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↰			↰		↰↰↰		↰	↰↰↰	
Traffic Vol, veh/h	0	0	255	0	0	152	0	2631	45	56	2735	249
Future Vol, veh/h	0	0	255	0	0	152	0	2631	45	56	2735	249
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	125	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	277	0	0	165	0	2860	49	61	2973	271

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	-	-	1622	-	-	1455	-	0
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.16	-	-	7.16	-	5.36
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.93	-	-	3.93	-	3.13
Pot Cap-1 Maneuver	0	0	~ 78	0	0	~ 101	0	~ 42
Stage 1	0	0	-	0	0	-	0	-
Stage 2	0	0	-	0	0	-	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	~ 78	-	-	~ 101	-	~ 42
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, \$	1261.2	399.8	0	8.3
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	78	101	~ 42	-	-
HCM Lane V/C Ratio	-	-	3.554	1.636	1.449	-	-
HCM Control Delay (s)	-	-	\$ 1261.2	\$ 399.8	\$ 448.9	-	-
HCM Lane LOS	-	-	F	F	F	-	-
HCM 95th %tile Q(veh)	-	-	28.5	12.8	6.1	-	-

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC
6: Campus Dr & 6th Street

11/02/2020

Intersection												
Int Delay, s/veh	7.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	19	12	0	0	6	107	0	2	0	94	2	22
Future Vol, veh/h	19	12	0	0	6	107	0	2	0	94	2	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	21	13	0	0	7	116	0	2	0	102	2	24

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	282	220	14	227	232	2	26	0	0	2	0	0
Stage 1	218	218	-	2	2	-	-	-	-	-	-	-
Stage 2	64	2	-	225	230	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	668	677	1063	726	666	1079	1582	-	-	1614	-	-
Stage 1	782	721	-	1018	892	-	-	-	-	-	-	-
Stage 2	944	892	-	775	712	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	562	634	1063	680	623	1079	1582	-	-	1614	-	-
Mov Cap-2 Maneuver	562	634	-	680	623	-	-	-	-	-	-	-
Stage 1	782	675	-	1018	892	-	-	-	-	-	-	-
Stage 2	836	892	-	711	666	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	11.5		8.9		0		5.9	
HCM LOS	B		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1582	-	-	588 1039	1614	-	-
HCM Lane V/C Ratio	-	-	-	0.057 0.118	0.063	-	-
HCM Control Delay (s)	0	-	-	11.5 8.9	7.4	0	-
HCM Lane LOS	A	-	-	B A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2 0.4	0.2	-	-

Intersection												
Int Delay, s/veh	7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↗	↗↖		↗	↗↖	
Traffic Vol, veh/h	0	0	105	0	0	249	152	1580	162	165	1679	12
Future Vol, veh/h	0	0	105	0	0	249	152	1580	162	165	1679	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	75	-	-	125	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	108	0	0	257	157	1629	167	170	1731	12
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	872	-	-	898	1743	0	0	1796	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.96	-	-	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.33	-	-	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	0	0	292	0	0	280	352	-	-	336	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	292	-	-	280	352	-	-	336	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	24.4		74.3		1.9		2.3					
HCM LOS	C		F									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	352	-	-	292	280	336	-	-				
HCM Lane V/C Ratio	0.445	-	-	0.371	0.917	0.506	-	-				
HCM Control Delay (s)	23.2	-	-	24.4	74.3	26.2	-	-				
HCM Lane LOS	C	-	-	C	F	D	-	-				
HCM 95th %tile Q(veh)	2.2	-	-	1.6	8.5	2.7	-	-				

HCM 6th Signalized Intersection Summary

2: SR 198 WB Ramps & 12th Avenue

11/02/2020

										
Movement	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations										
Traffic Volume (veh/h)	221	835	71	1847	0	0	1983	1016	0	0
Future Volume (veh/h)	221	835	71	1847	0	0	1983	1016	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No			No			
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	0	0	1856	1856		
Adj Flow Rate, veh/h	240	908	77	2008	0	0	2155	1104		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	3	3	3	3	0	0	3	3		
Cap, veh/h	434	773	81	2394	0	0	2101	937		
Arrive On Green	0.25	0.25	0.05	0.68	0.00	0.00	0.60	0.60		
Sat Flow, veh/h	1767	3145	1767	3618	0	0	3618	1572		
Grp Volume(v), veh/h	240	908	77	2008	0	0	2155	1104		
Grp Sat Flow(s),veh/h/ln	1767	1572	1767	1763	0	0	1763	1572		
Q Serve(g_s), s	14.2	29.5	5.2	50.9	0.0	0.0	71.5	71.5		
Cycle Q Clear(g_c), s	14.2	29.5	5.2	50.9	0.0	0.0	71.5	71.5		
Prop In Lane	1.00	1.00	1.00		0.00	0.00		1.00		
Lane Grp Cap(c), veh/h	434	773	81	2394	0	0	2101	937		
V/C Ratio(X)	0.55	1.17	0.95	0.84	0.00	0.00	1.03	1.18		
Avail Cap(c_a), veh/h	434	773	81	2394	0	0	2101	937		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	39.5	45.3	57.1	14.3	0.0	0.0	24.2	24.2		
Incr Delay (d2), s/veh	1.5	91.9	83.2	3.7	0.0	0.0	26.5	91.4		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	6.2	20.9	4.2	18.4	0.0	0.0	34.1	47.3		
Unsig. Movement Delay, s/veh										
LnGrp Delay(d),s/veh	41.0	137.1	140.3	18.1	0.0	0.0	50.8	115.6		
LnGrp LOS	D	F	F	B	A	A	F	F		
Approach Vol, veh/h	1148			2085			3259			
Approach Delay, s/veh	117.0			22.6			72.8			
Approach LOS	F			C			E			
Timer - Assigned Phs	2		5		6		8			
Phs Duration (G+Y+Rc), s	86.0		10.0		76.0		34.0			
Change Period (Y+Rc), s	4.5		4.5		4.5		4.5			
Max Green Setting (Gmax), s	81.5		5.5		71.5		29.5			
Max Q Clear Time (g_c+I1), s	52.9		7.2		73.5		31.5			
Green Ext Time (p_c), s	19.4		0.0		0.0		0.0			
Intersection Summary										
HCM 6th Ctrl Delay	64.5									
HCM 6th LOS	E									
Notes										

HCM 6th Signalized Intersection Summary

3: 12th Avenue & SR 198 EB Off Ramps

11/02/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	883	0	76	0	0	0	0	1020	221	0	1362	856
Future Volume (veh/h)	883	0	76	0	0	0	0	1020	221	0	1362	856
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1856	0	1856				0	1856	1856	0	1856	1856
Adj Flow Rate, veh/h	949	0	82				0	1097	0	0	1465	0
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	0	3				0	3	3	0	3	3
Cap, veh/h	1089	0	499				0	2029		0	2029	
Arrive On Green	0.32	0.00	0.32				0.00	0.58	0.00	0.00	0.58	0.00
Sat Flow, veh/h	3428	0	1572				0	3618	1572	0	3618	1572
Grp Volume(v), veh/h	949	0	82				0	1097	0	0	1465	0
Grp Sat Flow(s),veh/h/ln	1714	0	1572				0	1763	1572	0	1763	1572
Q Serve(g_s), s	22.0	0.0	3.2				0.0	16.2	0.0	0.0	25.4	0.0
Cycle Q Clear(g_c), s	22.0	0.0	3.2				0.0	16.2	0.0	0.0	25.4	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	1089	0	499				0	2029		0	2029	
V/C Ratio(X)	0.87	0.00	0.16				0.00	0.54		0.00	0.72	
Avail Cap(c_a), veh/h	1322	0	607				0	2029		0	2029	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	27.1	0.0	20.7				0.0	11.0	0.0	0.0	13.0	0.0
Incr Delay (d2), s/veh	5.7	0.0	0.2				0.0	1.0	0.0	0.0	2.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.0	0.0	1.1				0.0	5.5	0.0	0.0	8.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.8	0.0	20.9				0.0	12.1	0.0	0.0	15.2	0.0
LnGrp LOS	C	A	C				A	B		A	B	
Approach Vol, veh/h	1031						1097			A		
Approach Delay, s/veh	31.9						12.1			15.2		
Approach LOS	C						B			B		
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	53.0			31.3			53.0					
Change Period (Y+Rc), s	4.5			4.5			4.5					
Max Green Setting (Gmax), s	48.5			32.5			48.5					
Max Q Clear Time (g_c+l1), s	18.2			24.0			27.4					
Green Ext Time (p_c), s	8.8			2.8			11.0					

Intersection Summary

HCM 6th Ctrl Delay	19.0
HCM 6th LOS	B

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

4: Campus Drive & Lacey Boulevard

11/02/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	1144	51	80	1268	66	56	105	182	155	133	53
Future Volume (veh/h)	46	1144	51	80	1268	66	56	105	182	155	133	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	50	1243	55	87	1378	72	61	114	198	168	145	58
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	70	1277	570	102	1341	598	78	172	298	173	623	528
Arrive On Green	0.04	0.36	0.36	0.06	0.38	0.38	0.04	0.28	0.28	0.10	0.34	0.34
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	608	1057	1767	1856	1572
Grp Volume(v), veh/h	50	1243	55	87	1378	72	61	0	312	168	145	58
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	0	1665	1767	1856	1572
Q Serve(g_s), s	2.5	31.3	2.1	4.4	34.2	1.8	3.1	0.0	14.9	8.5	5.1	2.3
Cycle Q Clear(g_c), s	2.5	31.3	2.1	4.4	34.2	1.8	3.1	0.0	14.9	8.5	5.1	2.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.63	1.00		1.00
Lane Grp Cap(c), veh/h	70	1277	570	102	1341	598	78	0	470	173	623	528
V/C Ratio(X)	0.71	0.97	0.10	0.85	1.03	0.12	0.78	0.00	0.66	0.97	0.23	0.11
Avail Cap(c_a), veh/h	98	1277	570	102	1341	598	173	0	470	173	623	528
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.7	28.3	19.0	42.0	27.9	8.4	42.6	0.0	28.5	40.5	21.5	20.6
Incr Delay (d2), s/veh	13.4	19.1	0.1	46.1	31.9	0.1	15.1	0.0	7.2	60.1	0.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	15.7	0.7	3.2	19.3	0.9	1.7	0.0	6.7	6.5	2.3	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.1	47.3	19.0	88.1	59.8	8.5	57.6	0.0	35.7	100.6	22.4	21.0
LnGrp LOS	E	D	B	F	F	A	E	A	D	F	C	C
Approach Vol, veh/h	1348			1537			373			371		
Approach Delay, s/veh	46.5			59.0			39.3			57.6		
Approach LOS	D			E			D			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.3	29.9	9.7	37.1	8.5	34.7	8.1	38.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.8	25.4	5.2	32.6	8.8	25.4	5.0	32.8				
Max Q Clear Time (g_c+I1), s	10.5	16.9	6.4	33.3	5.1	7.1	4.5	36.2				
Green Ext Time (p_c), s	0.0	1.2	0.0	0.0	0.0	0.9	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay	52.2											
HCM 6th LOS	D											

HCM 6th Signalized Intersection Summary

7: 11th Avenue & Lacey Boulevard

11/02/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	391	414	329	170	470	131	473	977	88	142	853	162
Future Volume (veh/h)	391	414	329	170	470	131	473	977	88	142	853	162
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	425	450	358	185	511	142	514	1062	96	154	927	176
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	466	838	374	218	614	170	569	1159	105	183	1029	459
Arrive On Green	0.14	0.24	0.24	0.12	0.22	0.22	0.17	0.35	0.35	0.10	0.29	0.29
Sat Flow, veh/h	3428	3526	1572	1767	2728	754	3428	3270	295	1767	3526	1572
Grp Volume(v), veh/h	425	450	358	185	329	324	514	572	586	154	927	176
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	1767	1763	1720	1714	1763	1802	1767	1763	1572
Q Serve(g_s), s	12.1	11.1	14.8	10.2	17.7	17.9	14.6	30.8	30.9	8.5	25.1	8.9
Cycle Q Clear(g_c), s	12.1	11.1	14.8	10.2	17.7	17.9	14.6	30.8	30.9	8.5	25.1	8.9
Prop In Lane	1.00		1.00	1.00		0.44	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	466	838	374	218	396	387	569	625	639	183	1029	459
V/C Ratio(X)	0.91	0.54	0.96	0.85	0.83	0.84	0.90	0.92	0.92	0.84	0.90	0.38
Avail Cap(c_a), veh/h	466	948	423	263	497	485	569	625	639	183	1029	459
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.3	33.1	16.4	42.7	36.7	36.8	40.6	30.7	30.7	43.7	33.8	28.0
Incr Delay (d2), s/veh	22.2	0.5	31.4	19.5	9.3	10.1	17.7	20.4	20.2	27.9	12.4	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	4.7	8.3	5.5	8.4	8.4	7.4	16.0	16.4	5.1	12.1	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.5	33.6	47.8	62.1	46.0	46.8	58.3	51.1	50.9	71.6	46.2	30.5
LnGrp LOS	E	C	D	E	D	D	E	D	D	E	D	C
Approach Vol, veh/h	1233			838			1672			1257		
Approach Delay, s/veh	48.4			49.9			53.2			47.1		
Approach LOS	D			D			D			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.8	39.7	16.7	28.1	21.0	33.5	18.0	26.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.3	35.2	14.8	26.7	16.5	29.0	13.5	28.0				
Max Q Clear Time (g_c+I1), s	10.5	32.9	12.2	16.8	16.6	27.1	14.1	19.9				
Green Ext Time (p_c), s	0.0	1.5	0.1	3.0	0.0	1.2	0.0	2.5				
Intersection Summary												
HCM 6th Ctrl Delay	49.9											
HCM 6th LOS	D											

HCM 6th Signalized Intersection Summary

8: 11th Avenue & 7th Street

11/02/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	272	339	252	250	169	258	901	178	172	853	80
Future Volume (veh/h)	104	272	339	252	250	169	258	901	178	172	853	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	113	296	368	274	272	184	280	979	193	187	927	87
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	169	417	372	281	706	463	284	1147	512	204	987	440
Arrive On Green	0.05	0.24	0.24	0.16	0.35	0.35	0.16	0.33	0.33	0.12	0.28	0.28
Sat Flow, veh/h	3428	1763	1572	1767	2041	1337	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	113	296	368	274	234	222	280	979	193	187	927	87
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	1767	1763	1615	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	3.6	17.0	25.7	17.0	11.0	11.5	17.4	28.5	6.7	11.5	28.3	4.6
Cycle Q Clear(g_c), s	3.6	17.0	25.7	17.0	11.0	11.5	17.4	28.5	6.7	11.5	28.3	4.6
Prop In Lane	1.00		1.00	1.00		0.83	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	169	417	372	281	610	559	284	1147	512	204	987	440
V/C Ratio(X)	0.67	0.71	0.99	0.97	0.38	0.40	0.98	0.85	0.38	0.92	0.94	0.20
Avail Cap(c_a), veh/h	234	417	372	281	610	559	284	1147	512	204	987	440
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.4	38.5	41.9	46.0	27.1	27.3	46.0	34.6	11.8	48.1	38.7	30.2
Incr Delay (d2), s/veh	4.5	5.6	43.9	46.5	0.4	0.5	49.0	8.1	2.1	40.5	17.3	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	7.8	14.2	11.1	4.7	4.5	11.4	13.2	2.6	7.3	14.2	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.9	44.1	85.8	92.5	27.5	27.7	95.0	42.8	13.9	88.6	55.9	31.2
LnGrp LOS	E	D	F	F	C	C	F	D	B	F	E	C
Approach Vol, veh/h	777			730			1452			1201		
Approach Delay, s/veh	65.6			52.0			49.0			59.2		
Approach LOS	E			D			D			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.2	40.3	22.0	30.5	22.2	35.3	9.9	42.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	12.7	35.8	17.5	26.0	17.7	30.8	7.5	36.0				
Max Q Clear Time (g_c+I1), s	13.5	30.5	19.0	27.7	19.4	30.3	5.6	13.5				
Green Ext Time (p_c), s	0.0	3.1	0.0	0.0	0.0	0.4	0.1	3.0				
Intersection Summary												
HCM 6th Ctrl Delay	55.6											
HCM 6th LOS	E											

HCM 6th Signalized Intersection Summary

10: 11th Avenue & 5th Street

11/02/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	213	0	66	15	0	15	249	1656	5	12	1566	189
Future Volume (veh/h)	213	0	66	15	0	15	249	1656	5	12	1566	189
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	220	0	68	15	0	15	257	1707	5	12	1614	195
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	337	0	274	159	19	117	291	2380	7	25	1798	802
Arrive On Green	0.17	0.00	0.17	0.17	0.00	0.17	0.16	0.66	0.66	0.01	0.51	0.51
Sat Flow, veh/h	1387	0	1572	565	109	673	1767	3606	11	1767	3526	1572
Grp Volume(v), veh/h	220	0	68	30	0	0	257	834	878	12	1614	195
Grp Sat Flow(s),veh/h/ln	1387	0	1572	1347	0	0	1767	1763	1854	1767	1763	1572
Q Serve(g_s), s	9.5	0.0	3.3	0.0	0.0	0.0	12.7	27.3	27.3	0.6	37.0	6.2
Cycle Q Clear(g_c), s	12.8	0.0	3.3	3.4	0.0	0.0	12.7	27.3	27.3	0.6	37.0	6.2
Prop In Lane	1.00		1.00	0.50		0.50	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	337	0	274	295	0	0	291	1164	1224	25	1798	802
V/C Ratio(X)	0.65	0.00	0.25	0.10	0.00	0.00	0.88	0.72	0.72	0.47	0.90	0.24
Avail Cap(c_a), veh/h	498	0	457	463	0	0	295	1164	1224	99	1798	802
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.4	0.0	31.8	31.0	0.0	0.0	36.5	9.8	9.8	43.7	19.8	12.2
Incr Delay (d2), s/veh	2.1	0.0	0.5	0.1	0.0	0.0	25.4	3.8	3.6	12.9	7.5	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	0.0	1.3	0.6	0.0	0.0	7.4	10.0	10.5	0.4	15.7	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.6	0.0	32.3	31.2	0.0	0.0	61.9	13.6	13.4	56.6	27.3	13.0
LnGrp LOS	D	A	C	C	A	A	E	B	B	E	C	B
Approach Vol, veh/h	288			30			1969			1821		
Approach Delay, s/veh	36.3			31.2			19.8			26.0		
Approach LOS	D			C			B			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.8	63.5		20.1	19.2	50.1		20.1				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	55.5		26.0	14.9	45.6		26.0				
Max Q Clear Time (g_c+I1), s	2.6	29.3		14.8	14.7	39.0		5.4				
Green Ext Time (p_c), s	0.0	15.5		0.8	0.0	5.4		0.1				
Intersection Summary												
HCM 6th Ctrl Delay	23.8											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary

11: 11th Avenue & SR 198 WB On Ramp/4th Street

11/02/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	337	54	303	141	1595	0	0	1351	428
Future Volume (veh/h)	0	0	0	337	54	303	141	1595	0	0	1351	428
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1856	1856	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				355	57	319	148	1679	0	0	1422	451
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				431	453	384	182	2265	0	0	1702	759
Arrive On Green				0.24	0.24	0.24	0.10	0.64	0.00	0.00	0.48	0.48
Sat Flow, veh/h				1767	1856	1572	1767	3618	0	0	3618	1572
Grp Volume(v), veh/h				355	57	319	148	1679	0	0	1422	451
Grp Sat Flow(s),veh/h/ln				1767	1856	1572	1767	1763	0	0	1763	1572
Q Serve(g_s), s				15.1	1.9	15.3	6.5	25.8	0.0	0.0	27.7	16.5
Cycle Q Clear(g_c), s				15.1	1.9	15.3	6.5	25.8	0.0	0.0	27.7	16.5
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				431	453	384	182	2265	0	0	1702	759
V/C Ratio(X)				0.82	0.13	0.83	0.81	0.74	0.00	0.00	0.84	0.59
Avail Cap(c_a), veh/h				668	701	594	191	2265	0	0	1702	759
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				28.4	23.4	28.5	34.8	9.7	0.0	0.0	17.8	14.9
Incr Delay (d2), s/veh				4.9	0.1	5.9	21.9	2.2	0.0	0.0	5.0	3.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.4	0.8	5.9	3.8	8.7	0.0	0.0	11.1	6.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				33.2	23.5	34.3	56.7	11.9	0.0	0.0	22.8	18.3
LnGrp LOS				C	C	C	E	B	A	A	C	B
Approach Vol, veh/h					731			1827			1873	
Approach Delay, s/veh					33.0			15.5			21.7	
Approach LOS					C			B			C	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		55.5			12.7	42.8		23.9				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		51.0			8.6	37.9		30.0				
Max Q Clear Time (g_c+I1), s		27.8			8.5	29.7		17.3				
Green Ext Time (p_c), s		14.6			0.0	6.2		2.1				
Intersection Summary												
HCM 6th Ctrl Delay				21.0								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary 12: 11th Avenue & SR 198 EB Off Ramp/3rd Street

11/02/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	570	122	116	0	0	0	0	1167	314	436	1260	0
Future Volume (veh/h)	570	122	116	0	0	0	0	1167	314	436	1260	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	594	127	121				0	1216	327	454	1312	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3				0	3	3	3	3	0
Cap, veh/h	514	110	550				0	1106	493	378	2003	0
Arrive On Green	0.35	0.35	0.35				0.00	0.31	0.31	0.21	0.57	0.00
Sat Flow, veh/h	1468	314	1572				0	3618	1572	1767	3618	0
Grp Volume(v), veh/h	721	0	121				0	1216	327	454	1312	0
Grp Sat Flow(s),veh/h/ln	1782	0	1572				0	1763	1572	1767	1763	0
Q Serve(g_s), s	38.5	0.0	6.0				0.0	34.5	19.8	23.5	28.2	0.0
Cycle Q Clear(g_c), s	38.5	0.0	6.0				0.0	34.5	19.8	23.5	28.2	0.0
Prop In Lane	0.82		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	624	0	550				0	1106	493	378	2003	0
V/C Ratio(X)	1.16	0.00	0.22				0.00	1.10	0.66	1.20	0.65	0.00
Avail Cap(c_a), veh/h	624	0	550				0	1106	493	378	2003	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	35.8	0.0	25.2				0.0	37.8	32.7	43.3	16.3	0.0
Incr Delay (d2), s/veh	87.3	0.0	0.2				0.0	58.6	6.9	113.8	1.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	30.8	0.0	2.2				0.0	23.2	8.2	22.1	11.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	123.1	0.0	25.4				0.0	96.4	39.6	157.1	18.0	0.0
LnGrp LOS	F	A	C				A	F	D	F	B	A
Approach Vol, veh/h	842						1543			1766		
Approach Delay, s/veh	109.1						84.3			53.8		
Approach LOS	F						F			D		
Timer - Assigned Phs	1	2		4			6					
Phs Duration (G+Y+Rc), s	28.0	39.0		43.0			67.0					
Change Period (Y+Rc), s	4.5	4.5		4.5			4.5					
Max Green Setting (Gmax), s	23.5	34.5		38.5			62.5					
Max Q Clear Time (g_c+I1), s	25.5	36.5		40.5			30.2					
Green Ext Time (p_c), s	0.0	0.0		0.0			12.7					
Intersection Summary												
HCM 6th Ctrl Delay	76.3											
HCM 6th LOS	E											

HCM 6th AWSC
5: Campus Dr/Campus Drive & 7th Street

11/02/2020

Intersection	
Intersection Delay, s/veh	92.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	108	410	40	14	521	62	59	73	6	136	45	135
Future Vol, veh/h	108	410	40	14	521	62	59	73	6	136	45	135
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	113	427	42	15	543	65	61	76	6	142	47	141
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	58.9	175.5	18.1	29.5
HCM LOS	F	F	C	D

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	43%	100%	0%	100%	0%	43%
Vol Thru, %	53%	0%	91%	0%	89%	14%
Vol Right, %	4%	0%	9%	0%	11%	43%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	138	108	450	14	583	316
LT Vol	59	108	0	14	0	136
Through Vol	73	0	410	0	521	45
RT Vol	6	0	40	0	62	135
Lane Flow Rate	144	112	469	15	607	329
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.354	0.256	0.991	0.034	1.314	0.708
Departure Headway (Hd)	9.816	8.804	8.219	8.387	7.792	8.475
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	369	411	445	426	468	431
Service Time	7.816	6.504	5.919	6.148	5.553	6.475
HCM Lane V/C Ratio	0.39	0.273	1.054	0.035	1.297	0.763
HCM Control Delay	18.1	14.5	69.5	11.4	179.4	29.5
HCM Lane LOS	C	B	F	B	F	D
HCM 95th-tile Q	1.6	1	12.5	0.1	26.5	5.4

HCM 6th TWSC
1: 12th Avenue & Glendale Avenue

11/02/2020

Intersection												
Int Delay, s/veh	6.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗		↑↑↑		↗↑↑↑		
Traffic Vol, veh/h	0	0	111	0	0	118	0	1829	191	85	1182	155
Future Vol, veh/h	0	0	111	0	0	118	0	1829	191	85	1182	155
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	125	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	121	0	0	128	0	1988	208	92	1285	168

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	-	-	727	-	-	1098	-	0
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.16	-	-	7.16	-	5.36
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.93	-	-	3.93	-	3.13
Pot Cap-1 Maneuver	0	0	313	0	0	177	0	98
Stage 1	0	0	-	0	0	-	0	-
Stage 2	0	0	-	0	0	-	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	313	-	-	177	-	98
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	23.5	65.7	0	9.2
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	313	177	98	-
HCM Lane V/C Ratio	-	-	0.385	0.725	0.943	-
HCM Control Delay (s)	-	-	23.5	65.7	154.4	-
HCM Lane LOS	-	-	C	F	F	-
HCM 95th %tile Q(veh)	-	-	1.8	4.5	5.5	-

HCM 6th TWSC
6: Campus Dr & 6th Street

11/02/2020

Intersection												
Int Delay, s/veh	4.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	25	20	2	0	15	113	2	59	2	46	148	39
Future Vol, veh/h	25	20	2	0	15	113	2	59	2	46	148	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	27	22	2	0	16	123	2	64	2	50	161	42

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	421	352	182	363	372	65	203	0	0	66	0	0
Stage 1	282	282	-	69	69	-	-	-	-	-	-	-
Stage 2	139	70	-	294	303	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	541	571	858	591	557	996	1363	-	-	1529	-	-
Stage 1	723	676	-	939	835	-	-	-	-	-	-	-
Stage 2	862	835	-	712	662	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	450	549	858	555	535	996	1363	-	-	1529	-	-
Mov Cap-2 Maneuver	450	549	-	555	535	-	-	-	-	-	-	-
Stage 1	722	651	-	937	833	-	-	-	-	-	-	-
Stage 2	739	833	-	661	638	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	13.1		9.7		0.2		1.5	
HCM LOS	B		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1363	-	-	498	905	1529	-
HCM Lane V/C Ratio	0.002	-	-	0.103	0.154	0.033	-
HCM Control Delay (s)	7.6	0	-	13.1	9.7	7.4	0
HCM Lane LOS	A	A	-	B	A	A	A
HCM 95th %tile Q(veh)	0	-	-	0.3	0.5	0.1	-

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	80	0	0	80	153	1194	99	114	817	22
Future Vol, veh/h	0	0	80	0	0	80	153	1194	99	114	817	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	75	-	-	125	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	87	0	0	87	166	1298	108	124	888	24

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	-	-	456	-	-	703	912	0
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.96	-	-	6.96	4.16	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.33	-	-	3.33	2.23	-
Pot Cap-1 Maneuver	0	0	549	0	0	378	737	-
Stage 1	0	0	-	0	0	-	-	-
Stage 2	0	0	-	0	0	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	549	-	-	378	737	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.8	17.3	1.2	1.8
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	737	-	-	549	378	476	-
HCM Lane V/C Ratio	0.226	-	-	0.158	0.23	0.26	-
HCM Control Delay (s)	11.3	-	-	12.8	17.3	15.2	-
HCM Lane LOS	B	-	-	B	C	C	-
HCM 95th %tile Q(veh)	0.9	-	-	0.6	0.9	1	-

HCM 6th Signalized Intersection Summary

2: SR 198 WB Ramps & 12th Avenue

11/02/2020

										
Movement	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations										
Traffic Volume (veh/h)	71	742	79	1284	0	0	817	470	0	0
Future Volume (veh/h)	71	742	79	1284	0	0	817	470	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No			No			
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	0	0	1856	1856		
Adj Flow Rate, veh/h	77	807	86	1396	0	0	888	511		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	3	3	3	3	0	0	3	3		
Cap, veh/h	535	951	111	2067	0	0	1651	736		
Arrive On Green	0.30	0.30	0.06	0.59	0.00	0.00	0.47	0.47		
Sat Flow, veh/h	1767	3145	1767	3618	0	0	3618	1572		
Grp Volume(v), veh/h	77	807	86	1396	0	0	888	511		
Grp Sat Flow(s),veh/h/ln	1767	1572	1767	1763	0	0	1763	1572		
Q Serve(g_s), s	2.6	19.5	3.9	22.0	0.0	0.0	14.5	20.7		
Cycle Q Clear(g_c), s	2.6	19.5	3.9	22.0	0.0	0.0	14.5	20.7		
Prop In Lane	1.00	1.00	1.00		0.00	0.00		1.00		
Lane Grp Cap(c), veh/h	535	951	111	2067	0	0	1651	736		
V/C Ratio(X)	0.14	0.85	0.78	0.68	0.00	0.00	0.54	0.69		
Avail Cap(c_a), veh/h	731	1301	185	2067	0	0	1651	736		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	20.6	26.5	37.4	11.5	0.0	0.0	15.3	17.0		
Incr Delay (d2), s/veh	0.1	4.0	11.1	1.8	0.0	0.0	1.3	5.3		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.0	7.1	1.9	7.4	0.0	0.0	5.4	7.6		
Unsig. Movement Delay, s/veh										
LnGrp Delay(d),s/veh	20.7	30.5	48.5	13.3	0.0	0.0	16.6	22.3		
LnGrp LOS	C	C	D	B	A	A	B	C		
Approach Vol, veh/h	884			1482			1399			
Approach Delay, s/veh	29.7			15.3			18.7			
Approach LOS	C			B			B			
Timer - Assigned Phs	2		5		6	8				
Phs Duration (G+Y+Rc), s	52.0		9.6		42.4	29.0				
Change Period (Y+Rc), s	4.5		4.5		4.5	4.5				
Max Green Setting (Gmax), s	47.5		8.5		34.5	33.5				
Max Q Clear Time (g_c+l1), s	24.0		5.9		22.7	21.5				
Green Ext Time (p_c), s	11.0		0.0		6.0	3.0				
Intersection Summary										
HCM 6th Ctrl Delay			19.9							
HCM 6th LOS			B							

HCM 6th Signalized Intersection Summary

3: 12th Avenue & SR 198 EB Off Ramps

11/02/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	664	0	25	0	0	0	0	697	189	0	510	375
Future Volume (veh/h)	664	0	25	0	0	0	0	697	189	0	510	375
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1856	0	1856				0	1856	1856	0	1856	1856
Adj Flow Rate, veh/h	722	0	27				0	758	0	0	554	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	0	3				0	3	3	0	3	3
Cap, veh/h	905	0	415				0	2142		0	2142	
Arrive On Green	0.26	0.00	0.26				0.00	0.61	0.00	0.00	0.61	0.00
Sat Flow, veh/h	3428	0	1572				0	3618	1572	0	3618	1572
Grp Volume(v), veh/h	722	0	27				0	758	0	0	554	0
Grp Sat Flow(s),veh/h/ln	1714	0	1572				0	1763	1572	0	1763	1572
Q Serve(g_s), s	13.7	0.0	0.9				0.0	7.5	0.0	0.0	5.1	0.0
Cycle Q Clear(g_c), s	13.7	0.0	0.9				0.0	7.5	0.0	0.0	5.1	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	905	0	415				0	2142		0	2142	
V/C Ratio(X)	0.80	0.00	0.07				0.00	0.35		0.00	0.26	
Avail Cap(c_a), veh/h	1886	0	865				0	2142		0	2142	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	24.0	0.0	19.3				0.0	6.9	0.0	0.0	6.4	0.0
Incr Delay (d2), s/veh	1.7	0.0	0.1				0.0	0.5	0.0	0.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	0.0	0.3				0.0	2.2	0.0	0.0	1.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.7	0.0	19.3				0.0	7.3	0.0	0.0	6.7	0.0
LnGrp LOS	C	A	B				A	A		A	A	
Approach Vol, veh/h	749						758			A		
Approach Delay, s/veh	25.4						7.3			6.7		
Approach LOS	C						A			A		
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	47.0			23.0			47.0					
Change Period (Y+Rc), s	4.5			4.5			4.5					
Max Green Setting (Gmax), s	42.5			38.5			42.5					
Max Q Clear Time (g_c+I1), s	9.5			15.7			7.1					
Green Ext Time (p_c), s	5.5			2.7			3.8					
Intersection Summary												
HCM 6th Ctrl Delay			13.7									
HCM 6th LOS			B									
Notes												

HCM 6th Signalized Intersection Summary

4: Campus Drive & Lacey Boulevard

11/02/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	603	87	119	603	66	44	73	93	68	100	19
Future Volume (veh/h)	31	603	87	119	603	66	44	73	93	68	100	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	34	655	95	129	655	72	48	79	101	74	109	21
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	60	860	383	165	1069	477	75	252	322	138	697	590
Arrive On Green	0.03	0.24	0.24	0.09	0.30	0.30	0.04	0.34	0.34	0.08	0.38	0.38
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	740	946	1767	1856	1572
Grp Volume(v), veh/h	34	655	95	129	655	72	48	0	180	74	109	21
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	0	1685	1767	1856	1572
Q Serve(g_s), s	1.4	12.7	3.6	5.2	11.7	1.8	2.0	0.0	5.8	3.0	2.9	0.6
Cycle Q Clear(g_c), s	1.4	12.7	3.6	5.2	11.7	1.8	2.0	0.0	5.8	3.0	2.9	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.56	1.00		1.00
Lane Grp Cap(c), veh/h	60	860	383	165	1069	477	75	0	573	138	697	590
V/C Ratio(X)	0.57	0.76	0.25	0.78	0.61	0.15	0.64	0.00	0.31	0.54	0.16	0.04
Avail Cap(c_a), veh/h	144	1170	522	317	1516	676	163	0	573	226	697	590
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.0	25.8	22.4	32.6	21.9	9.5	34.6	0.0	17.9	32.6	15.2	14.5
Incr Delay (d2), s/veh	8.1	2.0	0.3	7.9	0.6	0.1	8.7	0.0	1.4	3.2	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	5.2	1.3	2.5	4.6	0.8	1.0	0.0	2.4	1.4	1.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.0	27.8	22.7	40.4	22.5	9.6	43.3	0.0	19.3	35.9	15.7	14.6
LnGrp LOS	D	C	C	D	C	A	D	A	B	D	B	B
Approach Vol, veh/h		784			856			228			204	
Approach Delay, s/veh		27.9			24.1			24.4			22.9	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.2	29.5	11.4	22.4	7.6	32.1	7.0	26.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.4	25.0	13.2	24.4	6.8	27.6	6.0	31.6				
Max Q Clear Time (g_c+I1), s	5.0	7.8	7.2	14.7	4.0	4.9	3.4	13.7				
Green Ext Time (p_c), s	0.0	0.9	0.1	3.2	0.0	0.6	0.0	4.3				
Intersection Summary												
HCM 6th Ctrl Delay			25.5									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary

7: 11th Avenue & Lacey Boulevard

11/02/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	128	267	170	65	337	65	400	687	77	94	772	203
Future Volume (veh/h)	128	267	170	65	337	65	400	687	77	94	772	203
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	139	290	185	71	366	71	435	747	84	102	839	221
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	220	665	296	92	521	100	527	1407	158	131	1271	567
Arrive On Green	0.06	0.19	0.19	0.05	0.18	0.18	0.15	0.44	0.44	0.07	0.36	0.36
Sat Flow, veh/h	3428	3526	1572	1767	2950	567	3428	3195	359	1767	3526	1572
Grp Volume(v), veh/h	139	290	185	71	217	220	435	412	419	102	839	221
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	1767	1763	1754	1714	1763	1791	1767	1763	1572
Q Serve(g_s), s	2.9	5.3	5.2	2.9	8.5	8.7	9.0	12.5	12.6	4.2	14.7	7.7
Cycle Q Clear(g_c), s	2.9	5.3	5.2	2.9	8.5	8.7	9.0	12.5	12.6	4.2	14.7	7.7
Prop In Lane	1.00		1.00	1.00		0.32	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	220	665	296	92	311	310	527	776	789	131	1271	567
V/C Ratio(X)	0.63	0.44	0.62	0.77	0.70	0.71	0.82	0.53	0.53	0.78	0.66	0.39
Avail Cap(c_a), veh/h	233	1276	569	154	672	668	583	776	789	204	1271	567
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.5	26.4	11.9	34.4	28.4	28.5	30.1	15.0	15.0	33.4	19.7	17.5
Incr Delay (d2), s/veh	5.0	0.5	2.2	12.7	2.8	3.0	8.7	2.6	2.6	9.6	2.7	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.2	2.9	1.5	3.6	3.7	4.2	5.0	5.1	2.1	5.9	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.6	26.8	14.1	47.1	31.2	31.5	38.8	17.6	17.6	43.0	22.4	19.5
LnGrp LOS	D	C	B	D	C	C	D	B	B	D	C	B
Approach Vol, veh/h	614			508			1266			1162		
Approach Delay, s/veh	25.6			33.6			24.9			23.7		
Approach LOS	C			C			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.9	36.9	8.3	18.4	15.8	31.0	9.2	17.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.5	30.5	6.4	26.6	12.5	26.5	5.0	28.0				
Max Q Clear Time (g_c+l1), s	6.2	14.6	4.9	7.3	11.0	16.7	4.9	10.7				
Green Ext Time (p_c), s	0.0	4.7	0.0	2.3	0.3	4.5	0.0	2.3				
Intersection Summary												
HCM 6th Ctrl Delay	25.9											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary

8: 11th Avenue & 7th Street

11/02/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	146	102	113	164	74	238	685	152	110	498	99
Future Volume (veh/h)	57	146	102	113	164	74	238	685	152	110	498	99
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	62	159	111	123	178	80	259	745	165	120	541	108
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	171	258	170	155	396	171	303	1565	698	153	1267	565
Arrive On Green	0.05	0.13	0.13	0.09	0.16	0.16	0.17	0.44	0.44	0.09	0.36	0.36
Sat Flow, veh/h	3428	2038	1339	1767	2397	1035	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	62	136	134	123	129	129	259	745	165	120	541	108
Grp Sat Flow(s),veh/h/ln	1714	1763	1614	1767	1763	1669	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	1.2	5.2	5.6	4.8	4.7	4.9	10.1	10.5	2.8	4.7	8.2	3.3
Cycle Q Clear(g_c), s	1.2	5.2	5.6	4.8	4.7	4.9	10.1	10.5	2.8	4.7	8.2	3.3
Prop In Lane	1.00		0.83	1.00		0.62	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	171	224	205	155	291	275	303	1565	698	153	1267	565
V/C Ratio(X)	0.36	0.61	0.65	0.79	0.44	0.47	0.86	0.48	0.24	0.78	0.43	0.19
Avail Cap(c_a), veh/h	242	648	594	175	698	661	340	1565	698	232	1267	565
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.5	29.2	29.4	31.6	26.6	26.7	28.4	13.9	4.6	31.6	17.1	15.6
Incr Delay (d2), s/veh	1.3	2.7	3.5	19.4	1.1	1.2	17.4	1.0	0.8	9.4	1.1	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.2	2.2	2.9	2.0	2.0	5.5	3.9	1.6	2.3	3.2	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.8	31.9	32.9	51.0	27.6	27.9	45.9	14.9	5.4	41.0	18.2	16.3
LnGrp LOS	C	C	C	D	C	C	D	B	A	D	B	B
Approach Vol, veh/h	332			381			1169			769		
Approach Delay, s/veh	32.6			35.3			20.4			21.5		
Approach LOS	C			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.6	35.9	10.7	13.5	16.6	29.9	8.0	16.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.3	29.7	7.0	26.0	13.6	25.4	5.0	28.0				
Max Q Clear Time (g_c+l1), s	6.7	12.5	6.8	7.6	12.1	10.2	3.2	6.9				
Green Ext Time (p_c), s	0.1	5.2	0.0	1.4	0.1	3.4	0.0	1.5				
Intersection Summary												
HCM 6th Ctrl Delay	24.4											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary

10: 11th Avenue & 5th Street

11/02/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	0	64	6	0	8	181	1387	36	2	778	119
Future Volume (veh/h)	50	0	64	6	0	8	181	1387	36	2	778	119
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	54	0	70	7	0	9	197	1508	39	2	846	129
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	233	0	118	101	21	53	378	2497	64	5	1763	787
Arrive On Green	0.08	0.00	0.08	0.08	0.00	0.08	0.21	0.71	0.71	0.00	0.50	0.50
Sat Flow, veh/h	1395	0	1572	270	277	704	1767	3511	91	1767	3526	1572
Grp Volume(v), veh/h	54	0	70	16	0	0	197	756	791	2	846	129
Grp Sat Flow(s),veh/h/ln	1395	0	1572	1252	0	0	1767	1763	1839	1767	1763	1572
Q Serve(g_s), s	0.0	0.0	2.8	0.0	0.0	0.0	6.3	13.9	13.9	0.1	10.1	2.9
Cycle Q Clear(g_c), s	1.9	0.0	2.8	2.8	0.0	0.0	6.3	13.9	13.9	0.1	10.1	2.9
Prop In Lane	1.00		1.00	0.44		0.56	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	233	0	118	175	0	0	378	1254	1308	5	1763	787
V/C Ratio(X)	0.23	0.00	0.59	0.09	0.00	0.00	0.52	0.60	0.60	0.41	0.48	0.16
Avail Cap(c_a), veh/h	696	0	639	656	0	0	511	1254	1308	138	1763	787
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.2	0.0	28.6	27.6	0.0	0.0	22.3	4.7	4.7	31.8	10.5	8.7
Incr Delay (d2), s/veh	0.5	0.0	4.7	0.2	0.0	0.0	1.1	2.2	2.1	48.3	0.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	1.1	0.2	0.0	0.0	2.6	3.7	3.9	0.1	3.6	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.7	0.0	33.3	27.9	0.0	0.0	23.4	6.8	6.8	80.1	11.5	9.2
LnGrp LOS	C	A	C	C	A	A	C	A	A	F	B	A
Approach Vol, veh/h	124			16			1744			977		
Approach Delay, s/veh	31.3			27.9			8.7			11.3		
Approach LOS	C			C			A			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.7	50.0		9.3	18.2	36.5		9.3				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	45.5		26.0	18.5	32.0		26.0				
Max Q Clear Time (g_c+l1), s	2.1	15.9		4.8	8.3	12.1		4.8				
Green Ext Time (p_c), s	0.0	14.4		0.5	0.4	6.5		0.0				
Intersection Summary												
HCM 6th Ctrl Delay	10.7											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary 11: 11th Avenue & SR 198 WB On Ramp/4th Street

11/02/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	182	25	454	80	1161	0	0	642	252
Future Volume (veh/h)	0	0	0	182	25	454	80	1161	0	0	642	252
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1856	1856	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				198	27	493	87	1262	0	0	698	274
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				615	646	547	112	1904	0	0	1484	662
Arrive On Green				0.35	0.35	0.35	0.06	0.54	0.00	0.00	0.42	0.42
Sat Flow, veh/h				1767	1856	1572	1767	3618	0	0	3618	1572
Grp Volume(v), veh/h				198	27	493	87	1262	0	0	698	274
Grp Sat Flow(s),veh/h/ln				1767	1856	1572	1767	1763	0	0	1763	1572
Q Serve(g_s), s				6.6	0.8	24.0	3.9	20.6	0.0	0.0	11.5	9.8
Cycle Q Clear(g_c), s				6.6	0.8	24.0	3.9	20.6	0.0	0.0	11.5	9.8
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				615	646	547	112	1904	0	0	1484	662
V/C Ratio(X)				0.32	0.04	0.90	0.78	0.66	0.00	0.00	0.47	0.41
Avail Cap(c_a), veh/h				823	864	732	224	1904	0	0	1484	662
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				19.3	17.4	24.9	37.1	13.3	0.0	0.0	16.8	16.4
Incr Delay (d2), s/veh				0.3	0.0	11.6	10.8	1.8	0.0	0.0	1.1	1.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.5	0.3	9.7	2.0	7.8	0.0	0.0	4.5	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				19.6	17.4	36.5	47.9	15.1	0.0	0.0	17.9	18.3
LnGrp LOS				B	B	D	D	B	A	A	B	B
Approach Vol, veh/h					718			1349			972	
Approach Delay, s/veh					31.1			17.2			18.0	
Approach LOS					C			B			B	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		48.0			9.6	38.4		32.5				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		43.5			10.2	28.8		37.5				
Max Q Clear Time (g_c+I1), s		22.6			5.9	13.5		26.0				
Green Ext Time (p_c), s		9.8			0.1	5.0		2.1				
Intersection Summary												
HCM 6th Ctrl Delay				20.8								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary 12: 11th Avenue & SR 198 EB Off Ramp/3rd Street

11/02/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	373	216	131	0	0	0	0	872	207	171	658	0
Future Volume (veh/h)	373	216	131	0	0	0	0	872	207	171	658	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	405	235	142				0	948	225	186	715	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3				0	3	3	3	3	0
Cap, veh/h	438	254	606				0	1180	526	221	1803	0
Arrive On Green	0.39	0.39	0.39				0.00	0.33	0.33	0.12	0.51	0.00
Sat Flow, veh/h	1138	660	1572				0	3618	1572	1767	3618	0
Grp Volume(v), veh/h	640	0	142				0	948	225	186	715	0
Grp Sat Flow(s),veh/h/ln	1799	0	1572				0	1763	1572	1767	1763	0
Q Serve(g_s), s	29.6	0.0	5.3				0.0	21.3	9.7	9.0	10.8	0.0
Cycle Q Clear(g_c), s	29.6	0.0	5.3				0.0	21.3	9.7	9.0	10.8	0.0
Prop In Lane	0.63		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	693	0	606				0	1180	526	221	1803	0
V/C Ratio(X)	0.92	0.00	0.23				0.00	0.80	0.43	0.84	0.40	0.00
Avail Cap(c_a), veh/h	754	0	660				0	1180	526	234	1803	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	25.5	0.0	18.1				0.0	26.3	22.5	37.2	13.0	0.0
Incr Delay (d2), s/veh	16.3	0.0	0.2				0.0	5.8	2.5	22.6	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.3	0.0	1.8				0.0	9.2	3.7	5.2	4.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.8	0.0	18.3				0.0	32.2	25.0	59.8	13.7	0.0
LnGrp LOS	D	A	B				A	C	C	E	B	A
Approach Vol, veh/h	782						1173			901		
Approach Delay, s/veh	37.5						30.8			23.2		
Approach LOS	D						C			C		
Timer - Assigned Phs	1	2	4		6							
Phs Duration (G+Y+Rc), s	15.4	33.6	38.0		49.0							
Change Period (Y+Rc), s	4.5	4.5	4.5		4.5							
Max Green Setting (Gmax), s	11.5	28.5	36.5		44.5							
Max Q Clear Time (g_c+I1), s	11.0	23.3	31.6		12.8							
Green Ext Time (p_c), s	0.0	3.0	2.0		5.6							
Intersection Summary												
HCM 6th Ctrl Delay	30.2											
HCM 6th LOS	C											

HCM 6th AWSC
5: Campus Dr/Campus Drive & 7th Street

11/02/2020

Intersection	
Intersection Delay, s/veh	15
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	127	181	48	51	223	48	43	122	30	34	140	51
Future Vol, veh/h	127	181	48	51	223	48	43	122	30	34	140	51
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	138	197	52	55	242	52	47	133	33	37	152	55
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	14.3	16.4	14.1	14.9
HCM LOS	B	C	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	22%	100%	0%	100%	0%	15%
Vol Thru, %	63%	0%	79%	0%	82%	62%
Vol Right, %	15%	0%	21%	0%	18%	23%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	195	127	229	51	271	225
LT Vol	43	127	0	51	0	34
Through Vol	122	0	181	0	223	140
RT Vol	30	0	48	0	48	51
Lane Flow Rate	212	138	249	55	295	245
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.396	0.28	0.46	0.113	0.55	0.447
Departure Headway (Hd)	6.721	7.311	6.648	7.357	6.718	6.576
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	534	491	540	487	536	548
Service Time	4.773	5.06	4.397	5.106	4.466	4.625
HCM Lane V/C Ratio	0.397	0.281	0.461	0.113	0.55	0.447
HCM Control Delay	14.1	12.9	15	11	17.4	14.9
HCM Lane LOS	B	B	B	B	C	B
HCM 95th-tile Q	1.9	1.1	2.4	0.4	3.3	2.3

HCM 6th TWSC
1: 12th Avenue & Glendale Avenue

11/02/2020

Intersection												
Int Delay, s/veh	117.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↰			↰		↰↰↰		↰	↰↰↰	
Traffic Vol, veh/h	0	0	255	0	0	296	0	2631	110	69	2855	249
Future Vol, veh/h	0	0	255	0	0	296	0	2631	110	69	2855	249
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	125	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	277	0	0	322	0	2860	120	75	3103	271

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	-	-	1687	-	-	1490	-	0
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.16	-	-	7.16	-	5.36
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.93	-	-	3.93	-	3.13
Pot Cap-1 Maneuver	0	0	~ 70	0	0	~ 96	0	~ 38
Stage 1	0	0	-	0	0	-	-	-
Stage 2	0	0	-	0	0	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	~ 70	-	-	~ 96	-	~ 38
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, \$	1453.8	1151.6	0	14.8
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	70	96	~ 38	-	-
HCM Lane V/C Ratio	-	-	3.96	3.351	1.974	-	-
HCM Control Delay (s)	-	-	\$ 1453.8	\$ 1151.6	\$ 682.3	-	-
HCM Lane LOS	-	-	F	F	F	-	-
HCM 95th %tile Q(veh)	-	-	29.4	32	8.1	-	-

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC
6: Campus Dr & 6th Street

11/02/2020

Intersection												
Int Delay, s/veh	4.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	19	12	0	0	6	107	0	146	0	94	79	22
Future Vol, veh/h	19	12	0	0	6	107	0	146	0	94	79	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	21	13	0	0	7	116	0	159	0	102	86	24

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	523	461	98	468	473	159	110	0	0	159	0	0
Stage 1	302	302	-	159	159	-	-	-	-	-	-	-
Stage 2	221	159	-	309	314	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	463	496	955	504	488	884	1474	-	-	1414	-	-
Stage 1	705	662	-	841	764	-	-	-	-	-	-	-
Stage 2	779	764	-	699	654	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	374	458	955	464	450	884	1474	-	-	1414	-	-
Mov Cap-2 Maneuver	374	458	-	464	450	-	-	-	-	-	-	-
Stage 1	705	611	-	841	764	-	-	-	-	-	-	-
Stage 2	671	764	-	631	604	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	14.7		10		0		3.7	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1474	-	-	403 841	1414	-	-
HCM Lane V/C Ratio	-	-	-	0.084 0.146	0.072	-	-
HCM Control Delay (s)	0	-	-	14.7 10	7.7	0	-
HCM Lane LOS	A	-	-	B B	A A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3 0.5	0.2	-	-

Intersection												
Int Delay, s/veh	7.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↗	↗↘		↗	↗↘	
Traffic Vol, veh/h	0	0	105	0	0	249	152	1628	162	165	1705	12
Future Vol, veh/h	0	0	105	0	0	249	152	1628	162	165	1705	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	75	-	-	125	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	108	0	0	257	157	1678	167	170	1758	12
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	885	-	-	923	1770	0	0	1845	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.96	-	-	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.33	-	-	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	0	0	286	0	0	270	344	-	-	321	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	286	-	-	270	344	-	-	321	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	25.1		83.6		1.9		2.5					
HCM LOS	D		F									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	344	-	-	286	270	321	-	-				
HCM Lane V/C Ratio	0.456	-	-	0.378	0.951	0.53	-	-				
HCM Control Delay (s)	23.9	-	-	25.1	83.6	28.2	-	-				
HCM Lane LOS	C	-	-	D	F	D	-	-				
HCM 95th %tile Q(veh)	2.3	-	-	1.7	9	2.9	-	-				

HCM 6th Signalized Intersection Summary

2: SR 198 WB Ramps & 12th Avenue

11/11/2020

										
Movement	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations										
Traffic Volume (veh/h)	221	848	71	1899	0	0	2032	1088	0	0
Future Volume (veh/h)	221	848	71	1899	0	0	2032	1088	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No			No			
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	0	0	1856	1856		
Adj Flow Rate, veh/h	240	922	77	2064	0	0	2209	1183		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	3	3	3	3	0	0	3	3		
Cap, veh/h	434	773	81	2394	0	0	2101	937		
Arrive On Green	0.25	0.25	0.05	0.68	0.00	0.00	0.60	0.60		
Sat Flow, veh/h	1767	3145	1767	3618	0	0	3618	1572		
Grp Volume(v), veh/h	240	922	77	2064	0	0	2209	1183		
Grp Sat Flow(s),veh/h/ln	1767	1572	1767	1763	0	0	1763	1572		
Q Serve(g_s), s	14.2	29.5	5.2	54.4	0.0	0.0	71.5	71.5		
Cycle Q Clear(g_c), s	14.2	29.5	5.2	54.4	0.0	0.0	71.5	71.5		
Prop In Lane	1.00	1.00	1.00		0.00	0.00		1.00		
Lane Grp Cap(c), veh/h	434	773	81	2394	0	0	2101	937		
V/C Ratio(X)	0.55	1.19	0.95	0.86	0.00	0.00	1.05	1.26		
Avail Cap(c_a), veh/h	434	773	81	2394	0	0	2101	937		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	39.5	45.3	57.1	14.9	0.0	0.0	24.2	24.2		
Incr Delay (d2), s/veh	1.5	99.2	83.2	4.4	0.0	0.0	34.9	126.8		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	6.2	21.7	4.2	19.8	0.0	0.0	36.5	56.5		
Unsig. Movement Delay, s/veh										
LnGrp Delay(d),s/veh	41.0	144.5	140.3	19.3	0.0	0.0	59.1	151.0		
LnGrp LOS	D	F	F	B	A	A	F	F		
Approach Vol, veh/h	1162			2141			3392			
Approach Delay, s/veh	123.1			23.6			91.2			
Approach LOS	F			C			F			
Timer - Assigned Phs	2		5		6		8			
Phs Duration (G+Y+Rc), s	86.0		10.0		76.0		34.0			
Change Period (Y+Rc), s	4.5		4.5		4.5		4.5			
Max Green Setting (Gmax), s	81.5		5.5		71.5		29.5			
Max Q Clear Time (g_c+I1), s	56.4		7.2		73.5		31.5			
Green Ext Time (p_c), s	18.2		0.0		0.0		0.0			
Intersection Summary										
HCM 6th Ctrl Delay	75.1									
HCM 6th LOS	E									
Notes										

HCM 6th Signalized Intersection Summary 3: 12th Avenue & SR 198 EB Off Ramps

11/11/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	922	0	76	0	0	0	0	1033	221	0	1386	881
Future Volume (veh/h)	922	0	76	0	0	0	0	1033	221	0	1386	881
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1856	0	1856				0	1856	1856	0	1856	1856
Adj Flow Rate, veh/h	991	0	82				0	1111	0	0	1490	0
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	0	3				0	3	3	0	3	3
Cap, veh/h	1122	0	515				0	2001		0	2001	
Arrive On Green	0.33	0.00	0.33				0.00	0.57	0.00	0.00	0.57	0.00
Sat Flow, veh/h	3428	0	1572				0	3618	1572	0	3618	1572
Grp Volume(v), veh/h	991	0	82				0	1111	0	0	1490	0
Grp Sat Flow(s),veh/h/ln	1714	0	1572				0	1763	1572	0	1763	1572
Q Serve(g_s), s	23.4	0.0	3.2				0.0	17.0	0.0	0.0	27.1	0.0
Cycle Q Clear(g_c), s	23.4	0.0	3.2				0.0	17.0	0.0	0.0	27.1	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	1122	0	515				0	2001		0	2001	
V/C Ratio(X)	0.88	0.00	0.16				0.00	0.56		0.00	0.74	
Avail Cap(c_a), veh/h	1304	0	598				0	2001		0	2001	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	27.2	0.0	20.4				0.0	11.7	0.0	0.0	13.8	0.0
Incr Delay (d2), s/veh	6.7	0.0	0.1				0.0	1.1	0.0	0.0	2.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.7	0.0	1.1				0.0	5.9	0.0	0.0	9.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.9	0.0	20.5				0.0	12.8	0.0	0.0	16.4	0.0
LnGrp LOS	C	A	C				A	B		A	B	
Approach Vol, veh/h	1073						1111			A		
Approach Delay, s/veh	32.9						12.8			16.4		
Approach LOS	C						B			B		
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	53.0			32.5			53.0					
Change Period (Y+Rc), s	4.5			4.5			4.5					
Max Green Setting (Gmax), s	48.5			32.5			48.5					
Max Q Clear Time (g_c+l1), s	19.0			25.4			29.1					
Green Ext Time (p_c), s	8.9			2.6			10.7					
Intersection Summary												
HCM 6th Ctrl Delay			20.1									
HCM 6th LOS			C									
Notes												

HCM 6th Signalized Intersection Summary

4: Campus Drive & Lacey Boulevard

11/11/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	1144	77	106	1268	66	104	105	231	155	133	53
Future Volume (veh/h)	46	1144	77	106	1268	66	104	105	231	155	133	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	50	1243	84	115	1378	72	113	114	251	168	145	58
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	69	1257	561	129	1375	613	134	144	316	171	555	470
Arrive On Green	0.04	0.36	0.36	0.07	0.39	0.39	0.08	0.28	0.28	0.10	0.30	0.30
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	516	1135	1767	1856	1572
Grp Volume(v), veh/h	50	1243	84	115	1378	72	113	0	365	168	145	58
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	0	1651	1767	1856	1572
Q Serve(g_s), s	2.6	32.2	3.3	5.9	35.9	1.8	5.8	0.0	18.8	8.7	5.5	2.5
Cycle Q Clear(g_c), s	2.6	32.2	3.3	5.9	35.9	1.8	5.8	0.0	18.8	8.7	5.5	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.69	1.00		1.00
Lane Grp Cap(c), veh/h	69	1257	561	129	1375	613	134	0	459	171	555	470
V/C Ratio(X)	0.72	0.99	0.15	0.89	1.00	0.12	0.84	0.00	0.79	0.98	0.26	0.12
Avail Cap(c_a), veh/h	96	1257	561	129	1375	613	134	0	459	171	555	470
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.7	29.4	20.1	42.3	28.1	8.3	41.9	0.0	30.8	41.5	24.5	23.5
Incr Delay (d2), s/veh	15.0	22.7	0.1	48.6	24.7	0.1	35.4	0.0	13.2	63.5	1.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	16.7	1.2	4.3	18.8	0.9	3.8	0.0	9.0	6.8	2.5	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.7	52.1	20.2	90.9	52.8	8.4	77.4	0.0	44.0	105.0	25.7	24.0
LnGrp LOS	E	D	C	F	F	A	E	A	D	F	C	C
Approach Vol, veh/h		1377			1565			478			371	
Approach Delay, s/veh		50.4			53.5			51.9			61.3	
Approach LOS		D			D			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.4	30.1	11.2	37.3	11.5	32.0	8.1	40.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.9	25.6	6.7	32.8	7.0	27.5	5.0	34.5				
Max Q Clear Time (g_c+l1), s	10.7	20.8	7.9	34.2	7.8	7.5	4.6	37.9				
Green Ext Time (p_c), s	0.0	1.0	0.0	0.0	0.0	0.9	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			52.9									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary

7: 11th Avenue & Lacey Boulevard

11/11/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	391	438	329	170	483	131	473	1025	88	142	879	162
Future Volume (veh/h)	391	438	329	170	483	131	473	1025	88	142	879	162
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	425	476	358	185	525	142	514	1114	96	154	955	176
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	464	847	378	217	626	169	567	1159	100	182	1025	457
Arrive On Green	0.14	0.24	0.24	0.12	0.23	0.23	0.17	0.35	0.35	0.10	0.29	0.29
Sat Flow, veh/h	3428	3526	1572	1767	2746	739	3428	3285	283	1767	3526	1572
Grp Volume(v), veh/h	425	476	358	185	336	331	514	597	613	154	955	176
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	1767	1763	1722	1714	1763	1805	1767	1763	1572
Q Serve(g_s), s	12.2	11.8	14.8	10.2	18.1	18.3	14.7	33.1	33.2	8.5	26.3	8.9
Cycle Q Clear(g_c), s	12.2	11.8	14.8	10.2	18.1	18.3	14.7	33.1	33.2	8.5	26.3	8.9
Prop In Lane	1.00		1.00	1.00		0.43	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	464	847	378	217	402	393	567	622	637	182	1025	457
V/C Ratio(X)	0.92	0.56	0.95	0.85	0.84	0.84	0.91	0.96	0.96	0.84	0.93	0.38
Avail Cap(c_a), veh/h	464	944	421	262	495	484	567	622	637	182	1025	457
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.6	33.3	16.4	42.8	36.7	36.8	40.9	31.6	31.6	43.9	34.4	28.3
Incr Delay (d2), s/veh	22.9	0.6	29.3	19.7	10.0	10.7	18.3	27.6	27.4	28.6	15.8	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	5.0	8.1	5.6	8.7	8.7	7.5	18.2	18.6	5.1	13.1	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.4	33.9	45.7	62.5	46.7	47.5	59.1	59.1	59.1	72.6	50.2	30.7
LnGrp LOS	E	C	D	E	D	D	E	E	E	E	D	C
Approach Vol, veh/h		1259			852			1724			1285	
Approach Delay, s/veh		47.9			50.5			59.1			50.2	
Approach LOS		D			D			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.8	39.7	16.8	28.5	21.0	33.5	18.0	27.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.3	35.2	14.8	26.7	16.5	29.0	13.5	28.0				
Max Q Clear Time (g_c+l1), s	10.5	35.2	12.2	16.8	16.7	28.3	14.2	20.3				
Green Ext Time (p_c), s	0.0	0.0	0.1	3.2	0.0	0.5	0.0	2.4				
Intersection Summary												
HCM 6th Ctrl Delay			52.7									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary

8: 11th Avenue & 7th Street

11/11/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	296	339	252	263	169	258	950	178	172	879	80
Future Volume (veh/h)	104	296	339	252	263	169	258	950	178	172	879	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	113	322	368	274	286	184	280	1033	193	187	955	87
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	169	417	372	281	721	450	284	1147	512	204	987	440
Arrive On Green	0.05	0.24	0.24	0.16	0.35	0.35	0.16	0.33	0.33	0.12	0.28	0.28
Sat Flow, veh/h	3428	1763	1572	1767	2082	1302	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	113	322	368	274	241	229	280	1033	193	187	955	87
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	1767	1763	1621	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	3.6	18.8	25.7	17.0	11.4	11.8	17.4	30.8	6.7	11.5	29.4	4.6
Cycle Q Clear(g_c), s	3.6	18.8	25.7	17.0	11.4	11.8	17.4	30.8	6.7	11.5	29.4	4.6
Prop In Lane	1.00		1.00	1.00		0.80	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	169	417	372	281	610	561	284	1147	512	204	987	440
V/C Ratio(X)	0.67	0.77	0.99	0.97	0.39	0.41	0.98	0.90	0.38	0.92	0.97	0.20
Avail Cap(c_a), veh/h	234	417	372	281	610	561	284	1147	512	204	987	440
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.4	39.2	41.9	46.0	27.2	27.4	46.0	35.4	11.8	48.1	39.1	30.2
Incr Delay (d2), s/veh	4.5	8.7	43.9	46.5	0.4	0.5	49.0	11.3	2.1	40.5	21.8	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	9.0	14.2	11.1	4.9	4.7	11.4	14.6	2.6	7.3	15.3	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.9	48.0	85.8	92.5	27.7	27.9	95.0	46.7	13.9	88.6	60.9	31.2
LnGrp LOS	E	D	F	F	C	C	F	D	B	F	E	C
Approach Vol, veh/h		803			744			1506			1229	
Approach Delay, s/veh		66.4			51.6			51.5			63.0	
Approach LOS		E			D			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.2	40.3	22.0	30.5	22.2	35.3	9.9	42.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	12.7	35.8	17.5	26.0	17.7	30.8	7.5	36.0				
Max Q Clear Time (g_c+I1), s	13.5	32.8	19.0	27.7	19.4	31.4	5.6	13.8				
Green Ext Time (p_c), s	0.0	2.0	0.0	0.0	0.0	0.0	0.1	3.1				
Intersection Summary												
HCM 6th Ctrl Delay			57.6									
HCM 6th LOS			E									

HCM 6th Signalized Intersection Summary

10: 11th Avenue & 5th Street

11/11/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	262	0	211	15	0	15	327	1656	5	12	1566	215
Future Volume (veh/h)	262	0	211	15	0	15	327	1656	5	12	1566	215
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	270	0	218	15	0	15	337	1707	5	12	1614	222
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	345	0	372	125	15	91	339	2261	7	25	1583	706
Arrive On Green	0.24	0.00	0.24	0.24	0.00	0.24	0.19	0.63	0.63	0.01	0.45	0.45
Sat Flow, veh/h	1387	0	1572	319	65	385	1767	3606	11	1767	3526	1572
Grp Volume(v), veh/h	270	0	218	30	0	0	337	834	878	12	1614	222
Grp Sat Flow(s),veh/h/ln	1387	0	1572	770	0	0	1767	1763	1854	1767	1763	1572
Q Serve(g_s), s	11.3	0.0	13.5	0.3	0.0	0.0	20.9	36.9	36.9	0.7	49.4	10.0
Cycle Q Clear(g_c), s	25.1	0.0	13.5	13.8	0.0	0.0	20.9	36.9	36.9	0.7	49.4	10.0
Prop In Lane	1.00		1.00	0.50		0.50	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	345	0	372	231	0	0	339	1105	1162	25	1583	706
V/C Ratio(X)	0.78	0.00	0.59	0.13	0.00	0.00	0.99	0.75	0.76	0.49	1.02	0.31
Avail Cap(c_a), veh/h	345	0	372	231	0	0	339	1105	1162	80	1583	706
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.7	0.0	37.2	33.3	0.0	0.0	44.4	14.5	14.5	53.8	30.3	19.4
Incr Delay (d2), s/veh	11.2	0.0	2.4	0.3	0.0	0.0	47.2	4.8	4.6	14.1	27.6	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	0.0	5.4	0.6	0.0	0.0	13.5	15.0	15.7	0.4	26.1	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.9	0.0	39.6	33.5	0.0	0.0	91.6	19.3	19.1	67.9	57.9	20.6
LnGrp LOS	D	A	D	C	A	A	F	B	B	E	F	C
Approach Vol, veh/h	488			30			2049			1848		
Approach Delay, s/veh	47.5			33.5			31.1			53.5		
Approach LOS	D			C			C			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.0	73.5		30.5	25.6	53.9		30.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	65.5		26.0	21.1	49.4		26.0				
Max Q Clear Time (g_c+I1), s	2.7	38.9		27.1	22.9	51.4		15.8				
Green Ext Time (p_c), s	0.0	15.6		0.0	0.0	0.0		0.1				
Intersection Summary												
HCM 6th Ctrl Delay	42.3											
HCM 6th LOS	D											

HCM 6th Signalized Intersection Summary

11: 11th Avenue & SR 198 WB On Ramp/4th Street

11/11/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	337	54	368	141	1608	0	0	1496	428
Future Volume (veh/h)	0	0	0	337	54	368	141	1608	0	0	1496	428
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1856	1856	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				355	57	387	148	1693	0	0	1575	451
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				498	523	443	165	2153	0	0	1634	729
Arrive On Green				0.28	0.28	0.28	0.09	0.61	0.00	0.00	0.46	0.46
Sat Flow, veh/h				1767	1856	1572	1767	3618	0	0	3618	1572
Grp Volume(v), veh/h				355	57	387	148	1693	0	0	1575	451
Grp Sat Flow(s),veh/h/ln				1767	1856	1572	1767	1763	0	0	1763	1572
Q Serve(g_s), s				15.1	1.9	19.6	6.9	30.0	0.0	0.0	36.2	18.0
Cycle Q Clear(g_c), s				15.1	1.9	19.6	6.9	30.0	0.0	0.0	36.2	18.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				498	523	443	165	2153	0	0	1634	729
V/C Ratio(X)				0.71	0.11	0.87	0.90	0.79	0.00	0.00	0.96	0.62
Avail Cap(c_a), veh/h				635	666	565	165	2153	0	0	1634	729
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				27.0	22.2	28.6	37.5	12.2	0.0	0.0	21.7	16.9
Incr Delay (d2), s/veh				2.7	0.1	11.8	41.8	3.0	0.0	0.0	15.2	3.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.2	0.8	8.2	4.8	10.9	0.0	0.0	16.8	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				29.7	22.3	40.4	79.3	15.2	0.0	0.0	37.0	20.8
LnGrp LOS				C	C	D	E	B	A	A	D	C
Approach Vol, veh/h					799			1841			2026	
Approach Delay, s/veh					34.3			20.3			33.4	
Approach LOS					C			C			C	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		55.5			12.3	43.2		28.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		51.0			7.8	38.7		30.0				
Max Q Clear Time (g_c+I1), s		32.0			8.9	38.2		21.6				
Green Ext Time (p_c), s		12.8			0.0	0.5		1.9				
Intersection Summary												
HCM 6th Ctrl Delay				28.4								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary 12: 11th Avenue & SR 198 EB Off Ramp/3rd Street

11/11/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↩	↩					↩	↩	↩	↩	↩
Traffic Volume (veh/h)	570	122	116	0	0	0	0	1180	314	556	1284	0
Future Volume (veh/h)	570	122	116	0	0	0	0	1180	314	556	1284	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	594	127	121				0	1229	327	579	1338	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3				0	3	3	3	3	0
Cap, veh/h	496	106	531				0	1043	465	449	2071	0
Arrive On Green	0.34	0.34	0.34				0.00	0.30	0.30	0.25	0.59	0.00
Sat Flow, veh/h	1468	314	1572				0	3618	1572	1767	3618	0
Grp Volume(v), veh/h	721	0	121				0	1229	327	579	1338	0
Grp Sat Flow(s),veh/h/ln	1782	0	1572				0	1763	1572	1767	1763	0
Q Serve(g_s), s	40.5	0.0	6.6				0.0	35.5	22.2	30.5	30.3	0.0
Cycle Q Clear(g_c), s	40.5	0.0	6.6				0.0	35.5	22.2	30.5	30.3	0.0
Prop In Lane	0.82		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	601	0	531				0	1043	465	449	2071	0
V/C Ratio(X)	1.20	0.00	0.23				0.00	1.18	0.70	1.29	0.65	0.00
Avail Cap(c_a), veh/h	601	0	531				0	1043	465	449	2071	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	39.8	0.0	28.5				0.0	42.3	37.6	44.7	16.5	0.0
Incr Delay (d2), s/veh	104.8	0.0	0.2				0.0	90.4	8.6	146.0	1.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	34.3	0.0	2.5				0.0	28.0	9.4	31.4	12.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	144.6	0.0	28.7				0.0	132.6	46.2	190.8	18.0	0.0
LnGrp LOS	F	A	C				A	F	D	F	B	A
Approach Vol, veh/h	842						1556			1917		
Approach Delay, s/veh	127.9						114.5			70.2		
Approach LOS	F						F			E		
Timer - Assigned Phs	1	2		4			6					
Phs Duration (G+Y+Rc), s	35.0	40.0		45.0			75.0					
Change Period (Y+Rc), s	4.5	4.5		4.5			4.5					
Max Green Setting (Gmax), s	30.5	35.5		40.5			70.5					
Max Q Clear Time (g_c+I1), s	32.5	37.5		42.5			32.3					
Green Ext Time (p_c), s	0.0	0.0		0.0			13.8					
Intersection Summary												
HCM 6th Ctrl Delay	97.4											
HCM 6th LOS	F											

HCM 6th AWSC
5: Campus Dr/Campus Drive & 7th Street

11/02/2020

Intersection	
Intersection Delay, s/veh	146.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	108	410	53	27	521	62	83	169	30	136	97	135
Future Vol, veh/h	108	410	53	27	521	62	83	169	30	136	97	135
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	113	427	55	28	543	65	86	176	31	142	101	141
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	123.6	263.1	44	69.1
HCM LOS	F	F	E	F

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	29%	100%	0%	100%	0%	37%
Vol Thru, %	60%	0%	89%	0%	89%	26%
Vol Right, %	11%	0%	11%	0%	11%	37%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	282	108	463	27	583	368
LT Vol	83	108	0	27	0	136
Through Vol	169	0	410	0	521	97
RT Vol	30	0	53	0	62	135
Lane Flow Rate	294	112	482	28	607	383
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.77	0.3	1.209	0.075	1.527	0.943
Departure Headway (Hd)	11.38	10.86	10.246	10.213	9.609	10.6
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	320	333	357	353	383	345
Service Time	9.38	8.56	7.946	7.913	7.309	8.6
HCM Lane V/C Ratio	0.919	0.336	1.35	0.079	1.585	1.11
HCM Control Delay	44	18.1	148.2	13.7	274.6	69.1
HCM Lane LOS	E	C	F	B	F	F
HCM 95th-tile Q	6	1.2	18	0.2	31.5	9.8

TRANSPORTATION IMPROVEMENT WORKSHEETS

HCM 6th Signalized Intersection Summary

5: Campus Dr/Campus Drive & 7th Street

11/11/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	127	181	48	51	223	48	43	122	30	34	140	51
Future Volume (veh/h)	127	181	48	51	223	48	43	122	30	34	140	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	138	197	52	55	242	52	47	133	33	37	152	55
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	192	429	113	106	377	81	189	276	61	161	268	88
Arrive On Green	0.11	0.30	0.30	0.06	0.25	0.25	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1767	1415	373	1767	1480	318	245	1207	266	157	1172	387
Grp Volume(v), veh/h	138	0	249	55	0	294	213	0	0	244	0	0
Grp Sat Flow(s),veh/h/ln	1767	0	1788	1767	0	1798	1718	0	0	1716	0	0
Q Serve(g_s), s	2.5	0.0	3.7	1.0	0.0	4.8	0.0	0.0	0.0	0.7	0.0	0.0
Cycle Q Clear(g_c), s	2.5	0.0	3.7	1.0	0.0	4.8	3.4	0.0	0.0	4.1	0.0	0.0
Prop In Lane	1.00		0.21	1.00		0.18	0.22		0.15	0.15		0.23
Lane Grp Cap(c), veh/h	192	0	543	106	0	458	525	0	0	518	0	0
V/C Ratio(X)	0.72	0.00	0.46	0.52	0.00	0.64	0.41	0.00	0.00	0.47	0.00	0.00
Avail Cap(c_a), veh/h	935	0	1973	508	0	1549	1636	0	0	1665	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	14.3	0.0	9.3	15.1	0.0	11.0	11.2	0.0	0.0	11.4	0.0	0.0
Incr Delay (d2), s/veh	5.0	0.0	0.6	3.9	0.0	1.5	0.5	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	1.0	0.4	0.0	1.5	1.1	0.0	0.0	1.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.2	0.0	9.9	19.0	0.0	12.5	11.7	0.0	0.0	12.1	0.0	0.0
LnGrp LOS	B	A	A	B	A	B	B	A	A	B	A	A
Approach Vol, veh/h	387			349			213			244		
Approach Delay, s/veh	13.2			13.5			11.7			12.1		
Approach LOS	B			B			B			B		
Timer - Assigned Phs	2		3	4		6		7	8			
Phs Duration (G+Y+Rc), s	12.1		6.5	14.5		12.1		8.1	12.9			
Change Period (Y+Rc), s	4.5		4.5	4.5		4.5		4.5	4.5			
Max Green Setting (Gmax), s	30.5		9.5	36.5		30.5		17.5	28.5			
Max Q Clear Time (g_c+l1), s	5.4		3.0	5.7		6.1		4.5	6.8			
Green Ext Time (p_c), s	1.3		0.0	1.5		1.5		0.3	1.6			
Intersection Summary												
HCM 6th Ctrl Delay	12.8											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary

5: Campus Dr/Campus Drive & 7th Street

11/11/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	410	53	27	521	62	83	169	30	136	97	135
Future Volume (veh/h)	108	410	53	27	521	62	83	169	30	136	97	135
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	112	427	55	28	543	65	86	176	31	142	101	141
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	144	712	92	55	637	76	178	325	51	226	144	169
Arrive On Green	0.08	0.44	0.44	0.03	0.39	0.39	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1767	1611	207	1767	1626	195	332	1052	164	475	466	546
Grp Volume(v), veh/h	112	0	482	28	0	608	293	0	0	384	0	0
Grp Sat Flow(s),veh/h/ln	1767	0	1818	1767	0	1821	1548	0	0	1488	0	0
Q Serve(g_s), s	3.8	0.0	12.4	1.0	0.0	18.9	0.0	0.0	0.0	5.2	0.0	0.0
Cycle Q Clear(g_c), s	3.8	0.0	12.4	1.0	0.0	18.9	9.5	0.0	0.0	14.7	0.0	0.0
Prop In Lane	1.00		0.11	1.00		0.11	0.29		0.11	0.37		0.37
Lane Grp Cap(c), veh/h	144	0	804	55	0	713	553	0	0	539	0	0
V/C Ratio(X)	0.78	0.00	0.60	0.51	0.00	0.85	0.53	0.00	0.00	0.71	0.00	0.00
Avail Cap(c_a), veh/h	243	0	1093	166	0	1015	911	0	0	875	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	27.9	0.0	13.1	29.5	0.0	17.2	17.8	0.0	0.0	19.7	0.0	0.0
Incr Delay (d2), s/veh	8.7	0.0	0.7	7.3	0.0	5.0	0.8	0.0	0.0	1.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	4.4	0.5	0.0	7.7	3.3	0.0	0.0	4.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.6	0.0	13.8	36.8	0.0	22.2	18.6	0.0	0.0	21.5	0.0	0.0
LnGrp LOS	D	A	B	D	A	C	B	A	A	C	A	A
Approach Vol, veh/h	594			636			293			384		
Approach Delay, s/veh	18.1			22.9			18.6			21.5		
Approach LOS	B			C			B			C		
Timer - Assigned Phs	2		3	4		6	7	8				
Phs Duration (G+Y+Rc), s	23.6		6.4	31.9		23.6	9.5	28.7				
Change Period (Y+Rc), s	4.5		4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	33.5		5.8	37.2		33.5	8.5	34.5				
Max Q Clear Time (g_c+I1), s	11.5		3.0	14.4		16.7	5.8	20.9				
Green Ext Time (p_c), s	1.8		0.0	3.0		2.4	0.1	3.4				
Intersection Summary												
HCM 6th Ctrl Delay	20.4											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary 12: 11th Avenue & SR 198 EB Off Ramp/3rd Street

11/11/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	373	216	131	0	0	0	0	872	207	171	658	0
Future Volume (veh/h)	373	216	131	0	0	0	0	872	207	171	658	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	405	235	142				0	948	225	186	715	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3				0	3	3	3	3	0
Cap, veh/h	874	276	167				0	1620	723	224	2254	0
Arrive On Green	0.26	0.26	0.26				0.00	0.46	0.46	0.13	0.64	0.00
Sat Flow, veh/h	3428	1083	655				0	3618	1572	1767	3618	0
Grp Volume(v), veh/h	405	0	377				0	948	225	186	715	0
Grp Sat Flow(s),veh/h/ln	1714	0	1738				0	1763	1572	1767	1763	0
Q Serve(g_s), s	8.5	0.0	17.6				0.0	16.9	7.7	8.8	7.8	0.0
Cycle Q Clear(g_c), s	8.5	0.0	17.6				0.0	16.9	7.7	8.8	7.8	0.0
Prop In Lane	1.00		0.38				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	874	0	443				0	1620	723	224	2254	0
V/C Ratio(X)	0.46	0.00	0.85				0.00	0.59	0.31	0.83	0.32	0.00
Avail Cap(c_a), veh/h	1066	0	540				0	1620	723	321	2254	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.8	0.0	30.2				0.0	17.0	14.5	36.3	7.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	10.5				0.0	1.6	1.1	11.5	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.0	8.1				0.0	6.5	2.7	4.4	2.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.2	0.0	40.7				0.0	18.6	15.6	47.8	7.3	0.0
LnGrp LOS	C	A	D				A	B	B	D	A	A
Approach Vol, veh/h	782						1173			901		
Approach Delay, s/veh	33.7						18.0			15.7		
Approach LOS	C						B			B		
Timer - Assigned Phs	1	2	4		6							
Phs Duration (G+Y+Rc), s	15.3	43.7	26.2		59.0							
Change Period (Y+Rc), s	4.5	4.5	4.5		4.5							
Max Green Setting (Gmax), s	15.5	34.5	26.5		54.5							
Max Q Clear Time (g_c+l1), s	10.8	18.9	19.6		9.8							
Green Ext Time (p_c), s	0.2	6.4	2.1		5.9							
Intersection Summary												
HCM 6th Ctrl Delay	21.6											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary 12: 11th Avenue & SR 198 EB Off Ramp/3rd Street

11/11/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	570	122	116	0	0	0	0	1180	314	556	1284	0
Future Volume (veh/h)	570	122	116	0	0	0	0	1180	314	556	1284	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	594	127	121				0	1229	327	579	1338	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3				0	3	3	3	3	0
Cap, veh/h	670	171	163				0	1254	559	591	2567	0
Arrive On Green	0.20	0.20	0.20				0.00	0.36	0.36	0.33	0.73	0.00
Sat Flow, veh/h	3428	874	832				0	3618	1572	1767	3618	0
Grp Volume(v), veh/h	594	0	248				0	1229	327	579	1338	0
Grp Sat Flow(s),veh/h/ln	1714	0	1706				0	1763	1572	1767	1763	0
Q Serve(g_s), s	19.9	0.0	16.2				0.0	40.7	20.0	38.3	19.6	0.0
Cycle Q Clear(g_c), s	19.9	0.0	16.2				0.0	40.7	20.0	38.3	19.6	0.0
Prop In Lane	1.00		0.49				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	670	0	334				0	1254	559	591	2567	0
V/C Ratio(X)	0.89	0.00	0.74				0.00	0.98	0.58	0.98	0.52	0.00
Avail Cap(c_a), veh/h	726	0	361				0	1254	559	591	2567	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	46.2	0.0	44.7				0.0	37.6	31.0	38.9	7.0	0.0
Incr Delay (d2), s/veh	12.1	0.0	7.5				0.0	21.1	4.4	31.7	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.3	0.0	7.3				0.0	20.5	8.0	21.5	6.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.3	0.0	52.2				0.0	58.7	35.4	70.6	7.8	0.0
LnGrp LOS	E	A	D				A	E	D	E	A	A
Approach Vol, veh/h	842						1556			1917		
Approach Delay, s/veh	56.5						53.8			26.8		
Approach LOS	E						D			C		
Timer - Assigned Phs	1	2	4		6							
Phs Duration (G+Y+Rc), s	44.0	46.5	27.6		90.5							
Change Period (Y+Rc), s	4.5	4.5	4.5		4.5							
Max Green Setting (Gmax), s	39.5	42.0	25.0		86.0							
Max Q Clear Time (g_c+l1), s	40.3	42.7	21.9		21.6							
Green Ext Time (p_c), s	0.0	0.0	1.2		15.6							
Intersection Summary												
HCM 6th Ctrl Delay	42.3											
HCM 6th LOS	D											

APPENDIX D

Chapter 400 of Caltrans' Highway Design Manual (HDM)

CHAPTER 400 INTERSECTIONS AT GRADE

Intersections are planned points of conflict where two or more roadways join or cross. At-grade intersections are among the most complicated elements on the highway system, and control the efficiency, capacity, and safety for motorized and non-motorized users of the facility. The type and operation of an intersection is important to the adjacent property owners, motorists, bicyclists, pedestrians, transit operators, the trucking industry, and the local community.

There are two basic types of at grade intersections: crossing and circular. It is not recommended that intersections have more than four legs. Occasionally, local development and land uses create the need for a more complex intersection design. Such intersections may require a specialized intersection design to handle the specific traffic demands at that location. In addition to the guidance in this manual, see Traffic Operations Policy Directive (TOPD) Number 13-02: Intersection Control Evaluation (ICE) for direction and procedures on the evaluation, comparison and selection of the intersection types and control strategies identified in Index 401.5. Also refer to the Complete Streets Intersection Guide for further information.

Topic 401 - Factors Affecting Design

Index 401.1 - General

At-grade intersections must handle a variety of conflicts among users, which includes truck, transit, pedestrians, and bicycles. These recurring conflicts play a major role in the preparation of design standards and guidelines. Arriving, departing, merging, turning, and crossing paths of moving pedestrians, bicycles, truck, and vehicular traffic have to be accommodated within a relatively small area. The objective of designing an intersection is to effectively balance the convenience, ease, and comfort of the users, as well as the human factors, with moving traffic (automobiles, trucks, motorcycles, transit vehicles, bicycles, pedestrians, etc.). The safety and mobility needs of motorist, bicyclist and pedestrians as well as their movement patterns in intersections must be analyzed early in the planning phase and then

followed through appropriately during the design phase of all intersections on the State highway. It is Departmental policy to develop integrated multimodal projects in balance with community goals, plans, and values.

The Complete Intersections: A Guide to Reconstructing Intersections and Interchanges for Bicyclists and Pedestrians contains a primer on the factors to consider when designing intersections. It is published by the California Division of Traffic Operations.

401.2 Human Factors

- (1) *The Driver.* An appreciation of driver performance is essential to proper highway design and operation. The suitability of a design rests as much on how safely and efficiently drivers are able to use the highway as on any other criterion.

Motorist's perception and reaction time set the standards for sight distance and length of transitions. The driver's ability to understand and interpret the movements and crossing times of the other vehicle drivers, bicyclists, and pedestrians using the intersection is equally important when making decisions and their associated reactions. The designer needs to keep in mind the user's limitations and therefore design intersections so that they meet user expectation.

- (2) *The Bicyclist.* Bicyclist experience, skills and physical capabilities are factors in intersection design. Intersections are to be designed to help bicyclists understand how to traverse the intersection. Chapter 1000 provides intersection guidance for Class I and Class III bikeways that intersect the State highway system. The guidance in this chapter specifically relates to bicyclists that operate within intersections on the State highway system.
- (3) *The Pedestrian.* Understanding how pedestrians will use an intersection is critical because pedestrian volumes, their age ranges, physical ability, etc. all factor in to their startup time and the time it takes them to cross an intersection and thus, dictates how to design the intersection to avoid potential conflicts with bicyclists and motor vehicles. The guidance in this chapter specifically relates to pedestrian travel within

intersections on the State highway system. See Topic 105, Pedestrian Facilities, Design Information Bulletin 82 - “Pedestrian Accessibility Guidelines for Highway Projects,” the AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities, and the California Manual on Uniform Traffic Control Devices (California MUTCD) for additional guidance.

401.3 Traffic Considerations

Good intersection design clearly indicates to bicyclists and motorists how to traverse the intersection (see Figure 403.6A). Designs that encourage merging traffic to yield to through bicycle and motor vehicle traffic are desirable.

The size, maneuverability, and other characteristics of bicycles and motorized vehicles (automobiles, trucks, transit vehicles, farm equipment, etc.) are all factors that influence the design of an intersection. The differences in operating characteristics between bicycles and motor vehicles should be considered early in design.

Table 401.3 compares vehicle characteristics to intersection design elements.

A design vehicle is a convenient means of representing a particular segment of the vehicle population. See Topic 404 for a further discussion of the uses of design vehicles.

Transit vehicles and how their stops interrelate with an intersection, pedestrian desired walking patterns and potential transfers to other transit facilities are another critical factor to understand when designing an intersection. Transit stops and their placement needs to take into account the required maintenance operations that will be needed and usually supplied by the Transit Operator.

401.4 The Physical Environment

In highly developed urban areas, where right of way is usually limited, the volume of vehicular traffic, pedestrians, and bicyclists may be large, street parking exists, and transit stops (for both buses and light rail) are available. All interact in a variety of movements that contribute to and add to the complexity of a State highway and can result in busy intersections.

Industrial development may require special attention to the movement of large trucks.

Rural areas where farming occurs may require special attention for specialized farm equipment. In addition, rural cities or town centers (rural main streets) also require special attention.

Rural intersections in farm areas with low traffic volumes may have special visibility problems or require shadowing of left-turn vehicles from high speed approach traffic.

Table 401.3

Vehicle Characteristics	Intersection Design Element Affected
Length	Length of storage lane
Width	Lane width
Height	Clearance to overhead signs and signals
Wheel base	Corner radius and width of turning lanes
Acceleration	Tapers and length of acceleration lane
Deceleration	Tapers and length of deceleration lane

There are many factors to be considered in the design of intersections, with the goal to achieve a functional, safe and efficient intersection for all users of the facility. The location and level of use by various modes will have an impact on intersection design, and therefore should be considered early in the design process. In addition to current levels of use, it is important to consider future travel patterns for vehicles, including trucks; pedestrian and bicycle demand and the future expansion of transit.

401.5 Intersection Type

Intersection types are characterized by their basic geometric configuration, and the form of intersection traffic control that is employed:

(1) Geometric Configurations

- (a) Crossing-Type Intersections - “Tee” and 4-legged intersections
- (b) Circular Intersections –roundabouts, traffic circles, rotaries; however, only roundabouts are acceptable for State highways.
- (c) Alternative Intersection Designs – various effective geometric alternatives to traditional designs that can reduce crashes and their severity, improve operations, reduce congestion and delay typically by reducing or altering the number of conflict points; these alternatives include geometric design features such as intersections with displaced left-turns or variations on U-turns.

(2) Intersection Control strategies, See California MUTCD and Traffic Operations Policy Directive (TOPD) Number 13-02, Intersection Control Evaluation for procedures and guidance on how to evaluate, compare and select from among the following intersection control strategies:

- (a) Two-Way Stop Controlled - for minor road traffic
- (b) All-Way Stop Control
- (c) Signal Control
- (d) Yield Control (Roundabout)

Historically, crossing-type intersections with signal or “STOP”-control have been used on the State highway system. However, other intersection types, given the appropriate circumstances may enhance intersection performance through fewer or less severe crashes and improve operations by reducing overall delay. Alternative intersection geometric designs should be considered and evaluated early in the project scoping, planning and decision-making stages, as they may be more efficient, economical and safer solutions than traditional designs. Alternative intersection designs can effectively balance the safety and mobility needs of the motor vehicle drivers, transit riders, bicyclists and pedestrians using the intersection.

401.6 Transit

Transit use may range from periodic buses, handled as part of the normal mix of vehicular traffic, to Bus Rapid Transit (BRT) or light rail facilities which can

have a large impact on other users of the intersection. Consideration of these modes should be part of the early planning and design of intersections.

Topic 402 - Operational Features Affecting Design**402.1 Capacity**

Adequate capacity to handle peak period traffic demands is a basic goal of intersection design.

- (1) *Unsignalized Intersections.* The “Highway Capacity Manual”, provides methodology for capacity analysis of unsignalized intersections controlled by “STOP” or “YIELD” signs. The assumption is made that major street traffic is not affected by the minor street movement. Unsignalized intersections generally become candidates for signalization when traffic backups begin to develop on the cross street or when gaps in traffic are insufficient for drivers to yield to crossing pedestrians. See the California MUTCD, for signal warrants. Changes to intersection controls must be coordinated with District Traffic Branch.
- (2) *Signalized Intersections.* See Topic 406 for analysis of simple signalized intersections, including ramps. The analysis of complex and alternative intersections should be referred to the District Traffic Branch; also see Traffic Operations Policy Directive (TOPD) Number 13-02.
- (3) *Roundabout Intersections.* See TOPD Number 13-02 for screening process and the Intersection Control Evaluation(ICE) Process Informational Guide for operational analysis methods and tools.

402.2 Collisions

- (1) *General.* Intersections have a higher potential for conflict compared to other sections of the highway because travel is interrupted, traffic streams cross, and many types of turning movements occur.

The type of traffic control affects the type of collisions. Signalized intersections tend to have more rear end and same-direction

sideswipes than intersections with “STOP”-control on minor legs. Roundabouts experience few angle or crossing collisions. Roundabouts reduce the frequency and severity of collisions, especially when compared to the performance of signalized intersections in high speed environments. Other alternative intersection types are configurations to consider for minimizing the number of conflict points.

(2) *Undesirable Geometric Features.*

- Inadequate approach sight distance.
- Inadequate corner sight distance.
- Steep grades.
- Five or more approaches.
- Presence of curves within intersections(unless at roundabouts).
- Inappropriately large curb radii.
- Long pedestrian crossing distances.
- Intersection Angle <75 degrees (see Topic 403).

402.3 On-Street Parking

On-street parking generally decreases through-traffic capacity, impedes traffic flow, and increases crash potential. Where the primary service of the arterial is the movement of vehicles, it may be desirable to prohibit on-street parking on State highways in urban and suburban expressways and rural arterial sections. However, within urban and suburban areas and in rural communities located on State highways, on-street parking should be considered in order to accommodate existing land uses. Where adequate off-street parking facilities are not available, the designer should consider on-street parking, so that the proposed highway improvement will be compatible with the land use. On-street parking as well as off-street parking needs to comply with DIB82. See AASHTO, A Policy on Geometric Design of Highways and Streets for additional guidance related to on-street parking.

402.4 Consider All Users

Intersections should accommodate all users of the facility, including vehicles, bicyclists, pedestrians and transit. Bicycles have all the rights and responsibilities as motorist per the California

Vehicle Code, but should have separate consideration of their needs, even separate facilities if volumes warrant. Pedestrians should not be prohibited from crossing one or more legs of an intersection, unless no other safe alternative exists. Pedestrians can be prohibited from crossing one or more legs of an intersection if a reasonable alternate route exists and there is a demonstrated need to do so. All pedestrian facilities shall be ADA compliant as outlined in DIB 82. Transit needs should be determined early in the planning and design phase as their needs can have a large impact on the performance of an intersection. Transit stops in the vicinity of intersections should be evaluated for their effect on the safety and operation of the intersection(s) under study. See Topic 108 for additional information.

402.5 Speed-Change Areas

Speed-change areas for vehicles entering or leaving main streams of traffic are beneficial to the safety and efficiency of an intersection. Entering traffic merges most efficiently with through traffic when the merging angle is less than 15 degrees and when speed differentials are at a minimum.

Topic 403 - Principles of Channelization

403.1 Preference to Major Movements

The provision of direct free-flowing high-standard alignment to give preference to major movements is good channelization practice. This may require some degree of control of the minor movements such as stopping, funneling, or even eliminating them. These controlling measures should conform to natural paths of movement and should be introduced gradually to promote smooth and efficient operation.

403.2 Areas of Conflict

Large multilane undivided intersection areas are undesirable. The hazards of conflicting movements are magnified when motorists, bicyclists, and pedestrians are unable to anticipate movements of other users within these areas. Channelization reduces areas of conflict by separating or regulating traffic movements into definite paths of travel by the use of pavement markings or traffic islands.

Multilane undivided intersections, even with signalization, are more difficult for pedestrians to cross. Providing pedestrian refuge islands enable pedestrians to cross fewer lanes at a time.

See Index 403.7 for traffic island guidance when used as pedestrian refuge. Curb extensions shorten crossing distance and increase visibility. See Index 303.4 for curb extensions.

403.3 Angle of Intersection

A right angle (90°) intersection provides the most favorable conditions for intersecting and turning traffic movements. Specifically, a right angle provides:

- The shortest crossing distance for motor vehicles, bicycles, and pedestrians.
- Sight lines which optimize corner sight distance and the ability of motorists to judge the relative position and speed of approach traffic.
- Intersection geometry that can reduce vehicle turning speeds so collisions are more easily avoided and the severity of collisions are minimized.
- Intersection geometry that sends a message to turning bicyclists and motorists that they are making a turning movement and should yield as appropriate to through traffic on the roadway they are leaving, to traffic on the receiving roadway, and to pedestrians crossing the intersection.

Minor deviations from right angles are generally acceptable provided that the potentially detrimental impact on visibility and turning movements for large trucks (see Topic 404) can be mitigated. However, large deviations from right angles may decrease visibility, hamper certain turning operations, and will increase the size of the intersection and therefore crossing distances for bicyclists and pedestrians, may encourage high speed turns, and may reduce yielding by turning traffic. When a right angle cannot be provided due to physical constraints, the interior angle should be designed as close to 90 degrees as is practical, but should not be less than 75 degrees. Mitigation should be considered for the affected intersection design features. (See Figure 403.3A). A 75 degree angle does not unreasonably increase the crossing distance or generally decrease visibility. Class II bikeway crossings at railroads follow similar

guidance to Class I bikeway crossings at railroads, see Index 1003.5(3), and Figure 403.3B.

A characteristic of skewed intersection angles is that they result in larger intersections.

When existing intersection angles are less than 75 degrees, the following retrofit improvement strategies should be considered:

- Realign the subordinate intersection legs if the new alignment and intersection location(s) can be designed without introducing new geometric or operational deficiencies.
- Provide acceleration lanes for difficult turning movements due to radius or limited visibility.
- Restrict problematic turning movements; e.g. for minor road left turns with potentially limited visibility.
- Provide refuge areas for pedestrians at very long crossings.

For additional guidance on the above and other improvement strategies, consult with the District Design Liaison.

Particular attention should be given to skewed angles on curved alignment with regards to sight distance and visibility. Crossroads skewed to the left have more restricted visibility for drivers of vans and trucks than crossroads skewed to the right. In addition, severely skewed intersection angles, coupled with steep downgrades (generally over 4 percent) can increase the potential for high centered vehicles to overturn where the vehicle is on a downgrade and must make a turn greater than 90 degrees onto a crossroad. These factors should be considered in the design of skewed intersections.

403.4 Points of Conflict

Channelization separates and clearly defines points of conflict within the intersection. Bicyclists, pedestrians and motorists should be exposed to only one conflict or confronted with one decision at a time.

Speed-change areas for diverging traffic should provide adequate length clear of the through lanes to permit vehicles to decelerate after leaving the through lanes.

See AASHTO, A Policy on Geometric Design of Highways and Streets for additional guidance on speed-change lanes.

Figure 403.3A
Angle of Intersection
(Minor Leg Skewed to the Right)

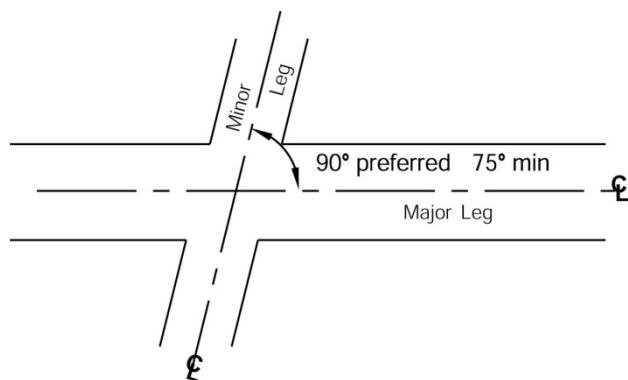
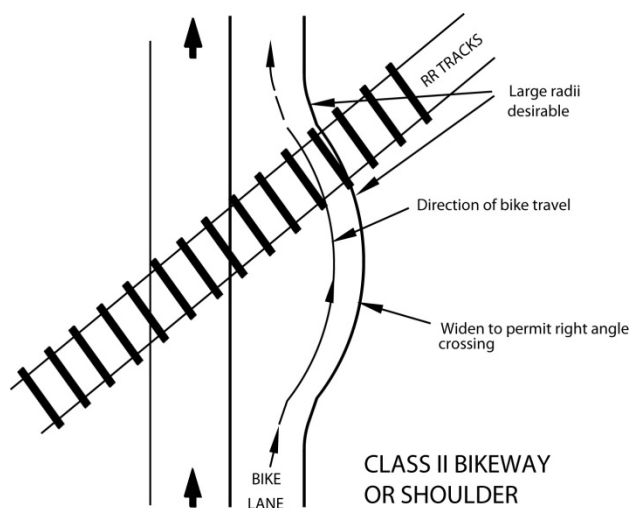


Figure 403.3B
Class II Bikeway
Crossing Railroad



403.5 (Currently Not In Use)

403.6 Turning Traffic

A separate turning lane removes turning movements from the intersection area. Abrupt changes in alignment or sight distance should be avoided, particularly where traffic turns into a separate turning lane from a high-standard through facility.

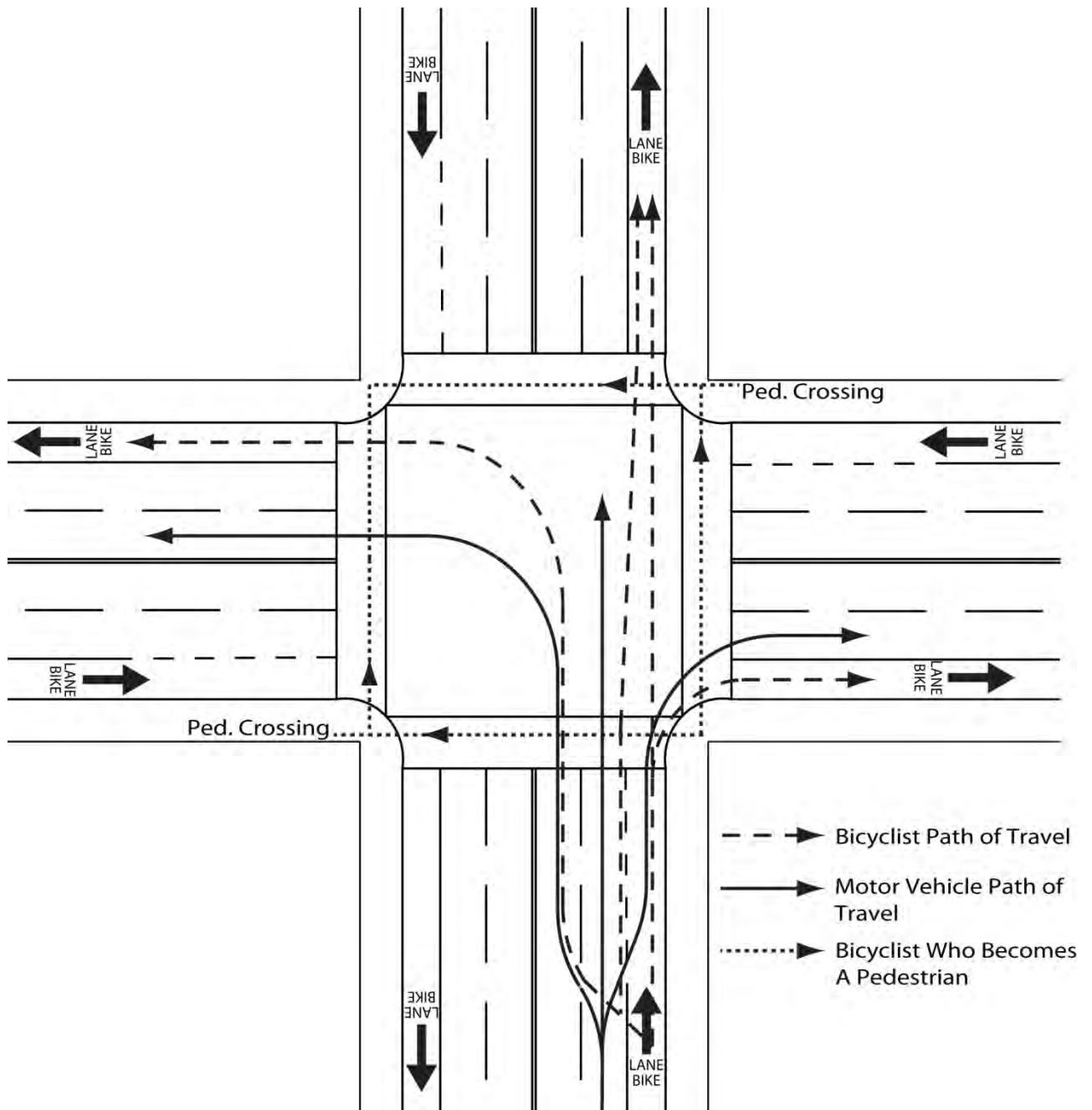
For wide medians, consider the use of offset left-turn lanes at both signalized and unsignalized intersections. Opposing left-turn lanes are offset or shifted as far to the left as practical by reducing the width of separation immediately before the intersection. Rather than aligning the left-turn lane exactly parallel with and adjacent to the through lane, the offset left-turn lane is separated from the adjacent through lane. Offset left-turn lanes provide improved visibility of opposing through traffic. For further guidance on offset left-turn lanes, see AASHTO, A Policy on Geometric Design of Highways and Streets.

- (1) *Treatment of Intersections with Right-Turn-Only Lanes.* Most motor vehicle/bicycle collisions occur at intersections. For this reason, intersection design should be accomplished in a manner that will minimize confusion by motorists and bicyclists, eliminate ambiguity and induce all road users to operate in accordance with the statutory rules of the road in the California Vehicle Code. Right-turn-only lanes should be designed to meet user expectations and reduce conflicts between vehicles and bicyclists.

Figure 403.6A illustrates a typical at-grade intersection of multilane streets without right-turn-only lanes. Bike lanes or shoulders are included on all approaches. Some common movements of motor vehicles and bicycles are shown. A prevalent crash type is between straight-through bicyclists and right-turning motorists, who do not yield to through bicyclists.

Optional right-turn lanes should not be used in combination with right-turn-only lanes on roads where bicycle travel is permitted. The use of optional right-turn lanes in combination with right-turn-only lanes is not recommended in any case where a Class II bike lane is present. This may increase the need for dual or triple right-turn-only lanes, which have

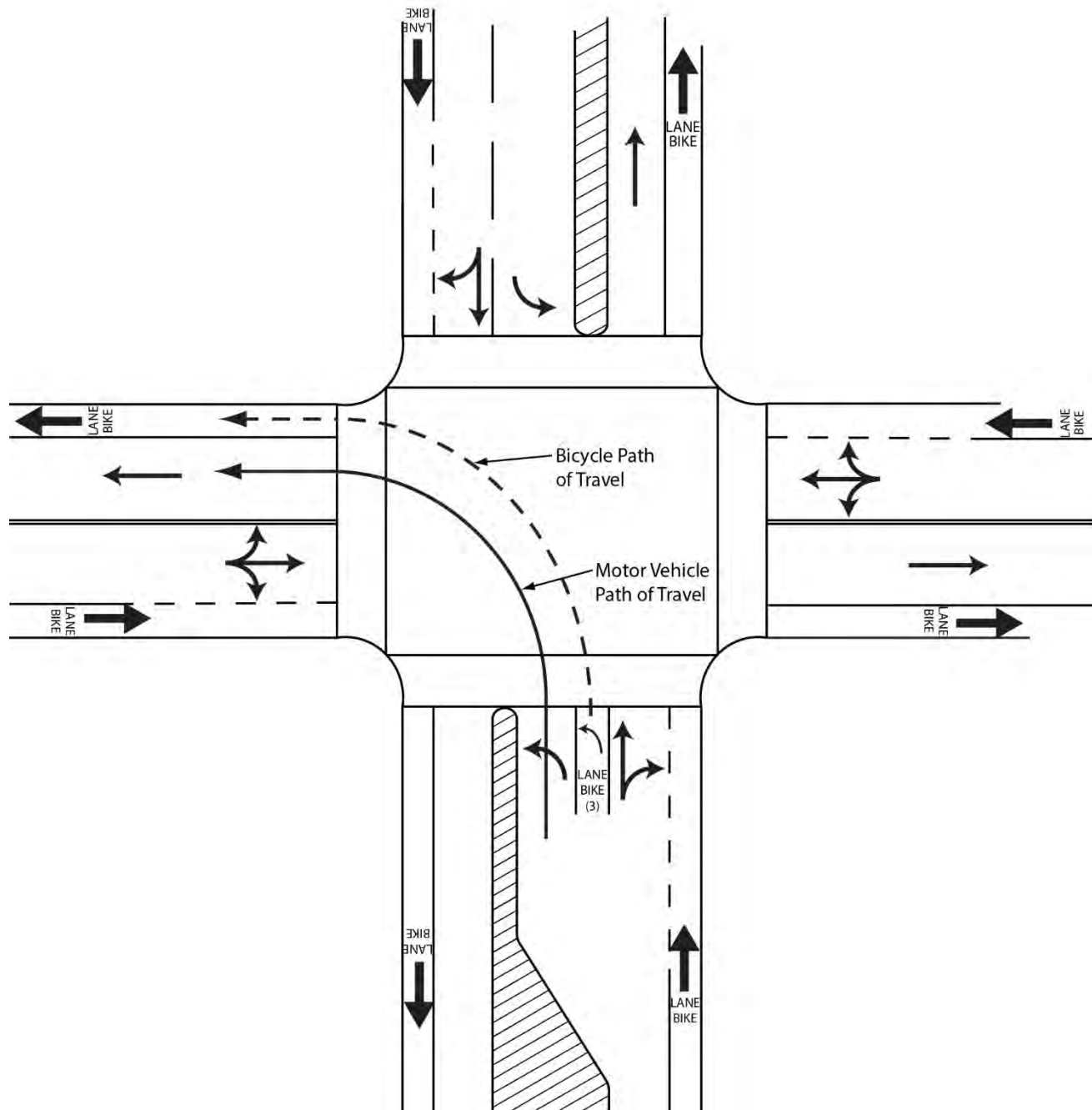
Figure 403.6A

Typical Bicycle and Motor Vehicle Movements at Intersections of Multilane Streets without Right-Turn-Only Lanes

NOTE:

Only one direction is shown for clarity.

Figure 403.6B
Bicycle Left-Turn-Only Lane



NOTES:

- (1) For bicycle lane markings, see the California MUTCD.
- (2) Bicycle detectors are necessary for signalized intersections.
- (3) Left-turn bicycle lane should have receiving bike lane or shoulder.

challenges with visibility between turning vehicles and pedestrians. Multiple right-turn-only lanes should not be free right-turns when there is a pedestrian crossing. If there is a pedestrian crossing on the receiving leg of multiple right-turn-only lanes, the intersection should be controlled by a pedestrian signal head, or geometrically designed such that pedestrians cross only one turning lane at a time.

Locations with right-turn-only lanes should provide a minimum 4-foot width for bicycle use between the right-turn and through lane when bikes are permitted, except where posted speed is greater than 40 miles per hour, the minimum width should be 6 feet. Configurations that create a weaving area without defined lanes should not be used.

For signing and delineation of bicycle lanes at intersections, consult District Traffic Operations.

Figure 403.6B depicts an intersection with a left-turn-only bicycle lane, which should be considered when bicycle left-turns are common. A left-turn-only bicycle lane may be considered at any intersection and should always be considered as a tool to provide mobility for bicyclists. Signing and delineation options for bicycle left-turn-only lanes are shown in the California MUTCD.

- (2) *Design of Intersections at Interchanges.* The design of at-grade intersections at interchanges should be accomplished in a manner that will minimize confusion of motorists, bicyclists, and pedestrians. Higher speed, uncontrolled entries and exits from freeway ramps should not be used at the intersection of the ramps with the local road. The smallest curb return radius should be used that accommodates the design vehicle. Intersections with interior angles close to 90 degrees reduce speeds at conflict points between motorists, bicyclists, and pedestrians. The intersection skew guidance in Index 403.3 applies to all ramp termini at the local road.

403.7 Refuge Areas

Traffic islands should be used to provide refuge areas for bicyclists and pedestrians. See Index 405.4 for further guidance.

403.8 Prohibited Turns

Traffic islands may be used to direct bicycle and motorized vehicle traffic streams in desired directions and prevent undesirable movements. Care should be taken so that islands used for this purpose accommodate convenient and safe pedestrian and bicycle crossings, drainage, and striping options. See Topic 303.

403.9 Effective Signal Control

At intersections with complex turning movements, channelization is required for effective signal control. Channelization permits the sorting of approaching bicycles and motorized vehicles which may move through the intersection during separate signal phases. Pedestrians may also have their own signal phase. This requirement is of particular importance when traffic-actuated signal controls are employed.

The California MUTCD has warrants for the placement of signals to control vehicular, bicycle and pedestrian traffic. Pedestrian activated devices, signals or beacons are not required, but must be evaluated where directional, multilane, pedestrian crossings occur. These locations may include:

- Mid-block street crossings;
- Channelized turn lanes;
- Ramp entries and exits; and
- Roundabouts.

The evaluation, selection, programming and use of a chosen device should be done with guidance from District Traffic Operations.

403.10 Installation of Traffic Control Devices

Channelization may provide locations for the installation of essential traffic control devices, such as “STOP” and directional signs. See Index 405.4 for information about the design of traffic islands.

403.11 Summary

- Give preference to the major move(s).

- Reduce areas of conflict.
- Reduce the duration of conflicts.
- Cross traffic at right angles or skew no more than 75 degrees. (90 degrees preferred.)
- Separate points of conflict.
- Provide speed-change areas and separate turning lanes where appropriate.
- Provide adequate width to shadow turning traffic.
- Restrict undesirable moves with traffic islands.
- Coordinate channelization with effective signal control.
- Install signs in traffic islands when necessary but avoid building conflicts one or more modes of travel.
- Consider all users.

403.12 Other Considerations

- An advantage of curbed islands is they can serve as pedestrian refuge. Where curbing is appropriate, consideration should be given to mountable curbs. See Topic 303 for more guidance.
- Avoid complex intersections that present multiple choices of movement to the motorist and bicyclist.
- Traffic safety should be considered. Collision records provide a valuable guide to the type of channelization needed.

Topic 404 - Design Vehicles

404.1 General

Any vehicle, whether car, bus, truck, or recreational vehicle, while turning a curve, covers a wider path than the width of the vehicle. The outer front tire can generally follow a circular curve, but the inner rear tire will swing in toward the center of the curve.

Some terminology is vital to understanding the engineering concepts related to design vehicles. See Index 62.4 Interchanges and Intersection at Grade for terminology.

404.2 Design Considerations

It may not be necessary to provide for design vehicle turning movements at all intersections along the State route if the design vehicle's route is restricted or it is not expected to use the cross street frequently. Discuss with Traffic Operations and the local agency before a turning movement is not provided. The goal is to minimize possible conflicts between vehicles, bicycles, pedestrians, and other users of the roadway, while providing the minimum curb radii appropriate for the given situation.

Both the tracking width and swept width should be considered in the design of roadways for use of the roadway by design vehicles.

Tracking width lines delineate the path of the vehicle tires as the vehicle moves through the turn.

Swept width lines delineate the path of the vehicle body as the vehicle moves through the turn and will therefore always exceed the tracking width. The following list of criteria is to be used to determine whether the roadway can accommodate the design vehicle.

(1) *Traveled way.*

- (a) To accommodate turn movements (e.g., at intersections, driveways, alleys, etc.), the travel way width and intersection design should be such that tracking width and swept width lines for the design vehicle do not cross into any portion of the lane for opposing traffic. Encroachment into the shoulder and bike lane is permitted.

- (b) Along the portion of roadway where there are no turning options, vehicles are required to stay within the lane lines. **The tracking and swept widths lines for the design vehicle shall stay within the lane as defined in Index 301.1 and Table 504.3.** This includes no encroachment into Class II bike lanes.

- (2) *Shoulders.* Both tracking width and swept width lines may encroach onto paved shoulders to accommodate turning. For design projects where the tracking width lines are shown to encroach onto paved shoulders, the shoulder pavement structure should be engineered to sustain the weight of the design vehicle. See Index 613 for general traffic loading

considerations and Index 626 for tied rigid shoulder guidance. At corners where no sidewalks are provided and pedestrians are using the shoulder, a paved refuge area may be provided outside the swept width of turning vehicle.

- (3) *Curbs and Gutters.* Tires may not mount curbs. If curb and gutter are present and any portion of the gutter pan is likewise encroached, the gutter pan must be engineered to match the adjacent shoulder pavement structure. See Index 613.5(2)(c) for gutter pan design guidance.
- (4) *Edge of Pavement.* To accommodate a turn, the swept width lines may cross the edge of pavement provided there are no obstructions. The tracking width lines must remain on the pavement structure, including the shoulder, provided that the shoulder is designed to support vehicular traffic. If truck volumes are high, consideration of a wider shoulder is encouraged in order to preserve the pavement edge.
- (5) *Bicycle Lanes.* Where bicycle lanes are considered, the design guidance noted above applies. Vehicles are permitted to cross a bicycle lane to initiate or complete a turning movement or for emergency parking on the shoulder. See the California MUTCD for Class II bike lane markings.

To accommodate turn movements (e.g., intersections, driveways, alleys, etc. are present), both tracking width and swept width lines may cross the broken white painted bicycle lane striping in advance of the right-turn, entering the bicycle lane when clear to do so.
- (6) *Sidewalks.* Tracking width and swept width lines must not encroach onto sidewalks or pedestrian refuge areas, without exception.
- (7) *Obstacles.* Swept width lines may not encroach upon obstacles including, but not limited to, curbs, islands, sign structures, traffic delineators/channelizers, traffic signals, lighting poles, guardrails, trees, cut slopes, and rock outcrops.
- (8) *Appurtenances.* Swept width lines do not include side mirrors or other appurtenances allowed by the California Vehicle Code, thus,

accommodation to non-motorized users of the facility and appurtenances should be considered.

If both the tracking width and swept width lines meet the design guidance listed above, then the geometry is adequate for that design vehicle. Consideration should be given to pedestrian crossing distance, motor vehicle speeds, truck volumes, alignment, bicycle lane width, sight distance, and the presence of on-street parking.

Note that the STAA Design Vehicle has a template with a 56-foot (minimum) and a 67-foot (longer) radius and the California Legal Design Vehicle has a template with 50-foot (minimum) and 60-foot (longer) radii. These templates are shown in Figures 404.5A through 404.5D. The longer radius templates are more conservative. The longer radius templates develop less swept width and leave a margin of error for the truck driver. The longer radius templates should be used for conditions where the vehicle may not be required to stop before entering the intersection.

The minimum radius template can be used if the longer radius template does not clear all obstacles. The minimum radius templates demonstrate the tightest turn that the vehicles can navigate, assuming a speed of less than 10 miles per hour.

For offtracking lane width requirements on freeway ramps, see Topic 504.

404.3 Design Tools

District Truck Managers should be consulted early in the project to ensure compliance with the design vehicle guidance contained in Topic 404. Consult local agencies to verify the location of local truck routes. Essentially, two options are available – templates or computer software.

- The turning templates in Figures 404.5A through G are a design aid for determining the swept width and/or tracking width of large vehicles as they maneuver through a turn. The templates can be used as overlays to evaluate the adequacy of the geometric layout of a curve or intersection when reproduced on clear film and scaled to match the highway drawings. These templates assume a vehicle speed of less than 10 miles per hour.

- Computer software such as AutoTURN or AutoTrak can draw the swept width and/or tracking width along any design curve within a CADD drawing program such as MicroStation or AutoCAD. Dimensions taken from the vehicle diagrams in Figures 404.5A through G may be inputted into the computer program by creating a custom vehicle if the vehicle is not already included in the software library. The software can also create a vehicle turn template that conforms to any degree curve desired.

404.4 Design Vehicles and Related Definitions

(1) *The Surface Transportation Assistance Act of 1982 (STAA).*

- (a) STAA Routes. STAA allows certain longer trucks called STAA trucks to operate on the National Network. After STAA was enacted, the Department evaluated State routes for STAA truck access and created Terminal Access and Service Access routes which, together with the National Network, are called the STAA Network. Terminal Access routes allow STAA access to terminals and facilities. Service Access routes allow STAA trucks one-mile access off the National Network, but only at identified exits and only for designated services. Service Access routes are primarily local roads. A “Truck Route Map,” indicating the National Network routes and the Terminal Access routes is posted on the Department’s Office of Commercial Vehicle Operations website and is also available in printed form.
- (b) STAA Design Vehicle. The STAA design vehicle is a truck tractor-semitrailer combination with a 48-foot semitrailer, a 43-foot kingpin-to-rear-axle (KPRA) distance, an 8.5-foot body and axle width, and a 23-foot truck tractor wheelbase. Note, a truck tractor is a non-load-carrying vehicle. There is also a STAA double (truck tractor-semitrailer-trailer); however, the double is not used as the design vehicle due to its shorter turning radius. The STAA Design Vehicle is shown in Figures 404.5A and B.

The STAA Design Vehicle in Figures 404.5A or B should be used on the National Network, Terminal Access, California Legal, and Advisory routes.

- (c) STAA Vehicle – 53-Foot Trailer. Another category of vehicle allowed only on STAA routes has a maximum 53-foot trailer, a maximum 40-foot KPRA for two or more axles, a maximum 38-foot KPRA for a single axle, and unlimited overall length. This vehicle is not to be used as the design vehicle as it is not the worst case for offtracking due to its shorter KPRA. The STAA Design Vehicle should be used instead.

(2) *California Legal.*

- (a) California Legal Routes. Virtually all State routes off the STAA Network are California Legal routes. There are two types of California Legal routes, the regular California Legal routes and the KPRA Advisory Routes. Advisory routes have signs posted that state the maximum KPRA length that the route can accommodate without the vehicle offtracking outside the lane. KPRA advisories range from 30 feet to 38 feet, in 2-foot increments. California Legal vehicles are allowed to use both types of California Legal routes. California Legal vehicles can also use the STAA Network. However, STAA trucks are not allowed on any California Legal routes. The Truck Route Map indicating the California Legal routes is posted on the Department’s Office of Commercial Vehicle Operations website.
- (b) California Legal Design Vehicle. The California Legal vehicle is a truck tractor-semitrailer with the following dimensions: the maximum overall length is 65 feet; the maximum KPRA distance is 40 feet for semitrailers with two or more axles, and 38 feet for semitrailers with a single axle; the maximum width is 8.5 feet. There are also two categories of California Legal doubles (truck tractor-semitrailer-trailer); however, the doubles are not used as the design vehicle due to their shorter turning radii. The California Legal Design Vehicle is shown in Figures 404.5C and D.

The California Legal Design Vehicle in Figures 404.5C and D should only be used when the STAA design vehicle is not feasible and with concurrence from the District Truck Manager.

(3) *40-Foot Bus.*

- (a) 40-Foot Bus Routes. All single-unit vehicles, including buses and motor trucks up to 40 feet in length, are allowed on virtually every route in California.
- (b) 40-Foot Bus Design Vehicle. The 40-Foot Bus Design Vehicle shown in Figure 404.5E is an AASHTO standard. Its 25-foot wheelbase and 40-foot length are typical of city transit buses and some intercity buses. At intersections where truck volumes are light or where the predominate truck traffic consists of mostly 3-axle units, the 40-foot bus may be used. Its wheel path sweeps a greater width than 3-axle delivery trucks, as well as smaller buses such as school buses.

(4) *45-Foot Bus & Motorhome.*

- (a) 45-Foot Bus & Motorhome Routes. The “45-foot bus and motorhome” refers to bus and motorhomes over 40 feet in length, up to and including 45 feet in length. These longer buses and motorhomes are allowed in California, but only on certain routes.

The 45-foot tour bus became legal on the National Network in 1991 and later allowed on some State routes in 1995. The 45-foot motorhome became legal in California in 2001, but only on those routes where the 45-foot bus was already allowed. A Bus and Motorhome Map indicating where these longer buses and motorhomes are allowed and where they are not allowed is posted on the Department’s Office of Commercial Vehicle Operations website.

- (b) 45-Foot Bus and Motorhome Design Vehicle. The 45-Foot Bus & Motorhome Design Vehicle shown in Figure 404.5F is used by Caltrans for the longest allowable bus and motorhome. Its wheelbase is 28.5 feet. It is also similar to the AASHTO standard 45-foot bus. Typically this should

be the smallest design vehicle used on a State highway. It may be used where the State highway intersects local streets without commercial or industrial traffic.

The 45-Foot Bus and Motorhome Design Vehicle shown in Figure 404.5F should be used in the design of all interchanges and intersections on all green routes indicated on the Bus and Motorhome Map for both new construction and rehabilitation projects. Check also the longer standard design vehicles on these routes as required – the STAA Design Vehicle and the California Legal Design Vehicle in Indexes 404.4(1) and (2).

(5) *60-Foot Articulated Bus.*

- (a) 60-Foot Articulated Bus Routes. The articulated bus is allowed a length of up to 60 feet per CVC 35400(b)(3)(A). This bus is used primarily by local transit agencies for public transportation. There is no master listing of such routes. Local transit agencies should be contacted to determine possible routes within the proposed project.
- (b) 60-Foot Articulated Bus Design Vehicle. The 60-Foot Articulated Bus Design Vehicle shown in Figure 404.5G is an AASHTO standard. The routes served by these buses should be designed to accommodate the 60-Foot Articulated Bus Design Vehicle.

404.5 Turning Templates & Vehicle Diagrams

Figures 404.5A through G are computer-generated turning templates at an approximate scale of 1"=50' and their associated vehicle diagrams for the design vehicles described in Index 404.3. The radius of the template is measured to the outside front wheel path at the beginning of the curve. Figures 404.5A through G contain the terms defined as follows:

- (1) *Tractor Width* - Width of tractor body.
- (2) *Trailer Width* - Width of semitrailer body.
- (3) *Tractor Track* - Tractor axle width, measured from outside face of tires.

December 14, 2018

Figure 404.5A
STAA Design Vehicle
56-Foot Radius

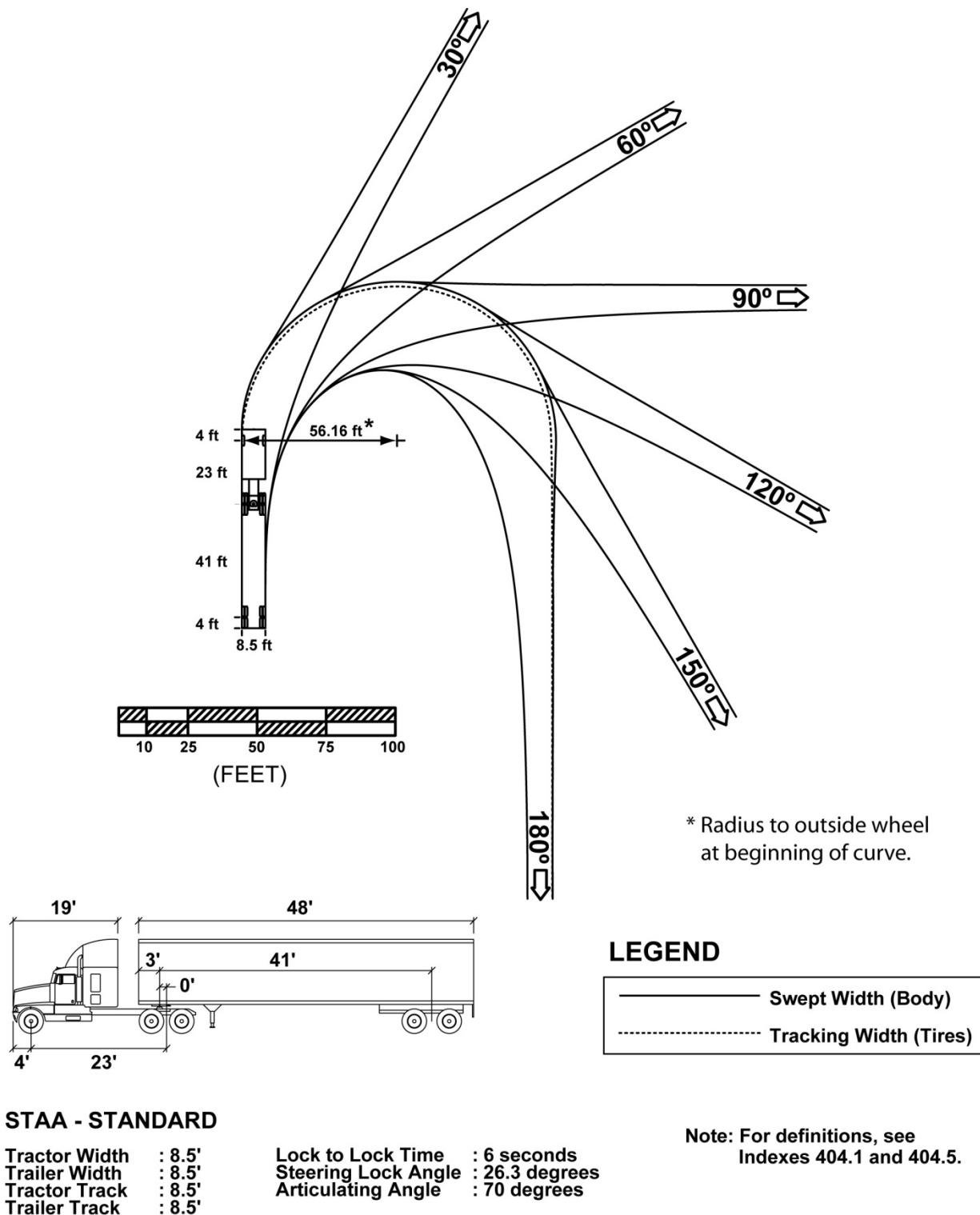
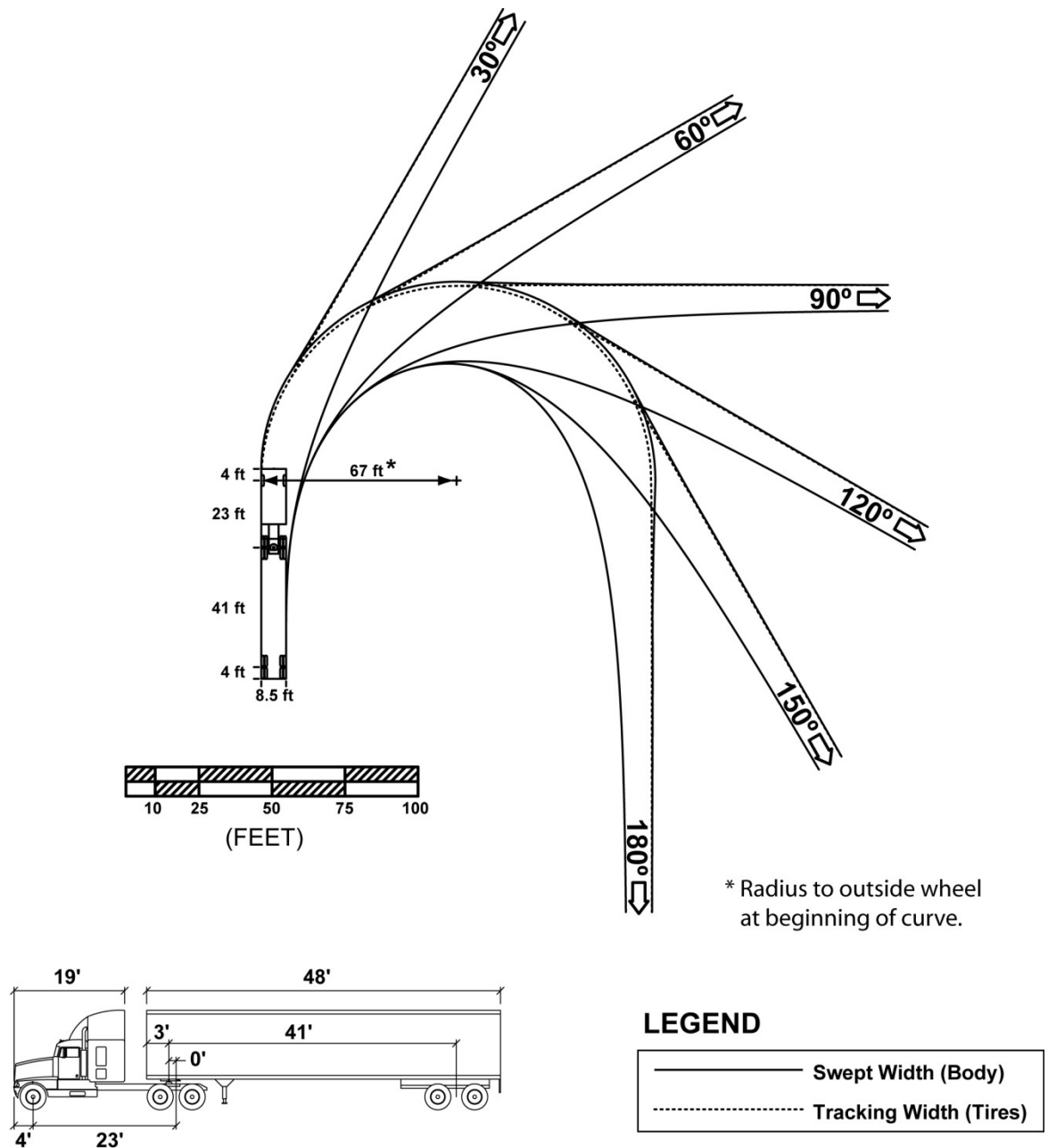


Figure 404.5B
STAA Design Vehicle
67-Foot Radius



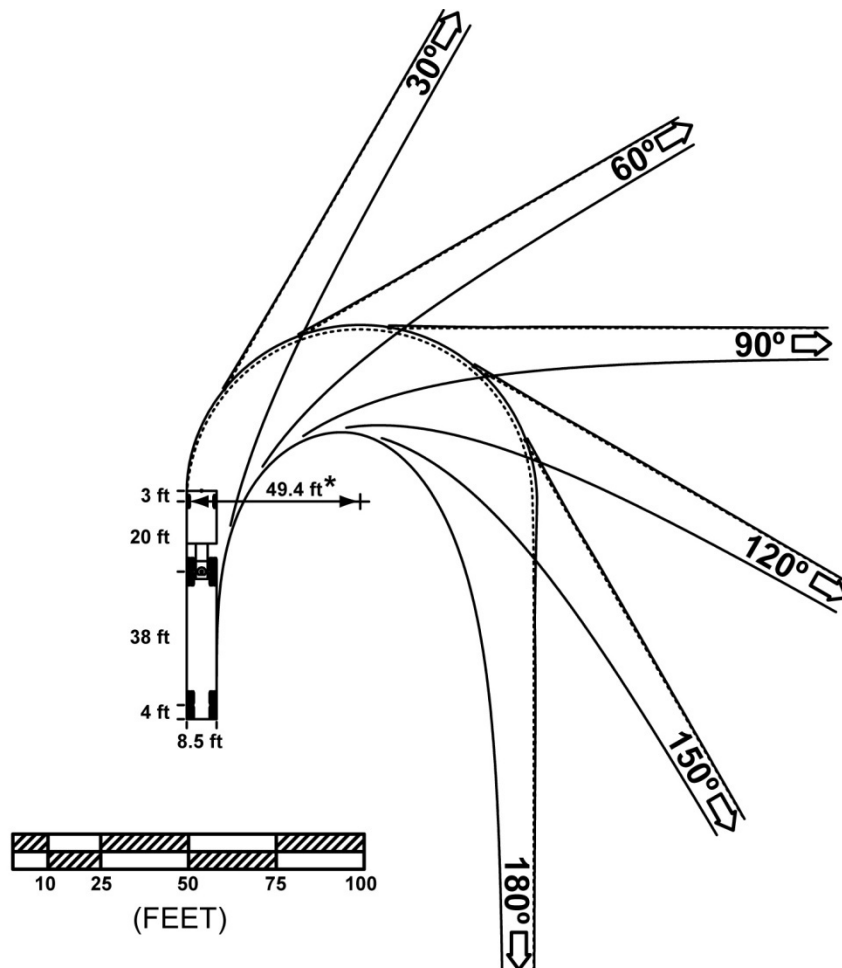
STAA - STANDARD

Tractor Width : 8.5'
 Trailer Width : 8.5'
 Tractor Track : 8.5'
 Trailer Track : 8.5'

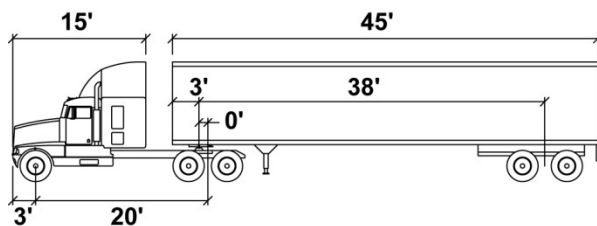
Lock to Lock Time : 6 seconds
 Steering Lock Angle : 26.3 degrees
 Articulating Angle : 70 degrees

Note: For definitions, see
 Indexes 404.1 and 404.5.

Figure 404.5C
California Legal Design Vehicle
50-Foot Radius



* Radius to outside wheel
 at beginning of curve.



LEGEND

	Swept Width (Body)
	Tracking Width (Tires)

CA LEGAL - 65 FT

Tractor Width	: 8.5'	Lock to Lock Time	: 6 seconds
Trailer Width	: 8.5'	Steering Lock Angle	: 26.3 degrees
Tractor Track	: 8.5'	Articulating Angle	: 70 degrees
Trailer Track	: 8.5'		

Note: For definitions, see
 Indexes 404.1 and 404.5.

Figure 404.5D
California Legal Design Vehicle
60-Foot Radius

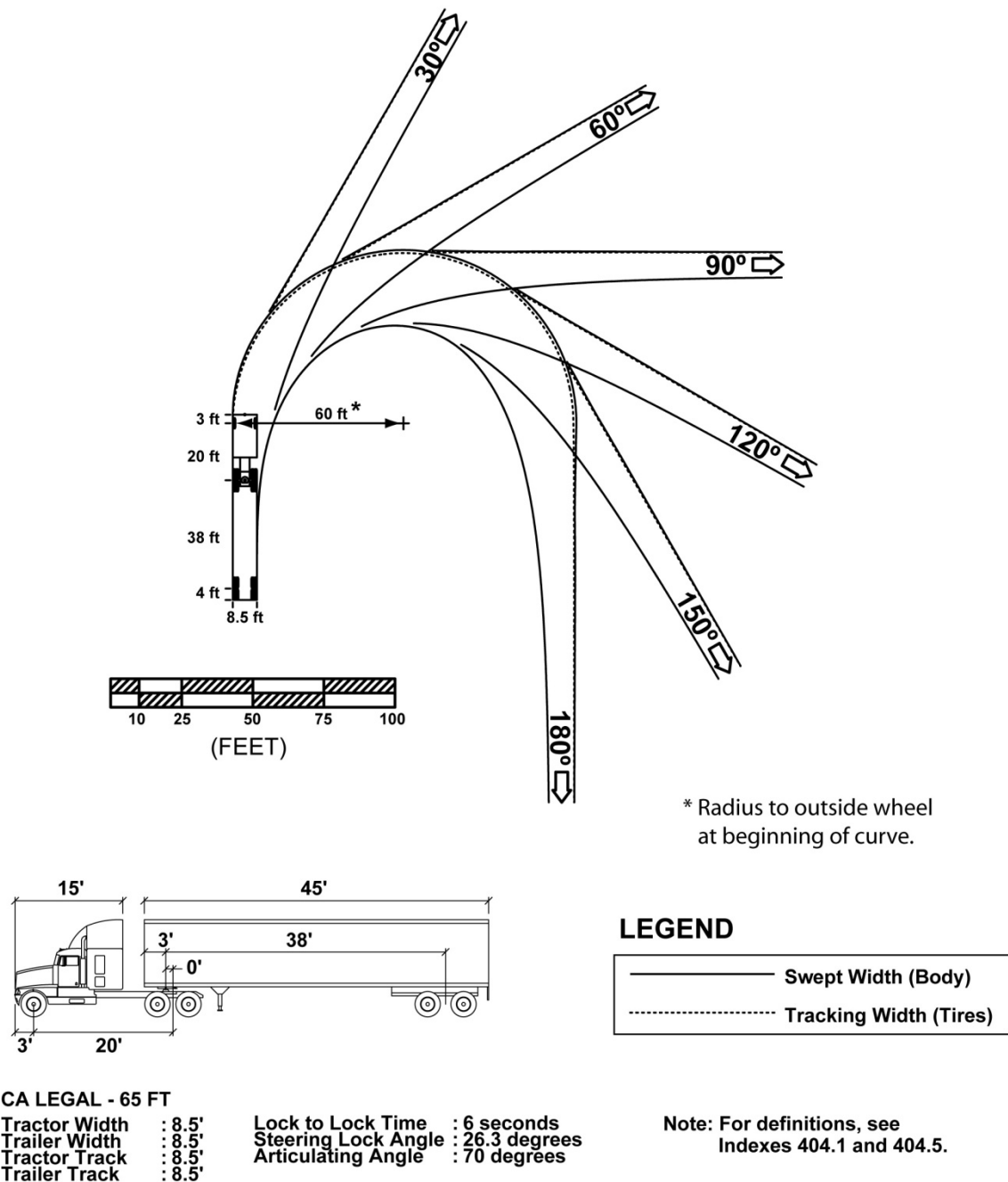
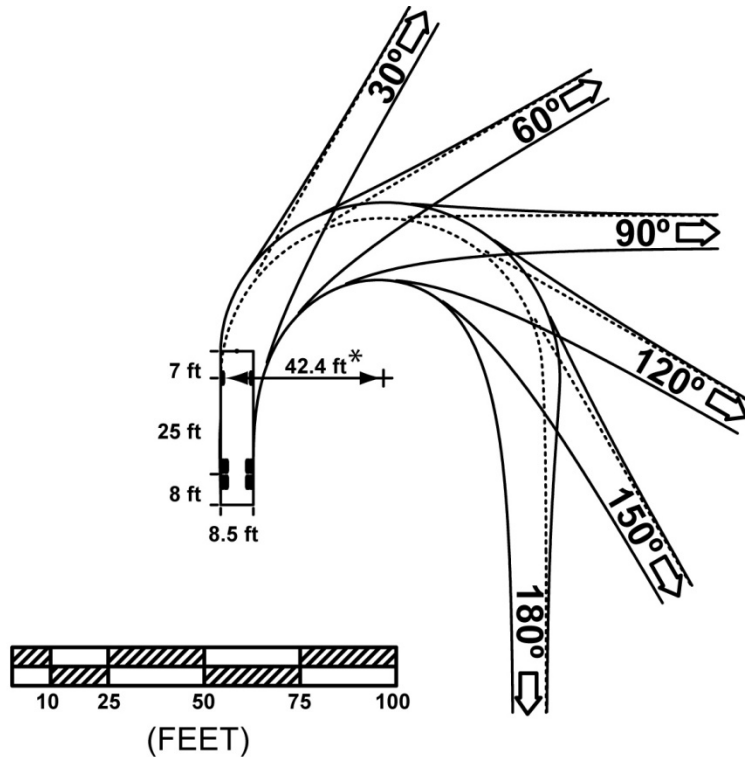
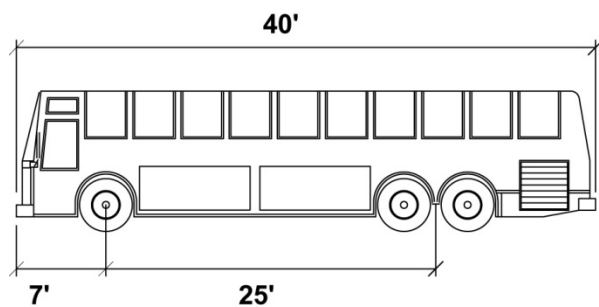


Figure 404.5E

40-Foot Bus Design Vehicle



* Radius to outside wheel
at beginning of curve.



LEGEND

—————	Swept Width (Body)
-----	Tracking Width (Tires)

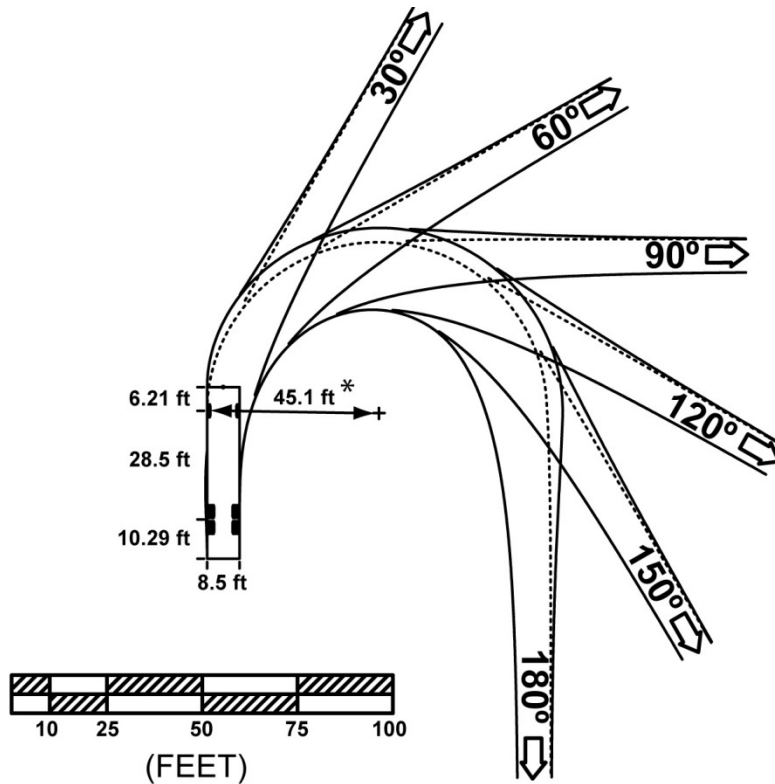
40' BUS

Width : 8.5'
Track : 8.5'
Lock to Lock Time : 6 seconds
Steering Lock Angle: 41.0 degrees

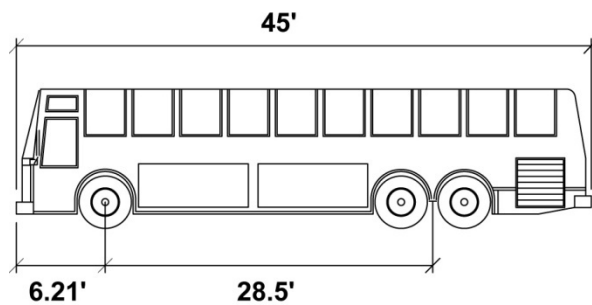
Note: For definitions, see
Indexes 404.1 and 404.5.

Figure 404.5F

45-Foot Bus & Motorhome Design Vehicle



* Radius to outside wheel at beginning of curve.



LEGEND

—————	Swept Width (Body)
-----	Tracking Width (Tires)

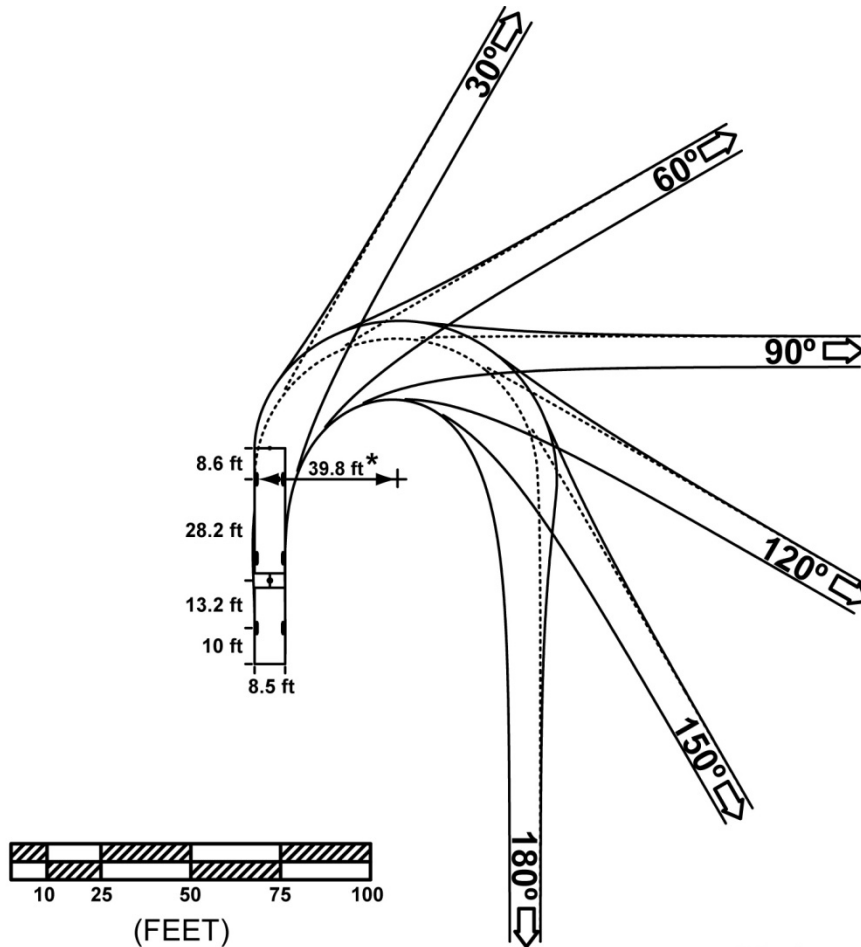
45' BUS

Width : 8.5'
 Track : 8.5'
 Lock to Lock Time : 6 seconds
 Steering Lock Angle: 44.3 degrees

Note: For definitions, see Indexes 404.1, and 404.5.

Figure 404.5G

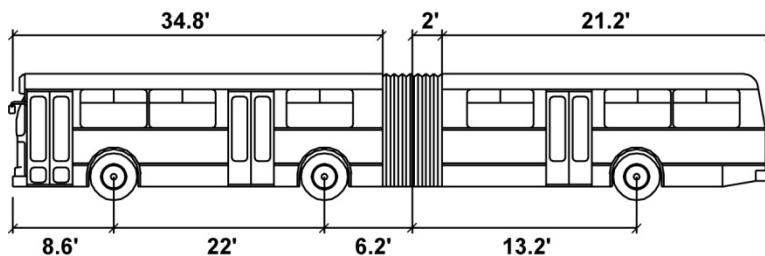
60-Foot Articulated Bus Design Vehicle



* Radius to outside wheel
at beginning of curve.

LEGEND

	Swept Width (Body)
	Tracking Width (Tires)



ARTICULATED BUS

Width	: 8.5'
Track	: 8.5'
Lock to Lock Time	: 6 seconds
Steering Lock Angle	: 38.3 degrees
Articulating Angle	: 50.0 degrees

Note: For definitions, see
Indexes 404.1 and 404.5.

- (4) *Trailer Track* – Semitrailer axle width, measured from outside face of tires.
- (5) *Lock To Lock Time* - The time in seconds that an average driver would take under normal driving conditions to turn the steering wheel of a vehicle from the lock position on one side to the lock position on the other side. The default in AutoTurn software is 6 seconds.
- (6) *Steering Lock Angle* - The maximum angle that the steering wheels can be turned. It is further defined as the average of the maximum angles made by the left and right steering wheels with the longitudinal axis of the vehicle.
- (7) *Articulating Angle* - The maximum angle between the tractor and semitrailer.

Topic 405 - Intersection Design Standards

405.1 Sight Distance

- (1) *Stopping Sight Distance*. See Index 201.1 for minimum stopping sight distance requirements.
- (2) *Corner Sight Distance*.

- (a) General--At unsignalized intersections a substantially clear line of sight should be maintained between the driver of a vehicle, bicyclist or pedestrian stopped on the minor road and the driver of an approaching vehicle on the major road that has no stop. Line of sight for all users should be included in right of way, in order to preserve sight lines.

Adequate time should be provided for the stopped vehicle on the minor road to either cross all lanes of through traffic, cross the near lanes and turn left, or turn right, without requiring through traffic to radically alter their speed. The visibility required for these maneuvers form a clear sight triangle with the corner sight distance b and the crossing distance a_1 or a_2 (see Figure 405.1 as an example of corner sight distance at a two-lane, two-way highway). Dimensions a_1 and a_2 are measured from the decision point to the center of the lane. The actual number of lanes will vary on the major and minor roads. There should be no

sight obstruction within the clear sight triangle.

The methodology used for the driver on the minor road that is stopped to complete the necessary maneuver while the approaching vehicle travels at the design speed of the major road is based on gap-acceptance behavior. A 7-1/2 second criterion is applied to a passenger car (including pickup trucks) for a left turn from a stop on the minor road. However, this time gap does not account for a single-unit truck (no semitrailer), a combination truck (see Index 404.4 for truck tractor-semi-trailer guidance), a right-turn from a stop, or for a crossing maneuver. See Table 405.1A for the time gap that addresses these situations for the assumed design vehicle making these maneuvers from the minor road.

In determining corner sight distance, a set back distance for the vehicle waiting on the minor road must be assumed as measured from the edge of traveled way of the major road. Set back for the driver of the vehicle on the minor road should be a minimum of 10 feet plus the shoulder width of the major road but not less than 15 feet. The location of the driver's eye for the set back is the decision point per Figure 405.1. Corner sight distance and the driver's eye set back are also illustrated in Figures 405.7 and 504.3I. Line of sight for corner sight distance for passenger cars is to be determined from a 3 and 1/2-foot height at the location of the driver of the vehicle in the center of the minor road lane to a 3 and 1/2-foot object height in the center of the approaching outside lane of the major road. This provides for reciprocal sight by both vehicles. The passenger car driver's eye height should be applied to all minor roads. In addition, a truck driver's eye height of 7.6 feet should be applied to the minor road where applicable. Additionally, if the major road has a median barrier, a 2-foot object height should be used to determine the median barrier set back. A median that is wide enough to accommodate a stopped vehicle should also provide a clear sight triangle.

The minimum corner sight distance (feet) should be determined by the equation: $1.47V_mT_g$, where V_m is the design speed (mph) of the major road and T_g is the time gap (seconds) for the minor road vehicle to enter the major road. The values given in Table 405.1A should be used to determine T_g based on the design vehicle, the type of maneuver, and whether the stopped vehicle's rear wheels are on an upgrade exceeding 3 percent. The distance from the edge of traveled way to the rear wheels at the minor road stop location should be assumed as: 20 feet for a passenger car, 30 feet for a single-unit truck, and 72 feet for a combination truck.

- (b) Public Road Intersections (Refer to Topic 205)--At unsignalized public road intersections (see Index 405.7) corner sight distance applies.

At signalized intersections the corner sight distances should also be applied whenever possible. Even though traffic flows are designed to move at separate times, unanticipated conflicts can occur due to violation of signal, right turns on red, malfunction of the signal, or use of flashing red/yellow mode.

The minimum value for corner sight distance at signalized intersections should be equal to the stopping sight distance as given in Table 201.1, measured as previously described. This includes an urban driveway that forms a leg of the signalized intersection.

- (c) Private Road Intersections (Refer to Index 205.2) and Rural Driveways (Refer to Index 205.4)--The minimum corner sight distance should be equal to the stopping sight distance as given in Table 201.1, measured as previously described.
- (d) Urban Driveways (Refer to Index 205.3)--Corner sight distance requirements as described above are not applied to urban driveways. If parking is allowed on the major road, parking should be prohibited on

both sides of the driveway per the California MUTCD, 3B.19.

- (3) *Decision Sight Distance.* At intersections where the State route turns or crosses another State route, the decision sight distance values given in Table 201.7 should be used. In computing and measuring decision sight distance, the 3.5-foot eye height and the 0.5-foot object height should be used, the object being located on the side of the intersection nearest the approaching driver.

The application of the various sight distance requirements for the different types of intersections is summarized in Table 405.1B.

Table 405.1B
Application of Sight Distance Requirements

Intersection Types	Sight Distance		
	Stopping	Corner	Decision
Private Roads	X	X ⁽¹⁾	
Public Streets and Roads	X	X	
Signalized Intersections	X	X ⁽²⁾	
State Route Intersections & Route Direction Changes, with or without Signals	X	X	X

NOTES:

- (1) Per Index 405.1(2)(c), the minimum corner sight distance shall be equal to the stopping sight distance as given in Table 201.1. See Index 405.1(2)(a) for setback requirements.
- (2) Apply corner sight distance requirements at signalized intersections whenever possible due to unanticipated violations of the signals or malfunctions of the signals. See Index 405.1(2)(b).
- (4) *Acceleration Lanes for Turning Moves onto State Highways.* At rural intersections, with "STOP" control on the local cross road, acceleration lanes for left and right turns onto the State facility should be considered. At a minimum, the following features should be

Figure 405.1
Corner Sight Distance

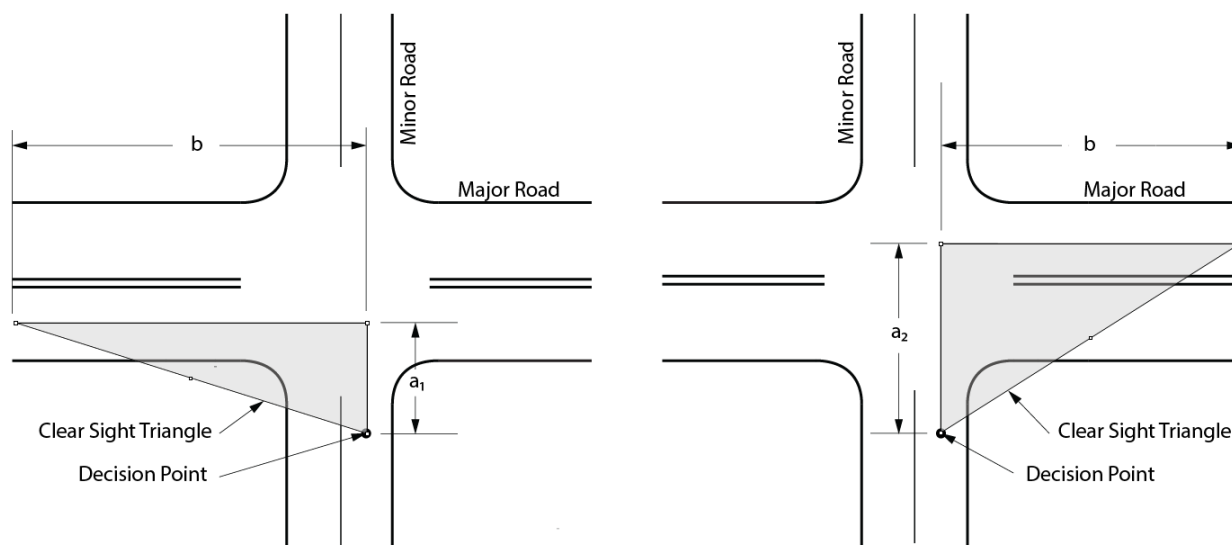


Table 405.1A
Corner Sight Distance Time Gap (T_g)
for Unsignalized Intersections

Design Vehicle	Left-turn from Stop (s)	Right-turn from Stop and Crossing Maneuver (s)
Passenger Car	7½	6½
Private Road Intersection		
Rural Driveway		
Single-Unit Truck	9½	8½
Public Road Intersection		
Combination Truck	11½	10½
Major and Minor Roads on Routes:		
National Network		
Terminal or Service Access		
California Legal		
KPRA Advisory		

Notes: Time gaps are for a stopped vehicle to turn left, right or cross a two-lane highway with no median and with minor road grades of 3 percent or less. The table values should be adjusted as follows:

- (1) For multilane highways—When crossing or making a left-turn onto a two-way major road with more than two lanes, add 0.5 s for passenger cars or 0.7 s for trucks for each additional lane to be crossed. Median widths should be converted to an equivalent number of lanes in applying the 0.5 s and 0.7 s criteria. For example, an 18-foot wide median is equivalent to 1.5 lanes; this requires an additional 0.75 s for a passenger car to cross or an additional 1.05 s for a truck to cross.
- (2) For minor road approach grades—If the minor road approach grade is an upgrade that exceeds 3 percent and the rear wheels of the design vehicle are on the grade exceeding 3 percent, add 0.2 s for each percent grade for left-turns; or add 0.1 s for each percent grade for right-turns and crossing maneuvers. For example, a passenger car is turning right from a minor road and at the stop location its rear wheels are on a 4 percent upgrade; this requires an additional 0.4 s for the right-turn.
- (3) Unique situations may necessitate a different design vehicle for a particular minor road than those listed here (e.g., predominant combination trucks out of a rural driveway). Additionally, for intersections at skewed angles less than 60 degrees, a further adjustment is needed. See the AASHTO “A Policy on Geometric Design of Highways and Streets” for guidance.

evaluated for both the major highway and the cross road:

- divided versus undivided
- number of lanes
- design speed
- gradient
- lane, shoulder and median width
- traffic volume and composition of highway users, including trucks and transit vehicles
- turning volumes
- horizontal curve radii
- sight distance
- proximity of adjacent intersections
- types of adjacent intersections

For additional information and guidance, refer to AASHTO, A Policy on Geometric Design of Highways and Streets, the District Traffic Engineer or designee, the District Design Liaison, and the Project Delivery Coordinator.

405.2 Left-turn Channelization

- (1) *General.* The purpose of a left-turn lane is to expedite the movement of through traffic by, controlling the movement of turning traffic, increasing the capacity of the intersection, and improving safety characteristics.

The District Traffic Branch normally establishes the need for left-turn lanes.

- (2) *Design Elements.*

- (a) Lane Width – **The lane width for both single and double left-turn lanes on State highways shall be 12 feet.**

For conventional State highways with posted speeds less than or equal to 40 miles per hour and AADTT (truck volume) less than 250 per lane that are in urban, city or town centers (rural main streets), the minimum lane width shall be 11 feet.

When considering lane width reductions adjacent to curbed medians, refer to Index

303.5 for guidance on effective roadway width, which may vary depending on drivers' lateral positioning and shy distance from raised curbs.

- (b) Approach Taper -- On conventional highways without a median, an approach taper provides space for a left-turn lane by moving traffic laterally to the right. The approach taper is unnecessary where a median is available for the full width of the left-turn lane. Length of the approach taper is given by the formula on Figures 405.2A, B and C.

Figure 405.2A shows a standard left-turn channelization design in which all widening is to the right of approaching traffic and the deceleration lane (see below) begins at the end of the approach taper. This design should be used in all situations where space is available, usually in rural and semi-rural areas or in urban areas with high traffic speeds and/or volumes.

Figures 405.2B and 405.2C show alternate designs foreshortened with the deceleration lane beginning at the 2/3 point of the approach taper so that part of the deceleration takes place in the through traffic lane. Figure 405.2C is shortened further by widening half (or other appropriate fraction) on each side. These designs may be used in urban areas where constraints exist, speeds are moderate and traffic volumes are relatively low.

- (c) Bay Taper -- A reversing curve along the left edge of the traveled way directs traffic into the left-turn lane. The length of this bay taper should be short to clearly delineate the left-turn move and to discourage through traffic from drifting into the left-turn lane. Table 405.2A gives offset data for design of bay tapers. In urban areas, lengths of 60 feet and 90 feet are normally used. Where space is restricted and speeds are low, a 60-foot bay taper is appropriate. On rural high-speed highways, a 120-foot length is considered appropriate.
- (d) Deceleration Lane Length -- Design speed of the roadway approaching the intersection

should be the basis for determining deceleration lane length. It is desirable that deceleration take place entirely off the through traffic lanes. Deceleration lane lengths are given in Table 405.2B; the bay taper length is included. Where partial deceleration is permitted on the through lanes, as in Figures 405.2B and 405.2C, design speeds in Table 405.2B may be reduced

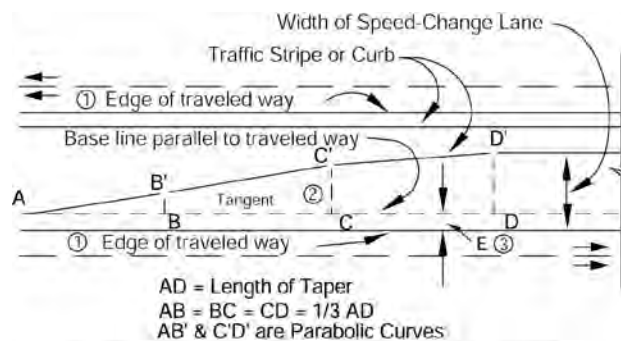
10 miles per hour to 20 miles per hour for a lower entry speed. In urban areas where cross streets are closely spaced and deceleration lengths cannot be achieved, the District Traffic branch should be consulted for guidance.

- (e) **Storage Length** -- At unsignalized intersections, storage length may be based on the number of turning vehicles likely to arrive in an average 2-minute period during the peak hour. At a minimum, space for 2 vehicles should be provided at 25 feet per vehicle. If the peak hour truck traffic is 10 percent or more, space for at least one passenger car and one truck should be provided. Bus usage may require a longer storage length and should be evaluated if their use is anticipated.

At signalized intersections, the storage length may be based on one and one-half to two times the average number of vehicles that would store per signal cycle depending on cycle length, signal phasing, and arrival and departure rates. At a minimum, storage length should be calculated in the same manner as unsignalized intersection. The District Traffic Branch should be consulted for this information.

When determining storage length, the end of the left-turn lane is typically placed at least 3 feet, but not more than 30 feet, from the nearest edge of shoulder of the intersecting roadway. Although often set by the placement of a crosswalk line or limit line, the end of the storage lane should always be located so that the appropriate turning template can be accommodated.

Table 405.2A
Bay Taper for Median
Speed-change Lanes



LENGTH OF TAPER - feet		
60	90	120
Distance From Point "A"		
5	7.5	10.0
10	15.0	20.0
15	22.5	30.0
B'	20	30.0
	30	45.0
C'	40	60.0
	45	67.5
	50	75.0
	55	82.5
	60	90.0

OFFSET DISTANCE		
DD' = 10'	DD' = 11'	DD' = 12'
0.00	0.00	0.00
0.16	0.17	0.19
0.62	0.69	0.75
1.41	1.55	1.69
2.50	2.75	3.00
5.00	5.50	6.00
7.50	8.25	9.00
8.59	9.45	10.31
9.38	10.31	11.25
9.84	10.83	11.81
10.00	11.00	12.00

NOTES:

- (1) The table gives offsets from a base line parallel to the edge of traveled way at intervals measured from point "A". Add "E" for measurements from edge of traveled way.
- (2) Where edge of traveled way is a curve, neither base line nor taper between B & C will be a tangent. Use proportional offsets from B to C.
- (3) The offset "E" is usually 2 ft along edge of traveled way for curbed medians; Use "E" = 0 ft. for striped medians.

Table 405.2B
Deceleration Lane Length

Design Speed (mph)	Length to Stop (ft)
30	235
40	315
50	435
60	530

- (3) *Double Left-turn Lanes.* At signalized intersections on multilane conventional highways and on multilane ramp terminals, double left-turn lanes should be considered if the left-turn demand is 300 vehicles per hour or more. The lane widths and other design elements of left-turn lanes given under Index 405.2(2) applies to double as well as single left-turn lanes.

The design of double left-turn lanes can be accomplished by adding one or two lanes in the median. See "Complete Intersections: A Guide to Reconstructing Intersections and Interchanges for Bicyclists and Pedestrians", published by Headquarters, Division of Traffic Operations, for the various treatments of double left-turn lanes.

- (4) *Two-way Left-turn Lane (TWLTL).* The TWLTL consists of a striped lane in the median of an arterial and is devised to address the special capacity and safety problems associated with high-density strip development. It can be used on 2-lane highways as well as multilane highways. Normally, the District Traffic Operations Branch should determine the need for a TWLTL.

The minimum width for a TWLTL shall be 12 feet (see Index 301.1). The preferred width is 14 feet. Wider TWLTL's are occasionally provided to conform with local agency standards. However, TWLTL's wider than 14 feet are not recommended, and in no case should the width of a TWLTL exceed 16 feet. Additional width may encourage drivers in opposite directions to use the TWLTL simultaneously.

405.3 Right-turn Channelization

- (1) *General.* For right-turning traffic, delays are less critical and conflicts less severe than for left-turning traffic. Nevertheless, right-turn lanes can be justified on the basis of capacity, analysis, and crash experience.

In rural areas a history of high speed rear-end collisions may warrant the addition of a right-turn lane.

In urban areas other factors may contribute to the need such as:

- High volumes of right-turning traffic causing backup and delay on the through lanes.
- Conflicts between crossing pedestrians and right-turning vehicles and bicycles.
- Frequent rear-end and sideswipe collisions involving right-turning vehicles.

Where right-turn channelization is proposed, lower speed right-turn lanes should be provided to reduce the likelihood of conflicts between vehicles, pedestrians, and bicyclists.

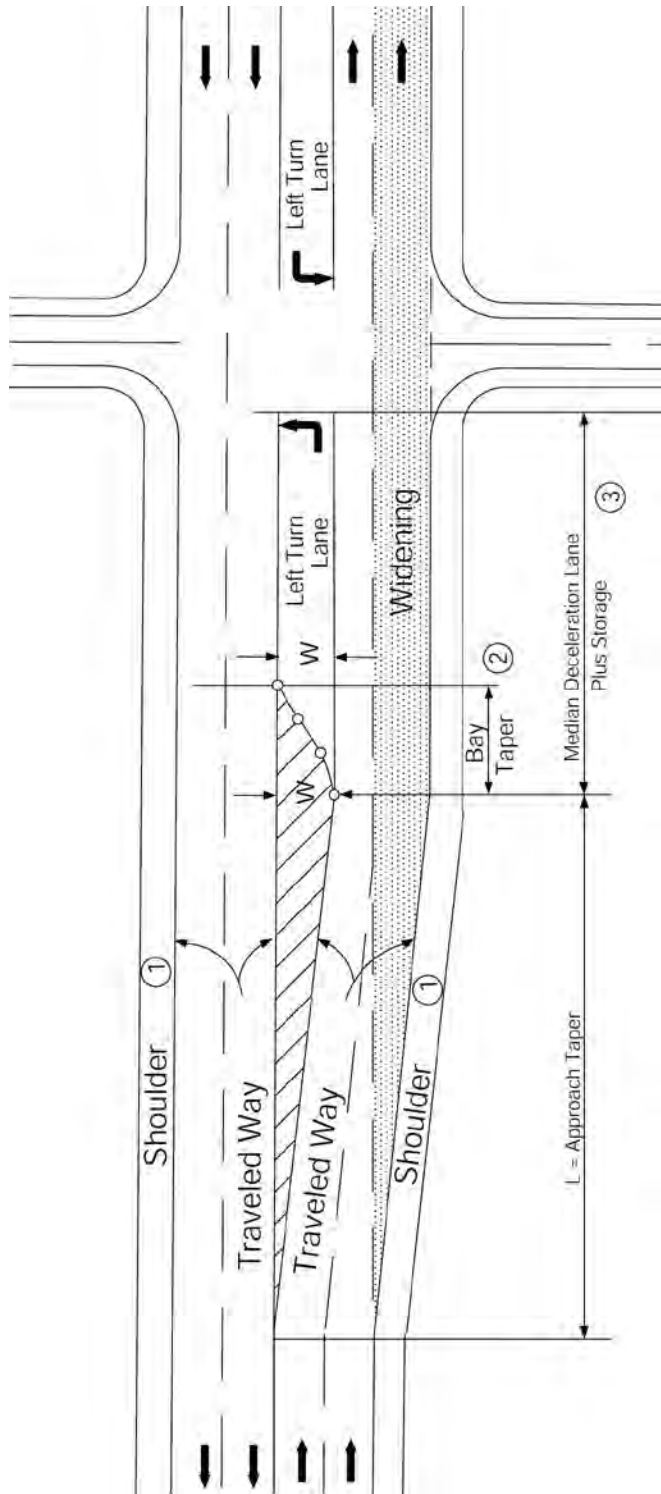
(2) *Design Elements.*

- (a) Lane and Shoulder Width--**Index 301.1 shall be used for right-turn lane width requirements. Shoulder width shall be a minimum of 4 feet.** Although not desirable, lane and shoulder widths less than those given above can be considered for right-turn lanes under the following conditions pursuant to Index 82.2:

- In urban, city or town centers (rural main streets) with posted speeds less than 40 miles per hour in severely constrained situations, if truck or bus use is low, consideration may be given to reducing the right-turn lane width to 10 feet.
- Shoulder widths may also be considered for reduction under constricted situations. Whenever possible, at least a 2-foot shoulder should be provided where the right-turn lane is adjacent to a curb. Entire omission of the shoulder should only be considered in constrained situations and where an 11-foot lane can be constructed.

Gutter pans can be included within a shoulder, but cannot be included as part of the travel lane width. Additional right of way for a future right-turn lane should be considered when an intersection is being designed.

Figure 405.2A
Standard Left-turn Channelization



EQUATION: $L = \text{Use } WV, \text{ for } V \geq 45\text{mph}$ ^④
 Or $WV^2/60, \text{ for } V < 45\text{mph}$

Where L = Length of Approach Taper - feet

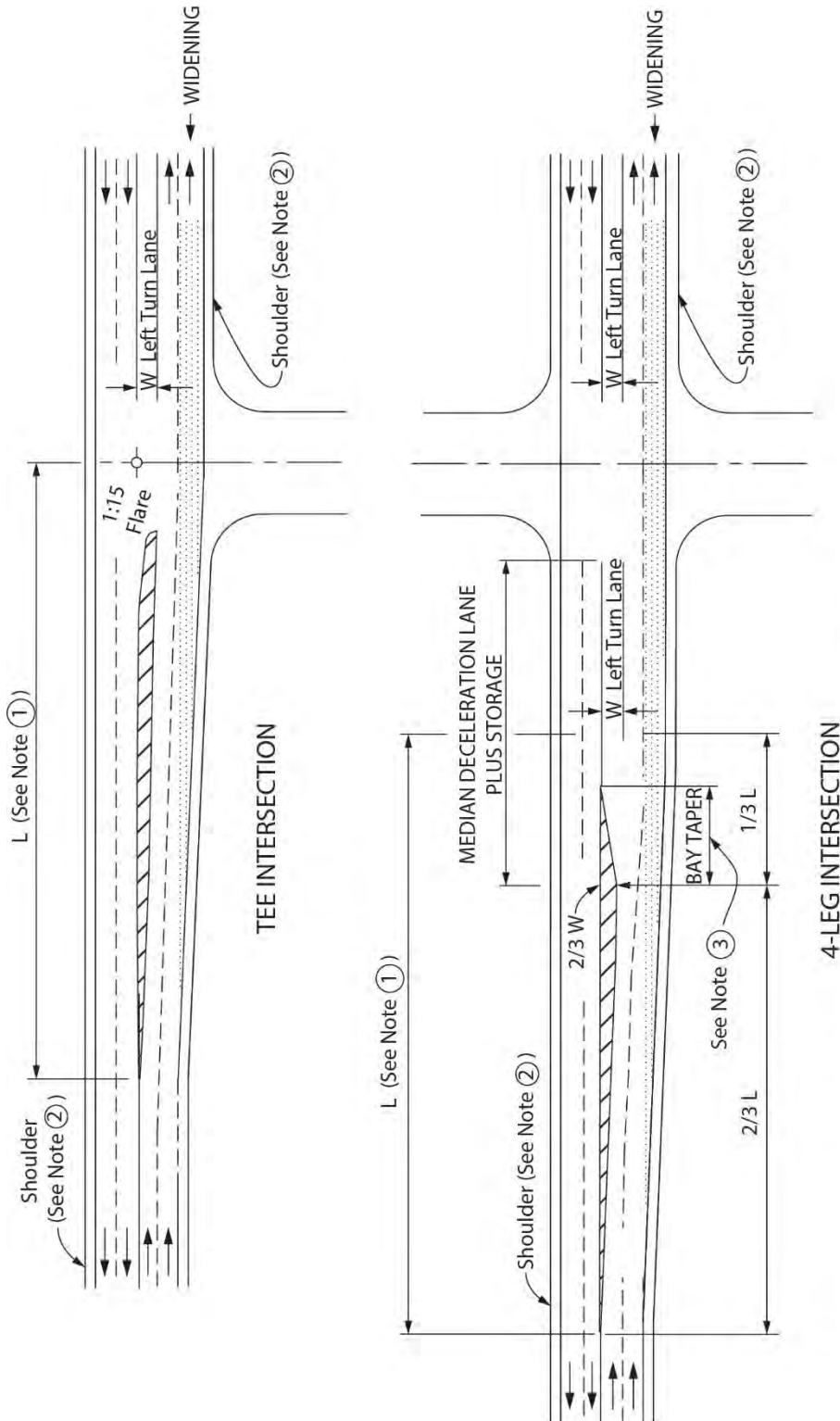
V = Design Speed - mph

W = Width of Median Lane - feet

NOTES:

- ① Where width is restricted, shoulder width may be reduced and parking restricted with an approved design exception pursuant to Index 82.2.
For bicycle use, a minimum 4-foot shoulder is required (5-foot if gutter is present).
- ② Bay taper length = 60 feet to 120 feet. (See Table 405.2A)
- ③ For deceleration lane length see Table 405.2B.
- ④ Where both sides of roadway are widened, use a fraction of "W" that is proportional to widening on each side.

Figure 405.2B
Minimum Median Left-turn Channelization
(Widening on one Side of Highway)



EQUATION

Use WV , for $V \geq 45 \text{ mph}$

$L =$ Or $WV^2/60$, for $V < 45 \text{ mph}$

Where:

L = Length of Transition - feet

W = Width of Median Lane - feet

V = Design Speed - mph

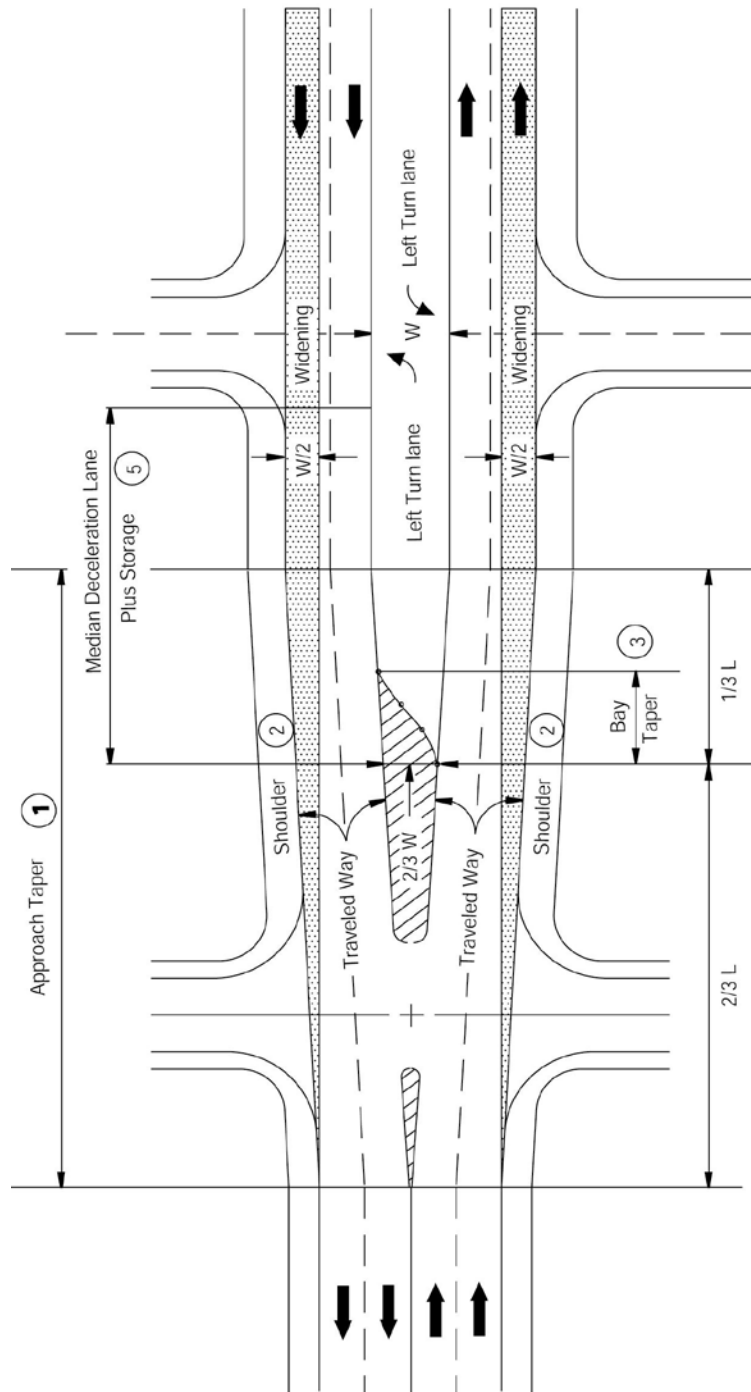
NOTES:

① L = 500 feet Maximum

② Where width is restricted, shoulder width may be reduced and parking restricted with an approved design exception pursuant to Index 82.2. For bicycle use, a minimum 4-foot shoulder is required (5-foot if gutter is required)

③ Bay Taper Length 60 feet to 120 feet (See Table 405.2A)

Figure 405.2C
Minimum Median Left-turn Channelization
(Widening on Both Sides in Urban Areas with Short Blocks)



NOTES:

- ① L = 500 feet Maximum
- ② Where width is restricted, shoulder width may be reduced and parking restricted with an approved design exception pursuant to Index 82.2. For bicycle use, a minimum 4 feet shoulder is required (5 feet if gutter is present).
- ③ Bay taper length = 60 feet to 120 feet. (See Table 405.2A)
- ④ Assumes equal widening each side. Where widening is unequal, use a fraction that is proportional to widening on each side.
- ⑤ For deceleration lane length see Table 405.2B.

EQUATION: ④

$$L = \begin{cases} \text{Use } (1/2)WV, & \text{for } V \geq 45\text{mph} \\ \text{Or } WV^2/120, & \text{for } V < 45\text{mph} \end{cases}$$

Where L = Length of Approach Taper - feet
W = Width of Median Lane - feet
V = Design Speed - mph

- (b) Curve Radius--Where pedestrians are allowed to cross a free right-turning roadway, the curve radius should be such that the operating speed of vehicular traffic is no more than 20 miles per hour at the pedestrian crossing. See NCHRP Report 672, "Roundabouts: An Informational Guide" for guidance on the determination of design speed (fastest path) for turning vehicles. See Index 504.3(3) for additional information.
- (c) Tapers--Approach tapers are usually unnecessary since main line traffic need not be shifted laterally to provide space for the right-turn lane. If, in some rare instances, a lateral shift were needed, the approach taper would use the same formula as for a left-turn lane.

Bay tapers are treated as a mirror image of the left-turn bay taper.
- (d) Deceleration Lane Length--The conditions and principles of left-turn lane deceleration apply to right-turn deceleration. Where full deceleration is desired off the high-speed through lanes, the lengths in Table 405.2B should be used. Where partial deceleration is permitted on the through lanes because of limited right of way or other constraints, average running speeds in Table 405.2B may be reduced 10 miles per hour to 20 miles per hour for a lower entry speed. For example, if the main line speed is 50 miles per hour and a 10 miles per hour deceleration is permitted on the through lanes, the deceleration length may be that required for 40 miles per hour.
- (e) Storage Length--Right-turn storage length is determined in the same manner as left-turn storage length. See Index 405.2(2)(e).
- (3) *Right-turn Lanes at Off-ramp Intersections.* Diamond off-ramps with a free right-turn at the local street and separate right-turn off-ramps around the outside of a loop will likely cause conflict as traffic volumes increase. Serious conflicts occur when the right-turning vehicle must weave across multiple lanes on the local street in order to turn left at a major cross street close to the ramp terminal. Furthermore, free

right-turns create sight distance issues for pedestrians and bicyclists crossing the off-ramp, or pedestrians crossing the local road. Also, rear-end collisions can occur as right-turning drivers slow down or stop waiting for a gap in local street traffic. Free right-turns usually end up with "YIELD", "STOP", or signal controls thus defeating their purpose of increasing intersection capacity.

405.4 Traffic Islands

A traffic island is an area between traffic lanes for channelization of bicycle and vehicle movements or for pedestrian refuge. An island may be defined by paint, raised pavement markers, curbs, pavement edge, or other devices. The California MUTCD should be referenced when considering the placement of traffic islands at signalized and unsignalized locations. For splitter island guidance at roundabouts, see Index 405.10(13).

Traffic islands usually serve more than one function. These functions may be:

- (a) Channelization to confine specific traffic movements into definite channels;
- (b) Divisional to separate traffic moving in the same or opposite direction; and
- (c) Refuge, to aid users crossing the roadway.

Generally, islands should present the least potential conflict to approaching or crossing bicycles and vehicles, and yet perform their intended function.

- (1) *Design of Traffic Islands.* Island sizes and shapes vary from one intersection to another. They should be large enough to command attention. Channelizing islands should not be less than 50 square feet in area, preferably 75 square feet. Curbed, elongated divisional median islands should not be less than 4 feet wide and 20 feet long. All traffic islands placed in the path of a pedestrian crossing must comply with DIB 82. See the Standard Plans for typical island passageway details.

The approach end of each island should be offset 3 feet to the left and 5 feet to the right of approaching traffic, using standard 1:15 parabolic flares, and clearly delineated so that it does not surprise the motorist or bicyclist. These offsets are in addition to the shoulder

widths shown in Table 302.1. Table 405.4 gives standard parabolic flares to be used in island design. On curved alignment, parabolic flares may be omitted for small triangular traffic islands whose sides are less than 25 feet long.

The approach nose of a divisional island should be highly visible day and night with appropriate use of signs (reflectorized or illuminated) and object markers. The approach nose should be offset 3 feet from the through traffic to minimize accidental impacts.

- (2) *Delineation of Traffic Islands.* Generally, islands should present the least potential conflict to approaching traffic and yet perform their intended function. See Index 303.2 for appropriate curb type. Islands may be designated as follows:

- (a) Raised paved areas outlined by curbs.
- (b) Flush paved areas outlined by pavement markings.
- (c) Unpaved areas (small unpaved areas should be avoided).

On facilities with posted speeds over 40 miles per hour, the use of any type of curb is discouraged. Where curbs are to be used, they should be located at or outside of the shoulder edge, as discussed in Index 303.5.

In rural areas, painted channelization supplemented with raised pavement markers may be more appropriate than a raised curbed channelization. This design is as forgiving as possible and decreases the consequence of a driver's or bicyclist's failure to detect or recognize the curbed island. Consideration for snow removal operations should be determined where appropriate.

In urban areas, posted speeds less than or equal to 40 miles per hour allow more frequent use of curbed islands. Local agency requirements and matching existing conditions are factors to consider.

- (3) *Pedestrian Refuge*

Pedestrian refuge islands allow pedestrians to cross fewer lanes at a time while judging conflicts separately. They also provide a refuge

so slower pedestrians can wait for a gap in traffic while reducing total crossing distance.

At unsignalized intersections in rural city/town centers (rural main streets), suburban, or urban areas, a pedestrian refuge should be provided between opposing traffic where pedestrians are allowed to cross 2 or more through traffic lanes in one direction of travel, at marked or unmarked crosswalks. Pedestrian islands at signalized crosswalks should be considered, taking into account crossing distance and pedestrian activity. Note that signalized pedestrian crossings must be timed to allow for pedestrians to cross. See the California MUTCD, Chapter 4E, for further guidance.

Traffic islands used as pedestrian refuge are to be large enough to provide a minimum of 6 feet in the direction of pedestrian travel, without exception.

All traffic islands placed in the path of a pedestrian crossing must be accessible, refer to DIB 82 and the Standard Plans for further guidance. An example of a traffic island that serves as a pedestrian refuge is shown on Figure 405.4.

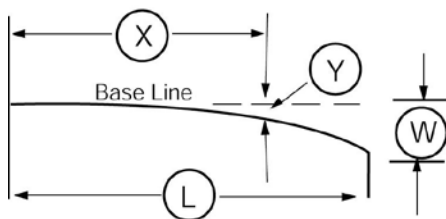
405.5 Median Openings

- (1) *General.* Median openings, sometimes called crossovers, provide for crossings of the median at designated locations. Except for emergency passageways in a median barrier, median openings are not allowed on urban freeways.

Median openings on expressways or divided conventional highways should not be curbed except when the median between openings is curbed, or it is necessary for delineation of traffic signal standards and other necessary hardware, or for protection of pedestrians. In these special cases B4 curbs should be used. An example of a median opening design is shown on Figure 405.5.

- (2) *Spacing and Location.* By a combination of interchange ramps and emergency passageways, provisions for access to the opposite side of a freeway may be provided for law enforcement, emergency, and maintenance vehicles to avoid extreme out-of-direction travel. Access should not be more frequent

Table 405.4
Parabolic Curb Flares Commonly Used



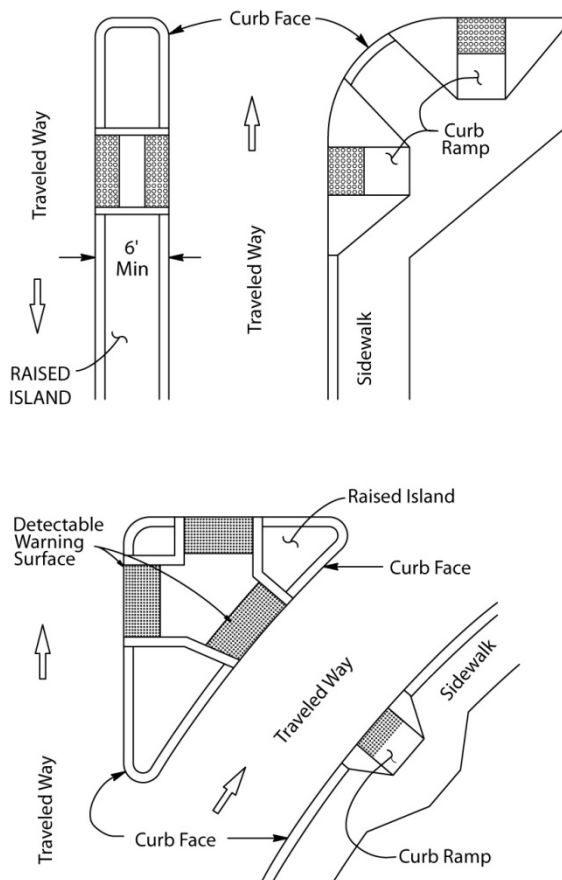
$$Y = \frac{W X^2}{L^2}$$

- (L) = Length of flare in feet
 (W) = Maximum offset in feet
 (X) = Distance along base line in feet
 (Y) = Offset from base line in feet

(W) is shown in table thus

OFFSET IN FEET FOR GIVEN "X" DISTANCE																	
Distance (L) (X) Length of Flare	10	15	20	25	30	40	45	50	60	70	75	80	90	100	110	120	
1:5 FLARES																	
25	0.80	1.80	3.20	5.00													
50	0.40		1.60		3.60	6.40		10.00									
1:10 FLARES																	
50	0.20		0.80		1.80	3.20		5.00									
100	0.10		0.40		0.90	1.60		2.50	3.60	4.90		6.40	8.10	10.00			
1:15 FLARES																	
45	0.15		0.59		1.33	2.37	3.00										
75	0.09		0.36		0.80	1.42		2.22	3.20	4.36	5.00						
90	0.07		0.30		0.67	1.19		1.85	2.67	3.63		4.74	6.00				
120	0.06		0.22		0.50	0.89		1.39	2.00	2.72		3.56	4.50	5.56	6.72	8.00	

Figure 405.4
Pedestrian Refuge Island



than at three-mile intervals. See Traffic Safety Systems Guidance for additional information on the design of emergency passageways.

Emergency passageways should be located only where decision sight distance is available (see Table 201.7).

Median openings at close intervals on other types of highways create conflicts with high speed through traffic. Median openings should be spaced at intervals no closer than 1600 feet. If a median opening falls within 300 feet of an access opening, it should be placed opposite the access opening.

- (3) *Length of Median Opening.* For any three or four-leg intersection on a divided highway, the length of the median opening should be at least as great as the width of the crossroads pavement, median width, and shoulders. An

important factor in designing median openings is the path of the design vehicle making a minimum left turn at 5 miles per hour to 10 miles per hour. The length of median opening varies with width of median and angle of intersecting road.

Usually a median opening of 60 feet is adequate for 90 degree intersections with median widths of 22 feet or greater. When the median width is less than 22 feet, a median opening of 70 feet is needed. When the intersection angle is other than 90 degrees, the length of median opening should be established by using truck turn templates (see Index 404.3).

- (4) *Cross Slope.* The cross slope in the median opening should be limited to 5 percent. Crossovers on curves with super elevation exceeding 5 percent should be avoided. This cross slope may be exceeded when an existing 2-lane roadbed is converted to a 4-lane divided highway. The elevation of the new construction should be based on the 5 percent cross slope requirement when the existing roadbed is raised to its ultimate elevation.
- (5) *References.* For information related to the design of intersections and median openings, "A Policy on Geometric Design of Highways and Streets," AASHTO, should be consulted.

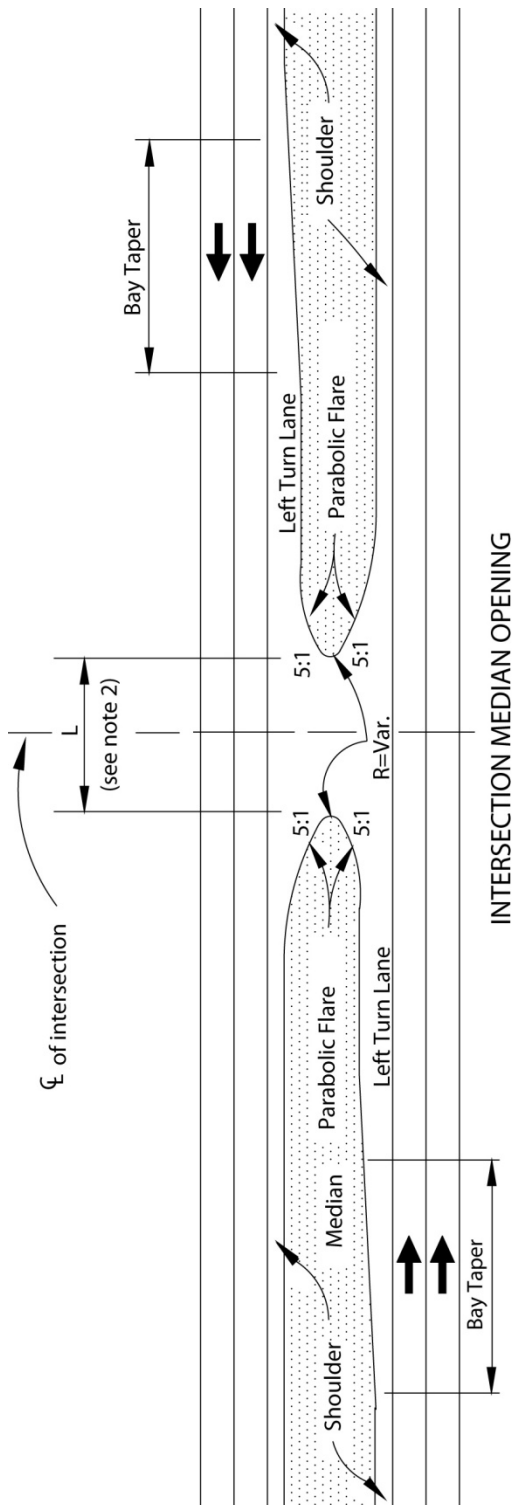
405.6 Access Control

The basic guidance which govern the extent to which access rights are to be acquired at interchanges (see Topic 104, Index 205.1 and 504.8 and the PDPM) also apply to intersections at grade on expressways. Cases of access control which frequently occur at intersections are shown in Figure 405.7. This illustration does not presume to cover all situations. Where required by traffic conditions, access should be extended in order to ensure proper operation of the expressway lanes. Reasonable variations which observe the basic principles referred to above are acceptable.

However, negative impacts on the mobility needs of pedestrians, bicyclists, equestrians, and transit users need to be assessed. Pedestrians and bicyclists are sensitive to additional out of direction travel.

Figure 405.5

Typical Design for Median Openings



NOTES:

- ① For length of bay taper, see Table 405.2A.
- ② L = Length of median opening: varies with width of median and angle of intersecting road. Usually for 90° intersection, L = 60 feet for median of 22 feet and wider. L = 70 feet for medians narrower than 22 feet.
- ③ See Index 405.2.
- ④ Pedestrian and bicycle features are not shown on figure.

405.7 Public Road Intersections

The basic design to be used at right-angle public road intersections on the State Highway System is shown in Figure 405.7. The essential elements are sight distance (see Index 405.1) and the treatment of the right-turn on and off the main highway. Encroachment into opposing traffic lanes by the turning vehicle should be avoided or minimized.

- (1) *Right-turn Onto the Main Highway.* The combination of a circular curve joined by a 2:1 taper on the crossroads and a 75-foot taper on the main highway is designed to fit the wheel paths of the appropriate turning template chosen by the designer.

It is desirable to keep the right-turn as tight as practical, so the “STOP” or “YIELD” sign on the minor leg can be placed close to the intersection.

- (2) *Right-turn Off the Main Highway.* The combination of a circular curve joined by a 150-foot taper on the main highway and a 4:1 taper on the crossroads is designed to fit the wheel paths of the appropriate turning template and to move the rear of the vehicle off the main highway. Deceleration and storage lanes may be provided when necessary (see Index 405.3).

- (3) *Alternate Designs.* Offsets are given in Figure 405.7 for right angle intersections. For skew angles, roadway curvature, and possibly other reasons, variations to the right-angle design are permitted, but the basic rule is still to approximate the wheel paths of the design vehicle.

A three-center curve is an alternate treatment that may be used at the discretion of the designer.

Intersections are major consideration in bicycle path design as well. See Indexes 403.6 and 1003.1(5) for general bicycle path intersection design guidance. Also see Section 5.3 of the AASHTO Guide for the Planning, Design, and Operation of Bicycle Facilities.

405.8 City Street Returns and Corner Radii

The pavement width and corner radius at city street intersections is determined by the type of vehicle to be accommodated and the mobility needs of

pedestrians and bicyclists, taking into consideration the amount of available right of way, the types of adjoining land uses, the place types, the roadway width, and the number of lanes on the intersecting street.

At urban intersections, the California truck or the Bus Design Vehicle template may be used to determine the corner radius. Where STAA truck access is allowed, the STAA Design Vehicle template should be used giving consideration to factors mentioned above. See Index 404.3.

Smaller radii of 15 feet to 25 feet are appropriate at minor cross streets where few trucks or buses are turning. Local agency standards may be appropriate in urban and suburban areas.

Encroachment into opposing traffic lanes must be avoided.

405.9 Widening of 2-lane Roads at Signalized Intersections

Two-lane State highways may be widened at intersections to 4-lanes whenever signals are installed. Sometimes it may be necessary to widen the intersecting road. The minimum design is shown in Figure 405.9. More elaborate treatment may be warranted by the volume and pattern of traffic movements. Unusual turning movement patterns may possibly call for a different shape of widening.

The impact on pedestrian and bicycle traffic mobility of larger intersections should be assessed before a decision is made to widen an intersection.

405.10 Roundabouts

Roundabout intersections on the State highway system must be developed and evaluated in accordance with National Cooperative Highway Research Program (NCHRP) Report 672 entitled “Roundabouts: An Informational Guide, 2nd ed.” (NCHRP Guide 2) dated October 2010 and Traffic Operations Policy Directive (TOPD) Number 13-02. Also see Index 401.5 for general information and guidance. See Figure 405.10 Roundabout Geometric Elements for nomenclature associated with roundabouts. Signs, striping and markings at roundabouts are to comply with the California MUTCD.

Figure 405.7
Public Road Intersections

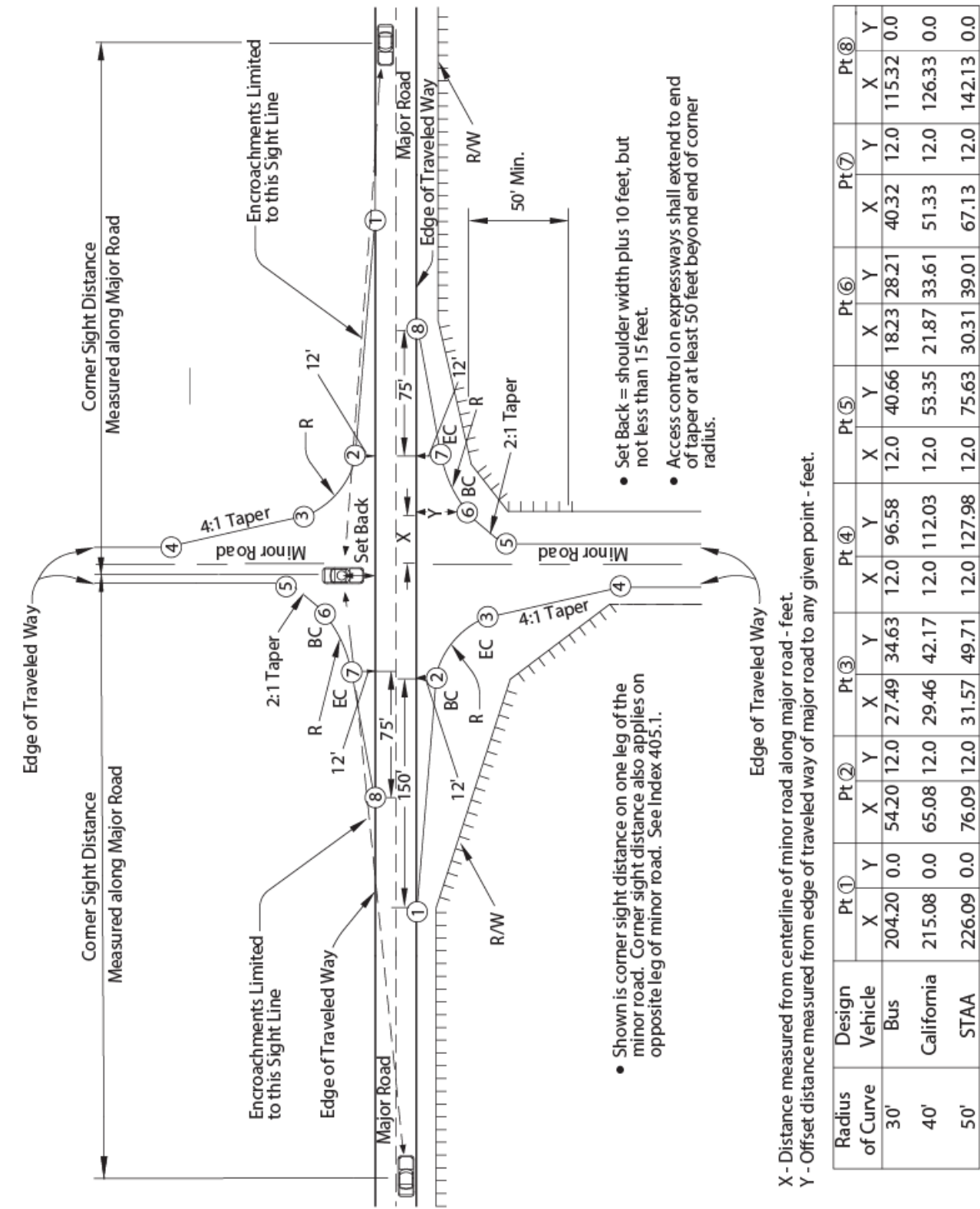
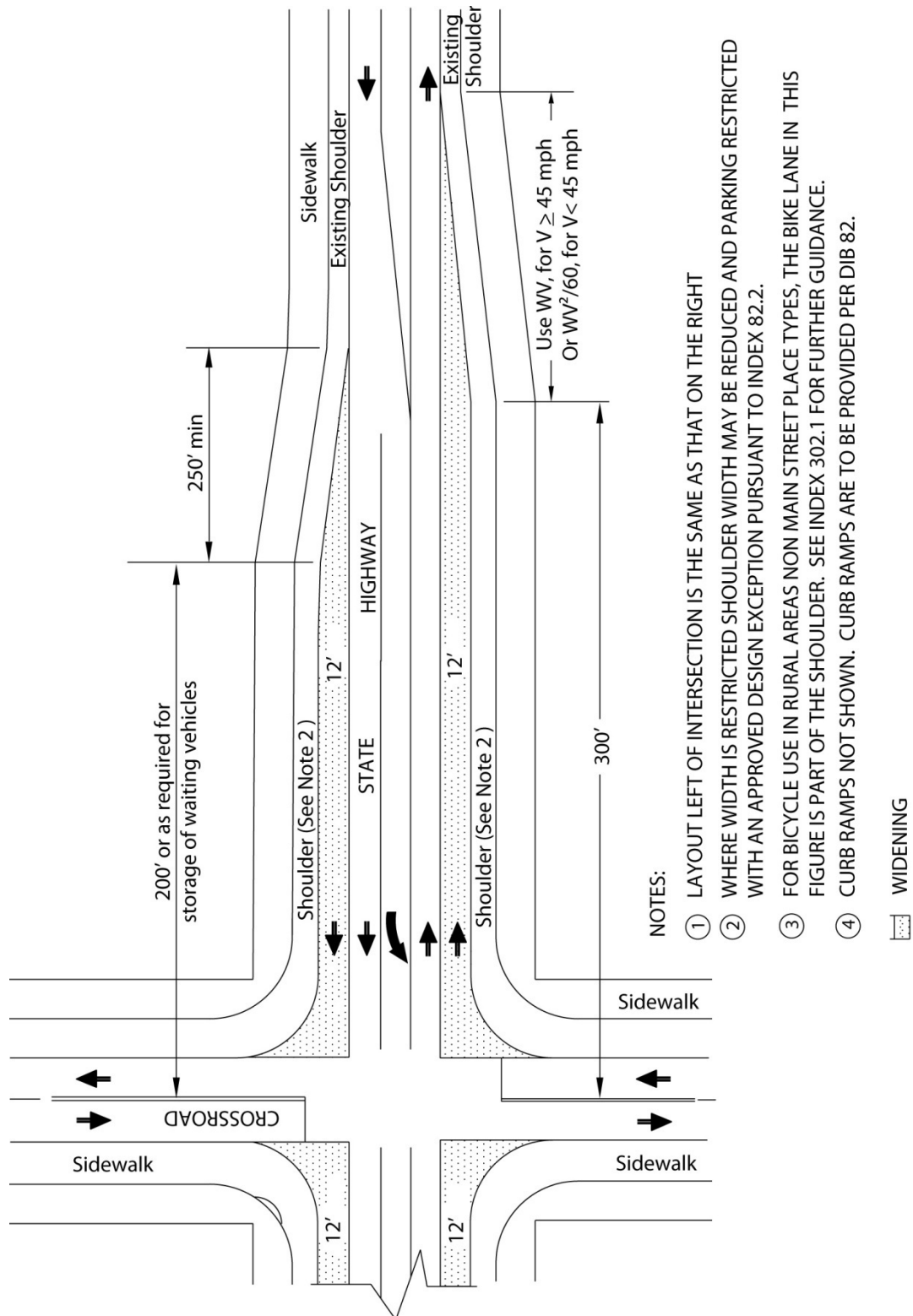


Figure 405.9
Widening of Two-lane Roads at Signalized Intersections



A roundabout is a form of circular intersection in which traffic travels counterclockwise around a central island and entering traffic must yield to the circulating traffic. Roundabouts feature, among other things, a central island, a circulatory roadway, and splitter islands on each approach. Roundabouts rely upon two basic and important operating principles:

- (a) Speed reduction at the entry and through the intersection will be achieved through geometric design and,
- (b) The yield-at-entry rule, which requires traffic entering the intersection to yield to traffic that is traveling in the circulatory roadway.

Benefits of roundabouts are:

- Fewer conflict points typically result in fewer collisions with less severity. Over half of vehicle to vehicle points of conflict associated with intersections are eliminated with the use of a roundabout. Additionally, a roundabout separates the points of conflict which eases the ability of the users to identify a conflict and helps prevent conflicts from becoming collisions.
- Roundabouts are designed to reduce the vehicular speeds at intersections. Lower speeds lessens the vehicular collision severity. Likewise, studies indicate that pedestrian and bicyclist collisions with motorized vehicles at lower speeds significantly reduce their severity.
- Roundabouts allow continuous free flow of vehicles and bicycles when no conflicts exist. This results in less noise and air pollution and reduces overall delays at roundabout intersections.

Except as indicated in this Index, the standards elsewhere in this manual do not apply to roundabouts. For the application of design standards, the approach ends of the splitter islands define the boundary of a roundabout intersection, see Figure 405.10. The design standards elsewhere in this manual apply to the approach legs beyond the approach ends of the splitter islands.

(1) *Design Period.*

First consider the design of a single lane roundabout per the design period guidance in

Index 103.2. If a second lane is not needed until 10 or more years, it may be better to phase the improvements. Construct the first phase of the roundabout so at the 20-year design period, an additional lane can be easily added. In order to comply with the 20-year design period, the initial project must provide the right of way needed for utility relocations, a shared-use path designed for a Class I Bikeway, and all other features other than pavement, lighting, and striping in their ultimate locations.

In some locations, it may not be practical to build a single lane roundabout that will operate for 10 years. Geometric constraints and other conflicts may preclude widening to the ultimate configuration. In such cases, other intersection configurations or control strategies addressed in Index 401.5 may need to be considered.

When staging improvements, see NCHRP Guide 2, Section 6.12.

(2) *Design Vehicles* - See Topic 404.

The turning path for the design vehicle, see Index 404.5, dictates many of the roundabout dimensions. The design vehicle tracking and swept width are to be used when designing all the entries and exits, where design vehicles are unrestricted (see Index 404.2), and the circulatory roadway. The percentage of trucks and their lane utilization is an important consideration on multilane roundabouts when determining if the design will allow trucks to stay within their own lane or encroach into the adjacent lane. If permit vehicles larger than the design vehicle occasionally use the proposed roundabout, they can be accommodated by having removable signs or other removable features in the central island or around the circular path to ensure their swept path can negotiate the roundabout. Roundabouts should not be overdesigned for the occasional permit vehicle.

To accurately simulate the design vehicle swept width traveling through a roundabout, the minimum speed of the design vehicle used in computer simulation software (e.g., Auto

TURN) should be 10 miles per hour through the roundabout.

(3) *Inscribed Circle Diameter.*

At single lane roundabouts, the size of the inscribed circle is largely dependent upon the turning requirements of the design vehicle. The inscribed circle diameter (ICD) must be large enough to accommodate: (a) the STAA design vehicle for all roundabouts on the National Network and on Terminal Access routes; and, (b) the California Legal design vehicle on all non-STAA route intersections on California Legal routes and California Legal KPRA Advisory routes, while maintaining adequate deflection curvature to ensure appropriate travel speeds for smaller vehicles. The design vehicle is to navigate the roundabout with the front tractor wheels off the truck apron, if one is present. Transit vehicles, fire engines and single-unit delivery vehicles are also to be able to navigate the roundabout without using the truck apron, if one is present. The inscribed circle diameter for a single lane roundabout generally ranges between 105 feet to 150 feet to accommodate the California Legal design vehicle and 130 feet to 180 feet to accommodate the STAA design vehicle.

At multilane roundabouts, the inscribed circle diameter is to achieve adequate alignment of the natural vehicle path while maintaining deflection curvature to ensure appropriate travel speeds. To achieve both of these design objectives requires a slightly larger diameter than used for a single lane roundabout. The inscribed circle diameter for a multilane (2-lane) roundabout generally ranges between 150 feet to 220 feet to accommodate the California Legal design vehicle for non-STAA route intersections on California Legal routes and California Legal KPRA Advisory routes, and 165 feet to 220 feet to accommodate the STAA design vehicle for roundabouts on the National Network and on Terminal Access routes. Similar to a single lane roundabout, the design vehicle is to be able to navigate a multilane roundabout with the front tractor wheels staying off the truck apron, if one is present. Transit vehicles, fire engines and single-unit delivery vehicles are also to be able

to navigate the roundabout without using the truck apron, if one is present.

The inscribed diameter ranges given above are typical values, design may be larger or smaller. Site location constraints and performance checks will determine if the diameter is appropriate for the location.

(4) *Entry Speeds.*

Lowering the speed of vehicles entering and traveling through the roundabout is a primary design objective that is achieved by approach alignment and entry geometry.

The following entry speeds should not be exceeded:

- Single lane entry, 25 miles per hour.
- Multilane entry, 30 miles per hour.

A bypass lane is not included in the number of entry lanes. A bypass prohibits entry into the circulatory roadway.

Entry speeds are to be determined through fastest path analysis. Fastest path is the smoothest, flattest path possible for a single vehicle in the absence of other traffic and ignoring all lane markings. The fastest path analysis should begin at least 165 feet from the inscribed circle diameter and should not bring the path closer than 3 feet from a stripe nor 5 feet from the face of a curb. These distances are minimums and the fastest path may occur further away from the curbs and striping depending on the roundabout configuration. For fastest path evaluation, see NCHRP Guide 2, Section 6.7.1.

(5) *Exit Design.*

Similar to entry design, exit design flexibility is required to achieve the optimal balance between competing design variables and project objectives to provide adequate capacity and, essentially, safety while minimizing excessive property impacts and costs. Thus, the selection of a curved versus tangential design is to be based upon the balance of each of these criteria. Exit design is influenced by the place type, pedestrian demand, bicyclist needs, the design vehicle

and physical constraints. The exit curb radii are usually larger than the entry curb radii in order to minimize the likelihood of congestion and crashes at the exits. However, the desire to minimize congestion at the exits needs to be balanced with the need to maintain an appropriate operating speed through the pedestrian crossing. Therefore, the exit path radius should not be significantly greater than the circulating path radius to ensure low speeds are maintained at the pedestrian crossing.

(6) *Number of Legs Serving the Roundabout.*

Intersections with more than four legs are often difficult to manage operationally. Roundabouts are a proven traffic control device in such situations. However, it is necessary to ensure that the design vehicle can maneuver through all unrestricted legs of the roundabout.

(7) *Pedestrian Use.*

Sidewalks around the circular roadway are to be designed as shared-use paths, see Index 405.10(8)(c). However, the guidance in Design Information Bulletin (DIB) 82 Pedestrian Accessibility Guidelines for Highway Projects must also be followed when designing these shared-use facilities around a roundabout. If there is a difference in the standards, the guidance in DIB 82 is to be followed. In addition,

- (a) Pedestrian curb ramps need to be differentiated from bike ramps:
 - The detectable warning surface (truncated domes) differentiates a pedestrian curb ramp from a bicycle ramp.
 - Detectable warning surface is required on curb ramps. They are not to be used on a bike ramp.
- (b) Truck aprons and mountable curbs are not to be placed in the pedestrian crossing areas.
- (c) See the California MUTCD for the signs and markings used at roundabouts.
- (d) At pedestrian crossing locations the accessibility design will be treated as a

midblock pedestrian street crossing. See DIB 82 for more information.

(8) *Bicyclist Use.*

- (a) General. Bicyclists may choose to travel in the circular roadway of a roundabout by taking a lane, while others may decide to travel using the shared-use path to bypass the circular roadway. Therefore, the approach and circular roadways, as well as the shared-use path all need to be designed for the mobility needs of bicyclists. See the California MUTCD for the signs and markings used at roundabouts.
- (b) Bicyclist Use of the Circular Roadway. Single lane roundabouts do not require bicyclists to change lanes in the circular roadway to select the appropriate lane for their direction of travel, so they tend to be comfortable for bicyclists to use. Even two-lane roundabouts, which may have straighter paths of travel that can lead to faster vehicular traveling speeds, appear to be comfortable for bicyclists that prefer to travel like vehicles. Roundabouts that have more than two circular lanes can create complexities in signing and striping (see the California MUTCD for guidance), and their operating speed may cause some bicyclists to decide to bypass the circular roadway and use the bicycle ramp that provides access to the shared-use path around the roundabout.
- (c) Bicyclists Use of the Shared-Use Path. The shared-use path is to be designed using the guidance in Index 1003.1 for Class I Bikeways and in NCHRP Guide 2 Section 6.8.2.2. However, the accessibility guidance in DIB 82 must also be followed when designing these shared-use facilities around a roundabout. If there is a difference in the standards, the accessibility guidance in DIB 82 is to be followed to ensure the facility is accessible to pedestrians with disabilities.

Bicycle ramps are to be located to avoid confusion as curb ramps for pedestrians. Also see Index 405.10(7) for guidance on how to differentiate the two types of ramps.

The design details and width of the ramp are also important to the bicyclist. Bicyclists approaching the bicycle ramp need to be provided the choice of merging left into the lane or moving right to use the bicycle ramp. Bicycle ramps should be placed at a 35 to 45 degree angle to the departure roadway and the sidewalk to enable the bicyclists to use the ramp and discourage bicyclists from entering the shared-use path at a speed that is detrimental to the pedestrians. The shared-use path should be designated as Class I Bikeways; however, appropriate regulatory signs may need to be posted if the local jurisdiction has a law(s) that prohibit bicyclists from riding on a sidewalk.

A landscape buffer or strip between the shared-use/Class I Bikeway and the circular roadway of the roundabout is needed and should be a minimum of 2 feet wide.

Pedestrian crossings may also be used by bicyclists; thus, these shared-use crossings need to be designed for both bicyclist and pedestrian needs.

(9) *Transit Use.*

Transit vehicles and buses will not have difficulty negotiating a roundabout when it has been designed using the California Legal design vehicle or the STAA design vehicle. However, to minimize passenger discomfort, a roundabout should be designed such that the transit vehicle or bus does not use the truck apron, if one is present.

(10) *Stopping Sight Distance and Visibility.*

See Index 201.1 for stopping sight distance guidance at roundabouts.

A domed or mounded central island, between 3.5 to 6 feet high, is needed to focus attention on the approach and through roundabout alignment. A domed central island provides a visual screen from downstream alignment and other distractions and provides a visual cue for vehicles approaching the roundabout.

In high speed environments, additional lighting of, and vertical elements in the central island (i.e., landscaping and esthetic features) may be needed.

(11) *Speed Consistency.*

Consistency in operating speeds between the various movements within the roundabout can minimize collisions between traffic streams. The operating speeds between competing traffic streams and between consecutive geometric elements should be minimized such that the maximum speed differential between them is no more than 15 miles per hour; it is preferred that the operating speed differential be less than 10 miles per hour.

(12) *Path Alignment (Natural Path).*

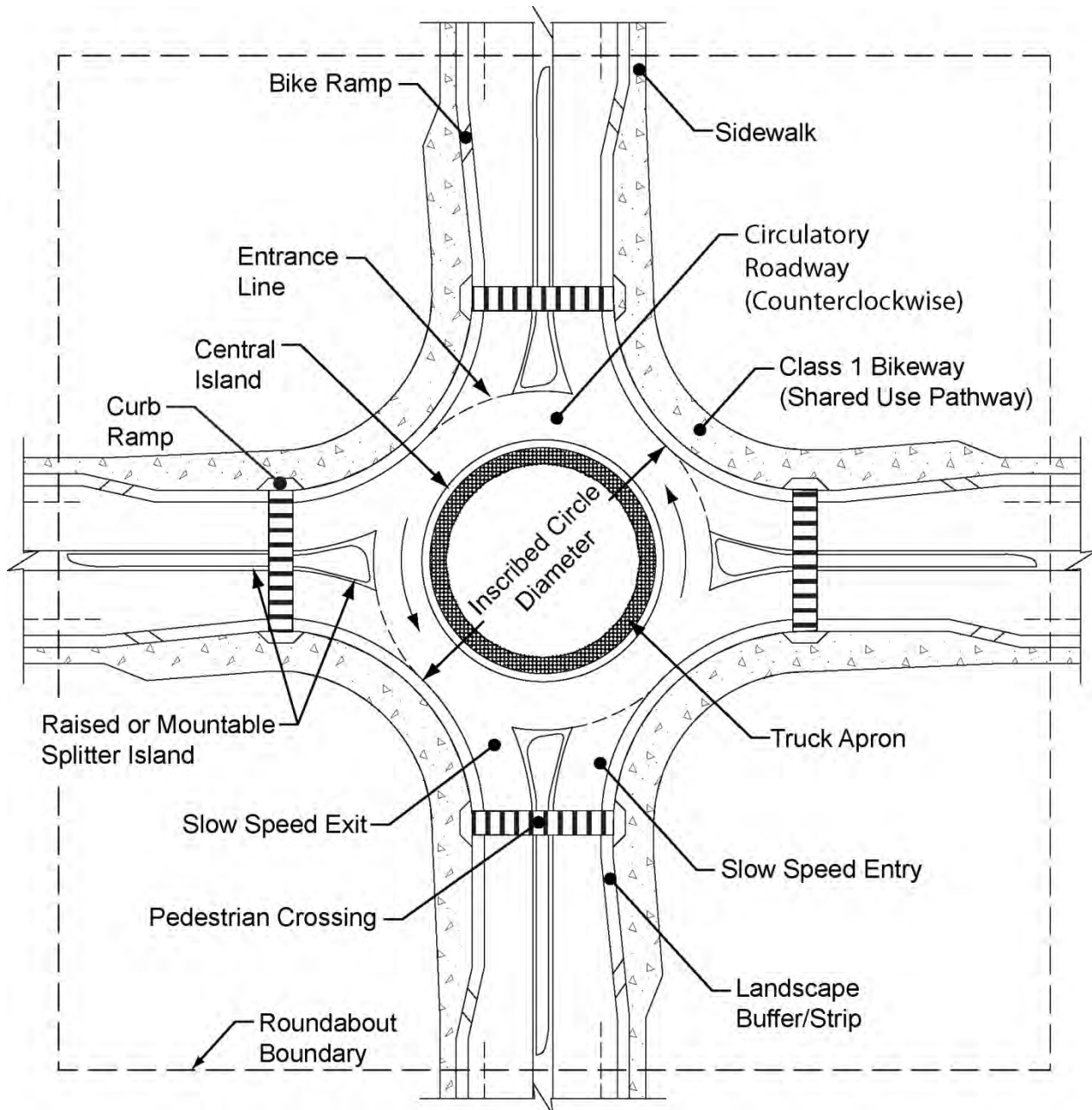
As two traffic streams approach the roundabout in adjacent lanes, drivers and bicyclists will be guided by lane markings up to the entrance line. At the yield point, they will continue along their natural trajectory into the circulatory roadway. The speed and orientation of the design vehicle at the entrance line determines what can be described as its natural path. The geometry of the exits also affects the natural path that the design vehicle travels. The natural path of two vehicles are not to overlap, see NCHRP Guide 2, Section 6.7.2.

(13) *Splitter Islands.*

Splitter islands (also called separator islands, divisional islands, or median islands) will be provided on all roundabouts. The purpose is to provide refuge for pedestrians, assist in controlling speeds, guide traffic into the roundabout, physically separate entering and exiting traffic streams, and deter wrongway movements.

The total length of the raised island should be at least 50 feet although 100 feet is desirable. On higher speed roadways, splitter island lengths of 150 feet or more is beneficial. Additionally, the splitter island should extend beyond the end of the exit curve to prevent

Figure 405.10
Roundabout Geometric Elements



NOTE:

This figure is provided to only show nomenclature and is not to be used for design details.

exiting traffic from crossing into the path of approaching traffic. The splitter island width should be a minimum of 6 feet at the pedestrian crossing to adequately provide refuge for pedestrians.

Posted speeds on the approach roadway greater than or equal to 45 miles per hour require the splitter island length, as measured from the inscribed circle diameter, to be 200 feet. In some instances, a longer splitter island may be desirable. Concrete curb is to be provided on the right side of the approach roadway equal to the length of the splitter island from the inscribed circle diameter.

(14) Access Control.

The access control standards in Index 504.3(3) and 504.8 apply to roundabouts at interchange ramp intersections. The dimensions shown in Index 504.8 are to be measured from the inscribed circle diameter.

Driveways should not be placed within 100 feet from the inscribed circle diameter.

(15) Lighting.

Lighting is required at all roundabouts. See NCHRP Report 672 Chapter 8, the Traffic Manual Chapter 9 as well as consult with the District Traffic Safety Engineer.

(16) Landscaping.

Landscaping should be designed such that drivers and bicyclists can observe the signing and shape of the roundabout as they approach, allowing adequate visibility for making decisions within the roundabout. The landscaping of the central island can enhance the intersection by making it a focal point, by promoting lower speeds and by breaking the headlight glare of oncoming vehicles or bicycles. It is desirable to create a domed or mounded central island, between 3.5 to 6 feet high, to increase the visibility of the intersection on the approach. Contact the District Landscape Architecture Unit to provide technical assistance in designing the roundabout landscaping.

(17) Vertical Clearance.

The vertical clearance guidance provided in Index 309.2 applies to roundabouts.

(18) Drainage Design.

See Chapter 800 to 890 for further guidance.

(19) Maintenance.

Contact the District Maintenance Engineer and appropriate Regional Manager for maintenance strategies and practices including seasonal operations, maintenance resources, and specialized equipment. Maintenance responsibilities may also include multiple state, county, and city agencies where coordination of maintenance efforts and funding is needed.

Consider maintenance of the central island. Provide a maintenance vehicle pullout within the central island beyond the truck apron, so maintenance vehicles will not conflict with circulating trucks.

(20) Snow Areas.

In climate regions where snowfall requires the use of snow removal equipment, consider the equipment to be used. Design ICD's as well as entrance and exit geometry to accommodate snow removal equipment and plow limitations. Check with District Maintenance for their requirements and limitations. Geometric elements to consider that facilitate snow removal are; mountable curb, tapering the ends of curbs down to allow plows to ride over curbs, plowing accommodation in both directions, providing snow storage space within the central island, and providing minimum entry/exit widths to accommodate the plow blade. Mountable curb may be used if sidewalk/shared use path is not contiguous to the curb. Provide a planter or textured pavement between the path and the roadway. Snow storage areas must be designed to prevent snow melt from entering the circulating lanes where it can freeze. Snow storage areas must not block pedestrian paths.

(21) Utilities.

Utility access openings (manholes) should not be located within the traveled way within the boundary of the roundabout. Roundabouts do not have shoulders to accommodate traffic while manholes are accessed. Manholes should not be allowed within the circulating roadway to avoid closing down the intersection during access. If a manhole is absolutely necessary within the boundary of the inscribed diameter, place it in the central island and off of the truck apron. Provide a maintenance vehicle pullout to allow access to the manhole without blocking truck traffic.

Topic 406 - Ramp Intersection Capacity Analysis

The following procedure for ramp intersection analysis may be used to estimate the capacity of any signalized intersection where the phasing is relatively simple. It is useful in analyzing the need for additional turning and through traffic lanes. For a more complete analysis refer to the Highway Capacity Manual.

- (a) Ramp Intersection Analysis--For the typical local street interchange there is usually a critical intersection of a ramp and the crossroads that establishes the capacity of the interchange. The capacity of a point where lanes of traffic intersect is 1500 vehicles per hour. This is expressed as intersecting lane vehicles per hour (ILV/hr). Table 406 gives values of ILV/hr for various traffic flow conditions.

If a single-lane approach at a normal intersection has a demand volume of 1000 vph, for example, then the intersecting single-lane approach volume cannot exceed 500 vph without delay.

The three examples that follow illustrate the simplicity of analyzing ramp intersections using this 1500 ILV/hr concept.

- (b) Diamond Interchange--The critical intersection of a diamond type interchange must accommodate demands of three conflicting travel paths. As traffic volumes approach capacity, signalization will be needed. For the spread diamond (Figure 406A), basic capacity analysis is made on the assumption that

3-phase signalization is employed. For the tight diamond (Figure 406B), it is assumed that 4-phase signal timing is used.

- (c) 2 Quadrant Cloverleaf--Because this interchange design (Figure 406C) permits 2-phase signalization, it will have higher capacities on the approach roadways. The critical intersection is shared two ways instead of three ways as in the diamond case.

Table 406
Vehicle Traffic Flow Conditions at Intersections at Various Levels of Operation

ILV/hr	Description
< 1200:	
	Stable flow with slight, but acceptable delay. Occasional signal loading may develop. Free midblock operations.
1200-1500:	
	Unstable flow with considerable delays possible. Some vehicles occasionally wait two or more cycles to pass through the intersection. Continuous backup occurs on some approaches.
1500 (Capacity):	
	Stop-and-go operation with severe delay and heavy congestion ⁽¹⁾ . Traffic volume is limited by maximum discharge rates of each phase. Continuous backup in varying degrees occurs on all approaches. Where downstream capacity is restrictive, mainline congestion can impede orderly discharge through the intersection.

NOTE:

- (1) The amount of congestion depends on how much the ILV/hr value exceeds 1500. Observed flow rates will normally not exceed 1500 ILV/hr, and the excess will be delayed in a queue.

Figure 406A
Spread Diamond

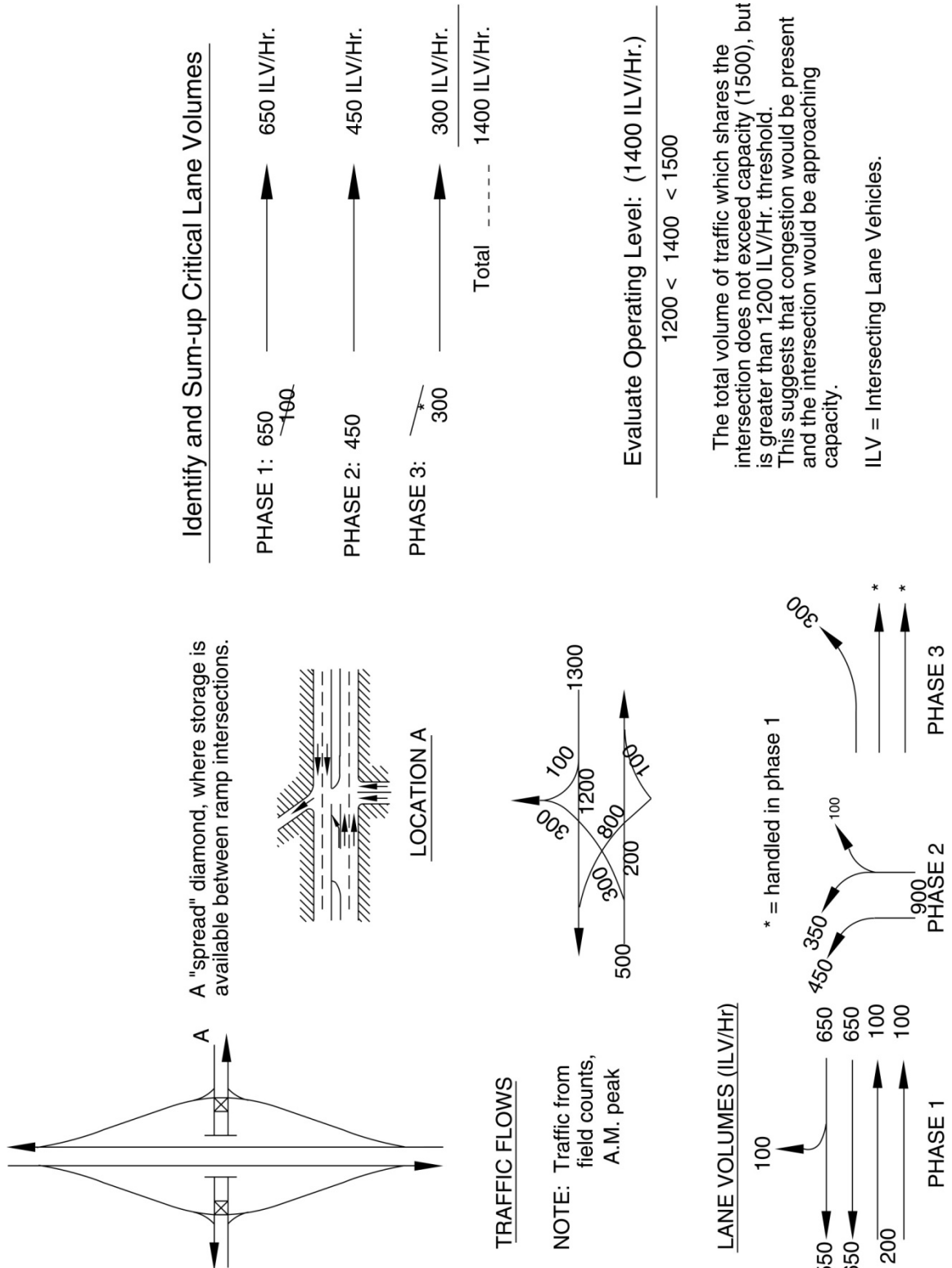
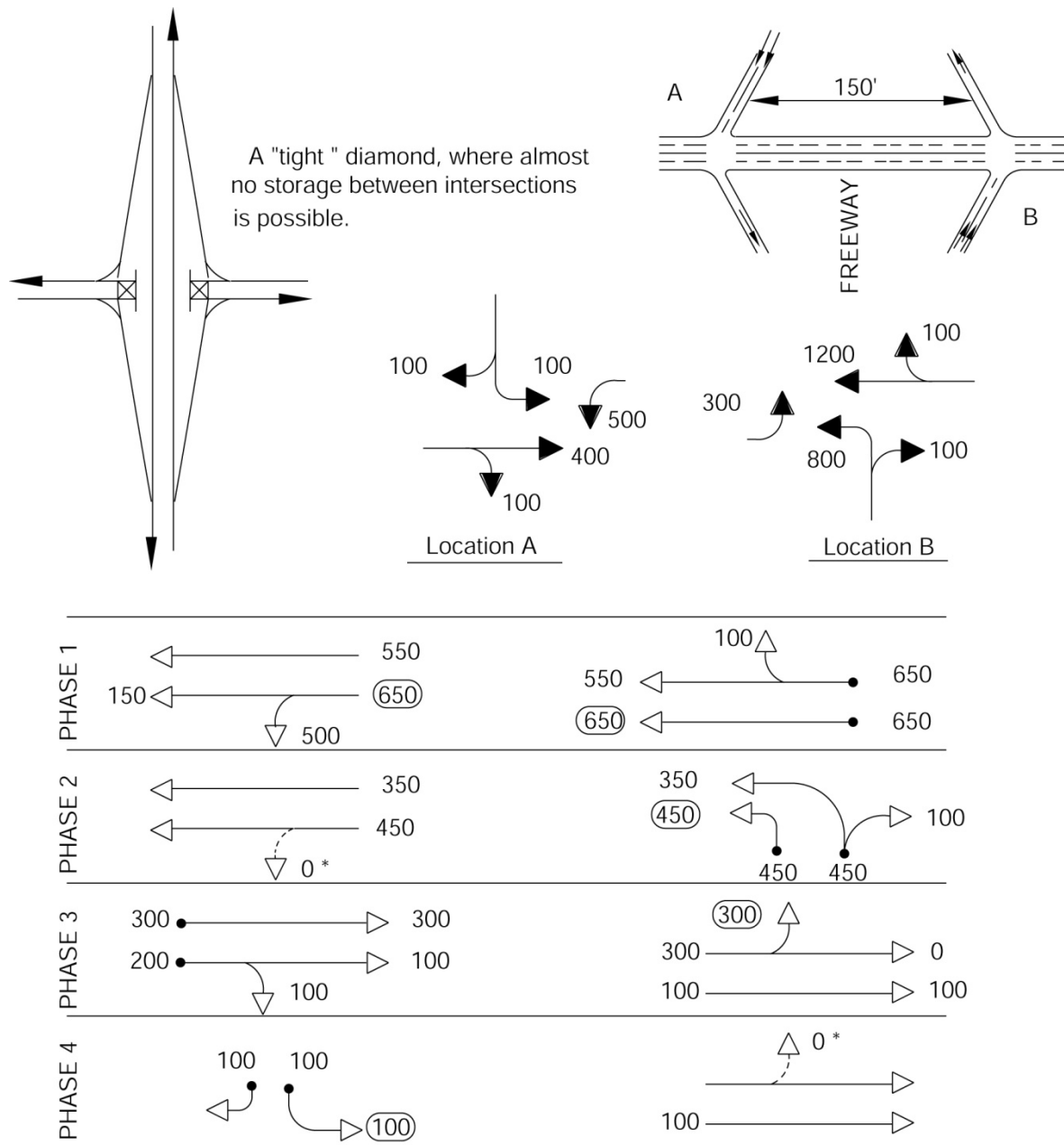


Figure 406B
Tight Diamond



*NOTE: When no storage at all is permitted, left-turn movement is cleared during this phase.

Critical Lane Volumes:

650

450

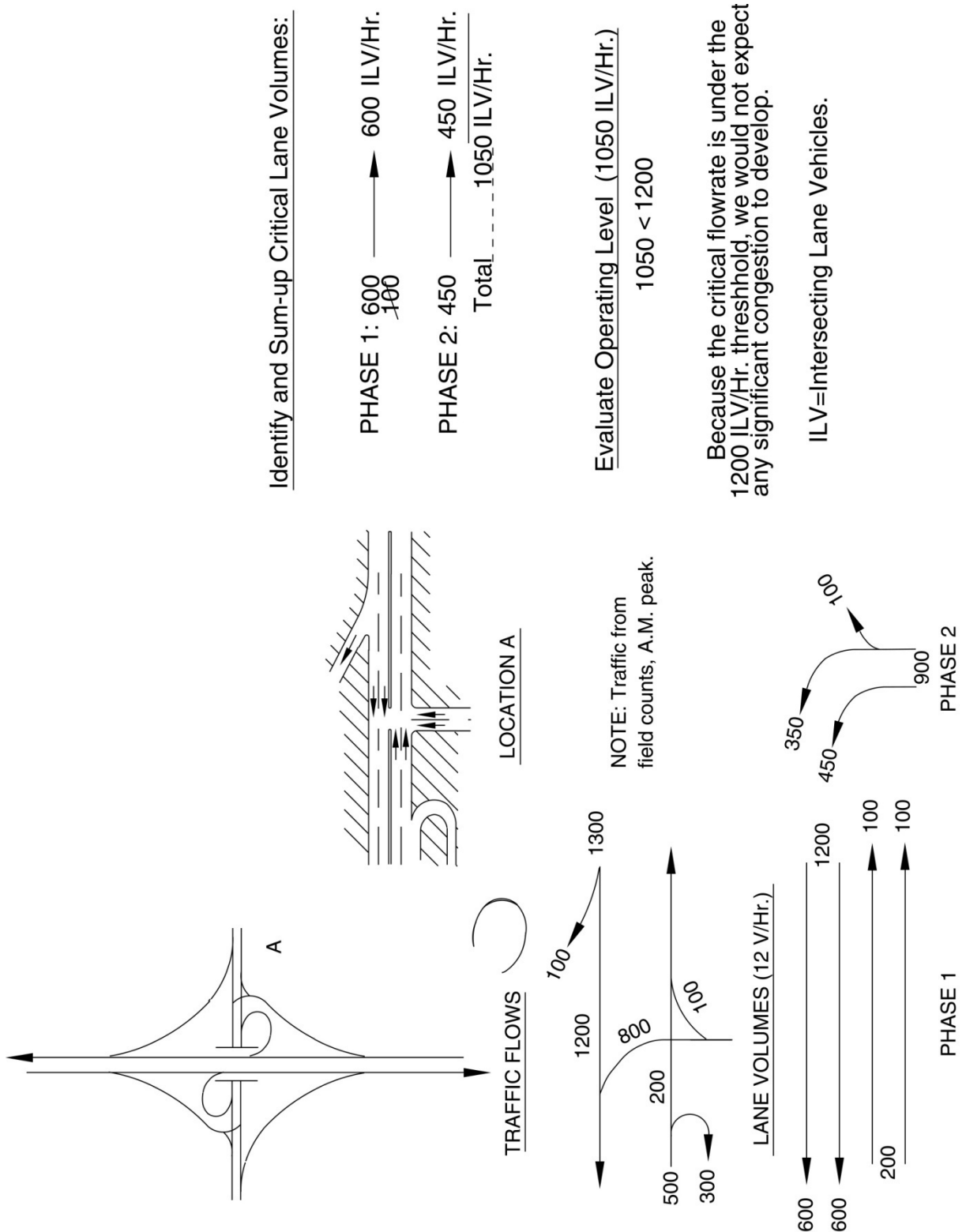
300

100

ILV=Intersecting Lane Vehicles.

1500 ILV/Hr.

Figure 406C
Two-quadrant Cloverleaf

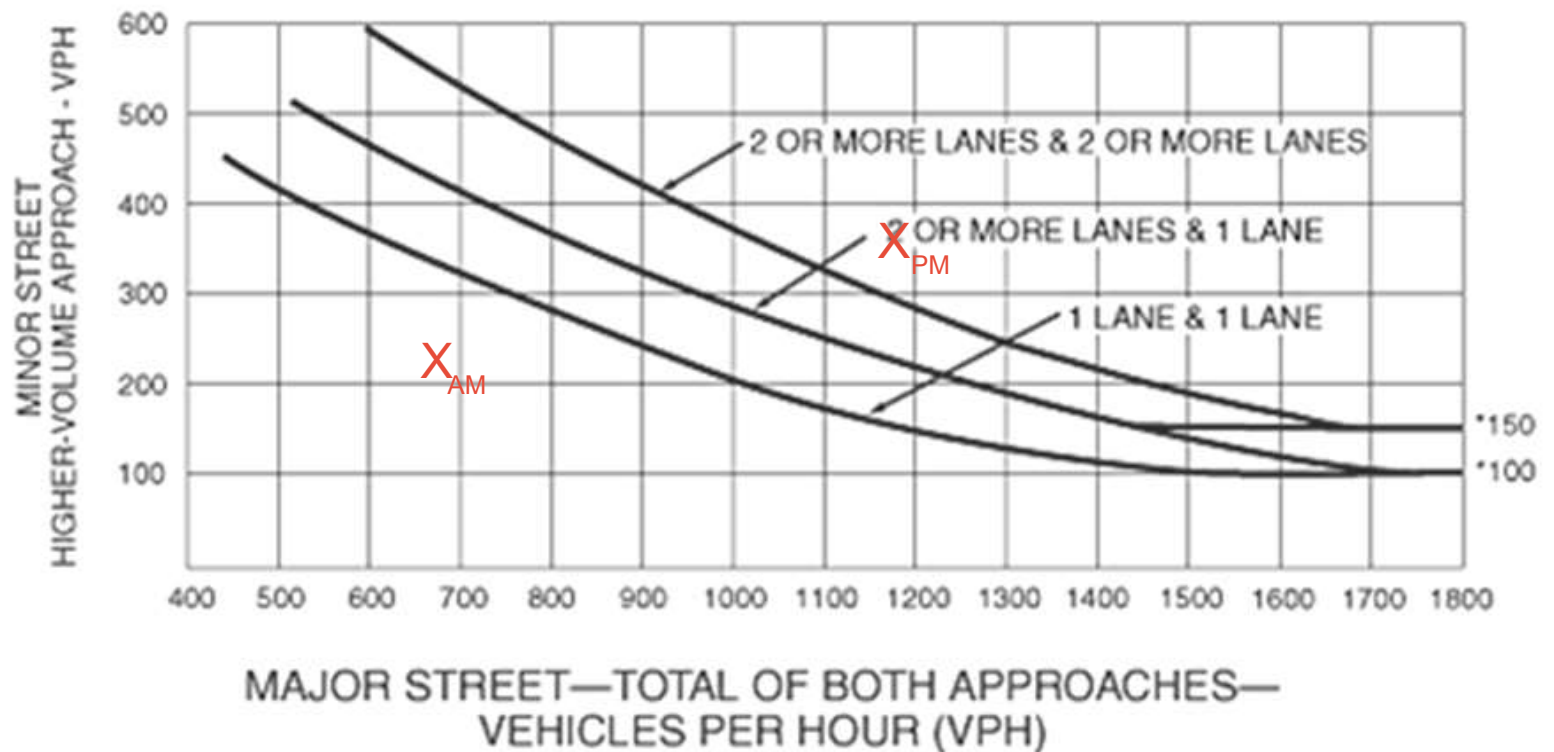


APPENDIX E

Peak Hour Traffic Signal Warrant Worksheets

Campus Drive / 7th Street

Figure 4C-3. Warrant 3, Peak Hour



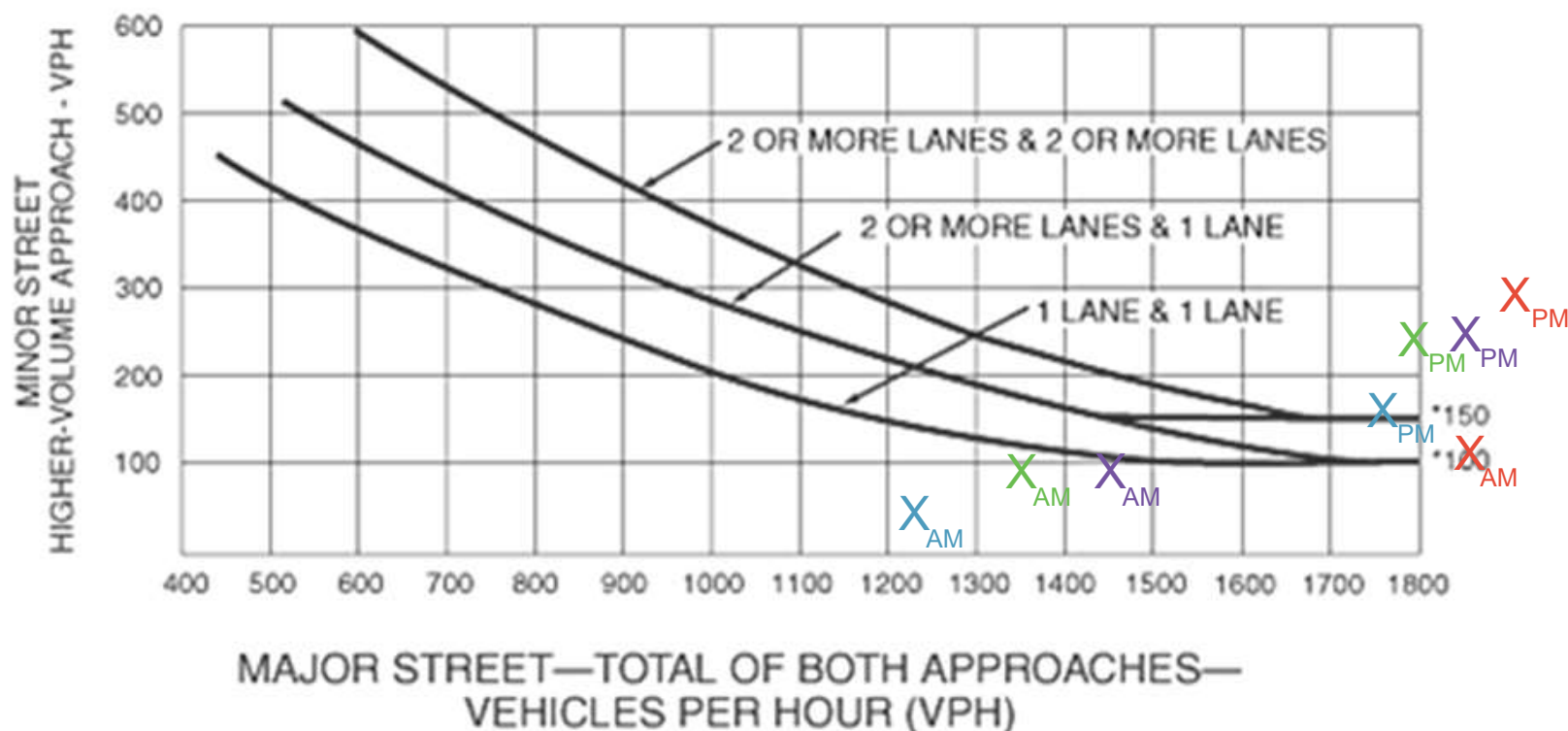
*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

LEGEND

X_{AM} X_{PM} Cumulative Year 2042 Plus Project

12th Avenue / Glendale Avenue

Figure 4C-3. Warrant 3, Peak Hour

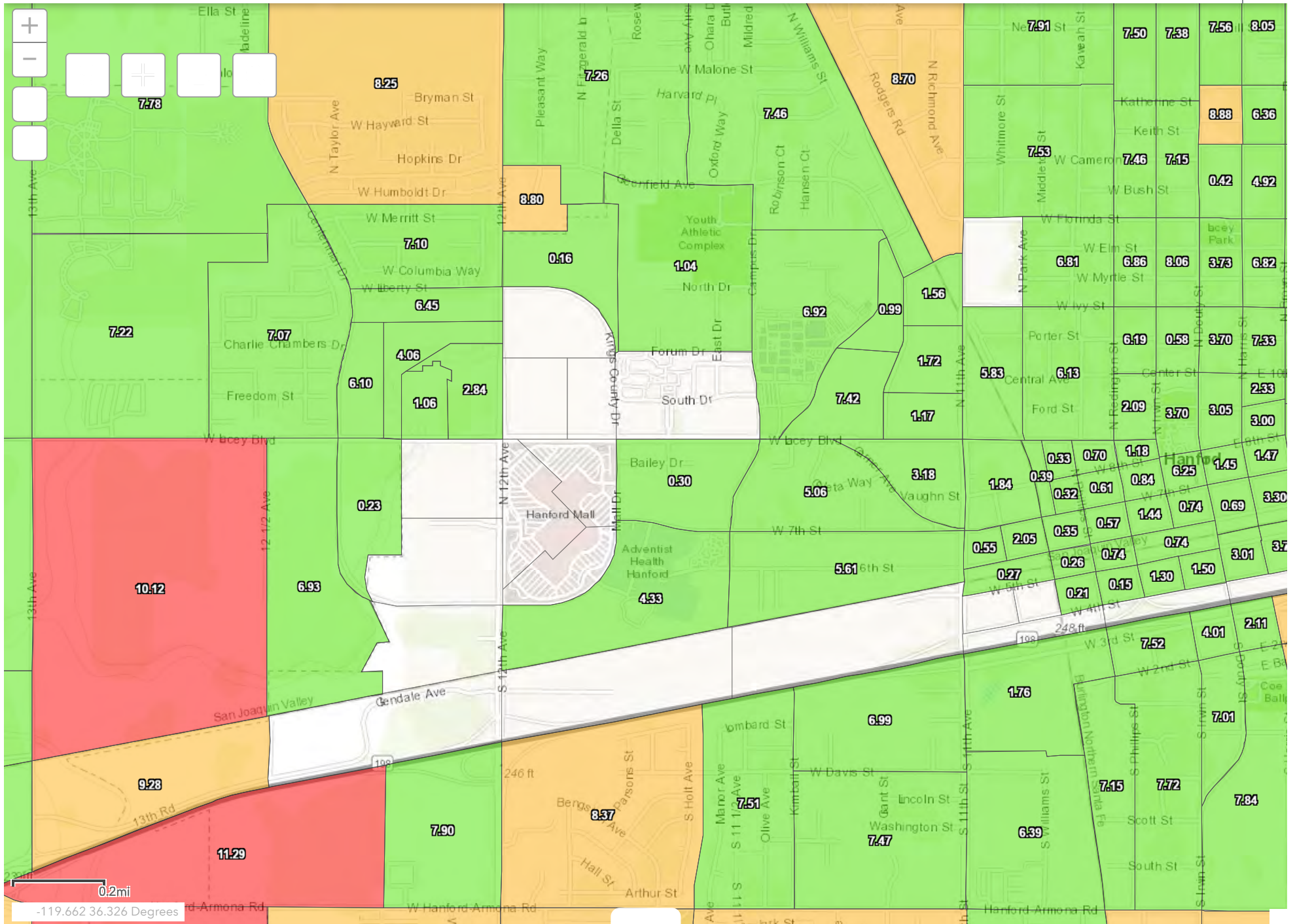


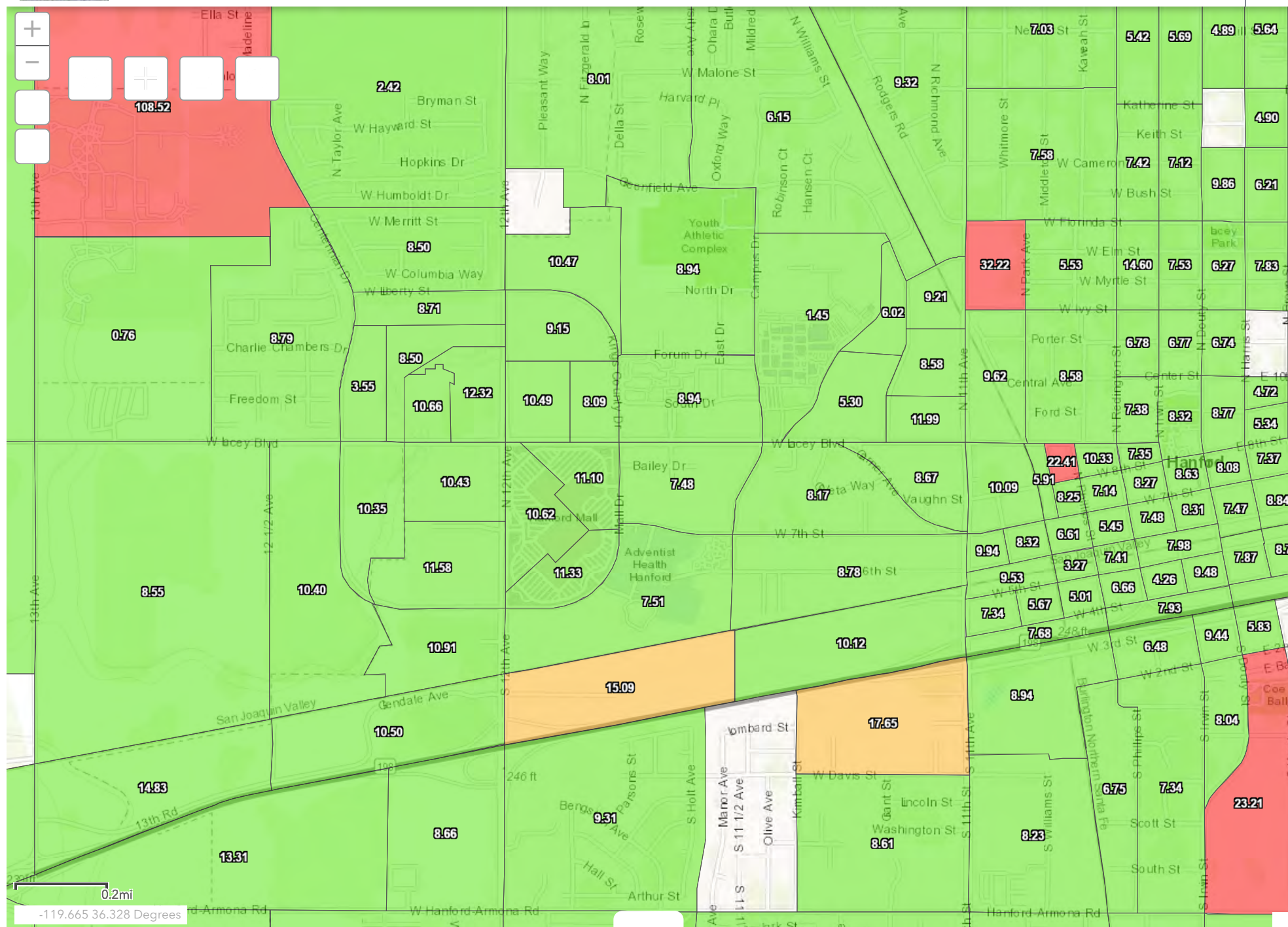
*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

LEGEND	
X _{AM} X _{PM}	Existing
X _{AM} X _{PM}	Existing Plus Project
X _{AM} X _{PM}	Near-Term Plus Project
X _{AM} X _{PM}	Cumulative Year 2042 Plus Project

APPENDIX F

VMT Analysis Maps





APPENDIX G

HANFORD PLACE MEDICAL MIXED-USE DEVELOPMENT PROJECT VEHICLE MILES TRAVELED (VMT) ANALYSIS MEMORANDUM

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MEMORANDUM

DATE: March 08, 2023

To: Steve Brandt, AICP

FROM: Ambarish Mukherjee, P.E., AICP

SUBJECT: Hanford Place Medical Mixed-use Development Project Vehicle Miles Traveled (VMT) Analysis Memorandum

LSA has prepared this Vehicle Miles Traveled (VMT) analysis for the Hanford Place medical development project (project) in the City of Hanford (City). The 39.23-acre vacant project site is located between State Route 198 (SR-198) and the San Joaquin Valley Railroad in the City, in Kings County (County). 5th Street passes through the project site in an east/west direction and Campus Drive passes through the project in a north/south direction. In addition, the Peoples Ditch runs through the project site.

The project proposes to develop a medical and mixed-use development and would construct 15 buildings consisting of medical outpatient clinic services, a hotel and conference center, specialized education, retail, medical office, skilled nursing and assisted living, and multi-family residential uses. The project requires a General Plan Amendment (GPA) to convert the project site from Highway Commercial to Service Commercial and High-Density Residential. Detailed proposed project land uses are shown in Table A below.

Table A: Detailed Project Land uses

Building	Total Square Feet	Number of Units
Ambulatory Surgery Center	22,525	-
Specialty Clinic	12,445	-
Medical Office Building	24,890	2 buildings
Psychiatric Health Facility	12,445	-
Hotel and Conference Center	100,000	105 rooms
Nursing College	35,000	8-10 classrooms
Skilled Nursing Facility	54,611	59 units
Memory Care	34,480	40 units
Assisted Living Facility	34,380	-
Multi-Family Apartment	76,500	90 units
Medical/Commercial	41,500	-

BACKGROUND AND ANALYSIS METRICS

On December 28, 2018, the California Office of Administrative Law cleared the revised California Environmental Quality Act (CEQA) guidelines for use. Among the changes to the guidelines was removal of vehicle delay and level of service from consideration under CEQA. With the adopted guidelines, transportation impacts are to be evaluated based on a project generated VMT.

The City has recently adopted its Senate Bill 743 (SB 743) guidelines – City of Hanford VMT Thresholds and Implementation Guidelines (guidelines), November 2022. Therefore, the project VMT analysis was conducted using the methodology and significant threshold criteria identified in the guidelines. As previously mentioned, the project includes residential, multiple medical uses, and commercial land uses. As per the guidelines, mixed-use projects should be evaluated separately for each component of the project using the applicable VMT metric.

VMT Metrics and Thresholds

The guidelines recommend use of VMT per capita metric to evaluate residential land uses, VMT per service population for uses such as medical offices and hospitals and “net change in VMT” to evaluate commercial land uses. The guidelines also indicate that VMT per service population can be used for land uses that include trips and VMT from both visitors and employees. Though most of the project land uses are medical related that include considerable visitor trips, project uses such as Memory Care, Assisted Living, and Skilled Nursing facility only include trips from its employees and the trips/VMT from visitors on a daily basis is nominal. Therefore, to evaluate these project land uses, VMT per employee was considered as the applicable metric. The following table, Table B shows the project land uses and applicable VMT metrics used to evaluate the project land uses.

Table B: Project land uses and applicable VMT metrics

Land use	VMT metric
Ambulatory Surgery Center	VMT per service population
Specialty Clinic	VMT per service population
Medical Office Building	VMT per service population
Psychiatric Health Facility	VMT per service population
Hotel and Conference Center	VMT per service population
Nursing College	VMT per service population
Skilled Nursing Facility	VMT per employee
Memory Care	VMT per employee
Assisted Living Facility	VMT per employee
Multi-Family Apartment	VMT per capita
Medical/Commercial	Net change in roadway VMT

The guidelines also established Kings County as the region and 13% as the threshold for comparison of VMT metrics. Therefore, if the project VMT per capita, VMT per employee, or VMT per service population exceeds 87% of corresponding Kings County baseline average, the project would have a significant VMT impact. Similarly, for the evaluation of retail component, if the regional roadway VMT is greater in the “with project” scenario compared to the “no project” scenario, the project will have a significant VMT impact.

The guidelines also provide multiple screening criteria to screen out land use projects from a detailed VMT analysis. As mentioned above, as per the guidelines, mixed-use projects should be evaluated separately for each component of the project using applicable VMT metrics. Similarly, each component of the project can be evaluated against the screening criteria established in the guidelines. The following table, Table C shows various screening criteria from the guidelines and their applicability to the project land uses. As shown in Table C, only the retail component of the project can be screened out of detailed VMT analysis. However, the retail component was included in the project model run to appropriately account for the internal capture that will occur due to the mixed use nature of the project.

Table C: Project Land use Screening Evaluation

Project Land use	VMT metric	Within Transit Priority Area	Retail less than 55 TSF	Redevelopment	Affordable Housing	Low VMT area (Screening Maps) *	Screened Out
Ambulatory Surgery Center	VMT per service population	No	N/A	N/A	N/A	N/A	No
Specialty Clinic	VMT per service population	No	N/A	N/A	N/A	N/A	No
Medical Office Building	VMT per service population	No	N/A	N/A	N/A	N/A	No
Psychiatric Health Facility	VMT per service population	No	N/A	N/A	N/A	N/A	No
Hotel and Conference Center	VMT per service population	No	N/A	N/A	N/A	N/A	No
Nursing College	VMT per service population	No	N/A	N/A	N/A	N/A	No
Skilled Nursing Facility	VMT per employee	No	N/A	N/A	N/A	N/A	No
Memory Care	VMT per employee	No	N/A	N/A	N/A	N/A	No
Assisted Living Facility	VMT per employee	No	N/A	N/A	N/A	N/A	No
Multi-Family Apartment	VMT per capita	No	N/A	N/A	N/A	N/A	No
Medical/Commercial	Net Change in roadway VMT	No	Yes	N/A	N/A	N/A	Yes

*: Use of screening maps is not applicable for projects that require a GPA

The guidelines include an additional screening criterion for total trips generated by the project. While other screening criteria are applicable for individual project components, this criterion should be applied to entire project. The project requires a GPA and therefore if the project generates less

than 500 daily trips, the project can be screened out of a VMT analysis. Based on project daily trip generation, the project generates more than 500 daily trips and therefore, the daily trip criterion is not applicable to the project. Given that the project land uses other than retail cannot be screened out, a detailed VMT analysis was conducted for these land uses. The VMT analysis is described in detail in the following sections.

METHODOLOGY

For projects that require a detailed VMT analysis, the guidelines recommend use of Kings County Association of Governments (KCAG) travel demand model to conduct the VMT analysis. Therefore, KCAG model was used for the VMT evaluation of the project.

Numerical values for the regional thresholds (VMT per capita, VMT per employee, and VMT per service population) have been obtained from the guidelines document – Table E: Significance Thresholds for VMT Analysis.

Project Traffic Analysis Zone Update

To calculate the project's VMT metrics, the first step was to update the traffic analysis zones (TAZs) in the model that include the project area. KCAG model includes capability to add new zones or conduct zone splits. Ideally, the project needs to be isolated to isolate the project VMT. Based on the review of project land uses, it was determined that addition of six new TAZs (one for multifamily residential, one for hotel/conference center, one for memory care, assisted living, and skilled nursing facility, one for specialty clinic, medical office, ambulatory surgery center, and psychiatric facility, one for nursing college, and one for commercial/retail land uses) would be adequate to incorporate the project in the model. Similar project land uses were grouped together for modeling purposes. Therefore, six new TAZs were added in the project location within the model, and the proposed project socioeconomic data were added within these TAZs for purposes of this analysis.

The project traffic impact study – Draft Hanford Place Development Traffic Impact Study, December 2020 by VRPA Technologies Inc (TIS), included employee information for some of the project land uses. Number of employees information for available project land uses was obtained from the project TIS. For remaining project land uses, number of employees information was estimated using Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition. ITE trip generation manual includes trip rates for land uses by different units (thousand square feet- TSF, employees) which can be used to estimate number of employees per TSF for land uses. LSA converted the project land uses into model socioeconomic categories using the process described above. The KCAG model socioeconomic database for the baseline (2015) scenario was updated with the project socioeconomic data within the six project TAZs.

Based on project description, vehicular access to the site would be provided by Glendale Avenue, 5th Street, and Campus Drive. The extension of these roadways would be constructed to City standards and would be dedicated as public right of way. Therefore, model roadway network was updated to include these extensions (Glendale Ave, 5th Street, and Campus Drive).

Model run was conducted for this updated model and the outputs from this model run were used to estimate project VMT metrics for each of the project land uses.

Project Service Population

Also as indicated in the guidelines, for land uses that include substantial user base like hotels, hospitals, medical offices, and other similar uses, a significant amount of trips and VMT is generated by visitors, or patients. As such, as stated in the City's VMT guidelines, customers/consumers must be included as part of the service population calculations to calculate project VMT per service population.

For the project land uses such as medical office building, ambulatory surgery center, and hotel, majority of trips and VMT would be generated by patients and visitors. Therefore, LSA used information from the KCAG TDM run to estimate the number of patients/visitors for the project for each of the applicable uses. Trip purpose information from the travel model was used to differentiate between employee trips and patient/visitor trips. Trips for all project TAZs were extracted by trip purpose in order to identify trips made by patients/visitors. Estimation of visitors using trip purpose information from the model is shown in detail in Table 2 of Appendix A.

VMT ANALYSIS

Table D shows the result of the VMT analysis. As shown in Table D, the project VMT per capita for residential component of the project is 39.9 percent lower than the regional threshold. Similarly, the project VMT per employee for the memory care, assisted living, and skilled nursing facility uses is 62.7 percent lower than the corresponding regional threshold. Also, the VMT per service population for rest of non-residential uses (except retail/commercial) is 43.6 percent lower than the regional threshold. As such, based on the project's VMT analysis, the project will not have a significant VMT impact.

Table D: Project VMT metrics and Regional Threshold Comparison

2015	Project	City of Hanford Threshold *	Difference	% Difference
VMT Per Capita	5.40	8.99	-3.59	-39.9%
VMT per Employee	6.32	16.95	-10.63	-62.7%
VMT per service population	12.32	21.84	-9.52	-43.6%

* Obtained from City of Hanford VMT Thresholds and Implementation Guidelines, November 2022. (Table E: Significance Thresholds for VMT Analysis)

Detailed VMT calculation worksheet is included in Appendix A.

ATTACHMENTS

Appendix A: VMT Calculation Worksheet

Appendix A

Table 1 - VMT Calculations

Multi Family	Project	City of Hanford Threshold *
Total Households (a)	90	
Total Population (b)	211	
Homebased (HB) VMT (c')	1,138	
HB VMT per capita (d = c/b)	5.40	8.99

Memory care, Assisted Living, and Skilled Nursing Facility	Project	City of Hanford Threshold *
Total Employment (a)	24	
Homebased Work (HBW) VMT (b)	152	
HBW VMT per employee (c = b/a)	6.32	16.95

Ambulatory Surgery Center, Specialty Clinic, Medical Office Building, Psychiatric Health Facility	Project	City of Hanford Threshold *
Total Employment (a)	159	
Total consumers/patients (b)	85	
Total service population (c = b+a)	244	
Origin-Destination (OD) VMT (d)	3,165	
VMT per service population (e=d/c)	12.99	21.84

Hotel/Conference Center	Project	City of Hanford Threshold *
Total Employment (a)	59	
Total visitors (b)	90	
Total service population (c = b+a)	148	
Origin-Destination (OD) VMT (d)	1,808	
VMT per service population (e=d/c)	12.19	21.84

Nursing College	Project	City of Hanford Threshold *
Total Employment (a)	10	
Total Students (b)	96	
Total service population (c = b+a)	106	
Origin-Destination (OD) VMT (d)	1,162	
VMT per service population (e=d/c)	10.96	21.84

Combined - Ambulatory Surgery Center Specialty Clinic, Medical Office Building, Psychiatric Health Facility, Hotel, and Nursing College	Project	City of Hanford Threshold *
Total Employment (a)	227	
Total consumers/patients (b)	271	
Total service population (c = b+a)	498	
Origin-Destination (OD) VMT (d)	6,136	
VMT per service population (e=d/c)	12.32	21.84

** Tripends for appropriate trip purposes are identified as customer tripends*

As a conservative estimate, vehicle trips are used as number of customers

Table 2 - Estimation of Customer Population

**Vehicle Trips by Trip purpose - Ambulatory Surgery Center, Specialty Clinic,
Medical Office Building, Psychiatric Health Facility**

Trip Purpose	Productions	Attractions
Homebased Work (HW)	-	142
Homebased Shop (HS)	-	39
Homebased School (HK)	-	-
Homebased College (HC)	-	-
Homebased Other (HO)	-	48
Workbased Other (WO)	13	13
Otherbased Other (OO)	110	109
Highway Commercial (HY)	-	-
Total	123	350
Total Customer trips *		85

* Attractions for HO, WO, OO trip purposes are considered for trips by customers (48+13+ 109 =170)

Trip ends are divided by 2 to account for trips (from/to) (170/2 = 85)

Also as a conservative estimate vehicle trips are considered as person trips/total customers

Vehicle Trips by Trip purpose - Hotel/Conference Center

Trip Purpose	Productions	Attractions
Homebased Work (HW)	-	56
Homebased Shop (HS)	-	52
Homebased School (HK)	-	-
Homebased College (HC)	-	-
Homebased Other (HO)	-	41
Workbased Other (WO)	11	11
Otherbased Other (OO)	129	128
Highway Commercial (HY)	-	-
Total	140	288
Total Customer trips *		90

* Attractions for HO, WO, OO trip purposes are considered for trips by customers (41 + 11 + 128 = 180)

Trip ends are divided by 2 to account for trips (from/to) (180/2 = 90)

Also as a conservative estimate vehicle trips are considered as person trips/total customers



November 3, 2022

Diana Black
City of Hanford
317 N Douty St
Hanford, CA 93230

Re: Hanford Place
GPA 2022-01, RZ 2022-01, PUD 2022-01

Dear Diana Black,

Thank you for providing PG&E the opportunity to review the proposed plans for Hanford Place dated 10/18/2022. Our review indicates the proposed improvements do not appear to directly interfere with existing PG&E facilities or impact our easement rights.

Please note this is our preliminary review and PG&E reserves the right for additional future review as needed. This letter shall not in any way alter, modify, or terminate any provision of any existing easement rights. If there are subsequent modifications made to the design, we ask that you resubmit the plans to the email address listed below.

If the project requires PG&E gas or electrical service in the future, please continue to work with PG&E's Service Planning department: <https://www.pge.com/cco/>.

As a reminder, before any digging or excavation occurs, please contact Underground Service Alert (USA) by dialing 811 a minimum of 2 working days prior to commencing any work. This free and independent service will ensure that all existing underground utilities are identified and marked on-site.

If you have any questions regarding our response, please contact the PG&E Plan Review Team at pgeplanreview@pge.com.

Sincerely,

PG&E Plan Review Team
Land Management

November 8, 2022

Gabrielle Myers
City of Hanford
Department of Community Development
319 North Douty Street
Hanford CA, 93230

Project: Planned Unit Development No. 2022-01

District CEQA Reference No: 20221396

Dear Mr. Myers:

The San Joaquin Valley Air Pollution Control District (District) has reviewed the Planned Unit Development (PUD) referenced above from the City of Hanford (City). Per the PUD, the project consists of constructing a master planned medical and mixed-use development, including the construction of 15 buildings consisting of medical outpatient clinic services, a hotel and conference center, specialized education, retail, medical office, skilled nursing and assisted living, and multi-family residential uses, as well as a bio infiltration basin, associated open space, circulation and parking, and infrastructure improvements (Project). The Project is located between 11th and 12th Avenue along Glendale Drive, north of Highway 198 in Hanford, CA.

The District offers the following comments regarding the Project:

1) Project Related Emissions

At the federal level under the National Ambient Air Quality Standards (NAAQS), the District is designated as extreme nonattainment for the 8-hour ozone standards and serious nonattainment for the particulate matter less than 2.5 microns in size (PM_{2.5}) standards. At the state level under California Ambient Air Quality Standards (CAAQS), the District is designated as nonattainment for the 8-hour ozone, PM₁₀, PM_{2.5} standards.

The District's initial review of the Project concludes that emissions resulting from construction and/or operation of the Project may exceed any of the following significance thresholds as identified in the District's Guidance for Assessing and Mitigating Air Quality Impacts: <https://www.valleyair.org/transportation/GAMAQI.pdf>.

Samir Sheikh
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: (661) 392-5500 FAX: (661) 392-5585

The District recommends that a more detailed preliminary review of the Project be conducted for the Project's construction and operational emissions.

1a) Construction Emissions

The District recommends, to reduce impacts from construction-related diesel exhaust emissions, the Project should utilize the cleanest available off-road construction equipment, including the latest tier equipment.

1b) Operational Emissions

Operational (ongoing) air emissions from mobile sources and stationary sources should be analyzed separately. For reference, the District's significance thresholds are identified in the District's Guidance for Assessing and Mitigating Air Quality Impacts:

<https://www.valleyair.org/transportation/GAMAQI.pdf>.

Recommended Mitigation Measure: At a minimum, project related impacts on air quality should be reduced to levels of significance through incorporation of design elements such as measures that reduce Vehicle Miles Traveled (VMTs), and measures that increase energy efficiency. More information on transportation mitigation measures can be found at:

<http://www.valleyair.org/transportation/Mitigation-Measures.pdf>.

1c) Recommended Model for Quantifying Air Emissions

Project-related criteria pollutant emissions from construction and operational sources should be identified and quantified. Emissions analysis should be performed using the California Emission Estimator Model (CalEEMod), which uses the most recent CARB-approved version of relevant emissions models and emission factors. CalEEMod is available to the public and can be downloaded from the CalEEMod website at: www.caleemod.com.

2) Project Siting

Based on the PUD, the Project consists of a master planned medical and mixed-use development that includes sensitive and residential uses adjacent to an existing freeway (SR 198). The California Air Resources Board (CARB) recommends that residences and other sensitive receptors not be located within 500 feet of freeways or high traffic roadways. Please refer to CARB's Air Quality and Land Use Handbook: A Community Health Perspective located at: <https://ww3.arb.ca.gov/ch/handbook.pdf>.

3) Health Risk Screening/Assessment

The City should evaluate the risk associated with the Project for sensitive receptors (residences, businesses, hospitals, day-care facilities, health care facilities, etc.) in the area and mitigate any potentially significant risk to help limit exposure of sensitive receptors to emissions.

To determine potential health impacts on surrounding receptors (residences, businesses, hospitals, day-care facilities, health care facilities, etc.) a Prioritization and/or a Health Risk Assessment (HRA) should be performed for the Project. These health risk determinations should quantify and characterize potential Toxic Air Contaminants (TACs) identified by the Office of Environmental Health Hazard Assessment/California Air Resources Board (OEHHA/CARB) that pose a present or potential hazard to human health.

Health risk analyses should include all potential air emissions from the project, which include emissions from construction of the project, including multi-year construction, as well as ongoing operational activities of the project. Note, two common sources of TACs can be attributed to diesel exhaust emitted from heavy-duty off-road earth moving equipment during construction, and from ongoing operation of heavy-duty on-road trucks.

Prioritization (Screening Health Risk Assessment):

A "Prioritization" is the recommended method for a conservative screening-level health risk assessment. The Prioritization should be performed using the California Air Pollution Control Officers Association's (CAPCOA) methodology.

The District recommends that a more refined analysis, in the form of an HRA, be performed for any project resulting in a Prioritization score of 10 or greater. This is because the prioritization results are a conservative health risk representation, while the detailed HRA provides a more accurate health risk evaluation.

To assist land use agencies and project proponents with Prioritization analyses, the District has created a prioritization calculator based on the aforementioned CAPCOA guidelines, which can be found here:

http://www.valleyair.org/busind/pto/emission_factors/Criteria/Toxics/Utilities/PRIORITIZATION-CALCULATOR.xls

Health Risk Assessment:

Prior to performing an HRA, it is strongly recommended that land use agencies/project proponents develop and submit for District review a health risk modeling protocol that outlines the sources and methodologies that will be used to perform the HRA. This step will ensure all components are addressed when performing the HRA.

A development project would be considered to have a potentially significant health risk if the HRA demonstrates that the project-related health impacts would exceed the District's significance threshold of 20 in a million for carcinogenic risk, or 1.0 for either the Acute or Chronic Hazard Indices.

A project with a significant health risk would trigger all feasible mitigation measures. The District strongly recommends that development projects that result in a significant health risk not be approved by the land use agency.

The District is available to review HRA protocols and analyses. For HRA submittals please provide the following information electronically to the District for review:

- HRA (AERMOD) modeling files
- HARP2 files
- Summary of emissions source locations, emissions rates, and emission factor calculations and methodologies.

For assistance, please contact the District's Technical Services Department by:

- E-Mailing inquiries to: hramodeler@valleyair.org
- Calling (559) 230-5900

Recommended Measure: Development projects resulting in TAC emissions should be located an adequate distance from residential areas and other sensitive receptors in accordance to CARB's Air Quality and Land Use Handbook: A Community Health Perspective located at <https://www3.arb.ca.gov/ch/handbook.pdf>.

4) Ambient Air Quality Analysis

An Ambient Air Quality Analysis (AAQA) uses air dispersion modeling to determine if emissions increases from a project will cause or contribute to a violation of State or National Ambient Air Quality Standards. The District recommends an AAQA be performed for the Project if emissions exceed 100 pounds per day of any pollutant.

An acceptable analysis would include emissions from both project-specific permitted and non-permitted equipment and activities. The District recommends consultation with District staff to determine the appropriate model and input data to use in the analysis.

Specific information for assessing significance, including screening tools and modeling guidance, is available online at the District's website: www.valleyair.org/ceqa.

5) Voluntary Emission Reduction Agreement

Criteria pollutant emissions may result in emissions exceeding the District's significance thresholds, potentially resulting in a significant impact on air quality. When a project is expected to have a significant impact, the District recommends the environmental review also include a discussion on the feasibility of implementing a Voluntary Emission Reduction Agreement (VERA) for this Project.

A VERA is a mitigation measure by which the project proponent provides pound-for-pound mitigation of emissions increases through a process that develops, funds, and implements emission reduction projects, with the District serving a role of administrator of the emissions reduction projects and verifier of the successful mitigation effort. To implement a VERA, the project proponent and the District enter into a contractual agreement in which the project proponent agrees to mitigate project specific emissions by providing funds for the District's incentives programs. The funds are disbursed by the District in the form of grants for projects that achieve emission reductions. Thus, project-related impacts on air quality can be mitigated. Types of emission reduction projects that have been funded in the past include electrification of stationary internal combustion engines (such as agricultural irrigation pumps), replacing old heavy-duty trucks with new, cleaner, more efficient heavy-duty trucks, and replacement of old farm tractors.

In implementing a VERA, the District verifies the actual emission reductions that have been achieved as a result of completed grant contracts, monitors the emission reduction projects, and ensures the enforceability of achieved reductions. After the project is mitigated, the District certifies to the Lead Agency that the mitigation is completed, providing the Lead Agency with an enforceable mitigation measure demonstrating that project-related emissions have been mitigated. To assist the Lead Agency and project proponent in ensuring that the environmental document is compliant with CEQA, the District recommends the environmental document includes an assessment of the feasibility of implementing a VERA.

6) Vegetative Barriers and Urban Greening

There are residential units located north of the Project. The District suggests the City consider the feasibility of incorporating vegetative barriers and urban greening as a measure to further reduce air pollution exposure on sensitive receptors (e.g., residential units).

While various emission control techniques and programs exist to reduce air quality emissions from mobile and stationary sources, vegetative barriers have been shown to be an additional measure to potentially reduce a population's exposure to air pollution through the interception of airborne particles and the uptake of gaseous pollutants. Examples of vegetative barriers include, but are not limited to the following: trees, bushes, shrubs, or a mix of these. Generally, a higher and thicker

vegetative barrier with full coverage will result in greater reductions in downwind pollutant concentrations. In the same manner, urban greening is also a way to help improve air quality and public health in addition to enhancing the overall beautification of a community with drought tolerant, low-maintenance greenery.

7) Clean Lawn and Garden Equipment in the Community

Since the Project consists of commercial and residential development, gas-powered commercial and residential lawn and garden equipment have the potential to result in an increase of NO_x and PM_{2.5} emissions. Utilizing electric lawn care equipment can provide residents with immediate economic, environmental, and health benefits. The District recommends the Project proponent consider the District's Clean Green Yard Machines (CGYM) program which provides incentive funding for replacement of existing gas powered lawn and garden equipment. More information on the District CGYM program and funding can be found at:

<http://www.valleyair.org/grants/cgym.htm>
and <http://valleyair.org/grants/cgym-commercial.htm>.

8) On-Site Solar Deployment

It is the policy of the State of California that renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers by December 31, 2045. While various emission control techniques and programs exist to reduce air quality emissions from mobile and stationary sources, the production of solar energy is contributing to improving air quality and public health. The District suggests that the City consider incorporating solar power systems as an emission reduction strategy for the Project.

9) Electric Vehicle Chargers

To support and accelerate the installation of electric vehicle charging equipment and development of required infrastructure, the District offers incentives to public agencies, businesses, and property owners of multi-unit dwellings to install electric charging infrastructure (Level 2 and 3 chargers). The purpose of the District's Charge Up! Incentive program is to promote clean air alternative-fuel technologies and the use of low or zero-emission vehicles. The District recommends that the City and project proponents install electric vehicle chargers at project sites, and at strategic locations.

Please visit www.valleyair.org/grants/chargeup.htm for more information.

10) District Rules and Regulations

The District issues permits for many types of air pollution sources, and regulates some activities that do not require permits. A project subject to District rules and

regulations would reduce its impacts on air quality through compliance with the District's regulatory framework. In general, a regulation is a collection of individual rules, each of which deals with a specific topic. As an example, Regulation II (Permits) includes District Rule 2010 (Permits Required), Rule 2201 (New and Modified Stationary Source Review), Rule 2520 (Federally Mandated Operating Permits), and several other rules pertaining to District permitting requirements and processes.

The list of rules below is neither exhaustive nor exclusive. Current District rules can be found online at: www.valleyair.org/rules/1ruleslist.htm. To identify other District rules or regulations that apply to future projects, or to obtain information about District permit requirements, the project proponents are strongly encouraged to contact the District's Small Business Assistance (SBA) Office at (559) 230-5888.

10a) District Rules 2010 and 2201 - Air Quality Permitting for Stationary Sources

Stationary Source emissions include any building, structure, facility, or installation which emits or may emit any affected pollutant directly or as a fugitive emission. District Rule 2010 (Permits Required) requires operators of emission sources to obtain an Authority to Construct (ATC) and Permit to Operate (PTO) from the District. District Rule 2201 (New and Modified Stationary Source Review) requires that new and modified stationary sources of emissions mitigate their emissions using Best Available Control Technology (BACT).

This Project may be subject to District Rule 2010 (Permits Required) and Rule 2201 (New and Modified Stationary Source Review) and may require District permits. Prior to construction, the Project proponent should submit to the District an application for an ATC. For further information or assistance, the project proponent may contact the District's SBA Office at (559) 230-5888.

District Rule 9510 - Indirect Source Review (ISR)

The Project is subject to District Rule 9510 because it will receive a project-level discretionary approval from a public agency and will equal or exceed 20,000 square feet of medical office space.

The purpose of District Rule 9510 is to reduce the growth in both NO_x and PM emissions associated with development and transportation projects from mobile and area sources; specifically, the emissions associated with the construction and subsequent operation of development projects. The ISR Rule requires developers to mitigate their NO_x and PM emissions by incorporating clean air design elements into their projects. Should the proposed development project clean air design elements be insufficient to meet the required emission

reductions, developers must pay a fee that ultimately funds incentive projects to achieve off-site emissions reductions.

Per Section 5.0 of the ISR Rule, an Air Impact Assessment (AIA) application is required to be submitted no later than applying for project-level approval from a public agency. As of the date of this letter, the District has not received an AIA application for this Project. Please inform the project proponent to immediately submit an AIA application to the District to comply with District Rule 9510. One AIA application should be submitted for the entire Project. It is preferable for the applicant to submit an AIA application as early as possible in the City's approval process so that proper mitigation and clean air design under ISR can be incorporated into the City's analysis.

Information about how to comply with District Rule 9510 can be found online at: <http://www.valleyair.org/ISR/ISRHome.htm>.

The AIA application form can be found online at: <http://www.valleyair.org/ISR/ISRFormsAndApplications.htm>.

District staff is available to provide assistance and can be reached by phone at (559) 230-5900 or by email at ISR@valleyair.org.

10b) District Rule 9410 (Employer Based Trip Reduction)

The Project may be subject to District Rule 9410 (Employer Based Trip Reduction) if the project would result in employment of 100 or more "eligible" employees. District Rule 9410 requires employers with 100 or more "eligible" employees at a worksite to establish an Employer Trip Reduction Implementation Plan (eTRIP) that encourages employees to reduce single-occupancy vehicle trips, thus reducing pollutant emissions associated with work commutes. Under an eTRIP plan, employers have the flexibility to select the options that work best for their worksites and their employees.

Information about District Rule 9410 can be found online at: www.valleyair.org/tripreduction.htm.

For additional information, you can contact the District by phone at 559-230-6000 or by e-mail at etrip@valleyair.org

10c) District Rule 4002 (National Emissions Standards for Hazardous Air Pollutants)

In the event an existing building will be renovated, partially demolished or removed, the Project may be subject to District Rule 4002. This rule requires a

thorough inspection for asbestos to be conducted before any regulated facility is demolished or renovated. Information on how to comply with District Rule 4002 can be found online at:

<http://www.valleyair.org/busind/comply/asbestosbultn.htm>.

10d) District Rule 4601 (Architectural Coatings)

The Project may be subject to District Rule 4601 since it may utilize architectural coatings. Architectural coatings are paints, varnishes, sealers, or stains that are applied to structures, portable buildings, pavements or curbs. The purpose of this rule is to limit VOC emissions from architectural coatings. In addition, this rule specifies architectural coatings storage, cleanup and labeling requirements. Additional information on how to comply with District Rule 4601 requirements can be found online at:

<http://www.valleyair.org/rules/currntrules/r4601.pdf>

10e) District Regulation VIII (Fugitive PM10 Prohibitions)

The project proponent may be required to submit a Construction Notification Form or submit and receive approval of a Dust Control Plan prior to commencing any earthmoving activities as described in Regulation VIII, specifically Rule 8021 – *Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities*.

Should the project result in at least 1-acre in size, the project proponent shall provide written notification to the District at least 48 hours prior to the project proponents intent to commence any earthmoving activities pursuant to District Rule 8021 (Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities). Also, should the project result in the disturbance of 5-acres or more, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials, the project proponent shall submit to the District a Dust Control Plan pursuant to District Rule 8021 (Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities). For additional information regarding the written notification or Dust Control Plan requirements, please contact District Compliance staff at (559) 230-5950.

The application for both the Construction Notification and Dust Control Plan can be found online at:

<https://www.valleyair.org/busind/comply/PM10/forms/DCP-Form.docx>

Information about District Regulation VIII can be found online at:

http://www.valleyair.org/busind/comply/pm10/compliance_pm10.htm

10f) Other District Rules and Regulations

The Project may also be subject to the following District rules: Rule 4102 (Nuisance) and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations).

11) District Comment Letter

The District recommends that a copy of the District's comments be provided to the Project proponent.

If you have any questions or require further information, please contact Patrick Chimienti by e-mail at patrick.chimienti@valleyair.org or by phone at (559) 230-6139.

Sincerely,

Brian Clements
Director of Permit Services



For: Seth Lane
Program Manager

From: [Samantha McCarty](#)
To: [Gabrielle Myers](#)
Cc: [Shana Powers](#)
Subject: RE: General Plan Amendment No. 2022-01, Rezone No. 2022-01, and Planned Unit Development No. 2022-01
Date: Wednesday, November 9, 2022 4:08:09 PM

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Dear Gabrielle,

Thank you for contacting the Santa Rosa Rancheria Tachi-Yokut Tribe regarding: General Plan Amendment No. 2022-01, Rezone No. 2022-01, and Planned Unit Development No. 2022-01. Due to tribal history and knowledge of the area, the Tribe is requesting to have a burial treatment plan and curation agreement put in place, as well as be retained for a cultural presentation for all construction staff and to have a Native American Monitor on site during all ground disturbance. If you have any questions, comments, and or concerns please contact myself or the SRR Cultural Department. We look forward to working with you on this project. Thank you.

Sincerely,

Samantha McCarty

Santa Rosa Rancheria Tachi-Yokut Tribe

Cultural Specialist II

SMcCarty@tachi-yokut-nsn.gov

Office: (559) 924-1278 x 4091

Cell: (559) 633-6640

***PLEASE KEEP ALL CULTURAL STAFF IN EMAILS UNLESS STATED OTHERWISE**

August 8, 2023

Via E-mail: gmyers@cityofhanfordca.com

Gabrielle Myers
Senior Planner
City of Hanford
Community Development, Planning Division
317 N. Douty Street
Hanford, California 93230

**Re: Comments on Hanford Place Initial Study/Mitigated Negative Declaration
No 2023-93 Supporting General Plan Amendment No. 2022-01, Rezone No.
2022-01, and Planned Unit Development No. 2022-01**

Dear Ms. Myers:

This purpose of this letter is to provide initial comments on the City's draft Initial Study/Mitigated Negative Declaration ("**IS/MND**") for the above-referenced Hanford Place project ("**Project**") on behalf of our client, Adventist Health System/West (dba Adventist Health) and Hanford Community Hospital (dba Adventist Health Hanford) (collectively, "**Adventist**"). The Project proposes an intense and lengthy three-year construction project, ultimately resulting in a new, large mixed-use development adjacent to Adventist's existing hospital and medical offices. Adventist is a neighboring property owner and is concerned about potential impacts of construction and eventual operation of the Project on its current facilities and operations. The IS/MND does not provide the requisite scope of analysis we would expect to see for a project of this size and scale. There are fair arguments of potential Project impacts to several resource areas requiring further analysis, which trigger the need for the preparation and circulation of an Environmental Impact Report, as described below. We are continuing to review the IS/MND and may submit further comments. In addition, Adventist welcomes the opportunity to discuss its concerns directly with the Project applicant and with the City.

Air Quality

The IS/MND requires no mitigation to ensure that impacts of three years of construction and decades of operation of a very large medical, commercial, hotel, educational and residential facilities will not result in significant air quality impacts. In addition, there is no mechanism to assure the Project will adhere to the assumptions in the air quality modeling that resulted in estimated emissions under the Air District thresholds. Without these requirements,

there is a fair argument that the Project may exceed the assumptions in the IS/MND and therefore potentially significant impacts to air quality could occur.

Biology

The IS/MND states that the Project site has unoccupied burrows and suitable habitat for burrowing owl, San Joaquin kit fox, and nesting birds. The mitigation measure for burrowing owl is less extensive than similar measures in other jurisdictions and it inappropriately defers mitigation by requiring the applicant to get a permit from the California Department of Fish and Wildlife (“**CDFW**”) if owls are found. CEQA requires that mitigation be formulated within the IS/MND, not as part of a future permitting effort with a responsible agency.

Further, the IS/MND does not describe, let alone analyze, potential impacts to People’s Ditch. Due to changes in operational definitions for navigable waters, the IS/MND finds that it is not possible to definitively predict applicable regulations. For that reason, the IS/MND adopts a mitigation measure “recommending” consultation with the Army Corps of Engineers, CDFW, and the Regional Water Quality Control Board (“**RWQCB**”) to verify the ditch’s jurisdictional status and obtain permits if necessary. The mitigation then says that the project “should” file a notification of streambed alteration and “should” consult with the Army Corps and RWQCB. The analysis on its face acknowledges there may be an impact and the mitigation is not effective because it does not actually require anything, instead deferring all analysis and mitigation to a possible, but not required, future action by the Army Corps, CDFW, and RWQCB.

Cultural Resources/Tribal Cultural Resources

Peoples Ditch is a previously recorded resource within the Project area. In addition, the pedestrian survey identified a refuse scatter and an isolate within the Project site. The IS/MND defers all analysis and mitigation relating to potential impacts to these known resources. The IS/MND does not analyze whether any of the known resources are eligible for listing in the California Register. Instead, it says: “To determine whether the proposed project would cause a substantial adverse change in the significant quantities of a historical resource, additional mapping and subsurface testing would be required.” A mitigation measure requires such additional mapping and subsurface testing for the refuse scatter “to evaluate its eligibility for including in the California Register.” The same mitigation requires additional focused subsurface testing to confirm presence/absence or high-sensitivity paleosols that may include intact prehistoric cultural deposits. If those are found, the mitigation requires further investigation to determine if it is eligible for the California Register. This is deferred mitigation not allowed under CEQA and demonstrates there is a fair argument that the Project may result in a significant impact to cultural resources.

In addition, the mitigation does not apply to Peoples Ditch. The IS/MND acknowledges that the ditch is a previously recorded resource. The analysis states that a portion of the ditch on the project site is less than 50 years old and that the “only remaining evidence of

the original alignment of the ditch is its scar on the landscape and the remains of a concrete containment well at the northern end of the abandoned segment.” The IS/MND does not address whether the People’s Ditch is eligible for listing on the California Register. Instead, it states that additional mapping and subsurface testing would be required to determine significance for impacts to historical resources and then the mitigation does not address People’s Ditch. Accordingly, the IS/MND acknowledges that there may be significant impacts to historical resources and those potential impacts are not analyzed or mitigated.

Finally, the IS/MND states that the City met with the Tachi Yokut Tribe on a different project and the Tribe requested that all projects include a mitigation measure for a burial treatment plan. The IS/MND then states that it is requiring that mitigation measure to reduce impacts to a less than significant level. The mitigation measure simply requires preparation of a burial treatment plan, without any description of the plan requirements or any performance standards to ensure that impacts are reduced to a less-than-significant level. Accordingly, the IS/MND finds there is a potential impact but does not include mitigation that can demonstrably reduce that impact to a less-than-significant level.

Geology

The IS/MND does not describe the potential for paleontological resources to be found on the Project site. The mitigation then starts with “The project applicant shall inform its contractor(s) of the sensitivity of the project area for paleontological resources.” This is a puzzling reference and suggests that the Project site is actually sensitive, but such sensitivity is not disclosed in the IS/MND.

Greenhouse Gas Emissions

The City and the Air District do not have numeric significance thresholds and the Regional Climate Action Plan is only effective through the year 2020. Accordingly, the IS/MND evaluates emissions based on the Project’s consistency with state greenhouse gas emissions reduction goals, specifically the 2022 Scoping Plan. The IS/MND analysis is abbreviated, finding that the Project will provide electric vehicle charging, has vehicle miles traveled reduction benefits, and will comply with Title 24 building requirements. For the analysis of whether the Project would conflict with any applicable plan, the IS/MND assumes that the requirements from the Regional Climate Action Plan will continue to provide reductions after the milestone year and help demonstrate continued progress towards achieving the state’s 2030 target. This assumption is unsupported, as different strategies will need to be employed to reach ever-increasing emissions reduction targets. The IS/MND does not adequately analyze Project

greenhouse gas emissions impacts in a post-2020 environment and there is a fair argument that Project may result in significant impacts without adequate mitigation.

Hydrology/Utilities/Water Supply

Water Code Section 10910 requires a Water Supply Assessment for mixed use projects that includes one or more of the following components: residential (500+ units); shopping center or business establishment (500,000+ square feet); commercial office building (250,000+ square feet); and projects demanding water equivalent to a 500-dwelling unit project. Combining all of the uses proposed by the Project, preparation of a Water Supply Assessment and inclusion of that Water Supply Analysis in the CEQA analysis is required. The IS/MND does not include a Water Supply Assessment approved by the City in its role as a water service provider. Further, the IS/MND does not include the information required for a Water Supply Assessment. The IS/MND does not analyze the City's ability to serve the Project over the required 20-year horizon accounting for both normal and drought years. The Project is large and will required extensive water over the three-year construction period and decades of operation in geographical area that is known for periods of prolonged drought. There is a fair argument of a potential impact to water supply and the IS/MND does adequately analyze or impose any mitigation for the impact.

Noise

The IS/MND conducted ambient noise monitoring and modeled noise impacts for traffic noise, but it does not model construction noise impacts at sensitive receptors. Instead, the IS/MND includes the typical construction equipment maximum noise levels at 100 feet, 200 feet, and 300 feet, some of which exceed the City's exterior noise standard of 70dBA (daytime) for residential uses. The nearest sensitive receptors are 150 feet away. Hence, the IS/MND shows a possible exceedance of the daytime exterior noise standard not even accounting for ambient noise during three years of construction. The analysis states that construction noise is not considered to be a significant impact if construction is limited to the allowed hours and equipment is adequately maintained and muffled; however, required mitigation states only that activities "should" not occur outside of 7:00 am to 8:00 pm. In any event, the IS/MND still shows a potential exceedance of the exterior daytime noise standard for sensitive residential receptors. The IS/MND demonstrates a fair argument of an impact because it does not model the actual anticipated noise levels at nearby sensitive receptors and then the mitigation is general and non-specific and there is no demonstration that required "muffling" will reduce noise levels at sensitive receptor locations to the required standard.

This letter provides our comments based on our initial review of the lengthy IS/MND for this large and important project right next to our client's existing hospital and medical office facility. We anticipate engaging in discussions with various technical consultants to further evaluate the potential impacts of the Project and may submit additional comments as

the City continues its consideration of the proposed legislative and administrative entitlements required for the Project.

Please include the undersigned in all future public administrative notices pertaining to the Project. Thank you for your consideration of the foregoing comments.

Sincerely,

A handwritten signature in blue ink, appearing to read "D. P. Waite", is centered below the word "Sincerely,".

David P. Waite

105214\16940918v2

November 12, 2024

Dear Hanford Planning Team,

Adventist Health and the Hanford Place team have been able to meet and discuss the project. We are excited for the development and the enhancement of our community.

Please accept this letter as support of the project. We agree with the Construction Management Plan as previously shared (Exhibit 1) below.

Thank you for your partnership.

Jason Wells



President
Central California Network of Adventist Health

Exhibit 1:

Hanford Place
Construction Management Plan

1. Traffic management

- a. Road closures and lane reductions
 - i. Ensuring access of emergency service vehicles
 - ii. Maintain access to the Adventist Health points of access
- b. Haul Route
 - i. Specify both construction-related vehicle travel and oversize load haul routes, minimizing construction traffic during the AM and PM peak hour, distributing construction traffic flow across alternative routes to access the project site, and avoiding roadways accessing Adventist Health to the maximum extent feasible
- c. Institute construction work hours as necessary, such that the arrival and/or departure times of workers would be staggered as necessary.
- d. Timing of deliveries of heavy equipment and building materials
- e. Directing construction traffic with a flag person, if necessary
- f. Temporary signing, lighting, and traffic control devices if necessary

2. Dust management

- a. When grading is unavoidable, it should be phased and done with the application of approved chemical dust palliatives
- b. Use of dust suppression measures during road surface preparation activities, including grading and compaction
- c. Installation of wind barrier fencing or screening
- d. Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site
- e. All trucks hauling dirt, sand, soil, or other loose materials shall be covered or shall maintain at least 2 feet of freeboard

3. Noise

- a. Adherence to City-required construction hours

- b. Construction equipment shall be equipped with manufacturers approved mufflers and baffles
- c. Equipment staging shall be located in areas that will create the greatest distance between construction-related noise sources and Adventist Health to the extent practical
- d. All stationary construction equipment placed so that emitted noise is directed away from Adventist Health, where feasible

4. Aesthetics

- a. Maintenance and trash abatement
- b. Landscape revegetation and restoration

5. Point of contact for Adventist and construction management personnel if issues arise

From: [Rhett Swasey](#)
To: [Gabrielle Myers](#)
Cc: [lee Fausett](#); tcollier2022@gmail.com
Subject: Hanford Place Project
Date: Thursday, January 9, 2025 7:50:03 PM

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Gabrielle Myers
Senior Planner
Hanford Planning Commission

It was nice to briefly meet with you Tuesday and exchange contact information. Per that conversation I am sending this email to express concerns for the Hanford Place Project.

I am a partner in business at Hanford Veterinary Hospital and have interest in Funny Faces Bed and Biscuit boarding facility which are located adjacent to the proposed development. I am writing to express concern over the negative impacts that will be dealt to our businesses during the construction phase of the project.

We purchased the old Adventure Park in 2012 and began construction shortly after on our state of the art veterinary hospital and boarding facility. We moved in and have been at our current location since 2014. We feel we provide a necessary service to the City of Hanford and surrounding communities. We are happy and welcome the news that there are plans for the vacant area to our east and north, this area has been a problem for fires, homelessness and other undesirable problems associated with vacant land in our city limits.

We thought that at some point we may be approached and asked for input/ concerns about the planned development but as of the writing of this email we have not been contacted. We are aware that the authors of the proposed project are aware of the impact it will have on us, in fact we are mentioned in the Initial Study/ Mitigated Negative Declaration nine (9) times (pp. 21, 76, 116, 117, 127, 466, 477, 491, and 496). We would like to have some input into the redesign of Glendale Ave as it approaches from the west. We have a number of concerns.

1. Currently the schematics show the project taking a large part of the parking lot that services Funny Faces. It would also require moving major water lines and backflow preventers, signage, and landscaping.
2. We are concerned that the roadway will make it easy to speed in front of our property where pets are present.
3. The schematics show a divided roadway with no breaks or access in the middle median noted for entrance to Hanford Veterinary Hospital
4. We currently have a gate that is locked after hours at our property entrance on Glendale Ave. This added security and safety will need to be removed with a through roadway, but we would like something to replace it.
5. We currently have only 1 way in and out of our property via Glendale Ave. Any construction on this road would have a negative effect on access to our businesses.

We are happy for and welcome any improvements that are planned for the surrounding area but would request that we have a seat at the table concerning the above issues.

Rhett Swasey- DVM
Hanford Veterinary Hospital

cc- Lee Fausett and Tim Collier



**Planning Commission Regular Meeting
Minutes**

**January 14, 2025 5:30 PM
Council Chambers
400 N. Douty St.**

ROLL CALL:

Present:	Absent:
Planning Commissioner Dennis Ham Planning Commissioner Gunther Norris Planning Commissioner Garry Curtis Planning Commissioner Jim Nelson Planning Commissioner Richard Douglas	Planning Commissioner (Alternate) Bernard Marez

INVOCATION:

Diana Black led the invocation.

FLAG SALUTE:

Chair NORRIS led the flag salute.

PUBLIC COMMENT:

This is the time for citizens to comment on subject matters not on the agenda and that are within the jurisdiction of the Commission. This is also the public's opportunity to request an item from the Consent Calendar be pulled for discussion purposes or to comment on any item on the agenda. Comments related to Public Hearing items will be heard at the time the item is discussed. A maximum of three minutes is allowed for each speaker. Please begin your comments by stating your name and providing your city of residence.

There were no public comments.

ELECTION OF THE 2025 PLANNING COMMISSION CHAIR AND VICE-CHAIR:

Chair NORRIS called for nominations for 2025 Planning Commission Chair. Commissioner DOUGLAS nominated Commissioner HAM. There were no other nominations. Commissioner HAM was approved to be the 2025 Chair, by a unanimous roll call vote.

Chair NORRIS then called for nominations for 2025 Planning Commission Vice-Chair. Commissioner CURTIS nominated Commissioner DOUGLAS. There were no other nominations. Commissioner DOUGLAS was approved to be the 2025 Vice-Chair, by a unanimous roll call vote.

Commissioner NORRIS passed the gavel to Commissioner HAM, who chaired the remainder of the meeting.

CONSENT CALENDAR:

Consent Calendar items are considered routine and will be enacted in one motion. There will be no separate discussion of these matters unless a request is made and then the item will be removed from the Consent Calendar to be discussed

and voted upon by a separate motion.

There were no items.

PUBLIC HEARING:

- A. Community Development: Annexation 161: A request to annex 88.89 acres into the City of Hanford from the Kings County jurisdiction. Prezone No. 0005-23: A request to prezone the land proposed to be annexed as R-L-5 Low-Density Residential, in accordance with the General Plan designation for the territory, Low-Density Residential. Vesting Tentative Tract 943 (Silicon Valley Ranch): A request, by Marc Frelier, to subdivide 75.02 acres proposed to be prezoned R-L-5 Low-Density Residential into 326 single-family residential lots, a 3.58-acre park, and three-acre storm basin. Focused Environmental Impact Report (EIR) State Clearinghouse Number (SCH) 2024060956: A request to certify the Final Focused Environmental Impact Report for the project and adopt a Statement of Overriding Considerations for the project's significant impact to Transportation/Traffic. The Project is located south of Hanford Armona Road, between 12th and 13th Avenues (APN 011-040-008, -010, and -027).

Senior Planner Myers stated that, following publication of the staff report and related documents, it was recognized that there was a need to address some of the Conditions of Approval within the resolution and some items within the environmental document. Staff requested additional time to meet with the applicant and environmental consultant to work on these issues and bring back the item in two weeks, on January 28, 2025. She stated that continuing an item to a date certain does not require staff to re-notice the item.

Motion to Continue the Public Hearing to the regular scheduled January 28, 2025 meeting.

RESULT:	Passed (UNANIMOUS)
MOVER:	Planning Commissioner Garry Curtis
SECONDER:	Planning Commissioner Gunther Norris
AYES:	Dennis Ham, Gunther Norris, Garry Curtis, Jim Nelson, Richard Douglas

- B. Community Development: General Plan Amendment No. 2022-01: a request to change the general plan designation from Highway Commercial to Service Commercial and High-Density Residential on approximately 39.16 acres.

Rezone No. 2022-01: a request to change the zoning on 39.16 acres from C-H Highway Commercial to C-S Service Commercial and R-H High-Density Residential with a Planned Unit Development overlay.

Planned Unit Development No. 2022-01: a request to allow blended zoning for a master planned medical and mixed-use development, including the future construction of 15 buildings consisting of medical outpatient clinic services, a hotel and conference center, specialized education, retail, medical office, skilled nursing and assisted living, and multi-family residential uses, as well as a bio infiltration basin, associated open space, circulation and parking, and infrastructure improvements.

Mitigated Negative Declaration No. 2023-93: a request to certify that the project will have a less than significant impact with the incorporation of mitigation measures.

The project is located between 11th and 12th Avenues along Glendale Drive, north of

Highway 198 (APN 011-060-007, 011-060-008, 012-290-042, and 012-290-054).

Chair HAM opened the public hearing and called for the staff report. Senior Planner Myers presented the staff report, recommended approval of the project, and invited questions of staff. There were no questions.

Chair HAM opened Public Comment:

FAVOR

- Steve Brandt, with QK (engineers for the project), thanked City staff and encouraged approval of the project.
- Jennifer Sheldon, with Adventist Health, stated that they are in favor of the project.
- Rhett Swasey was in favor of this development of the property and expressed total support.

OPPOSED

NONE

Chair HAM closed Public Comment and invited questions from Commissioners. Commissioner CURTIS asked how long the project will take to complete, once it has begun. Senior Planner Myers replied that it would take approximately three years. Chair HAM asked if the Fire Department had any comments regarding the 3-story hotel with a garage below it, because of the high-pitched roof. Ms. Myers replied that Fire just had their regular comments (e.g., Knox boxes, fire sprinklers, turnarounds), but they did indicate project support.

Motion to recommend certification of Mitigated Negative Declaration No. 2023-93 for the project to the City Council.

RESULT: Passed (UNANIMOUS)
MOVER: Planning Commissioner Garry Curtis
SECONDER: Planning Commissioner Jim Nelson
AYES: Dennis Ham, Gunther Norris, Garry Curtis, Jim Nelson, Richard Douglas

Motion to adopt Resolution No. 2025-04, recommending approval of General Plan Amendment No. 2022-01 to the City Council.

RESULT: Passed (UNANIMOUS)
MOVER: Planning Commissioner Richard Douglas
SECONDER: Planning Commissioner Norris
AYES: Dennis Ham, Gunther Norris, Garry Curtis, Jim Nelson, Richard Douglas

Motion to adopt Resolution No. 2025-06, recommending approval of Rezone No. 2022-01 to the City Council.

RESULT: Passed (UNANIMOUS)
MOVER: Planning Commissioner Gunther Norris
SECONDER: Planning Commissioner Richard Douglas
AYES: Dennis Ham, Gunther Norris, Garry Curtis, Jim Nelson, Richard Douglas

Motion to adopt Resolution No. 2025-07, recommending approval of Planned Unit Development No. 2022-01 to the City Council.

RESULT: Passed (UNANIMOUS)
MOVER: Planning Commissioner Jim Nelson
SECONDER: Planning Commissioner Garry Curtis
AYES: Dennis Ham, Gunther Norris, Garry Curtis, Jim Nelson, Richard Douglas

DIRECTOR'S COMMENTS:

Director Waters reported that the City has been approved to receive two grants: one for \$1.6 million for evaluation and initial planning at Grangeville and the BSNF line, and one for \$15.5 million for a project involving the improvement connectivity and downtown alleys.

COMMISSIONERS' ITEMS OF INTEREST:

At this time, any Commissioner may ask a question for clarification of matters within the Planning Commission's jurisdiction, make an announcement, or report briefly on activities in their role as a Planning Commissioner. In addition, subject to the Planning Commissioner's Handbook, Commissioners may request staff to report back to the Planning Commission at a subsequent meeting concerning any matter within the Commissioner's jurisdiction (GC 54954.2).

Commissioner DOUGLAS congratulated Commissioner HAM on his election to 2025 Planning Commission Chair.

ADJOURNMENT:

Materials related to an item on this Agenda submitted to the Planning Commission after distribution of the agenda packet are available to public inspection in the Planning Division Office located at 317 N. Douty Street, Hanford, California 93230, during normal business hours. Such documents are also available at the city's website, www.cityofhanfordca.com subject to staff's ability to post documents before the meeting. If you need a disability-related modification or accommodation, including auxiliary aids or services, to participate in this meeting, please contact the Planning Division's office, 559-585-2580, 317 N. Douty Street, Hanford, California 93230, at least 2 days prior to the meeting {28 CFR 35.102.35.104 ADA Title II} APPEALS: Any action of the Planning Commission, which is a final project decision, may be appealed to the City Council by the applicant or any adversely affected person. To file an appeal, an appeal application and filing fee of \$1,100.00 must be submitted to the Community Development Department, 317 N. Douty Street, Hanford, California, within ten (10) days following the date of the final decision of the Planning Commission.

Chair HAM adjourned the meeting a 6:02 p.m.

Respectfully submitted,

Diana Black, Recording Secretary



AGENDA STAFF REPORT

MEETING DATE: 9/16/2025

AGENDA SECTION: PUBLIC HEARING

SUBJECT:

Public Hearing to Consider Approval of an Energy Services Contract with OPTERRA Energy Services for the Design and Construction of certain Energy Conservation-Related Improvements at the City of Hanford's Wastewater Treatment Facility's (WWTF) and Adoption of Necessary Findings under Government Code §4217 up to an estimated not to exceed fee amount of \$63,122,800

RECOMMENDATION:

Recommendation:

That the City Council:

1. Conduct a public hearing and adopt Resolution 25-54-R approving a contract with Opterra Energy Services (Opterra) in accordance with California Government Code 4217.10 through 4217.18 for the design and construction of energy-related improvements at the City's Wastewater Treatment Facility (WWTF), contingent upon negotiation of final fee and contract, passing Prop 218 rate increase, and acquiring funding;
2. Authorize the City Manager to execute a contract with Opterra for the combined Solar Photovoltaic and WWTF Energy-Related Improvement Project up to an estimated not to exceed fee amount of \$63,122,800 or alternative project as identified herein this report contingent upon negotiation of final fee and contract, passing Prop 218 rate increase, and acquiring funding;
3. Authorize Staff to issue a NTP to Opterra for the construction of the Solar Photovoltaic Facilities;
4. Authorize the City Manager to enter into a contract with Carollo Engineers for a not to exceed fee of \$2,691,390 for Plan Check, Construction Management and Inspection Services;
5. Direct Staff to return to City Council for approval of a funding plan at the completion of negotiating a final fee and contract.

Recommended Motion:

I move to:

1. Adopt Resolution 25-54-R to approve a contract with Opterra Energy Services in accordance with California Government Code 4217.10 through 4217.18 for the design and construction of energy-related improvements at the City's Wastewater Treatment Facility contingent upon negotiation of final fee and contract, passing Prop 218, and acquiring

funding;

2. Authorize the City Manager to execute the contract with Opterra for a combined Solar Photovoltaic and Wastewater Treatment Facility Energy-Related Improvement Project for an estimated fixed fee amount upto \$63,122,800 or alternative project identified herein this report contingent upon negotiation of final fee and the contract agreement, passing Prop 218, and acquiring funding;
3. Authorize Staff to issue a NTP to Opterra for the construction of the Solar Photovoltaic Facilities;
4. Authorize the City Manager to enter into a contract with Carollo Engineers for a not to exceed fee of \$2,691,390 for Owner Advisor, Plan Check, Construction Management and Inspection Services; and
5. Direct Staff to return to City Council for approval of a funding plan at the completion of negotiating a final fee and contract.

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BACKGROUND:

In the essence of time, Staff is seeking approval to issue a Notice To Proceed to OPTERRA to begin the construction of the Solar Project at the Wastewater Treatment Facility to meet SCE's NEM 2.0 April 14, 2026 deadline. Should a Prop 218 Rate Fee Increase for the Solar not pass, then funding for the Solar will be at the expense of other deferred Wastewater Capital Improvement Projects. If necessary, this public hearing will continue to allow staff to continue negotiations on a final price and contract language for the WWTF. The project is contingent on successfully passing Prop 218 Process, verification that rates may sustain costs for improvements and securing financing for the Project once a final cost and contract terms on the WWTF has been agreed upon.

For the past several years, Staff has been working with Engie Energy Services, now OPTERRA, on a potential project to increase energy efficiencies at the WWTF. The WWTF is the City's single largest energy user (The City spent \$780,985 for electricity in Fiscal Year 2024/2025.), relying on aging trickling filter technology that is inefficient and past its useful service life. With energy costs continuously on the rise, Opterra has proposed a suite of Energy Conservation Measures (ECMs) designed to reduce energy consumption, improve process reliability, and restore the WWTP's treatment capacity. Therefore, OPTERRA is proposing the City enter into an Energy Services Contract that will include the design and construction of projects identified herein, anticipated savings based on the pro forma provided, and a firm fixed price for project implementation.

OPTERRA has assessed the City facility, reviewed energy bills in detail, and conducted a competitive bidding process to determine pricing for a range of energy cost savings measures that are identified in greater detail below and in the attached Scope of Work. OPTERRA will design and build the proposed energy measures for a firm fixed price, and maintain the solar installations and conditionally guarantee their production for 25 years, as well as provide a conditional guarantee of energy savings for the additional energy measures.

California Public Resource Code 25008; California Government Code Chapter 3.2 Energy Savings Contracts, Section 4217.10-4217.18 was enacted to facilitate energy conservation in public agencies by allowing public agencies to sole source design-build energy projects, rather than going through an RFP for a design contract, then solicit bids for a construction contract. The design-build approach enables OPTERRA to conditionally guarantee the financial performance of the project such that should there be a shortfall of energy savings that is not exempted from the guarantee, OPTERRA would be contractually required to write the City a check for the difference.

The required Public Hearing notification for tonight's recommended approval action was posted by

the City Clerk in accordance with California Government Code 4217.12.

The City needs to make certain findings with respect to the contracts being entered into. These are the applicable findings required by Government Code Sections 4217.12 and 4217.13, under which the City Council must find that the Energy Service Contract and its related financing are:

1. In the best interest of the City;
2. The anticipated cost to the City for the electrical energy or conservation services provided by the energy conservation facility (the Equipment) under the Energy Services Contract will be less than the anticipated marginal cost to the City of electrical that would have been consumed by the City in the absence of the purchase of the Equipment;
3. Funds for the repayment of the financing or the cost of design, construction, and operation of the energy conservation facility (i.e. Equipment), or both, as required by the Energy Services Contract, are projected to be available from revenues resulting from sales of electricity energy from the facility or from funding that otherwise would have been used for purchase of electrical energy required by the City in the absence of the energy conservation facility, or both.

The City of Hanford City Council previously authorized staff to advance purchase the Electrical Switchgear that will be needed at the proposed Solar Photovoltaic Project located at the City's Wastewater Treatment Facility from OneSource Distributors of Fresno, CA in the amount of \$130,528.85. That switch gear is currently being manufactured and set to be delivered January 2026. The advance purchase was authorized due to SCE's NEM 2.0 deadline to complete the Solar PV System by April 14, 2026.

City Council also authorized staff to commence negotiations on a sole-source agreement with Engie (Opterra) for the design and construction of a Solar Photovoltaic Project and Energy-Related Upgrades at the Wastewater Treatment Facility at the October 1, 2024 meeting. The project Energy Conservation Measures (ECMs) or scope includes:

1. A 845 kW Solar Photovoltaic System – Installation of a fixed-tilt, ground-mounted solar array to offset WWTP electrical demand and provide long-term utility cost savings;
2. Retrofit of Existing Oxidation Ditch – Mechanical and process upgrades to increase the rated capacity of the existing Oxidation Ditch Processing Unit to a true 4.0 million gallons per day (MGD);
3. Construction of a New Oxidation Ditch – A parallel process unit that will provide a 4.0 MGD of treatment capacity, replacing the trickling filter processing plant, ensuring redundancy, operational and energy efficiency;
4. New Secondary Clarifier (85-foot diameter) – Enhanced solids separation and improved effluent quality to accommodate higher flow processing as a result of decommissioning the Trickling Filter processing unit;
5. Decommissioning of the Trickling Filter Plant – Removal of the outdated trickling filter system, which consumes substantial electrical power and produces inconsistent effluent quality; and
6. Additional Miscellaneous Facility Improvements – New RAS/WAS pumping systems, chemical storage and treatment systems, and modern instrumentation and controls to optimize process reliability and reduce operational costs.

In sum, the above ECMs provide measurable benefits through reduced electrical consumption, operational costs savings, and deferred capital expenses. The noted ECMs are necessary to

replace diminished or worn-out infrastructure that require continual maintenance, capital investment, or repair to stay operational. They are included in the scope of work to take advantage of the financing opportunity and included as a design-build project.

Opterra submitted a fixed fee proposal of \$63,122,800 for the project and is broken down as follows:

Solar	\$2,974,520
WWTF	\$53,848,280
Additional Clarifier	<u>\$6,300,000</u>
<u>Opterra's proposed Fee:</u>	\$63,122,800

Analysis:

In order to evaluate the proposed project, the City engaged with the Cumming Group to assist Staff in its evaluation of both the Solar and WWTF projects. Cumming Group is a recognized leader in energy efficiency, renewable energy, sustainability planning, and climate mitigation services. Their team is deeply familiar with energy projects, and have supported multiple public agencies through independent energy project reviews. This has included the analysis of over 100 MW renewable energy projects and \$300M million worth of energy efficiency and conservation measures implemented for clients including design and construction management.

The Cumming Group was tasked to evaluate Opterra's proposed project in terms of Contract Review and Risk Assessment, Financial Analysis, and Develop a Concept Level Project Estimate for both the Solar and WWTF.

1. Solar - Cummings found that the City would benefit from the addition of a Solar PV system at the Treatment Plant. The cost for the Solar System (\$2,974,520) was determined reasonable as Opterra's fee is priced at \$4.85/Watt which was determined about 25% lower than the \$6.50/Watt current market price. Though Cumming noted that Opterra utility cost savings analysis assumed a 6% utility cost escalation factor, which appears overstated when the historical average for California is 4.06%. However, the city has averaged 7.6% annual increases based on historical billing. The attached per forma is based on a conservative 6% average annual increase.
2. WWTF – Cummings cost analysis of Opterra's direct cost for construction (\$31,851,627) was within 3% noting that Opterra's fee likely included a inflationary multiplier (project will have an approximate 2-year timeline). Opterra's engineering fees (\$5,964,829) were also found to be similar in value and in line with industry standards. Therefore, construction and engineering costs were considered reasonable. However, Overhead and Profit percentage or costs were identified by both Cummings and Staff as being above market norms and adding to a higher overall project cost. Negotiations between the City and Opterra were narrowed down to resolve costs entailing overhead and profit. Note that when Staff projected its estimate for the complete project (\$48M) to account for inflation, it met Opterra's overall project cost in year three.
3. Comments to the agreement were provided by both Cumming, Staff, and Carollo. Comments were sent to Opterra for review and are still in negotiation.
4. A second Clarifier: At the time of the writing of this report, it was recommended that the project include a second Clarifier. The cost for a second clarifier was not included in the original scope of work and/or fee proposal. The clarifier is recommended to meet the plant's calculated hydraulic requirements, duration for biological processing, and to minimize sludge accumulation and handling, and potential odor issues. The risks for not including this second clarifier are:

- a. The added clarifier is needed as during peak wet weather events there is a much greater chance that the higher flow going through the clarifiers doesn't provide enough time to settle out and solids will end up in the effluent. This could result in a violation of a discharge permit for total suspended solids (higher concentration of solids).
- b. It will then disrupt the chlorine disinfection process and require a much higher dose or not be able to meet disinfection requirements.
- c. Furthermore, washing out the solids from the clarifier could cause a process upset in the oxidation ditches by losing biomass inventory, resulting in weeks to regain normal processing (overflow condition).

The cost for the second clarifier should not fall entirely on current rate payers as a portion of the clarifier should be paid through impact fees. The split was determined to be approximately 50% to 75% covered using Impact Fees

Further, Opterra is continuing to develop a cost estimate for the second clarifier and associated soft costs. Opterra did submit a not to exceed fee of \$6.3M for the second clarifier and is reflected in the contract amount above. Final cost on the WWTF is still being negotiated.

5. Government Code 4217 Government Code Section 4217 authorizes local governments to enter into energy contracts on terms that are found to be "in the best interests" of the agency, "notwithstanding any other provision of law." In essence, this law allows a city to single-source an energy contract so long as the anticipated cost for the energy project or efficiency services are less than the anticipated energy cost savings to be derived from those services. There must a public noticed hearing with the notice being provided at least two weeks in advance. There must be findings made on the record.

Thus, if the governing body finds that funds for the repayment of the financing or the cost of design, construction, and operation of the energy conservation facility, or both, as required by the contract, are projected to be available from revenues resulting from sales of electricity from the facility or from funding that otherwise would have been used for purchase of electrical, thermal, or other energy required by the public agency in the absence of the energy conservation facility, or both.

The Finding is demonstrated as follows based on the attached pro forma:

Total Energy Savings.....	\$122,291,074
Total Project Costs.....	\$ 121,801,525

The above reflects the inclusion of the second clarifier savings is based over a 35-year period and is comprised of energy savings accomplished through the use of solar energy, efficiencies created through upgrade in equipment, elimination in natural gas consumption, and savings in Operations and Maintenance (see attached Pro Forma for Combined Solar and WWTF).

Therefore, based on the above criteria, Government Code 427 is satisfied allowing the City to award the project to Opterra.

By entering into a contract with Opterra to design and build the above ECMs, the City will achieve a "turn-key" approach to energy savings. Due to the complexity and criticalness of the project, taking a pay-as-you go approach would not only extend the timeline to complete the project, but there is a risk of adding capital investment into the already tired trickling filter having diminished plant capacity. Staff has spent a considerable amount of time analyzing Opterra's proposal and based

on the above information, recommends the City Council award a contract in the estimated amount of \$63,122,800 to Opterra contingent upon successfully passing a Prop 218 Process and acquiring funding. Funding will need to be acquired quickly due to volatile market conditions/fluctuating prices.

The attached draft contract is still undergoing negotiations between Opterra and City Staff. Feedback has been received from Cumming Group and Carollo Engineers. The contract includes provisions for the responsibilities of engineering and construction, design risk, itemization of scope, etc. In addition, the contract includes terms outlining energy measurement and verification services to determine electrical energy cost savings, which establish a Guaranteed Energy Savings, which Opterra will pay the City for any measurement period in which there is a guarantee shortfall.

Carollo Engineers:

This Report also recommends a sole source award for professional services to Carollo Engineers Inc, as Owner’s Advisor and construction management services. To protect the City's interests and ensure the technical robustness of the project, it is essential to retain a highly qualified engineering firm to serve as the City’s Owner’s Advisor. Carollo will play a key role in reviewing the Basis of Design developed by Opterra and ensuing plans and specifications. Carollo will also serve as the Owner’s Advisor during construction to ensure Quality Assurance, and to monitor startup and testing of the new facilities. Fees for Carollo total \$2,691,690 and is based on time and material expended on the project. Fees are for performing the following tasks:

Project Management	\$150,085
Plan Check	\$640,621
Construction Management/Inspection:	\$1,900,684
Total	\$2,691,390

This does not include the optional inspection line item included in Carollo's fee as Opterra will be responsible to ensure Quality Assurance and Control. Construction Fees/Inspection are based on a two-year construction period.

Justification for sole-source include:

- 1. Unique Expertise and Continuity
 - 1. Carollo Engineers has been directly engaged in the development of the Scope of Work in a Owner’s Advisor role. They possess detailed, project-specific knowledge of Hanford’s WWTF processes, capacity limitations, and design constraints.
 - 2. Carollo’s calibrated biological process models and technical analyses form the foundation of Opterra’s design approach. Transitioning to another consultant would require duplicative effort, introduce delays, and risk inconsistencies in design review and oversight.
- 2. Specialized Technical Services
 - a. Carollo’s scope includes comprehensive services: Review of the Preliminary Design Report, DB contract technical review, progressive design reviews (30%, 60%, 90%), construction management, and project closeout support.
 - b. These tasks require not only wastewater engineering expertise, but also intimate knowledge of DB contract provisions and Hanford’s facility-specific needs.
- 3. Schedule and Funding Sensitivity

- a. The project is time-sensitive due to NEM funding eligibility tied to solar expansion and replacement of energy-intensive facilities. Delays from onboarding a new consultant would jeopardize project delivery
- 4. Demonstrated Capability
 - a. Carollo is a nationally recognized leader in wastewater treatment planning, design, and construction oversight. Their team includes specialists in process modeling, electrical and instrumentation, civil, structural, and construction management; all of which are explicitly required under the attached scope and fee
- 5. Cost Reasonableness and Efficiency
 - a. Carollo Engineers has submitted a time-and-materials fee proposal totaling **\$2,691,390** (Exhibit D) approximately 4% of the project cost. The scope and fee align with industry standards for multi-year design-build advisory and construction management services of comparable size and complexity.
 - b. Awarding this task to a new firm would require redevelopment of hydraulic models and extensive coordination, leading to additional costs and inefficiencies. Sole sourcing to Carollo leverages existing work, avoids redundancy, and accelerates project completion.

Based on Carollo Engineers' prior involvement, unique technical qualifications, and the urgency of the WWTP Improvements Project, it is in the City's best interest to proceed with a sole source contract award. Their continued engagement ensures continuity, minimizes risk, and supports the timely delivery of this critical infrastructure project.

Carollo Engineers authored the "*FY 2000 Engineering Report for the WWTF*" and designed the "*FY 2001 WWTF Expansion Project*" that constructed the plant to its current configuration. Opterra's proposed improvements are upgrades and an extension of Carollo's design. To date, Carollo has been instrumental in the development of the proposed improvements and preliminary project estimate.

Project Timeline:

The project's estimated timeline is as follows:

Contract Administration

(Project Funding, Prop 218)	Rates go into effect; January 2026
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Solar

Design	currently underway (at-risk)
Construction Deadline	April 14, 2026

WWTF

Design	9-months
Construction	24-months
Project completion	2028

FISCAL IMPACT: 2025 Rate Proposal (deferred maintenance, development projects, solar, WWTP expansion, 2nd clarifier)

Staff received the below fee and cost breakdown from Opterra:

Solar

Program Development	\$58,000
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Engineering	\$120,000
Construction	\$2,342,780
Overhead	\$252,078
Profit	<u>\$201,662</u>
Solar Generation Total	\$2,974,520

Wastewater Improvements

Program Development	\$547,000
Engineering	\$5,964,829
Construction	\$32,495,109
Overhead	\$4,563,416
Profit	<u>\$3,650,733</u>
Wastewater Sub-Total	\$53,848,280
Second Clarifier (Not-to-Exceed Cost)	\$6,300,000
Wastewater Total	\$63,122,800

Total Opterra Fee \$63,122,800*

*The final cost and amount to be included in Opterra's contract is still being negotiated.

The project's itemized budget summary therefore is as follows:

Project Cost (Opterra)	\$56,822,800
City contribution from existing Rate Increase	(\$2,000,000)
Construction period Solar Savings	(\$307,956)
Financing cost	\$300,000
Construction Period Interest	\$4,977,302
City Contingency	\$2,500,000
Plan Check Fees/Construction Mgmt (Carollo)	\$2,691,390
Additional Clarifier (budget not to exceed price	\$6,300,000
<u>Amount to be Financed:</u>	<u>\$71,283,836</u>

Staff has begun discussing financing scenarios with both Lechowich and Teng (L&T) and NHA Advisors. L&T has started work on the Sewer Rate Study Update that will update the cost of services to fund the forementioned sewer capital improvements and following approval of the contract will start with Prop 218 Public Notices.

To accomplish financing and to provide assistance regarding financing feasibility, estimated costs of borrowing and debt service, NHA Advisors has begun reviewing the project's financial pro forma. NHA will analyze the costs and benefits of a public bond offering. Per the contract with Opterra, the City has 120-days to complete financing for the project.

Staff will be recommending a finance plan to City Council at a later date, following the Prop 218 Public Hearing.

For purposes of estimating the proposed financial liability, if the project is approved, the estimated debt service payments of approximately \$4.5M depending on financing term and interest rate obtained. This is based on the \$71.2M estimated amount to be financed.

Current Revenue for Wastewater Capital Improvement Projects is insufficient to fund the project's "*amount to be financed*", noted above, in addition to the recently adopted Wastewater Capital Improvement Projects. It is estimated that sewer rates would need to be increased approximately as shown:

2025 Estimated Rate Proposal (Deferred Maintenance, Development Projects,Solar, and WWTF):

	2023/24	2024/25	Jul 1 2025	Jan 1, 2026	2026/27	2027/28	2028/29	2029/30
% Increases	35.0%	12.0%	12%	25%	25%	10%	5%	5%
Single Family Rate	\$24.67	\$27.63	\$30.95	\$38.69	\$48.36	\$53.20	\$55.86	\$58.65

2025 Estimated Rate Proposal (deferred maintenance, development projects, solar, WWTP expansion, 2nd clarifier):

	2023/24	2024/25	Jul 1, 2025	Jan 1, 2026	2026/27	2027/28	2028/29	2029/30
% Increases	35.0%	12.0%	12%	28%	25%	10%	5%	5%
Single Family Rate	\$24.67	\$27.63	\$30.95	\$39.62	\$49.53	\$54.48	\$57.20	\$60.06

2025 Estimated Rate Proposal (Deferred Maintenance, Development Projects,Solar, and No WWTF):

	2023/24	2024/25	Jul 1, 2025	Jan 1, 2026	2026/27	2027/28	2028/29	2029/30
% Increases	35.0%	12.0%	12%	12%	12%	12%	5%	5%
Single Family Rate	\$24.67	\$27.63	\$30.95	\$34.66	\$38.82	\$43.48	\$45.65	\$47.93

The following alternatives are available to the City Council:

1. Adopt the attached Resolution approving staff to move forward with a contract with Opterra Energy Services contingent upon final fee, passing Prop 218, and acquiring funding **(\$63,122,800)**
2. Or, Provide Staff with direction regarding an alternative project:
 - A. Project without Recommended Additional Clarifier **(\$56,822,800)**, or
 - B. Solar only Project with no WWTF Improvements **(\$3,680,000)** - includes \$705,480 increase if a stand-alone (still below Cumming Group's \$6.50 per watt average database)

Next Steps:

The next steps for consideration by City Council:

1. Following approval of Opterra's Final Fe and contract, Prop 218 Sewer Fee Update Notices will be mailed followed by a Public Hearing approximately 46-days later. Rates go into effect early 2026.
2. Staff returns to Council for approval of financing of the project following the Prop 218 public hearing to include anticipated interest rate and terms.

ATTACHMENTS:

1. Resolution 25-54-R

2. Preliminary Cash Flow Analysis
3. Preliminary Cash Flow Analysis (2)
4. City of Hanford Phase 3 solar only project
5. Project Price Sheet
6. Wastewater Treatment Plant Improvements Owner's Advisor Scope of Work- Carollos Engineers, Inc.

RESOLUTION NO. 25-54-R

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF HANFORD APPROVING
A CONTRACT WITH OPTERRA ENERGY SERVICES FOR THE DESIGN AND
CONSTRUCTION OF ENERGY-RELATED IMPROVEMENTS AT THE CITY'S
WASTEWATER TREATMENT FACILITY**

WHEREAS, the City Council of the City of Hanford has been a leader in the promotion and implementation of energy efficiency programs; and

WHEREAS, California Government Code Sections 4217.10 through 4217.18, authorize the City Council to enter into an energy service contract for the implementation of energy related improvements if the City Council finds that it is in the best interest of the City to enter into such energy service contract and that the anticipated cost to the City for electrical energy or conservation services provided by the energy conservation facility under the contract will be less than the anticipated marginal cost to the City of electrical, or other energy that would have been consumed by the City in the absence of those purchases; and

WHEREAS, the cost to the City for the energy service contract by and between the City and Opterra Energy Services for the implementation of certain energy measures for thermal or electrical energy or conservation services will be less than the anticipated marginal cost to the City of electrical, or other energy that would have been consumed by the City in the absence of the implementation of the improvements under the energy service contract.

WHEREAS, based upon the reports, analysis and presentations by ESCO and City staff, the City Council finds and determines that it is in the best interest of the City to enter into a contract with Opterra Energy Services for the proposed projects.

**NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF HANFORD DOES
HEREBY RESOLVE AS FOLLOWS:**

SECTION 1. Findings. The City Council finds that (1) it is in the best interest of the City of Hanford to enter into an energy service contract with Opterra Energy Services for the implementation of certain energy related improvements to City facilities, and (2) the anticipated cost to the City for electrical energy or conservation services provided by the energy conservation facility under the contract will be less than the anticipated marginal cost to the City

of electrical, or other energy that would have been consumed by the City in the absence of those purchases.

SECTION 2. *Approval of Documents.* The City Council hereby approves the energy service contract, attached as Exhibit A, by and between the City and Opterra Energy Services for the implementation of certain energy related improvements to City facilities in accordance with these findings and California Government Code Sections 4217.10 through 4217.18.

SECTION 3. *Other Actions Authorized.* The City Council hereby authorizes the City Manager to execute the energy service contract by and between the City and Opterra Energy Services

SECTION 4. *Other Actions Authorized.* The City Manager is authorized to make modifications to the proposed improvements under consideration by the contract with Opterra Energy Services and/or his designee is authorized to approve changes to the project within the project budget as required to complete the proposed improvements within Council-approved budgetary authority.

SECTION 5. The City Clerk shall certify the adoption of this resolution and shall cause a certified resolution to be filed in the Office of the City Clerk.

PASSED and ADOPTED at a regular meeting of the City Council of the City of Hanford duly called and held on the 16th day of September 2025, by the following vote:.

AYES: _____

NOES: _____

ABSTAIN: _____

ABSENT: _____

TRAVIS PADEN
MAYOR of the City of Hanford

Attest:

NATALIE CORRAL
CITY CLERK

STATE OF CALIFORNIA)
COUNTY OF KINGS) ss
CITY OF HANFORD)

I, Natalie Corral, City Clerk of the City of Hanford, do hereby certify the foregoing Resolution was duly passed and adopted at a regular meeting of the City Council of the City of Hanford held on the _____ day of _____, 2025.

Date: _____

City Clerk

City of Hanford WWTP Upgrade Project													
Preliminary Cash Flow Analysis													
Project Cost													\$56,822,800
City Contribution from Existing Rate Increase													-\$2,000,000
Construction Period Solar Savings													-\$307,956
Financing Cost													\$300,000
Construction Period Interest													\$4,977,302
City Contingency													\$2,500,000
City Plan Check, CM/Inpsection													\$2,691,390
Additional Secondary Calrifier, budget price not-to-exceed													\$6,300,000
Amount to be Financed													\$71,283,536
Finance Term in Years (2 Years of Construction + 27 Years of Repayment)													29
Estimated Annual Interest Rate													4.15%
Annual Escalation of Electricity Cost													6.00%
Annual Escalation of Natural Gas Cost													5.00%
Annual Escalation of O&M Cost													5.00%
Annual Escalation of Solar Maintenance Cost													5.00%
Annual Degradation of Solar Panels													0.50%
Year	Solar Energy Savings	Energy Efficiency Savings	Natural Gas Savings	WWTP O&M Savings	CIP Budget	Proposed Rate Increase	Inflation Reduction Act Direct Payment	Total Program Savings	Lease Payment	Solar Inverter Replacement	Solar Operations & Maintenance Cost	Total Program Costs	Net Savings
Year 1	\$218,348	\$611,585	\$20,031	\$438,547	\$0	\$1,000,000	\$758,503	\$3,047,014	\$4,439,040		\$24,577	\$4,463,617	-\$1,416,604
Year 2	\$230,292	\$648,280	\$21,033	\$460,474	\$0	\$1,000,000	\$0	\$2,360,079	\$4,439,040		\$25,806	\$4,464,846	-\$2,104,767
Year 3	\$242,889	\$687,177	\$22,085	\$483,498	\$0	\$1,000,000	\$0	\$2,435,648	\$4,439,040		\$27,096	\$4,466,137	-\$2,030,489
Year 4	\$256,175	\$728,407	\$23,189	\$507,673	\$0	\$1,000,000	\$0	\$2,515,444	\$4,439,040		\$28,451	\$4,467,491	-\$1,952,048
Year 5	\$270,188	\$772,112	\$24,348	\$533,056	\$0	\$1,000,000	\$0	\$2,599,704	\$4,439,040		\$29,873	\$4,468,914	-\$1,869,210
Year 6	\$284,967	\$818,438	\$25,566	\$559,709	\$0	\$1,000,000	\$0	\$2,688,680	\$4,439,040		\$31,367	\$4,470,408	-\$1,781,727
Year 7	\$300,555	\$867,545	\$26,844	\$587,695	\$0	\$1,000,000	\$0	\$2,782,638	\$4,439,040		\$32,936	\$4,471,976	-\$1,689,338
Year 8	\$316,995	\$919,597	\$28,186	\$617,079	\$0	\$1,000,000	\$0	\$2,881,858	\$4,439,040		\$34,582	\$4,473,623	-\$1,591,765
Year 9	\$334,335	\$974,773	\$29,596	\$647,933	\$0	\$1,000,000	\$0	\$2,986,637	\$4,439,040		\$36,311	\$4,475,352	-\$1,488,715
Year 10	\$352,623	\$1,033,260	\$31,075	\$680,330	\$0	\$1,000,000	\$0	\$3,097,288	\$4,439,040		\$38,127	\$4,477,167	-\$1,379,880
Year 11	\$371,911	\$1,095,255	\$32,629	\$714,347	\$0	\$1,000,000	\$0	\$3,214,142	\$4,439,040	\$119,465	\$40,033	\$4,598,539	-\$1,384,397
Year 12	\$392,255	\$1,160,971	\$34,261	\$750,064	\$0	\$1,000,000	\$0	\$3,337,550	\$4,439,040		\$42,035	\$4,481,075	-\$1,143,526
Year 13	\$413,711	\$1,230,629	\$35,974	\$787,567	\$0	\$1,000,000	\$0	\$3,467,880	\$4,439,040		\$44,137	\$4,483,177	-\$1,015,297
Year 14	\$436,341	\$1,304,467	\$37,772	\$826,945	\$0	\$1,000,000	\$0	\$3,605,525	\$4,439,040		\$46,344	\$4,485,384	-\$879,859
Year 15	\$460,209	\$1,382,735	\$39,661	\$868,293	\$0	\$1,000,000	\$0	\$3,750,897	\$4,439,040		\$48,661	\$4,487,701	-\$736,804
Year 16	\$485,382	\$1,465,699	\$41,644	\$911,707	\$0	\$1,000,000	\$0	\$3,904,432	\$4,439,040		\$51,094	\$4,490,134	-\$585,702
Year 17	\$511,933	\$1,553,641	\$43,726	\$957,293	\$0	\$1,000,000	\$0	\$4,066,592	\$4,439,040		\$53,649	\$4,492,689	-\$426,097
Year 18	\$539,935	\$1,646,859	\$45,912	\$1,005,157	\$0	\$1,000,000	\$0	\$4,237,864	\$4,439,040		\$56,331	\$4,495,371	-\$257,507
Year 19	\$569,470	\$1,745,671	\$48,208	\$1,055,415	\$0	\$1,000,000	\$0	\$4,418,764	\$4,439,040		\$59,147	\$4,498,188	-\$79,424
Year 20	\$600,620	\$1,850,411	\$50,618	\$1,108,186	\$0	\$1,000,000	\$0	\$4,609,835	\$4,439,040		\$62,105	\$4,501,145	\$108,690
Year 21	\$399,089	\$1,961,435	\$53,149	\$1,163,595	\$0	\$1,000,000	\$0	\$4,577,268	\$4,439,040	\$194,596	\$65,210	\$4,698,847	-\$121,578
Year 22	\$420,919	\$2,079,122	\$55,807	\$1,221,775	\$0	\$1,000,000	\$0	\$4,777,622	\$4,439,040		\$68,471	\$4,507,511	\$270,111
Year 23	\$443,943	\$2,203,869	\$58,597	\$1,282,864	\$0	\$1,000,000	\$0	\$4,989,273	\$4,439,040		\$71,894	\$4,510,935	\$478,338
Year 24	\$468,227	\$2,336,101	\$61,527	\$1,347,007	\$0	\$1,000,000	\$0	\$5,212,861	\$4,439,040		\$75,489	\$4,514,529	\$698,332
Year 25	\$493,839	\$2,476,267	\$64,603	\$1,414,357	\$0	\$1,000,000	\$0	\$5,449,066	\$4,439,040		\$79,263	\$4,518,304	\$930,762
Year 26	\$520,852	\$2,624,843	\$67,834	\$1,485,075	\$0	\$1,000,000	\$0	\$5,698,603	\$4,439,040		\$83,226	\$4,522,267	\$1,176,336
Year 27	\$549,342	\$2,782,334	\$71,225	\$1,559,329	\$0	\$1,000,000	\$0	\$5,962,230	\$4,439,040		\$87,388	\$4,526,428	\$1,435,802
Year 28	\$579,391	\$2,949,274	\$74,786	\$1,637,295	\$0	\$0	\$0	\$5,240,747	\$0		\$91,757	\$91,757	\$5,148,989
Year 29	\$611,084	\$3,126,230	\$78,526	\$1,719,160	\$0	\$0	\$0	\$5,535,000	\$0		\$96,345	\$96,345	\$5,438,655
Year 30	\$644,510	\$3,313,804	\$82,452	\$1,805,118	\$0	\$0	\$0	\$5,845,884	\$0		\$101,162	\$101,162	\$5,744,722
Year 31	\$0	\$3,512,632	\$86,575	\$1,895,374	\$0	\$0	\$0	\$5,494,581	\$0		\$0	\$0	\$5,494,581
Year 32	\$0	\$3,723,390	\$90,903	\$1,990,143	\$0	\$0	\$0	\$5,804,436	\$0		\$0	\$0	\$5,804,436
Year 33	\$0	\$3,946,793	\$95,449	\$2,089,650	\$0	\$0	\$0	\$6,131,892	\$0		\$0	\$0	\$6,131,892
Year 34	\$0	\$4,183,601	\$100,221	\$2,194,132	\$0	\$0	\$0	\$6,477,954	\$0		\$0	\$0	\$6,477,954
Year 35	\$0	\$4,434,617	\$105,232	\$2,303,839	\$0	\$0	\$0	\$6,843,688	\$0		\$0	\$0	\$6,843,688
Totals	\$12,720,327	\$68,151,821	\$1,809,244	\$39,609,682	\$0	\$27,000,000	\$758,503	\$150,049,576	\$119,854,093		\$1,632,868	\$121,801,021	\$28,248,555

City of Hanford WWTP Upgrade Project													
Preliminary Cash Flow Analysis													
Project Cost													\$56,822,800
City Contribution from Existing Rate Increase													-\$2,000,000
Construction Period Solar Savings													-\$307,956
Financing Cost													\$300,000
Construction Period Interest													\$4,977,302
City Contingency													\$2,500,000
City Plan Check, CM/Inspection Cost													\$2,691,390
Amount to be Financed													\$64,983,536
Finance Term in Years (2 Years of Construction + 27 Years of Repayment)													29
Estimated Annual Interest Rate													4.15%
Annual Escalation of Electricity Cost													6.00%
Annual Escalation of Natural Gas Cost													5.00%
Annual Escalation of O&M Cost													5.00%
Annual Escalation of Solar Maintenance Cost													5.00%
Annual Degradation of Solar Panels													0.50%
Year	Solar Energy Savings	Energy Efficiency Savings	Natural Gas Savings	WWTP O&M Savings	CIP Budget	Proposed Rate Increase	Inflation Reduction Act Direct Payment	Total Program Savings	Lease Payment	Solar Inverter Replacement	Solar Operations & Maintenance Cost	Total Program Costs	Net Savings
Year 1	\$218,348	\$611,585	\$20,031	\$438,547	\$0	\$1,000,000	\$758,503	\$3,047,014	\$4,046,720		\$24,577	\$4,071,297	-\$1,024,284
Year 2	\$230,292	\$648,280	\$21,033	\$460,474	\$0	\$1,000,000	\$0	\$2,360,079	\$4,046,720		\$25,806	\$4,072,526	-\$1,712,447
Year 3	\$242,889	\$687,177	\$22,085	\$483,498	\$0	\$1,000,000	\$0	\$2,435,648	\$4,046,720		\$27,096	\$4,073,817	-\$1,638,169
Year 4	\$256,175	\$728,407	\$23,189	\$507,673	\$0	\$1,000,000	\$0	\$2,515,444	\$4,046,720		\$28,451	\$4,075,171	-\$1,559,728
Year 5	\$270,188	\$772,112	\$24,348	\$533,056	\$0	\$1,000,000	\$0	\$2,599,704	\$4,046,720		\$29,873	\$4,076,594	-\$1,476,890
Year 6	\$284,967	\$818,438	\$25,566	\$559,709	\$0	\$1,000,000	\$0	\$2,688,680	\$4,046,720		\$31,367	\$4,078,088	-\$1,389,407
Year 7	\$300,555	\$867,545	\$26,844	\$587,695	\$0	\$1,000,000	\$0	\$2,782,638	\$4,046,720		\$32,936	\$4,079,656	-\$1,297,018
Year 8	\$316,995	\$919,597	\$28,186	\$617,079	\$0	\$1,000,000	\$0	\$2,881,858	\$4,046,720		\$34,582	\$4,081,303	-\$1,199,445
Year 9	\$334,335	\$974,773	\$29,596	\$647,933	\$0	\$1,000,000	\$0	\$2,986,637	\$4,046,720		\$36,311	\$4,083,032	-\$1,096,395
Year 10	\$352,623	\$1,033,260	\$31,075	\$680,330	\$0	\$1,000,000	\$0	\$3,097,288	\$4,046,720		\$38,127	\$4,084,847	-\$987,560
Year 11	\$371,911	\$1,095,255	\$32,629	\$714,347	\$0	\$1,000,000	\$0	\$3,214,142	\$4,046,720	\$119,465	\$40,033	\$4,206,219	-\$992,077
Year 12	\$392,255	\$1,160,971	\$34,261	\$750,064	\$0	\$1,000,000	\$0	\$3,337,550	\$4,046,720		\$42,035	\$4,088,756	-\$751,206
Year 13	\$413,711	\$1,230,629	\$35,974	\$787,567	\$0	\$1,000,000	\$0	\$3,467,880	\$4,046,720		\$44,137	\$4,090,857	-\$622,977
Year 14	\$436,341	\$1,304,467	\$37,772	\$826,945	\$0	\$1,000,000	\$0	\$3,605,525	\$4,046,720		\$46,344	\$4,093,064	-\$487,539
Year 15	\$460,209	\$1,382,735	\$39,661	\$868,293	\$0	\$1,000,000	\$0	\$3,750,897	\$4,046,720		\$48,661	\$4,095,381	-\$344,484
Year 16	\$485,382	\$1,465,699	\$41,644	\$911,707	\$0	\$1,000,000	\$0	\$3,904,432	\$4,046,720		\$51,094	\$4,097,814	-\$193,382
Year 17	\$511,933	\$1,553,641	\$43,726	\$957,293	\$0	\$1,000,000	\$0	\$4,066,592	\$4,046,720		\$53,649	\$4,100,369	-\$33,777
Year 18	\$539,935	\$1,646,859	\$45,912	\$1,005,157	\$0	\$1,000,000	\$0	\$4,237,864	\$4,046,720		\$56,331	\$4,103,051	\$134,813
Year 19	\$569,470	\$1,745,671	\$48,208	\$1,055,415	\$0	\$1,000,000	\$0	\$4,418,764	\$4,046,720		\$59,147	\$4,105,868	\$312,896
Year 20	\$600,620	\$1,850,411	\$50,618	\$1,108,186	\$0	\$1,000,000	\$0	\$4,609,835	\$4,046,720		\$62,105	\$4,108,825	\$501,010
Year 21	\$399,089	\$1,961,435	\$53,149	\$1,163,595	\$0	\$1,000,000	\$0	\$4,577,268	\$4,046,720	\$194,596	\$65,210	\$4,306,527	\$270,742
Year 22	\$420,919	\$2,079,122	\$55,807	\$1,221,775	\$0	\$1,000,000	\$0	\$4,777,622	\$4,046,720		\$68,471	\$4,115,191	\$662,431
Year 23	\$443,943	\$2,203,869	\$58,597	\$1,282,864	\$0	\$1,000,000	\$0	\$4,989,273	\$4,046,720		\$71,894	\$4,118,615	\$870,658
Year 24	\$468,227	\$2,336,101	\$61,527	\$1,347,007	\$0	\$1,000,000	\$0	\$5,212,861	\$4,046,720		\$75,489	\$4,122,209	\$1,090,652
Year 25	\$493,839	\$2,476,267	\$64,603	\$1,414,357	\$0	\$1,000,000	\$0	\$5,449,066	\$4,046,720		\$79,263	\$4,125,984	\$1,323,082
Year 26	\$520,852	\$2,624,843	\$67,834	\$1,485,075	\$0	\$1,000,000	\$0	\$5,698,603	\$4,046,720		\$83,226	\$4,129,947	\$1,568,656
Year 27	\$549,342	\$2,782,334	\$71,225	\$1,559,329	\$0	\$1,000,000	\$0	\$5,962,230	\$4,046,720		\$87,388	\$4,134,108	\$1,828,122
Year 28	\$579,391	\$2,949,274	\$74,786	\$1,637,295	\$0	\$0	\$0	\$5,240,747	\$0		\$91,757	\$91,757	\$5,148,989
Year 29	\$611,084	\$3,126,230	\$78,526	\$1,719,160	\$0	\$0	\$0	\$5,535,000	\$0		\$96,345	\$96,345	\$5,438,655
Year 30	\$644,510	\$3,313,804	\$82,452	\$1,805,118	\$0	\$0	\$0	\$5,845,884	\$0		\$101,162	\$101,162	\$5,744,722
Year 31	\$0	\$3,512,632	\$86,575	\$1,895,374	\$0	\$0	\$0	\$5,494,581	\$0		\$0	\$0	\$5,494,581
Year 32	\$0	\$3,723,390	\$90,903	\$1,990,143	\$0	\$0	\$0	\$5,804,436	\$0		\$0	\$0	\$5,804,436
Year 33	\$0	\$3,946,793	\$95,449	\$2,089,650	\$0	\$0	\$0	\$6,131,892	\$0		\$0	\$0	\$6,131,892
Year 34	\$0	\$4,183,601	\$100,221	\$2,194,132	\$0	\$0	\$0	\$6,477,954	\$0		\$0	\$0	\$6,477,954
Year 35	\$0	\$4,434,617	\$105,232	\$2,303,839	\$0	\$0	\$0	\$6,843,688	\$0		\$0	\$0	\$6,843,688
Totals	\$12,720,327	\$68,151,821	\$1,809,244	\$39,609,682	\$0	\$27,000,000	\$758,503	\$150,049,576	\$109,261,453		\$1,632,868	\$111,208,382	\$38,841,195

City of Hanford Phase 3 Solar only project								
Preliminary Cash Flow Analysis								
Project Cost								\$3,680,000
City Contingency								\$368,000
Amount to be Financed								\$4,048,000
Finance Term in Years								20
Estimated Annual Interest Rate								4.15%
Annual Escalation of Electricity Cost								6.00%
Annual Escalation of Solar Maintenance Cost								5.00%
Annual Degradation of Solar Panels								0.50%
Year	Solar Energy Savings	IRA Direct Payment	Total Program Savings	Lease Payment	Inverter Replacement costs	Solar Operations & Maintenance Cost	Total Program Costs	Net Savings
Year 1	\$186,107	\$938,400	\$1,124,507	\$301,829		\$24,577	\$326,406	\$798,101
Year 2	\$196,287		\$196,287	\$301,829		\$25,806	\$327,634	-\$131,347
Year 3	\$207,024		\$207,024	\$301,829		\$27,096	\$328,925	-\$121,901
Year 4	\$218,348		\$218,348	\$301,829		\$28,451	\$330,280	-\$111,931
Year 5	\$230,292		\$230,292	\$301,829		\$29,873	\$331,702	-\$101,410
Year 6	\$242,889		\$242,889	\$301,829		\$31,367	\$333,196	-\$90,307
Year 7	\$256,175		\$256,175	\$301,829		\$32,936	\$334,764	-\$78,589
Year 8	\$270,188		\$270,188	\$301,829		\$34,582	\$336,411	-\$66,223
Year 9	\$284,967		\$284,967	\$301,829		\$36,311	\$338,140	-\$53,173
Year 10	\$300,555		\$300,555	\$301,829		\$38,127	\$339,956	-\$39,401
Year 11	\$316,995		\$316,995	\$301,829	\$119,465	\$40,033	\$461,327	-\$144,332
Year 12	\$334,335		\$334,335	\$301,829		\$42,035	\$343,864	-\$9,529
Year 13	\$352,623		\$352,623	\$301,829		\$44,137	\$345,965	\$6,657
Year 14	\$371,911		\$371,911	\$301,829		\$46,344	\$348,172	\$23,739
Year 15	\$392,255		\$392,255	\$301,829		\$48,661	\$350,489	\$41,765
Year 16	\$413,711		\$413,711	\$301,829		\$51,094	\$352,922	\$60,789
Year 17	\$436,341		\$436,341	\$301,829		\$53,649	\$355,477	\$80,864
Year 18	\$460,209		\$460,209	\$301,829		\$56,331	\$358,160	\$102,049
Year 19	\$485,382		\$485,382	\$301,829		\$59,147	\$360,976	\$124,406
Year 20	\$511,933		\$511,933	\$301,829		\$62,105	\$363,933	\$147,999
Year 21	\$340,159		\$340,159	\$0	\$194,596	\$65,210	\$259,806	\$80,353
Year 22	\$358,766		\$358,766	\$0		\$68,471	\$68,471	\$290,295
Year 23	\$378,391		\$378,391	\$0		\$71,894	\$71,894	\$306,496
Year 24	\$399,089		\$399,089	\$0		\$75,489	\$75,489	\$323,600
Year 25	\$420,919		\$420,919	\$0		\$79,263	\$79,263	\$341,655
Year 26	\$443,943		\$443,943	\$0		\$83,226	\$83,226	\$360,716
Year 27	\$468,227		\$468,227	\$0		\$87,388	\$87,388	\$380,839
Year 28	\$493,839		\$493,839	\$0		\$91,757	\$91,757	\$402,081
Year 29	\$520,852		\$520,852	\$0		\$96,345	\$96,345	\$424,507
Year 30	\$549,342		\$549,342	\$0		\$101,162	\$101,162	\$448,180
Totals	\$10,842,050		\$11,780,450	\$6,036,572		\$1,632,868	\$7,983,501	\$3,796,950

Project Pricing Summary 08/20/25

City of Hanford Wastewater Plant Expansion and Solar Generation Phase 3

SOLAR GENERATION SCOPE (842 kW fixed tilt ground mount)

Program Development	Initial Engineering and Design	\$ 58,000
	Utility Bill Analysis Site surveys and inspections Solar PV production and savings analysis Preliminary layout and design Utility Interconnection Application	
Project Design & Engineering Services	Design, Engineering and Specification	\$ 64,000
	Electrical Design and Engineering Structural and wind analysis Design plan reviews Construction documents Utility switchgear / metering approval management Design plan reviews 100% Plan Sets, Project Design Spec, Construction Support Services, Startup/Training/O&M and Record Dwgs Prepare erosion and sediment control plans (SWPPP's)	
	Preconstruction Services	\$ 56,000
	Geotechnical soils testing Civil Engineering Scheduling Safety program development Constructability reviews Underground utility location Contractor site walks Bid management Prepare Purchase Orders and Work Orders	
Construction	Site Project Staffing and Safety	\$ 135,000
	Project Management Construction Management Project Administration Travel Site Safety Reviews Subcontractor Safety Training Safety Inspections and Oversight	
	General Conditions and Requirements	\$ 25,000
	Site access control Laydown, staging and storage areas Site security Legal Review Permits/Inspection Fees	
	Material Procurement	\$ 395,000
	PV Modules, spare modules, inverters	
	Subcontractors	
	Structural (includes supplying racking and installing racking & modules)	\$ 657,416
	Electrical (includes procuring and installing 12 kV step-up transformer, and installing owner-supplied AC main switchboard)	\$ 934,882
	Civil (surveying, grading, SWPPP's)	\$ 61,000
	Fencing	\$ 20,000
	Commissioning & Metering	\$ 38,000
	Monitoring & Verification equipment	

	Commissioning engineer / agent	
	Close-out and Turnover	\$ 15,000
	Punch List coordination As-Built drawings O&M Manuals and training Demobilization Final inspections and acceptance	
	Bonds - Payment & Performance / Insurance	\$ 61,482
Subtotal		\$ 2,520,780
	Overhead (10%)	\$ 252,078
	Profit (8%)	\$ 201,662
	Solar Generation Total	\$ 2,974,520
WASTEWATER EXPANSION SCOPE		
Program Development	Initial Engineering and Design Initial engineering, analysis, regulatory compliance planning, condition assessment, development of Basis of Design	\$ 547,000
Project Design & Engineering Services	Design, Engineering and Specification Schematic Design and Engineering Soils / geotechnical analysis Foundation designs Structural analysis Construction documents Design plan reviews 100% Plan Sets, Project Design Specs Prepare erosion and sediment control plans (SWPPP's)	\$ 3,977,500
	Preconstruction Services Geotechnical drilling Scheduling and planning Safety program development Constructability reviews Underground utility location	\$ 576,000
	Procurement / Subcontractor Services Bid Preparation Bid Evaluation Purchase Order management Work Order management Contract Administration	\$ 864,329
Construction	Site Project Staffing and Safety Project Management Construction Administration Construction Management Progress and coordination meetings, weekly reports Site Safety Reviews Subcontractor Safety Training Safety Inspections and Oversight	\$ 2,950,000
	General Conditions and Requirements Field Office / trailers Temporary utilities Site access control	\$ 2,685,000

	Laydown, staging and storage areas	
	Site security	
	Temporary lighting	
	Temporary fencing	
	Dust control measures	
	Legal Review	
	Subcontractors	
	Mechanical/Electrical/Civil	
	Mobilization and Setup	\$ 1,369,000
	Field Work (Dewatering, Grading, Paving / Gravity Wet Utilities / Pressure Wet Utilities / Dry Site Utilities / SWPPP's / Demolition)	\$ 7,030,250
	Influent Splitter Box	\$ 988,750
	Center Ox Ditch (Cleaning / Take down / Filling and Testing / Ditch equipment and Installation)	\$ 1,516,988
	New West Clarifier	\$ 3,821,621
	New West Ox Ditch (Civil grading / Paving / Piping / Structural / New equipment and installation / Misc. mechanical and installation)	\$ 12,625,000
	New chemical system & Existing RAS WAS Bldgs. (Civil Grading / Paving / Piping / Structural / Electrical Gear and Installation / Existing RAS / WAS Pump Station / Chemical system and installation / Misc. interconnection piping and Lift Pumps)	\$ 4,243,500
	Start Up and Commissioning	
	Equipment testing	\$ 184,000
	Startup / Commissioning engineers & agents	\$ 534,000
	Chemical first fill	\$ 182,000
	Close-out and Turnover	\$ 426,193
	Punch List coordination	
	As-Built drawings	
	O&M Manuals and training	
	Demobilization and site restoration	
	Final inspections and acceptance	
	Bonds - Payment & Performance / Insurance	\$ 1,113,028
Subtotal		\$ 45,634,159
Overhead & Profit	Overhead (10%)	\$ 4,563,416
	Profit (8%)	\$ 3,650,733
	Wastewater Expansion Total	\$ 53,848,280
	TOTAL ENERGY PROGRAM COST	\$ 56,822,800



September 10, 2025

Frank Senteno
City of Hanford
900 S 10th Ave.
Hanford, CA 93230

Subject: Wastewater Treatment Plant Improvements Owner's Advisor Scope of Work

Dear Mr. Senteno:

Background

The City of Hanford owns and operates a wastewater treatment plant rated for an average annual flow of 8.0 mgd that consists of headworks (screening and grit removal), trickling filters, oxidation ditch and secondary clarifiers, RAS/WAS pump station, chlorine disinfection, and sludge drying beds. There's also a photovoltaic solar system on site that provides power for the WWTP. After the headworks, the flow is split between the oxidation ditch and the trickling filters then recombined ahead of the chlorine contact basin. The oxidation ditch and secondary clarifiers are rated for approximately 3.1 mgd and the rest of the flow is sent to the trickling filter plant. The trickling filters are energy intensive, don't produce reliable effluent quality and are nearing the end of their useful life.

The City is preparing to enter into a Design-Build (DB) contract with Opterra to retrofit the existing oxidation ditch to increase the capacity to 4.0 mgd, add another oxidation ditch and secondary clarifier to provide an additional 4.0 mgd capacity (allowing the City to abandon the trickling filter plant), and increase the capacity of the solar system. Adding solar power capacity and replacing the energy intensive trickling filter treatment train with an oxidation ditch allows the project to receive funding.

The City is contracting Carollo Engineers to provide owner's advisor services for oversight of the DB contract, design review, and construction management services for the WWTP project. The scope of work does not include review of the solar expansion project nor involvement in the funding strategy or review of any grant applications. The detailed scope of services is described below.

Scope of Services

Task 1 – Project Management and Contract Oversight

Carollo will perform project management as necessary to perform planning, execution, monitoring, and reporting of the project elements. Carollo will participate in monthly meetings with the project team.

Carollo assistance under this task to provide contract oversight will include, but will not be limited to:

- Project design requirements :
 - » Design scope of services.
 - » Project technical requirements.
 - » Drawings and specifications submittal content.
 - » Design review procedures.
 - » Project permitting requirements and responsibilities.
 - » Design risk transfer provisions.
- Project construction requirements:
 - » Construction scope of services.
 - » General construction requirements (E.g., Division 0, Division 1, etc.).
 - » Construction schedule and delay liquidated damages.
 - » Change order provisions.
 - » Construction-related permitting requirements and responsibilities.
- Other DB contract provisions:
 - » Limitations of liability.
 - » Payment procedures.
 - » Incentive provisions (as applicable).

Carollo will provide ongoing, as-needed oversight of the administration of the DB contract commencing at its execution. This assistance will be coordinated and integrated with the construction management efforts described in Task 5 below through the final acceptance of the Project. Carollo's budget for this effort is based on project duration. Assistance under this subtask will include:

- Verification of compliance with terms and conditions of the DB contract
- Facilitation of meetings as needed to address contractual issues
- Coordination with OWNER's legal counsel to address contractual issues
- Providing support to OWNER in reporting contractual performance to stakeholders

Deliverables:

- Monthly invoices and associated progress letter reports

Assumptions:

- CONSULTANT's level of effort and budget for DB contract oversight services is based on a 36-month project duration, commencing at the execution of the DB contract, and concluding at final acceptance of the Project.

Task 2 – Basis of Design Report Review

Opterra will develop a Basis of Design Report (BODR) that will define the scope of the wastewater treatment plant improvements project. The BODR will include design parameters for the influent flows and loads, calculations to support basin and equipment sizing, and effluent treatment objectives. Carollo previously developed a project memorandum to define risks associated with the preliminary design submitted by Opterra. Carollo will provide a similar review of the Basis of Design Report. Carollo will also review supporting calculations and process models submitted by Opterra to confirm basin and equipment sizing to validate the anticipated performance of the project. Carollo will participate in coordination calls to discuss review comments for incorporation into a final version.

Deliverables

- Comments to the draft Basis of Design Report, provided as either markups/revisions in the document or in a comment log.

Task 3 – 60 Percent Design Review

Carollo will provide detailed review of the 60 percent WWTP project design deliverable. This also includes attending meetings and workshops during the 60 percent design Development. Major review elements include the following:

- Review the calibrated biological process model to confirm the anticipated treatment performance and rated capacity of the proposed secondary treatment improvements.
- Verify with the oxidation ditch manufacturer design criteria values and viability of retrofitting existing oxidation ditch with new mechanical aerators to increase rated capacity.
- Review hydraulic calculations to confirm the proposed hydraulic profile, including critical weir and basin elevations and main process pipe sizing.
- Review process and instrumentation diagrams and control strategies to confirm operational strategy is viable, ensures reliable performance, and is consistent with the complexity and automation desired by the City.
- Review the draft and final geotechnical report and confirm that major design elements, such as the need for subsurface improvements, groundwater dewatering, shoring, slope setbacks, settlement, etc., are considered.
- Review preliminary sizing of major process equipment based on the process model, design criteria, and hydraulic calculations.
-
- Review the Design Drawings and Specifications submitted by the DB team for constructability/conformance to the DB contract

Page 4

- Confirm the sizing of all major process equipment, including influent or effluent pumping, anoxic mixers, mechanical aerators, secondary clarifiers, RAS/WAS pumps, and plant drain pumps.
- Review and confirm pipe sizes and materials for all pipe services based on the pipe schedule and hydraulic calculations.
- Review structural calculations for all new and modified structures to confirm slab and wall thicknesses, rebar sizing, and spacing.
- Review all drawings and specifications for constructability
- Attend and Review minutes from workshops or progress meetings.
- Review invoicing from DB team and submit to City for recommendation to pay.
- Review any RFIs submitted by DB team and coordinate with City for responses.

Deliverables:

- Review comments may be provided as markups to the design drawings and/or in a comment log spreadsheet.

Assumptions

- The following information will be made available to the Carollo team:
 - » All relevant historical wastewater data.
 - » All relevant calculations, including data analysis, hydraulic, process model, structural, and electrical load calculations.
 - » All relevant vendor equipment proposals.
 - » Final geotechnical report stamped by a licensed geotechnical engineer.
- The 60 percent design package will be submitted as a single deliverable. Drawings will include preliminary design criteria, hydraulic profile, process flow diagram, site layout, yard piping and paving and grading, preliminary pipe schedule, pipe profiles, structural and mechanical plans, sections, and details, electric one-line diagrams, power and control and lighting and grounding plans, process and instrumentation diagrams, and control schematics. Specifications at a minimum shall include detailed control strategy descriptions and major equipment requirements (oxidation ditch, secondary clarifier, RAS/WAS pumps, etc.).
- The 60 percent design review will be completed within three weeks.
- Attend 60 percent design review workshop with DB team.
- The DB team will take four months to complete the 60% design and there will be two workshops and monthly progress meetings during this design period.

Task 4 – 90 Percent Review

Carollo will provide detailed review of the 90 percent WWTP project design deliverable. This also includes attending meetings and workshops in the development of the 90 percent design submittal. Major review elements include the following:

- Update the biological process model to review any changes to the design criteria, process sizing, or control strategy. (If modified).
- Update the hydraulic calculations to reflect any changes to the hydraulic profile. (If Modified).
- Confirm equipment sizing of all major process equipment, including any influent or effluent pumping, anoxic mixers, mechanical aerators, secondary clarifiers, RAS/WAS pumps, plant drain pumps.
- Review final geotechnical report and confirm the design incorporates the necessary recommendations to accommodate all geotechnical considerations. (If Modified).
- Review and confirm pipe sizes and materials for all pipe services based on the pipe schedule and hydraulic calculations.
- Review structural calculations for all new and modified structures to confirm slab and wall thicknesses and rebar sizing and spacing.
- Review duct bank section and conduit schedule to confirm appropriate wiring layouts for each piece of equipment and instruments.
- Update construction cost estimate by doing detailed quantity take-offs based on the design drawings.
- Review all drawings and specifications for constructability and coordination with existing facilities and between disciplines.
- Review of the 90 percent design Drawings and Specifications submitted by the DB team for constructability/conformance to the DB contract.
- Attend and Review minutes from workshops or progress meetings.
- Review Final bid set prior to it going out to bid.
- Assist City with Bid Services.
- Review invoicing from DB team and submit to City for recommendation to pay.
- Review any RFIs submitted by DB team and coordinate with City for responses.

Deliverables:

- Review comments may be provided as markups to the design drawings and/or in a comment log spreadsheet.

Assumptions

- The following information will be made available to the Carollo team:
 - » All relevant calculations, including data analysis, hydraulic calculations, process model, and electrical load calculations.
 - » All relevant vendor equipment proposals.
 - » Final geotechnical report stamped by a licensed geotechnical engineer.

Page 6

- The 90 percent design package will be submitted as a single deliverable. Additional drawings will include civil, structural, and mechanical details, duct bank sections and conduit schedules, and typical details. All specifications included in the project will be submitted as part of the 90 percent deliverable.
- The 90 percent design review will be completed within three weeks
- The DB team will take four months to complete the 90% design and there will be two workshops and monthly progress meetings during this design period.
- Attend 90 percent design Review workshop with DB team.
- Carollo will review Bid set to confirm comments from 90 percent have been addressed.
- Carollo will assist City with responding to questions and coordinating with DB team for addendum's during the bid period.

Task 5 – Construction Management

Carollo will provide Construction Management services during construction of the project. It is assumed the DB team will perform most of their own QA/QC of the construction work. Carollo will provide oversight to make sure QA/QC checks are being performed and meet the contract requirements and also do periodic spot checks to confirm the work is in compliance with the contract documents. Carollo will monitor startup and testing of the facility to confirm if the DB team has met the performance requirements.

Deliverables:

- Bi-Weekly Meeting Minutes and Agendas.
- Invoicing from DB team with recommendations on payment.
- Daily construction reports.

Assumptions:

- It is assumed the construction will take 24 months to complete.
- Carollo will have one full time Construction Manager onsite during construction.
- DB team will perform all QA/QC testing for materials including soils and concrete.
- DB team shall submit all shop drawings and submittals to Carollo/City prior to starting work.
- Including an allowance for special inspection of \$150,000. This will include concrete testing, compaction, and any other special inspection that will fall within this allowance.

Task 6 – Full-Time Inspection (OPTIONAL)

Page 7

In addition to the scope of work listed in Task 5, Carollo will have one full time inspector onsite during construction. The inspector will be performing QC checks during the duration of the project, and if there are any issues reporting them to the CM and DB team for repair.

Deliverables:

- Daily work reports/Logs (includes work that was done onsite, number of contractors onsite, and amount of equipment onsite).
- Inspect equipment and material when they arrive onsite
- Coordinate daily work with onsite DB team

Assumptions:

- It is assumed the construction will take 24 months to complete.
- Carollo will have 1 full time inspector onsite during construction.

Budget

The fee for this scope of work is based on a time and materials fee schedule as shown in the attached.

Assumptions

The following assumptions shall apply to Carollo's scope of work.

- Carollo will complete the services required hereunder in accordance with the prevailing engineering standard of care by exercising the skill and ability ordinarily required of engineers performing the same or similar services, under the same or similar circumstances, in the State of California.
- Carollo shall be entitled to use and reasonably rely upon all such information and services provided by the City or others in performing Carollo's services under this Purchase Order.
- In providing opinions of cost, financial analyses, economic feasibility projections, schedules, and quantity and/or quality estimates for potential projects, Carollo has no control over cost or price of labor and material; unknown or latent conditions of existing equipment or structures that may affect operation and maintenance costs; competitive bidding procedures and market conditions; time or quality of performance of third parties; quality, type, management, or direction of operating personnel; the incoming water quality and/or quantity; the way the City's plant(s) and/or associated processes are operated and/or maintained; and other economic and operational factors that may materially affect the ultimate project elements, including, but not limited to, cost or schedule. Therefore, Carollo makes no warranty that the City's actual project costs, financial aspects, economic feasibility, schedules, and/or quantities or quality realized will not vary from Carollo's opinions, analyses, projections, or estimates.

Page 8

- The services to be performed by Carollo are intended solely for the benefit of the City. No person or entity not a signatory to the Purchase Order shall be entitled to rely on Carollo's performance of its services hereunder, and no right to assert a claim against Carollo by assignment of indemnity rights or otherwise shall accrue to a third party as a result of this Purchase Order or the performance of Carollo's services hereunder.

Sincerely,

CAROLLO ENGINEERS, INC.



Ryan Sellman PE
Project Manager



John Witter PE
Senior Engineer

Author Initials: jw

OVERALL FEE ESTIMATE																			
EXHIBIT A																			
Tasks		Carollo Labor																	Total
Task Number	Task Description	Project Manager	DB Contract Specialist	Project Engineer	Process Modeler	Civil Engineer	Structural Engineer	Process Mechanical Engineer	Electrical Engineer	Inst. & Controls Engineer	Const. Manager / Resident Engineer	Const. Inspector			Labor	Special Inspection Sub	PECE		
		\$340	\$340	\$282	\$323	\$323	\$323	\$323	\$323	\$323	\$300	\$250	Total Hours	Total Labor Costs	Escalation	Allowance	\$17	ODCs	Total Fee
Task 1	Project Management and Contract Oversight	144	144	144	0	0	0	0	0	0	0	0	432	\$138,528	\$3,463	\$0	\$7,344	\$750	\$150,085
Task 2	Basis of Design Report Review	24	0	64	40	20	20	20	20	20	0	0	228	\$71,428	\$0	\$0	\$3,876	\$750	\$76,054
Task 3	60% Review	80	12	180	40	100	100	100	90	90	40	0	832	\$262,000	\$13,100	\$0	\$14,144	\$1,250	\$290,494
Task 4	90% Review	40	12	120	10	120	80	120	140	80	60	0	782	\$247,170	\$12,359	\$0	\$13,294	\$1,250	\$274,073
Task 5	Construction Management	100	48	300	10	80	80	80	80	80	4160	0	5018	\$1,515,350	\$121,228	\$150,000	\$85,306	\$28,800	\$1,900,684
Task 6	Full Time Inspection (OPTIONAL)	0	0	0	0	0	0	0	0	0	0	4160	4160	\$1,040,000	\$83,200	\$0	\$70,720	\$28,800	\$1,222,720
TOTAL		388	216	808	100	320	280	320	330	270	4260	4160	11452	\$3,274,476	\$233,350	\$150,000	\$194,684	\$61,600	\$3,914,110



AGENDA STAFF REPORT

MEETING DATE: 9/16/2025

AGENDA SECTION: GENERAL BUSINESS

SUBJECT:

Adoption of Resolution No 25-53-R a "reimbursement resolution" which allows for, but does not require, the City to reimburse cash expenditures for the public safety facility project with low-cost tax-exempt bonds in the future for an approximate principal amount of \$50 million

RECOMMENDATION:

Recommendation: That the City Council, by motion, Adopt Resolution 25-53-R, which allows for, but does not require, the City to reimburse cash expenditures for the public safety facility project with low-cost tax-exempt bonds in the future for an approximate principal amount of \$50 million

Recommended Motion: I move to Adopt Resolution 25-53-R, which allows for, but does not require, the City to reimburse cash expenditures for the public safety facility project with low-cost tax-exempt bonds in the future for an approximate principal amount of \$50 million

BACKGROUND:

The City of Hanford is undertaking a public safety facility project that is necessary for it to efficiently deliver essential services to the community. To incur obligations that are tax-exempt, which provides the lowest cost of borrowing to the City, the City needs to comply with certain IRS requirements. The IRS allows a bond issuer to use the proceeds of its bond issuance to reimburse expenditures made prior to the time bonds are issued, but only so long as the City expresses an intent to do so prior to the actual issuance.

A reimbursement resolution is the required expression of intent and is needed if the City will want to use proceeds of tax-exempt obligations to reimburse itself for costs it actually pays prior to the issuance of the obligations. It then can use the tax-exempt proceeds to reimburse itself for costs of the project paid up to 60 days prior to the date the resolution is adopted, subject to certain limitations, the main one being: reimbursement (bond issuance) must occur not later than 18 months after the later of (i) the date on which the expenditure is paid, or (ii) the date on which the project is placed in service, but in no event more than 3 years after the expenditure was paid. No reimbursement resolution is required for reimbursement of soft costs (with a 20% limit for soft costs older than 60 days prior to the resolution).

In order to reimburse from proceeds of the proposed tax-exempt obligations, the City has been advised by its municipal advisor that the City Council should adopt a resolution indicating the City's intent to so reimburse. The proposed resolution meets the IRS requirement enabling the reimbursement for prior expenditures. There is no consequence to the City if the obligations are

ultimately not issued.

FISCAL IMPACT:

None

ATTACHMENTS:

1. Resolution 25-53-R

RESOLUTION No. 25-53-R

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF HANFORD DECLARING THE INTENT OF THE CITY TO BE REIMBURSED FOR CAPITAL EXPENDITURES FOR A PUBLIC SAFETY FACILITY FROM THE PROCEEDS OF INDEBTEDNESS

WHEREAS, the City of Hanford (the "City") intends to construct a new public safety facility that supports the City performing an essential governmental function (the "Project"); and

WHEREAS, the City will pay certain Capital Expenditures in connection with the Project (the "Expenditures") prior to the issuance of one or more series of tax-exempt obligations in the expected approximate principal amount of \$50 million (the "Indebtedness") for the purpose of financing costs associated with the Project; and

WHEREAS, the City reasonably expects that certain of the proceeds of the Indebtedness will be used to reimburse the City for the Expenditures; and

WHEREAS, Section 1.150-2 of the Treasury Regulations requires the City to declare its reasonable official intent to be reimbursed for prior Capital Expenditures made for the Project with proceeds of a subsequent borrowing.

NOW, THEREFORE, BE IT FURTHER RESOLVED that the City Council of the City of Hanford as follows:

The City finds and determines that the foregoing recitals are true and correct.

This declaration is made solely for purpose of establishing compliance with the requirements of Section 1.150-2 of the Treasury Regulations, and does not bind the City to make any expenditure, incur any indebtedness, or proceed with the Project.

The City declares its official intent to use proceeds of the Indebtedness to reimburse itself for Expenditures made on or after the date which is no more than 60 days prior to the date of adoption of this Resolution.

The City will make a reimbursement allocation, which is a written allocation by the City that evidences the City's use of proceeds of the Indebtedness to reimburse itself for an Expenditure, no later than eighteen (18) months after the later of the date on which the expenditure is paid or the Project is placed in service or abandoned, but in no event more than three years after the date on which the Expenditure is paid.

The City recognizes that exceptions are also available under the Treasury Regulations for certain "preliminary expenditures," costs of issuance, certain de minimis amounts, expenditures by "small issuers" (based on the year of issuance and not the year of expenditure) and expenditures for construction projects of at least five (5) years.

This Resolution shall take effect upon its adoption by this City Council.

PASSED and ADOPTED by the City Council of the City of Hanford at a regular meeting duly held on this 16th day of September, 2025 by the following vote:

AYES: _____
NOES: _____
ABSENT: _____
ABSTAIN: _____

TRAVIS PAYDEN
MAYOR of the City of Hanford

Attest:

NATALIE CORRAL
CITY CLERK

STATE OF CALIFORNIA)
COUNTY OF KINGS) ss
CITY OF HANFORD)

I, Natalie Corral, City Clerk of the City of Hanford, do hereby certify the foregoing Resolution was duly passed and adopted at a regular meeting of the City Council of the City of Hanford held on the 16th day of September, 2025.

Date: _____

City Clerk



AGENDA STAFF REPORT

MEETING DATE: 9/16/2025

AGENDA SECTION: GENERAL BUSINESS

SUBJECT:

Adoption of Resolution No 25-52-R a "reimbursement resolution" which allows for, but does not require, the City to reimburse cash expenditures for a wastewater treatment plant improvement project, including a solar energy generation component with low-cost tax-exempt bonds in the future for an approximate principal amount of \$75 million.

RECOMMENDATION:

Recommendation: That the City Council, by motion, Adopt Resolution 25-52-R, which allows for, but does not require, the City to reimburse cash expenditures for a wastewater treatment plant improvement project, including a solar energy generation component with low-cost tax-exempt bonds in the future for an approximate principal amount of \$75 million.

Recommended Motion: I move to Adopt Resolution 25-52-R, which allows for, but does not require, the City to reimburse cash expenditures for a wastewater treatment plant improvement project, including a solar energy generation component with low-cost tax-exempt bonds in the future for an approximate principal amount of \$75 million.

BACKGROUND:

The City of Hanford is reviewing a wastewater treatment plant improvement project, including a solar energy generation component, that is necessary for it to efficiently deliver essential services to the community. To incur obligations that are tax-exempt, which provides the lowest cost of borrowing to the City, the City needs to comply with certain IRS requirements. The IRS allows a bond issuer to use the proceeds of its bond issuance to reimburse expenditures made prior to the time bonds are issued, but only so long as the City expresses an intent to do so prior to the actual issuance.

A reimbursement resolution is the required expression of intent and is needed if the City will want to use proceeds of tax-exempt obligations to reimburse itself for costs it actually pays prior to the issuance of the obligations. It then can use the tax-exempt proceeds to reimburse itself for costs of the project paid up to 60 days prior to the date the resolution is adopted, subject to certain limitations, the main one being: reimbursement (bond issuance) must occur not later than 18 months after the later of (i) the date on which the expenditure is paid, or (ii) the date on which the project is placed in service, but in no event more than 3 years after the expenditure was paid. No reimbursement resolution is required for reimbursement of soft costs (with a 20% limit for soft costs older than 60 days prior to the resolution).

In order to reimburse from proceeds of the proposed tax-exempt obligations, the City has been

advised by its municipal advisor that the City Council should adopt a resolution indicating the City's intent to so reimburse. The proposed resolution meets the IRS requirement enabling the reimbursement for prior expenditures. There is no consequence to the City if the obligations are ultimately not issued.

FISCAL IMPACT:

None

ATTACHMENTS:

1. Resolution 25-52-R

RESOLUTION No. 25-52-R

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF HANFORD DECLARING THE INTENT OF THE CITY TO BE REIMBURSED FOR CAPITAL EXPENDITURES FOR A WASTEWATER TREATMENT PLANT IMPROVEMENT PROJECT INCLUDING A SOLAR ENERGY GENERATION COMPONENT FROM THE PROCEEDS OF INDEBTEDNESS

WHEREAS, the City of Hanford (the "City") intends to make significant improvements to the wastewater treatment plant, including a solar energy generation component, that will facilitate the City performing an essential governmental function (the "Project"); and

WHEREAS, the City will pay certain Capital Expenditures in connection with the Project (the "Expenditures") prior to the issuance of one or more series of tax-exempt obligations in the expected approximate principal amount of \$75 million (the "Indebtedness") for the purpose of financing costs associated with the Project; and

WHEREAS, the City reasonably expects that certain of the proceeds of the Indebtedness will be used to reimburse the City for the Expenditures; and

WHEREAS, Section 1.150-2 of the Treasury Regulations requires the City to declare its reasonable official intent to be reimbursed for prior Capital Expenditures made for the Project with proceeds of a subsequent borrowing.

NOW, THEREFORE, BE IT FURTHER RESOLVED that the City Council of the City of Hanford as follows:

The City finds and determines that the foregoing recitals are true and correct.

This declaration is made solely for purpose of establishing compliance with the requirements of Section 1.150-2 of the Treasury Regulations, and does not bind the City to make any expenditure, incur any indebtedness, or proceed with the Project.

The City declares its official intent to use proceeds of the Indebtedness to reimburse itself for Expenditures made on or after the date which is no more than 60 days prior to the date of adoption of this Resolution.

The City will make a reimbursement allocation, which is a written allocation by the City that evidences the City's use of proceeds of the Indebtedness to reimburse itself for an Expenditure, no later than eighteen (18) months after the later of the date on which the expenditure is paid or the Project is placed in service or abandoned, but in no event more than three years after the date on which the Expenditure is paid.

The City recognizes that exceptions are also available under the Treasury Regulations for certain "preliminary expenditures," costs of issuance, certain de minimis amounts, expenditures by "small issuers" (based on the year of issuance and not the year of expenditure) and expenditures for construction projects of at least five (5) years.

This Resolution shall take effect upon its adoption by this City Council.

PASSED and ADOPTED by the City Council of the City of Hanford at a regular meeting duly held on this 16th day of September, 2025 by the following vote:

AYES: _____
NOES: _____
ABSENT: _____
ABSTAIN: _____

TRAVIS PAYDEN
MAYOR of the City of Hanford

Attest:

NATALIE CORRAL
CITY CLERK

STATE OF CALIFORNIA)
COUNTY OF KINGS) ss
CITY OF HANFORD)

I, Natalie Corral, City Clerk of the City of Hanford, do hereby certify the foregoing Resolution was duly passed and adopted at a regular meeting of the City Council of the City of Hanford held on the 16th day of September, 2025.

Date: _____

City Clerk



AGENDA STAFF REPORT

MEETING DATE: 9/16/2025

AGENDA SECTION: GENERAL BUSINESS

SUBJECT:

Approval of the purchase of twelve (12) drinking fountains from Most Dependable Fountains, Inc, of Arlington TN, in the amount of \$53,266.83, to be installed at various parks and a landscape assessment district located within the City of Hanford and utilize existing appropriation in Measure H and appropriate landscape assessment district funding of \$4,898.31 from LAD 04-03 (Vineyard)

RECOMMENDATION:

Recommendation: That the City Council, by motion, approve the purchase of twelve (12) drinking fountains from Most Dependable Fountains of Arlington, TN in the amount of \$53,266.83, to be installed at various parks and a landscape assessment district located within the City of Hanford and utilize existing appropriation in Measure H and appropriate landscape assessment district 04-03 for \$4,898.31.

Recommended Motion: I move to approve the purchase of twelve (12) drinking fountains from Most Dependable Fountains of Arlington, TN in the amount of \$53,266.83, to be installed at various parks and a landscape assessment district located within the City of Hanford and utilize existing appropriation in Measure H and appropriate landscape assessment district 04-03 for \$4,898.31.

BACKGROUND:

The City of Hanford maintains 224 acres of park space for the benefit of its residents. After an assessment, it was determined that several drinking fountains located in parks and landscape assessment districts are beyond repair and in need of replacement. This item is being returned to update Council on the recommended water fountain replacements in various parks for the 2025/2026 fiscal year out of the existing Measure H appropriation.

City staff requested quotes from three vendors:

- Most Dependable Fountains, Inc.
- Park Planet
- Fergusson

Only Most Dependable Fountains, Inc. and Park Planet submitted bids, with Most Dependable Fountains, Inc. providing the lowest bid at \$53,266.83.

The following parks and facilities will receive new drinking fountains:

- Vineyard Park (LAD 04-03) – *with dog bowl*
- COE Park – *with dog bowl*

- Lacey Park – *with dog bowl*
- Skate Park
- Harris Ball Park - 2 fountains
- Centennial Park – *2 fountains with dog bowls*
- YAC – *4 fountains*

FISCAL IMPACT:

LAD district 04-03 (Vineyard) currently has a balance of \$45,786.86 and will fund the purchase of one (1) drinking fountain for \$4,898.31 with the remainder of the drinking fountains being funded by Measure H parks funds.

ATTACHMENTS:

1. Most Dependable Fountains Quote (Selected)
2. Park Planet Quote
3. Fountains

Quote



**MOST DEPENDABLE
FOUNTAINS, INC.**

5705 Commander Dr. Arlington, TN 38002

Quote QTE86550

Date 9/9/2025

Page 1/1

Quoted by:

(901) 867-0039

Bill To: CITY OF HANFORD
315 NORTH DOUTY STREET
HANFORD CA 93230

Ship To: CITY OF HANFORD
CITY OF HANFORD
900 SOUTH 10TH AVENUE
HANFORD CA 93230

Purchase Order No.	Customer ID		Shipping Method	Payment Terms	Req Ship Date	Master No.
	559-585-2502		FEDEX 85	AT TIME OF ORDER	0/0/0000	162,180
Quantity	Item Number	Description	UOM	Discount	Unit Price	Ext. Price
7	440 SMSS	440 SMSS ADA DRINKING FOUNTAIN	EA	\$0.00000	\$3,455.00000	\$24,185.00
7.000	COLOR TBD	COLOR TBD	EA	\$0.00000	\$0.00000	\$0.00
5	440 SMSS	440 SMSS ADA DRINKING FOUNTAIN	EA	\$0.00000	\$3,455.00000	\$17,275.00
5	PET FTN ATT.SMS	ATTACHED PET FOUNTAIN	EA	\$0.00000	\$1,070.00000	\$5,350.00
5.000	COLOR TBD	COLOR TBD	EA	\$0.00000	\$0.00000	\$0.00

CURRENTLY PRODUCTION IS RUNNING UP TO 8 - 10
WEEKS.
QUOTED BY HAYDEN

Subtotal	\$46,810.00
Freight	\$2,595.00
Tax	\$3,861.83
Total	\$53,266.83

ONE YEAR WARRANTY. LABOR NOT INCLUDED
PRICES SUBJECT TO CHANGE WITHOUT NOTICE
CALIFORNIA SALES TAX IS SUBJECT TO CHANGE BASED ON SHIP TO ZIP CODE



Park Planet
a Division of Park Associates, Inc.
415 Elm Street
Red Bluff CA 96080

Quote# Q25-3706

Drinking Fountains

Bill To:

City of Hanford
317 N Douty St
Hanford CA 93230
United States

Quote Date: 08/15/2025

Quote Expires: 09/14/2025

Terms: Net 30dys / Shipment

Quote Total: \$21,491.96

Contact Name	Contact Phone	Contact Email	Sales Rep	Sales Rep Email
Levi Winebrenner	+15593045229	lwinebrenner@cityofhanfordca.com	Cody Hill	cody@parkplanet.com

Description	Vendor	Qty	Rate	Amount
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CITY OF HANFORD - DRINKING FOUNTAINS

Murdock Item GRM45-PF-FRU3 Dual Height Drinking Fountain Stainless Steel, Round Design Contemporary Round Pet Fountain incl. Below-Ground Freeze Resistant Valve	Murdock Manufacturing	1	\$8,773.00	\$8,773.00
Murdock Item GYQ85-FRU4-PF Dual Height Drinking Fountain with Bottle Filling Station Textured Fairway Green, Round Design Contemporary Round Pet Fountain incl. Below-Ground Freeze Resistant Valve	Murdock Manufacturing	1	\$11,081.00	\$11,081.00
Murdock Freight **NOTE Freight Quote Will Depend on Equipment Quantities. Please Verify Prior to Order Placement	Murdock Manufacturing	1	\$0.00	\$0.00

EXCLUSIONS

Equipment only. Installation to be supplied by others.

Offloading & storage of equipment is the customer's responsibility. For most products a forklift rated for 5000lbs or more is recommended.

Subtotal	\$19,854.00
Tax Total (%)	\$1,637.96
Total	\$21,491.96



Park Planet
a Division of Park Associates, Inc.
415 Elm Street
Red Bluff CA 96080

Quote# Q25-3706

Drinking Fountains

A PURCHASE ORDER OR SIGNED CHANGE ORDER MUST BE RECEIVED BEFORE ADDITIONAL EQUIPMENT, INSTALLATION, OR SERVICES CAN PROCEED. IF PAYING BY CREDIT CARD, A SURCHARGE WILL BE ASSESSED ON PAYMENT AMOUNT FOR 3.5% VISA/MC OR 5% AMEX.

Printed Name: _____ Title: _____

Authorized Signature: _____ Date: _____

****Purchasing agent who is authorized to enter into binding agreement for quoted entity.**

****By signing this quote, I have read and agree to the quote Terms & Conditions listed below, on the following page.**



Park Planet
a Division of Park Associates, Inc.
415 Elm Street
Red Bluff CA 96080

Quote# Q25-3706

Drinking Fountains

TERMS & CONDITIONS

1. General Notes Assembly, Installation and Offloading NOT included unless otherwise noted.
Payment and Performance bonds, Builder's Risk and special insurance NOT included unless stated and quoted.
Customer responsible for quantities and model numbers. Revised quote needed if quantities revised.
2. Payment / Ordering Credit terms specific to each customer. See terms in upper right corner of Park Planet quotes..
Purchase orders or purchase contracts are needed to order. If none available, a signed Park Planet quote may be used in lieu of a formal PO.
All past due accounts subject to 1 ½ % monthly finance charge. In the event legal action is required to effect collection, venue shall be Red Bluff, CA.
3. Shipping / Unloading Shipped by Common Carrier – Customer will need 2 to 4 people to unload. Liftgate NOT included unless quoted. Items will be boxed and / or stretch wrapped to pallets and customer is responsible for offloading. Delivery Drivers do NOT unload.
IMPORTANT: Customer is responsible for receiving and checking quantities and condition at time of delivery Please note any shortages or damages on delivery copy.
Notwithstanding anything to the contrary in any Contract Documents, Customer understands that estimated shipment times for materials are an estimate only.
We have no control over shipment dates. We thus make no guarantee to Owner or Customer regarding the projected shipment dates for materials and shall not be liable for any loss caused by the timing of shipments.
4. Engineered Wood Fiber
Customer to provide access for Engineered Wood Fiber delivery with tractor truck and 53' trailer.
Compaction of the Engineered Wood Fiber is NOT included in the installation cost, if desired, please request an updated proposal.
5. General Notes for Purchased Installation
Installation does NOT include ground preparation, excavation, safety surfacing, and/or safety surfacing borders, prep work, flat work, grading, rerouting of water, electric, drainage or sprinkler lines unless otherwise noted in the proposal.
Demo of existing equipment or safety surfacing is NOT included unless otherwise stated in the proposal.
ROCK CLAUSE: Pricing is based on normal soil conditions which would allow an auger on a tractor to dig footings. If rocks/boulders interfere with the progress of the excavation, additional fees may apply.
ACCESS CLAUSE: Installation based on clear access to area. Crane service is NOT included. Customer to provide access for bobcat to work area, bobcat will be provided by the installer. Minimum access shall be 7' wide and 7' high. If adequate access is not provided additional charges may apply and repairs to landscape and irrigation may be required. Customer is responsible for any repairs to landscape if proper access is not provided.
UTILITY CLAUSE: Unless stated in writing in the quote proposal, installation does not include marking of utilities by Dig Alert or other similar entities. Customer can, however, call Dig Alert directly. Dig Alert CANNOT locate any private lines, PVC or plastic water lines. Installation does NOT include repair or relocating any underground utilities, such as drainage, irrigation, live water lines, main low voltage lines, gas, electrical, communication, or sewer etc.
Customers responsibility to provide locations of any utilities prior to commencement of work.
Customer is responsible for all landscape repairs such as, but not limited to damaged trees, bushes, lawn, curbing, sidewalks and/or asphalt paving caused by materials truck and/or 2ton bobcat needed to complete project.
6. Temporary Fencing
Security guards and/or temporary fencing to prevent injuries, vandalism and/or accidental damage to install area or to the rubberized surface while it sets is NOT included unless noted on quote. If desired, the installers can put up caution tape, but Temporary Fencing is recommended. Although the fencing, if provided, is intended to provide this security, the overall security of the property is ultimately the responsibility of customer. We are not responsible for any vandalism or injuries even with the provision of the fencing.
7. ADA Access
Play Equipment MUST be installed over an impact absorbing surface such as ADA compliant Engineered Wood Fiber or Rubber Surfacing. If not quoted, please call for details.
This area is NOT ADA compliant without the installation of compliant surfacing and an accessible route up to and into the playground area. Please call for details.
8. Poured in Place Rubber Surfacing
Rubber Surfacing cannot be installed during extreme weather conditions and may not be installed if rain or frost is forecasted during 48-72 hr. cure time. 24 Hour Manned Security is NOT included in Park Planet quotes.
9. Shade Shelters (non DSA)
Shade Shelter installation price EXCLUDES – unless otherwise stated in this quote engineering, drawings, calculations, permits, permit submittal, site plans, special inspections, soil reports, impact fees, special assessment fees. Customer is responsible for any and all of these items if required by the City/County.
PLEASE NOTE: Shade Orders are NOT released into production until permit is issued!
Shade Shelter installation price EXCLUDES concrete pad, footings, masonry columns, electrical wiring and lights unless otherwise noted.
10. Shade Shelters (DSA)
Fabrication cannot begin until AFTER DSA approval by your architect
DSA in-plant Welding Inspector to be hired by the School District. Welding Inspector fee has NOT been quoted.
School District / Architect responsible for submission of plans to DSA for DSA approval
Pricing does NOT include footings, steel cages, anchor bolts, or erecting of shade shelter unless otherwise noted.
11. Prevailing Wages – assumed and quoted unless specifically excluded due to private works.
Park Planet does not meet the Skilled & Trained Workforce Requirements and will not participate in same. Park Planet will not sign any PLA's for Union Work and is not signatory to any unions.



HANFORD

CALIFORNIA

Drinking Fountain Overview/Purchase

City of Hanford Drinking Fountains



Scale

- 1-Good-Fully Functional
- 2-Fair-Minor Cosmetic Issues but Functional
- 3-Poor- Functional Issues but Operational
- 4-Removed-Damaged Beyond Repair

Currently City of Hanford Parks maintains 62 drinking fountains for public use.

10 Have been completely removed due to conditions
10 are proposed to be replaced
6 more have a condition of 3

City Park Drinking Fountain Locations/Rating



Park	# of Fountains	Condition Rating
Centennial	6	2-2-3-3-4-4
Civic/ Courthouse Park	3	1-2-2
Coe	3	1-2-4
Freedom	5	2-2-2-2-2
Hidden Valley	4	1-2-2-2
Johnson	1	2
Lacy	2	2-3
Lakewood	1	2
Quail park	1	2
Sherwood	1	2
Skate Park	1	3

Sports Complex
Drinking
Fountain
Locations/Rating



Park	# of Fountains	Condition Rating
Bob Hill Football	8	4-4-4-4-4-4-4-4
Softball Complex	10	2-2-2-2-2-2-2-2
Harris Street Baseball	2	3-3
YAC	8	3-3-3-3-3-3-3-3



LAD Park Drinking Fountain Locations/Rating



LAD Parks	# of Fountains	Condition Rating
Bonnaterra	1	1
Ella Garden	1	1
Glacier	1	3
Independence	1	2
Quail Run Estates	1	2
Vineyard	1	3

Proposed Drinking Fountain and Locations

Location	Standard Fountain	Standard Fountain W/Dog Bowl	Quantity
Vineyard Park (LAD)		X	1
COE Park		X	1
Lacey Park		X	1
Skate Park	X		1
Harris Ball Park	X		2
Centennial Park		X	2
YAC	X		4





AGENDA STAFF REPORT

MEETING DATE: 9/16/2025

AGENDA SECTION: GENERAL BUSINESS

SUBJECT:

Illegal Fireworks update, discussion and direction for the Hanford Fire Department on developing the “It’s Not Worth It” Campaign

RECOMMENDATION:

Recommendation: Staff recommends City Council receive an Illegal Fireworks update, discuss and provide direction for the Hanford Fire Department on developing the “It’s Not Worth It” Campaign

Recommended Motion: I motion for staff to proceed with (Option #1, #2, or #3) for Illegal Fireworks on developing the “It’s Not Worth It” Campaign

BACKGROUND:

This report is an amalgam of potential tools to develop a workable approach to the City’s illegal fireworks issue. The following suggested solutions have been developed to provide a series of best practices. These approaches have been formulated as a result of 18 months of extensive research, practical application of past, current and suggested means within the City to develop a feasible and effective solution to the illegal fireworks issue within the City of Hanford. These efforts have been undertaken at the request of Hanford City Council and the direction of the City Manager.

Staff has synthesized the findings from numerous agencies and cities statewide. Additionally, regional, as well as local entities were researched as to their current and best practices with legal opinions regarding these practices extensively explored by the City Attorney. These opinions were sought to balance the suggested practices with historic reference, so that a Hanford specific solution would be crafted to meet the expectations of the community and the City Council. Contextual items regarding the professional opinions and suggested solutions from both the Legal and Fire Suppression Fields of expertise will be presented.

Background:

- 1938 California State Fire Marshal was established to deal specifically with a growing fireworks issues statewide.
- Financial gain drives the proliferation of Illegal as well as Safe and Sane Fireworks - \$2 Billion industry in United States
- By Definition: Illegal fireworks- explode and leave the ground at heights greater than 8 feet.
- Most users of illegal fireworks view activity as relatively harmless and worth the fine if caught — the current fine is a maximum of \$1,000.

- Fireworks cause (nationally):
 - 10,000 serious injuries annually 7,000 of those needing hospitalization
 - 8-9 deaths annually
 - \$22 million in direct property loss nationwide
 - Over \$1 million annually in property loss in California
- Options tested over past two Fourth of July's

2024 - City Summary:

- Heavy Enforcement, no increase in Suppression capabilities
- 24 citations issued, (4) collected - 17% effective
- Confiscated 5,000 lbs. of fireworks- no means to deal with illegals
- Experienced operational inability due to no units available
- Several large loss fires with simultaneous calls unable to be answered
- No appreciable decrease in activity

2025 - City Summary:

- Heavy Suppression capabilities with increased staffing
- Decreased fire loss and able to meet suppression demands
- Minimal enforcement, 2 citations issued by HPD
- No fireworks confiscated
- Moderate increase in outreach and awareness with same "No Illegal Fireworks"
- No appreciable decrease in activity
- Increased costs (beyond expenses planned in budget)

The following options have been created to guide the City Council to adopt one of the three suggested practices. Staff recommends that the third suggested series of best practices be adopted so that an appreciable decrease in the use of illegal fireworks be recognized and further allow Hanford Public Safety — Fire and Police Departments to become more effective as well as efficient in their efforts to protect the Citizens of Hanford while still honoring a traditional ability to celebrate responsibly.

ILLEGAL FIREWORKS ACTION PROPOSALS

THREE OPTIONS:

OPTION 1: Status Quo (prior to 7/1/23)

- Limited enforcement of confiscation but nowhere to store legally. Cost of disposal tracking of all individual and rental use of vehicle to deliver to SFM in So Cal.
- Limited Recovery due to no changes in the Municipal Code — less than 12% return on average for citations.
- Increase in Holiday specific staffing (i.e. 3rd, 4th, 5th of July) by (3) personnel, one apparatus
- No Drones
- No increase in media and outreach.
- Not instituting an "It's Not worth It!" Campaign.

- No Changes to Municipal Code

Estimated Cost: \$3,528.00

Option 2: Ordinance Update, Limited "It's not Worth It" Campaign

- Moderate increase in staffing to respond to numerous fires and complaints of Fireworks-upstaffed HFD by (8) personnel (3) additional apparatus with Additional HFD Command Staff for multiple incidents.
 - a. Efforts will have moderate positive impact to respond to multiple simultaneous fires.
 - i. Lack of logistical support
 - ii. Crews being assigned to Fireworks Investigation rather than being available for response.
 - b. Enforcement efforts limited due to one assigned unit
- Slight increase in enforcement due to limited personnel:
 - a. Minor increase to store and dispose of confiscated fireworks
 - b. Minimal personnel available from HFD to complete confiscation
 - c. Minor individual accountability as no enhanced enforcement effort
 - d. Minimal return on investment of staff hours
 - e. Minimal tangible decrease in use of fireworks
- Pairing with HPD — slightly enhanced, with increased presence of enforcement capabilities
 - a. Still receive calls for service
 - b. D.A. reluctant to pursue any fireworks charges that are based in H&S code making. large dollar fines available through CA. AB 1403 are nearly impossible to collect — if collected, courts get the largest percentage of monies.
- No drones used- lack of staffing
- Changes to the Hanford Municipal Code – minimal
 - a. Per firework charge, language added
 - b. No ability to enforce due to lack of staffing — no citations, no offsetting revenue
 - c. New appeals process being utilized — third party aligned with Code Enforcement
- Slight increase in outreach with Old No Illegal Fireworks, - \$1,000 fine
- No adoption of "It's Not worth It" due to funding

Estimated Costs for July 4th ONLY:

(2) Crews on type 6's - 3 personnel ea.
 (1) Crew 24 hours
 \$56.00 hr. avg. per person (x3) x (1.5) x (24)
 Total: \$6,048.00

(1) Crew peak hours only
 \$56.00 per person- p/h (x3) x (1.5) for 7 hours peak
 Total: \$1,764.00

(1) Additional Chief Officer peak hours only
\$70.00 p/h for 7 hours peak-hour staffing
Total: \$490.00

Increased staffing: One day \$8,302.00
Continued signage: 50 Signs \$ 800.00

Police Staffing (overtime): \$10,000

Estimated Cost for July 4th ONLY: \$20,000.00 (rounded)

OPTION 3: Ordinance Update, Enhanced “It’s Not Worth It” Campaign:

- Increase in staffing to respond to increase in fires and complaints of fireworks
 - a. Upstaff HFD by (6) additional apparatus
 - i. 2 Suppression
 - ii. 1 Command
 - iii. 3 Enforcement
 - Increase enforcement through:
 - a. Changes specific to Hanford Municipal Code
 - i. Add Per Illegal Firework Charge language
 - 1. The HMC should be amended to clarify that each illegal firework is a separate offense, and each offense is subject to a separate fine
 - ii. Maximum Fine - per day of \$10,000 per person /per day
 - b. Appeals Process mirrored with Code Enforcement
 - i. Neutral rotating third- party (attorneys) that will hear appeals cases, the same as for Code Enforcement
 - c. Provide location to store and track fireworks—
 - i. Funds identified through the Administration Cite process to cover separate from fine
 - 1. HMC Section 8.11.050 indicates that a violator will be responsible for the costs associated with illegal fireworks disposal and for enforcement costs. A similar statement may be added to citations to notify violators that their financial liability will not be limited to fines
 - d. Provide Administrative oversight to process Confiscated Fireworks
 - i. Funds identified through the Administration Cite process to cover separate from fine
 - 1. HMC Section 8.11.050 indicates that a violator will be responsible for the costs associated with illegal fireworks disposal and for enforcement costs. A similar statement may be added to citations to notify violators that their financial liability will not be limited to fines
- Utilize Drones
 - a. 400 ft
 - b. In public space
 - c. Assist where activity is concentrated to direct field groups
 - i. Drones were purchased in 2023/24 utilizing SHSGP Funds (no new cost).

ii. Gaining data year one to develop an enforcement heat map showing recurring offenses allowing for Social Host Ordinance enforcement

- Increased presence of Public Safety Enforcement pairing with HPD

- a. Would allow better reaction to calls for service for fireworks
- b. D.A. reluctant to pursue any Firework Charges that are based in H&S code making large dollar fines available through CA. AB 1403 nearly impossible to collect — if collected, courts get largest percentage of monies.

- Significant Increase in outreach with:

- a. Begin “It’s Not Worth it” Campaign
 - i. New Signs
 - ii. Social Media
 - iii. Television spots with current local issues
 - iv. Change paradigm of \$1,000 – no big deal

Estimated One Day Cost: \$22,163.00*

Estimated “IT’S NOT WORTH IT” Campaign Costs:

July 3rd, 4th and 5th 2026.

Weekend 4th of July, Fri./ Sat./ Sun.

Peak hours 1800- 0100 - 7 hrs.

Typically, upstaff 2 of 3 days

- (2) Crews on type 6’s - 3 personnel ea.

- (1) Crew 24 hours

\$56.00 hr. avg. per person (x3) x (1.5) x (24)

Total: \$6,048.00

- (1) Crew peak hours only

\$56.00 per person- p/h (x3) x (1.5) for 7 hours peak

Total: \$1,764.00

- (2) Additional Chief Officers peak hours only

\$70.00 p/h for 7 hours peak-hour staffing

Total: \$980.00

- (4-6) Personnel (PT Fire Help for Logistics)

\$23 P/h for 7 Hr. peak hour staffing

Total: \$966.00

Estimated Cost: \$9,758.00

Enforcement costs

- (3) Investigators — Peak hours plus any additional paperwork follow-up

\$56.00 per person- p/h (x3) x (1.5) for 7 hours peak

Total: \$1,764.00

Estimated Total Cost: \$1,764.00

+ \$9,758.00

\$11,522.00

Investigative/ Processing costs

Processing: 3 personnel (8) hrs. 1 day - \$56.00(3)(8) = \$2,016

Storage (1) storage unit — City owned currently = \$0

Vehicle Rental Transportation of Fireworks to CSFM site = \$250

\$2,266.00

OUTREACH costs:

Handouts: 2,000 English, 1,000 Spanish = \$750

Signage: 250 yard-signs = \$5,000

PSA's: Staff Time- 30 Hrs. = \$1,575

Social Media: Staff Time – 20 Hrs. = \$1,050

\$8,375.00

One Day Total - \$ 22,163.00*

***Day one personnel plus Outreach and Processing estimates included:**

two-day total - \$33,685.00

three-day total - \$45,205.00

Police Costs (estimated overtime) - \$12,000

TOTAL COSTS (rounded) - \$60,000

FISCAL IMPACT:

Depending on the option directed by City Council, the costs of implementation will vary:

Estimated Fiscal Impact to the General Fund:

Option 1: \$4,000 (within existing budget)

Option 2: \$20,000 (additional budget needed)

Option 3: \$60,000 (additional budget needed)

For the fiscal year 2025/2026 City Council approved a balanced budget. Should an option be chosen that incurs additional budget, maintaining a balanced General Fund budget may be more challenging. Additional fines that may be assessed would not be anticipated to fully cover the additional costs incurred by the City for enforcement of the ordinance. A mid-year budget amendment will be brought to City Council depending on the enforcement option selected.

ATTACHMENTS:

None



Warrant Register

Check Date Range: 8/1/2025 - 8/31/2025

Report Date: 9/2/2025

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
0001 GENERAL FUND	100300 IC-PARKS AND REC CHANGE F	8/28/2025	185057	CITY OF HANFORD	\$600.00	85715	START UP FOR THE SOFTBALL
	140910 REVOLVING POSTAGE	8/28/2025	185067	INFOSEND, INC.	\$37,605.00	293058	BPO/UBS & FINANCE PRINTIN
	220050 CFD FORMATION FEES PAYABL	8/28/2025	185193	WILLDAN FINANCIAL SERVICES	\$20,000.00	010-62274	BILLINGSLEY T937 CFD 2025
	220050 CFD FORMATION FEES PAYABL	8/28/2025	185193	WILLDAN FINANCIAL SERVICES	\$32,000.00	010-62273	LUNARIA T938 & BILLINGSLY
	412000 SALES TAX	8/13/2025	184865	MUNI SERVICES, LLC	\$500.00	INV06-021446	STARS 2025 Q1 DATA
	DIVISION/ORG TOTAL 0001 - GENERAL FUND				\$90,705.00		
00580000 ARPA	821611 YAC CONCESSION BLDG RESTO	8/13/2025	184701	4CREEKS INC	\$16,440.20	4C010330	YAC DESIGN OF SITE IMPROV
	823646 ARPA DOWNTOWN ST ECONOMIC	8/6/2025	184652	INTERWEST CONSULTING GROUP	\$477.50	2092085	DOWNTOWN TRAFFIC & PEDEST
	823646 ARPA DOWNTOWN ST ECONOMIC	8/13/2025	184818	INTERWEST CONSULTING GROUP	\$1,235.00	1955264	DOWNTOWN TRAFFIC & PEDEST
	823647 ARPA HV PARK CONCEPTUAL P	8/13/2025	184765	CRAWFORD & BOWEN PLANNING, INC.	\$9,500.00	1002	HIDDEN VALLEY EXPANSION/E
	DIVISION/ORG TOTAL 00580000 - ARPA				\$27,652.70		
0240 LAD 90-1 T606 PINECASTLE	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$77.54	2025-06	2025-06 ELECTRICITY SVC
DIVISION/ORG TOTAL 0240 - LAD 90-1 T606 PINECASTLE					\$77.54		

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
0241 LAD 90-2 T610 PARK MONTEREY	755000 OTHER CONTRACTUAL SERVICE	8/28/2025	185024	CLEAN CUT LANDSCAPE MANAGEMENT INC	\$350.00	5776	REMOVAL HAZARDOUS BRANCH
	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$28.90	2025-06	2025-06 ELECTRICITY SVC
	DIVISION/ORG TOTAL 0241 - LAD 90-2 T610 PARK MONTEREY				\$378.90		
0242 LAD 90-3 T595 MANSIONETTE 7/8	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$14.88	2025-06	2025-06 ELECTRICITY SVC
	DIVISION/ORG TOTAL 0242 - LAD 90-3 T595 MANSIONETTE 7/8				\$14.88		
0243 LAD 90-4 T619 HYDE PARK	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$14.60	2025-06	2025-06 ELECTRICITY SVC
	DIVISION/ORG TOTAL 0243 - LAD 90-4 T619 HYDE PARK				\$14.60		
0244 LAD 91-1 T641 SIERRA VISTA	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$71.73	2025-06	2025-06 ELECTRICITY SVC
	DIVISION/ORG TOTAL 0244 - LAD 91-1 T641 SIERRA VISTA				\$71.73		
0245 LAD 92-1 PORTOFINO	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$14.40	2025-06	2025-06 ELECTRICITY SVC
	DIVISION/ORG TOTAL 0245 - LAD 92-1 PORTOFINO				\$14.40		
0246 LAD 92-2 CIELO EN TIERRA	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$13.82	2025-06	2025-06 ELECTRICITY SVC
	DIVISION/ORG TOTAL 0246 - LAD 92-2 CIELO EN TIERRA				\$13.82		
0247 LAD 93-1 T634 VINTAGE ESTATES	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$23.00	2025-06	2025-06 ELECTRICITY SVC
	DIVISION/ORG TOTAL 0247 - LAD 93-1 T634 VINTAGE ESTATES				\$23.00		
0248 LAD 93-2 T673 WALNUT FOREST	755000 OTHER CONTRACTUAL SERVICE	8/28/2025	185154	RISING GREEN INC	\$900.00	3690	BROKEN TREE NEEDING TO BE
	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$28.51	2025-06	2025-06 ELECTRICITY SVC
	DIVISION/ORG TOTAL 0248 - LAD 93-2 T673 WALNUT FOREST				\$928.51		
0249 LAD 94-1 T712 GATEWAY ESTATES	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$30.46	2025-06	2025-06 ELECTRICITY SVC
	DIVISION/ORG TOTAL 0249 - LAD 94-1 T712 GATEWAY ESTATES				\$30.46		

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0250 LAD 94-2 T708 STONECREST	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$108.04	2025-06	2025-06 ELECTRICITY SVC
DIVISION/ORG TOTAL 0250 - LAD 94-2 T708 STONECREST					\$108.04		
0251 LAD 94-3 T696 QUAIL RUN	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$15.97	2025-06	2025-06 ELECTRICITY SVC
DIVISION/ORG TOTAL 0251 - LAD 94-3 T696 QUAIL RUN					\$15.97		
0252 LAD 97-1 T711 ROSEWOOD ESTATES	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$13.82	2025-06	2025-06 ELECTRICITY SVC
DIVISION/ORG TOTAL 0252 - LAD 97-1 T711 ROSEWOOD ESTATES					\$13.82		
0253 LAD 97-2 T742 SUMMERFIELD	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$14.59	2025-06	2025-06 ELECTRICITY SVC
DIVISION/ORG TOTAL 0253 - LAD 97-2 T742 SUMMERFIELD					\$14.59		
0254 LAD 97-3 T743 COUNTRY CROSSING	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$44.61	2025-06	2025-06 ELECTRICITY SVC
DIVISION/ORG TOTAL 0254 - LAD 97-3 T743 COUNTRY CROSSING					\$44.61		
0255 LAD 98-1 T747 CRYSTAL SPRINGS	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$14.40	2025-06	2025-06 ELECTRICITY SVC
DIVISION/ORG TOTAL 0255 - LAD 98-1 T747 CRYSTAL SPRINGS					\$14.40		
0256 LAD 98-2 T759 MOUNTAIN VIEW	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$29.56	2025-06	2025-06 ELECTRICITY SVC
DIVISION/ORG TOTAL 0256 - LAD 98-2 T759 MOUNTAIN VIEW					\$29.56		
0257 LAD 01-1 T680 PACIFIC GROVE	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$58.91	2025-06	2025-06 ELECTRICITY SVC
DIVISION/ORG TOTAL 0257 - LAD 01-1 T680 PACIFIC GROVE					\$58.91		
0258 LAD 01-2 T770 CAMBRIDGE HOMES	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$27.76	2025-06	2025-06 ELECTRICITY SVC
DIVISION/ORG TOTAL 0258 - LAD 01-2 T770 CAMBRIDGE HOMES					\$27.76		
0259 LAD 01-3 T771 POPPY HILL	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$14.88	2025-06	2025-06 ELECTRICITY SVC
DIVISION/ORG TOTAL 0259 - LAD 01-3 T771 POPPY HILL					\$14.88		
0260 LAD 01-4 T769 SILVER OAKS	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$87.15	2025-06	2025-06 ELECTRICITY SVC
DIVISION/ORG TOTAL 0260 - LAD 01-4 T769 SILVER OAKS					\$87.15		

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0261 LAD 02-1 T776 ASHTON PARK	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$29.20	2025-06	2025-06 ELECTRICITY SVC
DIVISION/ORG TOTAL 0261 - LAD 02-1 T776 ASHTON PARK					\$29.20		
0262 LAD 03-1 T789 LE PARC/RR	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$14.14	2025-06	2025-06 ELECTRICITY SVC
DIVISION/ORG TOTAL 0262 - LAD 03-1 T789 LE PARC/RR					\$14.14		
0263 LAD 04-1 T810 SIDONIA I & II	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$28.64	2025-06	2025-06 ELECTRICITY SVC
DIVISION/ORG TOTAL 0263 - LAD 04-1 T810 SIDONIA I & II					\$28.64		
0264 LAD 04-2 T799 CAMBRIDGE/PINNAC	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$118.45	2025-06	2025-06 ELECTRICITY SVC
DIVISION/ORG TOTAL 0264 - LAD 04-2 T799 CAMBRIDGE/PINNAC					\$118.45		
0265 LAD 04-3 T795 CAMBRIDGE/VINEYA	755000 OTHER CONTRACTUAL SERVICE	8/13/2025	184929	RISING GREEN INC	\$1,400.00	3673	REMOVAL OF TWO DEAD TRESS
	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$147.58	2025-06	2025-06 ELECTRICITY SVC
	DIVISION/ORG TOTAL 0265 - LAD 04-3 T795 CAMBRIDGE/VINEYA					\$1,547.58	
0266 LAD 04-4 T802 SIERRA HEIGHTS	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$46.16	2025-06	2025-06 ELECTRICITY SVC
DIVISION/ORG TOTAL 0266 - LAD 04-4 T802 SIERRA HEIGHTS					\$46.16		
0267 LAD 05-1 MISSION PARK/BASIN	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$16.11	2025-06	2025-06 ELECTRICITY SVC
DIVISION/ORG TOTAL 0267 - LAD 05-1 MISSION PARK/BASIN					\$16.11		
0268 LAD 05-2 T835 COPPER VALLEY	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$27.76	2025-06	2025-06 ELECTRICITY SVC
DIVISION/ORG TOTAL 0268 - LAD 05-2 T835 COPPER VALLEY					\$27.76		
0269 LAD 06-1 T794 QUAIL PARK	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$306.42	2025-06	2025-06 ELECTRICITY SVC
DIVISION/ORG TOTAL 0269 - LAD 06-1 T794 QUAIL PARK					\$306.42		
0270 LAD 09-1 T877 VICTORY ESTATES	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$14.14	2025-06	2025-06 ELECTRICITY SVC
DIVISION/ORG TOTAL 0270 - LAD 09-1 T877 VICTORY ESTATES					\$14.14		

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0271 LAD 09-2 T843 INDEP/LENNAR	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$66.38	2025-06	2025-06 ELECTRICITY SVC
	DIVISION/ORG TOTAL 0271 - LAD 09-2 T843 INDEP/LENNAR				\$66.38		
0272 LAD 07-2 T811 S GATE/GREENBRIE	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$15.29	2025-06	2025-06 ELECTRICITY SVC
	DIVISION/ORG TOTAL 0272 - LAD 07-2 T811 S GATE/GREENBRIE				\$15.29		
0273 LAD 14-1 T843 INDEP III & IV	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$43.20	2025-06	2025-06 ELECTRICITY SVC
	DIVISION/ORG TOTAL 0273 - LAD 14-1 T843 INDEP III & IV				\$43.20		
0274 LAD 15-1 T887 SILVER OAKS III	755000 OTHER CONTRACTUAL SERVICE	8/28/2025	184994	A-C ELECTRIC COMPANY	\$3,242.00	VT0943-002	TROUBLESHOOT/REPAIR SILVE
	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$124.39	2025-06	2025-06 ELECTRICITY SVC
	DIVISION/ORG TOTAL 0274 - LAD 15-1 T887 SILVER OAKS III				\$3,366.39		
0275 LAD 15-2 T823 GREENS II	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$14.71	2025-06	2025-06 ELECTRICITY SVC
	DIVISION/ORG TOTAL 0275 - LAD 15-2 T823 GREENS II				\$14.71		
0276 LAD 16-1 T917 WOODSIDE	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$14.71	2025-06	2025-06 ELECTRICITY SVC
	DIVISION/ORG TOTAL 0276 - LAD 16-1 T917 WOODSIDE				\$14.71		
0277 LAD 16-2 T914 MYNDERUP	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$173.36	2025-06	2025-06 ELECTRICITY SVC
	DIVISION/ORG TOTAL 0277 - LAD 16-2 T914 MYNDERUP				\$173.36		
0278 LAD 18-1 T918-9 BELLA V/BONTER	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$228.61	2025-06	2025-06 ELECTRICITY SVC
	DIVISION/ORG TOTAL 0278 - LAD 18-1 T918-9 BELLA V/BONTER				\$228.61		
0281 LAD 20-1 T929 WOODSIDE	755000 OTHER CONTRACTUAL SERVICE	8/28/2025	185024	CLEAN CUT LANDSCAPE MANAGEMENT INC	\$740.00	5766	REPLACE WASHED OUT LANDSC
	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$229.68	2025-06	2025-06 ELECTRICITY SVC
	778000 UTILITIES-ELECTRICITY	8/28/2025	185159	PRESIDIO JJR BONTERRA II 160, LLC	\$25.12	2035FARGO	REIMBURSEMENT FOR SCE SER

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0281 LAD 20-1 T929 WOODSIDE	778000 UTILITIES-ELECTRICITY	8/28/2025	185159	PRESIDIO JJR BONTERRA II 160, LLC	\$85.59	2291NAPA	REIMBURSEMENT FOR SCE SER
	778000 UTILITIES-ELECTRICITY	8/28/2025	185159	PRESIDIO JJR BONTERRA II 160, LLC	\$1,235.03	2026SANGIOVESE	REIMBURSEMENT FOR SCE SER
	778000 UTILITIES-ELECTRICITY	8/28/2025	185159	PRESIDIO JJR BONTERRA II 160, LLC	\$115.97	2186SANGIOVESE	REIMBURSEMENT FOR SCE SER
	DIVISION/ORG TOTAL 0281 - LAD 20-1 T929 WOODSIDE				\$2,431.39		
0283 CFD 22-1 LIVE OAK	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$119.18	2025-06	2025-06 ELECTRICITY SVC
	778000 UTILITIES-ELECTRICITY	8/28/2025	185159	PRESIDIO JJR BONTERRA II 160, LLC	\$531.92	1714DINKY2	REIMBURSEMENT FOR SCE SER
	778000 UTILITIES-ELECTRICITY	8/28/2025	185159	PRESIDIO JJR BONTERRA II 160, LLC	\$268.47	1714DINKY1	REIMBURSEMENT FOR SCE SER
	778000 UTILITIES-ELECTRICITY	8/28/2025	185159	PRESIDIO JJR BONTERRA II 160, LLC	\$131.15	1787ALPINE1	REIMBURSEMENT FOR SCE SER
	778000 UTILITIES-ELECTRICITY	8/28/2025	185159	PRESIDIO JJR BONTERRA II 160, LLC	\$16.71	1787ALPINE2	REIMBURSEMENT FOR SCE SER
	DIVISION/ORG TOTAL 0283 - CFD 22-1 LIVE OAK				\$1,067.43		
03401340 BUILDING SAFETY	730000 UNIFORM EXPENSE	8/13/2025	184835	JASON ALLEN BRANDON DBA	\$216.45	41486	SAFETY SHOES - RAPP, ZACH
	730000 UNIFORM EXPENSE	8/13/2025	184835	JASON ALLEN BRANDON DBA	\$224.06	41493	SAFETY SHOES - LOPEZ, JOS
	732000 COMMUNICATIONS	8/13/2025	184969	VERIZON WIRELESS	\$265.54	6117461590	2025-06 CELL PHONE LINES/
	732000 COMMUNICATIONS	8/28/2025	185168	U S TELEPACIFIC CORP	\$110.16	186500859-0	PHONE SERVICE 07/23-08/22
	732000 COMMUNICATIONS	8/28/2025	185183	VERIZON WIRELESS	\$291.80	6119979262	ACCT 771937214-00003
	744000 OFFICE EXPENSE MISC	8/13/2025	184709	AMAZON CAPITAL SERVICE, INC.	\$223.80	1KQ6-Y6DW-6LYN	2025-07 AMAZON PURCHASES
	749500 PROF AND SPEC SERVICES	8/13/2025	184727	C A D D MICROSYSTEMS, INC	\$5,070.00	SO30044027	BLUEBEAM RENEWAL
	749500 PROF AND SPEC SERVICES	8/13/2025	184931	ROD CARSEY	\$9,660.20	25-7	2025-07 PLAN REVIEW SERVI

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03401340 BUILDING SAFETY	749500 PROF AND SPEC SERVICES	8/28/2025	185013	BPR CONSULTING GROUP	\$3,472.00	3227	BPO/PLAN REVIEW & INSPECT
	749500 PROF AND SPEC SERVICES	8/28/2025	185090	KONICA MINOLTA BUSINESS SOLUTIONS USA INC	\$6,953.64	52175745	BPO/SCANNING OF PLANS
	760124 PLNG-ELEC SYS FEE EXP	8/13/2025	184727	C A D D MICROSYSTEMS, INC	\$1,320.00	SO30044027	BLUEBEAM RENEWAL
	777000 TRAINING/TRAVEL/MEE TIN G	8/28/2025	185018	CALIF BUILDING OFFICIALS	\$90.00	19211	REG/WEBINAR SOLAR & EV ST
	777000 TRAINING/TRAVEL/MEE TIN G	8/28/2025	185018	CALIF BUILDING OFFICIALS	\$90.00	19538	REG/WEBINAR 2025 CA RES C
	825620 CD REMODEL	8/28/2025	185000	ALLSTEEL INC	\$25,337.78	2563562	COMMUNITY DEVELOPMENT REM
	825620 CD REMODEL	8/28/2025	185073	J R SCOTT CONSTRUCTION INC	\$5,320.00	25-030	CD REMODEL/DEMO
	825620 CD REMODEL	8/28/2025	185179	SQUARE GROVE LLC	\$7,080.98	INV2119979	CD REMODEL/DESKS FOR STAF
DIVISION/ORG TOTAL 03401340 - BUILDING SAFETY					\$65,726.41		
0361 WASTEWATER OPER FUND	112300 CONSUMER ACCTS RECEIVABLE	8/28/2025	185117	ONE TIME VENDOR	\$123.87	86193	UB 09102000 1148 -80 W 7T
	DIVISION/ORG TOTAL 0361 - WASTEWATER OPER FUND					\$123.87	
0390 WATER OPERATIONS FUND	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184872	ONE TIME VENDOR	\$33.09	85029	UB 11021527 1424 HAYDEN A
	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184872	ONE TIME VENDOR	\$85.26	85030	UB 11021527 1424 HAYDEN A
	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184873	ONE TIME VENDOR	\$1,298.90	85549	UB 08130100 1711 11TH AVE
	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184874	ONE TIME VENDOR	\$506.16	85550	UB 08130105 1711 11TH AVE

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0390 WATER OPERATIONS FUND	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184875	ONE TIME VENDOR	\$17.27	85038	UB 11021896 558 PARSONS S
	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184876	ONE TIME VENDOR	\$106.38	85055	UB 08931169 1450 GREENFIE
	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184877	ONE TIME VENDOR	\$656.36	85525	UB 12108286 2437 CLARIDGE
	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184878	ONE TIME VENDOR	\$123.82	85054	UB 12104035 2107 TUDOR LN
	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184879	ONE TIME VENDOR	\$960.00	85045	UB 09968424 22 Fire Hydra
	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184880	ONE TIME VENDOR	\$42.98	85040	UB 14001228 805 IVY ST
	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184881	ONE TIME VENDOR	\$933.64	85526	UB 09968470 42 Fire Hydra
	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184882	ONE TIME VENDOR	\$274.41	85043	UB 11101516 9858 COAST AV
	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184883	ONE TIME VENDOR	\$63.97	85041	UB 08327900 1404 KAWEAH S
	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184884	ONE TIME VENDOR	\$14.35	85042	UB 09812310 309 HARRIS ST
	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184885	ONE TIME VENDOR	\$135.60	85034	UB 09004000 712 & 716 PHI
	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184886	ONE TIME VENDOR	\$75.99	85524	UB 12104231 1776 VAN GOGH
	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184887	ONE TIME VENDOR	\$543.23	85037	UB 09463000 1551 MARY ST

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0390 WATER OPERATIONS FUND	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184888	ONE TIME VENDOR	\$11.70	85522	UB 12050200 1728 BRYMAN S
	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184889	ONE TIME VENDOR	\$873.12	85056	UB 09968459 33 Fire Hydra
	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184890	ONE TIME VENDOR	\$107.36	85044	UB 11402800 11101 10TH 1/
	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184892	ONE TIME VENDOR	\$81.85	85052	UB 10347002 2186 COTTONWO
	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184893	ONE TIME VENDOR	\$271.88	85523	UB 12104963 2471 VINTAGE
	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184894	ONE TIME VENDOR	\$94.44	85047	UB 08931117 1180 DELLA ST
	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184895	ONE TIME VENDOR	\$68.59	85049	UB 08570300 2430 ZION WAY
	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184896	ONE TIME VENDOR	\$55.02	85032	UB 09142102 369 11TH AVE
	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184897	ONE TIME VENDOR	\$2,881.16	85035	UB 09142100 369 11TH AVE
	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184898	ONE TIME VENDOR	\$597.30	85036	UB 09142300 369 11TH AVE/
	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184899	ONE TIME VENDOR	\$20.75	85048	UB 14601345 1845 10TH AVE
	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184900	ONE TIME VENDOR	\$1,467.85	85053	UB 09125800 1108 HANSEN C
	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184901	ONE TIME VENDOR	\$980.00	85046	UB 09968475 29 FIRE HYDRA

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0390 WATER OPERATIONS FUND	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184902	ONE TIME VENDOR	\$230.41	85039	UB 14001101 522 11TH ST
	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184903	ONE TIME VENDOR	\$44.96	85527	UB 14401062 2857 DOUTY ST
	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184904	ONE TIME VENDOR	\$114.28	85050	UB 08820000 702 CORTNER S
	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184905	ONE TIME VENDOR	\$236.29	85521	UB 09114002 707 LACEY BLV
	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184906	ONE TIME VENDOR	\$107.16	85520	UB 10044632 1225 LASSEN D
	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184908	ONE TIME VENDOR	\$107.15	85031	UB 10732140 1925 SHAVER P
	112300 CONSUMER ACCTS RECEIVABLE	8/13/2025	184909	ONE TIME VENDOR	\$518.74	85051	UB 09026105 1118 GREENBRI
	112300 CONSUMER ACCTS RECEIVABLE	8/28/2025	185115	ONE TIME VENDOR	\$47.42	85923	UB 14001239 520 9TH ST
	112300 CONSUMER ACCTS RECEIVABLE	8/28/2025	185116	ONE TIME VENDOR	\$24.23	85930	UB 08215400 404 MAGNOLIA
	112300 CONSUMER ACCTS RECEIVABLE	8/28/2025	185117	ONE TIME VENDOR	\$21.13	86193	UB 09102000 1148 -80 W 7T
	112300 CONSUMER ACCTS RECEIVABLE	8/28/2025	185119	ONE TIME VENDOR	\$980.00	85924	UB 09968380 46 Fire Hydra
	112300 CONSUMER ACCTS RECEIVABLE	8/28/2025	185120	ONE TIME VENDOR	\$73.24	85921	UB 09635162 304 EARL WAY
	112300 CONSUMER ACCTS RECEIVABLE	8/28/2025	185121	ONE TIME VENDOR	\$153.28	85928	UB 12104255 2306 CHARDONN

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
0390 WATER OPERATIONS FUND	112300 CONSUMER ACCTS RECEIVABLE	8/28/2025	185123	ONE TIME VENDOR	\$385.47	86168	UB 09810202 942 HARRIS ST
	112300 CONSUMER ACCTS RECEIVABLE	8/28/2025	185126	ONE TIME VENDOR	\$321.37	86166	UB 08873424 1102 AUDUBON
	112300 CONSUMER ACCTS RECEIVABLE	8/28/2025	185127	ONE TIME VENDOR	\$91.78	85922	UB 12200483 1173 BRANCH C
	112300 CONSUMER ACCTS RECEIVABLE	8/28/2025	185128	ONE TIME VENDOR	\$649.68	85925	UB 08727830 2500 10TH AVE
	112300 CONSUMER ACCTS RECEIVABLE	8/28/2025	185129	ONE TIME VENDOR	\$580.06	86170	UB 08727831 2500 10TH AVE
	112300 CONSUMER ACCTS RECEIVABLE	8/28/2025	185130	ONE TIME VENDOR	\$91.78	86165	UB 08238000 2004 BURL DR
	112300 CONSUMER ACCTS RECEIVABLE	8/28/2025	185131	ONE TIME VENDOR	\$11.25	85919	UB 09812324 105 3RD ST
	112300 CONSUMER ACCTS RECEIVABLE	8/28/2025	185132	ONE TIME VENDOR	\$199.08	85929	UB 10831830 1310 ECHO LN
	112300 CONSUMER ACCTS RECEIVABLE	8/28/2025	185133	ONE TIME VENDOR	\$747.93	86167	UB 09009000 619 WILLIAMS
	112300 CONSUMER ACCTS RECEIVABLE	8/28/2025	185134	ONE TIME VENDOR	\$91.78	86171	UB 14701076 911 TOGNERI S
	112300 CONSUMER ACCTS RECEIVABLE	8/28/2025	185135	ONE TIME VENDOR	\$87.23	85926	UB 12104102 1832 AMBASSAD
	112300 CONSUMER ACCTS RECEIVABLE	8/28/2025	185136	ONE TIME VENDOR	\$186.34	85927	UB 11682300 481 CEDAR ST
	112300 CONSUMER ACCTS RECEIVABLE	8/28/2025	185137	ONE TIME VENDOR	\$82.96	85033	UB 08651600 371 NORTHSTAR

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
0390 WATER OPERATIONS FUND	112300 CONSUMER ACCTS RECEIVABLE	8/28/2025	185140	ONE TIME VENDOR	\$133.03	86169	UB 11502800 391 GRANGEVIL
	112300 CONSUMER ACCTS RECEIVABLE	8/28/2025	185141	ONE TIME VENDOR	\$11.51	85920	UB 09029000 1146 12TH AVE
	DIVISION/ORG TOTAL 0390 - WATER OPERATIONS FUND				\$19,711.97		
0400 CITY PAYROLL REVOL FUND	205704 INSUR-P/R DED LIFE	8/28/2025	185025	COLONIAL LIFE & ACCIDENT INSURANCE CO	\$54.56	54087030705564	2025-07 PAYROLL DEDUCTION
	205704 INSUR-P/R DED LIFE	8/28/2025	185062	STEPHANIE HERNANDEZ	\$300.60	86044	COLONIAL LIFE OVERPAYMENT
	205900 EMPLOYEES ASSOCNS PAYABLE	8/8/2025	184695	G E M A 1121211070	\$690.00	290146	PAYROLL DEDUCTIONS
	205900 EMPLOYEES ASSOCNS PAYABLE	8/8/2025	184696	H M E A 0000129193	\$14.00	291158	PAYROLL DEDUCTIONS
	205900 EMPLOYEES ASSOCNS PAYABLE	8/8/2025	184697	H P O A 3242162141	\$4,620.00	292159	PAYROLL DEDUCTIONS
	205900 EMPLOYEES ASSOCNS PAYABLE	8/8/2025	184698	I A F F, LOCAL 3898 A/C#9129026	\$2,175.00	293146	PAYROLL DEDUCTIONS
	205900 EMPLOYEES ASSOCNS PAYABLE	8/8/2025	184700	S E I U LOCAL 521	\$2,336.13	295164	PAYROLL DEDUCTIONS
	205900 EMPLOYEES ASSOCNS PAYABLE	8/22/2025	184983	G E M A 1121211070	\$690.00	290148	PAYROLL DEDUCTIONS
	205900 EMPLOYEES ASSOCNS PAYABLE	8/22/2025	184984	H M E A 0000129193	\$14.00	291160	PAYROLL DEDUCTIONS
	205900 EMPLOYEES ASSOCNS PAYABLE	8/22/2025	184985	H P O A 3242162141	\$4,677.00	292161	PAYROLL DEDUCTIONS
	205900 EMPLOYEES ASSOCNS PAYABLE	8/22/2025	184986	I A F F, LOCAL 3898 A/C#9129026	\$2,100.00	293148	PAYROLL DEDUCTIONS

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
0400 CITY PAYROLL REVOL FUND	205900 EMPLOYEES ASSOCNS PAYABLE	8/22/2025	184988	S E I U LOCAL 521	\$2,502.32	295166	PAYROLL DEDUCTIONS
	206300 EMPLOYEES ATTACHMENT PAY	8/8/2025	184694	FRANCHISE TAX BOARD	\$1,559.57	289134	PAYROLL DEDUCTIONS
	206300 EMPLOYEES ATTACHMENT PAY	8/8/2025	184699	KINGS COUNTY SHERIFF'S OFFICE	\$591.49	628194	PAYROLL DEDUCTIONS
	206300 EMPLOYEES ATTACHMENT PAY	8/22/2025	184981	EMPLOYMENT DEVELOPMENT DEPT	\$162.00	86266	PAYROLL DEDUCTION
	206300 EMPLOYEES ATTACHMENT PAY	8/22/2025	184982	FRANCHISE TAX BOARD	\$1,320.82	289136	PAYROLL DEDUCTIONS
	206300 EMPLOYEES ATTACHMENT PAY	8/22/2025	184987	KINGS COUNTY SHERIFF'S OFFICE	\$601.60	628196	PAYROLL DEDUCTIONS
	207400 TRANSAMERICA	8/28/2025	185174	TRANSAMERICA LIFE INSURANCE CO	\$1,083.90	2505780855	2025-07 PREMIUM PAYMENT G
	207700 LEGAL SHIELD	8/28/2025	185094	PRE PAID LEGAL SERVICE, INC	\$515.45	2025-07	2025-07 PREMIUM PAYMENT G
	210100 VOYA	8/6/2025	184691	RELIASTAR LIFE INSURANCE CO	\$935.09	12A7953307	2025-06 VOYA PREMIUMS
	210100 VOYA	8/28/2025	185190	RELIASTAR LIFE INSURANCE CO	\$2,536.63	12A8079135	2025-07 VOYA PREMIUMS
	DIVISION/ORG TOTAL 0400 - CITY PAYROLL REVOL FUND				\$29,480.16		
0405 MEDICAL FUND	207500 LANE HEALTH	8/7/2025	1803	LIVELY, INC.	\$16,947.50	CY25 PP016	HEALTH SAVINGS ACCT
	300504 INSURANCE-RETIRED EMPLOYE	8/7/2025	1804	COMPASS HEALTH ADMINISTRATORS	\$267.68	20250806	COMPASS/RETIREE/ADMIN FEE
	300504 INSURANCE-RETIRED EMPLOYE	8/8/2025	1806	COMPASS HEALTH ADMINISTRATORS	\$1,024.26	NVCOH-CP-073125	COMPASS RETIREE/PHARMACY
	300504 INSURANCE-RETIRED EMPLOYE	8/14/2025	1786	COMPASS HEALTH ADMINISTRATORS	\$614.09	20250813	COMPASS/RETIREE

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0405 MEDICAL FUND	300504 INSURANCE-RETIRED EMPLOYE	8/15/2025	1785	DELTA DENTAL	\$1,951.80	BE006685143C	DENTAL EE/ER/RETIREE/ADMI
	719603 SELF INS MEDICAL	8/7/2025	1804	COMPASS HEALTH ADMINISTRATORS	\$14,366.29	20250806	COMPASS/RETIREE/ADMIN FEE
	719603 SELF INS MEDICAL	8/14/2025	1786	COMPASS HEALTH ADMINISTRATORS	\$7,740.44	20250813	COMPASS/RETIREE
	719604 SELF INS PRESCRIPTIONS	8/6/2025	1775	COMPASS HEALTH ADMINISTRATORS	\$32.92	NVCOH-RA-072025	RECOVERY & AUDIT PROJ MEM
	719604 SELF INS PRESCRIPTIONS	8/8/2025	1805	COMPASS HEALTH ADMINISTRATORS	(\$22.71)	NVCOH-RA-073125	RECOVERY & AUDIT PROJ MEM
	719604 SELF INS PRESCRIPTIONS	8/8/2025	1806	COMPASS HEALTH ADMINISTRATORS	\$45,919.99	NVCOH-CP-073125	COMPASS RETIREE/PHARMACY
	719605 SELF INS DENTAL	8/15/2025	1785	DELTA DENTAL	\$7,990.28	BE006685143C	DENTAL EE/ER/RETIREE/ADMI
	719605 SELF INS DENTAL	8/15/2025	1785	DELTA DENTAL	\$11,985.42	BE006685143C	DENTAL EE/ER/RETIREE/ADMI
	749503 WELLNESS	8/6/2025	184645	ELITE CORPORATE MEDICAL SERVICES, INC	\$14,971.92	9495	2025-07 EMPLOYEE SHARED H
	749503 WELLNESS	8/13/2025	184776	ELITE CORPORATE MEDICAL SERVICES, INC	\$14,971.92	9538	FY26 EMPLOYEE SHARED HEAL
	749600 GRP INSUR ADM EXPENSE	8/7/2025	1804	COMPASS HEALTH ADMINISTRATORS	\$33.42	20250806	COMPASS/RETIREE/ADMIN FEE
	749600 GRP INSUR ADM EXPENSE	8/12/2025	1788	LIVELY, INC.	\$424.80	1341675	HSA ADMIN FEES
	749600 GRP INSUR ADM EXPENSE	8/13/2025	184708	FRANK ALVISO	\$119.00	1142862	RETIREE INSURANCE-CITY CO
	749600 GRP INSUR ADM EXPENSE	8/13/2025	184720	BENISTAR / HARTFORD-6795	\$119.00	07012025	BPO/RETIREE INSURANCE/R.
	749600 GRP INSUR ADM EXPENSE	8/13/2025	184720	BENISTAR / HARTFORD-6795	\$119.00	08012025	2025-08 RETIREE INSURANCE
	749600 GRP INSUR ADM EXPENSE	8/13/2025	184720	BENISTAR / HARTFORD-6795	\$119.00	09012025	BPO/RETIREE INSURANCE/R.

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
0405 MEDICAL FUND	749600 GRP INSUR ADM EXPENSE	8/13/2025	184722	FRANKIE BERNAL	\$119.00	4320533	RETIREE INSURANCE-CITY CO
	749600 GRP INSUR ADM EXPENSE	8/13/2025	184726	RICHARD BUTTS	\$119.00	1142962	RETIREE INSURANCE-CITY CO
	749600 GRP INSUR ADM EXPENSE	8/13/2025	184730	JOHN M CAIN	\$119.00	1143162	RETIREE INSURANCE-CITY CO
	749600 GRP INSUR ADM EXPENSE	8/13/2025	184737	NICHOLAS CARDARAS	\$119.00	1143262	RETIREE INSURANCE-CITY CO
	749600 GRP INSUR ADM EXPENSE	8/13/2025	184738	TERRY CARR	\$119.00	1143362	RETIREE INSURANCE-CITY CO
	749600 GRP INSUR ADM EXPENSE	8/13/2025	184741	JERRY CHOW	\$119.00	1143762	RETIREE INSURANCE-CITY CO
	749600 GRP INSUR ADM EXPENSE	8/13/2025	184766	SIDNEY DAVIS	\$119.00	4894029	RETIREE INSURANCE-CITY CO
	749600 GRP INSUR ADM EXPENSE	8/13/2025	184767	BRIAN DECUIR	\$119.00	1143862	RETIREE INSURANCE-CITY CO
	749600 GRP INSUR ADM EXPENSE	8/13/2025	184770	MARK DILLON	\$119.00	1142662	RETIREE INSURANCE- CITY C
	749600 GRP INSUR ADM EXPENSE	8/13/2025	184792	DOLORES GALLEGOS	\$119.00	1143962	RETIREE INSURANCE-CITY CO
	749600 GRP INSUR ADM EXPENSE	8/13/2025	184793	DAVID E GARCIA	\$119.00	1144062	RETIREE INSURANCE-CITY CO
	749600 GRP INSUR ADM EXPENSE	8/13/2025	184799	JOHN L GOMES	\$119.00	1144162	RETIREE INSURANCE-CITY CO
	749600 GRP INSUR ADM EXPENSE	8/13/2025	184802	DON GREEN	\$119.00	1144262	RETIREE INSURANCE-CITY CO

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0405 MEDICAL FUND	749600 GRP INSUR ADM EXPENSE	8/13/2025	184803	CATHY GREGORY	\$119.00	1144362	RETIREE INSURANCE-CITY CO
	749600 GRP INSUR ADM EXPENSE	8/13/2025	184811	ROBERT HERNANDEZ	\$119.00	1144462	RETIREE INSURANCE-CITY CO
	749600 GRP INSUR ADM EXPENSE	8/13/2025	184815	TIMOTHY L IERONIMO	\$119.00	1144662	RETIREE INSURANCE-CITY CO
	749600 GRP INSUR ADM EXPENSE	8/13/2025	184822	CHRIS JORDAN	\$119.00	1144762	RETIREE INSURANCE-CITY CO
	749600 GRP INSUR ADM EXPENSE	8/13/2025	184836	ARTHUR KNIGHT	\$119.00	1144862	RETIREE INSURANCE-CITY CO
	749600 GRP INSUR ADM EXPENSE	8/13/2025	184847	JOHN LOBOA	\$119.00	1144962	RETIREE INSURANCE-CITY CO
	749600 GRP INSUR ADM EXPENSE	8/13/2025	184848	GLORIA LOPEZ	\$119.00	1145162	RETIREE INSURANCE-CITY CO
	749600 GRP INSUR ADM EXPENSE	8/13/2025	184852	MARY MATA	\$119.00	1145262	RETIREE INSURANCE-CITY CO
	749600 GRP INSUR ADM EXPENSE	8/13/2025	184856	MANUEL MEDRANO	\$119.00	1145462	RETIREE INSURANCE-CITY CO
	749600 GRP INSUR ADM EXPENSE	8/13/2025	184862	PETER M MOES	\$119.00	1145662	RETIREE INSURANCE-CITY CO
	749600 GRP INSUR ADM EXPENSE	8/13/2025	184868	LUIS M NAVARRO	\$119.00	1145762	RETIREE INSURANCE-CITY CO
	749600 GRP INSUR ADM EXPENSE	8/13/2025	184921	JOE H RAMSEY	\$119.00	1145862	RETIREE INSURANCE-CITY CO
	749600 GRP INSUR ADM EXPENSE	8/13/2025	184922	DAVID REBELO	\$119.00	1145961	RETIREE INSURANCE-CITY CO

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0405 MEDICAL FUND	749600 GRP INSUR ADM EXPENSE	8/13/2025	184923	JERRY REED	\$119.00	1146062	RETIREE INSURANCE-CITY CO
	749600 GRP INSUR ADM EXPENSE	8/13/2025	184928	JAN REYNOLDS	\$119.00	1146162	RETIREE INSURANCE-CITY CO
	749600 GRP INSUR ADM EXPENSE	8/13/2025	184939	SCOTT, DAVID	\$119.00	1146262	RETIREE INSURANCE-CITY CO
	749600 GRP INSUR ADM EXPENSE	8/13/2025	184941	GEORGE SEPEDA	\$119.00	1146462	RETIREE INSURANCE-CITY CO
	749600 GRP INSUR ADM EXPENSE	8/13/2025	184979	WES YEARY	\$119.00	1146562	RETIREE INSURANCE-CITY CO
	749600 GRP INSUR ADM EXPENSE	8/15/2025	1785	DELTA DENTAL	\$2,872.60	BE006685143C	DENTAL EE/ER/RETIREE/ADMI
	DIVISION/ORG TOTAL 0405 - MEDICAL FUND				\$146,257.62		
0511 MISC CASH DEP TRUST FUND	300500 KC-EL RANCHO DEBT SERVICE	8/28/2025	185082	KINGS CO PUBLIC WORKS	\$3,437.05	2025-07	DEBT SVC COLL JULY
	300540 ENGINEERING SERVICE DEPOS	8/28/2025	185069	INTERWEST CONSULTING GROUP	\$800.00	2025831	CITY SURVEYOR SERVICES
	300540 ENGINEERING SERVICE DEPOS	8/28/2025	185069	INTERWEST CONSULTING GROUP	\$6,000.00	1954077	CITY SURVEYOR SERVICES
	300541 ENGINEERING SERVICE PAYME	8/28/2025	184998	AKEL ENGINEERING GROUP INC	\$7,509.00	251372-01	COPPER RIDGE HYDRAULIC &
	300541 ENGINEERING SERVICE PAYME	8/28/2025	184998	AKEL ENGINEERING GROUP INC	\$7,528.00	251373-01	MILLENIUM ESTATES - HYDRA
	DIVISION/ORG TOTAL 0511 - MISC CASH DEP TRUST FUND				\$25,274.05		
0514 POLICE-TRUST/EVD/SUBP FUND	300533 PD VENDING MACHINE	8/13/2025	184709	AMAZON CAPITAL SERVICE, INC.	\$212.70	1KQ6-Y6DW-6LYN	2025-07 AMAZON PURCHASES
	DIVISION/ORG TOTAL 0514 - POLICE-TRUST/EVD/SUBP FUND				\$212.70		

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
11000000 CITY COUNCIL	732000 COMMUNICATIONS	8/13/2025	184953	T-MOBILE USA INC	\$90.64	997828401 2025-07	2025-07 ACCT 997828401 PH
	733800 SPECIAL-LITIGATION EXPENS	8/13/2025	184771	DODD INVESTIGATION, LLC	\$1,228.35	5245	COH COUNCIL LEAK INVESTIG
	749500 PROF AND SPEC SERVICES	8/6/2025	184685	THORN RUN PARTNERS LLC	\$5,500.00	228534	2025-07 GOVERNMENT RELATI
	749500 PROF AND SPEC SERVICES	8/13/2025	184735	CALIFORNIA MUNICIPAL STATISTICS, INC.	\$600.00	25072405	DIRECT & OVERLAPPING DEBT
	749500 PROF AND SPEC SERVICES	8/13/2025	184956	THORN RUN PARTNERS LLC	\$5,500.00	228831	2025-08 GOVERNMENT RELATI
	749500 PROF AND SPEC SERVICES	8/28/2025	185111	NIELSON MERKSAMER PARRINELLO	\$6,050.00	292019	BPO/LEGISLATIVE ADVOCACY
	749500 PROF AND SPEC SERVICES	8/28/2025	185111	NIELSON MERKSAMER PARRINELLO	\$6,050.00	293707	BPO/LEGISLATIVE ADVOCACY
	749500 PROF AND SPEC SERVICES	8/28/2025	185152	ROGERS, ANDERSON, MALODY & SCOTT, LLP	\$9,500.00	78397	FY25 AUDIT SERVICES
	790400 CITY CONTRIBUTIONS TO	8/13/2025	184829	KINGS CO ECON DEVELOPMENT CORP	\$6,559.83	3115	2025-07 MONTHLY JURISDICT
	790400 CITY CONTRIBUTIONS TO	8/28/2025	185079	KINGS CO ECON DEVELOPMENT CORP	\$6,559.83	3129	2025-08 MONTHLY JURISDICT
DIVISION/ORG TOTAL 11000000 - CITY COUNCIL					\$47,638.65		
11100000 CITY MANAGER-CITY CLERK	732000 COMMUNICATIONS	8/28/2025	185168	U S TELEPACIFIC CORP	\$96.39	186500859-0	PHONE SERVICE 07/23-08/22
	744000 OFFICE EXPENSE MISC	8/13/2025	184709	AMAZON CAPITAL SERVICE, INC.	\$79.32	1KQ6-Y6DW-6LYN	2025-07 AMAZON PURCHASES
	744000 OFFICE EXPENSE MISC	8/28/2025	185114	OFFICE DEPOT (CONTRACT)	\$90.91	36566892	2025-07 CONSOLIDATED FOR
	747000 PRINTING	8/19/2025	184980	XEROX CORP	\$1,204.92	85900	BPO/COPIER LEASE AND COPI

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
11100000 CITY MANAGER-CITY CLERK	747000 PRINTING	8/28/2025	185195	XEROX CORP	\$279.49	024017479	BPO/COPIER LEASE AND COPI
	749500 PROF AND SPEC SERVICES	8/13/2025	184794	ICC CODIFICATION, INC.	\$1,845.00	GC00129209	ECODE360 ANNUAL MAINTENAN
	749500 PROF AND SPEC SERVICES	8/13/2025	184808	HAWK ON HAND	\$4,000.00	HAN1859	BPO/CROW ABATEMENT
	749500 PROF AND SPEC SERVICES	8/28/2025	185012	GVP VENTURES, INC	\$4,000.00	11220	RECRUITMENT AGENCY - CITY
	749500 PROF AND SPEC SERVICES	8/29/2025	185198	CIVICPLUS LLC	\$33,180.94	334261	CIVIC PLUS LICENSE RENEWA
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184709	AMAZON CAPITAL SERVICE, INC.	\$123.39	1KQ6-Y6DW-6LYN	2025-07 AMAZON PURCHASES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184779	ENGRAVING & AWARDS OF N.E., INC.	\$513.38	443217	CUSTOM RIBBON FOR RIBBON
	777000 TRAINING/TRAVEL/MEE TIN G	8/28/2025	185016	CALIFORNIA ACADEMY FOR ECONOMIC DEVELOPMENT	\$1,300.00	A180	MEMBERSHIP
DIVISION/ORG TOTAL 11100000 - CITY MANAGER-CITY CLERK					\$46,713.74		
11102020 AIRPORT OPERATIONS	732000 COMMUNICATIONS	8/13/2025	184963	UNWIRED BROADBAND INC	\$14.19	INV02420114	2025-07 INTERNET SERVICE
	732000 COMMUNICATIONS	8/28/2025	185178	UNWIRED BROADBAND INC	\$99.99	INV02430865	BPO/INTERNET SERVICE WWTP
	749500 PROF AND SPEC SERVICES	8/13/2025	184966	GEIL ENTERPRISES, INC	\$336.00	464540	BPO/VARIOUS ALARM MONITOR
	749500 PROF AND SPEC SERVICES	8/28/2025	185160	SAN JOAQUIN VALLEY AIR POLLUTION	\$46.00	C375025	FY25-26 ANNUAL PERMIT TO
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185046	FLIGHT LIGHT, INC	\$4,287.16	0101201-IN	BPO/BULBS AIRPORT RUNWAY

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
11102020 AIRPORT OPERATIONS	777000 TRAINING/TRAVEL/MEE TIN G	8/28/2025	185042	ENTERPRISE RENT A CAR	\$198.94	39572167	2025-07 CAR RENTAL
	DIVISION/ORG TOTAL 11102020 - AIRPORT OPERATIONS				\$4,982.28		
11110000 HUMAN RESOURCES	732000 COMMUNICATIONS	8/28/2025	185168	U S TELEPACIFIC CORP	\$55.08	186500859-0	PHONE SERVICE 07/23-08/22
	745000 PUBLICATIONS AND DUES	8/6/2025	184664	LIEBERT CASSIDY WHITMORE	\$3,690.00	298080	BPO/CONSORTIUM MEMBERSHIP
	745000 PUBLICATIONS AND DUES	8/13/2025	184869	GOVERNMENTJOBS.COM, INC	\$11,444.61	INV-134298	BPO/ANNUAL SUBSCRIPTIONS
	745000 PUBLICATIONS AND DUES	8/28/2025	185030	COMPLIANCE POSTER COMPANY	\$194.13	791658	SAFETY AND HEALTH PROECTI
	745000 PUBLICATIONS AND DUES	8/28/2025	185109	GOVERNMENTJOBS.COM, INC	\$11,205.60	INV-143313	NEOGOV Onboard Module
	747000 PRINTING	8/19/2025	184980	XEROX CORP	\$1,204.93	85900	BPO/COPIER LEASE AND COPI
	747000 PRINTING	8/28/2025	185195	XEROX CORP	\$279.48	024017479	BPO/COPIER LEASE AND COPI
	749501 LIVE SCAN	8/13/2025	184732	CALIF DEPT OF JUSTICE	\$1,225.00	816804	BPO/LIVESCANS #155630
	749501 LIVE SCAN	8/13/2025	184832	KINGS INDUSTRIAL OCCUP MEDICAL CTR	\$310.00	284112	PHYSICAL EXAMS & DOT'S
	749501 LIVE SCAN	8/13/2025	184833	KINGS MEDICAL CENTERS	\$308.00	286431	PHYSICAL EXAM - PRE-EMPLO
	749501 LIVE SCAN	8/13/2025	184833	KINGS MEDICAL CENTERS	\$1,008.00	297450	Pre employment drug/physi
	749501 LIVE SCAN	8/28/2025	185019	CALIF DEPT OF JUSTICE	\$245.00	837740	2025-07 LIVESCANS
	749501 LIVE SCAN	8/28/2025	185086	KINGS INDUSTRIAL OCCUP MEDICAL CTR	\$250.00	298170	Pre employment physicals
	749501 LIVE SCAN	8/28/2025	185149	PLEXUS GLOBAL LLC	(\$150.00)	18879	CREDIT - BILLING ERROR RE

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
11110000 HUMAN RESOURCES	749501 LIVE SCAN	8/28/2025	185149	PLEXUS GLOBAL LLC	\$552.00	19007	BPO/RANDOM DRUG SCREENING
	749503 WELLNESS	8/6/2025	184649	HALCYON BEHAVIORAL, LLC	\$100.00	18492	2025-07 CORE WELLNESS PRO
	749503 WELLNESS	8/6/2025	184649	HALCYON BEHAVIORAL, LLC	\$603.98	18491	2025-07 EAP SERVICES
	749503 WELLNESS	8/13/2025	184804	HALCYON BEHAVIORAL, LLC	\$100.00	18651	WELLNESS PROGRAM
	749503 WELLNESS	8/13/2025	184804	HALCYON BEHAVIORAL, LLC	\$603.98	18650	EAP SERVICES
	DIVISION/ORG TOTAL 11110000 - HUMAN RESOURCES				\$33,229.79		
12010000 FINANCE-ACCOUNTING	732000 COMMUNICATIONS	8/28/2025	185168	U S TELEPACIFIC CORP	\$96.39	186500859-0	PHONE SERVICE 07/23-08/22
	744000 OFFICE EXPENSE MISC	8/28/2025	185114	OFFICE DEPOT (CONTRACT)	\$61.49	36566892	2025-07 CONSOLIDATED FOR
	745500 POSTAGE AND FREIGHT	8/13/2025	1793	UNITED PARCEL SERVICE	(\$125.69)	0000F7476V075A	REFUND REF. FRAUDULENT SH
	747000 PRINTING	8/19/2025	184980	XEROX CORP	\$2,022.16	85900	BPO/COPIER LEASE AND COPI
	747000 PRINTING	8/28/2025	185195	XEROX CORP	\$356.75	024017480	2025-07 COPIER LEASE AND
	756000 ADVERTISING & PUBLIC REL	8/6/2025	184639	INTERNATIONAL DATA BASE CORP	\$3,076.61	SSC-IN281723	ANNUAL SOFTWARE RENEWAL
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184711	ARC FRESNO/MADERA COUNTIES, THE	\$67.80	14739	2025-07 SHREDDING SERVICE
	DIVISION/ORG TOTAL 12010000 - FINANCE-ACCOUNTING				\$5,555.51		
12100000 FINANCE-UTILITY BILLING	730000 UNIFORM EXPENSE	8/6/2025	184689	VESTIS GROUP, INC.	\$10.98	5031589863	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/6/2025	184689	VESTIS GROUP, INC.	\$10.98	5031592890	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184835	JASON ALLEN BRANDON DBA	\$224.06	41479	SAFETY SHOES - CARRANZA,
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$10.98	5031595905	BPO/ACCT 2322940000 UNIFO

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12100000 FINANCE-UTILITY BILLING	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$10.98	5031598905	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$10.98	5031601907	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$10.98	5031604868	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/28/2025	185185	VESTIS GROUP, INC.	\$27.73	5031607857	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/28/2025	185185	VESTIS GROUP, INC.	\$10.98	5031610853	BPO/ACCT 2322940000 UNIFO
	732000 COMMUNICATIONS	8/28/2025	185168	U S TELEPACIFIC CORP	\$96.39	186500859-0	PHONE SERVICE 07/23-08/22
	744000 OFFICE EXPENSE MISC	8/13/2025	184709	AMAZON CAPITAL SERVICE, INC.	\$26.12	1KQ6-Y6DW-6LYN	2025-07 AMAZON PURCHASES
	744000 OFFICE EXPENSE MISC	8/28/2025	185114	OFFICE DEPOT (CONTRACT)	\$136.71	36566892	2025-07 CONSOLIDATED FOR
	745500 POSTAGE AND FREIGHT	8/13/2025	184911	PRE-SORT CENTER OF STOCKTON INC	\$13,672.04	410109439	BPO/UBS & FINANCE PRINTIN
	745500 POSTAGE AND FREIGHT	8/13/2025	184911	PRE-SORT CENTER OF STOCKTON INC	\$13,251.46	410109848	BPO/UBS & FINANCE PRINTIN
	745500 POSTAGE AND FREIGHT	8/13/2025	184911	PRE-SORT CENTER OF STOCKTON INC	\$51.66	410109865	BPO/UBS & FINANCE PRINTIN
	745500 POSTAGE AND FREIGHT	8/28/2025	185145	PRE-SORT CENTER OF STOCKTON INC	\$66.50	410109691	BPO/UBS & FINANCE PRINTIN
	745500 POSTAGE AND FREIGHT	8/28/2025	185145	PRE-SORT CENTER OF STOCKTON INC	\$34.92	410109772	BPO/UBS & FINANCE PRINTIN
	745500 POSTAGE AND FREIGHT	8/28/2025	185145	PRE-SORT CENTER OF STOCKTON INC	\$48.39	410109991	BPO/UBS & FINANCE PRINTIN
	745500 POSTAGE AND FREIGHT	8/28/2025	185145	PRE-SORT CENTER OF STOCKTON INC	\$77.28	410110087	BPO/UBS & FINANCE PRINTIN
	747000 PRINTING	8/13/2025	184911	PRE-SORT CENTER OF STOCKTON INC	\$1,567.73	410109439	BPO/UBS & FINANCE PRINTIN
	747000 PRINTING	8/13/2025	184911	PRE-SORT CENTER OF STOCKTON INC	\$2,959.73	410109848	BPO/UBS & FINANCE PRINTIN
	749500 PROF AND SPEC SERVICES	8/28/2025	185052	GARDA CL WEST INC	\$1,056.84	10822918	2025-08 TRANSPORT TO WELL

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
12100000 FINANCE-UTILITY BILLING	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184709	AMAZON CAPITAL SERVICE, INC.	\$259.59	1KQ6-Y6DW-6LYN	2025-07 AMAZON PURCHASES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185145	PRE-SORT CENTER OF STOCKTON INC	\$11,902.61	410108638	BPO/UBS & FINANCE PRINTIN
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185145	PRE-SORT CENTER OF STOCKTON INC	\$811.88	410109977	BPO/UBS & FINANCE PRINTIN
	DIVISION/ORG TOTAL 12100000 - FINANCE-UTILITY BILLING				\$46,348.50		
13090000 LIABILITY INSURANCE	733000 LIABILITY INSURANCE	8/13/2025	184795	GEORGE HILLS COMPANY INC	\$4,332.00	INV1032381	2025-08 CLAIMS MGMT FLAT
	733800 SPECIAL-LITIGATION EXPENS	8/6/2025	184664	LIEBERT CASSIDY WHITMORE	\$9,225.00	300224	LEGAL SERVICE MATTER #HA0
	733800 SPECIAL-LITIGATION EXPENS	8/6/2025	184664	LIEBERT CASSIDY WHITMORE	\$3,500.00	300226	LEGAL SERVICE - HA040-000
	733800 SPECIAL-LITIGATION EXPENS	8/6/2025	184664	LIEBERT CASSIDY WHITMORE	\$4,147.50	300228	LEGAL SERVICE - MATTER#HA
	733800 SPECIAL-LITIGATION EXPENS	8/6/2025	184664	LIEBERT CASSIDY WHITMORE	\$3,724.50	300227	LEGAL SERIVCES - MATTER#H
	733800 SPECIAL-LITIGATION EXPENS	8/28/2025	185095	LIEBERT CASSIDY WHITMORE	\$1,112.00	302548	LEGAL SERVICES
	733800 SPECIAL-LITIGATION EXPENS	8/28/2025	185095	LIEBERT CASSIDY WHITMORE	\$972.50	302547	LEGAL SERVICES
	733800 SPECIAL-LITIGATION EXPENS	8/28/2025	185095	LIEBERT CASSIDY WHITMORE	\$2,534.50	302546	LEGAL SERVICES
	733800 SPECIAL-LITIGATION EXPENS	8/28/2025	185095	LIEBERT CASSIDY WHITMORE	\$13,527.00	302545	LEGAL SERVICES
	733800 SPECIAL-LITIGATION EXPENS	8/28/2025	185095	LIEBERT CASSIDY WHITMORE	\$2,285.00	302544	LEGAL SERVICES

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
13090000 LIABILITY INSURANCE	733800 SPECIAL-LITIGATION EXPENS	8/28/2025	185095	LIEBERT CASSIDY WHITMORE	\$5,577.50	302543	LEGAL SERVICES
	DIVISION/ORG TOTAL 13090000 - LIABILITY INSURANCE				\$50,937.50		
13100000 WORKERS' COMPENSATION	707169 WORKERS' COMP INSURANCE	8/8/2025	1808	ACCLAMATION INSURANCE MGMT SVC-WC	\$88,615.22	2025-07	AIMS TRUST REPLENISHMENT
	707169 WORKERS' COMP INSURANCE	8/28/2025	184991	ACCLAMATION INSURANCE MGMT SVC-WC	\$10,916.14	113535	2025-08 WORKERS COMP INSU
	707169 WORKERS' COMP INSURANCE	8/28/2025	185023	CENTRAL SAN JOAQUIN VALLEY RMA	\$11,879.76	INV0333	CLAIMS PAID APR. 2025 - J
	DIVISION/ORG TOTAL 13100000 - WORKERS' COMPENSATION				\$111,411.12		
13150000 I T S INFORMATIONAL TECH SERV	732000 COMMUNICATIONS	8/28/2025	185168	U S TELEPACIFIC CORP	\$68.85	186500859-0	PHONE SERVICE 07/23-08/22
	743000 COMPUTER MAINTENANCE	8/13/2025	184709	AMAZON CAPITAL SERVICE, INC.	\$2,143.90	1KQ6-Y6DW-6LYN	2025-07 AMAZON PURCHASES
	749500 PROF AND SPEC SERVICES	8/13/2025	184728	C D W GOVERNMENT LLC	\$45,972.31	AE9ZG3F	CROWDSTRIKE 12MO FALCON C
	749500 PROF AND SPEC SERVICES	8/13/2025	184728	C D W GOVERNMENT LLC	\$32,752.89	AE92X5E	RENEWAL - BARRACUDA BACKU
	749500 PROF AND SPEC SERVICES	8/13/2025	184742	CIVICPLUS LLC	\$10,344.74	343035	RENEWAL ACQUIA OPTIMIZE W
	749500 PROF AND SPEC SERVICES	8/13/2025	184745	COMCAST BUSINESS	\$384.27	244423555	2025-06 INTERNET SERVICE-
	749500 PROF AND SPEC SERVICES	8/13/2025	184754	COMCAST BUSINESS	\$6,082.57	244423456	2025-06 ETHERNET SERVICES
	749500 PROF AND SPEC SERVICES	8/13/2025	184755	COMCAST BUSINESS	\$6,083.63	246912209	2025-07 ETHERNET SERVICES

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
13150000 I T S INFORMATIONAL TECH SERV	749500 PROF AND SPEC SERVICES	8/13/2025	184762	COMCAST BUSINESS	\$390.03	246912176	2025-07 INTERNET SERVICE-
	749500 PROF AND SPEC SERVICES	8/13/2025	184969	VERIZON WIRELESS	\$40.00	6117461590	2025-06 CELL PHONE LINES/
	749500 PROF AND SPEC SERVICES	8/28/2025	185015	C D W GOVERNMENT LLC	\$21,132.00	AF2394Y	RENEWAL - BARRACUDA EMAIL
	749500 PROF AND SPEC SERVICES	8/28/2025	185015	C D W GOVERNMENT LLC	\$543.60	AF4CG4X	ADOBE ACROBAT PRO FOR ENT
	749500 PROF AND SPEC SERVICES	8/28/2025	185027	COMCAST BUSINESS	\$384.27	241863212	2025-05 INTERNET SERVICE-
	749500 PROF AND SPEC SERVICES	8/28/2025	185028	COMCAST BUSINESS	\$6,103.14	241863183	2025-05 ETHERNET SERVICES
	749500 PROF AND SPEC SERVICES	8/28/2025	185183	VERIZON WIRELESS	\$40.01	6119979262	ACCT 771937214-00003
	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$397.52	2025-06	2025-06 ELECTRICITY SVC
	778500 UTILITIES-GAS	8/1/2025	1812	SOUTHERN CALIF GAS CO	\$15.78	2025-07	2025-07 GAS SERVICE
DIVISION/ORG TOTAL 13150000 - I T S INFORMATIONAL TECH SERV					\$132,879.51		
14110000 PLANNING OPERATIONS	492200 SUBDIVISION & ZONING FEES	8/28/2025	185138	ONE TIME VENDOR	\$125.00	HO034625	REFUND/HOME OCC NOT REQUI
	732000 COMMUNICATIONS	8/28/2025	185168	U S TELEPACIFIC CORP	\$68.85	186500859-0	PHONE SERVICE 07/23-08/22
	747000 PRINTING	8/19/2025	184980	XEROX CORP	\$1,139.47	85900	BPO/COPIER LEASE AND COPI
	747000 PRINTING	8/28/2025	185195	XEROX CORP	\$122.43	024017474	BPO/COPIER LEASE AND COPI
	749500 PROF AND SPEC SERVICES	8/28/2025	184989	4CREEKS INC	\$5,850.00	4C009700	ON-CALL PLANNING SERVICES

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14110000 PLANNING OPERATIONS	749500 PROF AND SPEC SERVICES	8/28/2025	184989	4CREEKS INC	\$2,383.50	4C009891	ON-CALL PLANNING SERVICES
	749500 PROF AND SPEC SERVICES	8/28/2025	184989	4CREEKS INC	\$7,827.50	4C009383	ON-CALL PLANNING SERVICES
	777000 TRAINING/TRAVEL/MEETING	8/13/2025	184787	MADDISON FARIA	\$301.00	TRV 2025 07/13-16	TRV SAN DIEGO 2025 07/13-
	777000 TRAINING/TRAVEL/MEETING	8/28/2025	185042	ENTERPRISE RENT A CAR	\$227.41	39572167	2025-07 CAR RENTAL
	824618 HIGH-SPEED RAIL STATION	8/13/2025	184913	PERKINS & WILL, INC.	\$65,414.95	0216329	PLANNING SERVICES/KINGS-T
	824618 HIGH-SPEED RAIL STATION	8/28/2025	185147	PERKINS & WILL, INC.	\$52,377.10	0427938	PLANNING SERVICES/KINGS-T
	825620 CD REMODEL	8/28/2025	185000	ALLSTEEL INC	\$8,000.77	2563562	COMMUNITY DEVELOPMENT REM
	825620 CD REMODEL	8/28/2025	185073	J R SCOTT CONSTRUCTION INC	\$1,680.00	25-030	CD REMODEL/DEMO
	825620 CD REMODEL	8/28/2025	185179	SQUARE GROVE LLC	\$2,236.10	INV2119979	CD REMODEL/DESKS FOR STAF
DIVISION/ORG TOTAL 14110000 - PLANNING OPERATIONS					\$147,754.08		
14120000 CODE COMPLIANCE	732000 COMMUNICATIONS	8/13/2025	184969	VERIZON WIRELESS	\$225.50	6117461590	2025-06 CELL PHONE LINES/
	732000 COMMUNICATIONS	8/28/2025	185168	U S TELEPACIFIC CORP	\$68.85	186500859-0	PHONE SERVICE 07/23-08/22
	732000 COMMUNICATIONS	8/28/2025	185170	T-MOBILE USA INC	\$146.97	995871713 2025-07	2025-07 ACCT 995871713 CO
	732000 COMMUNICATIONS	8/28/2025	185183	VERIZON WIRELESS	\$175.33	6119979262	ACCT 771937214-00003
	744000 OFFICE EXPENSE MISC	8/13/2025	184709	AMAZON CAPITAL SERVICE, INC.	\$50.42	1KQ6-Y6DW-6LYN	2025-07 AMAZON PURCHASES
	747000 PRINTING	8/19/2025	184980	XEROX CORP	\$1,139.48	85900	BPO/COPIER LEASE AND COPI

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
14120000 CODE COMPLIANCE	747000 PRINTING	8/28/2025	185195	XEROX CORP	\$122.43	024017474	BPO/COPIER LEASE AND COPI
	DIVISION/ORG TOTAL 14120000 - CODE COMPLIANCE				\$1,928.98		
14130000 CITY HFD PUBLIC HSG AUTH	732000 COMMUNICATIONS	8/28/2025	185168	U S TELEPACIFIC CORP	\$41.31	186500859-0	PHONE SERVICE 07/23-08/22
	744000 OFFICE EXPENSE MISC	8/13/2025	184709	AMAZON CAPITAL SERVICE, INC.	\$162.17	1KQ6-Y6DW-6LYN	2025-07 AMAZON PURCHASES
	747000 PRINTING	8/19/2025	184980	XEROX CORP	\$1,139.48	85900	BPO/COPIER LEASE AND COPI
	747000 PRINTING	8/28/2025	185195	XEROX CORP	\$122.44	024017474	BPO/COPIER LEASE AND COPI
	749500 PROF AND SPEC SERVICES	8/13/2025	184791	G M S, INC	\$380.00	4532	BPO/GMS LICENSE/SERVICE &
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185083	KINGS CO RECORDER	\$21.00	2511371	COUNTY RECORDER FEE DOC#:
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185083	KINGS CO RECORDER	\$20.00	2511632	RECORDING FEE - DOCUMENT#
	DIVISION/ORG TOTAL 14130000 - CITY HFD PUBLIC HSG AUTH				\$1,886.40		
14310000 CENTRAL PARKING & IMPRV OPER	790400 CITY CONTRIBUTIONS TO	8/6/2025	184668	MAIN STREET HANFORD	\$116,496.21	2025-08	MAIN STREET HANFORD PASS
	DIVISION/ORG TOTAL 14310000 - CENTRAL PARKING & IMPRV OPER				\$116,496.21		
14500200 CDBG ENTITLEMENT	792309 HOUSING REHABILITATION	8/13/2025	184725	ALEX A BURGOS	\$13,500.00	10662	ERP-AC REPLACEMENT - 1211
	792309 HOUSING REHABILITATION	8/13/2025	184826	KENNIES INDOOR COMFORT SPECIALIST	\$11,614.00	65903	ERP-HVAC-AC REPLACEMENT-1
	792309 HOUSING REHABILITATION	8/13/2025	184860	EDWARD B GARCIA	\$15,650.00	1270	ERP - ROOF REPLACEMENT -
	792309 HOUSING REHABILITATION	8/13/2025	184861	EDWARD B GARCIA	\$14,000.00	1269	ERP-ROOF REPLACEMENT - 14

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
14500200 CDBG ENTITLEMENT	792309 HOUSING REHABILITATION	8/13/2025	184935	ROOFING PROS INC	\$14,770.00	1	ERP ROOF REPLACEMENT - 11
	792309 HOUSING REHABILITATION	8/28/2025	185103	EDWARD B GARCIA	\$13,460.00	1273	ERP ROOF REPLACEMENT - 31
	792309 HOUSING REHABILITATION	8/28/2025	185108	MICHAEL OJEDA DBA	\$12,500.00	452	ERP - HVAC - AC REPLACEME
	792309 HOUSING REHABILITATION	8/28/2025	185164	LUIS ZUNIGA	\$16,500.00	1107460	ERP-DEMO-ABATE A SAFETY H
	792311 KCAO FOOD BANK SVC CENTER	8/28/2025	185085	KINGS COMMUNITY ACTION ORGANIZTN	\$23,965.50	4C008692	KCAO-FOOD BANK SERV. CENT
	DIVISION/ORG TOTAL 14500200 - CDBG ENTITLEMENT				\$135,959.50		
15110000 POLICE-SUPPORT SERVICE	732000 COMMUNICATIONS	8/13/2025	184967	MCI NETWORK SERV, INC	\$915.38	73375345	2025-05 CALNET3 SYSTEM &
	732000 COMMUNICATIONS	8/13/2025	184968	MCI NETWORK SERV, INC	\$913.35	73409288	2025-06 CALNET3 SYSTEM &
	732000 COMMUNICATIONS	8/28/2025	185168	U S TELEPACIFIC CORP	\$963.19	186500859-0	PHONE SERVICE 07/23-08/22
	744000 OFFICE EXPENSE MISC	8/28/2025	185114	OFFICE DEPOT (CONTRACT)	\$1,103.27	36566892	2025-07 CONSOLIDATED FOR
	745000 PUBLICATIONS AND DUES	8/13/2025	184736	CALIF POLICE CHIEFS ASSOC	\$2,140.00	11890	CHIEF MEMBERSHIP DUES FY2
	749500 PROF AND SPEC SERVICES	8/1/2025	1791	COMCAST CABLE COMMUNICATIONS, INC	\$199.95	0695141 07/25	2025-07 ACCT 8155 50 039
	749500 PROF AND SPEC SERVICES	8/1/2025	1792	COMCAST CABLE COMMUNICATIONS, INC	\$263.90	0704471 07/25	2025-07 ACCT 8155 50 039
	749500 PROF AND SPEC SERVICES	8/6/2025	184647	FLOCK GROUP INC	\$36,000.00	INV-66858	FY25-26 FLOCK RENEWAL (YE
	749500 PROF AND SPEC SERVICES	8/6/2025	184663	LEADSONLINE PARENT, LLC	\$6,750.00	420119	NIGHTHAWK SERVICE

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
15110000 POLICE-SUPPORT SERVICE	749500 PROF AND SPEC SERVICES	8/13/2025	184734	CALIFORNIA FORENSIC INSTITUTE	\$1,200.00	HPD010	BPO/PRE EMPLOYMENT PSYCHS
	749500 PROF AND SPEC SERVICES	8/13/2025	184746	COMCAST BUSINESS	\$240.57	244423502	2025-06 INTERNET SERVICE-
	749500 PROF AND SPEC SERVICES	8/13/2025	184747	COMCAST BUSINESS	\$240.57	241863200	2025-05 INTERNET SERVICE-
	749500 PROF AND SPEC SERVICES	8/13/2025	184752	COMCAST BUSINESS	\$245.70	244423963	2025-06 INTERNET SERVICE-
	749500 PROF AND SPEC SERVICES	8/13/2025	184753	COMCAST BUSINESS	\$245.70	241863367	2025-05 INTERNET SERVICE-
	749500 PROF AND SPEC SERVICES	8/13/2025	184756	COMCAST BUSINESS	\$495.17	246912175	2025-07 INTERNET SERVICE-
	749500 PROF AND SPEC SERVICES	8/13/2025	184757	COMCAST BUSINESS	\$244.18	246912137	2025-07 INTERNET SERVICE-
	749500 PROF AND SPEC SERVICES	8/13/2025	184758	COMCAST BUSINESS	\$249.39	246912266	2025-07 INTERNET SERVICE-
	749500 PROF AND SPEC SERVICES	8/13/2025	184763	COMCAST BUSINESS	\$291.79	244423552	2025-06 INTERNET SERVICE-
	749500 PROF AND SPEC SERVICES	8/13/2025	184764	COMCAST BUSINESS	\$291.79	241863211	INTERNET SERVICE-VARIOUS
	749500 PROF AND SPEC SERVICES	8/13/2025	184778	EMPLOYEE RELATIONS INC	\$16.00	99486	BPO/PRE-EMPLOYMENT CREDIT
	749500 PROF AND SPEC SERVICES	8/28/2025	185019	CALIF DEPT OF JUSTICE	\$1,749.00	835486	2025-07 CUST# 142069 FOR
	749500 PROF AND SPEC SERVICES	8/28/2025	185020	CALIFORNIA FORENSIC INSTITUTE	\$600.00	1596	BPO/WELLNESS CHECKS

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
15110000 POLICE-SUPPORT SERVICE	749500 PROF AND SPEC SERVICES	8/28/2025	185029	COMCAST CABLE COMMUNICATIONS, INC	\$27.44	0146699 08/25	2025-08 ACCT 8155 50 039
	749500 PROF AND SPEC SERVICES	8/28/2025	185099	RAYMOND C MADRIGAL	\$1,368.50	2025-016	BPO/PRE EMPLOYMENT BACKGR
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184690	VESTIS GROUP, INC.	\$22.62	2580568499	BPO/PD & FIRE FLOOR MATS
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184709	AMAZON CAPITAL SERVICE, INC.	\$1,267.00	1KQ6-Y6DW-6LYN	2025-07 AMAZON PURCHASES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184948	SPEAKWRITE LLC	\$90.42	1c13d138	2025-07 DICTATION SERVICE
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184970	VERIZON WIRELESS	\$75.00	9022408496	CELL PHONE PRESERVATION W
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184972	VESTIS GROUP, INC.	\$129.70	2580578266	BPO/PD & FIRE FLOOR MATS
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184972	VESTIS GROUP, INC.	\$22.62	2580581465	BPO/PD & FIRE FLOOR MATS
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185186	VESTIS GROUP, INC.	\$129.70	2580584705	BPO/PD & FIRE FLOOR MATS
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185186	VESTIS GROUP, INC.	\$22.62	2580587995	BPO/PD & FIRE FLOOR MATS
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185186	VESTIS GROUP, INC.	\$129.70	2580591204	BPO/PD & FIRE FLOOR MATS
	760200 SNIPER EXPENSES	8/13/2025	184713	AVENAL GUN CLUB	\$300.00	2508	SWAT SNIPER RANGE FEES
	760200 SNIPER EXPENSES	8/13/2025	184788	FEDERAL EXPRESS	\$26.20	8-884-90506	SWAT ROBOT & SNIPER RIFLE
	760300 SWAT EXPENSES	8/13/2025	184768	DEFENSE TECHNOLOGY, LLC	\$2,065.23	I016-000033093	SPONGE ROUNDS/GAS MUNITIO

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
15110000 POLICE-SUPPORT SERVICE	760300 SWAT EXPENSES	8/13/2025	184788	FEDERAL EXPRESS	\$73.68	8-884-90506	SWAT ROBOT & SNIPER RIFLE
	777000 TRAINING/TRAVEL/MEETING	8/13/2025	184717	CHRISTIFER BARKER	\$180.00	TRV 2025 08/26-29	TRV FRES 2025 08/26-29 -
	777000 TRAINING/TRAVEL/MEETING	8/13/2025	184718	CHRISTIFER BARKER	\$387.00	TRV 2025 09/07-11	TRV ONTARIO 2025 09/07-11
	777000 TRAINING/TRAVEL/MEETING	8/13/2025	184724	JEAN BIDEGARAY	\$180.00	TRV 2025 08/26-29	TRV FRES 2025 08/26-29 -P
	777000 TRAINING/TRAVEL/MEETING	8/13/2025	184739	MARK CARRILLO	\$180.00	TRV 2025 08/26-29	TRV FRES 2025 08/26-29 -
	777000 TRAINING/TRAVEL/MEETING	8/13/2025	184740	IDALIS CHANDLER	\$245.00	TRV 2025 09/02-05	TRV SD 2025 09/02-05 - WL
	777000 TRAINING/TRAVEL/MEETING	8/13/2025	184780	ERNEST ESCALERA	\$45.00	TRV 2025 08/20	TRV FRES 2025 08/20 - USE
	777000 TRAINING/TRAVEL/MEETING	8/13/2025	184781	ERNEST ESCALERA	\$387.00	TRV 2025 09/07-11	TRV ONTARIO 2025 09/07-11
	777000 TRAINING/TRAVEL/MEETING	8/13/2025	184782	EVAN GONZALES	\$135.00	TRV 2025 08/27-29	TRV FRES 2025 08/27-29 -
	777000 TRAINING/TRAVEL/MEETING	8/13/2025	184783	EVAN GONZALES	\$180.00	TRV 2025 08/12-15	TRV FRES 2025 08/12-15 -
	777000 TRAINING/TRAVEL/MEETING	8/13/2025	184790	JACOB FOGAL	\$45.00	TRV 2025 08/20	TRV FRES 2025 08/20 - USE
	777000 TRAINING/TRAVEL/MEETING	8/13/2025	184800	CAMBRIA GOMEZ	\$529.00	TRV 2025 09/07-13	TRV MILPITAS 2025 09/07-1
	777000 TRAINING/TRAVEL/MEETING	8/13/2025	184801	CAMBRIA GOMEZ	\$437.00	TRV 2025 09/15-19	TRV MILPITAS 2025 09/15-1

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
15110000 POLICE-SUPPORT SERVICE	777000 TRAINING/TRAVEL/MEETING	8/13/2025	184814	STEPHANIE HUDDLESTON	\$245.00	TRV 2025 09/02-05	TRV SD 2025 09/02-05 - WL
	777000 TRAINING/TRAVEL/MEETING	8/13/2025	184820	ROLANDO JAIME	\$135.00	TRV 2025 09/15-17	TRV FRES 2025 09/15-17 -
	777000 TRAINING/TRAVEL/MEETING	8/13/2025	184821	GABRIEL JIMENEZ	\$135.00	TRV 2025 09/15-17	TRV FRES 2025 09/15-17 -
	777000 TRAINING/TRAVEL/MEETING	8/13/2025	184824	MARITZA JUAREZ	\$245.00	TRV 2025 09/02-05	TRV SD 2025 09/02-05 - WL
	777000 TRAINING/TRAVEL/MEETING	8/13/2025	184825	PATRICK E JURDON	\$180.00	TRV 2025 08/26-29	TRV FRES 2025 08/26-29 -
	777000 TRAINING/TRAVEL/MEETING	8/13/2025	184844	JOSHUA W LEVIN	\$473.00	TRV 2025 08/31-09/05	TRV SB 2025 08/31-09/05 -
	777000 TRAINING/TRAVEL/MEETING	8/13/2025	184916	ARMANDO PRIETO	\$135.00	TRV 2025 08/27-29	TRV FRES 2025 08/27-29 -
	777000 TRAINING/TRAVEL/MEETING	8/13/2025	184917	ARMANDO PRIETO	\$215.00	TRV 2025 09/08-10	TRV SAC 2025 09/08-10 - B
	777000 TRAINING/TRAVEL/MEETING	8/13/2025	184946	TROY SMITH	\$135.00	TRV 2025 09/15-17	TRV FRES 2025 09/15-17 -
	777000 TRAINING/TRAVEL/MEETING	8/13/2025	184958	RYAN TOMEY	\$135.00	TRV 2025 09/15-17	TRV FRES 2025 09/15-17 -
	777000 TRAINING/TRAVEL/MEETING	8/13/2025	184975	AMANDA WATSON	\$245.00	TRV 2025 09/02-05	TRV SD 2025 09/02-05 - WL
	777000 TRAINING/TRAVEL/MEETING	8/13/2025	184977	KEVIN WHEAT	\$215.00	TRV 2025 09/08-10	TRV SAC 2025 09/08-10 - B
	777000 TRAINING/TRAVEL/MEETING	8/28/2025	185011	JEAN BIDEGARAY	\$413.00	TRV 2025 09/21-26	TRV SF 2025 09/21-26 - CA

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15110000 POLICE-SUPPORT SERVICE	777000 TRAINING/TRAVEL/MEETING	8/28/2025	185032	JARRED COTTA	\$413.00	TRV 2025 09/21-26	TRV SF 2025 09/21-26 - CA
	777000 TRAINING/TRAVEL/MEETING	8/28/2025	185047	VALERIE FLORES	\$225.00	TRV 2025 09/22-26	TRV FRES 2025 09/22-26 -
	777000 TRAINING/TRAVEL/MEETING	8/28/2025	185049	FRESNO POLICE REGIONAL TRNG CTR	\$623.00	20007994	PSP - C. ALLEN
	777000 TRAINING/TRAVEL/MEETING	8/28/2025	185050	FRESNO POLICE REGIONAL TRNG CTR	\$623.00	20009324	PSP - J. RAGSDALE
	777000 TRAINING/TRAVEL/MEETING	8/28/2025	185064	STEPHANIE HUDDLESTON	\$473.00	TRV 2025 09/07-12	TRV SD 2025 09/07-12 - ED
	777000 TRAINING/TRAVEL/MEETING	8/28/2025	185075	PATRICK E JURDON	\$120.00	TRV 2025 08/21-22	TRV HOU TX 2025 08/21-22
	777000 TRAINING/TRAVEL/MEETING	8/28/2025	185144	ROSAMARIA PACHECO	\$120.00	TRV 2025 08/21-22	TRV HOU TX 2025 08/21-22
	777000 TRAINING/TRAVEL/MEETING	8/28/2025	185153	JOSHUA W RAGSDALE	\$413.00	TRV 2025 09/21-26	TRV SF 2025 09/21-26 - CA
	777000 TRAINING/TRAVEL/MEETING	8/28/2025	185156	AMY RODRIGUEZ	\$225.00	TRV 2025 09/22-26	TRV FRES 2025 09/22-26 -
	777000 TRAINING/TRAVEL/MEETING	8/28/2025	185173	RYAN TOMEY	\$413.00	TRV 2025 09/21-26	TRV SF 2025 09/21-26 - CA
	777000 TRAINING/TRAVEL/MEETING	8/28/2025	185188	LUIS VILLELA	\$506.00	TRV 2025 10/12-17	TRV MONTEREY 2025 10/12-1
	777000 TRAINING/TRAVEL/MEETING	8/28/2025	185189	LUIS VILLELA	\$506.00	TRV 2025 10/05-10	TRV MONTEREY 2025 10/05-1
	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$6,832.65	2025-06	2025-06 ELECTRICITY SVC
	778500 UTILITIES-GAS	8/1/2025	1812	SOUTHERN CALIF GAS CO	\$100.24	2025-07	2025-07 GAS SERVICE

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
15110000	DIVISION/ORG TOTAL 15110000 - POLICE-SUPPORT SERVICE				\$78,538.22		
15121000 POLICE-RECORDS	745500 POSTAGE AND FREIGHT	8/13/2025	184918	QUADIENT FINANCE USA INC	\$100.00	2025-0623	BPO/ACCT 7900044081162129
	747000 PRINTING	8/28/2025	185195	XEROX CORP	\$288.03	024017476	2025-07 COPIER LEASE AND
	747000 PRINTING	8/28/2025	185195	XEROX CORP	\$203.03	024017475	2025-07 COPIER LEASE AND
	747000 PRINTING	8/28/2025	185195	XEROX CORP	\$404.04	024017477	2025-07 COPIER LEASE AND
	749500 PROF AND SPEC SERVICES	8/6/2025	184681	STERICYCLE, INC.	\$132.17	8011352993	BPO/DOCUMENT SHREDDING
	749500 PROF AND SPEC SERVICES	8/13/2025	184943	STERICYCLE, INC.	\$141.41	8011643322	BPO/DOCUMENT SHREDDING
	DIVISION/ORG TOTAL 15121000 - POLICE-RECORDS				\$1,268.68		
15130000 POLICE-OPERATIONS	730000 UNIFORM EXPENSE	8/13/2025	184709	AMAZON CAPITAL SERVICE, INC.	\$738.91	1KQ6-Y6DW-6LYN	2025-07 AMAZON PURCHASES
	741300 SOFTWARE MAINTENANCE	8/28/2025	185192	THOMSON REUTERS- WEST OR WEST	\$623.44	852310092	2025-01 SOFTWARE MAINTENA
	744000 OFFICE EXPENSE MISC	8/13/2025	184709	AMAZON CAPITAL SERVICE, INC.	\$528.32	1KQ6-Y6DW-6LYN	2025-07 AMAZON PURCHASES
	749500 PROF AND SPEC SERVICES	8/28/2025	184996	ADVENTIST HEALTH TULARE	\$145.00	2575	TOX REPORT - H2502929
	749502 TUITION	8/28/2025	185037	RAYMOND DIAS	\$1,074.40	RDIAS 2025 Q3 TUITIO	Tuition Reimbursement - R
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184948	SPEAKWRITE LLC	\$560.58	1c13d138	2025-07 DICTATION SERVICE
	DIVISION/ORG TOTAL 15130000 - POLICE-OPERATIONS				\$3,670.65		
15130001 MEAS H PD OPERATIONS	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184641	COOK'S COMMUNICATIONS CORP	\$7,847.21	161254	MEAS H OFFICER RADIOS
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184719	BEATWEAR, INC	\$9.75	9412	NAME TAG - B. GONZALEZ

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15130001 MEAS H PD OPERATIONS	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185002	ALTA LANGUAGE SERVICES INC	\$138.00	IS797723	BILINGUAL TESTS
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185004	AXON ENTERPRISES INC	\$18,564.75	INUS370256	MEAS H BODY CAMS/TASERS Y
	DIVISION/ORG TOTAL 15130001 - MEAS H PD OPERATIONS				\$26,559.71		
15160000 POLICE-SCHOOL OFFICER PRG	777000 TRAINING/TRAVEL/MEETIN G	8/28/2025	185042	ENTERPRISE RENT A CAR	\$211.74	39572167	2025-07 CAR RENTAL
	DIVISION/ORG TOTAL 15160000 - POLICE-SCHOOL OFFICER PRG				\$211.74		
15170000 POLICE-STREET CRIMES	733800 SPECIAL-LITIGATION EXPENS	8/12/2025	1787	ACCLAMATION INSURANCE MGMT SVC-WC	\$87,735.00	2025-SF0807	SPECIAL FUNDING DAVIS, JE
	DIVISION/ORG TOTAL 15170000 - POLICE-STREET CRIMES				\$87,735.00		
15180000 POLICE-ANIMAL CONTROL	749500 PROF AND SPEC SERVICES	8/6/2025	184650	HANFORD VETERINARY HOSPITAL, INC	\$133.67	1300512	BPO/ANIMAL CONTROL VET SE
	749500 PROF AND SPEC SERVICES	8/6/2025	184650	HANFORD VETERINARY HOSPITAL, INC	\$57.99	1300511	BPO/ANIMAL CONTROL VET SE
	749500 PROF AND SPEC SERVICES	8/6/2025	184650	HANFORD VETERINARY HOSPITAL, INC	\$400.00	1300483	BPO/ANIMAL CONTROL VET SE
	749500 PROF AND SPEC SERVICES	8/6/2025	184650	HANFORD VETERINARY HOSPITAL, INC	\$115.99	1300723	BPO/ANIMAL CONTROL VET SE
	749500 PROF AND SPEC SERVICES	8/13/2025	184807	HANFORD VETERINARY HOSPITAL, INC	\$108.27	1301749	BPO/ANIMAL CONTROL VET SE
	749500 PROF AND SPEC SERVICES	8/13/2025	184807	HANFORD VETERINARY HOSPITAL, INC	\$296.90	1301750	BPO/ANIMAL CONTROL VET SE
	749500 PROF AND SPEC SERVICES	8/13/2025	184807	HANFORD VETERINARY HOSPITAL, INC	\$139.99	1301751	BPO/ANIMAL CONTROL VET SE
	749500 PROF AND SPEC SERVICES	8/13/2025	184838	LACEY ANIMAL HOSPITAL INC	\$216.75	369473	LPD ANIMAL CONTROL CALL #

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
15180000 POLICE-ANIMAL CONTROL	749500 PROF AND SPEC SERVICES	8/29/2025	185199	HANFORD VETERINARY HOSPITAL, INC	\$2.41	1298922TAX	BPO ANIMAL CONTROL VET SE
	749500 PROF AND SPEC SERVICES	8/29/2025	185199	HANFORD VETERINARY HOSPITAL, INC	\$400.00	1296579	BPO ANIMAL CONTROL VET SE
	749500 PROF AND SPEC SERVICES	8/29/2025	185199	HANFORD VETERINARY HOSPITAL, INC	\$139.99	1296004	BPO ANIMAL CONTROL VET SE
	800121 COMPUTER/MDT/MONITOR	8/28/2025	185035	DELL MARKETING LP	\$1,759.77	10830786122	Animal License Clerk PC
	DIVISION/ORG TOTAL 15180000 - POLICE-ANIMAL CONTROL				\$3,771.73		
15190000 POLICE-HART	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184706	ALL VALLEY PRINTING	\$374.30	2500526	PARK SUSPENSION NOTICES
	DIVISION/ORG TOTAL 15190000 - POLICE-HART				\$374.30		
15190001 MEAS H PD HART	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184641	COOK'S COMMUNICATIONS CORP	\$7,847.20	161254	MEAS H OFFICER RADIOS
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185004	AXON ENTERPRISES INC	\$18,564.75	INUS370256	MEAS H BODY CAMS/TASERS Y
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185035	DELL MARKETING LP	\$1,286.82	10823926343	MEASURE H (HART) - COMPUT
	DIVISION/ORG TOTAL 15190001 - MEAS H PD HART				\$27,698.77		
15200000 POLICE-CANINE	749500 PROF AND SPEC SERVICES	8/13/2025	184798	K-9 SERVICES LLC	\$1,500.00	HPD-07	BPO/QUARTERLY K9 TRAINING
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184798	K-9 SERVICES LLC	\$1,930.50	HPD-06	DEMANET BITE SUIT
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184807	HANFORD VETERINARY HOSPITAL, INC	\$35.85	1302189	BPO/K9 VET SERVICES AND F
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184807	HANFORD VETERINARY HOSPITAL, INC	\$35.85	1302188	BPO/K9 VET SERVICES AND F

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
15200000	DIVISION/ORG TOTAL 15200000 - POLICE-CANINE				\$3,502.20		
16100000 FIRE- ADMIN/SUPPRESSION	732000 COMMUNICATIONS	8/13/2025	184703	ACTIVE911 INC	\$1,124.20	636827	ACTIVE ALERT ANNUAL SUBSC
	732000 COMMUNICATIONS	8/13/2025	184816	IMAGETREND LLC	\$2,996.00	PS-INV117083	IMAGETREND FIRE INCIDENT
	732000 COMMUNICATIONS	8/13/2025	184816	IMAGETREND LLC	\$33,244.90	PS-INV117081	FIRE IMAGE TREND ANNUAL S
	732000 COMMUNICATIONS	8/13/2025	184952	T-MOBILE USA INC	\$2,335.63	206883295 2025-07	2025-07 ACCT 206883295 CE
	732000 COMMUNICATIONS	8/28/2025	184993	A T & T	\$349.45	287301186711X080125	BPO/ACCT 287301186711 INT
	732000 COMMUNICATIONS	8/28/2025	185033	COUNTY OF FRESNO	\$21,360.00	P-6036	DISPATCH SRVS FRESNO COUN
	732000 COMMUNICATIONS	8/28/2025	185065	IMAGETREND LLC	\$3,745.00	PS-INV117923	VECTOR SOLUTIONS SOFTWARE
	732000 COMMUNICATIONS	8/28/2025	185168	U S TELEPACIFIC CORP	\$316.71	186500859-0	PHONE SERVICE 07/23-08/22
	741200 EQUIPMENT MAINTENANCE	8/13/2025	184837	L N CURTIS & SONS	\$90.92	INV968180	BPO/FIRE EQUIPMENT MAINTENANCE
	741200 EQUIPMENT MAINTENANCE	8/28/2025	185070	J ' S COMMUNICATIONS, INC	\$175.00	72480	MAINTENANCE SERVICE ON RA
	741200 EQUIPMENT MAINTENANCE	8/28/2025	185151	QUINN COMPANY	\$930.96	WON50034514	FIRE EQUIPMENT MAINTENANCE
	744000 OFFICE EXPENSE MISC	8/28/2025	185114	OFFICE DEPOT (CONTRACT)	\$77.58	36566892	2025-07 CONSOLIDATED FOR
	747000 PRINTING	8/19/2025	184980	XEROX CORP	\$2,764.40	85900	BPO/COPIER LEASE AND COPI
	749500 PROF AND SPEC SERVICES	8/6/2025	184690	VESTIS GROUP, INC.	\$115.50	22580567899	BPO/PD & FIRE FLOOR MATS
	749500 PROF AND SPEC SERVICES	8/6/2025	184690	VESTIS GROUP, INC.	\$50.00	2580568500	BPO/PD & FIRE FLOOR MATS

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
16100000 FIRE- ADMIN/SUPPRESSIO N	749500 PROF AND SPEC SERVICES	8/6/2025	184690	VESTIS GROUP, INC.	\$123.59	2580568495	BPO/PD & FIRE FLOOR MATS
	749500 PROF AND SPEC SERVICES	8/13/2025	184845	LEXIPOL LLC	\$11,469.02	INVLEX11253459	ANNUAL FIRE POLICY, SUPPL
	749500 PROF AND SPEC SERVICES	8/13/2025	184920	ORKIN SERVICES OF CALIFORNIA, INC.	\$55.00	283155072	BPO/PEST CONTROL ST#1, 2
	749500 PROF AND SPEC SERVICES	8/13/2025	184920	ORKIN SERVICES OF CALIFORNIA, INC.	\$55.00	283138205	2025-07 PEST CONTROL ST#1
	749500 PROF AND SPEC SERVICES	8/13/2025	184972	VESTIS GROUP, INC.	\$106.58	2580578262	BPO/PD & FIRE FLOOR MATS
	749500 PROF AND SPEC SERVICES	8/13/2025	184972	VESTIS GROUP, INC.	\$124.96	2580578269	BPO/PD & FIRE FLOOR MATS
	749500 PROF AND SPEC SERVICES	8/13/2025	184972	VESTIS GROUP, INC.	\$115.50	2580580873	BPO/PD & FIRE FLOOR MATS
	749500 PROF AND SPEC SERVICES	8/13/2025	184972	VESTIS GROUP, INC.	\$50.00	2580581466	BPO/PD & FIRE FLOOR MATS
	749500 PROF AND SPEC SERVICES	8/13/2025	184972	VESTIS GROUP, INC.	\$126.54	2580581461	BPO/PD & FIRE FLOOR MATS
	749500 PROF AND SPEC SERVICES	8/28/2025	185186	VESTIS GROUP, INC.	\$109.53	2580584701	BPO/PD & FIRE FLOOR MATS
	749500 PROF AND SPEC SERVICES	8/28/2025	185186	VESTIS GROUP, INC.	\$131.31	2580584708	BPO/PD & FIRE FLOOR MATS
	749500 PROF AND SPEC SERVICES	8/28/2025	185186	VESTIS GROUP, INC.	\$118.14	2580587361	BPO/PD & FIRE FLOOR MATS
	749500 PROF AND SPEC SERVICES	8/28/2025	185186	VESTIS GROUP, INC.	\$126.54	2580587991	BPO/PD & FIRE FLOOR MATS

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16100000 FIRE- ADMIN/SUPPRESSIO N	749500 PROF AND SPEC SERVICES	8/28/2025	185186	VESTIS GROUP, INC.	\$50.00	2580587996	BPO/PD & FIRE FLOOR MATS
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184707	ALLSTAR FIRE EQUIPMENT INC	\$1,311.48	266012	FIRE HOOD PURCHASE
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184709	AMAZON CAPITAL SERVICE, INC.	\$502.81	1KQ6-Y6DW-6LYN	2025-07 AMAZON PURCHASES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184810	HD SUPPLY, INC.	\$57.94	875475329	WASHING PODS
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184810	HD SUPPLY, INC.	\$441.50	875318651	BPO/HOME DEPOT SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184810	HD SUPPLY, INC.	\$70.09	875899866	BPO/HOME DEPOT SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184810	HD SUPPLY, INC.	\$295.31	864423470	BPO/HOME DEPOT SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184810	HD SUPPLY, INC.	\$75.37	864423488	BPO/HOME DEPOT SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184810	HD SUPPLY, INC.	\$117.23	864477666	BPO/HOME DEPOT SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184810	HD SUPPLY, INC.	\$140.79	867007569	BPO/HOME DEPOT SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184810	HD SUPPLY, INC.	\$225.64	868249194	BPO/HOME DEPOT SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184810	HD SUPPLY, INC.	\$60.73	868394990	BPO/HOME DEPOT SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185002	ALTA LANGUAGE SERVICES INC	\$69.00	IS797723	BILINGUAL TESTS

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
16100000 FIRE- ADMIN/SUPPRESSIO N	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185041	ABY MANUFACTURING GROUP INC	\$1,256.06	0190042-IN	FIRE PERSONNEL BADGES
	777000 TRAINING/TRAVEL/MEETIN G	8/28/2025	185048	FRANCISCO ETULAIN	\$387.00	TRV 2025 10/05-09	TRV SLO 2025 10/05-09 - C
	777000 TRAINING/TRAVEL/MEETIN G	8/28/2025	185048	FRANCISCO ETULAIN	\$233.00	TRV 2025 09/26-29	F.ETULIAN TRAVEL APPROVAL
	777000 TRAINING/TRAVEL/MEETIN G	8/28/2025	185107	MOSES NEAL	\$305.00	TRV 2025 09/01-05	TRV SAC 2025 09/01-05 - C
	777000 TRAINING/TRAVEL/MEETIN G	8/28/2025	185194	BRYAN M WOLFE	\$387.00	TRV 2025 10/05-09	TRV SLO 2025 10/05-09 - C
	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$4,526.99	2025-06	2025-06 ELECTRICITY SVC
	778500 UTILITIES-GAS	8/1/2025	1812	SOUTHERN CALIF GAS CO	\$357.89	2025-07	2025-07 GAS SERVICE
	799500 OPERATIONAL CAPITAL OUTLA	8/6/2025	184659	L N CURTIS & SONS	\$454.56	INV959927	PURCHASE OF TURNOUT GEAR
	799500 OPERATIONAL CAPITAL OUTLA	8/13/2025	184707	ALLSTAR FIRE EQUIPMENT INC	\$1,006.03	266243	FIRE HELMETS AND EQUIPMEN
	799500 OPERATIONAL CAPITAL OUTLA	8/13/2025	184707	ALLSTAR FIRE EQUIPMENT INC	\$133.53	266512	FIRE EQUIPMENT: WILDLAND
	799500 OPERATIONAL CAPITAL OUTLA	8/13/2025	184837	L N CURTIS & SONS	\$249.63	INV970358	FIRE EQUIPMENT
	799500 OPERATIONAL CAPITAL OUTLA	8/28/2025	184999	ALLSTAR FIRE EQUIPMENT INC	\$612.47	266653	FIRE EQUIPMENT-HELMETS AN
	799500 OPERATIONAL CAPITAL OUTLA	8/28/2025	184999	ALLSTAR FIRE EQUIPMENT INC	\$5,562.39	265999	FIRE HELMETS AND ACCESSOR
	800121 COMPUTER/MDT/MONITOR	8/13/2025	184769	DELL MARKETING LP	\$1,469.69	10814317771	LAPTOP - DELL LATITUDE 55

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
16100000	DIVISION/ORG TOTAL 16100000 - FIRE-ADMIN/SUPPRESSION				\$102,747.09		
16110000 FIRE-FIRE PREVENTION	732000 COMMUNICATIONS	8/28/2025	184993	A T & T	\$93.19	287301186711X080 125	BPO/ACCT 287301186711 INT
	DIVISION/ORG TOTAL 16110000 - FIRE-FIRE PREVENTION				\$93.19		
17100000 PARKS & COMM SERV-ADMIN	732000 COMMUNICATIONS	8/28/2025	185168	U S TELEPACIFIC CORP	\$55.08	186500859-0	PHONE SERVICE 07/23-08/22
	732000 COMMUNICATIONS	8/28/2025	185184	VERIZON WIRELESS	\$12.78	6121064430	2025-07 ACCT 842387811-00
	744000 OFFICE EXPENSE MISC	8/13/2025	184709	AMAZON CAPITAL SERVICE, INC.	\$481.03	1KQ6-Y6DW-6LYN	2025-07 AMAZON PURCHASES
	749500 PROF AND SPEC SERVICES	8/28/2025	184992	A S C A P	\$901.50	ASCAPFY26	ANNUAL MUSIC LICENSE FOR
	749500 PROF AND SPEC SERVICES	8/28/2025	185150	QUAD KNOFF, INC	\$1,563.25	128429.01	LEGAL DESCRIPTION SERVICE
	DIVISION/ORG TOTAL 17100000 - PARKS & COMM SERV-ADMIN				\$3,013.64		
17110000 PARKS & COMM SERV-SPORTS	749500 PROF AND SPEC SERVICES	8/6/2025	184671	MUSCO CORPORATION	\$950.00	439970	LIGHTING CONTROLLERS YAC
	749500 PROF AND SPEC SERVICES	8/13/2025	184721	BENJAMIN JAMES GRAHAM	\$192.00	85312	SB COMP. UMP.
	749500 PROF AND SPEC SERVICES	8/13/2025	184721	BENJAMIN JAMES GRAHAM	\$192.00	85393	SB COMP. UMP.
	749500 PROF AND SPEC SERVICES	8/13/2025	184772	TERRY GENE DUNCIL	\$192.00	85298	SB COMP. UMP.
	749500 PROF AND SPEC SERVICES	8/13/2025	184772	TERRY GENE DUNCIL	\$192.00	85395	SB COMP. UMP.
	749500 PROF AND SPEC SERVICES	8/13/2025	184773	DUSTIN PEST CONTROL INC	\$75.00	171889377	BPO/PEST CONTROL SVC MULT
	749500 PROF AND SPEC SERVICES	8/13/2025	184786	LUKE FAGUNDES	\$560.00	85304	SB COMP. CON.

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
17110000 PARKS & COMM SERV-SPORTS	749500 PROF AND SPEC SERVICES	8/13/2025	184786	LUKE FAGUNDES	\$500.00	85389	SB COMP. CON.
	749500 PROF AND SPEC SERVICES	8/13/2025	184789	KEYSHAWN FIGUEROA-LANE	\$354.75	85305	SB COMP. CON.
	749500 PROF AND SPEC SERVICES	8/13/2025	184789	KEYSHAWN FIGUEROA-LANE	\$165.00	85387	SB COMP. CON.
	749500 PROF AND SPEC SERVICES	8/13/2025	184797	GILBERT ESCALANTE	\$320.00	85301	SB COM. UMP.
	749500 PROF AND SPEC SERVICES	8/13/2025	184797	GILBERT ESCALANTE	\$320.00	85397	SB COMP. UMP.
	749500 PROF AND SPEC SERVICES	8/13/2025	184842	RODNEY LAWRENCE	\$64.00	85391	SB COMP. UMP.
	749500 PROF AND SPEC SERVICES	8/13/2025	184850	AIKO MASUDA	\$1,290.00	85310	SB COMP. CON.
	749500 PROF AND SPEC SERVICES	8/13/2025	184850	AIKO MASUDA	\$680.00	85400	SB COMP. CON.
	749500 PROF AND SPEC SERVICES	8/13/2025	184851	AVALYNN MASUDA	\$247.50	85311	SB COMP. CON.
	749500 PROF AND SPEC SERVICES	8/13/2025	184851	AVALYNN MASUDA	\$371.25	85385	SB COMP. CON.
	749500 PROF AND SPEC SERVICES	8/13/2025	184854	BRANDEN MEDINA	\$412.50	85306	SB COMP. CON
	749500 PROF AND SPEC SERVICES	8/13/2025	184854	BRANDEN MEDINA	\$437.50	85386	SB COMP. CON.
	749500 PROF AND SPEC SERVICES	8/13/2025	184855	BRIANNA MEDINA	\$371.25	85307	SB COMP. CON.

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
17110000 PARKS & COMM SERV-SPORTS	749500 PROF AND SPEC SERVICES	8/13/2025	184855	BRIANNA MEDINA	\$371.25	85404	SB COMP. CON.
	749500 PROF AND SPEC SERVICES	8/13/2025	184863	MONTOYA, ROBERT J	\$192.00	85300	SB COMP. UMP.
	749500 PROF AND SPEC SERVICES	8/13/2025	184863	MONTOYA, ROBERT J	\$192.00	85390	SB COMP. UMP.
	749500 PROF AND SPEC SERVICES	8/13/2025	184914	PRADO, SAL	\$560.00	85297	SB COMP. LEAD UMP.
	749500 PROF AND SPEC SERVICES	8/13/2025	184914	PRADO, SAL	\$490.00	85392	SB COMP. UMP.
	749500 PROF AND SPEC SERVICES	8/13/2025	184915	PRESTON LEE KING	\$1,501.50	85302	SB COMP. MT/PREP.
	749500 PROF AND SPEC SERVICES	8/13/2025	184915	PRESTON LEE KING	\$1,419.00	85396	SB COMP. MT.
	749500 PROF AND SPEC SERVICES	8/13/2025	184924	SYDNEY REIS	\$321.75	85303	SB COMP. CON.
	749500 PROF AND SPEC SERVICES	8/13/2025	184924	SYDNEY REIS	\$198.00	85398	SB COMP. CON.
	749500 PROF AND SPEC SERVICES	8/13/2025	184932	RODRIGUEZ, CHRISTIAN	\$693.00	85308	SB COMP. CON.
	749500 PROF AND SPEC SERVICES	8/13/2025	184932	RODRIGUEZ, CHRISTIAN	\$354.75	85402	SB COMP. CON.
	749500 PROF AND SPEC SERVICES	8/13/2025	184934	TRISTAN RODRIGUEZ	\$503.25	85309	SB COMP. CON.
	749500 PROF AND SPEC SERVICES	8/13/2025	184934	TRISTAN RODRIGUEZ	\$222.75	85412	SB COMP. CON.

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
17110000 PARKS & COMM SERV-SPORTS	749500 PROF AND SPEC SERVICES	8/13/2025	184957	TIMOTHY MC WEBSTER JR	\$2,106.00	85299	SB COMP. MT/PREP.
	749500 PROF AND SPEC SERVICES	8/13/2025	184957	TIMOTHY MC WEBSTER JR	\$1,980.00	85399	SB COMP. MT/PREP.
	749500 PROF AND SPEC SERVICES	8/28/2025	185104	MONTOYA, ROBERT J	\$128.00	85754	SB COMP. UMP.
	749500 PROF AND SPEC SERVICES	8/28/2025	185181	GEIL ENTERPRISES, INC	\$567.00	464805	BPO/VARIOUS ALARM MONITOR
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184709	AMAZON CAPITAL SERVICE, INC.	\$1,322.75	1KQ6-Y6DW-6LYN	2025-07 AMAZON PURCHASES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185003	AMERICAN INCORPORATED	\$4,600.73	5336813	SOFTBALL COMPLEX ICE MACH
	767500 SOFTBALL COMPLEX EXPENSES	8/28/2025	185007	B S N SPORTS, INC	\$1,902.65	930198277	SOFTBALLS. SB COMP.
	768000 CONCESSION SUPPLIES	8/6/2025	184679	US FOODS, INC.	\$845.85	3584832	SOFTBALL COMPLEX. CONCESS
	768000 CONCESSION SUPPLIES	8/6/2025	184679	US FOODS, INC.	\$336.70	3586807	SOFTBALL COMPLEX. CONCESS
	768000 CONCESSION SUPPLIES	8/13/2025	184951	SYSCO CENTRAL CALIFORNIA, INC.	\$1,406.93	484576956	SOFTBALL CONCESSION FOOD
	768000 CONCESSION SUPPLIES	8/13/2025	184951	SYSCO CENTRAL CALIFORNIA, INC.	\$1,820.83	484584406	SOFTBALL CONCESSION FOOD
	768000 CONCESSION SUPPLIES	8/13/2025	184951	SYSCO CENTRAL CALIFORNIA, INC.	\$1,576.45	484591885	SOFTBALL CONCESSION FOOD
	768000 CONCESSION SUPPLIES	8/13/2025	184951	SYSCO CENTRAL CALIFORNIA, INC.	\$1,911.42	484599748	SOFTBALL CONCESSION FOOD
	768000 CONCESSION SUPPLIES	8/13/2025	184951	SYSCO CENTRAL CALIFORNIA, INC.	(\$66.40)	484595933	SOFTBALL CONCESSION FOOD
	768000 CONCESSION SUPPLIES	8/28/2025	185167	SYSCO CENTRAL CALIFORNIA, INC.	\$1,168.46	484625845	SOFTBALL CONCESSION FOOD
	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$6,412.82	2025-06	2025-06 ELECTRICITY SVC

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
17110000	DIVISION/ORG TOTAL 17110000 - PARKS & COMM SERV-SPORTS				\$42,926.19		
17160000 PARKS & COMM SERV-FACILITIES	446260 FITNESS ROOM MEMBERSHIPS	8/13/2025	184891	ONE TIME VENDOR	\$30.00	1055745.002	REFUND REQUEST. LF GYM ME
	501403 AQ-SWIM CLASSES	8/28/2025	185118	ONE TIME VENDOR	\$70.00	2004885.002	SWIM LESSON REFUND - MOVE
	501403 AQ-SWIM CLASSES	8/28/2025	185124	ONE TIME VENDOR	\$80.00	2004884.002	SWIM LESSONS REFUND - UNA
	501403 AQ-SWIM CLASSES	8/28/2025	185125	ONE TIME VENDOR	\$80.00	1004704.001	SWIM LESSON REFUND - CHIL
	749500 PROF AND SPEC SERVICES	8/1/2025	1790	COMCAST CABLE COMMUNICATIONS, INC	\$115.90	0454929 07/25	ACCT 8155 50 039 0454929
	749500 PROF AND SPEC SERVICES	8/13/2025	184743	COMCAST BUSINESS	\$148.38	244423384	2025-06 INTERNET SERVICE-
	749500 PROF AND SPEC SERVICES	8/13/2025	184744	COMCAST BUSINESS	\$148.38	241863170	2025-05 INTERNET SERVICE-
	749500 PROF AND SPEC SERVICES	8/13/2025	184748	COMCAST BUSINESS	\$182.34	244423383	2025-06 INTERNET SERVICE-
	749500 PROF AND SPEC SERVICES	8/13/2025	184749	COMCAST BUSINESS	\$182.34	241863169	2025-05 INTERNET SERVICE-
	749500 PROF AND SPEC SERVICES	8/13/2025	184760	COMCAST BUSINESS	\$185.08	246912134	2025-07 INTERNET SERVICE-
	749500 PROF AND SPEC SERVICES	8/13/2025	184761	COMCAST BUSINESS	\$150.61	246912138	2025-07 INTERNET SERVICE-
	749500 PROF AND SPEC SERVICES	8/28/2025	185022	CALIFITNESS INC	\$295.00	42225	LONGFIELD FITNESS CENTER
	749500 PROF AND SPEC SERVICES	8/28/2025	185022	CALIFITNESS INC	\$295.00	42262	LONGFIELD FITNESS CENTER

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
17160000 PARKS & COMM SERV-FACILITIES	749500 PROF AND SPEC SERVICES	8/28/2025	185181	GEIL ENTERPRISES, INC	\$429.00	464683	BPO/VARIOUS ALARM MONITOR
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184689	VESTIS GROUP, INC.	\$101.01	5031589851	BPO/CUST 890041001 LONGFI
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184709	AMAZON CAPITAL SERVICE, INC.	\$168.94	1KQ6-Y6DW-6LYN	2025-07 AMAZON PURCHASES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184971	VESTIS GROUP, INC.	\$101.01	5031601895	BPO/CUST 890041001 LONGFI
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	184995	GLOBAL PAYMENTS INC	\$2,285.97	11146536	ACTIVENET - ENTRUST ALCOH
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185185	VESTIS GROUP, INC.	\$101.01	5031607845	BPO/CUST 890041001 LONGFI
	765000 CHEMICAL AND CHEMICAL SUP	8/6/2025	184665	LINCOLN EQUIPMENT INC	\$1,332.34	Q2031586	BPO CHEMICALS FOR PLUNGE
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185096	LINCOLN EQUIPMENT INC	\$2,449.16	Q2031790	BPO BULK CHEMICAL PURCHAS
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185096	LINCOLN EQUIPMENT INC	\$746.60	Q2031904	BPO BULK CHEMICAL PURCHAS
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185096	LINCOLN EQUIPMENT INC	\$1,861.36	Q2031905	BPO BULK CHEMICAL PURCHAS
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185096	LINCOLN EQUIPMENT INC	\$1,959.33	Q2031984	BPO BULK CHEMICAL PURCHAS
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185096	LINCOLN EQUIPMENT INC	\$979.45	Q2032197	BPO BULK CHEMICAL PURCHAS
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185096	LINCOLN EQUIPMENT INC	\$653.83	Q2032195	BPO BULK CHEMICAL PURCHAS

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
17160000 PARKS & COMM SERV-FACILITIES	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185096	LINCOLN EQUIPMENT INC	\$1,332.34	Q2032166	BPO BULK CHEMICAL PURCHAS
	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$4,574.00	2025-06	2025-06 ELECTRICITY SVC
	778500 UTILITIES-GAS	8/1/2025	1812	SOUTHERN CALIF GAS CO	\$37.13	2025-07	2025-07 GAS SERVICE
	DIVISION/ORG TOTAL 17160000 - PARKS & COMM SERV-FACILITIES				\$21,075.51		
17190000 PARKS & COMM SER- YOUTH SERVICE	501201 CA-CONTRACTED CLASSES	8/28/2025	185122	ONE TIME VENDOR	\$10.00	2004842.002	JUNE YOGA PROGRAM REFUND
	501201 CA-CONTRACTED CLASSES	8/28/2025	185139	ONE TIME VENDOR	\$140.00	1004866.001	SWIM LESSON REFUND - CANC
	732000 COMMUNICATIONS	8/28/2025	185168	U S TELEPACIFIC CORP	\$41.31	186500859-0	PHONE SERVICE 07/23-08/22
	749500 PROF AND SPEC SERVICES	8/13/2025	184774	ERIC JOHNSON	\$375.00	8892	SUMMER CAMP 2025 REPTILE
	749500 PROF AND SPEC SERVICES	8/13/2025	184785	MARIA DE JESUS CHAVOYA DE GUADRON	\$450.00	85433	CAMPS. FACEPAINT VENDOR.
	749500 PROF AND SPEC SERVICES	8/13/2025	184933	CINDY LYNN RODRIGUEZ	\$768.00	85673	INSTRUCTOR SERVICES. WATE
	749500 PROF AND SPEC SERVICES	8/13/2025	184950	MARC AGUIRRE	\$255.00	85487	SUMMER CAMPS VENDOR. COTT
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184709	AMAZON CAPITAL SERVICE, INC.	\$1,244.23	1KQ6-Y6DW-6LYN	2025-07 AMAZON PURCHASES
	767602 B&GC 02 SERV & SUPPLIES P	8/6/2025	184653	DBA: JANITORIAL INC.	\$802.00	466249	JANITORIAL SERVICES. BGC
	767611 B&GC 11 INDIRECT COSTS PR	8/13/2025	184709	AMAZON CAPITAL SERVICE, INC.	\$129.97	1KQ6-Y6DW-6LYN	2025-07 AMAZON PURCHASES

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
17190000 PARKS & COMM SER- YOUTH SERVICE	767611 B&GC 11 INDIRECT COSTS PR	8/28/2025	185035	DELL MARKETING LP	\$1,370.12	10827833842	LAPTOP - DELL PRO 16 LAPT
	DIVISION/ORG TOTAL 17190000 - PARKS & COMM SER-YOUTH SERVICE				\$5,585.63		
17210000 PARKS & COMM SERV-COMM PROM/EV	732000 COMMUNICATIONS	8/28/2025	185168	U S TELEPACIFIC CORP	\$13.77	186500859-0	PHONE SERVICE 07/23-08/22
	732000 COMMUNICATIONS	8/28/2025	185184	VERIZON WIRELESS	\$38.01	6121064430	2025-07 ACCT 842387811-00
	749500 PROF AND SPEC SERVICES	8/28/2025	185054	GOLDEN STATE BAIT, INC.	\$1,500.00	25-3641	EVENTS. CATFISH CRAWL. CA
	756000 ADVERTISING & PUBLIC REL	8/13/2025	184806	SANTA MARIA CALIFORNIA NEWS MEDIA INC	\$320.00	07251044	JULY FRONT PAGE AD AGREEM
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184709	AMAZON CAPITAL SERVICE, INC.	\$60.21	1KQ6-Y6DW-6LYN	2025-07 AMAZON PURCHASES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184819	J H TACKETT INC	\$1,801.59	813642	CIVIC CENTINNEL PRINTING
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184819	J H TACKETT INC	\$21.65	813311	CIVIC CENTINNEL PRINTING
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184819	J H TACKETT INC	\$86.60	813714	CIVIC CENTINEEL PRINTING
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184910	PACIFIC TOWING & TRANSPORT	\$262.00	12665	TRANSPORT OLD FIRE TRUCK
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184910	PACIFIC TOWING & TRANSPORT	\$300.00	12663	TRANSPORT OLD FIRETRUCK F
	761110 ICE RINK EXPENSES	8/1/2025	1812	SOUTHERN CALIF GAS CO	\$15.78	2025-07	2025-07 GAS SERVICE
	761110 ICE RINK EXPENSES	8/28/2025	185056	HANFORD JOINT UNION HIGH SCHOOL	\$10,800.00	260022	WINTER WONDERLAND STORAGE
	761110 ICE RINK EXPENSES	8/28/2025	185056	HANFORD JOINT UNION HIGH SCHOOL	\$10,800.00	260025	WINTER WONDERLAND STORAGE

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
17210000	DIVISION/ORG TOTAL 17210000 - PARKS & COMM SERV-COMM PROM/EV				\$26,019.61		
17220000 PARKS & COMM SERV-PARKS	730000 UNIFORM EXPENSE	8/6/2025	184689	VESTIS GROUP, INC.	\$46.40	5031589861	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/6/2025	184689	VESTIS GROUP, INC.	\$46.40	5031592888	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184835	JASON ALLEN BRANDON DBA	\$222.98	41490	SAFETY SHOES - INIGUEZ, R
	730000 UNIFORM EXPENSE	8/13/2025	184835	JASON ALLEN BRANDON DBA	\$222.96	41498	SAFETY SHOES - GARZA, GRE
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$46.40	5031595903	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$46.40	5031598903	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$46.40	5031601905	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$46.40	5031604866	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/28/2025	185185	VESTIS GROUP, INC.	\$46.40	5031607855	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/28/2025	185185	VESTIS GROUP, INC.	\$376.40	5031610851	BPO/ACCT 2322940000 UNIFO
	732000 COMMUNICATIONS	8/13/2025	184953	T-MOBILE USA INC	\$541.68	992424539 2025-07	ACCT#992424539 P&CS CELL
	732000 COMMUNICATIONS	8/28/2025	185168	U S TELEPACIFIC CORP	\$13.77	186500859-0	PHONE SERVICE 07/23-08/22
	732000 COMMUNICATIONS	8/28/2025	185184	VERIZON WIRELESS	\$357.53	6121064430	2025-07 ACCT 842387811-00
	749500 PROF AND SPEC SERVICES	8/6/2025	184640	CLEAN CUT LANDSCAPE MANAGEMENT INC	\$150.00	5712	JUNE 2025 EXTRA WORK BRAN
	749500 PROF AND SPEC SERVICES	8/13/2025	184831	PHILLIP J GAPEN	\$9.74	10462	BPO ELECTRICAL SERVICES F
	749500 PROF AND SPEC SERVICES	8/13/2025	184831	PHILLIP J GAPEN	\$95.22	10521	BPO ELECTRICAL SERVICES F

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
17220000 PARKS & COMM SERV-PARKS	749500 PROF AND SPEC SERVICES	8/28/2025	185080	PHILLIP J GAPEN	\$27.06	10552	BPO ELECTRICAL SERVICES F
	749500 PROF AND SPEC SERVICES	8/28/2025	185150	QUAD KNOPF, INC	\$1,036.25	128429	EFJ PARK LEGAL DESCRIPTIO
	755000 OTHER CONTRACTUAL SERVICE	8/28/2025	185053	ERIC DODD	\$375.00	4222	CENTENNIAL PARK- BOOSTER
	755000 OTHER CONTRACTUAL SERVICE	8/28/2025	185053	ERIC DODD	\$1,899.35	4225	CENTENNIAL PARK BOOSTER P
	755000 OTHER CONTRACTUAL SERVICE	8/28/2025	185066	I.T.S. GROUP, INC.	\$2,475.00	116013F	PREVENTIVE MAINTENACE FOR
	758500 RENTS AND LEASES-SI&G	8/28/2025	185088	KINGS REHABILITATION CENTER, INC	\$6,000.00	305	FY25 QUARTERLY LEASE PAYM
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184660	SCHAUB RENTAL AND SALES INC	\$64.93	32472	BPO/PARKS EQUIPMENT PARTS
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184660	SCHAUB RENTAL AND SALES INC	\$446.68	32443	BPO/PARKS EQUIPMENT PARTS
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184692	WEST VALLEY SUPPLY INC	\$95.32	118405	BPO/SUPPLIES, PART, AND M
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184692	WEST VALLEY SUPPLY INC	\$33.27	118406	BPO/SUPPLIES, PART, AND M
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184784	EWING IRRIGATION PROD INC	\$587.67	27073207	IRRGATION SUPPLIES AND MA
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184784	EWING IRRIGATION PROD INC	\$1,928.41	26207464	IRRGATION SUPPLIES AND MA
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184784	EWING IRRIGATION PROD INC	\$1,708.87	26235093	IRRGATION SUPPLIES AND MA

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17220000 PARKS & COMM SERV-PARKS	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184812	HOFMANS NURSERY	\$77.94	10857	NURSERY SUPPLIES FOR PARK
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184813	HOLT LUMBER INC	\$11.95	653167	LUMBAR FOR PARKS
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184840	SCHAUB RENTAL AND SALES INC	\$2.71	32673	BPO/PARKS EQUIPMENT PARTS
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184840	SCHAUB RENTAL AND SALES INC	\$4,692.54	32531	BPO/PARKS EQUIPMENT PARTS
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184840	SCHAUB RENTAL AND SALES INC	\$42.22	32895	BPO/PARKS EQUIPMENT PARTS
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184841	LAWRENCE TRACTOR CO	\$21.39	750784	EXTRA SET OF KEYS
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184841	LAWRENCE TRACTOR CO	\$143.96	754230	TOOL FOR DOWNTOWN
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184974	VORTEX AQUATIC STRUCTURES INTL	\$14,271.19	62862	REPLACEMENT PARTS FOR SPL
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184976	WEST VALLEY SUPPLY INC	\$78.56	119228	BPO/SUPPLIES, PART, AND M
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184976	WEST VALLEY SUPPLY INC	\$102.47	119291	BPO/SUPPLIES, PART, AND M
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184976	WEST VALLEY SUPPLY INC	\$180.95	119481	BPO/SUPPLIES, PART, AND M
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185010	BENNETT & BENNETT CORP	\$168.60	158447	IRRIGATION SUPPLIES FOR P
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185044	EWING IRRIGATION PROD INC	\$1,294.52	27232931	IRRIGATION SUPPLIES AND MA

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
17220000 PARKS & COMM SERV-PARKS	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185044	EWING IRRIGATION PROD INC	\$2,557.26	26669468	IRRIGATION SUPPLIES AND MA
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185044	EWING IRRIGATION PROD INC	\$386.08	27236446	IRRIGATION SUPPLIES AND MA
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185061	HD SUPPLY, INC.	\$356.58	872742853	BPO/HOME DEPOT SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185063	HOFMANS NURSERY	\$61.16	10867	NURSERY SUPPLIES FOR PARK
	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$2,641.85	2025-06	2025-06 ELECTRICITY SVC
	822649 HEROES PARK	8/28/2025	185148	PLACEWORKS, INC.	\$28,725.81	HAN-03.0-1	ENVIRONMENTAL IMPACT REPO
	825024 ABI FROCE MACHINE	8/13/2025	184805	HANFORD JOINT UNION HIGH SCHOOL	\$30,978.10	25101	ABI FORCE FIELD MACHINE F
	825613 HANFORD GOES GREEN PROJEC	8/28/2025	185038	DUDEK	\$2,216.25	202506666	TREE CANOPY AND INVENTORY
	825613 HANFORD GOES GREEN PROJEC	8/28/2025	185038	DUDEK	\$28,704.00	202506610	TREE CANOPY AND INVENTORY
DIVISION/ORG TOTAL 17220000 - PARKS & COMM SERV-PARKS					\$136,708.98		
17502091 INTERMODAL FACILITY OPER	755000 OTHER CONTRACTUAL SERVICE	8/6/2025	184642	DAVID MATTOS	\$985.00	11858	2025-07 WKND& HOLIDAY CLE
	755000 OTHER CONTRACTUAL SERVICE	8/13/2025	184773	DUSTIN PEST CONTROL INC	\$35.00	171878134	BPO/PEST CONTROL SVC MULT
	755000 OTHER CONTRACTUAL SERVICE	8/13/2025	184971	VESTIS GROUP, INC.	\$14.00	5031598895	BPO/WWTP & BLG MAINT FLOO
	755000 OTHER CONTRACTUAL SERVICE	8/13/2025	184971	VESTIS GROUP, INC.	\$14.00	5031592880	BPO/WWTP & BLG MAINT FLOO

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17502091 INTERMODAL FACILITY OPER	755000 OTHER CONTRACTUAL SERVICE	8/13/2025	184971	VESTIS GROUP, INC.	\$44.81	5031601897	BPO/WWTP & BLG MAINT FLOO
	755000 OTHER CONTRACTUAL SERVICE	8/13/2025	184971	VESTIS GROUP, INC.	\$14.00	5031604858	BPO/WWTP & BLG MAINT FLOO
	755000 OTHER CONTRACTUAL SERVICE	8/13/2025	184971	VESTIS GROUP, INC.	\$44.81	5031589853	BPO/WWTP & BLG MAINT FLOO
	755000 OTHER CONTRACTUAL SERVICE	8/28/2025	185185	VESTIS GROUP, INC.	\$44.81	5031607847	BPO/WWTP & BLG MAINT FLOO
	755000 OTHER CONTRACTUAL SERVICE	8/28/2025	185185	VESTIS GROUP, INC.	\$14.00	5031610843	BPO/WWTP & BLG MAINT FLOO
	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$443.00	2025-06	2025-06 ELECTRICITY SVC
	DIVISION/ORG TOTAL 17502091 - INTERMODAL FACILITY OPER				\$1,653.43		
17502100 BUILDING MAINTENANCE	730000 UNIFORM EXPENSE	8/6/2025	184689	VESTIS GROUP, INC.	\$19.50	5031589862	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/6/2025	184689	VESTIS GROUP, INC.	\$19.50	5031592889	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184835	JASON ALLEN BRANDON DBA	\$224.03	41459	SAFETY SHOES - GREEN, RAN
	730000 UNIFORM EXPENSE	8/13/2025	184835	JASON ALLEN BRANDON DBA	\$216.49	41458	SAFETY SHOES - HILLHOUSE,
	730000 UNIFORM EXPENSE	8/13/2025	184835	JASON ALLEN BRANDON DBA	\$225.00	41500	SAFETY SHOES - TURNER, J
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$38.00	5031595904	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$19.50	5031598904	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$19.50	5031601906	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$19.50	5031604867	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/28/2025	185185	VESTIS GROUP, INC.	\$19.50	5031607856	BPO/ACCT 2322940000 UNIFO

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17502100 BUILDING MAINTENANCE	730000 UNIFORM EXPENSE	8/28/2025	185185	VESTIS GROUP, INC.	\$19.50	5031610852	BPO/ACCT 2322940000 UNIFO
	732000 COMMUNICATIONS	8/28/2025	185168	U S TELEPACIFIC CORP	\$41.31	186500859-0	PHONE SERVICE 07/23-08/22
	755000 OTHER CONTRACTUAL SERVICE	8/6/2025	184635	AMERICAN INCORPORATED	\$402.50	7186264	PD EVIDENCE - CONDENSER U
	755000 OTHER CONTRACTUAL SERVICE	8/6/2025	184687	GEIL ENTERPRISES, INC	\$1,044.00	465482	PAL - ALARM MONITORING/AC
	755000 OTHER CONTRACTUAL SERVICE	8/6/2025	184687	GEIL ENTERPRISES, INC	\$2,340.00	465484	CORP. YARD-ALARM MONITORI
	755000 OTHER CONTRACTUAL SERVICE	8/6/2025	184687	GEIL ENTERPRISES, INC	\$1,044.00	465480	PD-ALARM MONITORING/ACCES
	755000 OTHER CONTRACTUAL SERVICE	8/6/2025	184687	GEIL ENTERPRISES, INC	\$1,140.00	465489	CARNEGIE- ALARM MONITORIN
	755000 OTHER CONTRACTUAL SERVICE	8/6/2025	184687	GEIL ENTERPRISES, INC	\$1,524.00	465486	BPO/VARIOUS ALARM MONITOR
	755000 OTHER CONTRACTUAL SERVICE	8/6/2025	184687	GEIL ENTERPRISES, INC	\$360.00	465485	BPO/VARIOUS ALARM MONITOR
	755000 OTHER CONTRACTUAL SERVICE	8/6/2025	184687	GEIL ENTERPRISES, INC	\$1,380.00	465487	ALARM MONITORING/ACCESS S
	755000 OTHER CONTRACTUAL SERVICE	8/6/2025	184687	GEIL ENTERPRISES, INC	\$1,212.00	465481	BPO/VARIOUS ALARM MONITOR
	755000 OTHER CONTRACTUAL SERVICE	8/6/2025	184689	VESTIS GROUP, INC.	\$69.48	5031592879	BPO/WWTP & BLG MAINT FLOO
	755000 OTHER CONTRACTUAL SERVICE	8/13/2025	184710	AMERICAN INCORPORATED	\$750.00	7188536	REPAIR ICE MACHINE IN CIV
	755000 OTHER CONTRACTUAL SERVICE	8/13/2025	184710	AMERICAN INCORPORATED	\$8,625.00	5336810	SEMI-ANNUAL HVAC PM CONTR

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
17502100 BUILDING MAINTENANCE	755000 OTHER CONTRACTUAL SERVICE	8/13/2025	184710	AMERICAN INCORPORATED	\$2,800.00	5336811	SEMI-ANNUAL ICE MACHINE P
	755000 OTHER CONTRACTUAL SERVICE	8/13/2025	184773	DUSTIN PEST CONTROL INC	\$35.00	171895981	BPO/PEST CONTROL SVC MULT
	755000 OTHER CONTRACTUAL SERVICE	8/13/2025	184773	DUSTIN PEST CONTROL INC	\$35.00	171876418	BPO/PEST CONTROL SVC MULT
	755000 OTHER CONTRACTUAL SERVICE	8/13/2025	184773	DUSTIN PEST CONTROL INC	\$35.00	171877534	BPO/PEST CONTROL SVC MULT
	755000 OTHER CONTRACTUAL SERVICE	8/13/2025	184773	DUSTIN PEST CONTROL INC	\$55.00	171878009	BPO/PEST CONTROL SVC MULT
	755000 OTHER CONTRACTUAL SERVICE	8/13/2025	184773	DUSTIN PEST CONTROL INC	\$90.00	171965120	BPO/PEST CONTROL SVC MULT
	755000 OTHER CONTRACTUAL SERVICE	8/13/2025	184773	DUSTIN PEST CONTROL INC	\$35.00	171965238	BPO/PEST CONTROL SVC MULT
	755000 OTHER CONTRACTUAL SERVICE	8/13/2025	184773	DUSTIN PEST CONTROL INC	\$35.00	171965703	BPO/PEST CONTROL SVC MULT
	755000 OTHER CONTRACTUAL SERVICE	8/13/2025	184773	DUSTIN PEST CONTROL INC	\$35.00	171965765	BPO/PEST CONTROL SVC MULT
	755000 OTHER CONTRACTUAL SERVICE	8/13/2025	184773	DUSTIN PEST CONTROL INC	\$35.00	171910135	BPO/PEST CONTROL SVC MULT
	755000 OTHER CONTRACTUAL SERVICE	8/13/2025	184773	DUSTIN PEST CONTROL INC	\$50.00	171909692	BPO/PEST CONTROL SVC MULT
	755000 OTHER CONTRACTUAL SERVICE	8/13/2025	184796	ERIC DODD	\$539.46	4206	ELECTRICAL REPAIR FOR POW
	755000 OTHER CONTRACTUAL SERVICE	8/13/2025	184796	ERIC DODD	\$375.00	4201	REPLACE BREAKER TO POWER

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
17502100 BUILDING MAINTENANCE	755000 OTHER CONTRACTUAL SERVICE	8/13/2025	184831	PHILLIP J GAPEN	\$110.00	10545	BPO/LOCKS AND KEY DUPLICA
	755000 OTHER CONTRACTUAL SERVICE	8/13/2025	184930	ROBERT S MARKS PLUMBING INC	\$1,120.00	21784	BPO/SPECIALIZED PLUMBLING
	755000 OTHER CONTRACTUAL SERVICE	8/13/2025	184971	VESTIS GROUP, INC.	\$69.48	5031598894	BPO/WWTP & BLG MAINT FLOO
	755000 OTHER CONTRACTUAL SERVICE	8/13/2025	184971	VESTIS GROUP, INC.	\$57.72	5031592876	BPO/WWTP & BLG MAINT FLOO
	755000 OTHER CONTRACTUAL SERVICE	8/13/2025	184971	VESTIS GROUP, INC.	\$57.72	5031604854	BPO/WWTP & BLG MAINT FLOO
	755000 OTHER CONTRACTUAL SERVICE	8/13/2025	184971	VESTIS GROUP, INC.	\$69.48	5031604857	BPO/WWTP & BLG MAINT FLOO
	755000 OTHER CONTRACTUAL SERVICE	8/28/2025	185003	AMERICAN INCORPORATED	\$343.75	7189918	REPAIR SERVER RM AC #19
	755000 OTHER CONTRACTUAL SERVICE	8/28/2025	185003	AMERICAN INCORPORATED	\$757.79	7189917	REPAIR AC #14
	755000 OTHER CONTRACTUAL SERVICE	8/28/2025	185003	AMERICAN INCORPORATED	\$4,720.00	5336494	EMERGENCY COIL REPLACEMEN
	755000 OTHER CONTRACTUAL SERVICE	8/28/2025	185003	AMERICAN INCORPORATED	\$3,743.00	5336490	REPLACE DEFECTIVE AC COMP
	755000 OTHER CONTRACTUAL SERVICE	8/28/2025	185074	JONES-WALBAUM CORPORATION	\$14,661.51	821298	PTZ SECURITY CAMERAS AND
	755000 OTHER CONTRACTUAL SERVICE	8/28/2025	185155	ROBERT S MARKS PLUMBING INC	\$225.00	21848	BPO/SPECIALIZED PLUMBLING
	755000 OTHER CONTRACTUAL SERVICE	8/28/2025	185185	VESTIS GROUP, INC.	\$57.72	5031610839	BPO/WWTP & BLG MAINT FLOO

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17502100 BUILDING MAINTENANCE	755000 OTHER CONTRACTUAL SERVICE	8/28/2025	185185	VESTIS GROUP, INC.	\$69.48	5031610842	BPO/WWTP & BLG MAINT FLOO
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184669	CONSOLIDATED ELEC DIST, INC	\$123.24	2877-1047537	BPO/ELECTRICAL SERVICES R
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184669	CONSOLIDATED ELEC DIST, INC	\$246.49	2877-1047574	BPO/ELECTRICAL SERVICES R
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184813	HOLT LUMBER INC	\$34.54	538606	BPO/REPAIR SUPPLIES SPRTS
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184940	SCREENFLEX PORTABLE PARTITIONS LLC	\$8,718.27	818545	REPLACEMENT PARTITIONS FO
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185014	C B S DOORS	\$36.37	145768	THRESHOLD FOR CARNEGIE MU
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185059	HD SUPPLY, INC.	\$80.88	876620865	BPO/HOME DEPOT SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185059	HD SUPPLY, INC.	\$63.78	876620899	BPO/HOME DEPOT SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185059	HD SUPPLY, INC.	\$207.62	876830506	BPO/HOME DEPOT SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185059	HD SUPPLY, INC.	\$72.30	877667113	BPO/HOME DEPOT SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185059	HD SUPPLY, INC.	\$33.91	874839020	BPO/HOME DEPOT SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185059	HD SUPPLY, INC.	\$42.09	875063562	BPO/HOME DEPOT SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185060	HD SUPPLY, INC.	\$998.63	876640640	BPO/HOME DEPOT SUPPLIES

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17502100 BUILDING MAINTENANCE	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185060	HD SUPPLY, INC.	\$92.59	876789058	BPO/HOME DEPOT SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185060	HD SUPPLY, INC.	\$52.57	877418137	BPO/HOME DEPOT SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185060	HD SUPPLY, INC.	\$1,006.16	877450700	BPO/HOME DEPOT SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185060	HD SUPPLY, INC.	\$132.53	877647925	BPO/HOME DEPOT SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185060	HD SUPPLY, INC.	\$55.12	875727679	BPO/HOME DEPOT SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185081	KINGS CO PIPE & SUPPLY	\$14.81	2030212	BPO/PIPES & SUPPLIES NEED
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185081	KINGS CO PIPE & SUPPLY	\$126.72	2030198	BPO/PIPES & SUPPLIES NEED
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185081	KINGS CO PIPE & SUPPLY	\$3.26	2030114	BPO/PIPES & SUPPLIES NEED
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185081	KINGS CO PIPE & SUPPLY	\$58.86	2030593	BPO/PIPES & SUPPLIES NEED
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185081	KINGS CO PIPE & SUPPLY	\$16.65	2030689	BPO/PIPES & SUPPLIES NEED
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185081	KINGS CO PIPE & SUPPLY	\$52.35	2030714	BPO/PIPES & SUPPLIES NEED
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185081	KINGS CO PIPE & SUPPLY	\$29.65	2030719	BPO/PIPES & SUPPLIES NEED
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185081	KINGS CO PIPE & SUPPLY	\$7.30	2030750	BPO/PIPES & SUPPLIES NEED

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17502100 BUILDING MAINTENANCE	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185081	KINGS CO PIPE & SUPPLY	\$57.40	2030758	BPO/PIPES & SUPPLIES NEED
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185105	MORGAN & SLATES	\$15.77	1842422	BPO/SUPPLIES NEEDED TO MA
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185196	ZORO TOOLS INC.	\$114.73	INV16874519	ICE MACHINE PUMP
	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$11,780.96	2025-06	2025-06 ELECTRICITY SVC
	778500 UTILITIES-GAS	8/1/2025	1812	SOUTHERN CALIF GAS CO	\$255.25	2025-07	2025-07 GAS SERVICE
	DIVISION/ORG TOTAL 17502100 - BUILDING MAINTENANCE				\$75,520.22		
17502131 COURTHOUSE SQUARE FACIL	749500 PROF AND SPEC SERVICES	8/13/2025	184773	DUSTIN PEST CONTROL INC	\$35.00	171933936	BPO/PEST CONTROL SVC MULT
	749500 PROF AND SPEC SERVICES	8/28/2025	185039	DUSTIN PEST CONTROL INC	\$35.00	214800863	BPO/PEST CONTROL SVC MULT
	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$2,592.96	2025-06	2025-06 ELECTRICITY SVC
	778500 UTILITIES-GAS	8/1/2025	1812	SOUTHERN CALIF GAS CO	\$53.39	2025-07	2025-07 GAS SERVICE
	DIVISION/ORG TOTAL 17502131 - COURTHOUSE SQUARE FACIL				\$2,716.35		
20100000 ENGINEERING	730000 UNIFORM EXPENSE	8/6/2025	184689	VESTIS GROUP, INC.	\$8.28	5031589855	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/6/2025	184689	VESTIS GROUP, INC.	\$8.28	5031592882	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$8.28	5031595897	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$8.28	5031598897	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$8.28	5031601899	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$8.28	5031604860	BPO/ACCT 2322940000 UNIFO

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
20100000 ENGINEERING	730000 UNIFORM EXPENSE	8/28/2025	185185	VESTIS GROUP, INC.	\$8.28	5031607849	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/28/2025	185185	VESTIS GROUP, INC.	\$8.28	5031610845	BPO/ACCT 2322940000 UNIFO
	732000 COMMUNICATIONS	8/13/2025	184953	T-MOBILE USA INC	\$137.19	993747413 2025-07	2025-07 PUBLIC WORKS CELL
	732000 COMMUNICATIONS	8/28/2025	185168	U S TELEPACIFIC CORP	\$247.86	186500859-0	PHONE SERVICE 07/23-08/22
	733800 SPECIAL-LITIGATION EXPENS	8/6/2025	184646	CHRISTIAN ENGELMANN	\$4,000.00	84431	RETAINER FEE/SOTO VS. CIT
	744000 OFFICE EXPENSE MISC	8/13/2025	184709	AMAZON CAPITAL SERVICE, INC.	\$176.23	1KQ6-Y6DW-6LYN	2025-07 AMAZON PURCHASES
	744000 OFFICE EXPENSE MISC	8/28/2025	185114	OFFICE DEPOT (CONTRACT)	\$210.36	36566892	2025-07 CONSOLIDATED FOR
	745000 PUBLICATIONS AND DUES	8/28/2025	185026	COLUMN SOFTWARE PBC	\$179.06	3364AF6D-0065	CFD 2025-2 BILLINGSLEY MA
	745000 PUBLICATIONS AND DUES	8/28/2025	185026	COLUMN SOFTWARE PBC	\$177.33	3364AF6D-0074	CFD 2025-1 LEGAL NOTICE
	745500 POSTAGE AND FREIGHT	8/13/2025	1799	UNITED PARCEL SERVICE	\$61.74	0000F7476V255	SHIPPING FEE/PAYMENT PROC
	745500 POSTAGE AND FREIGHT	8/13/2025	1800	UNITED PARCEL SERVICE	\$67.93	0000F7476V215	SHIPPING FEE/PAYMENT PROC
	745500 POSTAGE AND FREIGHT	8/13/2025	1801	UNITED PARCEL SERVICE	\$93.80	0000F7476V205	SHIPPING FEE/PAYMENT PROC
	747000 PRINTING	8/19/2025	184980	XEROX CORP	\$2,370.87	85900	BPO/COPIER LEASE AND COPI
	747000 PRINTING	8/28/2025	185195	XEROX CORP	\$573.73	024017478	BPO/COPIER LEASE AND COPI
	749500 PROF AND SPEC SERVICES	8/13/2025	184818	INTERWEST CONSULTING GROUP	\$4,370.00	2028027	CITY SURVEYOR SERVICES
	749500 PROF AND SPEC SERVICES	8/13/2025	184857	MICHAEL SUTHERLAND & ASSN	\$675.00	232786-13	CITY SURVEYOR SERVICES -

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
20100000 ENGINEERING	749500 PROF AND SPEC SERVICES	8/13/2025	184857	MICHAEL SUTHERLAND & ASSN	\$675.00	252820-4	CITY SURVEYOR SERVICES -
	749500 PROF AND SPEC SERVICES	8/28/2025	185069	INTERWEST CONSULTING GROUP	\$4,082.50	2448815	CITY SURVEYOR SERVICES
	749500 PROF AND SPEC SERVICES	8/28/2025	185069	INTERWEST CONSULTING GROUP	\$8,682.50	1827000	CITY SURVEYOR SERVICES
	749500 PROF AND SPEC SERVICES	8/28/2025	185101	MICHAEL SUTHERLAND & ASSN	\$825.00	192663-6	CITY SURVEYOR SERVICES SD
	749500 PROF AND SPEC SERVICES	8/28/2025	185101	MICHAEL SUTHERLAND & ASSN	\$300.00	252819-3	CITY SURVEYOR SERVICES
	749500 PROF AND SPEC SERVICES	8/28/2025	185101	MICHAEL SUTHERLAND & ASSN	\$675.00	232786-12	CITY SURVEYOR SERVICES
	749500 PROF AND SPEC SERVICES	8/28/2025	185101	MICHAEL SUTHERLAND & ASSN	\$600.00	242819-2	CITY SURVEYOR SERVICES
	749500 PROF AND SPEC SERVICES	8/28/2025	185101	MICHAEL SUTHERLAND & ASSN	\$375.00	232796-3	CITY SURVEYOR SERVICES
	749500 PROF AND SPEC SERVICES	8/28/2025	185101	MICHAEL SUTHERLAND & ASSN	\$3,900.00	192663-5	CITY SURVEYOR SERVICES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	1794	UNITED PARCEL SERVICE	\$25.50	0000F7476V225	PAYMENT PROCESSING FEE
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	1795	UNITED PARCEL SERVICE	\$25.00	0000F7476V195	FEES REF. CHECK PAYMENT
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	1798	UNITED PARCEL SERVICE	\$36.49	0000F7476V245	SHIPPING FEE/PAYMENT PROC
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	1799	UNITED PARCEL SERVICE	\$4.84	0000F7476V255	SHIPPING FEE/PAYMENT PROC

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20100000 ENGINEERING	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	1800	UNITED PARCEL SERVICE	\$3.77	0000F7476V215	SHIPPING FEE/PAYMENT PROC
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	1801	UNITED PARCEL SERVICE	\$27.36	0000F7476V205	SHIPPING FEE/PAYMENT PROC
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	1802	UNITED PARCEL SERVICE	\$25.50	0000F7476V325	PAYMENT PROCESSING FEE
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184943	STERICYCLE, INC.	\$115.55	8011642699	BPO/DOCUMENT SHREDDING
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185076	K R C SAFETY CO INC	\$1,731.45	69510	STREET SIGNS FOR T937 & T
	DIVISION/ORG TOTAL 20100000 - ENGINEERING				\$35,517.80		
20110000 PW-STREET MAINTENANCE	730000 UNIFORM EXPENSE	8/6/2025	184689	VESTIS GROUP, INC.	\$41.43	5031589856	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/6/2025	184689	VESTIS GROUP, INC.	\$68.93	5031592883	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184835	JASON ALLEN BRANDON DBA	\$225.00	41480	SAFETY SHOES - CORONADO,
	730000 UNIFORM EXPENSE	8/13/2025	184835	JASON ALLEN BRANDON DBA	\$225.00	41482	SAFETY SHOES - CERVANTES,
	730000 UNIFORM EXPENSE	8/13/2025	184835	JASON ALLEN BRANDON DBA	\$216.47	41484	SAFETY SHOES - PALAZUELOS
	730000 UNIFORM EXPENSE	8/13/2025	184835	JASON ALLEN BRANDON DBA	\$225.00	41481	SAFETY SHOES - VALTIERRA,
	730000 UNIFORM EXPENSE	8/13/2025	184835	JASON ALLEN BRANDON DBA	\$225.00	41483	SAFETY SHOES - GLOVER, BR
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$87.41	5031595898	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$46.95	5031598898	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$45.18	5031601900	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$45.18	5031604861	BPO/ACCT 2322940000 UNIFO

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20110000 PW-STREET MAINTENANCE	730000 UNIFORM EXPENSE	8/28/2025	185185	VESTIS GROUP, INC.	\$58.91	5031607850	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/28/2025	185185	VESTIS GROUP, INC.	\$54.41	5031610846	BPO/ACCT 2322940000 UNIFO
	732000 COMMUNICATIONS	8/28/2025	185168	U S TELEPACIFIC CORP	\$27.54	186500859-0	PHONE SERVICE 07/23-08/22
	749500 PROF AND SPEC SERVICES	8/28/2025	185051	G I S WORKSHOP LLC	\$578.00	2019-28767	ANNUAL FEE FOR SIMPLESIGN
	749500 PROF AND SPEC SERVICES	8/28/2025	185086	KINGS INDUSTRIAL OCCUP MEDICAL CTR	\$100.00	301612	PHYSICAL EXAM DOT
	749500 PROF AND SPEC SERVICES	8/28/2025	185086	KINGS INDUSTRIAL OCCUP MEDICAL CTR	\$100.00	298178	PHYSICAL EXAM DOT
	749500 PROF AND SPEC SERVICES	8/28/2025	185086	KINGS INDUSTRIAL OCCUP MEDICAL CTR	\$100.00	298178	PHYSICAL EXAM DOT
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184654	K R C SAFETY CO INC	\$2,314.81	69420	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184654	K R C SAFETY CO INC	\$2,426.83	69557	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184654	K R C SAFETY CO INC	\$875.70	69561	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184669	CONSOLIDATED ELEC DIST, INC	\$246.49	2877-1047750	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184709	AMAZON CAPITAL SERVICE, INC.	\$492.60	1KQ6-Y6DW-6LYN	2025-07 AMAZON PURCHASES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184853	CONSOLIDATED ELEC DIST, INC	\$11.91	2877-1048116	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184858	MILLER'S RENTALAND	\$69.11	831249	PARTS & SUPPLIES

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
20110000 PW-STREET MAINTENANCE	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184858	MILLER'S RENTALAND	\$70.84	831574	PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184858	MILLER'S RENTALAND	\$75.16	831436	PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185071	J A MOMANEY SERVICES INC	\$588.88	193787	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185162	THE SHERWIN WILLIAMS COMPANY	\$167.52	9998-9	BPO/PAINT
	772000 STREET CONST & MAINT MTRL	8/13/2025	184849	MARTIN MARIETTA MATERIALS INC	\$5,153.60	46647831	BPO/MATERIAL/ASPHALT
	772000 STREET CONST & MAINT MTRL	8/13/2025	184849	MARTIN MARIETTA MATERIALS INC	\$4,220.15	46647130	BPO/MATERIAL/ASPHALT
	772000 STREET CONST & MAINT MTRL	8/13/2025	184849	MARTIN MARIETTA MATERIALS INC	\$5,146.04	46676720	BPO/MATERIAL/ASPHALT
	772000 STREET CONST & MAINT MTRL	8/13/2025	184849	MARTIN MARIETTA MATERIALS INC	\$5,540.21	46711930	BPO/MATERIAL/ASPHALT
	772000 STREET CONST & MAINT MTRL	8/13/2025	184949	STANDARD EMULSIONS INC	\$383.59	5634	BPO/EMULSION
	772000 STREET CONST & MAINT MTRL	8/28/2025	185100	MARTIN MARIETTA MATERIALS INC	\$3,140.50	46727064	BPO/MATERIAL/ASPHALT
	772000 STREET CONST & MAINT MTRL	8/28/2025	185100	MARTIN MARIETTA MATERIALS INC	\$5,493.13	46741558	BPO/MATERIAL/ASPHALT
	772000 STREET CONST & MAINT MTRL	8/28/2025	185100	MARTIN MARIETTA MATERIALS INC	\$6,155.28	46690221	BPO/MATERIAL/ASPHALT
	772000 STREET CONST & MAINT MTRL	8/28/2025	185100	MARTIN MARIETTA MATERIALS INC	\$6,005.68	46689356	BPO/MATERIAL/ASPHALT

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
20110000 PW-STREET MAINTENANCE	772000 STREET CONST & MAINT MTRL	8/28/2025	185100	MARTIN MARIETTA MATERIALS INC	\$5,468.78	46756520	BPO/MATERIAL/ASPHALT
	772000 STREET CONST & MAINT MTRL	8/28/2025	185100	MARTIN MARIETTA MATERIALS INC	\$5,720.13	46775843	BPO/MATERIAL/ASPHALT
	772000 STREET CONST & MAINT MTRL	8/28/2025	185100	MARTIN MARIETTA MATERIALS INC	\$4,449.12	46791390	BPO/MATERIAL/ASPHALT
	772000 STREET CONST & MAINT MTRL	8/28/2025	185100	MARTIN MARIETTA MATERIALS INC	\$4,063.72	46805693	BPO/MATERIAL/ASPHALT
	772000 STREET CONST & MAINT MTRL	8/28/2025	185100	MARTIN MARIETTA MATERIALS INC	\$3,759.78	46821337	BPO/MATERIAL/ASPHALT
	772000 STREET CONST & MAINT MTRL	8/28/2025	185100	MARTIN MARIETTA MATERIALS INC	\$3,882.23	46837409	BPO/MATERIAL/ASPHALT
	772000 STREET CONST & MAINT MTRL	8/28/2025	185100	MARTIN MARIETTA MATERIALS INC	\$2,138.65	46906215	BPO/MATERIAL/ASPHALT
	772000 STREET CONST & MAINT MTRL	8/28/2025	185100	MARTIN MARIETTA MATERIALS INC	\$2,594.24	46906208	BPO/MATERIAL/ASPHALT
	772000 STREET CONST & MAINT MTRL	8/28/2025	185100	MARTIN MARIETTA MATERIALS INC	\$6,147.70	46890207	BPO/MATERIAL/ASPHALT
	772000 STREET CONST & MAINT MTRL	8/28/2025	185100	MARTIN MARIETTA MATERIALS INC	\$5,467.93	46858899	BPO/MATERIAL/ASPHALT
	772000 STREET CONST & MAINT MTRL	8/28/2025	185112	NUTRIEN AG SOLUTIONS INC	\$664.96	57719980	BPO/CHEMICALS/SUPPLIES
	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$57,697.06	2025-06	2025-06 ELECTRICITY SVC
	778000 UTILITIES-ELECTRICITY	8/13/2025	184733	CALIF DEPT OF TRANSPORTATION	\$8,285.05	SL251123	BPO/SIGNAL & LIGHTING
	941500 SUBROGATION EXPENSE	8/6/2025	184631	A-C ELECTRIC COMPANY	\$3,767.00	VT0958-001	INSTALLATION OF A SIGNAL

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
20110000	DIVISION/ORG TOTAL 20110000 - PW-STREET MAINTENANCE				\$165,154.79		
20310000 REFUSE OPERATIONS	730000 UNIFORM EXPENSE	8/6/2025	184689	VESTIS GROUP, INC.	\$168.93	5031589857	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/6/2025	184689	VESTIS GROUP, INC.	\$126.41	5031592884	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184835	JASON ALLEN BRANDON DBA	\$222.97	41477	SAFETY SHOES - AVILA, JOS
	730000 UNIFORM EXPENSE	8/13/2025	184835	JASON ALLEN BRANDON DBA	\$225.00	41485	SAFETY SHOES - LANZILLOTT
	730000 UNIFORM EXPENSE	8/13/2025	184835	JASON ALLEN BRANDON DBA	\$222.92	41472	SAFETY SHOES - VILLAGRAN,
	730000 UNIFORM EXPENSE	8/13/2025	184835	JASON ALLEN BRANDON DBA	\$225.00	41489	SAFETY SHOES - VALLIN, AN
	730000 UNIFORM EXPENSE	8/13/2025	184835	JASON ALLEN BRANDON DBA	\$222.91	41494	SAFETY SHOES - ANDRADA, R
	730000 UNIFORM EXPENSE	8/13/2025	184835	JASON ALLEN BRANDON DBA	\$216.46	41499	SAFETY SHOES - TREVINO, I
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$110.41	5031595899	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$129.96	5031598899	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$163.93	5031601901	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$192.97	5031604862	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184973	VESTIS GROUP, INC.	\$8.73	5031595896	BPO/ACCT 890172782 REFUSE
	730000 UNIFORM EXPENSE	8/13/2025	184973	VESTIS GROUP, INC.	\$8.73	5031601898	BPO/ACCT 890172782 REFUSE
	730000 UNIFORM EXPENSE	8/13/2025	184973	VESTIS GROUP, INC.	\$8.73	5031604859	BPO/ACCT 890172782 REFUSE
	730000 UNIFORM EXPENSE	8/28/2025	185185	VESTIS GROUP, INC.	\$192.47	5031607851	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/28/2025	185185	VESTIS GROUP, INC.	\$115.97	5031610847	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/28/2025	185187	VESTIS GROUP, INC.	\$8.73	5031589854	BPO/ACCT 890172782 REFUSE

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20310000 REFUSE OPERATIONS	730000 UNIFORM EXPENSE	8/28/2025	185187	VESTIS GROUP, INC.	\$8.73	5031592881	BPO/ACCT 890172782 REFUSE
	730000 UNIFORM EXPENSE	8/28/2025	185187	VESTIS GROUP, INC.	\$8.73	5031607848	BPO/ACCT 890172782 REFUSE
	730000 UNIFORM EXPENSE	8/28/2025	185187	VESTIS GROUP, INC.	\$8.73	5031610844	BPO/ACCT 890172782 REFUSE
	732000 COMMUNICATIONS	8/13/2025	184953	T-MOBILE USA INC	\$679.10	993747413 2025-07	2025-07 PUBLIC WORKS CELL
	732000 COMMUNICATIONS	8/13/2025	184969	VERIZON WIRELESS	\$41.37	6117461590	2025-06 CELL PHONE LINES/
	732000 COMMUNICATIONS	8/28/2025	185168	U S TELEPACIFIC CORP	\$55.08	186500859-0	PHONE SERVICE 07/23-08/22
	732000 COMMUNICATIONS	8/28/2025	185183	VERIZON WIRELESS	\$38.34	6119979262	ACCT 771937214-00003
	741200 EQUIPMENT MAINTENANCE	8/6/2025	184683	SOAPMAN OF KERN COUNTY PBE INC	\$268.98	70175	BPO/PARTS & SUPPLIES
	741200 EQUIPMENT MAINTENANCE	8/13/2025	184864	MORGAN & SLATES	\$55.70	1840243	BPO/EQUIPMENT MTCE
	741200 EQUIPMENT MAINTENANCE	8/13/2025	184947	SOAPMAN OF KERN COUNTY PBE INC	\$914.97	70287	BPO/PARTS & SUPPLIES
	741200 EQUIPMENT MAINTENANCE	8/13/2025	184965	VALLEY PAINT & SUPPLY INC	\$160.75	506445	BPO/EQUIPMENT MAINTENANCE
	741200 EQUIPMENT MAINTENANCE	8/13/2025	184965	VALLEY PAINT & SUPPLY INC	\$37.89	506446	BPO/EQUIPMENT MAINTENANCE
	749500 PROF AND SPEC SERVICES	8/13/2025	184832	KINGS INDUSTRIAL OCCUP MEDICAL CTR	\$190.00	284112	PHYSICAL EXAMS & DOT'S
	749500 PROF AND SPEC SERVICES	8/13/2025	184937	S C A OF CA, LLC	\$83,181.79	2025-007076	BPO/COH STREET SWEEPING S
	749500 PROF AND SPEC SERVICES	8/28/2025	185086	KINGS INDUSTRIAL OCCUP MEDICAL CTR	\$100.00	298178	PHYSICAL EXAM DOT

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
20310000 REFUSE OPERATIONS	749500 PROF AND SPEC SERVICES	8/28/2025	185086	KINGS INDUSTRIAL OCCUP MEDICAL CTR	\$100.00	298178	PHYSICAL EXAM DOT
	755000 OTHER CONTRACTUAL SERVICE	8/28/2025	185089	KINGS WASTE & RECYCLE AUTHORITY	\$234,425.04	2025-07	2025-07 TIPPING FEES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184657	PHILLIP J GAPEN	\$938.92	10421	BPO/KEYS
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184831	PHILLIP J GAPEN	\$66.30	10504	BPO/KEYS
	DIVISION/ORG TOTAL 20310000 - REFUSE OPERATIONS				\$323,851.65		
20400000 FLEET MAINTENANCE OPER	730000 UNIFORM EXPENSE	8/6/2025	184689	VESTIS GROUP, INC.	\$46.30	5031589858	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/6/2025	184689	VESTIS GROUP, INC.	\$46.30	5031592885	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184835	JASON ALLEN BRANDON DBA	\$225.00	41473	SAFETY SHOES - WEAVER, GL
	730000 UNIFORM EXPENSE	8/13/2025	184835	JASON ALLEN BRANDON DBA	\$222.97	41491	SAFETY SHOES - AVILA, EMM
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$50.05	5031595900	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$46.30	5031598900	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$46.30	5031601902	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$46.30	5031604863	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/28/2025	185185	VESTIS GROUP, INC.	\$46.30	5031607852	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/28/2025	185185	VESTIS GROUP, INC.	\$46.30	5031610848	BPO/ACCT 2322940000 UNIFO
	732000 COMMUNICATIONS	8/28/2025	185168	U S TELEPACIFIC CORP	\$41.31	186500859-0	PHONE SERVICE 07/23-08/22
	741200 EQUIPMENT MAINTENANCE	8/13/2025	184709	AMAZON CAPITAL SERVICE, INC.	\$167.78	1KQ6-Y6DW-6LYN	2025-07 AMAZON PURCHASES

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
20400000 FLEET MAINTENANCE OPER	743300 FUEL AND LUBE MAINTENANCE	8/6/2025	184658	KINGS PETROLEUM LLC	\$28,744.61	429886	BPO/FUEL SERVICES
	743300 FUEL AND LUBE MAINTENANCE	8/6/2025	184658	KINGS PETROLEUM LLC	\$30,314.81	430426	BPO/FUEL SERVICES
	743300 FUEL AND LUBE MAINTENANCE	8/6/2025	184688	VAN DE POL ENTERPRISES	\$780.78	1035390-IN	BPO/FUEL SERVICES
	743300 FUEL AND LUBE MAINTENANCE	8/13/2025	184834	KINGS PETROLEUM LLC	\$31,876.15	434154	BPO/FUEL SERVICES
	743300 FUEL AND LUBE MAINTENANCE	8/28/2025	185072	J C LANSDOWNE DIST INC	\$1,733.17	299301	BPO/FUEL SERVICES
	743300 FUEL AND LUBE MAINTENANCE	8/28/2025	185087	KINGS PETROLEUM LLC	\$29,422.77	435846	BPO/FUEL SERVICES
	743300 FUEL AND LUBE MAINTENANCE	8/28/2025	185087	KINGS PETROLEUM LLC	\$30,426.68	439364	BPO/FUEL SERVICES
	743300 FUEL AND LUBE MAINTENANCE	8/28/2025	185157	ROE OIL COMPANY	\$182.34	276724CT	BPO/FUEL COSTS
	743300 FUEL AND LUBE MAINTENANCE	8/28/2025	185182	VAN DE POL ENTERPRISES	\$792.80	1048371-IN	BPO/FUEL SERVICES
	743400 TIRES AND TUBES	8/6/2025	184637	BADASCI TIRE CO, INC	\$1,747.27	202505	BPO/TIRES, TUBES, PARTS A
	743400 TIRES AND TUBES	8/6/2025	184637	BADASCI TIRE CO, INC	\$4,245.65	202483	BPO/TIRES, TUBES, PARTS A
	743400 TIRES AND TUBES	8/6/2025	184637	BADASCI TIRE CO, INC	\$131.19	202448	BPO/TIRES, TUBES, PARTS A
	743400 TIRES AND TUBES	8/6/2025	184637	BADASCI TIRE CO, INC	\$550.00	202663	BPO/TIRES, TUBES, PARTS A
	743400 TIRES AND TUBES	8/6/2025	184637	BADASCI TIRE CO, INC	\$2,602.51	202662	BPO/TIRES, TUBES, PARTS A
	743400 TIRES AND TUBES	8/6/2025	184637	BADASCI TIRE CO, INC	\$1,223.26	202703	BPO/TIRES, TUBES, PARTS A

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
20400000 FLEET MAINTENANCE OPER	743400 TIRES AND TUBES	8/6/2025	184637	BADASCI TIRE CO, INC	\$591.82	202698	BPO/TIRES, TUBES, PARTS A
	743400 TIRES AND TUBES	8/6/2025	184643	DELRAY TIRE & RETREADING, INC	\$57.32	750066308	BPO/TIRES AND TUBES
	743400 TIRES AND TUBES	8/6/2025	184643	DELRAY TIRE & RETREADING, INC	\$983.75	750066304	BPO/TIRES AND TUBES
	743400 TIRES AND TUBES	8/6/2025	184643	DELRAY TIRE & RETREADING, INC	\$511.39	750066369	BPO/TIRES AND TUBES
	743400 TIRES AND TUBES	8/13/2025	184716	BADASCI TIRE CO, INC	\$553.90	202927	BPO/TIRES, TUBES, PARTS A
	743400 TIRES AND TUBES	8/13/2025	184716	BADASCI TIRE CO, INC	\$2,020.09	202912	BPO/TIRES, TUBES, PARTS A
	743400 TIRES AND TUBES	8/13/2025	184716	BADASCI TIRE CO, INC	\$1,949.73	203106	BPO/TIRES, TUBES, PARTS A
	743400 TIRES AND TUBES	8/13/2025	184716	BADASCI TIRE CO, INC	\$1,914.75	203157	BPO/TIRES, TUBES, PARTS A
	743400 TIRES AND TUBES	8/28/2025	185008	BADASCI TIRE CO, INC	\$4,186.96	203069	BPO/TIRES, TUBES, PARTS A
	743400 TIRES AND TUBES	8/28/2025	185008	BADASCI TIRE CO, INC	\$2,584.12	203250	BPO/TIRES, TUBES, PARTS A
	743400 TIRES AND TUBES	8/28/2025	185008	BADASCI TIRE CO, INC	\$2,449.69	203218	BPO/TIRES, TUBES, PARTS A
	743400 TIRES AND TUBES	8/28/2025	185008	BADASCI TIRE CO, INC	\$2,449.69	203236	BPO/TIRES, TUBES, PARTS A
	743400 TIRES AND TUBES	8/28/2025	185008	BADASCI TIRE CO, INC	\$2,584.12	203400	BPO/TIRES, TUBES, PARTS A
	743400 TIRES AND TUBES	8/28/2025	185008	BADASCI TIRE CO, INC	\$2,449.69	203341	BPO/TIRES, TUBES, PARTS A
	743400 TIRES AND TUBES	8/28/2025	185036	DELRAY TIRE & RETREADING, INC	\$205.74	750066593	BPO/TIRES AND TUBES
	743400 TIRES AND TUBES	8/28/2025	185036	DELRAY TIRE & RETREADING, INC	\$835.56	750066762	BPO/TIRES AND TUBES
	743400 TIRES AND TUBES	8/28/2025	185036	DELRAY TIRE & RETREADING, INC	\$835.56	750066917	BPO/TIRES AND TUBES
	744000 OFFICE EXPENSE MISC	8/13/2025	184709	AMAZON CAPITAL SERVICE, INC.	\$35.00	1KQ6-Y6DW-6LYN	2025-07 AMAZON PURCHASES

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
20400000 FLEET MAINTENANCE OPER	749500 PROF AND SPEC SERVICES	8/6/2025	184678	SAGER AUTOMOTIVE GROUP	\$0.00	102496	BPO / PARTS & LABOR
	749500 PROF AND SPEC SERVICES	8/6/2025	184678	SAGER AUTOMOTIVE GROUP	\$0.00	CM102495	BPO / PARTS & LABOR
	749500 PROF AND SPEC SERVICES	8/6/2025	184678	SAGER AUTOMOTIVE GROUP	\$0.00	102498	BPO / PARTS & LABOR
	749500 PROF AND SPEC SERVICES	8/13/2025	184702	A & E INDUSTRIAL CLEANING EQUIPMENT CORP	\$4,167.66	54757	BPO/VEHICLE PARTS AND LAB
	749500 PROF AND SPEC SERVICES	8/13/2025	184830	KINGS CO HEALTH DEPT	\$76.00	74493	2212 HAZARDOUS WASTE GENE
	749500 PROF AND SPEC SERVICES	8/13/2025	184830	KINGS CO HEALTH DEPT	\$67.00	74723	STATE SURCHARGE- CUPA OVE
	749500 PROF AND SPEC SERVICES	8/13/2025	184859	CAR WASH PARTNERS LLC	\$1,379.00	235122	2025-07 CAR WASHES
	749500 PROF AND SPEC SERVICES	8/13/2025	184871	OIL CHANGERS INC	\$51.60	2025-07	2025-07 PD CAR WASH-JULY
	749500 PROF AND SPEC SERVICES	8/13/2025	184919	QUINN COMPANY	\$430.00	WO150307476	BPO/VEHICLE PARTS AND LAB
	749500 PROF AND SPEC SERVICES	8/13/2025	184938	SAGER AUTOMOTIVE GROUP	\$0.00	102593	BPO / PARTS & LABOR
	749500 PROF AND SPEC SERVICES	8/13/2025	184978	ASBURY ENVIRONMENTAL SERVICES	\$153.00	I500-01241557	BPO/VEHICLE PARTS AND LAB
	749500 PROF AND SPEC SERVICES	8/28/2025	184990	A & E INDUSTRIAL CLEANING EQUIPMENT CORP	\$1,580.25	54053	BPO/VEHICLE PARTS AND LAB
	749500 PROF AND SPEC SERVICES	8/28/2025	185001	ALPHA HYDRAULICS INC	\$960.00	3397	BPO/PARTS & SUPPLIES

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20400000 FLEET MAINTENANCE OPER	749500 PROF AND SPEC SERVICES	8/28/2025	185031	COOK'S COMMUNICATIONS CORP	\$82.50	161409	BPO/PARTS AND SUPPLIES
	749500 PROF AND SPEC SERVICES	8/28/2025	185040	E M THARP INC INTERSTATE BILLING #596724	\$879.00	01EMT17598	BPO/VEHICLE PARTS AND LAB
	749500 PROF AND SPEC SERVICES	8/28/2025	185077	J V A C INC	\$0.00	50260184	BPO/VEHICLE PARTS AND SUP
	749500 PROF AND SPEC SERVICES	8/28/2025	185077	J V A C INC	\$540.00	695432	BPO/VEHICLE PARTS AND SUP
	749500 PROF AND SPEC SERVICES	8/28/2025	185092	LAWRENCE TRACTOR CO	\$1,651.90	745047	BPO/PARTS AND SUPPLIES
	749500 PROF AND SPEC SERVICES	8/28/2025	185098	LITTLE CORPORATION	\$189.00	67733	BPO/VEHICLE PARTS AND LAB
	749500 PROF AND SPEC SERVICES	8/28/2025	185161	SAWTELLE & ROSPRIM MACHINE SHOP	\$427.50	14317	BPO PARTS/LABOR
	749500 PROF AND SPEC SERVICES	8/28/2025	185161	SAWTELLE & ROSPRIM MACHINE SHOP	\$2,850.00	14316	BPO PARTS/LABOR
	749500 PROF AND SPEC SERVICES	8/28/2025	185161	SAWTELLE & ROSPRIM MACHINE SHOP	\$1,645.40	14332	BPO PARTS/LABOR
	749500 PROF AND SPEC SERVICES	8/28/2025	185175	TURF STAR INC	\$800.00	INV096590	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184632	CENTRAL VALLEY GMC	\$44.77	F00381861901	BPO/VEHICLE PARTS & LABOR
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184632	CENTRAL VALLEY GMC	\$244.83	F00381864901	BPO/VEHICLE PARTS & LABOR
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184632	CENTRAL VALLEY GMC	\$76.20	F00381859301	BPO/VEHICLE PARTS & LABOR

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20400000 FLEET MAINTENANCE OPER	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184632	CENTRAL VALLEY GMC	\$400.47	F00381860201	BPO/VEHICLE PARTS & LABOR
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184632	CENTRAL VALLEY GMC	\$28.88	F00381892501	BPO/VEHICLE PARTS & LABOR
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184632	CENTRAL VALLEY GMC	\$442.17	F00381860101	BPO/VEHICLE PARTS & LABOR
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184632	CENTRAL VALLEY GMC	\$952.30	F00381927801	BPO/VEHICLE PARTS & LABOR
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184632	CENTRAL VALLEY GMC	\$179.09	F00381934501	BPO/VEHICLE PARTS & LABOR
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184632	CENTRAL VALLEY GMC	\$2,263.95	F00381972001	BPO/VEHICLE PARTS & LABOR
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184634	ALPHA HYDRAULICS INC	\$76.63	3304	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184638	BETTS COMPANY	\$1,682.69	08P39974	BPO / PARTS
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184644	E M THARP INC INTERSTATE BILLING #596724	\$181.96	01P147784	BPO/VEHICLE PARTS AND LAB
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184651	RTL ENTERPRISES, INC	\$2.00	11056637	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184651	RTL ENTERPRISES, INC	\$340.59	11056701	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184655	J V A C INC	\$101.67	50263896	BPO/VEHICLE PARTS AND SUP
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184655	J V A C INC	\$246.76	50263980	BPO/VEHICLE PARTS AND SUP

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20400000 FLEET MAINTENANCE OPER	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184657	PHILLIP J GAPEN	\$4.60	10428	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184661	LAWRENCE TRACTOR CO	\$470.11	748756	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184661	LAWRENCE TRACTOR CO	\$283.55	750038	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184661	LAWRENCE TRACTOR CO	\$1,321.70	750040	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184661	LAWRENCE TRACTOR CO	\$1,223.17	748853	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184661	LAWRENCE TRACTOR CO	\$200.44	750725	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184662	LAWSON PRODUCTS, INC	\$89.59	9312617267	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184662	LAWSON PRODUCTS, INC	\$16.13	9312619521	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184662	LAWSON PRODUCTS, INC	\$3.09	9312619522	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184670	MORGAN & SLATES	\$114.55	1837730	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184670	MORGAN & SLATES	\$21.27	1838666	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184672	CENCAL AUTO & TRUCK PARTS INC	\$644.44	487085	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184672	CENCAL AUTO & TRUCK PARTS INC	\$40.02	487187	BPO / PARTS & SUPPLIES

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20400000 FLEET MAINTENANCE OPER	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184672	CENCAL AUTO & TRUCK PARTS INC	\$103.89	484640	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184672	CENCAL AUTO & TRUCK PARTS INC	\$46.43	486992	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184672	CENCAL AUTO & TRUCK PARTS INC	\$77.05	486994	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184672	CENCAL AUTO & TRUCK PARTS INC	\$73.08	486995	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184672	CENCAL AUTO & TRUCK PARTS INC	\$0.77	487716	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184672	CENCAL AUTO & TRUCK PARTS INC	\$16.65	487719	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184672	CENCAL AUTO & TRUCK PARTS INC	\$348.55	487766	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184672	CENCAL AUTO & TRUCK PARTS INC	\$28.22	487728	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184672	CENCAL AUTO & TRUCK PARTS INC	\$315.61	487714	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184672	CENCAL AUTO & TRUCK PARTS INC	\$9.71	488273	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184672	CENCAL AUTO & TRUCK PARTS INC	\$168.85	488295	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184672	CENCAL AUTO & TRUCK PARTS INC	\$42.19	488262	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184674	O'REILLY AUTOMOTIVE STORES INC	\$162.49	3632-387732	BPO/PARTS AND SUPPLIES

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20400000 FLEET MAINTENANCE OPER	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184674	O'REILLY AUTOMOTIVE STORES INC	\$25.50	3632-387956	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184674	O'REILLY AUTOMOTIVE STORES INC	\$55.23	3632-387895	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184674	O'REILLY AUTOMOTIVE STORES INC	\$29.88	3632-388006	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184674	O'REILLY AUTOMOTIVE STORES INC	\$43.41	3632-388278	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184674	O'REILLY AUTOMOTIVE STORES INC	(\$25.50)	3632-388087	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184674	O'REILLY AUTOMOTIVE STORES INC	\$13.64	3632-389351	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184674	O'REILLY AUTOMOTIVE STORES INC	\$20.57	3632-389658	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184674	O'REILLY AUTOMOTIVE STORES INC	\$164.35	3632-389647	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184674	O'REILLY AUTOMOTIVE STORES INC	\$90.44	3632-387734	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184674	O'REILLY AUTOMOTIVE STORES INC	\$72.35	3632-390134	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184674	O'REILLY AUTOMOTIVE STORES INC	\$39.03	3632-390135	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184674	O'REILLY AUTOMOTIVE STORES INC	\$5.91	3632-391352	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184675	PARTS AUTHORITY METRO LLC	\$145.00	062-512206	BPO/PARTS & SUPPLIES

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20400000 FLEET MAINTENANCE OPER	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184675	PARTS AUTHORITY METRO LLC	\$4.69	298-224202	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184675	PARTS AUTHORITY METRO LLC	\$588.73	298-224166	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184675	PARTS AUTHORITY METRO LLC	\$83.07	298-224418	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184675	PARTS AUTHORITY METRO LLC	\$23.51	064-252015	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184675	PARTS AUTHORITY METRO LLC	\$545.31	298-224349	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184675	PARTS AUTHORITY METRO LLC	\$387.22	064-248189	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184675	PARTS AUTHORITY METRO LLC	\$21.23	298-224375	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184675	PARTS AUTHORITY METRO LLC	\$4.76	298-224374	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184675	PARTS AUTHORITY METRO LLC	\$3.68	298-224299	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184675	PARTS AUTHORITY METRO LLC	(\$87.68)	298-105642	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184675	PARTS AUTHORITY METRO LLC	\$150.63	064-244290	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184675	PARTS AUTHORITY METRO LLC	\$69.82	062-530525	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184675	PARTS AUTHORITY METRO LLC	\$127.30	064-255642	BPO/PARTS & SUPPLIES

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20400000 FLEET MAINTENANCE OPER	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184675	PARTS AUTHORITY METRO LLC	\$145.00	062-511109	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184675	PARTS AUTHORITY METRO LLC	\$177.85	298-224599	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184675	PARTS AUTHORITY METRO LLC	\$70.38	298-224598	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184675	PARTS AUTHORITY METRO LLC	\$20.42	064-259651	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184675	PARTS AUTHORITY METRO LLC	\$32.00	298-224790	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184675	PARTS AUTHORITY METRO LLC	\$31.37	064-258703	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184675	PARTS AUTHORITY METRO LLC	\$7.86	298-225085	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184675	PARTS AUTHORITY METRO LLC	\$15.39	064-266715	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184675	PARTS AUTHORITY METRO LLC	\$33.75	298-225142	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184675	PARTS AUTHORITY METRO LLC	(\$23.82)	298-106049	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184676	RENEWELL FLEET SERVICE LLC	\$238.89	6689	BPO / PARTS
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184676	RENEWELL FLEET SERVICE LLC	\$70.26	6812	BPO / PARTS
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184677	RUCKSTELL CALIF SALES CO	\$2,358.84	718489	BPO/VEHICLE PARTS AND LAB

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20400000 FLEET MAINTENANCE OPER	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184677	RUCKSTELL CALIF SALES CO	\$174.27	718546	BPO/VEHICLE PARTS AND LAB
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184678	SAGER AUTOMOTIVE GROUP	\$104.63	102496	BPO / PARTS & LABOR
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184678	SAGER AUTOMOTIVE GROUP	(\$104.63)	CM102495	BPO / PARTS & LABOR
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184678	SAGER AUTOMOTIVE GROUP	\$113.27	102498	BPO / PARTS & LABOR
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184680	SEQUOIA EQUIP CO INC	(\$21.60)	001-1149552	BPO/PARTS AND LABOR
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184680	SEQUOIA EQUIP CO INC	\$455.22	001-1149857	BPO/PARTS AND LABOR
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184682	SMITH AUTO PARTS, INC	\$365.72	226933	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184693	ASBURY ENVIRONMENTAL SERVICES	\$351.81	I500-01244657	BPO/VEHICLE PARTS AND LAB
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184702	A & E INDUSTRIAL CLEANING EQUIPMENT CORP	\$1,192.76	54757	BPO/VEHICLE PARTS AND LAB
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184704	CENTRAL VALLEY GMC	\$145.74	F00382297301	BPO/VEHICLE PARTS & LABOR
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184704	CENTRAL VALLEY GMC	\$147.39	F00382345301	BPO/VEHICLE PARTS & LABOR
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184704	CENTRAL VALLEY GMC	\$422.99	F00382358201	BPO/VEHICLE PARTS & LABOR
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184704	CENTRAL VALLEY GMC	\$422.99	F00382358301	BPO/VEHICLE PARTS & LABOR

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
20400000 FLEET MAINTENANCE OPER	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184704	CENTRAL VALLEY GMC	\$848.02	F00382398401	BPO/VEHICLE PARTS & LABOR
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184704	CENTRAL VALLEY GMC	\$141.06	F00382431901	BPO/VEHICLE PARTS & LABOR
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184709	AMAZON CAPITAL SERVICE, INC.	\$622.34	1KQ6-Y6DW-6LYN	2025-07 AMAZON PURCHASES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184712	ASPHALT ZIPPER INC	\$5,218.64	INV/2025/1108	PARTS FOR #284 ASPHALT ZI
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184723	BETTS COMPANY	\$981.63	08P40696	BPO / PARTS
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184775	E M THARP INC INTERSTATE BILLING #596724	\$76.49	01P148850	BPO/VEHICLE PARTS AND LAB
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184775	E M THARP INC INTERSTATE BILLING #596724	(\$13.50)	01P150106	BPO/VEHICLE PARTS AND LAB
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184775	E M THARP INC INTERSTATE BILLING #596724	\$13.50	01P149739	BPO/VEHICLE PARTS AND LAB
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184817	RTL ENTERPRISES, INC	\$131.33	11056767	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184823	JORGENSEN CO INC	\$232.70	6202704	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184827	MIDWEST MOTOR SUPPLY CO. INC.	\$155.75	103633963	PARTS FOR FLEET
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184841	LAWRENCE TRACTOR CO	\$237.91	754618	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184843	LAWSON PRODUCTS, INC	\$17.99	9312665394	BPO/PARTS AND SUPPLIES

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
20400000 FLEET MAINTENANCE OPER	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184843	LAWSON PRODUCTS, INC	\$164.54	9312657854	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184843	LAWSON PRODUCTS, INC	\$296.79	9312675690	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184843	LAWSON PRODUCTS, INC	\$23.15	9312689234	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184843	LAWSON PRODUCTS, INC	\$54.25	9312689235	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184843	LAWSON PRODUCTS, INC	\$24.90	9312681697	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184843	LAWSON PRODUCTS, INC	\$25.98	9312685428	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184864	MORGAN & SLATES	\$13.96	1841076	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184866	MUNICIPAL MAINTENANCE EQUIPMENT	\$254.14	038464	BPO/PARTS AND LABOR
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184867	CENCAL AUTO & TRUCK PARTS INC	\$209.96	489304	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184867	CENCAL AUTO & TRUCK PARTS INC	\$29.53	489307	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184867	CENCAL AUTO & TRUCK PARTS INC	\$252.00	488933	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184867	CENCAL AUTO & TRUCK PARTS INC	(\$252.00)	489426	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184867	CENCAL AUTO & TRUCK PARTS INC	\$25.46	489876	BPO / PARTS & SUPPLIES

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
20400000 FLEET MAINTENANCE OPER	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184867	CENCAL AUTO & TRUCK PARTS INC	\$219.78	489845	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184867	CENCAL AUTO & TRUCK PARTS INC	\$71.99	489536	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184867	CENCAL AUTO & TRUCK PARTS INC	\$13.42	489598	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184867	CENCAL AUTO & TRUCK PARTS INC	\$13.42	489656	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184867	CENCAL AUTO & TRUCK PARTS INC	(\$12.64)	489864	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184867	CENCAL AUTO & TRUCK PARTS INC	\$37.10	489989	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184867	CENCAL AUTO & TRUCK PARTS INC	\$61.00	490013	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184867	CENCAL AUTO & TRUCK PARTS INC	\$54.64	490029	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184867	CENCAL AUTO & TRUCK PARTS INC	\$10.71	490059	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184867	CENCAL AUTO & TRUCK PARTS INC	\$201.33	489572	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184867	CENCAL AUTO & TRUCK PARTS INC	\$23.87	490128	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184870	O'REILLY AUTOMOTIVE STORES INC	\$14.58	3632-394454	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184870	O'REILLY AUTOMOTIVE STORES INC	\$44.82	3632-395147	BPO/PARTS AND SUPPLIES

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
20400000 FLEET MAINTENANCE OPER	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	\$401.70	298-225800	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	\$27.54	298-225807	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	\$30.14	062-592608	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	\$29.65	064-284947	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	\$30.14	064-284840	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	\$147.91	298-225722	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	\$369.48	298-225700	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	\$27.23	298-225698	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	\$50.66	064-285047	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	\$128.17	298-226043	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	\$83.08	062-606704	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	\$44.03	064-287157	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	\$80.17	064-291125	BPO/PARTS & SUPPLIES

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
20400000 FLEET MAINTENANCE OPER	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	\$27.27	064-288021	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	\$55.16	062-605961	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	\$24.24	298-225997	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	\$83.08	064-289140	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	\$10.20	064-292248	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	\$27.54	062-597640	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	\$55.08	064-287189	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	\$73.35	298-225833	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	\$43.19	064-288891	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	\$60.73	064-297642	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	\$278.08	064-297824	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	\$112.30	298-226149	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	\$12.15	064-295639	BPO/PARTS & SUPPLIES

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
20400000 FLEET MAINTENANCE OPER	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	\$528.21	298-226207	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	\$32.04	062-608465	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	\$35.95	062-608638	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	\$94.61	062-620214	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	\$94.96	064-299781	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	\$33.85	064-298649	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	\$20.22	062-621019	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	(\$97.44)	298-106136	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	\$151.75	64-303791	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	\$591.56	298-226600	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184912	PARTS AUTHORITY METRO LLC	\$1,183.13	298-226520	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184919	QUINN COMPANY	\$506.07	WO150307476	BPO/VEHICLE PARTS AND LAB
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184925	RENEWELL FLEET SERVICE LLC	\$721.79	6836	BPO / PARTS

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
20400000 FLEET MAINTENANCE OPER	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184936	RUCKSTELL CALIF SALES CO	\$241.52	718606	BPO/VEHICLE PARTS AND LAB
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184936	RUCKSTELL CALIF SALES CO	\$183.18	718591	BPO/VEHICLE PARTS AND LAB
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184936	RUCKSTELL CALIF SALES CO	\$48.51	718574	BPO/VEHICLE PARTS AND LAB
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184936	RUCKSTELL CALIF SALES CO	\$51.50	718575	BPO/VEHICLE PARTS AND LAB
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184936	RUCKSTELL CALIF SALES CO	\$174.50	718667	BPO/VEHICLE PARTS AND LAB
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184938	SAGER AUTOMOTIVE GROUP	\$5.63	102593	BPO / PARTS & LABOR
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184942	SEQUOIA EQUIP CO INC	\$235.80	001-1150241	BPO/PARTS AND LABOR
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184942	SEQUOIA EQUIP CO INC	\$162.41	001-1150314	BPO/PARTS AND LABOR
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184945	SMITH AUTO PARTS, INC	\$652.92	232667	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184978	ASBURY ENVIRONMENTAL SERVICES	\$223.27	I500-01244906	BPO/VEHICLE PARTS AND LAB
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	184990	A & E INDUSTRIAL CLEANING EQUIPMENT CORP	\$6,293.92	54053	BPO/VEHICLE PARTS AND LAB
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	184997	CENTRAL VALLEY GMC	\$2,400.03	F00382464801	BPO/VEHICLE PARTS & LABOR
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	184997	CENTRAL VALLEY GMC	\$234.73	F00382468001	BPO/VEHICLE PARTS & LABOR

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
20400000 FLEET MAINTENANCE OPER	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	184997	CENTRAL VALLEY GMC	\$400.73	F00382588101	BPO/VEHICLE PARTS & LABOR
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	184997	CENTRAL VALLEY GMC	\$343.17	F00382465801	BPO/VEHICLE PARTS & LABOR
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	184997	CENTRAL VALLEY GMC	\$400.47	F00382628501	BPO/VEHICLE PARTS & LABOR
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	184997	CENTRAL VALLEY GMC	\$285.17	F00382656701	BPO/VEHICLE PARTS & LABOR
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	184997	CENTRAL VALLEY GMC	(\$338.28)	F00382658501	BPO/VEHICLE PARTS & LABOR
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185001	ALPHA HYDRAULICS INC	\$156.73	3397	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185001	ALPHA HYDRAULICS INC	\$202.32	3408	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185021	CALIF TURF EQUIPMENT & SUPPLY INC	\$58.59	688139	BLADES FOR #207
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185031	COOK'S COMMUNICATIONS CORP	\$65.01	161409	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185040	E M THARP INC INTERSTATE BILLING #596724	\$67.03	01EMT17598	BPO/VEHICLE PARTS AND LAB
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185055	GRAINGER, INC	\$95.05	9613000307	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185055	GRAINGER, INC	\$71.34	9614607365	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185068	RTL ENTERPRISES, INC	\$158.39	11056821	BPO/PARTS AND SUPPLIES

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
20400000 FLEET MAINTENANCE OPER	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185077	J V A C INC	(\$1,353.13)	50260184	BPO/VEHICLE PARTS AND SUP
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185077	J V A C INC	\$100.33	50265465	BPO/VEHICLE PARTS AND SUP
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185077	J V A C INC	\$836.77	695432	BPO/VEHICLE PARTS AND SUP
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185092	LAWRENCE TRACTOR CO	\$1,213.15	745047	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185092	LAWRENCE TRACTOR CO	\$1,404.78	755398	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185092	LAWRENCE TRACTOR CO	\$2,028.97	755399	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185092	LAWRENCE TRACTOR CO	(\$83.82)	755400	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185092	LAWRENCE TRACTOR CO	\$506.99	757777	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185092	LAWRENCE TRACTOR CO	\$27.34	757779	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185092	LAWRENCE TRACTOR CO	\$541.75	758469	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185093	LAWSON PRODUCTS, INC	\$329.08	9312701278	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185098	LITTLE CORPORATION	\$15.14	67602	BPO/VEHICLE PARTS AND LAB
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185098	LITTLE CORPORATION	\$155.25	67733	BPO/VEHICLE PARTS AND LAB

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
20400000 FLEET MAINTENANCE OPER	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185105	MORGAN & SLATES	\$55.02	1842452	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185106	CENCAL AUTO & TRUCK PARTS INC	\$61.73	490679	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185106	CENCAL AUTO & TRUCK PARTS INC	\$16.82	490761	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185106	CENCAL AUTO & TRUCK PARTS INC	\$9.63	490722	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185106	CENCAL AUTO & TRUCK PARTS INC	\$464.59	491079	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185106	CENCAL AUTO & TRUCK PARTS INC	\$45.81	491082	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185106	CENCAL AUTO & TRUCK PARTS INC	\$14.77	491107	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185106	CENCAL AUTO & TRUCK PARTS INC	\$68.72	491114	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185106	CENCAL AUTO & TRUCK PARTS INC	\$14.77	491162	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185106	CENCAL AUTO & TRUCK PARTS INC	(\$14.42)	491191	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185106	CENCAL AUTO & TRUCK PARTS INC	\$178.92	491261	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185106	CENCAL AUTO & TRUCK PARTS INC	\$52.58	491423	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185106	CENCAL AUTO & TRUCK PARTS INC	\$64.31	491424	BPO / PARTS & SUPPLIES

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
20400000 FLEET MAINTENANCE OPER	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185106	CENCAL AUTO & TRUCK PARTS INC	\$53.13	491624	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185106	CENCAL AUTO & TRUCK PARTS INC	\$484.52	491686	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185106	CENCAL AUTO & TRUCK PARTS INC	\$21.42	491831	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185106	CENCAL AUTO & TRUCK PARTS INC	\$60.78	491744	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185106	CENCAL AUTO & TRUCK PARTS INC	\$15.26	492065	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185106	CENCAL AUTO & TRUCK PARTS INC	\$459.66	492093	BPO / PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185113	O'REILLY AUTOMOTIVE STORES INC	\$44.82	3632-397525	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185113	O'REILLY AUTOMOTIVE STORES INC	\$44.88	3632-396825	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185113	O'REILLY AUTOMOTIVE STORES INC	\$69.02	3632-397763	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185113	O'REILLY AUTOMOTIVE STORES INC	\$51.36	3632-397726	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185113	O'REILLY AUTOMOTIVE STORES INC	(\$10.27)	3632-397977	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185113	O'REILLY AUTOMOTIVE STORES INC	\$74.26	3632-398459	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185113	O'REILLY AUTOMOTIVE STORES INC	\$78.64	3632-398521	BPO/PARTS AND SUPPLIES

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
20400000 FLEET MAINTENANCE OPER	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185113	O'REILLY AUTOMOTIVE STORES INC	\$79.31	3632-400842	BPO/PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185146	PARTS AUTHORITY METRO LLC	\$7.46	298-226697	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185146	PARTS AUTHORITY METRO LLC	\$465.42	298-226668	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185146	PARTS AUTHORITY METRO LLC	\$54.60	062-631664	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185146	PARTS AUTHORITY METRO LLC	\$855.96	298-226420	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185146	PARTS AUTHORITY METRO LLC	(\$847.94)	298-106204	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185146	PARTS AUTHORITY METRO LLC	(\$67.24)	298-106203	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185146	PARTS AUTHORITY METRO LLC	(\$35.47)	298-106202	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185146	PARTS AUTHORITY METRO LLC	(\$97.45)	298-106267	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185146	PARTS AUTHORITY METRO LLC	\$198.01	298-227055	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185146	PARTS AUTHORITY METRO LLC	\$32.41	298-227072	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185146	PARTS AUTHORITY METRO LLC	\$138.82	298-227104	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185146	PARTS AUTHORITY METRO LLC	\$128.82	298-227107	BPO/PARTS & SUPPLIES

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
20400000 FLEET MAINTENANCE OPER	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185146	PARTS AUTHORITY METRO LLC	\$594.66	298-226677	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185146	PARTS AUTHORITY METRO LLC	\$18.14	298-227095	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185146	PARTS AUTHORITY METRO LLC	\$10.08	062-643212	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185146	PARTS AUTHORITY METRO LLC	\$78.47	298-226922	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185146	PARTS AUTHORITY METRO LLC	\$131.81	298-226908	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185146	PARTS AUTHORITY METRO LLC	\$278.08	298-226933	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185146	PARTS AUTHORITY METRO LLC	\$103.23	064-315940	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185146	PARTS AUTHORITY METRO LLC	\$89.74	298-227056	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185146	PARTS AUTHORITY METRO LLC	\$127.96	064-315087	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185146	PARTS AUTHORITY METRO LLC	(\$175.38)	298-106313	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185146	PARTS AUTHORITY METRO LLC	\$18.52	298-227170	BPO/PARTS & SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185158	RUCKSTELL CALIF SALES CO	\$26.91	718652	BPO/VEHICLE PARTS AND LAB
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185158	RUCKSTELL CALIF SALES CO	\$963.89	718658	BPO/VEHICLE PARTS AND LAB

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
20400000 FLEET MAINTENANCE OPER	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185158	RUCKSTELL CALIF SALES CO	\$4,102.64	718681	BPO/VEHICLE PARTS AND LAB
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185158	RUCKSTELL CALIF SALES CO	\$4,768.56	718318	BPO/VEHICLE PARTS AND LAB
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185158	RUCKSTELL CALIF SALES CO	\$958.53	718697	BPO/VEHICLE PARTS AND LAB
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185158	RUCKSTELL CALIF SALES CO	\$6,333.90	718700	BPO/VEHICLE PARTS AND LAB
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185158	RUCKSTELL CALIF SALES CO	\$433.09	718711	BPO/VEHICLE PARTS AND LAB
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185158	RUCKSTELL CALIF SALES CO	\$65.01	718732	BPO/VEHICLE PARTS AND LAB
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185158	RUCKSTELL CALIF SALES CO	\$4,319.00	718722	BPO/VEHICLE PARTS AND LAB
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185158	RUCKSTELL CALIF SALES CO	\$4,753.72	718729	BPO/VEHICLE PARTS AND LAB
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185161	SAWTELLE & ROSPRIM MACHINE SHOP	\$0.00	14317	BPO PARTS/LABOR
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185161	SAWTELLE & ROSPRIM MACHINE SHOP	\$676.09	14316	BPO PARTS/LABOR
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185161	SAWTELLE & ROSPRIM MACHINE SHOP	\$77.76	14332	BPO PARTS/LABOR
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185161	SAWTELLE & ROSPRIM MACHINE SHOP	\$686.97	14500	BPO PARTS/LABOR
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185163	SHIELDS HARPER & CO, INC	\$176.12	3390349	FUEL HOSE FOR FUEL ISLAND

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20400000 FLEET MAINTENANCE OPER	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185175	TURF STAR INC	\$2,366.45	INV096590	BPO/PARTS AND SUPPLIES
	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$7,222.98	2025-06	2025-06 ELECTRICITY SVC
	778500 UTILITIES-GAS	8/1/2025	1812	SOUTHERN CALIF GAS CO	\$135.02	2025-07	2025-07 GAS SERVICE
	799500 OPERATIONAL CAPITAL OUTLA	8/13/2025	184709	AMAZON CAPITAL SERVICE, INC.	\$51.91	1KQ6-Y6DW-6LYN	2025-07 AMAZON PURCHASES
	941500 SUBROGATION EXPENSE	8/13/2025	184731	CALIBER COLLISION	\$7,674.76	1261004263	UNIT #57 ACCIDENT H250227
	941500 SUBROGATION EXPENSE	8/28/2025	185180	CHRISTOPHER R JONES	\$9,241.97	1154	UNIT #5 ACCIDENT H2404425
	DIVISION/ORG TOTAL 20400000 - FLEET MAINTENANCE OPER				\$328,625.61		
20610000 STORM DRAINAGE OPERATIONS	730000 UNIFORM EXPENSE	8/6/2025	184689	VESTIS GROUP, INC.	\$30.52	5031589859	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/6/2025	184689	VESTIS GROUP, INC.	\$30.52	5031592886	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/6/2025	184689	VESTIS GROUP, INC.	\$30.52	5031583843	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184835	JASON ALLEN BRANDON DBA	\$225.00	41460	SAFETY SHOES - COOPER, JA
	730000 UNIFORM EXPENSE	8/13/2025	184835	JASON ALLEN BRANDON DBA	\$225.00	71467	SAFETY SHOES - GALLEGOS,
	730000 UNIFORM EXPENSE	8/13/2025	184835	JASON ALLEN BRANDON DBA	\$222.97	41471	SAFETY SHOES - CORONADO,
	730000 UNIFORM EXPENSE	8/13/2025	184835	JASON ALLEN BRANDON DBA	\$225.00	41470	SAFETY SHOES - NUNES, DAV
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$30.52	5031595901	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$30.52	5031598901	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$40.52	5031601903	BPO/ACCT 2322940000 UNIFO

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
20610000 STORM DRAINAGE OPERATIONS	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$78.27	5031604864	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/28/2025	185185	VESTIS GROUP, INC.	\$30.52	5031607853	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/28/2025	185185	VESTIS GROUP, INC.	\$30.52	5031610849	BPO/ACCT 2322940000 UNIFO
	732000 COMMUNICATIONS	8/6/2025	184630	A T & T	\$32.36	23743464	2025-06 AUTO DIALER
	749500 PROF AND SPEC SERVICES	8/13/2025	184954	TELSTAR INSTRUMENTS, INC	\$2,854.00	127321	BPO/SCADA MNTC
	749500 PROF AND SPEC SERVICES	8/28/2025	185171	TELSTAR INSTRUMENTS, INC	\$983.23	127683	BPO/SCADA MNTC
	755000 OTHER CONTRACTUAL SERVICE	8/28/2025	185110	NICK CHAMPI ENTERPRISES INC	\$995.00	29115	REPLACE GATE POST ON DAVI
	760000 SPECIAL DEPARTMENTAL EXP	8/28/2025	185091	SCHAUB RENTAL AND SALES INC	\$1,702.73	32950	STRAIGHT SHAFT TRIMMER, S
	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$1,863.37	2025-06	2025-06 ELECTRICITY SVC
	DIVISION/ORG TOTAL 20610000 - STORM DRAINAGE OPERATIONS				\$9,661.09		
20710000 WASTEWATER OPERATIONS	730000 UNIFORM EXPENSE	8/6/2025	184689	VESTIS GROUP, INC.	\$70.11	5031589865	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/6/2025	184689	VESTIS GROUP, INC.	\$66.49	5031592892	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184835	JASON ALLEN BRANDON DBA	\$225.00	41457	SAFETY SHOES - WILSON, JU
	730000 UNIFORM EXPENSE	8/13/2025	184835	JASON ALLEN BRANDON DBA	\$222.97	41465	SAFETY SHOES - CANO, LEAN
	730000 UNIFORM EXPENSE	8/13/2025	184835	JASON ALLEN BRANDON DBA	\$225.00	41466	SAFETY SHOES - GUTIERREZ,
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$61.49	5031595907	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$71.99	5031598907	BPO/ACCT 2322940000 UNIFO

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
20710000 WASTEWATER OPERATIONS	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$61.49	5031601909	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$155.59	5031604870	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/28/2025	185185	VESTIS GROUP, INC.	\$57.42	5031607859	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/28/2025	185185	VESTIS GROUP, INC.	\$57.42	5031610855	BPO/ACCT 2322940000 UNIFO
	732000 COMMUNICATIONS	8/28/2025	185168	U S TELEPACIFIC CORP	\$137.70	186500859-0	PHONE SERVICE 07/23-08/22
	741200 EQUIPMENT MAINTENANCE	8/6/2025	184648	GRAINGER, INC	\$5.06	9563380105	BPO/EQUIPMENT
	741200 EQUIPMENT MAINTENANCE	8/6/2025	184648	GRAINGER, INC	\$5.26	9562702200	BPO/EQUIPMENT
	741200 EQUIPMENT MAINTENANCE	8/6/2025	184648	GRAINGER, INC	\$95.87	9565500171	BPO/EQUIPMENT
	741200 EQUIPMENT MAINTENANCE	8/6/2025	184657	PHILLIP J GAPEN	\$86.60	10435	BPO/KEYS AND LOCKS
	741200 EQUIPMENT MAINTENANCE	8/6/2025	184673	NORTH CENTRAL LABORATORIES	\$718.42	522644	BPO/EQUIPMENT MTCE
	741200 EQUIPMENT MAINTENANCE	8/6/2025	184684	TELSTAR INSTRUMENTS, INC	\$4,026.00	127680	BPO/EQUIPMENT MTCE
	741200 EQUIPMENT MAINTENANCE	8/13/2025	184709	AMAZON CAPITAL SERVICE, INC.	\$72.38	1KQ6-Y6DW-6LYN	2025-07 AMAZON PURCHASES
	741200 EQUIPMENT MAINTENANCE	8/13/2025	184809	HD SUPPLY, INC.	\$266.62	INV00774554	BPO/TOOLS AND TESTING EQU
	741200 EQUIPMENT MAINTENANCE	8/13/2025	184809	HD SUPPLY, INC.	\$558.49	INV00768929	BPO/TOOLS AND TESTING EQU
	741200 EQUIPMENT MAINTENANCE	8/13/2025	184831	PHILLIP J GAPEN	\$70.00	10471	BPO/KEYS AND LOCKS

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
20710000 WASTEWATER OPERATIONS	741200 EQUIPMENT MAINTENANCE	8/28/2025	185058	HD SUPPLY, INC.	\$245.28	873520084	BPO/TOOLS AND TESTING EQU
	741200 EQUIPMENT MAINTENANCE	8/28/2025	185142	OPTERRA ENGIE SERVICES, LLC	\$3,867.36	90077726	MAINTENANCE REPAIR
	741200 EQUIPMENT MAINTENANCE	8/28/2025	185171	TELSTAR INSTRUMENTS, INC	\$2,760.00	128217	BPO/EQUIPMENT MTCE
	744000 OFFICE EXPENSE MISC	8/13/2025	184709	AMAZON CAPITAL SERVICE, INC.	\$46.82	1KQ6-Y6DW-6LYN	2025-07 AMAZON PURCHASES
	744000 OFFICE EXPENSE MISC	8/28/2025	185114	OFFICE DEPOT (CONTRACT)	\$101.35	36566892	2025-07 CONSOLIDATED FOR
	749500 PROF AND SPEC SERVICES	8/6/2025	184667	LOU'S GLOVES INC	\$1,376.00	059640	BPO/LAB SUPPLIES
	749500 PROF AND SPEC SERVICES	8/6/2025	184687	GEIL ENTERPRISES, INC	\$465.00	464746	JULY-SEPT. 2025 QUARTERLY
	749500 PROF AND SPEC SERVICES	8/6/2025	184689	VESTIS GROUP, INC.	\$79.83	5031592878	BPO/WWTP & BLG MAINT FLOO
	749500 PROF AND SPEC SERVICES	8/13/2025	184773	DUSTIN PEST CONTROL INC	\$70.00	171965809	BPO/PEST CONTROL SVC MULT
	749500 PROF AND SPEC SERVICES	8/13/2025	184777	MARCELINO LAZCANO CASTILLO	\$300.00	500	TINT- WWTP WINDOW
	749500 PROF AND SPEC SERVICES	8/13/2025	184830	KINGS CO HEALTH DEPT	\$76.00	74538	2212 HAZARDOUS WASTE GENE
	749500 PROF AND SPEC SERVICES	8/13/2025	184830	KINGS CO HEALTH DEPT	\$67.00	74744	2000- STATE SURCHARGE -CU
	749500 PROF AND SPEC SERVICES	8/13/2025	184926	RESOURCE COMPLIANCE INC	\$750.00	INV4478	2025-07 PROCESS SAFETY CO
	749500 PROF AND SPEC SERVICES	8/13/2025	184927	RESOURCE COMPLIANCE INC	\$750.00	INV4729	BPO/PROCESS SAFETY CONSUL

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20710000 WASTEWATER OPERATIONS	749500 PROF AND SPEC SERVICES	8/13/2025	184971	VESTIS GROUP, INC.	\$79.83	5031604856	BPO/WWTP & BLG MAINT FLOO
	749500 PROF AND SPEC SERVICES	8/28/2025	185045	FRUIT GROWERS LABORATORY, INC	\$6,595.00	2025-07	BPO/PROFESSIONAL SERVICES
	749500 PROF AND SPEC SERVICES	8/28/2025	185165	SWIFTCOMPLY US OPCO INC	\$2,836.19	INV-10232	SOFTWARE PROGRAM
	749500 PROF AND SPEC SERVICES	8/28/2025	185185	VESTIS GROUP, INC.	\$79.83	5031610841	BPO/WWTP & BLG MAINT FLOO
	755000 OTHER CONTRACTUAL SERVICE	8/13/2025	184962	UNWIRED BROADBAND INC	\$69.99	INV02394299	2025-07 INTERNET SERVICE
	755000 OTHER CONTRACTUAL SERVICE	8/13/2025	184964	UNWIRED BROADBAND INC	\$69.99	INV02426024	2025-08 INTERNET SERVICE
	755000 OTHER CONTRACTUAL SERVICE	8/28/2025	185166	SYNAGRO WEST, LLC	\$51,747.00	60455	BPO/BIOSOLIDS DISPOSAL
	755100 WWTP EFFLUENT DISPOSAL	8/13/2025	184839	LAKESIDE IRRIGATION WATER DISTRICT	\$7,920.00	2025-07	2025-07 WWTP EFFLUENT
	760000 SPECIAL DEPARTMENTAL EXP	8/6/2025	184670	MORGAN & SLATES	\$31.08	1838352	PARTS AND SUPPLIES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184709	AMAZON CAPITAL SERVICE, INC.	\$402.46	1KQ6-Y6DW-6LYN	2025-07 AMAZON PURCHASES
	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184955	THATCHER CO OF CALIF INC	\$22,967.81	2025250104092	BPO/CHEMICALS/CHEM SUPP
	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184955	THATCHER CO OF CALIF INC	(\$6,000.00)	2025250900800	BPO/CHEMICALS/CHEM SUPP
	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184955	THATCHER CO OF CALIF INC	\$22,691.56	2025250104367	BPO/CHEMICALS/CHEM SUPP

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
20710000 WASTEWATER OPERATIONS	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185043	EVANTEC LAB SUPPLY	\$2,639.85	202500900	BPO/CHEMICAL EQ & CHEMICA
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185072	J C LANSDOWNE DIST INC	\$606.61	299302	BPO/CHEMICALS
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185112	NUTRIEN AG SOLUTIONS INC	\$986.70	57878183	BPO/CHEMICAL SUPPLIES
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185172	THATCHER CO OF CALIF INC	(\$6,000.00)	2025250900877	BPO/CHEMICALS/CHEM SUPP
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185172	THATCHER CO OF CALIF INC	\$23,358.68	2025250104633	BPO/CHEMICALS/CHEM SUPP
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185172	THATCHER CO OF CALIF INC	(\$6,000.00)	2025250900941	BPO/CHEMICALS/CHEM SUPP
	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$82,809.40	2025-06	2025-06 ELECTRICITY SVC
	778500 UTILITIES-GAS	8/1/2025	1812	SOUTHERN CALIF GAS CO	\$95.73	2025-07	2025-07 GAS SERVICE
	795500 TAXES	8/28/2025	185084	KINGS CO TAX COLLECTOR	\$1,049.52	86110	WASTE WATER PIPELINE ASMT
	DIVISION/ORG TOTAL 20710000 - WASTEWATER OPERATIONS				\$227,309.24		
20720000 SANITARY SEWER COLLECTION	730000 UNIFORM EXPENSE	8/6/2025	184689	VESTIS GROUP, INC.	\$27.52	5031589864	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/6/2025	184689	VESTIS GROUP, INC.	\$27.52	5031592891	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$27.52	5031595906	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$27.52	5031598906	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$27.52	5031601908	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$27.52	5031604869	BPO/ACCT 2322940000 UNIFO

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
20720000 SANITARY SEWER COLLECTION	730000 UNIFORM EXPENSE	8/28/2025	185185	VESTIS GROUP, INC.	\$31.27	5031607858	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/28/2025	185185	VESTIS GROUP, INC.	\$27.52	5031610854	BPO/ACCT 2322940000 UNIFO
	741200 EQUIPMENT MAINTENANCE	8/13/2025	184954	TELSTAR INSTRUMENTS, INC	\$220.18	127681	BPO/EQUIPMENT
	741200 EQUIPMENT MAINTENANCE	8/28/2025	185171	TELSTAR INSTRUMENTS, INC	\$768.00	128216	BPO/EQUIPMENT
	744000 OFFICE EXPENSE MISC	8/13/2025	184709	AMAZON CAPITAL SERVICE, INC.	\$42.70	1KQ6-Y6DW-6LYN	2025-07 AMAZON PURCHASES
	749500 PROF AND SPEC SERVICES	8/28/2025	185086	KINGS INDUSTRIAL OCCUP MEDICAL CTR	\$100.00	298178	PHYSICAL EXAM DOT
	758500 RENTS AND LEASES-SI&G	8/13/2025	184714	B N S F RAILWAY CO/THE STAUBACH CO	\$4,939.11	25007220	1-10" SANITARY SEWER PIPE
	758500 RENTS AND LEASES-SI&G	8/28/2025	185005	B N S F RAILWAY CO/THE STAUBACH CO	\$288.94	25007669	LAND LEASE - SEWAGE LINE
	778000 UTILITIES-ELECTRICITY	8/1/2025	1761	P G & E	\$355.42	6359810294-07/25	SWR LFT STA#1 / 10514 IND
	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$4,428.33	2025-06	2025-06 ELECTRICITY SVC
DIVISION/ORG TOTAL 20720000 - SANITARY SEWER COLLECTION					\$11,366.59		
20730000 WASTEWATER CAPITAL & RESV	825621 WW ENERGY PROJECT	8/28/2025	185034	CUMMING MANAGEMENT GROUP, INC	\$11,347.50	174683	WW ENERGY PROJECT SERVICE
	826658 CCTV INSPECTION SERVICES	8/28/2025	185191	W E C O INDUSTRIES	\$13,060.36	0056130-IN	FLEXIPROBE PORTABLE CCTV
	DIVISION/ORG TOTAL 20730000 - WASTEWATER CAPITAL & RESV					\$24,407.86	
20810000 WATER OPERATIONS	730000 UNIFORM EXPENSE	8/6/2025	184689	VESTIS GROUP, INC.	\$125.90	5031589860	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/6/2025	184689	VESTIS GROUP, INC.	\$116.04	5031592887	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184835	JASON ALLEN BRANDON DBA	\$225.00	41462	SAFETY SHOES - MARTINEZ,

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20810000 WATER OPERATIONS	730000 UNIFORM EXPENSE	8/13/2025	184835	JASON ALLEN BRANDON DBA	\$222.97	41463	SAFETY SHOES - HICKS, RON
	730000 UNIFORM EXPENSE	8/13/2025	184835	JASON ALLEN BRANDON DBA	\$225.00	41464	SAFETY SHOES - FRANCE, BR
	730000 UNIFORM EXPENSE	8/13/2025	184835	JASON ALLEN BRANDON DBA	\$220.81	41492	SAFETY SHOES - BROWN, DON
	730000 UNIFORM EXPENSE	8/13/2025	184835	JASON ALLEN BRANDON DBA	\$224.06	41495	SAFETY SHOES - MENDOZA, A
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$156.54	5031595902	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$112.94	5031598902	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$91.16	5031601904	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/13/2025	184971	VESTIS GROUP, INC.	\$91.16	5031604865	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/28/2025	185185	VESTIS GROUP, INC.	\$94.47	5031607854	BPO/ACCT 2322940000 UNIFO
	730000 UNIFORM EXPENSE	8/28/2025	185185	VESTIS GROUP, INC.	\$111.97	5031610850	BPO/ACCT 2322940000 UNIFO
	732000 COMMUNICATIONS	8/6/2025	184628	A T & T	\$31.58	23743468	2025-06 SCADA AUTO DIALER
	732000 COMMUNICATIONS	8/28/2025	185168	U S TELEPACIFIC CORP	\$82.38	186500859-0	PHONE SERVICE 07/23-08/22
	741200 EQUIPMENT MAINTENANCE	8/13/2025	184710	AMERICAN INCORPORATED	\$281.25	7188537	WELL SITE #46
	741200 EQUIPMENT MAINTENANCE	8/28/2025	185003	AMERICAN INCORPORATED	\$685.76	7188092	WELL - TROUBLESHOOT
	741200 EQUIPMENT MAINTENANCE	8/28/2025	185003	AMERICAN INCORPORATED	\$437.50	7189663	SERVICE ON WELL SITE #46,
	741200 EQUIPMENT MAINTENANCE	8/28/2025	185003	AMERICAN INCORPORATED	\$156.25	7189919	SERVICE ON WELL SITE #5,

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20810000 WATER OPERATIONS	741200 EQUIPMENT MAINTENANCE	8/28/2025	185009	BACKFLOW APPARATUS & VALVE CO, INC	\$189.60	339492	FEBCO 880 2 1/2-3" CK DIS
	741200 EQUIPMENT MAINTENANCE	8/28/2025	185102	MILLER'S RENTALAND	\$94.60	832199	BPO/EQUIP MTCE RENTAL
	741200 EQUIPMENT MAINTENANCE	8/29/2025	185197	AMERICAN INCORPORATED	\$4,873.27	5337267	REPLACE BAD COMPRESSOR AT
	741200 EQUIPMENT MAINTENANCE	8/29/2025	185197	AMERICAN INCORPORATED	\$3,411.97	5337270	A/C UNIT REPLACEMENT WELL
	741200 EQUIPMENT MAINTENANCE	8/29/2025	185197	AMERICAN INCORPORATED	\$14,883.14	5337272	EMERGENCY - AC PANEL REPL
	749500 PROF AND SPEC SERVICES	8/6/2025	184633	AKEL ENGINEERING GROUP INC	\$2,787.25	251367-02	UTILITY MASTER PLANS UPDA
	749500 PROF AND SPEC SERVICES	8/6/2025	184636	B S K & ASSOCIATES INC	\$178.00	AI17941	BPO/WATER SAMPLING
	749500 PROF AND SPEC SERVICES	8/6/2025	184636	B S K & ASSOCIATES INC	\$98.20	AI18025	BPO/WATER SAMPLING
	749500 PROF AND SPEC SERVICES	8/6/2025	184636	B S K & ASSOCIATES INC	\$54.10	AI18026	BPO/WATER SAMPLING
	749500 PROF AND SPEC SERVICES	8/6/2025	184636	B S K & ASSOCIATES INC	\$54.10	AI18027	BPO/WATER SAMPLING
	749500 PROF AND SPEC SERVICES	8/6/2025	184636	B S K & ASSOCIATES INC	\$35.20	AI18386	BPO/WATER SAMPLING
	749500 PROF AND SPEC SERVICES	8/6/2025	184636	B S K & ASSOCIATES INC	\$60.40	AI18388	BPO/WATER SAMPLING
	749500 PROF AND SPEC SERVICES	8/6/2025	184656	KINGS CO COMMUNITY DEVELOPMENT	\$1,725.79	1071	2025-06 SGMA ENGINEERING

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20810000 WATER OPERATIONS	749500 PROF AND SPEC SERVICES	8/6/2025	184656	KINGS CO COMMUNITY DEVELOPMENT	\$1,047.59	1070	2025-06 SGM ROUND I REIMB
	749500 PROF AND SPEC SERVICES	8/13/2025	184705	AKEL ENGINEERING GROUP INC	\$4,780.50	251341-01	COH WATER LOSS AUDIT & VA
	749500 PROF AND SPEC SERVICES	8/13/2025	184715	B S K & ASSOCIATES INC	\$85.60	AI19396	BPO/WATER SAMPLING
	749500 PROF AND SPEC SERVICES	8/13/2025	184715	B S K & ASSOCIATES INC	\$54.10	AI19816	BPO/WATER SAMPLING
	749500 PROF AND SPEC SERVICES	8/13/2025	184715	B S K & ASSOCIATES INC	\$98.20	AI19817	BPO/WATER SAMPLING
	749500 PROF AND SPEC SERVICES	8/13/2025	184715	B S K & ASSOCIATES INC	\$110.80	AI18815	BPO/WATER SAMPLING
	749500 PROF AND SPEC SERVICES	8/13/2025	184715	B S K & ASSOCIATES INC	\$463.60	AI18813	BPO/WATER SAMPLING
	749500 PROF AND SPEC SERVICES	8/13/2025	184715	B S K & ASSOCIATES INC	\$463.60	AI19399	BPO/WATER SAMPLING
	749500 PROF AND SPEC SERVICES	8/13/2025	184715	B S K & ASSOCIATES INC	\$110.80	AI19400	BPO/WATER SAMPLING
	749500 PROF AND SPEC SERVICES	8/13/2025	184715	B S K & ASSOCIATES INC	\$1,018.00	AI20238	BPO/WATER SAMPLING
	749500 PROF AND SPEC SERVICES	8/13/2025	184715	B S K & ASSOCIATES INC	\$110.80	AI20061	BPO/WATER SAMPLING
	749500 PROF AND SPEC SERVICES	8/13/2025	184715	B S K & ASSOCIATES INC	\$326.80	AI20651	BPO/WATER SAMPLING
	749500 PROF AND SPEC SERVICES	8/13/2025	184715	B S K & ASSOCIATES INC	\$463.60	AI20064	BPO/WATER SAMPLING

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20810000 WATER OPERATIONS	749500 PROF AND SPEC SERVICES	8/13/2025	184715	B S K & ASSOCIATES INC	\$60.40	AI20800	BPO/WATER SAMPLING
	749500 PROF AND SPEC SERVICES	8/13/2025	184715	B S K & ASSOCIATES INC	\$136.00	AI20801	BPO/WATER SAMPLING
	749500 PROF AND SPEC SERVICES	8/13/2025	184715	B S K & ASSOCIATES INC	\$54.10	AI21126	BPO/WATER SAMPLING
	749500 PROF AND SPEC SERVICES	8/13/2025	184715	B S K & ASSOCIATES INC	\$54.10	AI21128	BPO/WATER SAMPLING
	749500 PROF AND SPEC SERVICES	8/13/2025	184715	B S K & ASSOCIATES INC	\$98.20	AI21129	BPO/WATER SAMPLING
	749500 PROF AND SPEC SERVICES	8/13/2025	184715	B S K & ASSOCIATES INC	\$85.60	AI20946	BPO/WATER SAMPLING
	749500 PROF AND SPEC SERVICES	8/13/2025	184750	COMCAST BUSINESS	\$109.52	244423356	2025-06 INTERNET SERVICE-
	749500 PROF AND SPEC SERVICES	8/13/2025	184751	COMCAST BUSINESS	\$109.52	241863153	2025-05 INTERNET SERVICE-
	749500 PROF AND SPEC SERVICES	8/13/2025	184759	COMCAST BUSINESS	\$109.52	246912216	2025-07 INTERNET SERVICE-
	749500 PROF AND SPEC SERVICES	8/13/2025	184828	KINGS CO COMMUNITY DEVELOPMENT	\$138.41	1073	2025-06; 2024 ANNUAL REPO
	749500 PROF AND SPEC SERVICES	8/28/2025	185006	B S K & ASSOCIATES INC	\$463.60	AI20852	BPO/WATER SAMPLING
	749500 PROF AND SPEC SERVICES	8/28/2025	185006	B S K & ASSOCIATES INC	\$110.80	AI20652	BPO/WATER SAMPLING
	749500 PROF AND SPEC SERVICES	8/28/2025	185006	B S K & ASSOCIATES INC	\$35.20	AI21041	BPO/WATER SAMPLING

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20810000 WATER OPERATIONS	749500 PROF AND SPEC SERVICES	8/28/2025	185006	B S K & ASSOCIATES INC	\$110.80	AI21276	BPO/WATER SAMPLING
	749500 PROF AND SPEC SERVICES	8/28/2025	185006	B S K & ASSOCIATES INC	\$110.80	AI21888	BPO/WATER SAMPLING
	749500 PROF AND SPEC SERVICES	8/28/2025	185006	B S K & ASSOCIATES INC	\$463.60	AI21891	BPO/WATER SAMPLING
	749500 PROF AND SPEC SERVICES	8/28/2025	185006	B S K & ASSOCIATES INC	\$463.60	AI21278	BPO/WATER SAMPLING
	749500 PROF AND SPEC SERVICES	8/28/2025	185006	B S K & ASSOCIATES INC	\$83.50	AI22464	BPO/WATER SAMPLING
	749500 PROF AND SPEC SERVICES	8/28/2025	185006	B S K & ASSOCIATES INC	\$46.75	AI22468	BPO/WATER SAMPLING
	749500 PROF AND SPEC SERVICES	8/28/2025	185006	B S K & ASSOCIATES INC	\$161.20	AI22376	BPO/WATER SAMPLING
	749500 PROF AND SPEC SERVICES	8/28/2025	185078	KINGS CO COMMUNITY DEVELOPMENT	\$13.65	1072	2025-06 MID-KING RIVER GS
	749500 PROF AND SPEC SERVICES	8/28/2025	185171	TELSTAR INSTRUMENTS, INC	\$309.52	128227	BPO/SCADA MNTC
	755000 OTHER CONTRACTUAL SERVICE	8/28/2025	185003	AMERICAN INCORPORATED	\$2,172.00	5336650	SEMI ANNUAL WELL SITES HV
	758000 RENTS AND LEASES-EQUIP	8/6/2025	184666	LINDE GAS & EQUIPMENT INC	\$614.67	50846961	BPO/CO2 TANK RENTAL
	758000 RENTS AND LEASES-EQUIP	8/13/2025	184846	LINDE GAS & EQUIPMENT INC	\$1,020.55	51057440	BPO/CO2 TANK RENTAL
	758000 RENTS AND LEASES-EQUIP	8/28/2025	185097	LINDE GAS & EQUIPMENT INC	\$884.02	51515740	BPO/CO2 TANK RENTAL

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20810000 WATER OPERATIONS	758000 RENTS AND LEASES-EQUIP	8/28/2025	185097	LINDE GAS & EQUIPMENT INC	\$1,020.55	51548605	BPO/CO2 TANK RENTAL
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184709	AMAZON CAPITAL SERVICE, INC.	\$74.25	1KQ6-Y6DW-6LYN	2025-07 AMAZON PURCHASES
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184944	SILVAS OIL CO INC	\$668.68	475764	PAIL-MOBIL DTE OIL HEAVY/
	760000 SPECIAL DEPARTMENTAL EXP	8/13/2025	184959	TRIPLE J CONCRETE	\$128.16	17362	BPO/CONCRETE WORK
	760100 SYS REPR/NON-INVENT ITEMS	8/28/2025	185143	PACE SUPPLY CORP	\$2,035.86	1910518305	PARTS AND SUPPLIES
	760100 SYS REPR/NON-INVENT ITEMS	8/28/2025	185143	PACE SUPPLY CORP	\$177.36	1910498787	ULTRA FLEX CPLG FORD
	765000 CHEMICAL AND CHEMICAL SUP	8/6/2025	184686	UNIVAR SOLUTIONS USA INC	\$928.76	53137878	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/6/2025	184686	UNIVAR SOLUTIONS USA INC	\$1,471.23	53137877	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/6/2025	184686	UNIVAR SOLUTIONS USA INC	\$1,219.57	53137876	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/6/2025	184686	UNIVAR SOLUTIONS USA INC	\$678.08	53137870	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/6/2025	184686	UNIVAR SOLUTIONS USA INC	\$1,393.79	53137875	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/6/2025	184686	UNIVAR SOLUTIONS USA INC	\$1,316.35	53137874	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/6/2025	184686	UNIVAR SOLUTIONS USA INC	\$2,090.69	53137872	BPO/CHLORINE

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20810000 WATER OPERATIONS	765000 CHEMICAL AND CHEMICAL SUP	8/6/2025	184686	UNIVAR SOLUTIONS USA INC	\$929.20	53137873	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/6/2025	184686	UNIVAR SOLUTIONS USA INC	\$1,045.34	53137871	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/6/2025	184686	UNIVAR SOLUTIONS USA INC	\$856.60	53137868	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/6/2025	184686	UNIVAR SOLUTIONS USA INC	\$967.91	53137869	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/6/2025	184686	UNIVAR SOLUTIONS USA INC	\$566.69	53137867	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/6/2025	184686	UNIVAR SOLUTIONS USA INC	\$1,027.92	53152934	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/6/2025	184686	UNIVAR SOLUTIONS USA INC	\$387.17	53152931	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/6/2025	184686	UNIVAR SOLUTIONS USA INC	\$600.02	53152935	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/6/2025	184686	UNIVAR SOLUTIONS USA INC	\$678.08	53152932	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/6/2025	184686	UNIVAR SOLUTIONS USA INC	\$813.04	53152933	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/6/2025	184686	UNIVAR SOLUTIONS USA INC	\$1,935.82	53152930	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/6/2025	184686	UNIVAR SOLUTIONS USA INC	\$813.04	53152929	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/6/2025	184686	UNIVAR SOLUTIONS USA INC	\$1,079.45	53160171	BPO/CHLORINE

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20810000 WATER OPERATIONS	765000 CHEMICAL AND CHEMICAL SUP	8/6/2025	184686	UNIVAR SOLUTIONS USA INC	\$1,548.66	53160170	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/6/2025	184686	UNIVAR SOLUTIONS USA INC	\$1,935.82	53160167	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/6/2025	184686	UNIVAR SOLUTIONS USA INC	\$1,393.79	53160169	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/6/2025	184686	UNIVAR SOLUTIONS USA INC	\$1,548.66	53160168	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/6/2025	184686	UNIVAR SOLUTIONS USA INC	\$766.69	53189079	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/6/2025	184686	UNIVAR SOLUTIONS USA INC	\$1,096.45	53189078	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/6/2025	184686	UNIVAR SOLUTIONS USA INC	\$774.32	53189077	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/6/2025	184686	UNIVAR SOLUTIONS USA INC	\$967.91	53189075	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/6/2025	184686	UNIVAR SOLUTIONS USA INC	\$2,806.93	53189076	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/6/2025	184686	UNIVAR SOLUTIONS USA INC	\$871.12	53189073	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/6/2025	184686	UNIVAR SOLUTIONS USA INC	\$1,506.84	53189074	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184960	UNIVAR SOLUTIONS USA INC	\$1,355.07	53178513	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184960	UNIVAR SOLUTIONS USA INC	\$580.75	53178512	BPO/CHLORINE

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20810000 WATER OPERATIONS	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184960	UNIVAR SOLUTIONS USA INC	\$1,161.49	53178511	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184960	UNIVAR SOLUTIONS USA INC	\$1,548.66	53178510	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184960	UNIVAR SOLUTIONS USA INC	\$1,079.45	53178509	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184960	UNIVAR SOLUTIONS USA INC	\$1,161.49	53171201	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184960	UNIVAR SOLUTIONS USA INC	\$2,710.15	53171200	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184960	UNIVAR SOLUTIONS USA INC	\$1,355.07	53171199	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184960	UNIVAR SOLUTIONS USA INC	\$600.02	53171196	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184960	UNIVAR SOLUTIONS USA INC	\$1,355.07	53171198	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184960	UNIVAR SOLUTIONS USA INC	\$1,027.92	53171197	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184960	UNIVAR SOLUTIONS USA INC	\$507.18	53201183	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184960	UNIVAR SOLUTIONS USA INC	\$856.60	53201194	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184960	UNIVAR SOLUTIONS USA INC	\$603.97	53201191	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184960	UNIVAR SOLUTIONS USA INC	\$1,100.04	53201196	BPO/CHLORINE

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20810000 WATER OPERATIONS	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184960	UNIVAR SOLUTIONS USA INC	\$3,290.89	53210489	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184960	UNIVAR SOLUTIONS USA INC	\$904.10	53210490	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184960	UNIVAR SOLUTIONS USA INC	\$566.69	53210492	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184960	UNIVAR SOLUTIONS USA INC	\$851.77	53210491	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184960	UNIVAR SOLUTIONS USA INC	\$1,509.94	53216224	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184960	UNIVAR SOLUTIONS USA INC	\$1,200.21	53216223	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184960	UNIVAR SOLUTIONS USA INC	\$1,238.92	53216221	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184960	UNIVAR SOLUTIONS USA INC	\$1,509.94	5321622	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184960	UNIVAR SOLUTIONS USA INC	\$1,154.79	53216220	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184960	UNIVAR SOLUTIONS USA INC	\$1,432.50	53197030	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184960	UNIVAR SOLUTIONS USA INC	\$3,871.64	53226373	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184960	UNIVAR SOLUTIONS USA INC	\$904.10	53226372	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184960	UNIVAR SOLUTIONS USA INC	\$766.69	53226370	BPO/CHLORINE

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
20810000 WATER OPERATIONS	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184960	UNIVAR SOLUTIONS USA INC	\$890.48	53226371	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184960	UNIVAR SOLUTIONS USA INC	\$1,062.18	53222820	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184960	UNIVAR SOLUTIONS USA INC	\$580.75	53222819	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184960	UNIVAR SOLUTIONS USA INC	\$619.46	53222818	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184961	UNIVAR SOLUTIONS USA INC	\$1,219.57	53197026	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/13/2025	184961	UNIVAR SOLUTIONS USA INC	\$1,548.66	53197027	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185177	UNIVAR SOLUTIONS USA INC	\$774.32	53229890	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185177	UNIVAR SOLUTIONS USA INC	\$774.32	53229888	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185177	UNIVAR SOLUTIONS USA INC	\$1,122.78	53229887	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185177	UNIVAR SOLUTIONS USA INC	\$1,355.07	53229886	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185177	UNIVAR SOLUTIONS USA INC	\$1,117.12	53229885	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185177	UNIVAR SOLUTIONS USA INC	\$1,154.79	53197028	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185177	UNIVAR SOLUTIONS USA INC	\$1,471.23	53197031	BPO/CHLORINE

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
20810000 WATER OPERATIONS	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185177	UNIVAR SOLUTIONS USA INC	\$754.97	53240736	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185177	UNIVAR SOLUTIONS USA INC	\$774.32	53240734	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185177	UNIVAR SOLUTIONS USA INC	\$1,027.92	53240732	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185177	UNIVAR SOLUTIONS USA INC	\$833.36	53244258	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185177	UNIVAR SOLUTIONS USA INC	\$967.91	53244257	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185177	UNIVAR SOLUTIONS USA INC	\$678.08	53244256	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185177	UNIVAR SOLUTIONS USA INC	\$3,407.04	53244255	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185177	UNIVAR SOLUTIONS USA INC	\$1,258.29	53251349	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185177	UNIVAR SOLUTIONS USA INC	\$1,355.07	53251346	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185177	UNIVAR SOLUTIONS USA INC	\$1,548.66	53251348	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185177	UNIVAR SOLUTIONS USA INC	\$1,161.49	53251347	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185177	UNIVAR SOLUTIONS USA INC	\$1,418.49	53251344	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185177	UNIVAR SOLUTIONS USA INC	\$813.04	53258299	BPO/CHLORINE

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
20810000 WATER OPERATIONS	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185177	UNIVAR SOLUTIONS USA INC	\$902.09	53258300	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185177	UNIVAR SOLUTIONS USA INC	\$1,062.18	53258301	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185177	UNIVAR SOLUTIONS USA INC	\$3,236.69	53262444	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185177	UNIVAR SOLUTIONS USA INC	\$871.12	53262446	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185177	UNIVAR SOLUTIONS USA INC	\$516.69	53262448	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185177	UNIVAR SOLUTIONS USA INC	\$1,418.49	53269486	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185177	UNIVAR SOLUTIONS USA INC	\$1,509.94	53269487	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185177	UNIVAR SOLUTIONS USA INC	\$1,200.21	53269488	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185177	UNIVAR SOLUTIONS USA INC	\$1,064.70	53269489	BPO/CHLORINE
	765000 CHEMICAL AND CHEMICAL SUP	8/28/2025	185177	UNIVAR SOLUTIONS USA INC	\$1,297.00	53269490	BPO/CHLORINE
	778000 UTILITIES-ELECTRICITY	8/7/2025	1773	SOUTHERN CALIF EDISON CO	\$164,492.09	2025-06	2025-06 ELECTRICITY SVC
	799000 MATERIALS/SUPP'S/INVENTORY	8/28/2025	185143	PACE SUPPLY CORP	\$1,416.56	1910701056	BPO/PARTS AND SUPPLIES
	799000 MATERIALS/SUPP'S/INVENTORY	8/28/2025	185143	PACE SUPPLY CORP	\$633.65	1910701056-1	BPO/PARTS AND SUPPLIES

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
20810000 WATER OPERATIONS	799000 MATERIALS/SUPP'S/INVENTORY	8/28/2025	185143	PACE SUPPLY CORP	\$32.30	1910633128-2	BPO/PARTS AND SUPPLIES
	DIVISION/ORG TOTAL 20810000 - WATER OPERATIONS				\$334,960.97		
21040000 ACCUM CAPITAL OUTLAY	820634 CITY HALL SECURITY PROJEC	8/28/2025	185000	ALLSTEEL INC	\$15,230.25	2563612	CUBICLES FOR HALLWAY
	820634 CITY HALL SECURITY PROJEC	8/28/2025	185017	CAL & STAN INC	\$6,725.30	30656-0	ADMIN/PARKS CUBICLES
	DIVISION/ORG TOTAL 21040000 - ACCUM CAPITAL OUTLAY				\$21,955.55		
21800000 PARKS FACILITY IMPACT FEE	825612 CITY'S DEV IMPACT FEES UP	8/28/2025	185193	WILLDAN FINANCIAL SERVICES	\$960.66	010-63174	COMPREHENSIVE UPDATE TO T
	DIVISION/ORG TOTAL 21800000 - PARKS FACILITY IMPACT FEE				\$960.66		
21810000 TRANSPORTN FACLTY IMP FEE	823619 LACEY WIDEN/RECON/10TH-SI	8/28/2025	185150	QUAD KNOFF, INC	\$10,969.73	128482	Eng. & Design Services Ea
	823619 LACEY WIDEN/RECON/10TH-SI	8/28/2025	185150	QUAD KNOFF, INC	\$12,179.31	128798	Eng. & Design Services Ea
	825612 CITY'S DEV IMPACT FEES UP	8/28/2025	185193	WILLDAN FINANCIAL SERVICES	\$960.62	010-63174	COMPREHENSIVE UPDATE TO T
	825618 9TH AVE & GRGVL ROUNDABOU	8/6/2025	184629	4CREEKS INC	\$14,620.50	4C009108	9TH AVE AND GRANGEVILLE B
	825618 9TH AVE & GRGVL ROUNDABOU	8/13/2025	184701	4CREEKS INC	\$8,727.50	4C010389	9TH AVE AND GRANGEVILLE B
	DIVISION/ORG TOTAL 21810000 - TRANSPORTN FACLTY IMP FEE				\$47,457.66		
21820000 FIRE PROTECTION IMP FEE	825612 CITY'S DEV IMPACT FEES UP	8/28/2025	185193	WILLDAN FINANCIAL SERVICES	\$960.62	010-63174	COMPREHENSIVE UPDATE TO T
	DIVISION/ORG TOTAL 21820000 - FIRE PROTECTION IMP FEE				\$960.62		
21830000 POLICE PROTECTION IMP FEE	825612 CITY'S DEV IMPACT FEES UP	8/28/2025	185193	WILLDAN FINANCIAL SERVICES	\$960.62	010-63174	COMPREHENSIVE UPDATE TO T

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
21830000	DIVISION/ORG TOTAL 21830000 - POLICE PROTECTION IMP FEE				\$960.62		
21840000 STORM DRAINAGE IMPACT FEE	825611 UTILITY MASTER PLANS UPDA	8/28/2025	184998	AKEL ENGINEERING GROUP INC	\$10,456.29	241221-06	UTILITY MASTER PLANS UPDA
	825611 UTILITY MASTER PLANS UPDA	8/28/2025	184998	AKEL ENGINEERING GROUP INC	\$14,011.46	241221-07	UTILITY MASTER PLANS UPDA
	825612 CITY'S DEV IMPACT FEES UP	8/28/2025	185193	WILLDAN FINANCIAL SERVICES	\$960.62	010-63174	COMPREHENSIVE UPDATE TO T
	DIVISION/ORG TOTAL 21840000 - STORM DRAINAGE IMPACT FEE				\$25,428.37		
21850000 WATER SYSTEM IMPACT FEE	825611 UTILITY MASTER PLANS UPDA	8/28/2025	184998	AKEL ENGINEERING GROUP INC	\$6,103.05	241221-06	UTILITY MASTER PLANS UPDA
	825611 UTILITY MASTER PLANS UPDA	8/28/2025	184998	AKEL ENGINEERING GROUP INC	\$8,178.10	241221-07	UTILITY MASTER PLANS UPDA
	825612 CITY'S DEV IMPACT FEES UP	8/28/2025	185193	WILLDAN FINANCIAL SERVICES	\$960.62	010-63174	COMPREHENSIVE UPDATE TO T
	DIVISION/ORG TOTAL 21850000 - WATER SYSTEM IMPACT FEE				\$15,241.77		
21860000 WASTEWATER SYS IMPACT FEE	825611 UTILITY MASTER PLANS UPDA	8/28/2025	184998	AKEL ENGINEERING GROUP INC	\$6,986.16	241221-06	UTILITY MASTER PLANS UPDA
	825611 UTILITY MASTER PLANS UPDA	8/28/2025	184998	AKEL ENGINEERING GROUP INC	\$9,361.47	241221-07	UTILITY MASTER PLANS UPDA
	825612 CITY'S DEV IMPACT FEES UP	8/28/2025	185193	WILLDAN FINANCIAL SERVICES	\$960.62	010-63174	COMPREHENSIVE UPDATE TO T
	DIVISION/ORG TOTAL 21860000 - WASTEWATER SYS IMPACT FEE				\$17,308.25		
21870000 REFUSE/RECYCLE IMPACT FEE	825612 CITY'S DEV IMPACT FEES UP	8/28/2025	185193	WILLDAN FINANCIAL SERVICES	\$960.62	010-63174	COMPREHENSIVE UPDATE TO T
	DIVISION/ORG TOTAL 21870000 - REFUSE/RECYCLE IMPACT FEE				\$960.62		
26650000 GAS TAX - 2103	823644 GRADE SEP FEASBLTY/GRGVL	8/28/2025	185169	T R C ENGINEERS, INC	\$3,360.00	47950	TRC GRANGEVILLE BLVD GRAD

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
26650000	DIVISION/ORG TOTAL 26650000 - GAS TAX - 2103				\$3,360.00		
26720000 CMAQ	820644 TRAF SIGNAL/12TH AV TO HU	8/13/2025	184701	4CREEKS INC	\$2,200.00	4C009700A	PROJECT 21230A-REVISION T
	820644 TRAF SIGNAL/12TH AV TO HU	8/13/2025	184701	4CREEKS INC	\$1,800.00	4C007900B	PROJECT 21230A-REVISION T
	820644 TRAF SIGNAL/12TH AV TO HU	8/13/2025	184701	4CREEKS INC	\$1,850.00	4C009700C	PROJECT 21230A-REVISION T
	DIVISION/ORG TOTAL 26720000 - CMAQ				\$5,850.00		
29100000 WATER CAPITAL & RESERVE	823637 NEW WATER SUPPLY WELL	8/13/2025	184919	QUINN COMPANY	\$12,191.12	P6165401	WELL SITE #52 GENERATOR
	823637 NEW WATER SUPPLY WELL	8/28/2025	185151	QUINN COMPANY	\$7,074.14	P6166501	WELL SITE #52 GENERATOR
	825600 BADGER METER REPLACEMENT	8/4/2025	1818	BADGER METER INC	\$216,803.95	1745688	COH METER REPLACEMENT PRO
	825600 BADGER METER REPLACEMENT	8/4/2025	1819	BADGER METER INC	\$219,479.04	1742296	COH METER REPLACEMENT PRO
	825600 BADGER METER REPLACEMENT	8/6/2025	1815	BADGER METER INC	\$443.08	80205999	COH METER REPLACEMENT PRO
	825600 BADGER METER REPLACEMENT	8/21/2025	1816	BADGER METER INC	\$21.28	80200037	COH METER REPLACEMENT PRO
	825600 BADGER METER REPLACEMENT	8/21/2025	1817	BADGER METER INC	(\$21.28)	90065329	COH METER REPLACEMENT PRO
	825600 BADGER METER REPLACEMENT	8/28/2025	185176	TYLER TECHNOLOGIES INC	\$900.00	045-533366	IMPLEMENTATION SERVICES -
DIVISION/ORG TOTAL 29100000 - WATER CAPITAL & RESERVE					\$456,891.33		

DIVISION/ORG CODE	ACCOUNT/OBJECT CODE	CHECK DATE	CHECK NUMBER	VENDOR NAME	AMOUNT	INVOICE	INVOICE DESCRIPTION
39400500 2013 WATER REF REV BD	751300 BANKING/INVESTMENT FEES	8/8/2025	1807	U S BANK	\$1,749.00	7836260	WATER BOND 2013 ADMIN FEE
DIVISION/ORG TOTAL 39400500 - 2013 WATER REF REV BD					\$1,749.00		
		TOTAL AMOUNTS FOR CHECKS:			\$4,011,764.74		

Council Future Agenda Items				
Originated Date	Item	Originator	Staff Lead	Date Estimate
1/21/2025	Further discussion of future changes to Council Compensation as allowed under SB329.	City Manager	Chris Tavarez	October
6/3/2025	Presentation and Council discussion regarding the appropriateness of tournament fees for the Softball Complex.	Council Direction	Brad Albert	October
7/23/2025	Council Review of proposed HMC Amendments on Bank Locations and Murals	Deputy City Manager	Jason Waters	October
9/3/2025	Presentation and Council direction of the City's Social Media Policy	City Manager	Brian Johnson	October