The City of Hanford
CALIFORNIA

AGENDA

PLANNING COMMISSION
of the
CITY OF HANFORD

COUNCIL CHAMBERS
400 N. Douty St.
7:00 PM, Tuesday, August 25, 2015

CALL TO ORDER

ROLL CALL

FLAG SALUTE

INVOCATION

Pastor Cantrell, First Pentecostal Church

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 ***five minutes*** *is allowed for each speaker. Please begin your comments by stating your name and providing your city of residence.*

DIRECTOR'S COMMENTS

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.

Approval of Minutes of the August 11, 2015 Meeting

PUBLIC HEARING

1. **Planned Unit Development 2015-02 and Tentative Parcel Map 2015-02: Planned Unit Development 2015-02, a request to construct seven retail buildings, totaling 124,050 square feet with shared access and parking and a request to allow a 35-foot pylon sign in the in the "PC" Planned Commercial Zone District. Tentative Parcel Map 2015-02, a proposal to divide one parcel, totaling approximately 9.36 acres (407,733 sq. ft.), into nine parcels. The project is located at the southwest corner of 12th Avenue and Lacey Boulevard (Former APN: 011-020-048). (Negative Declaration 2015-06 is required.)**

GENERAL BUSINESS

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 $1,000.00 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.

AGENDA
STAFF REPORT

MEETING DATE: 8/25/2015	**AGENDA SECTION:**

SUBJECT:
Approval of Minutes of the August 11, 2015 Meeting

RECOMMENDATION:
Approve the minutes of the August 11, 2015 meeting.

BACKGROUND:

FISCAL IMPACT:

ATTACHMENTS:
PC Minutes 08-11-15

MINUTES
City of Hanford Planning Commission Meeting
Tuesday, August 11, 2015

The regular meeting of the Hanford City Planning Commission was called to order by Vice-Chairperson **HAM** in the Civic Auditorium, 400 North Douty Street, Hanford, California, at 7:00 p.m.

FLAG SALUTE: Led by Commissioner **DOUGLAS**

INVOCATION: Chairperson **FROBERG**

COMMISSIONERS PRESENT

Appointed Members: **HAM, NAHAL, DOUGLAS, FERNANDES, JOHNSTON, PADEN, FROBERG**
Advisory Members: **RAMIREZ**
City Attorney: **MIZOTE**

COMMISSIONERS ABSENT

Appointed Members: **NONE**
Advisory Members: **NONE**

STAFF PRESENT

Community Development Director Mata, Community Development Secretary Black

1. **PUBLIC COMMENTS**

Any person may directly address the Planning Commission at this time on any item not on the agenda but that is within the subject matter jurisdiction of the Commission. A maximum of five minutes is allowed for each speaker.

None.

2. **CONSENT CALENDAR**

All items listed under the Consent Calendar are considered routine and will be enacted by one motion (ROLL CALL VOTE required). For discussion of an item on the Consent Calendar, it will be removed at the request of any member of the Planning Commission or any person in the audience and made a part of the regular agenda.

A. Approval of Minutes of the July 28, 2015 Meeting

Motion by Commissioner **HAM**, seconded by Commissioner **PADEN**, to approve. Motion carried by the following roll call vote:

AYES: **HAM, PADEN, DOUGLAS, FERNANDES, JOHNSTON,**
NOES: **NONE**

Attachment: PC Minutes 08-11-15 (1032 : 08112015 PC Minutes)

ABSTAIN: **NAHAL, FROBERG**
ABSENT: **NONE**

3. **CONTINUED ITEM**

A. **This item was continued from the July 28, 2015 meeting:** Confirmation Finding of General Plan Consistency for the Sale of Surplus City Real Property located at the southwest corner of West Cortner Street and N. 11th Avenue, the westerly 18.1 acres of APN 008-360-006.

Community Development Director Mata presented a review of the Staff Report and responded to questions from the Commissioners.

Chairperson **FROBERG** invited Public Comment:

PUBLIC COMMENT

1. Shaka Sudds asked if the park ratio included the on-going development of Home Gardens Park. Staff responded that Home Gardens is in the County's jurisdiction, so it is not included.

2. Bob Ramos – Two years ago, he was against the sale of the property. He has since changed his mind and feels that it should be declared surplus, with the resulting funds earmarked for a new fire station.

3. Mickey Stoddard, member of the Parks and Recreation Commission and retired City of Hanford Recreation Department employee – The Parks and Recreation Commission voted unanimously against selling. He stated that the City will never have the money in the future to purchase park land. If the Commission finds consistency with the General Plan, he encouraged them to forward the finding to City Council, adding that they are opposed to the sale of the property.

4. Robin Mattos presented several documents for distribution to the Commissioners. She stated that the City is at a park land deficit. Encouraged them to make a finding that this property should not be considered surplus.

   Chairperson **FROBERG** clarified that the Planning Commission is just finding whether or not the item is consistent with the current General Plan. Only the City Council can decide whether or not the property is surplus and/or should be sold.

   Community Development Manager Mata responded to additional questions from the commissioners.

   Chairperson **FROBERG** recommended that the Commission continue this item once again, given the number of documents that were received from Ms. Mattos.

   Commissioner **FERNANDES** stated that he would prefer to consider this item after the General Plan Update has been completed.

Attachment: PC Minutes 08-11-15 (1032 : 08112015 PC Minutes)

City Attorney Mizote stated that, per Government Code § 65402, the Commission has 40 days from the date this the matter was submitted to them to make a decision.

Motion by Commissioner **FERNANDES,** seconded by Commissioner **HAM**, to disapprove a finding that the sale of the westerly 18.1+/- acres of the 38.48-acre City-owned property located at the southwest cortner of West Cortner Street and North 11th Avenue is consistent with the Hanford General Plan. Motion carried by the following roll call vote:

AYES:	**FERNANDES, HAM, NAHAL, PADEN**
NOES:	**DOUGLAS, JOHNSTON, FROBERG,**
ABSTAIN:	**NONE**
ABSENT:	**NONE**

5. **DIRECTOR'S REPORT**

Community Development Director Mata notified the commissioners that there are a few books in her office that they might want to check out, including *Curtin's California Land Use & Planning Law.*

The draft document of the General Plan Update will go to the Citizens Advisory Committee soon, and then it will come to the Planning Commission.

6. **ITEMS FROM COMMISSION**

Commissioner **FERNANDES** asked Community Development Director Mata what is being done with the old hospital on Lacey. Her response was that it is owned by the County.

Commissioner **HAM** asked if the shopping center item [PUD 2015-02/TPM 2015-02] will be coming back to the Planning Commission. Community Development Director Mata replied that it will be on the next meeting's agenda.

ADJOURNMENT

Chairperson **FROBERG** adjourned the meeting at 8:07 p.m.

Respectfully submitted,

Diana Black, Community Development Department Secretary

Attachment: PC Minutes 08-11-15 (1032 : 08112015 PC Minutes)

AGENDA
STAFF REPORT

MEETING DATE: 8/25/2015	**AGENDA SECTION:** 1

SUBJECT:
Planned Unit Development 2015-02 and Tentative Parcel Map 2015-02: Planned Unit Development 2015-02, a request to construct seven retail buildings, totaling 124,050 square feet with shared access and parking and a request to allow a 35-foot pylon sign in the in the "PC" Planned Commercial Zone District. Tentative Parcel Map 2015-02, a proposal to divide one parcel, totaling approximately 9.36 acres (407,733 sq. ft.), into nine parcels. The project is located at the southwest corner of 12th Avenue and Lacey Boulevard (Former APN: 011-020-048). (Negative Declaration 2015-06 is required.)

RECOMMENDATION:

1. I move to adopt Negative Declaration 2015-06 for Planned Unit Development 2015-02 and Tentative Parcel Map No. 2015-02. (roll call vote)
2. I move to adopt Resolution 2015-23 approving Planned Unit Development 2015-02. (roll call vote)
3. I move to adopt Resolution 2015-24 approving Tentative Parcel Map No. 2015-02. (roll call vote)

BACKGROUND:
The applicant is requesting to construct seven retail buildings, totaling 124,050 square feet, with shared access and parking, to divide one parcel into nine parcels, Table 1, and to allow a 35'-pylon sign in the in the "PC" Planned Commercial Zone District, See Exhibits A, B, and C. The applicant has also requested to develop the pads prior to development of the anchor buildings.

Table 1: Parcel Division

PARCEL	SQUARE FEET
A	170,126
B	96,965
C	13,621
D	16,091

E	30,802
F	20,968
G	12,755
H	20,489
J	22,592

General Plan Designation/Zoning

The site is designated in the General Plan as Planned Commercial and is zoned Planned Commercial "PC". A General Plan designation of "PC" Planned Commercial allows planned shopping centers, as defined in Table LU-12 of the General Plan Land Use Element.

Figure 1: Zoning

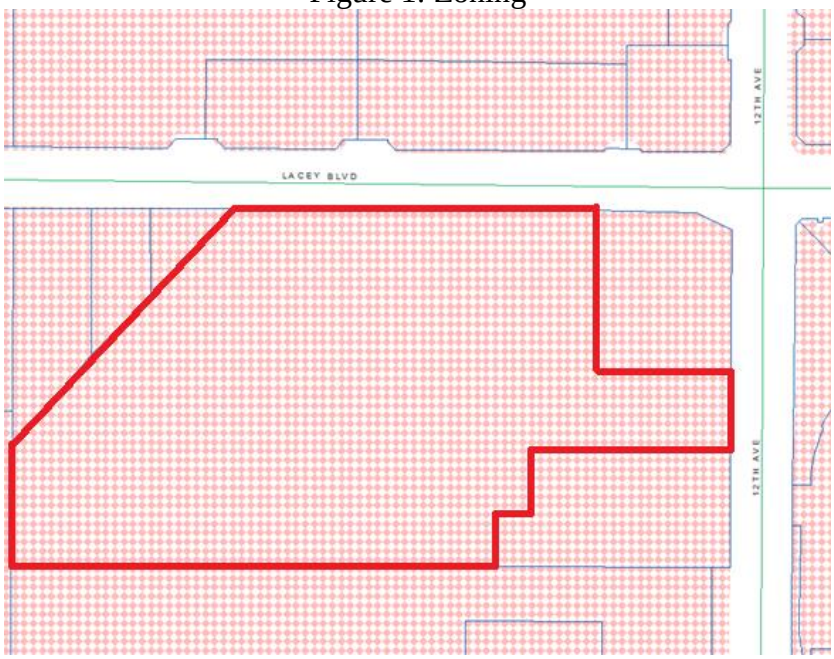


Figure 2: Aerial

Adjacent Land Use and Zoning

	General Plan Designation	Zoning	Existing Land Use
North:	Planned Commercial	PC	Shopping Center
South:	Planned Commercial	PC	Shopping Center
East:	Planned Commercial	PC	Mall
West:	Planned Commercial	PC	Shopping Center

BACKGROUND

This item was continued from July 28, 2015 to August 25, 2015 to address comments received on July 27, 2015.

Planned Unit Development No. 2015-02 proposes the development of a shopping center including seven retail buildings, totaling 124,050 sq. ft., with shared access and parking and the development of a 35'-pylon sign. The project is located on the southwest corner of 12th Avenue and Lacey Boulevard. The General Plan designation for the subject property is Planned Commercial, and the property is zoned "PC". As shown in Exhibit "A".

The ***Tentative Parcel Map No. 2015-02*** pertains to one parcel, totaling approximately 9.3 acres. This request is to divide the one parcel into nine parcels. The property is designated by the General Plan as Planned Commercial, zoned "PC", and is located at the southwest corner of 12th Avenue and Lacey Boulevard (APN: 011-020-048). As shown in Exhibit "B".

On September 2014, ***Site Plan Review No. 2014-03*** approval letter was distributed for the

development to construct two multi-tenant buildings totaling 16,000 square footage at the southwest corner of 12th Avenue and Lacey Boulevard (APN 011-020-012).

On August 2013, ***Parcel Map Waiver No. 2013-02*** was recorded to adjust boundaries between 2 parcels.

On March 2015, ***Parcel Map Waiver No. 2014-10*** was recorded to adjust parcel A on the corner of 12th Avenue and Lacey Boulevard.

The site is not in a flood plain (Flood Insurance Rate Map Community Panel No. 06031C0185C, Zone X dated June 16, 2009).

PROJECT EVALUATION

Chapter 17.62 of the Zoning Ordinance allows a developer to apply for a Planned Unit Development (PUD) to deviate from standard development requirements, including design of the project, shared access and parking, and timing of development/phasing. The PUD is encouraged to achieve a more functional, aesthetically pleasing and harmonious living and working environment within the city, which might not be possible by strict adherence to the regulations in the Zoning Ordinance.

Land Use Element, Page LU-12:

PC, Planned Commercial: 0.15- 0.75 FAR

This designation includes planned shopping centers, highway-oriented retail uses (new or used vehicle sales are not allowed), and enclosed recreation facilities, planned shopping centers where retail and entertainment activities are concentrated and are intended to address market needs of the larger community and not compete with uses in the Downtown Commercial district. It is the City's intent to preserve the downtown as a viable commercial center. The Planned Commercial districts provide for retail commercial areas outside of the downtown commercial district of the city. These areas will be within a unified shopping-center complex to serve the community. Several major anchor tenants, along with supporting uses, would be expected at a Planned Commercial center. Specifically excluded from the PC areas are financial uses, furniture stores, professional offices and professional-service uses, commercial offices and commercial service uses. At least fifty-one (51) percent of the gross floor area of the building premises in which the Planned Commercial businesses will operate will be used for the retail sale of new merchandise. The fifty-one (51) percent gross floor area requirement may be reduced if the City determines that more than forty-nine (49) percent of the gross floor area of the business premises is required to perform other tasks directly associated with the retail sale of new merchandise. Included in the 49% are any services to be rendered to customers of the business premises that are incidental to, and specifically related to, the new merchandise sold upon the business premises.

Objective LU 9

Encourage regional retail shopping in Hanford, conveniently serve current and future residential needs, provide employment opportunities, contribute to the attractiveness of the community, be served by arterial streets, and contribute to the City's tax base.

Objective LU 10

Create a planned commercial development served by 12th Avenue and Lacey Boulevard that serves the local and regional shopping needs of Hanford and the surrounding area that does not compete with the Hanford Downtown.

Policy LU 10.1

Sites for planned commercial uses shall be designated on the Land Use Map and shall be limited to areas of approximately 1/2 mile around the intersection of Lacey Boulevard and 12th Avenue.

Elevations

The applicant has provided a detailed program for elevations. Through the PUD process, a development may be required to be developed with a cohesive design program. The elevations submitted comply with the surrounding shopping centers, including the previously constructed Target Center and the development currently underway on the southwest corner of 12th Avenue and Lacey Boulevard. See attached elevations, Exhibit "D".

Signage

The applicant has provided a detailed program for signs. Through the PUD process, a development may be required to maintain a cohesive sign design throughout. The developer has proposed a 35'-pylon sign to be located on Parcel B (Les Schwab property). There is a recorded easement between the developer and property owner of Parcel B (APN 011-020-049), which allows the developers of this particular planned unit development to request a 35'-pylon sign. See Exhibit "E" for the recorded easement.

In addition, the developers will include three monument signs to be located on Lacey Boulevard. All signs comply with the zoning ordinance and will be located on separate parcels having street frontage. The signs proposed comply with the surrounding properties' signage. See attached sign proposals, Exhibit "C".

Although the zoning ordinance specifies that freestanding poles are not allowed in the PC zone district, there is an exception to the rule in Chapter 17.44.050.

Exception: In the PC zone district freestanding (pole) signs are not permitted except for area identification signs as described in the following subsection I of this section.

I. Freestanding Area Identification Signs. One freestanding area identification sign displaying the name and/or logographic symbol of a shopping center and/or the names of other groupings of businesses, offices or services, or combinations thereof, not to exceed a total sign area of three hundred fifty (350) square feet, shall be permitted in addition to

separate store front signing. A freestanding (pole) sign is not permitted for each separate business or lots making up the grouping of buildings.

Such signs shall not advertise individual services or products. With the exception of theater marquees and announcements and bulletin boards, such freestanding area signs shall not include changeable copy signs for special events.

Parking and Access

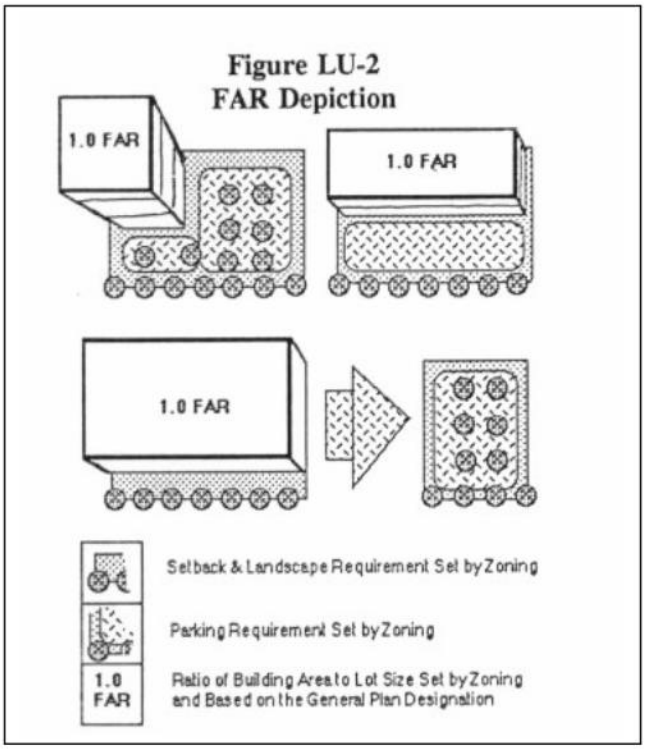
Sufficient parking is proposed onsite, using the formula prescribed by the Municipal Code for integrated shopping centers, "Uses within an integrated shopping center involving a combination of three or more uses permitted within the zone district for which building area, off-street parking, off-street loading, landscaping, lighting, and other features are developed, managed and maintained as if a single unit, three spaces for each one thousand (1,000) square feet of gross leasable area" (Hanford Municipal Code, Section 17.38.020 C 3a).

Calculation: 124,050 sq. ft. of commercial space ÷ 1,000 sq. ft. = 124.05 × 3 parking stalls = a **minimum of 373 parking stalls**.

The applicant has provided **433 parking stalls,** which exceeds the requirements of Hanford Municipal Code.

Floor Area Ratio (FAR)

For non-residential uses, the General Plan specifies a maximum permitted ratio of gross floor area to site (Floor Area Ratio or FAR). The FAR is intended to regulate bulk while allowing flexibility in determining the height and placement on the lot consistent with the City Zoning Ordinance. See Figure LU-2 below.



The property is 407,733 square feet, buildings onsite account for 124,050 square feet for a total floor area ratio (FAR) of 0.3. The General Plan prescribes a maximum FAR of .75 for the Planned Commercial District. The proposed FAR is consistent with the General Plan's maximum allowance.

FINDINGS FOR APPROVAL FOR PLANNED UNIT DEVELOPMENT

The Planning Commission is required to make six findings in accordance with Section 17.62.070 (J).

1. That the proposed location of the Planned Unit Development is in accordance with the objectives of the Zoning Ordinance. This finding can be made based on the following:

   ANALYSIS: The proposed development of a shopping center with mixed uses is permitted in the Planned Commercial zone. The proposed development meets the overall intent of the development standards within the PC zone, subject to the approval of a Planned Development Permit. The proposed uses are permitted, any conditional uses that may be proposed will require separate entitlements and review.

2. **That the proposed location 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 and will not generate more traffic than the streets in the vicinity can carry without congestion and will not overload utilities. This finding can be made based on the following:**

ANALYSIS: The proposed planned unit development has been evaluated and the location of the project and the conditions under which it would operate would not be detrimental to the public health, safety, or welfare of the community. The City of Hanford Building Division is responsible for ensuring that future construction of the site follows adopted building codes, thus reducing exposures to accidents to the general public. A traffic study was prepared for this project, which identified street improvements that would be required. The street improvements are currently under construction and will be completed in the next couple of weeks or sooner. This application has been reviewed by the County Health Department, Public Works Department, Fire Department, Building Division, and other involved departments and agencies. Any conditions required for public health and safety have been applied to this application as conditions of approval.

3. **That the proposed Planned Unit Development will comply with Section 17.62.010 pertaining to Planned Unit Developments and each of the other applicable provisions of the Zoning Ordinance. The finding can be made based on the following:**

A. Overall density and intensity of the project:

ANALYSIS: The proposed density is within the allowable range for Planned Commercial District. The applicant is requesting to construct seven retail buildings, totaling 124,050 square feet, with shared access and parking and to divide one parcel into nine parcels (as described in Table 1). The General Plan prescribes an allowable Floor Area Ratio (FAR) between 0.15 to 0.75 for the Planned Commercial District. The FAR for the project is .3, which is within the allowable density of the PC zone district.

B. Design of the project components including bulk of buildings, varying setbacks, architectural features, parking and storage requirements, open space and recreation areas:

ANALYSIS: The project’s design is functional, and sufficient parking is proposed onsite, using the formula prescribed by the Municipal Code for integrated shopping centers, the project is required to provide 373 parking spaces, 433 are provided.

The project's elevations have been reviewed and are consistent with the surrounding properties' exteriors.

C. Access requirements:

ANALYSIS: The project is provided shared access between parcels within the project and adjacent properties, consistent with the Hanford Municipal Code.

D. Impact on surrounding uses:

ANALYSIS: The project is consistent with the surrounding uses, which is primarily retail. The project has been designed to be compatible in design with the surrounding area and to be integrated by providing cross access.

E. Incorporation of amenities into the project to offset any reduction in yard and site areas or increased densities or other deviations from the provisions of this title:

ANALYSIS: The project's design is functional: cohesive architectural features, underground utilities, and shared access for parking create an offset of the proposed deviations from the standards of the "PC" Zone District for individual parcels.

F. Timing of development.

ANALYSIS: The project is an infill development project anticipated in the 2002 General Plan.

4. That the requirements and standards of the Zoning Ordinance, including, but not limited to, population, density, site area, dimensions, site coverage, yard spaces, loading facilities, landscaped area, and street design will produce an environment of suitable and desirable character consistent with the objectives of the Zoning Ordinance. The finding can be made based on the following:

ANALYSIS: The project is consistent with densities, site area, coverage, setbacks and parking as required by the Zoning Ordinance.

5. That 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 within the vicinity. This finding can be made based on the following:

ANALYSIS: Staff has reviewed the proposal in regard to City codes, regulations, and policies. The proposed project meets the intent of General Plan Policy LU 12, which encourages the development of planned shopping centers and is consistent with the land-use designation.

6. That the proposed Planned Unit Development will satisfactorily mitigate the potential environmental impacts in accordance with the provisions of California Environmental Quality Act (CEQA). This finding can be made based on the following:

ANALYSIS: The project site has no value as habitat for endangered, rare, or threatened species. An initial study was completed for this project in accordance with the California Environmental Quality Act (CEQA) Guidelines. As a result of the initial study, it is determined that the proposed Planned Unit Development No. 2015-02 and Tentative Parcel Map No. 2015-02 would not have a significant impact on the degradation of the quality of the environment. The project will not substantially reduce the habitat of a fish or wildlife species or cause a fish or wildlife population to drop below self-sustaining levels. The project will not threaten to eliminate a plant or animal community, 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/prehistory. The project does not have impacts that are cumulatively considerable; the effects of the project on the environment will not be significant.

FINDINGS FOR APPROVAL FOR TENTATIVE PARCEL MAP

Pursuant to Section 16.04.010 of the Subdivision Ordinance Code and Section 66474 of the Subdivision Map Act, the Planning Commission is required to make the following findings:

A. **Consistency Finding**: The proposed map is consistent with the applicable general and specific plans.

ANALYSIS: All proposed lots meet the minimum parcel-size requirement of the Municipal Code for the "PC" zone district.

B. **Design Finding**: The design or improvement of the proposed subdivision is consistent with the applicable general and specific plans.

ANALYSIS: The parcel map is being processed in accordance with the Subdivision Map Act.

C. **Type of Development Finding**: The site is physically suitable for the proposed density of development.

ANALYSIS: The proposed parcels have buildable lot configurations.

D. **Density Finding**: A density finding can be made because the site is physically suitable for the proposed density of development.

ANALYSIS: The parcels are within the urbanized area of the City and within the allowable densities in the General Plan. The site is flat and not located in a flood zone.

E. **Environmental Finding**: The design of the subdivision or the proposed improvements is unlikely to cause substantial environmental damage or substantially and avoidably injure fish or wildlife or their habitat.

ANALYSIS: The project site has no value as habitat for endangered, rare, or threatened species. An initial study was completed for this project in accordance with the California Environmental Quality Act (CEQA) Guidelines. As a result of the initial study, it is determined that the proposed Planned Unit Development No. 2015-02 and Tentative Parcel Map No. 2015-02 would not have a significant impact on the degradation of the quality of the environment. The project will not substantially reduce the habitat of a fish or wildlife species or cause a fish or wildlife population to drop below self-sustaining levels. The project will not threaten to eliminate a plant or animal community, 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/prehistory. The project does not have impacts that are cumulatively considerable; the effects of the project on the

environment will not be significant.

F. **Public Health Finding**: The design of the subdivision or type of improvements are not likely to cause serious public-health problems.

ANALYSIS: The project was reviewed by several departments and local agencies. We received comments from Kings County Environmental Health Services, and comments are included as conditions of approval.

G. **Improvements and Access Findings**: The design of the subdivision or the type of improvements will not conflict with easements, acquired by the public at large, for access through or use of, property within the proposed subdivision.

ANALYSIS: The site can be adequately served by all required utilities and public services. This application has been reviewed by County departments, utility companies, City Fire Department, City Building Division, and other involved departments, and there were no required mitigations for health purposes. Any off-site improvements: such as curbs, gutters, sidewalks, drive approaches, and transitional paving, when installed by the developer, will be inspected and/or verified to ensure the design, material, and installation of said improvements meet or exceed standards adopted by the City of Hanford.

ENVIRONMENTAL ASSESSMENT

A Negative Declaration is recommended for PUD 2015-02 and TPM 2015-02 based on the following:

An initial study was completed for this project, Exhibit F, in accordance with the California Environmental Quality Act (CEQA) Guidelines. As a result of the initial study, it is determined that the proposed Planned Unit Development No. 2015-02 and Tentative Parcel Map No. 2015-02 would not have a significant impact on the degradation of the quality of the environment. The project will not substantially reduce the habitat of a fish or wildlife species or cause a fish or wildlife population to drop below self-sustaining levels. The project will not threaten to eliminate a plant or animal community, 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/prehistory. The project does not have impacts that are cumulatively considerable. The effects of the project on the environment will not be significant.

On July 3, 2015, the City of Hanford released the Notice of Intent to Adopt Negative Declaration No. 2015-06 for the required 20-day comment period, which ended on July 23, 2015. During the comment period the city received three comments during the 20-day comment period from Kings County Environmental Health Services, San Joaquin Valley Air Pollution Control District, and M.R. Wolfe & Associates, P.C. Based on those comments, the City revised the initial study and recirculated the Proposed Negative Declaration. Copies of the letters received were included in

the recirculated initial study.

On July 30, 2015, the recirculated initial study and proposed negative declaration were released for public review for a 20 day review period, which ended on August 20, 2015. Two comment letters were received: MR Wolfe and San Joaquin Valley Air Pollution Control District, which are attached as Exhibit G. A response to those comment letters is as follows:

Letter from MR Wolfe representing Hanford Clean Air Coalition

Air Quality

The air quality impacts resulting from the build out of the general plan were evaluated in the Environmental Impact Report (EIR) certified for the 2002 General Plan Update. The project is consistent with the land use designation and densities identified in the General Plan Update. The densities evaluated in the 2002 General Plan EIR for Planned Commercial designation were a Floor Area Ratio (FAR) of .7, the proposed project has an FAR of .3, which is well within the levels identified in the 2002 General Plan EIR. Further, the EIR identified that buildout of the General Plan would result in Air Quality impacts that are significant and unavoidable, therefore a Statement of Overriding Considerations was adopted when the EIR was certified and the General Plan Update was adopted. In addition, the San Joaquin Valley Air Pollution Control District adopted Rule 9510 in 2005, which provides a mechanism for development project to reduce air quality impacts through design and payment of off-site mitigation fees. The proposed project is subject to Rule 9510. No evidence was submitted to the City of Hanford that would support a finding that the air quality analysis prepared for the 2002 General Plan Update EIR did not include the impacts identified with the proposed project.

Toxic Air Contaminants

The City of Hanford utilized the *Guidance for Assessing and Mitigating Air Quality Impacts* published by the San Joaquin Valley Air Pollution Control District and the Air Resources Board Handbook *Air Quality and Land Use Handbook: A Community Health Perspective* to determine whether additional analysis of Toxic Air Contaminants would be required. The Handbook identified the following commercial uses as sources of businesses as potentially emitting air pollutants and would require the preparation of a health risk assessment: Freeways and High-Traffic Roads, Distribution Centers, Rail Yards, Ports, Refineries, Chrome Platers, Dry cleaners using Perchloroethylene, and Gasoline Dispensing Facilities. The proposed project does not include any of the listed uses, therefore it was determined that a health risk assessment was not required. No new information or evidence has been submitted to support a finding that TAC's will be emitted that would require the preparation of a health risk assessment.

Greenhouse Gases

The initial study references the adopted Climate Action Plan adopted by the City Council in 2014. The Guidelines for adding Greenhouse Gases published by the California Office of Planning and Research state that a Climate Action Plan or other greenhouse reduction plans may be used to determine whether a project has a significant impact, based on its compliance with the plan. The proposed project is in compliance with the adopted Climate Action Plan and is

required to comply with the Plan, the General Plan (specifically the Air Quality Element), the Municipal Code and any rules and regulations applicable by other agencies such as the San Joaquin Valley Air Pollution Control District. Specifically, the project is consistent with the Climate Action Plan in that it is an infill project located near transit, will be integrated into existing adjacent project to reduce vehicle trips, and will plant trees in accordance with City requirements. No new information was submitted to support a finding that the proposed project is not consistent with the adopted Climate Action Plan.

Letter from San Joaquin Valley Air Pollution Control District

The City of Hanford's standard condition of approval include a requirement to comply with all Rules and Regulations of the San Joaquin Valley Air Pollution Control District (District), including Rule 9510. Rule 9510 is required by any project exceeding 10,000 square feet to reduce a project's impact on air quality through project design element or by payment of applicable off-site mitigation fees, as stated on Page 2 of the District letter. The District also recommends that the City require an assessment of the feasibility of implementing a Voluntary Emission Reduction Agreement (VERA). As of the date of preparation of this staff report, staff could not determine whether a VERA is a feasible mitigation measure. The District was closed and unable to provide the City with projected costs to determine whether the VERA would render the project economically infeasible. If the costs associated with the requirement of a VERA are substantial and would cause the project to be economically infeasible, then the requirement would be considered infeasible for purposes of CEQA. Staff will pursue further discussions with the District and the applicant, and provide additional information to the Planning Commission. In the event a VERA is infeasible in this matter, the project is consistent with the land use and densities considered in the 2002 General Plan Update EIR and as such, the Statement of Overriding Considerations for Air Quality is applicable may be referenced as part of the adoption of the Negative Declaration.

Based on the initial study and comments received, it has been determined that Negative Declaration No. 2015-06 is recommended for approval for PUD 2015-02 and TPM 2015-02.

REQUIRED CONDITIONS

Conditions of approval appear in Resolution 2015-23 (PUD) and 2015-24 (TPM).

Applicant/Engineer
Borges Architectural Group
1478 Stone Point Drive #350
Roseville, CA 95661

Property Owner
Hanford Partners LLC
1508 Eureka Road #230
Roseville, CA 95661

FISCAL IMPACT:
None

ATTACHMENTS:
PUD PC RESO 8-25-15

TPM PC RESO 8-25-15
Location Map
Exhibit A Site Plan
Exhibit B - Tentative Parcel Map
Exhibit C - Pylon Sign
Exhibit D- Handford Shopping Center (Anchor Building)
Exhibit D - Handford Shopping Center (Building C)
Exhibit D - Handford Shopping Center (Building D) (2)
Exhibit D - Handford Shopping Center (Building E)
Exhibit E - Pylon Sign Easement and Operating Agreement
Exhibit F -NEGDEC INITIAL STUDY RECIRC
Exhibit F - ISND Attachments Part 1
Exhibit F - ISND Attachments Part 2
Exhibit G - MR Wolfe and SJVAPCD Comment Letters

RESOLUTION 2015-23

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF HANFORD APPROVING PLANNED UNIT DEVELOPMENT 2015-02, A PROPOSAL TO CONSTRUCT SEVEN RETAIL BUILDINGS TOTALING 124,300 SQUARE FEET WITH SHARED ACCESS AND PARKING, AND ALLOWING A 35-FOOT PYLON SIGN IN THE "PC" PLANNED COMMERCIAL ZONE DISTRICT

At a regular meeting of the Planning Commission of the City of Hanford duly called and held on August 25, 2015 on motion of Commissioner , seconded by Commissioner , and duly carried, the following resolution was adopted:

WHEREAS, the Planning Commission of the City of Hanford conducted a public hearing in accordance with Chapter 17.62 of the Hanford Municipal Code pertaining to Planned Unit Development No. 2015-02, filed by Hanford Partners, LLC, proposing to construct seven retail buildings, totaling 124,300, square feet with shared access and parking, and to allow a 35-foot pylon sign in the "PC" Planned Commercial Zone District, located on the southwest corner of 12th Avenue and Lacey Boulevard (APN: 011-020-048 –assessor will provide an updated APN); and

WHEREAS, the Planning Commission has carefully considered recommendations and testimony presented at the public hearing of July 28, 2015; and

WHEREAS, an initial study was prepared for the project, which determined that the project would not result in significant impacts and Negative Declaration No. 2015-06 was prepared;

WHEREAS, the Initial Study and Negative Declaration No. 2015-06 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

WHEREAS, on the basis of the application, the documentation and information provided in the staff report and the evidence and testimony submitted at the public hearing, and the Initial Study prepared for the project, the Planning Commission of the City of Hanford hereby makes findings in accordance with Section 15074 of the CEQA Guideline that the certification is based on the whole record before it, including the initial study and any comments and that there is no substantial evidence that the project will have a significant effect on the environment; and

WHEREAS, the initial study relied upon the Final Environmental Impact Report certified for the 2002 General Plan Update, for which a Statement of Overriding

Attachment: PUD PC RESO 8-25-15 (1031 : Planned Unit Development 2015-02 and Tentative Parcel Map 2015-02)

Considerations was adopted pertaining to Air Quality, Resolution No. 02-39-R incorporated by reference.

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 Planning Commission hereby makes the following findings pursuant to Section 17.62.070(J) of the Zoning Ordinance:

1. That the proposed location of the Planned Unit Development is in accordance with the objectives of the Zoning Ordinance. This finding can be made based on the following:

   ANALYSIS: The proposed development of a shopping center with mixed uses is permitted in the Planned Commercial zone. The proposed development meets the overall intent of the development standards within the PC zone, subject to the approval of a Planned Development Permit. The proposed uses are permitted, any conditional uses that may be proposed will require separate entitlements and review.

2. **That the proposed location 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 and will not generate more traffic than the streets in the vicinity can carry without congestion and will not overload utilities. This finding can be made based on the following:**

   ANALYSIS: The proposed planned unit development has been evaluated and the location of the project and the conditions under which it would operate would not be detrimental to the public health, safety, or welfare of the community. The City of Hanford Building Division is responsible for ensuring that future construction of the site follows adopted building codes, thus reducing exposures to accidents to the general public. A traffic study was prepared for this project, which identified street improvements that would be required. The street improvements are currently under construction and will be completed in the next couple of weeks or sooner. This application has been reviewed by the County Health Department, Public Works Department, Fire Department, Building Division, and other involved departments and agencies. Any conditions required for public health and safety have been applied to this application as conditions of approval.

3. **That the proposed Planned Unit Development will comply with Section 17.62.010 pertaining to Planned Unit Developments and each of the other applicable provisions of the Zoning Ordinance. The finding can be made based on the following:**

   A. Overall density and intensity of the project:

      ANALYSIS: The proposed density is within the allowable range for Planned Commercial District. The applicant is requesting to construct seven retail

Attachment: PUD PC RESO 8-25-15 (1031 : Planned Unit Development 2015-02 and Tentative Parcel Map 2015-02)

buildings, totaling 124,050 square feet, with shared access and parking and to divide one parcel into nine parcels (as described in Table 1). The General Plan prescribes an allowable Floor Area Ratio (FAR) between 0.15 to 0.75 for the Planned Commercial District. The FAR for the project is .3, which is within the allowable density of the PC zone district.

B. Design of the project components including bulk of buildings, varying setbacks, architectural features, parking and storage requirements, open space and recreation areas:

ANALYSIS: The project's design is functional, and sufficient parking is proposed onsite, using the formula prescribed by the Municipal Code for integrated shopping centers, the project is required to provide 373 parking spaces, 433 are provided.

The project's elevations have been reviewed and are consistent with the surrounding properties' exteriors.

C. Access requirements:

ANALYSIS: The project is provided shared access between parcels within the project and adjacent properties, consistent with the Hanford Municipal Code.

D. Impact on surrounding uses:

ANALYSIS: The project is consistent with the surrounding uses, which is primarily retail. The project has been designed to be compatible in design with the surrounding area and to be integrated by providing cross access.

E. Incorporation of amenities into the project to offset any reduction in yard and site areas or increased densities or other deviations from the provisions of this title:

ANALYSIS: The project's design is functional: cohesive architectural features, underground utilities, and shared access for parking create an offset of the proposed deviations from the standards of the "PC" Zone District for individual parcels.

F. Timing of development.

ANALYSIS: The project is an infill development project anticipated in the 2002 General Plan.

4. That the requirements and standards of the Zoning Ordinance, including, but not limited to, population, density, site area, dimensions, site coverage, yard spaces, loading facilities, landscaped area, and street design will produce an environment of suitable and desirable character consistent with the objectives of the Zoning Ordinance. The finding can be made based on the following:

ANALYSIS: The project is consistent with densities, site area, coverage, setbacks and parking as required by the Zoning Ordinance.

5. **That 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 within the vicinity. This finding can be made based on the following:**

   ANALYSIS: Staff has reviewed the proposal in regard to City codes, regulations, and policies. The proposed project meets the intent of General Plan Policy LU 12, which encourages the development of planned shopping centers and is consistent with the land-use designation.

6. **That the proposed Planned Unit Development will satisfactorily mitigate the potential environmental impacts in accordance with the provisions of California Environmental Quality Act (CEQA). This finding can be made based on the following:**

   ANALYSIS: The project site has no value as habitat for endangered, rare, or threatened species. An initial study was completed for this project in accordance with the California Environmental Quality Act (CEQA) Guidelines. As a result of the initial study, it is determined that the proposed Planned Unit Development No. 2015-02 and Tentative Parcel Map No. 2015-02 would not have a significant impact on the degradation of the quality of the environment. The project will not substantially reduce the habitat of a fish or wildlife species or cause a fish or wildlife population to drop below self-sustaining levels. The project will not threaten to eliminate a plant or animal community, 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/prehistory. The project does not have impacts that are cumulatively considerable; the effects of the project on the environment will not be significant.

THEREFORE, BE IT RESOLVED that Planned Unit Development No. 2015-02 be approved subject to the following conditions:

ADMINISTRATION DEPARTMENT
Contact the City Attorney: (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.

2. That the applicant's obligations to defend, indemnify and hold the City, its officials, officers and employees, representatives, agents and attorneys harmless under the provisions of this paragraph shall include, but not be limited to, the cost of preparation of any administrative record by City, staff time, copying costs, court costs, the costs of any judgments or awards against the City for damages, losses, litigation costs, or attorney's fees arising out of a suit or challenge contesting the adequacy of any approval of the environmental document, or any approval related to the Project, and the costs of any settlement representing damages, litigation costs and attorney's fees to be paid to other parties arising out of a suit or challenge contesting the adequacy of the approval of the environmental document or any other approval related to the Project, if the settlement so provides.

3. That the City may, at any time, require the applicant to reimburse City for costs that have been, or which the City reasonably anticipates will be, incurred by the City during the course of any action. Applicant shall reimburse City within thirty (30) days of receipt of an itemized written invoice from City. Failure of the Applicant to timely reimburse the City shall be considered a material violation of the conditions of approval of the Project.

4. That the applicant shall comply with and shall require all contractors to comply with all prevailing wage laws, rules and regulations applicable to the Project. Unless otherwise advised in writing by the City of Hanford, Applicant shall be solely responsible for making any and all decisions regarding whether any portion or aspect of the Project, including, without limitation, any form of reimbursement by the City of Hanford to the Applicant or any contractor, will require the payment of prevailing wages. Further, Applicant will be solely responsible for the payment of any claims, fines, penalties, reimbursements, payments or any other actions that may be initiated against Applicant or any contractor as a result of failure to pay prevailing wages.

5. That the applicant shall defend, indemnify, and hold harmless the City of Hanford, its officials, officers, employees, representatives, agents and attorneys, from and against any and all claims, damages, losses, judgments, liabilities, expenses and other costs, including, without limitation, litigation costs and attorney's fees, arising out of, resulting from, or in any way in connection with any violation or claim of violation of any prevailing wage law, rule or regulation applicable to any portion or aspect of the Project. Applicant's obligation to defend, indemnify and hold the City of Hanford harmless specifically includes, but is not limited to, any suit or administrative action against the City of Hanford which claims a violation of any prevailing wage law, rule or regulation applicable to any portion or aspect of the Project.

6. That the applicant obligations to defend, indemnify and hold the City of Hanford, its officials, officers, employees, representatives, agents and attorneys harmless as set forth herein, shall include, but shall not be limited to, staff time, copying costs, court costs, the costs of any judgments or awards against the City of Hanford for damages, losses, litigation costs, or attorney fees arising out of any violation or claim of violation of any prevailing wage law, rule or regulation applicable to any portion or

aspect of the Project and costs of any settlement representing damages, litigation costs and attorney's fees to be paid to other parties arising out of any such proceeding or suit.

7. That the City of Hanford may, at any time, require the Applicant to reimburse the City of Hanford for costs that have been, or which the City of Hanford reasonably anticipates will be, incurred by the City of Hanford during the course of any action. Applicant shall reimburse the City of Hanford within thirty (30) days of receipt of an itemized written invoice from the City of Hanford. Failure of the Applicant to timely reimburse the City of Hanford shall be considered a material violation of the conditions of approval of the Project.

PLANNING DEPARTMENT

Contact Senior Planner: Melody N. Haigh (559) 585-2583
Concerning questions that you may have on the conditions listed below:

General:

1. That approval of this project does not exempt compliance with all applicable sections of the Uniform Fire and Building Codes, Zoning Ordinance, Public Works Improvement Standards, and other City Ordinances.

2. That all approved proposals of the application be conditions of development if not mentioned herein.

3. That the general design of the planned unit development be approved with minor modifications being approved by the Community Development and Public Works Departments.

4. That the applicant hereby agrees to hold the City of Hanford and all of its departments, officers, agents, and employees free and harmless of and from all claims of any kind or nature arising out of or by reason of the approval of this project.

5. That the applicant applies for the monument signs through the Planning Department.

6. That all architectural design and colors must be approved through the Community Development Department.

7. That the applicant complies with the San Joaquin Valley Air Pollution Control District rules and regulations.

8. That the applicant develop the non anchor buildings prior to the major anchor building.

BUILDING DIVISION

Contact Building Official: Tom Webb (559) 585-2584
Concerning questions that you may have on the conditions listed below:

1. That building permits must be obtained from the City Building Division for any structural, plumbing, electrical, or mechanical work being done.

2. That no building or structure shall be used or occupied until the building official has approved the construction and issued a Building Certificate of Occupancy.

3. That detailed dimensioned plans be provided to the Building Division prior to obtaining construction permits.

4. That the buildings will require plans and calculations signed by an architect or engineer licensed to practice in the State of California. Submittal shall consist of:

4.1 1 copy of the City of Hanford Permit Application form

4.2 6 complete sets of Drawings, unless noted, including:

4.2.1 Grading Plan (Civil Drawings)
4.2.2 Site Plan
4.2.3 *Landscaping Plan, all lots to meet City of Hanford Landscape Ordinance*
4.2.4 Architectural Drawings
4.2.5 Structural Drawings
4.2.6 Electrical Drawings
4.2.7 Mechanical Drawings
4.2.8 Plumbing Drawings
4.2.9 Planning Dept. “Conditions of Approval” or “Resolution” printed on the drawings and part of the drawing submittal
4.2.10 A minimum of 2 sets shall be stamped and wet signed by an Architect or Engineer licensed in the State of California, as per state law.

4.3 2 complete sets of documentation, unless noted, including:

4.3.1 Architectural Specifications
4.3.2 Structural Calculations
4.3.3 Electrical Calculations, if not included on the drawings
4.3.4 Mechanical Calculations, if not included on the drawings
4.3.5 Plumbing Calculations, if not included on the drawings
4.3.6 Energy Calculations, if not included on the drawings
4.3.7 **Compliance with the City of Hanford Landscape Ordinance**
4.3.8 A minimum of 2 sets shall be stamped and wet signed by an Architect or Engineer licensed in the State of California, as per state law.

5. That separate sewer and water services be provided to each building.

6. That separate gas and electric services be provided to each building.

8. That a preliminary soils report, prepared by a qualified soils engineer, be provided to the Engineering and Building Divisions prior to approval of site improvement plans. The soils report shall comply with the 2013 California Building Code, Section 1803.

9. That a final soils report, prepared by a qualified soils engineer, be provided to the Engineering and Building Divisions before issuance of building permits.

10. That a school impact fee of $0.54 (or revision thereof) for each square foot of new building area be paid when building permits are issued.

11. That all special inspection reports be submitted to the Building Division prior to final inspection.

12. That the addresses shall be assigned by the Building Division.

13. That all construction shall conform to the 2013 Edition, California Building Code, California Electrical Code, California Mechanical Code, California Plumbing Code, California Fire Code, California Energy Code and the City of Hanford Municipal Code .

14. That 6 sets of grading plans, **including the block wall engineering** be submitted to the Building Division and proper permits obtained prior to the commencement of work.

PUBLIC WORKS DEPARTMENT

Contact Jose Lemus, Senior Engineer at (559) 585-2556
Concerning questions that you may have on the conditions listed below:

General Requirements:

1. That Developer comply with the City of Hanford Public Works Construction Standards and Specifications requirements. Any deviation from said standards and specifications must be approved by the City Engineer prior to construction.

2. That an Encroachment Permit for all work located within the public street right-of-way shall be obtained from the Public Works Department prior to start of work. For additional information regarding Encroachment Permit requirements, contact the City Engineering Division at (559) 585-2558.

3. That the development is subject to a Grading Plan Review fee in accordance with City Resolution No. 10-31 R, or any revisions thereof. The Grading Plan review fee is $ **6,070.60** and shall be payable prior to issuance of a building permit.

4. That the development is subject to Engineering Plan Review and Inspection fee based on the cost of improvements required to be constructed within the public street right of way, in accordance with City Resolution No. 92-58-R, or any revisions thereof. Subject fees shall be payable prior to approval of improvement plans.

5. That all financial and other arrangements for planning, engineering, scheduling, installation of and/or relocation/undergrounding of electric, gas, telecommunications, or other privately owned utilities are the sole responsibility of the developer. The developer is advised that significant project delays may result if utility issues are not resolved prior to start of construction.

6. That existing utility poles and appurtenances located along the development frontage of Lacey Boulevard shall be installed underground at developer's expense.

7. That all work within the public street right-of-way shall be under the control of a General Engineering Contractor, licensed for that purpose. Contractor shall verify all conditions in the field prior to commencing construction.

8. That locations of existing water, sanitary sewer and storm drain mains in the vicinity of the project site will be marked by Public Works Department staff based upon the city's best available records. Contractor shall provide city with a minimum of 48 hours prior notice when requesting location of existing utilities at (559) 585-2564. The City of Hanford is not a member of Underground Service Alert (U.S.A.).

9. That all sewer and water utility work and materials shall conform to City of Hanford Standards and Specifications, latest edition. All Utility connections located within 12th Avenue and W. Lacey Boulevard shall be bored.

Map and Plan Requirements:

1. That the developer shall submit to the City Engineer a set of construction plans on 24" X 36"-size sheets for all required improvements. The plans shall be prepared by a licensed civil engineer and shall include a site plan showing all on-site and off-site improvements, including but not limited to, sanitary sewer, storm drainage, and water system infrastructure, refuse enclosure locations, public street and parking lot improvements, landscape and irrigation systems and all other improvements as required by the project conditions of approval and the City of Hanford Standards and Specifications. Plans must be approved by the City of Hanford and any other affected agencies before issuance of building permits.

2. That prior to beginning any construction, or within twenty (20) calendar days after the approved plans are released by the City, the developer shall submit to the City of Hanford Engineering Division one (1) reproducible and four (4) bond copies of the approved set of construction plans, and two (2) bound sets of the approved construction specifications, if any.
3. That within twenty (20) calendar days after all improvements have been constructed and accepted by the City, the developer shall submit to the City of Hanford Engineering Division one (1) reproducible and one (1) bond copy of the approved set of improvement construction plans revised to reflect all field revisions and marked "RECORD DRAWING".

Drainage Requirements:

1. That site grading and drainage shall comply with approved grading and improvement plans for the development. Upon completion of construction, the developer's engineer shall provide a written statement that site grading and drainage has been completed in accordance with the approved plans.
2. That the developer shall comply with all applicable State of California requirements pursuant to the National Pollutant Discharge Elimination System (NPDES). If

applicable to the project, a Notice of Intent for the development shall be electronically filed by the developer and accepted by the State Water Resource Control Board (SWRCB) prior to any disturbance of soils onsite. Documentation of SWRCB approval of the development shall be required by the City of Hanford prior to start of construction, and the developer shall comply with all SWRCB General Construction Permit requirements during construction. Contact the SWRCB at www.swrcb.ca.gov for further information.

3. That track-out of soil, gravel, or other construction-related materials onto public streets is prohibited.

Street Right-of-Way Dedication and Easement Requirements:

1. That the development shall be subject to a reciprocal agreement providing for shared ingress and egress, parking, onsite utility access and maintenance with proposed development located adjacent to the project site. Said reciprocal agreement shall be recorded with the Kings County Recorder to guarantee each property owner and their tenants the reasonable use of, and access to, all onsite shopping-center facilities required and intended for reciprocal use. The developer shall be responsible for the cost of preparation of the reciprocal agreement and the recording costs thereof. The reciprocal agreement shall be subject to city review and approval prior to being recorded, and a copy of the recorded agreement shall be provided to the city prior to issuance of building permits.

Street Requirements:

1. That 12th Avenue shall be widened and developed as an arterial street from Lacey Boulevard to the north boundary of the Target Center in conformance with City Construction Standards ST-17 & ST -20 (modified to facilitate additional travel lanes and pavement width). Improvements shall include, but not be limited to, the installation of curb & gutter, sidewalk, street lights, street striping, signing and pavement widening. Traffic index used for the design of street structural section shall be a minimum of 10.0.

2. That Lacey Boulevard shall be widened and developed as an arterial street from 12th Avenue to the west boundary of project site, including the installation of a minimum 90-foot transitional approach lane located west of the first proposed drive approach west of 12th Avenue. Improvements shall include, but not be limited to, the installation of curb and gutter, sidewalk, street lights, street striping, signing, and pavement widening. Traffic index used for the design of street structural section shall be a minimum of 10.0.

3. That the existing traffic signal system located at the intersection of 12th Avenue/ Lacey Boulevard shall be modified to facilitate the installation of dual left-turn lanes to the east and west legs of the intersection. Improvements shall include, but not be limited to, the installation of a new signal pole and appurtenances at the southwest corner of the intersection, median-island modifications, striping, signing, and

pavement markings. Traffic-signal modification improvement plans shall be prepared by a registered traffic engineer for Public Works Department review/approval.

4. That the development is subject to a transportation-mitigation impact fee, as required by City Municipal Code Section 15.48 and any revisions thereof. Developer shall be entitled to a credit towards the project's impact fee for permanent street-widening improvements constructed by developer within 12th Avenue and Lacey Boulevard, consisting of curb and gutter, median curb, street pavement, striping, signing and traffic-signal modifications which provide additional travel capacity. Transitional pavement improvements that are not considered to be permanent improvements will not be subject to a fee credit. Developer shall be required to submit competitive bid proposals to substantiate the cost of reimbursable improvements for City Public Works Department review and approval prior to beginning construction. All documentation shall be well organized and tabulated for convenient reference by Public Works Department staff. Improvement quantities and costs for reimbursement must be clearly identified in the documentation provided, and not combined or aggregated with non-reimbursable items.

5. That development is responsible for the payment of a proportionate share of future improvement costs as mitigation for impacts to the intersection of 13th Avenue/Highway 198 interchange as identified in Traffic Impact report for project prepared by the firm of Peters Engineering Group dated 8/11/2014 as Report No. 14-017.01. Payment of applicant's fair share of improvement costs shall be prorated and collected by City prior to the recording of a final parcel map. Mitigation fees shall be held in a separate interest-bearing account and reserved for future improvements as identified in the Traffic Impact Study.

Sidewalk Requirements:

1. That minimum 7'-6" attached concrete sidewalks shall be constructed, in conformance with City Std. CO-15, along the entire project development frontage.

Drive-Approach Requirements:

1. That drive approaches located as shown on the approved Site Plan shall be constructed with easy access-type returns approved by the City Engineer as to driveway width and design. All drive approaches shall be constructed in compliance with ADA requirements in order to provide continuous pedestrian and disabled access along the project frontage.

Parking Lot Requirements:

1. That the design and construction of the parking lot improvements shall conform to City Standards GE-29 and GE-32.

Soil Requirements:

1. That a Preliminary Soils Report, prepared by a qualified Soils Engineer, be provided to the Engineering and Building Divisions prior to approval of development improvement plans.

2. That a final soils report, prepared by a qualified Soils Engineer, be provided to the Engineering and Building Divisions prior to acceptance of development improvements by the City or issuance of building permits or whichever comes first.

3. That Developer retain the Design Engineer to inspect and verify that all grading within the development is completed in conformance with approved plans. Design Engineer shall be required to provide a certification letter to the Building Division prior to issuance of any building permits.

Sanitary Sewer Requirements:

1. That the developer shall furnish and install any new sanitary sewer lateral services required for the project. Separate sewers are required for each building.

2. That the developer shall furnish, install, and maintain a grease-trap assembly on all sewer laterals receiving process water from commercial food-preparation facilities, if applicable. Grease-trap assemblies shall conform to the requirements of the Uniform Plumbing Code, latest edition, and shall be approved by the City Building Official prior to installation.

Water System Requirements:

1. That the developer shall provide an accurate fixture-unit count and size water services in accordance with the requirements of the Uniform Plumbing Code, latest edition.

2. That the developer shall furnish and install any new water-service assemblies required for the project, including water meters and meter boxes for both domestic and landscape uses.

3. That the developer shall furnish and install appropriate cross connection / backflow prevention assemblies for all required water services, including fire service lines.

4. That all backflow-prevention assemblies required for the development shall be tested and approved by a certified technician prior to occupancy. Copies of all backflow test results shall be provided to the City of Hanford Utilities Division.

Development Impact Fees:

1. That development is subject to the following impact fees, in accordance with City ordinances No. 90-09, 90-10, 92-03, 98-14, and 05-16, or any revisions thereof. Fees to be determined at time of development. All fees will be based upon the Development Agreement as approved by the City Council. All fees are payable prior to issuance of building permits, unless approved otherwise by City Engineer.

Refuse Requirements:

1. That five (5) 10' x 20' inside clear-dimension masonry-block refuse enclosures with 6'-high perimeter walls shall be constructed in accordance with City Std. GE-35, each with 5' x 10' inside clear-dimension masonry-block grease-bin container enclosures with 6'-high perimeter walls, modified to include installation of 12" x 12" interior concrete curbs. If enclosure will be used to service restaurants then a separate grease-bin container area shall be constructed in accordance with City standard GE- 41. The refuse enclosure shall have gates of chain-link fencing with earth-tone color vinyl slats or other approved gate materials. The enclosure shall be architecturally compatible with surrounding buildings, and the location of the enclosure shall be approved by both the Public Works and Community Development Departments.
2. That nothing other than the city refuse bins shall be stored or kept in refuse enclosures.
3. That refuse-enclosure gates shall be securely closed except when in use.
4. That refuse enclosures shall not be located adjacent to combustible construction or beneath windows or non-protected eaves.
5. That the applicant shall participate in all available waste recycling and reuse programs.

THEREFORE, BE IT FURTHER RESOLVED, that based on the above and incorporated findings, the Planning Commission approves Planned Unit Development 2015-02.

PASSED AND ADOPTED at a regular meeting of the Planning Commission of the City of Hanford by the following vote:

AYES: Commissioners
NOES: Commissioners
ABSTAIN: Commissioners
ABSENT Commissioners

STATE OF CALIFORNIA)
COUNTY OF KINGS)ss
CITY OF HANFORD)

I, **Darlene R. Mata**, Secretary of the Planning Commission of the City of Hanford, do hereby certify the foregoing Resolution was duly passed and adopted by the Planning Commission of the City of Hanford at a regular meeting thereof held on the 25th day of August, 2015.

Attachment: PUD PC RESO 8-25-15 (1031 : Planned Unit Development 2015-02 and Tentative Parcel Map 2015-02)

Darlene R. Mata, Secretary

RESOLUTION 2015-24

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF HANFORD APPROVING TENTATIVE PARCEL MAP NO. 2015-02, A PROPOSAL TO DIVIDE ONE PARCEL, TOTALING 9.3 ACRES, INTO NINE SEPARATE PARCELS IN THE "PC" PLANNED COMMERCIAL ZONE DISTRICT

At a regular meeting of the City of Hanford Planning Commission duly called and held on August 25, 2015 on motion of Commissioner , seconded by Commissioner , and duly carried, the following resolution was adopted:

WHEREAS, the Planning Commission of the City of Hanford conducted a public hearing in accordance with Title 16 of the Hanford Municipal Code pertaining to Tentative Parcel Map No. 2015-02, filed by Hanford Partners, LLC, proposing to divide one parcel, totaling approximately 9.36 acres (407,733 sq. ft.), into nine parcels in the "PC" Planned Commercial Zone District. The project is located on the southwest corner of 12th Avenue and Lacey Boulevard (APN: 011-020-048 –which assessor will provide an updated APN).

WHEREAS, Tentative Parcel Map No. 2015-02 has been reviewed by the Planning Commission of the City of Hanford as an advisory agency in accordance with Title 16 of the Hanford Municipal Code; and

WHEREAS, the configuration of the proposed parcel is shown on attached Exhibit "A"; and

WHEREAS, all affected public utility companies, various governmental department agencies, and the Planning Commission staff have given careful consideration to this tentative map and have made recommendations thereon; and

WHEREAS, an initial study was prepared for the project, which determined that the project would not result in significant impacts and Negative Declaration No. 2015-06 was prepared;

WHEREAS, the Initial Study and Negative Declaration No. 2015-06 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

WHEREAS, on the basis of the application, the documentation and information provided in the staff report and the evidence and testimony submitted at the public hearing, and the Initial Study prepared for the project, the Planning Commission of the City of Hanford hereby makes findings in accordance with Section 15074 of the CEQA Guideline that the certification is based on the whole record before it, including the initial study and any comments and that there is no substantial evidence that the project will have a significant effect on the environment; and

Attachment: TPM PC RESO 8-25-15 (1031 : Planned Unit Development 2015-02 and Tentative Parcel Map 2015-02)

WHEREAS, the initial study relied upon the Final Environmental Impact Report certified for the 2002 General Plan Update, for which a Statement of Overriding Considerations was adopted pertaining to Air Quality, Resolution No. 02-39-R incorporated by reference.

WHEREAS, 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 Planning Commission hereby makes the following findings pursuant to Section 66474 of the Subdivision Map Act:

A. **Consistency Finding**: the proposed map is consistent with the applicable general and specific plans.

   ANALYSIS: All proposed lots meet the minimum parcel size requirement of the Municipal Code for the "PC" zone district.

B. **Design Finding**: the design or improvement of the proposed subdivision is consistent with the applicable general and specific plans.

   ANALYSIS: The parcel map is being processed in accordance with the Subdivision Map Act.

C. **Type of Development Finding**: the site is physically suitable for the proposed density of development.

   ANALYSIS: The proposed parcels have buildable lot configurations.

D. **Density Finding**: a density finding can be made because the site is physically suitable for the proposed density of development.

   ANALYSIS: The parcels are within the urbanized area of the City. The site is flat and not located in a flood zone.

E. **Environmental Finding**: the design of the subdivision or the proposed improvements is unlikely to cause substantial environmental damage or substantially and avoidably injure fish or wildlife or their habitat.

   ANALYSIS: The project site has no value as habitat for endangered, rare or threatened species. An initial study was completed for this project in accordance with the California Environmental Quality Act (CEQA) Guidelines. As a result of the initial study, it is determined that the proposed Planned Unit Development No. 2015-02 and Tentative Parcel Map No. 2015-02 would not have a significant impact on the degradation of the quality of the environment. The project will not substantially reduce the habitat of a fish or wildlife species or cause a fish or wildlife population to drop below self-sustaining levels. The project will not threaten to eliminate a plant or animal community, reduce the number or restrict

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the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history/prehistory. The project does not have impacts that are cumulatively considerable; the effects of the project on the environment will not be significant.

F. **Public Health Finding**: the design of the subdivision or type of improvements are not likely to cause serious public health problems.

ANALYSIS: The project was reviewed from several departments and local agencies. We received comments from Kings County Environmental Health Services and comments are included as conditions of approval.

G. **Improvements & Access Findings**: the design of the subdivision or the type of improvements will not conflict with easements, acquired by the public at large, for access through or use of, property within the proposed subdivision.

ANALYSIS: The site can be adequately served by all required utilities and public services. This application has been reviewed by County departments, utility companies, City Fire Department, City Building Department, and other involved departments and there were no required mitigations for health purposes. Any off-site improvements such as curbs, gutters, sidewalks, drive approaches, and transitional paving, when installed by the developer, will be inspected and/or verified to ensure the design, material, and installation of said improvements meet or exceed standards adopted by the City of Hanford.

THEREFORE, BE IT RESOLVED that Tentative Parcel Map No. 2015-02 be approved subject to the following conditions:

ADMINISTRATION DEPARTMENT
Contact the City Attorney: (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.

2. That the applicant's obligations to defend, indemnify and hold the City, its officials, officers and employees, representatives, agents and attorneys harmless under the provisions of this paragraph shall include, but not be limited to, the cost of preparation of any administrative record by City, staff time, copying costs, court

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costs, the costs of any judgments or awards against the City for damages, losses, litigation costs, or attorney's fees arising out of a suit or challenge contesting the adequacy of any approval of the environmental document, or any approval related to the Project, and the costs of any settlement representing damages, litigation costs and attorney's fees to be paid to other parties arising out of a suit or challenge contesting the adequacy of the approval of the environmental document or any other approval related to the Project, if the settlement so provides.

3. That the City may, at any time, require the applicant to reimburse City for costs that have been, or which the City reasonably anticipates will be, incurred by the City during the course of any action. Applicant shall reimburse City within thirty (30) days of receipt of an itemized written invoice from City. Failure of the Applicant to timely reimburse the City shall be considered a material violation of the conditions of approval of the Project.

4. That the applicant shall comply with and shall require all contractors to comply with all prevailing wage laws, rules and regulations applicable to the Project. Unless otherwise advised in writing by the City of Hanford, Applicant shall be solely responsible for making any and all decisions regarding whether any portion or aspect of the Project, including, without limitation, any form of reimbursement by the City of Hanford to the Applicant or any contractor, will require the payment of prevailing wages. Further, Applicant will be solely responsible for the payment of any claims, fines, penalties, reimbursements, payments or any other actions that may be initiated against Applicant or any contractor as a result of failure to pay prevailing wages.

5. That the applicant shall defend, indemnify, and hold harmless the City of Hanford, its officials, officers, employees, representatives, agents and attorneys, from and against any and all claims, damages, losses, judgments, liabilities, expenses and other costs, including, without limitation, litigation costs and attorney's fees, arising out of, resulting from, or in any way in connection with any violation or claim of violation of any prevailing wage law, rule or regulation applicable to any portion or aspect of the Project. Applicant's obligation to defend, indemnify and hold the City of Hanford harmless specifically includes, but is not limited to, any suit or administrative action against the City of Hanford which claims a violation of any prevailing wage law, rule or regulation applicable to any portion or aspect of the Project.

6. That the applicant obligations to defend, indemnify and hold the City of Hanford, its officials, officers, employees, representatives, agents and attorneys harmless as set forth herein, shall include, but shall not be limited to, staff time, copying costs, court costs, the costs of any judgments or awards against the City of Hanford for damages, losses, litigation costs, or attorney fees arising out of any violation or claim of violation of any prevailing wage law, rule or regulation applicable to any portion or aspect of the Project and costs of any settlement representing damages, litigation costs and attorney's fees to be paid to other parties arising out of any such proceeding or suit.

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7. That the City of Hanford may, at any time, require the Applicant to reimburse the City of Hanford for costs that have been, or which the City of Hanford reasonably anticipates will be, incurred by the City of Hanford during the course of any action. Applicant shall reimburse the City of Hanford within thirty (30) days of receipt of an itemized written invoice from the City of Hanford. Failure of the Applicant to timely reimburse the City of Hanford shall be considered a material violation of the conditions of approval of the Project.

PLANNING DEPARTMENT
Contact Senior Planner: Melody N. Haigh (559) 585-2583
Concerning questions that you may have on the conditions listed below:

General:

1. That approval of this project does not exempt compliance with all applicable sections of the Uniform Fire and Building Codes, Zoning Ordinance, Public Works Improvement Standards, and other City Ordinances.

2. That all approved proposals of the application be conditions of development if not mentioned herein.

3. That the general design of the parcel map be approved with minor modifications being approved by the Community Development and Public Works Departments.

4. That prior to recording the parcel map, it is to be submitted to the City Engineer and Community Development Department for compliance with the tentative approval.

5. That in accordance with California Government Code Section 66020, the applicant is hereby notified that the 90 day appeal period identified in California Government Code Section 66020 during which you may protest the imposition of the fees, dedications, reservations and other extractions identified in this Tentative Parcel Map No. 2015-02 will begin to run on the date of the approval of this application by the Planning Commission.

6. That the applicant hereby agrees to hold the City of Hanford and all of its departments, officers, agents, and employees free and harmless of and from all claims of any kind or nature arising out of or by reason of the approval of this project.

BUILDING DIVISION
Contact Building Official: Tom Webb (559) 585-2584
Concerning questions that you may have on the conditions listed below:

1. New lot lines shall not create any violations to current building codes.

2. Any future development will be required to meet the building codes at the time of construction.

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PUBLIC WORKS DEPARTMENT
Contact Jose Lemus, Senior Engineer at (559) 585-2556
Concerning questions that you may have on the conditions listed below:

1. That Developer comply with the City of Hanford Public Works Construction Standards and Specifications requirements. Any deviation from said standards and specifications must be approved by the City Engineer prior to construction.

2. That an Encroachment Permit for all work located within the public street right-of-way shall be obtained from the Public Works Department prior to start of work. For additional information regarding Encroachment Permit requirements, contact the City Engineering Division at (559) 585-2558.

3. That the development is subject to a Grading Plan Review fee in accordance with City Resolution No. 10-31 R, or any revisions thereof. The Grading Plan review fee is $ **6,070.60** and shall be payable prior to issuance of a building permit.

4. That the development is subject to Engineering Plan Review and Inspection fee based on the cost of improvements required to be constructed within the public street right of way, in accordance with City Resolution No. 92-58-R, or any revisions thereof. Subject fees shall be payable prior to approval of improvement plans.

5. That all financial and other arrangements for planning, engineering, scheduling, installation of and/or relocation/ undergrounding of electric, gas, telecommunications, or other privately owned utilities are the sole responsibility of the developer. The developer is advised that significant project delays may result if utility issues are not resolved prior to start of construction.

6. That existing utility poles and appurtenances located along the development frontage of Lacey Boulevard shall be installed underground at developer's expense.

7. That all work within the public street right-of-way shall be under the control of a General Engineering Contractor, licensed for that purpose. Contractor shall verify all conditions in the field prior to commencing construction.

8. That locations of existing water, sanitary sewer and storm drain mains in the vicinity of the project site will be marked by Public Works Department staff based upon the city's best available records. Contractor shall provide city with a minimum of 48 hours prior notice when requesting location of existing utilities at (559) 585-2564. The City of Hanford is not a member of Underground Service Alert (U.S.A.).

9. That all sewer and water utility work and materials shall conform to City of Hanford Standards and Specifications, latest edition. All Utility connections located within 12th Avenue and W. Lacey Boulevard shall be bored.

Map and Plan Requirements:

Attachment: TPM PC RESO 8-25-15 (1031 : Planned Unit Development 2015-02 and Tentative Parcel Map 2015-02)

1. That the developer shall submit to the City Engineer a set of construction plans on 24" X 36" size sheets for all required improvements. The plans shall be prepared by a licensed civil engineer, and shall include a site plan showing all on-site and off-site improvements, including but not limited to, sanitary sewer, storm drainage, and water system infrastructure, refuse enclosure locations, public street & parking lot improvements, landscape & irrigation systems and all other improvements as required by the project conditions of approval and the City of Hanford Standards and Specifications. Plans must be approved by the City of Hanford and any other affected agencies before issuance of building permits.

2. That prior to beginning any construction, or within twenty (20) calendar days after the approved plans are released by the City, the developer shall submit to the City of Hanford Engineering Division one (1) reproducible and four (4) bond copies of the approved set of construction plans, and two (2) bound sets of the approved construction specifications, if any.

3. That within twenty (20) calendar days after all improvements have been constructed and accepted by the City, the developer shall submit to the City of Hanford Engineering Division one (1) reproducible and one (1) bond copy of the approved set of improvement construction plans revised to reflect all field revisions and marked "RECORD DRAWING".

Drainage Requirements:

1. That site grading and drainage shall comply with approved grading and improvement plans for the development. Upon completion of construction, the developer's engineer shall provide a written statement that site grading and drainage has been completed in accordance with the approved plans.
2. That the developer shall comply with all applicable State of California requirements pursuant to the National Pollutant Discharge Elimination System (NPDES). If applicable to the project, a Notice of Intent for the development shall be electronically filed by the developer and accepted by the State Water Resource Control Board (SWRCB) prior to any disturbance of soils onsite. Documentation of SWRCB approval of the development shall be required by the City of Hanford prior to start of construction, and the developer shall comply with all SWRCB General Construction Permit requirements during construction. Contact the SWRCB at www.swrcb.ca.gov for further information.
3. That track-out of soil, gravel, or other construction-related materials on to public streets is prohibited.

Street Right-of-Way Dedication & Easement Requirements:

1. That the development shall be subject to a reciprocal agreement providing for shared ingress and egress, parking, onsite utility access and maintenance with proposed development located adjacent to the project site. Said reciprocal agreement shall be recorded with the Kings County Recorder to guarantee each property owner and their tenants the reasonable use of, and access to, all onsite shopping center facilities required and intended for reciprocal use. The developer shall be responsible for the cost of preparation of the reciprocal agreement and the recording costs thereof. The reciprocal agreement shall be subject to city review and approval prior to being recorded, and a copy of the recorded agreement shall be provided to the city prior to issuance of building permits.

Street Requirements:

1. That 12th Avenue shall be widened and developed as an arterial street from Lacey Boulevard to the north boundary of the Target Center in conformance with City Construction Standards ST-17 & ST -20 (modified to facilitate additional travel lanes and pavement width). Improvements shall include, but not be limited to, the installation of curb & gutter, sidewalk, street lights, street striping, signing and pavement widening. Traffic index used for the design of street structural section shall be a minimum of 10.0.

2. That Lacey Boulevard shall be widened and developed as an arterial street from 12th Avenue to the west boundary of project site including the installation of a minimum 90 foot transitional approach lane located west of the first proposed drive approach west of 12th Avenue. Improvements shall include, but not be limited to, the installation of curb & gutter, sidewalk, street lights, street striping, signing and pavement widening. Traffic index used for the design of street structural section shall be a minimum of 10.0.

3. That the existing traffic signal system located at the intersection of 12th Avenue / Lacey Boulevard shall be modified to facilitate the installation of dual left turn lanes to the east and west legs of the intersection. Improvements shall include, but not be limited to, the installation of a new signal pole and appurtenances at the southwest corner of the intersection, median island modifications, striping, signing and pavement markings. Traffic signal modification improvement plans shall be prepared by a registered traffic engineer for Public Works Department review / approval.

4. That the development is subject to a transportation mitigation impact fee as required by City Municipal Code Section 15.48 and any revisions thereof. Developer shall be entitled to a credit towards the project's impact fee for permanent street widening improvements constructed by developer within 12th Avenue and Lacey Boulevard, consisting of curb & gutter, median curb, street pavement, striping, signing and traffic signal modifications which provide additional travel capacity. Transitional pavement improvements that are not considered to be permanent improvements will not be subject to a fee credit. Developer shall be required to submit competitive bid proposals to substantiate the cost of reimbursable improvements for City Public Works Department review and approval prior to beginning construction. All

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documentation shall be well organized and tabulated for convenient reference by Public Works Department staff. Improvement quantities and costs for reimbursement must be clearly identified in the documentation provided, and not combined or aggregated with non-reimbursable items.

5. That development is responsible for the payment of a proportionate share of future improvement costs as mitigation for impacts to the intersection of 13th Avenue / Highway 198 interchange as identified in Traffic Impact report for project prepared by the firm of Peters Engineering Group dated 8/11/2014 as Report No. 14-017.01. Payment of applicant's fair share of improvement costs shall be prorated and collected by City prior to the recording of a final parcel map. Mitigation fees shall be held in a separate interest bearing account and reserved for future improvements as identified in the Traffic Impact Study.

Sidewalk Requirements:

1. That minimum 7'-6" attached concrete sidewalks shall be constructed in conformance with City Std. CO-15 along the entire project development frontage.

Drive Approach Requirements:

1. That drive approaches located as shown on the approved Site Plan shall be constructed with easy access-type returns approved by the City Engineer as to driveway width and design. All drive approaches shall be constructed in compliance with ADA requirements in order to provide continuous pedestrian and disabled access along the project frontage.

Parking Lot Requirements:

1. That the design and construction of the parking lot improvements shall conform to City Standards GE-29 and GE-32.

Soil Requirements:

1. That a Preliminary Soils Report, prepared by a qualified Soils Engineer, be provided to the Engineering and Building Departments prior to approval of development improvement plans.

2. That a final soils report, prepared by a qualified Soils Engineer, be provided to the Engineering and Building Departments prior to acceptance of development improvements by the City or issuance of building permits or whichever comes first.

3. That Developer retain the Design Engineer to inspect and verify that all grading within the development is completed in conformance with approved plans. Design Engineer shall be required to provide a certification letter to the Building Department prior to issuance of any building permits.

Sanitary Sewer Requirements:

1. That the developer shall furnish and install any new sanitary sewer lateral services required for the project. Separate sewers are required for each building.
2. That the developer shall furnish, install and maintain a grease trap assembly on all sewer laterals receiving process water from commercial food preparation facilities, if applicable. Grease trap assemblies shall conform to the requirements of the Uniform Plumbing Code, latest edition, and shall be approved by the City Building Official prior to installation.

Water System Requirements:

1. That the developer shall provide an accurate fixture unit count and size water services in accordance with the requirements of the Uniform Plumbing Code, latest edition.

2. That the developer shall furnish and install any new water service assemblies required for the project including water meters and meter boxes for both domestic and landscape uses.

3. That the developer shall furnish and install appropriate cross connection / backflow prevention assemblies for all required water services, including fire service lines.

4. That all backflow prevention assemblies required for the development shall be tested and approved by a certified technician prior to occupancy. Copies of all backflow test results shall be provided to the City of Hanford Utilities Division.

Development Impact Fees:

1. That development is subject to the following impact fees in accordance with city ordinances No. 90-09, 90-10, 92-03, 98-14, and 05-16, or any revisions thereof. Fees to be determined at time of development. All fees will be based upon the Development Agreement as approved by the City Council. All fees are payable prior to issuance of building permits, unless approved otherwise by City Engineer**.**

Refuse Requirements:

1. That Five (5) 10’ x 20’ inside clear dimension masonry block refuse enclosures with 6’ high perimeter walls shall be constructed in accordance with City Std. GE-35, each with 5’ x 10’ inside clear dimension masonry block grease bin container enclosures with 6’ high perimeter walls, modified to include installation of 12” x 12” interior concrete curbs. If enclosure will be used to service restaurants then a separate grease bin container area shall be constructed in accordance with City standard GE- 41. The refuse enclosure shall have gates of chain-link fencing with earth-tone color vinyl slats or other approved gate materials. The enclosure shall be architecturally compatible with surrounding buildings, and the location of the

enclosure shall be approved by both the Public Works and Community Development Departments.

2. That nothing other than the city refuse bins shall be stored or kept in refuse enclosures.

3. That refuse enclosure gates shall be securely closed except when in use.

4. That refuse enclosures shall not be located adjacent to combustible construction or beneath windows or non-protected eaves.

5. That the applicant shall participate in all available waste recycling & reuse programs.

EXPIRATION

This Tentative Parcel Map becomes null and void after twenty-four (24) months has elapsed from the date of approval if the map has not been recorded. The Commission may grant a time extension if a written request and fee is received from the applicant prior to the expiration date. The time extension, if approved, will be subject to the improvement standards and fees in effect at the time the extension for the Tentative Parcel Map is granted.

PASSED AND ADOPTED at a regular meeting of the Planning Commission of the City of Hanford by the following vote:

VOTING

AYES:
NOES:
ABSTAIN:
ABSENT:

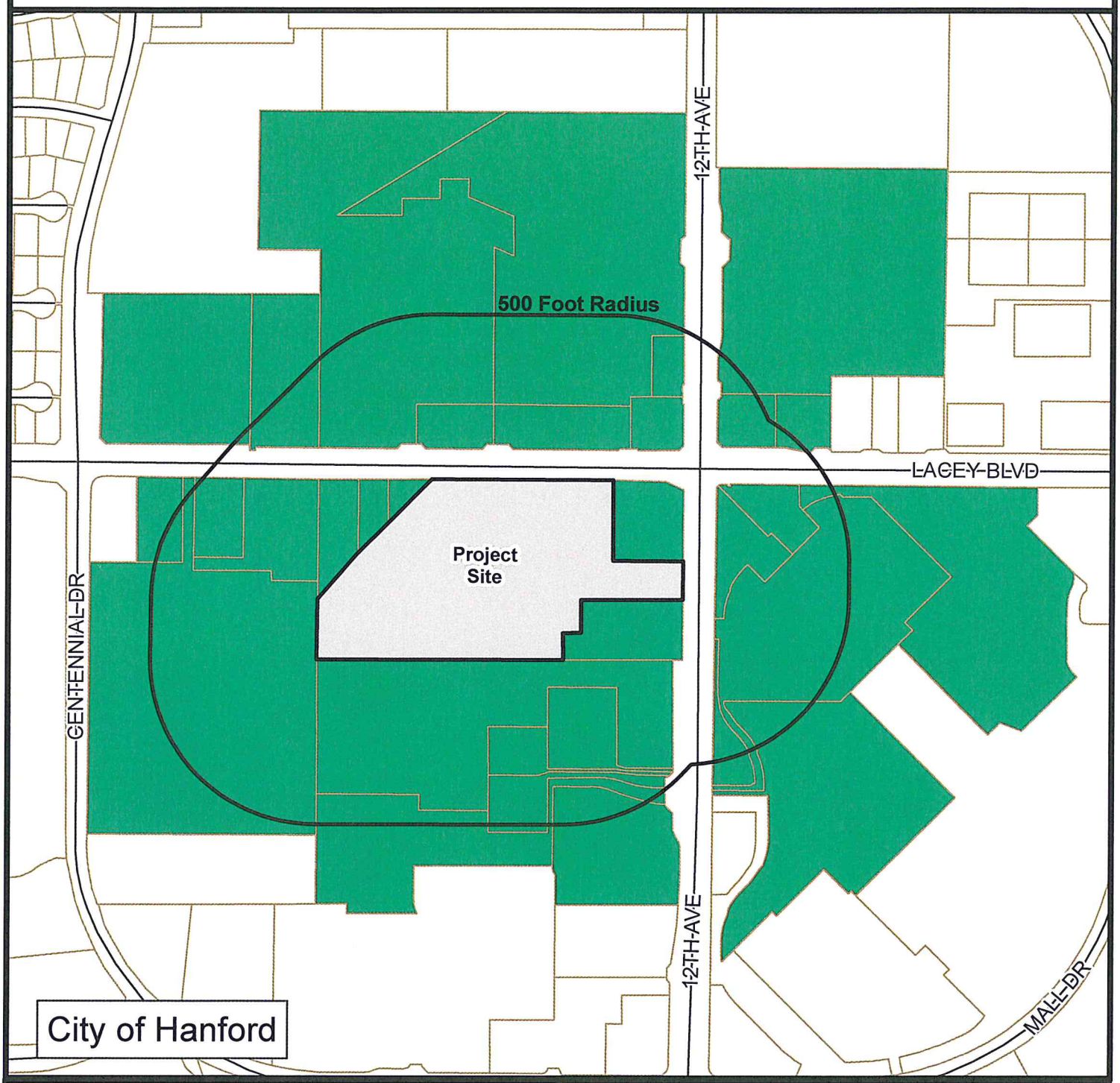
STATE OF CALIFORNIA)
COUNTY OF KINGS) ss
CITY OF HANFORD)

I, **DARLENE R. MATA**, Secretary of the Planning Commission of the City of Hanford, do hereby certify the foregoing Resolution was duly passed and adopted by the Planning Commission of the City of Hanford at a regular meeting thereof held on the 25th day of August 2015.

Darlene R. Mata, Secretary

Attachment: TPM PC RESO 8-25-15 (1031 : Planned Unit Development 2015-02 and Tentative Parcel Map 2015-02)

Project Location & Mailing List Map
APN:011-020-048



Map prepared by
Kings County
Community Development Agency
April 29, 2015
1400 W. Lacey Boulevard, Hanford, CA 93230 (559) 852-2670

160 80 0 160 Feet

Legend

Project Area

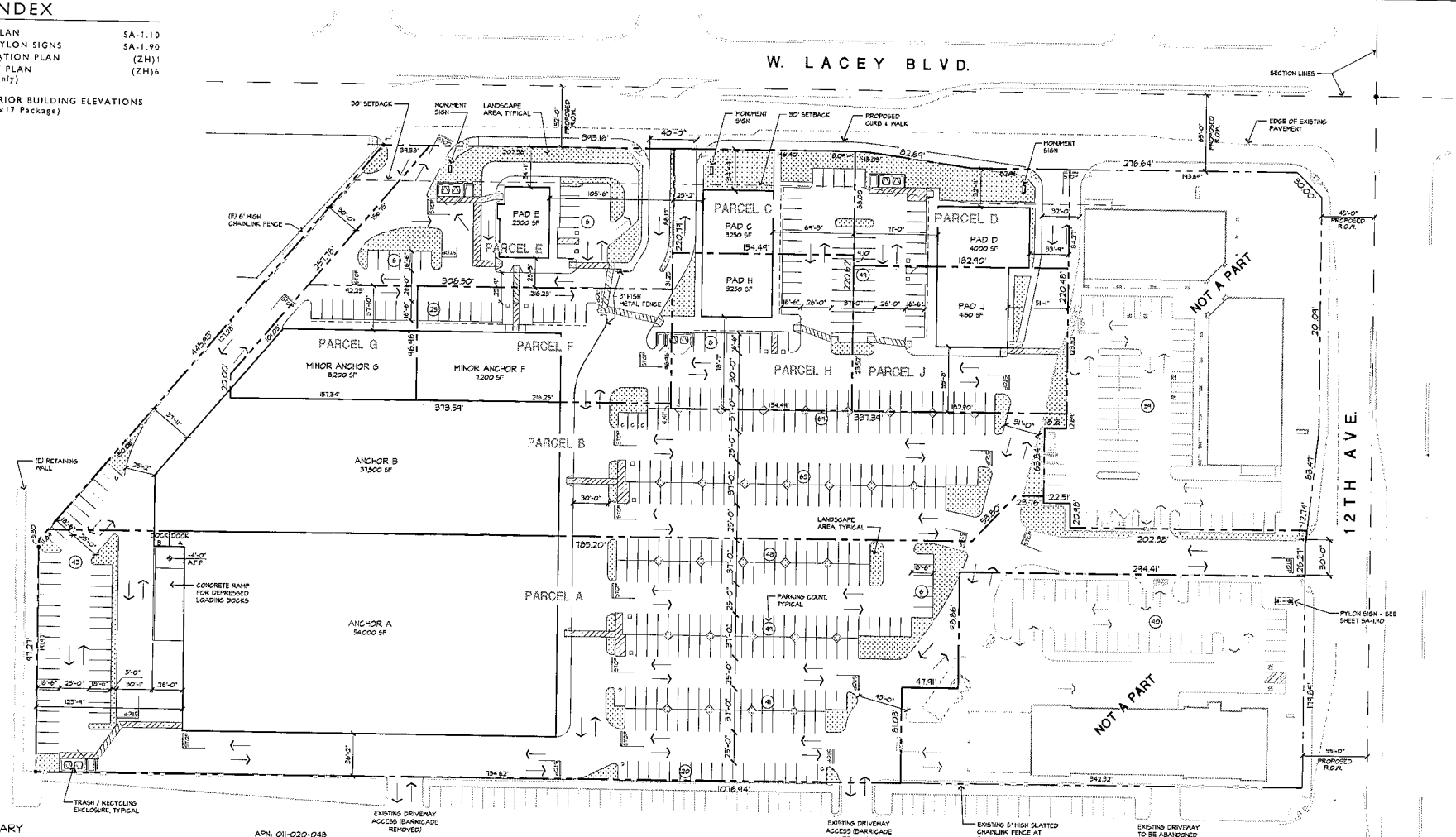
Properties within 500 foot radius

City Limit Boundary

SHEET INDEX

OVERALL SITE PLAN	SA-1.10
MONUMENT & PYLON SIGNS	SA-1.90
TRUCK CIRCULATION PLAN	(ZH)1
MASTER UTILITY PLAN (for Reference Only)	(ZH)6

COLORED EXTERIOR BUILDING ELEVATIONS (See Separate 11x17 Package)



SITE SUMMARY

APN: 011-020-048

BUILDING	AREA (sf)	STALLS PROVIDED	REQUIRED PARKING CALC.	STALLS REQUIRED
ANCHOR 'A'	54,000	200	@ 1 / 333 =	162
ANCHOR 'B'	37,500	106	@ 1 / 333 =	113
PAD 'C'	3,250	13	@ 1 / 333 =	10
PAD 'D'	4,000	10	@ 1 / 333 =	12
PAD 'E'	2,500	12	@ 1 / 333 =	8
MINOR ANCHOR 'F'	7,200	17	@ 1 / 333 =	22
MINOR ANCHOR 'G'	8,200	10	@ 1 / 333 =	25
PAD 'H'	3,250	38	@ 1 / 333 =	10
PAD 'J'	4,150	27	@ 1 / 333 =	13
	124,050	433		375

[redacted]

OVERALL SITE PLAN

SCALE: 1" = 40'

SA-1.10

1478 STONE POINT DRIVE SUITE 350 ROSEVILLE, CA 95661 T | 916 782 7200 F | 916 773 3037

NORTH

DATE: 06-11-2015

Borges ARCHITECTURAL GROUP

JOB NO.: 0604

VESTING TENTATIVE PARCEL MAP

Parcel C of PM 13-93, Kings County Record, Being a Portion of the North Half of the Northeast Quarter of Section 34, T.18 S., R.21 E. M.D.B.& M., County of Kings, State of California.

OWNER/APPLICANT

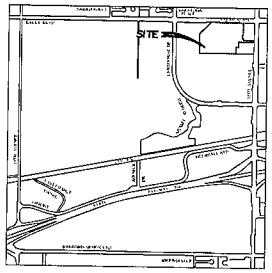
Douglas M. Sutherland, Member
Hanford Partners, LLC
1508 Eureka Road, Suite 230
Roseville, CA 95661
Phone: (916) 791-6466

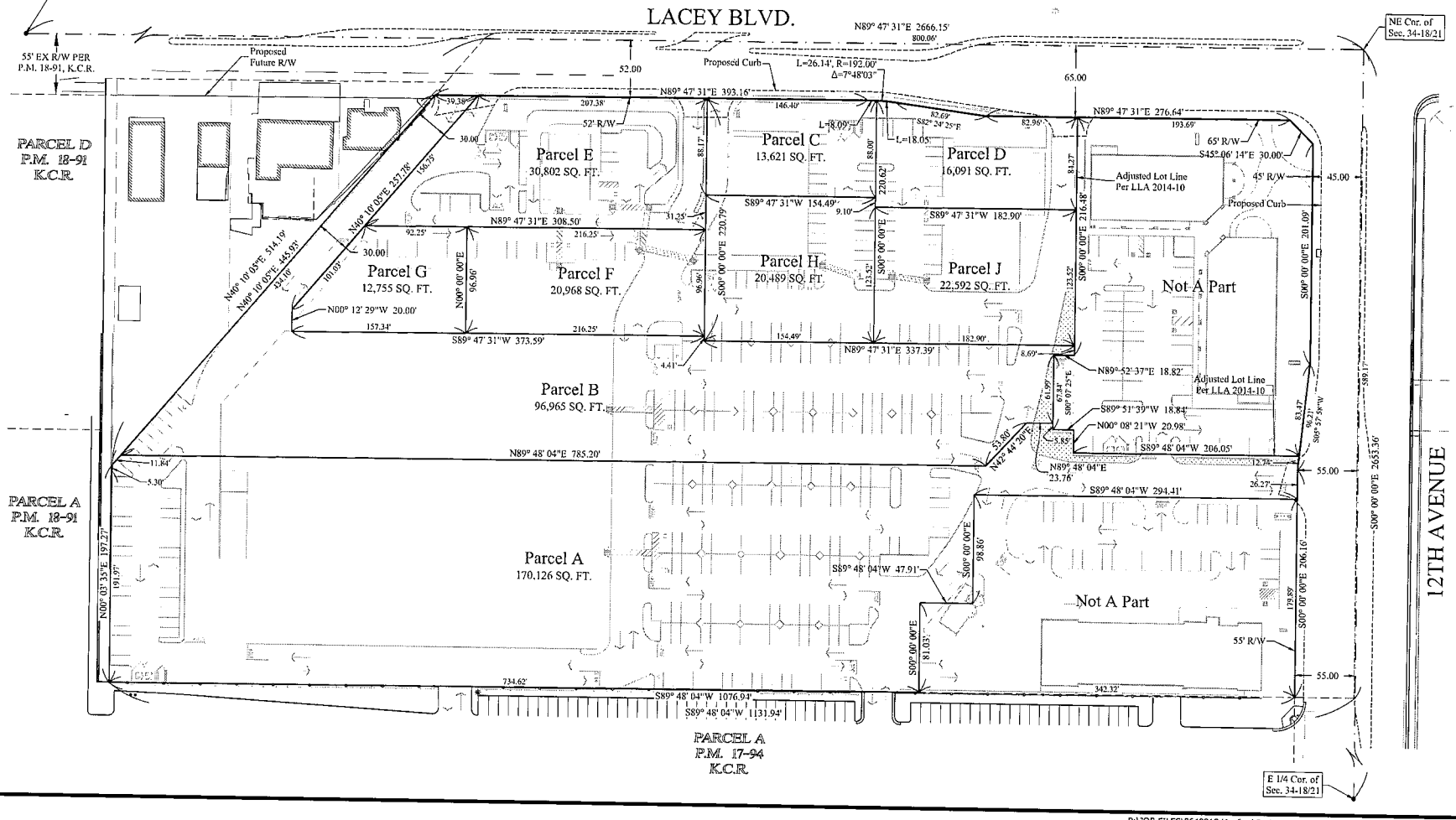
GENERAL INFORMATION

Existing Zone	PC PUD
Proposed Zone	PC PUD
Existing Use	Vacant
Proposed Use	Commercial
Sewer	City of Hanford
Water	City of Hanford
Storm Drainage	City of Hanford
A.P.N.	011-020-048

VICINITY MAP

Scale: None





TENTATIVE VESTING PARCEL MAP
FOR
HANFORD PARTNERS, LLC

No.	Revisions	Date

CML ENGINEERS
ZUMWALT HANSEN & LAND SURVEYORS
609 N. Irwin St.
Hanford, CA 93232
Office: (559) 582-1056
Fax: (559) 584-4143

Drawn By:	JRJ
Checked By:	AD
Indexed By:	
Date:	See Below
Job No.:	0649918
Sheet:	1 of 1

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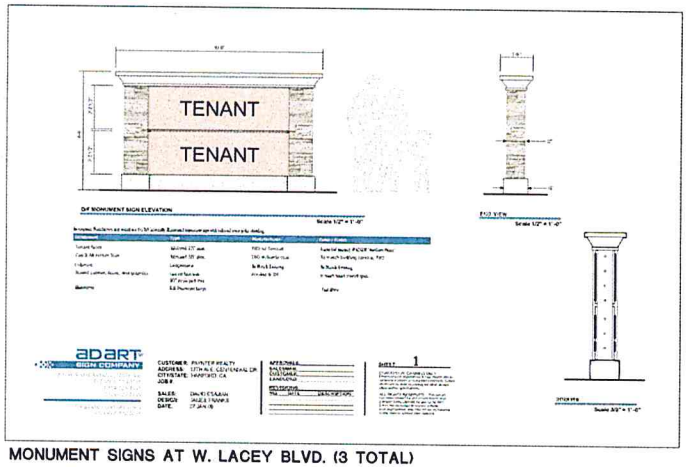
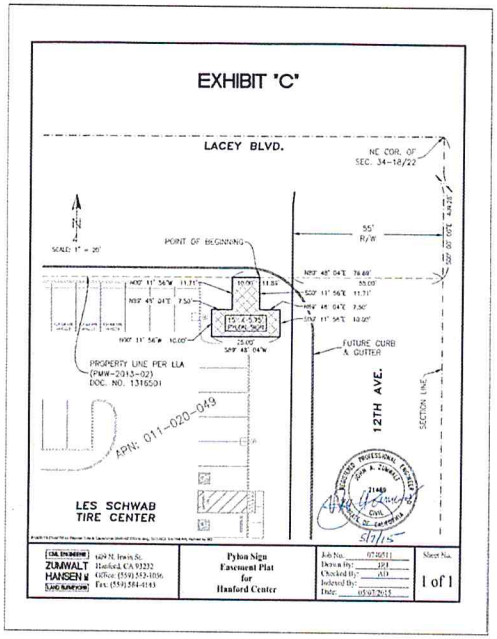
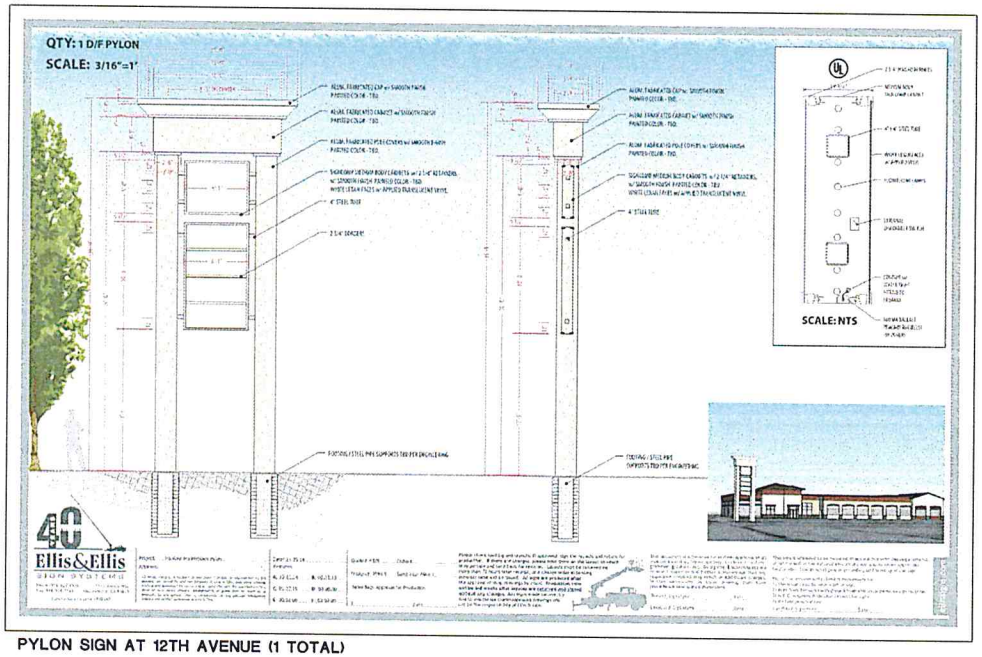


MONUMENT SIGNS AT W. LACEY BLVD. (3 TOTAL)





PYLON SIGN AT 12TH AVENUE (1 TOTAL)

HANFORD SHOPPING CENTER
HANFORD, CA 93230

MONUMENT & PYLON SIGNS

SA-1.90

DATE: 05-11-2015

1478 STONE POINT DRIVE SUITE 350 ROSEVILLE, CA 95661 T | 916 782 7200 F | 916 773 3037

ARCHITECTURAL GROUP Borges

EAST ELEVATION (ANCHOR A + B ENTRIES)

NORTH ELEVATION (MINOR ANCHOR F + G ENTRIES)

SOUTH ELEVATION (ANCHOR A)

WEST ELEVATION (MINOR ANCHOR G, ANCHORS B + A)

(1) 7303M AZTEC DAWN
BY: FRAZEE

(2) 7330W SILKY WHITE
BY: FRAZEE

(3) 8242W NORTHERN PLAINS
BY: FRAZEE

(4) 8244D COPPER SPRINGS
BY: FRAZEE

(5) 8314M SILVERED BARK
BY: FRAZEE

(6) 7846N ELDORADO
BY: FRAZEE

(7) EL CAMINO BLEND
BY: U.S.TILE

(8) COLOR: CHARDONNAY
BY: CULTURED STONE
MODEL: DRYSTACK LEDGESTONE

(10) COLOR JOCKEY RED
BY: SUNBRELLA

(11) WALL TILE
TO MATCH EXISTING
SHOPPING CENTER.

HANFORD SHOPPING CENTER

HANFORD, CALIFORNIA

CONCEPTUAL ELEVATIONS - ANCHOR BUILDING

06091-4 05-12-15

1478 STONE POINT DRIVE SUITE 350 ROSEVILLE, CA 95661 TELEPHONE | 916-782-7200 FAX | 916-773-3037

ARCHITECTURE PLANNING INTERIORS

ARCHITECTURAL GROUP Borges

BORGESARCH.COM

Attachment: Exhibit D- Handford Shopping Center (Anchor Building) (1031 : Planned Unit Development 2015-02 and Tentative Parcel Map 2015-02)

SOUTH ELEVATION

EAST ELEVATION

NORTH ELEVATION

WEST ELEVATION

(1) 7303M AZTEC DAWN
BY: FRAZEE

(2) 7330W SILKY WHITE
BY: FRAZEE

(3) 8242W NORTHERN PLAINS
BY: FRAZEE

(4) 8244D COPPER SPRINGS
BY: FRAZEE

(5) 8314M SILVERED BARK
BY: FRAZEE

(6) 7846N ELDORADO
BY: FRAZEE

(7) EL CAMINO BLEND
BY: U.S.TILE

(8) COLOR: CHARDONNAY
BY: CULTURED STONE
MODEL: DRYSTACK LEDGESTONE

(10) COLOR JOCKEY RED
BY: SUNBRELLA

(11) WALL TILE
TO MATCH EXISTING
SHOPPING CENTER.

HANFORD SHOPPING CENTER

HANDFORD, CALIFORNIA

CONCEPTUAL ELEVATIONS - BUILDING C

06091-4 05-12-15

1478 STONE POINT DRIVE SUITE 350 ROSEVILLE, CA 95661 TELEPHONE | 916-782-7200 FAX | 916-773-3037

ARCHITECTURE PLANNING INTERIORS

ARCHITECTURAL GROUP Borges

BORGESARCH.COM

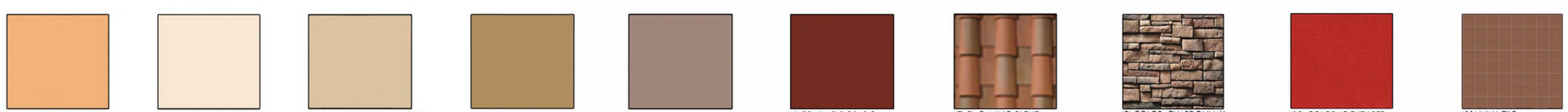
Attachment: Exhibit D - Handford Shopping Center (Building C) (1031 : Planned Unit Development 2015-02 and Tentative Parcel Map 2015-02)

NORTH ELEVATION

WEST ELEVATION

SOUTH ELEVATION

EAST ELEVATION



(1) 7303M AZTEC DAWN
BY: FRAZEE

(2) 7330W SILKY WHITE
BY: FRAZEE

(3) 8242W NORTHERN PLAINS
BY: FRAZEE

(4) 8244D COPPER SPRINGS
BY: FRAZEE

(5) 8314M SILVERED BARK
BY: FRAZEE

(6) 7846N ELDORADO
BY: FRAZEE

(7) EL CAMINO BLEND
BY: U.S.TILE

(8) COLOR: CHARDONNAY
BY: CULTURED STONE
MODEL: DRYSTACK LEDGESTONE

(10) COLOR JOCKEY RED
BY: SUNBRELLA

(11) WALL TILE
TO MATCH EXISTING
SHOPPING CENTER.

HANFORD SHOPPING CENTER

HANDFORD, CALIFORNIA

CONCEPTUAL ELEVATIONS - BUILDING D

06091-4 05-12-15

1478 STONE POINT DRIVE SUITE 350 ROSEVILLE, CA 95661 TELEPHONE | 916-782-7200 FAX | 916-773-3037

ARCHITECTURE PLANNING INTERIORS

ARCHITECTURAL GROUP Borges

BORGESARCH.COM

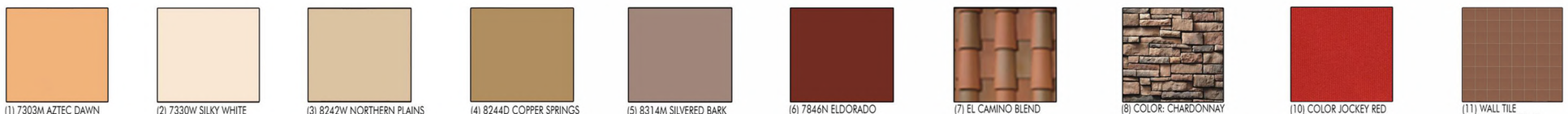
Attachment: Exhibit D - Handford Shopping Center (Building D) (2) (1031 : Planned Unit Development 2015-02 and Tentative Parcel Map 2015-02)

NORTH ELEVATION

WEST ELEVATION

SOUTH ELEVATION

EAST ELEVATION



(1) 7303M AZTEC DAWN
BY: FRAZEE

(2) 7330W SILKY WHITE
BY: FRAZEE

(3) 8242W NORTHERN PLAINS
BY: FRAZEE

(4) 8244D COPPER SPRINGS
BY: FRAZEE

(5) 8314M SILVERED BARK
BY: FRAZEE

(6) 7846N ELDORADO
BY: FRAZEE

(7) EL CAMINO BLEND
BY: U.S.TILE

(8) COLOR: CHARDONNAY
BY: CULTURED STONE
MODEL: DRYSTACK LEDGESTONE

(10) COLOR JOCKEY RED
BY: SUNBRELLA

(11) WALL TILE
TO MATCH EXISTING
SHOPPING CENTER.

HANFORD SHOPPING CENTER

HANDFORD, CALIFORNIA

CONCEPTUAL ELEVATIONS - BUILDING E

06091-4 05-12-15

1478 STONE POINT DRIVE SUITE 350 ROSEVILLE, CA 95661 TELEPHONE | 916-782-7200 FAX | 916-773-3037

ARCHITECTURE PLANNING INTERIORS

ARCHITECTURAL GROUP Borges

BORGESARCH.COM

Attachment: Exhibit D - Handford Shopping Center (Building E) (1031 : Planned Unit Development 2015-02 and Tentative Parcel Map 2015-02)

RECORDING REQUESTED BY

PLACER TITLE COMPANY

WHEN RECORDED MAIL TO:
HANFORD PARTNERS LLC
1508 EUREKA ROAD SUITE 230
ROSEVILLE CA 95661

Order Number: 110-7730-

CERTIFIED TO BE A TRUE
AND CORRECT COPY OF
Document Recorded 6/17/15
Series # 2015-094006
PLACER TITLE COMPANY
By

SPACE ABOVE THIS LINE RESERVED FOR RECORDER'S USE

TITLE(S)

PYLON SIGN EASEMENT AND OPERATION AGREEMENT

RETURN RECORDED DOCUMENT TO:

PYLON SIGN EASEMENT AND OPERATION AGREEMENT

THIS AGREEMENT (the "**AGREEMENT**") is made and entered into effective June 12, 2015, by and between Hanford Partners LLC, a California limited liability company ("HP") and SFP-E LLC, an Oregon limited liability company ("SFP") (HP and SFP-E are sometimes collectively called "**Declarants**").

RECITALS

A. HP is the owner of that certain real property more particularly described on **Exhibit A** ("HP Parcel"). SFP is the owner of that certain real property more particularly described on **Exhibit B** ("SFP Parcel"). The HP Parcel and the SFP Parcel are sometimes referred to herein as the "Parcels."

B. Declarants desire to establish certain easements and other rights and obligations concerning the use and operation of a shared pylon sign when and if constructed to be located on the SFP Parcel for the mutual and reciprocal benefit and complement of the Parcels and the present and future owners and occupants thereof, on the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the above premises and of the covenants herein contained, Declarants do hereby declare that the Parcels and all present and future owners and occupants of the Parcels shall be and hereby are subject to the terms, covenants, easements, restrictions and conditions hereinafter set forth in this Agreement, so that said Parcels shall be maintained, kept, sold and used in full compliance with and subject to this Agreement and, in connection therewith, Declarants covenant and agree as follows:

AGREEMENTS

1. Definitions. For purposes hereof:

(a) The term "Owner" or "Owners" shall mean each Declarant and any and all successors or assigns of such persons as the owner or owners of fee simple title to all or any portion of the real property covered hereby, whether by sale, assignment, inheritance, operation of law, trustee's sale, foreclosure, or otherwise, but not including the holder of any lien or encumbrance on such real property and not including any previous Owner or Declarant who is no longer an owner of fee simple title to any portion of the real property covered hereby.

(b) The term "Tenants" shall mean the tenant(s) or occupant(s) of a Parcel, including any person who becomes the same pursuant to a lease assignment or sublease from a Tenant.

(c) The term "Sign User" shall mean an Owner which has been granted the right to place and maintain a sign panel ("Sign Panel") on the Pylon Sign pursuant to this Agreement (including an Owner which has been granted such right pursuant to a "Sign Panel Grant" which is entered into pursuant to this Agreement). An Owner who is a Sign User may assign its rights to a Tenant of such Owner's Parcel, which Tenant shall then be a Sign User and entitled to exercise all rights hereunder as a Sign User. In the event of such an assignment, both the Owner and its Tenant shall be jointly and severally liable for satisfying all obligations under this Agreement as a Sign User. Any Tenant of a Parcel who becomes a Sign User shall only be a Sign User so long as it has a legal right to occupy the Parcel pursuant to a lease or other agreement with the Owner thereof; upon the termination of such lease or agreement, such Tenant's rights as a Sign User shall automatically terminate and such Tenant shall no longer have any right to maintain a sign panel on the Pylon Sign. A Tenant who is a Sign User may assign its rights and obligations as a Sign User to an assignee of the Tenant's leasehold interest or a sublessee of the Tenant's premises, unless the lease between the Owner and such Tenant prohibits or restricts such assignment of Sign User rights; provided, only one Sign User may occupy a particular Sign Panel at any one time.

(d) The term "Pylon Sign" means that pylon sign located on the SFP Parcel substantially in the location shown on **Exhibit C**. An elevation of the Pylon Sign is attached hereto as **Exhibit D** (the "Sign Elevation") which, in general, describes a pylon sign that is approximately 35 feet in height, 15 feet in width at the top, the two standards are approximately 2 feet in width and the outside edges are approximately 12 feet apart, with five display panels comprised as set for the herein.

(e) The term "Top Panel" is the highest of the two planned panels. It is a double panel and the user thereof shall be responsible for one-third (1/3) of the operating costs. The Top Panel may be used as one or two "Sign Panels";

(f) The term "Middle Panel" is a single unit divided into four equal parts and the user of each part shall be responsible for one-sixth (1/6) of the operating costs. The top one-fourth of the Middle Panel shall be used as one "Sign Panel."

(g) The term "Sign Panel Grant" shall mean an instrument executed by the Owner of the HP Parcel granting an easement to an Owner or Tenant to become a Sign User. Any Sign User who becomes such pursuant to a Sign Panel Grant shall be subject to all of the terms and conditions of this Agreement, all of which shall be deemed incorporated into the Sign Panel Grant as though fully set forth therein and shall, subject to the terms and conditions of this Agreement have the right to use that portion of either the Top Panel or Middle Panel as specified in the Sign Panel Grant.

2. Easements.

2.1 Grant of Signage Easements. Subject to any express conditions, limitations or reservations contained herein, SFP hereby declares that the SFP Parcel, and all Owners and Permittees thereof, shall be subject to the following easements, which easements shall be for the benefit of and appurtenant to those Parcels whose Owners are or become Sign Users (including any tenants of such Owners who are granted Sign User status, as provided in this Agreement):

(a) Signage. An easement ("Sign Panel Easement") upon that portion of the SFP Parcel as shown on **Exhibit C** for the installation, replacement, operation, maintenance and repair of the Pylon Sign and any panel

thereon. The easement granted herein shall be over, under, upon and across the area set forth on **Exhibit C** and shall further include the right of reasonable access over, under, upon and across the SFP Parcel to install, replace, maintain, repair and operate the Pylon Sign and a utility line serving the same, pursuant to the terms and conditions set forth in Subparagraph 2.1(b) below, in order to provide the Pylon Sign with power to illuminate the same.

The Owners of the HP Parcel and SFP Parcel are hereby granted Sign Panel Easements and shall each be a Sign User. The Owner of the SFP Parcel shall be entitled to use the top one-fourth portion of the Middle Panel. The Owner of the HP Parcel shall be entitled to use the Top Panel and the remaining three-fourths of the Middle Panel, including the right to issue Sign Panel Grants with respect thereto.

(b) Utilities. An easement under and across those parts of the SFP Parcel and the HP Parcel as necessary for the installation, maintenance, repair and replacement of electrical conduits or systems necessary for the orderly development and operation of the Pylon Sign provided that (i) the rights granted pursuant to such easement shall at all times be exercised in such a manner as not to interfere materially with the normal operation of either Parcel and the businesses conducted therein, (ii) the exact location of any utilities shall be determined by the Owner of the HP Parcel provided that if the Owner of the HP Parcel determines it is necessary for a portion of the electrical conduits or systems to be located on the SFP Parcel the Owner of such Parcel shall have the right to approve the exact location of said utilities on its Parcel, such approval to not be unreasonably withheld, and (iii) except in an emergency, the right of any other Owner to enter upon a Parcel for the exercise of any right pursuant to such easement shall be conditioned upon providing reasonable prior advance written notice to such Owner as to the time and manner of entry. There shall be one power source for the Pylon Sign originating on the HP Parcel. All such lines shall be installed and maintained below the ground level or surface (except for such parts thereof that cannot and are not intended to be placed below the surface, such as transformers and control panels. After initial location of the utilities serving the Pylon Sign, such location may only be altered with the approval of the burdened Parcels.

2.2 Indemnification. Each Owner and Sign User having rights with respect to an easement granted hereunder shall indemnify and hold the Owner of the HP Parcel and the SFP Parcel harmless from and against all claims, liabilities and expenses (including reasonable attorneys' fees) relating to accidents, injuries, loss, or damage of or to any person or property arising from the negligent,

intentional or willful acts or omissions of such Owner, its contractors, employees, agents, or others acting on behalf of such Owner.

2.3 Reasonable Use of Easements.

(a) The easements herein above granted shall be used and enjoyed by each Sign User in such a manner so as not to unreasonably interfere with, obstruct or delay the use of any other Sign User's Sign Panel, or the conduct and operations of the business of any other Owner or its Tenants at any time conducted on its Parcel, including, without limitation, public access to and from said business, and the receipt or delivery of merchandise in connection therewith.

(b) No Parcel Owner shall impose any charge or fee of any type upon the benefited Parcel or its Owner or occupants for the use and enjoyment of the easement rights granted herein, except as may be expressly provided for in this Agreement or unless required by law.

3. Construction and Maintenance.

3.1 Construction. The Owner of the HP Parcel may, but shall not be obligated to construct a Pylon Sign. If and when constructed the Pylon Sign shall be constructed in a good workman-like manner. The Owner of the SFP Parcel shall pay one sixth (1/6) of such reasonable cost. Payment for same shall be due within thirty (30) days of receipt of the invoice for any and all such work. Before installing a Panel on the Sign, the Sign User shall provide to the HP Owner colored artwork displaying the proposed Sign Panel artwork/lettering desired by a Sign User. The HP Owner shall, in its reasonable discretion either approve or disapprove of the proposed artwork/lettering within 10 days of its receipt of the proposed artwork/lettering and if disapproved, provide comment to the Sign User to allow resubmittal of the proposed artwork/lettering for approval. The HP Owner may but is not obligated to remove any artwork/lettering installed without its approval or by others with the cost of such removal to be paid by the corresponding Sign User. Sign User artwork/lettering on all Sign Panels shall be installed by a vendor contracting directly with the HP Owner. All costs of artwork/lettering on a Sign Panel shall be paid by the HP Owner and reimbursed by the corresponding Sign User within 15 days of its receipt of an invoice from the HP Owner.

3.2 Maintenance and Repairs.

(a) Obligation to Maintain. Once constructed, the Owner of the HP Parcel shall thereafter maintain, operate, illuminate and repair, in good

order, condition and repair the Pylon Sign and any and all utility or other installations serving the Pylon Sign (the "Sign Expenses"), including the sign panels and individual utility lines and facilities which provide illumination to each Sign Panel. The HP Parcel Owner shall have the right to charge the Sign Users for the Sign Expenses as more specifically provided below. As used herein, "Sign Expenses" shall not include any of the original costs to construct and install the Pylon Sign and related utilities. If the appearance of a Sign Panel becomes cracked, stained, aged, sun bleached or similarly damaged so that its condition is no longer commensurate with similar pylon sign panels in the City of Hanford, or if a Sign Panel does not match the appearance of other Sign Panels on the Pylon Sign, (such as a Sign Panel that is a different color than adjacent Sign Panels) the Owner of the HP Parcel may replace such Sign Panel in its reasonable discretion and bill the related Sign User for all related expenses.

(b) Sign Expenses. Within 30 days after the installation of a completed Sign Panel displaying the name or use of a Sign User, the Owner of the HP Parcel shall furnish all Sign Users with a statement (the "**Statement**") showing in reasonable detail the total anticipated annual Sign Expenses. Based on the Statement, each Sign User shall pay 1/12th of its proportionate share of the anticipated annual Sign Expenses on a monthly basis to the Owner of the HP Parcel on or before the first day of each calendar month. The failure of the Owner of the HP Parcel to furnish a Statement setting forth Sign Expenses within the time periods set forth above shall not constitute a default hereunder by the Owner of the HP Parcel or a waiver of the Owner of the HP Parcel's right to receive payment of an Sign User's proportionate share thereof, except that the Owner of the HP Parcel shall be deemed to have waived its right to receive payment as to any Sign Expenses that are not set forth in a Statement delivered to the Sign Users within three (3) years after the date upon which they were incurred. Notwithstanding the remedies provided in Section 5 below, should a Sign User fail to pay its obligations described within this Section 3 and should such delinquency continue for a period exceeding 60 days, the HP Owner may provide written notice, (the "Delinquency Notice") to the delinquent Sign User, providing an accounting of the amount owed, written reference to this Section 3.2(b) and written demand for payment within 15 days. Failure of the Sign User to pay the amount referenced in the Delinquency Notice within 15 days shall cause the Sign User Grant of such delinquent Sign User to terminate

immediately and the HP Owner may remove the Sign User's artwork/lettering from the corresponding Sign Panel and terminate all of the Sign User's rights under this Agreement.

(c) Reconciliation of Sign Expenses. On or before April 15 of each calendar year, the Owner of the HP Parcel shall furnish each Sign User with a reconciliation showing in reasonable detail the total actual Sign Expenses for the preceding calendar year. If any Sign User's proportionate share of the total Sign Expenses exceeds the amount prepaid by such Sign User, such Sign User shall pay to the Owner of the HP Parcel such excess within thirty (30) days following the Sign User's receipt of the statement. If any Sign User's proportionate share of the total Sign Expenses is less than the amount prepaid by such Sign User, the amount of excess prepayment by such Sign User shall be credited against such Sign User's future prepayment obligations, cumulative from month to month until such excess is exhausted.

(d) Determination of Proportionate Share. The Owner of the SFP Parcel shall pay one-sixth of the Sign Expenses. The Owner of the HP Parcel shall pay five-sixths of the Sign Expenses, provided that such Owner may allocate such expenses among the parties to whom it has issued a Sign Panel Grant. Notwithstanding the foregoing, any expense attributable to an individual panel shall be paid by the subject Sign User.

4. No Rights in Public; No Implied Easements. Nothing contained herein shall be construed as creating any rights in the general public or as dedicating for public use any portion of the Parcels. No easements, except (i) those expressly set forth in Paragraph 2, and/or (ii) an easement over the Parcels so as to enable the construction of improvements required for the initial development for the Parcels, shall be implied by this Agreement.

5. Remedies and Enforcement. In the event of a breach by any Sign User or its Permittees of any of the terms, covenants, restrictions or conditions hereof, the other Sign User(s) shall be entitled forthwith to full and adequate relief by injunction and/or all such other available legal and equitable remedies from the consequences of such breach, including payment of any amounts due and/or specific performance. If the Owner of HP Parcel fails, after written notice and a reasonable cure period (not exceeding thirty days) to properly perform its duties hereunder to maintain and operate the Pylon Sign, any Sign User may, following

written notice to all Sign Users, assume and perform such duties, and all other Sign Users shall reimburse their Proportionate Share of the costs thereof following receipt of a billing from such performing Sign User, in the same manner and upon the same terms as though such billing was received from the Owner of the HP Parcel Owner as provided for herein.

6. Term. The easements, covenants, conditions and restrictions contained in this Agreement shall be effective commencing on the date of recordation of this Agreement and shall remain in full force and effect thereafter in perpetuity, unless this Agreement is modified, amended, canceled or terminated in accordance with the terms hereof.

7. Miscellaneous.

7.1 Attorneys' Fees. In the event a party institutes any legal action or proceeding for the enforcement of any right or obligation herein contained, the prevailing party after a final adjudication shall be entitled to recover its costs and reasonable attorneys' fees incurred in the preparation and prosecution of such action or proceeding.

7.2 Amendment. Except as expressly provided in Paragraph 2.1(a) above, Declarants agree that the provisions of this Agreement may be modified or amended, in whole or in part, or terminated, only by the written consent of all record Owners of the Parcels, evidenced by a document that has been fully executed and acknowledged by all such record Owners and recorded in the official records of the County Recorder of San Joaquin County, California.

7.3 Consents. Wherever in this Agreement the consent or approval of an Owner is required, unless otherwise expressly provided herein, such consent or approval shall not be unreasonably withheld or delayed. Any request for consent or approval shall: (a) be in writing; (b) specify the section hereof which requires that such notice be given or that such consent or approval be obtained; and (c) be accompanied by such background data as is reasonably necessary to make an informed decision thereon. The consent of an Owner under this Agreement, to be effective, must be given, denied or conditioned expressly and in writing.

7.4 No Waiver. No waiver of any default of any obligation by any party hereto shall be implied from any omission by the other party to take any action with respect to such default.

7.5 No Agency. Nothing in this Agreement shall be deemed or construed by either party or by any third person to create the relationship of principal and

agent or of limited or general partners or of joint venturers or of any other association between the parties.

7.6 Covenants to Run with Land. It is intended that each of the easements, covenants, conditions, restrictions, rights and obligations set forth herein shall run with the land and create equitable servitudes in favor of the real property benefited thereby, shall bind every person having any fee, leasehold or other interest therein and shall inure to the benefit of the respective parties and their successors, assigns, heirs, and personal representatives.

7.7 Grantee's Acceptance. The grantee of any Parcel or any portion thereof, by acceptance of a deed conveying title thereto or the execution of a contract for the purchase thereof, whether from an original party or from a subsequent owner of such Parcel, shall accept such deed or contract upon and subject to each and all of the easements, covenants, conditions, restrictions and obligations contained herein. By such acceptance, any such grantee shall for himself and his successors, assigns, heirs, and personal representatives, covenant, consent, and agree to and with the other party, to keep, observe, comply with, and perform the obligations and agreements set forth herein with respect to the property so acquired by such grantee.

7.8 Severability. Each provision of this Agreement and the application thereof to the Parcels are hereby declared to be independent of and severable from the remainder of this Agreement. If any provision contained herein shall be held to be invalid or to be unenforceable or not to run with the land, such holding shall not affect the validity or enforceability of the remainder of this Agreement. In the event the validity or enforceability of any provision of this Agreement is held to be dependent upon the existence of a specific legal description, the parties agree to promptly cause such legal description to be prepared. Ownership of both Parcels by the same person or entity shall not terminate this Agreement nor in any manner affect or impair the validity or enforceability of this Agreement.

7.9 Time of Essence. Time is of the essence of this Agreement.

7.10 Entire Agreement. This Agreement contains the complete understanding and agreement of the parties hereto with respect to all matters referred to herein, and all prior representations, negotiations, and understandings are superseded hereby.

7.11 Notices. Notices or other communication hereunder shall be in writing and shall be sent certified or registered mail, return receipt requested, or by other national overnight courier company, or personal delivery. Notice shall be deemed given upon receipt or refusal to accept delivery. Each party may change

from time to time their respective address for notice hereunder by like notice to the other party. The notice addresses of Declarants are as follows:

Hanford Partners LLC
1508 Eureka Road, #230
Roseville, CA 95661

SFP-E LLC
P O Box 5350, Bend, OR 97708
20900 Cooley Road, Bend, Oregon 97701

7.12 Governing Law. The laws of the State in which the Parcels are located shall govern the interpretation, validity, performance, and enforcement of this Agreement.

7.13 Estoppel Certificates. Each Owner, within twenty (20) day of its receipt of a written request from the other Owner(s), shall from time to time provide the requesting Owner, a certificate binding upon such Owner stating: (a) to the best of such Owner's knowledge, whether any party to this Agreement is in default or violation of this Agreement and if so identifying such default or violation; and (b) that this Agreement is in full force and effect and identifying any amendments to the Agreement as of the date of such certificate.

7.14 Bankruptcy. In the event of any bankruptcy affecting any Owner or occupant of any Parcel, the parties agree that this Agreement shall, to the maximum extent permitted by law, be considered an agreement that runs with the land and that is not rejectable, in whole or in part, by the bankrupt person or entity.

IN WITNESS WHEREOF, Declarants have executed this Agreement as of the date first written above.

LES SCHWAB:

SFP-E, LLC

By: _____ Dated: June 12, 2015
Corey J. Parks, Secretary

HANFORD PARTNERS

By: The Spence General Partnership, Member

By: Signed in counterpart Dated: _____, 2015
Bob F. Spence, General Partner

By: The Sutherland Family Trust, Member

By: Signed in counterpart Dated: _____, 2015
Douglas M. Sutherland, Trustee

By: Signed in counterpart Dated: _____, 2015
Patricia M. Sutherland, Trustee

By: The Reddy Family Trust, Member

By: Signed in counterpart Dated: _____, 2015
Bob Reddy, Trustee

IN WITNESS WHEREOF, Declarants have executed this Agreement as of the date first written above.

LES SCHWAB:

SFP-E, LLC

By: Signed in counterpart
Corey J. Parks, Secretary

Dated: _____, 2015

HANFORD PARTNERS

By: The Spence General Partnership, Member

By: _____
Bob F. Spence, General Partner

Dated: 6/11, 2015

By: The Sutherland Family Trust, Member

By: _____
Douglas M. Sutherland, Trustee

Dated: 6/11, 2015

By: _____
Patricia M. Sutherland, Trustee

Dated: 6/11, 2015

By: The Reddy Family Trust, Member

By: _____
Bob Reddy, Trustee

Dated: 6/11, 2015

CALIFORNIA ALL PURPOSE ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of ~~CALIFORNIA~~ OREGON)
)ss.
County of Deschutes)

On June 12, 2015 before me, Bonnie M. McCoy, Notary Public, personally appeared Corey J. Parks,

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(ies), and that by his/~~her/their~~ signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct. WITNESS my hand and official seal.

Signature Bonnie M. McCoy (Seal)

OFFICIAL SEAL
BONNIE M MC COY
NOTARY PUBLIC - OREGON
COMMISSION NO. 458104
MY COMMISSION EXPIRES JULY 10, 2015

2008cok.doc

CALIFORNIA ALL PURPOSE ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of CALIFORNIA)
)ss.
County of Placer)

On June 11, 2015 before me, Norma Ramirez, Notary Public, personally appeared Douglas M. Sutherland & Patricia M. Sutherland,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) ~~is~~/are subscribed to the within instrument and acknowledged to me that ~~he/she~~/they executed the same in ~~his/her~~/their authorized capacity(ies), and that by ~~his/her~~/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct. WITNESS my hand and official seal.

Signature Norma Ramirez (Seal)

NORMA RAMIREZ
Commission # 2022813
Notary Public - California
Placer County
My Comm. Expires May 2, 2017

2008ack.doc

CALIFORNIA ALL PURPOSE ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of CALIFORNIA)
)ss.
County of PLACER)

On JUNE 11, 2015 before me, MERRITT ANN TRIANO, Notary Public, personally appeared BOB SPENCE & BOB REDDY,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct. WITNESS my hand and official seal.

Signature _____ (Seal)

MERRITT ANN TRIANO
Comm. #2005378
Notary Public · California
El Dorado County
Comm. Expires Jan 27, 2017

2008ack.doc

SUBORDINATION AGREEMENT

The undersigned, UMPQUA BANK, as Beneficiary ("Beneficiary") under that certain Deed of Trust dated October 27, 2006, and recorded November 22, 2006, as Instrument 06-34750, of the Official Records of Kings County, California (the "Deed of Trust") which Deed of Trust is by and between Hanford Partners, LLC, a California limited liability company, as Trustor, and First American Title Company, as Trustee, hereby expressly subordinates said Deed of Trust and Beneficiary's beneficial interest thereunder, hereby consents to the recordation of the Pylon Sign Easement and Operation Agreement, in the Official Records of Kings County, California.

Dated 6/8/2015

BENEFICIARY:

UMPQUA BANK

By: James E. Wells, VP

Its: VICE PRESIDENT - CREST MANAGER

STATE OF Washington)
)SS.
COUNTY OF Spokane)

I certify that I know or have satisfactory evidence that Jason E Delp as V.P. is the person who appeared before me, and said person acknowledged that said person signed this instrument to be his/her free and voluntary act for the uses and purposes mentioned in the instrument.

DATED: June 8, 2015.

Notary Seal

Notary Public
State of Washington
Michele R. Hoover
Commission Expires 08-27-2015

Michele R Hoover
(Signature of Notary)

Michele R Hoover
(Legibly Print or Stamp Name of Notary)
Notary Public in and for the State of Washington
My appointment expires: 8.27.15

EXHIBIT A

Legal Description of Hanford Partners Property

All that portion of the North half of the Northeast Quarter of Section 34, Township 18 South, Range 21 East, Mount Diablo Base and Meridian, in the City of Hanford, County of Kings, State of California, according to the approved Government Township Plats thereof, described as follows:

Parcel C, as shown on a map recorded in Book 13 at Page 93 of Parcel Maps in the office of the Kings County Recorder, excepting therefrom the following Parcel:

Beginning at the Southwest corner of Parcel C, as shown on map recorded in Book 13 at Page 93 of Parcel Maps in the office of the Kings County Recorder; thence South 89°48'04" West, along the South line of said Parcel C, a distance of 354.32 feet; thence North a distance of 81.03 feet; thence North 89°48'04" East, a distance of 47.91 feet; thence North, a distance of 98.86 feet; thence North 89°48'04" East, a distance of 306.41 feet, to a point on the East line of said Parcel C, said point being 43.00 feet Westerly of the East line of said Section 34; thence South, parallel with and 43.00 feet Westerly of the East line of said Section 34, a distance of 179.89 feet to the Point of Beginning.

Containing 437,531 SF, more or less

EXHIBIT B

Legal Description of Les Schwab Property

The land described herein is situated in the state of California, county of Kings, city of Hanford, and is described as follows:

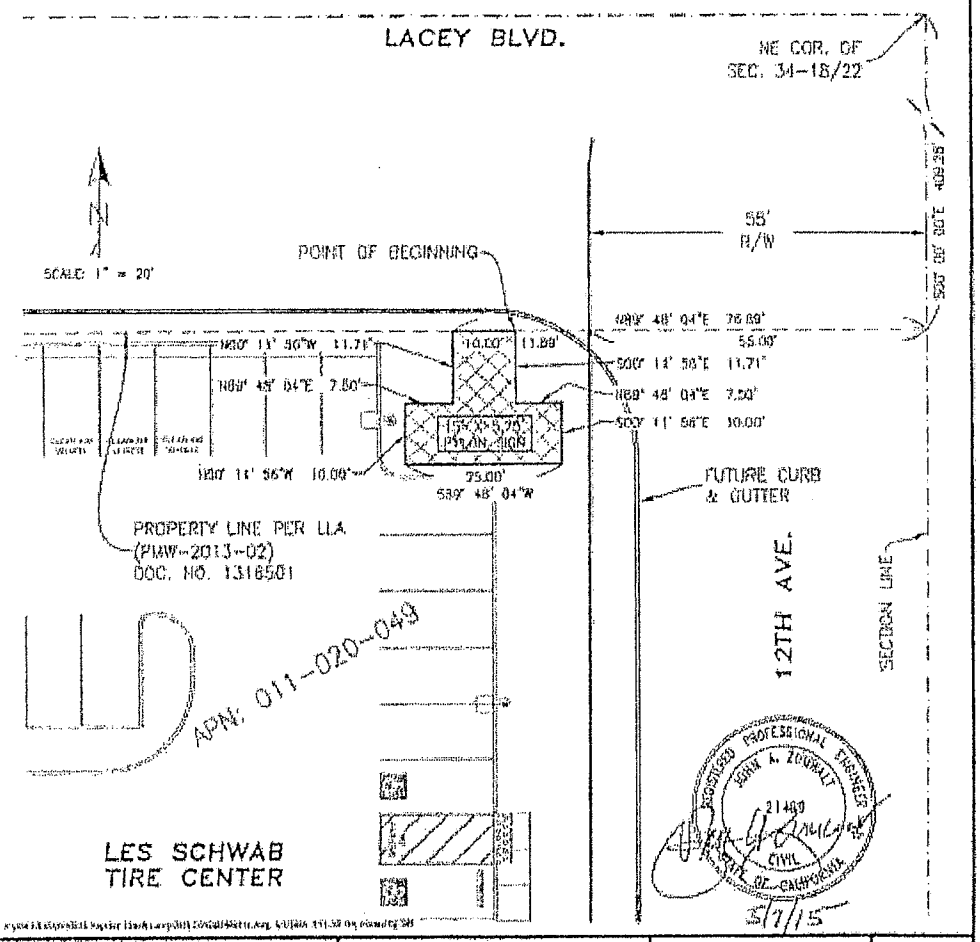
Parcel 1:

All that portion of the North half of the Northeast quarter of Section 34, Township 18 South, Range 21 East, Mount Diablo Base and Meridian, in the City of Hanford, County of Kings, State of California, according to the approved government township plats thereof, described as follows:

Beginning at the Southeast (erroneously of record as southwest) corner of Parcel S, as shown on a map recorded in book 13 page 93 of parcel maps in the office of the Kings County Recorder; thence South 89° 48' 04" West, along the South line of said Parcel C, a distance of 354.32 feet; thence North, a distance of 81.03 feet; thence North 89° 48 '04" East, a distance of 47.91 feet; thence North, a distance of 98.86 feet; thence North 89° 48' 04" East, a distance of 306.41 feet, to a point on the East line of said Parcel C, said point being 43.00 feet Westerly of the East line of said Section 34; thence South, parallel with and 43.00 feet Westerly of the East line of said Section 34, a distance of 179.89 feet to the Point of Beginning.

Containing 59,002 SF, more or less.

EXHIBIT "C"



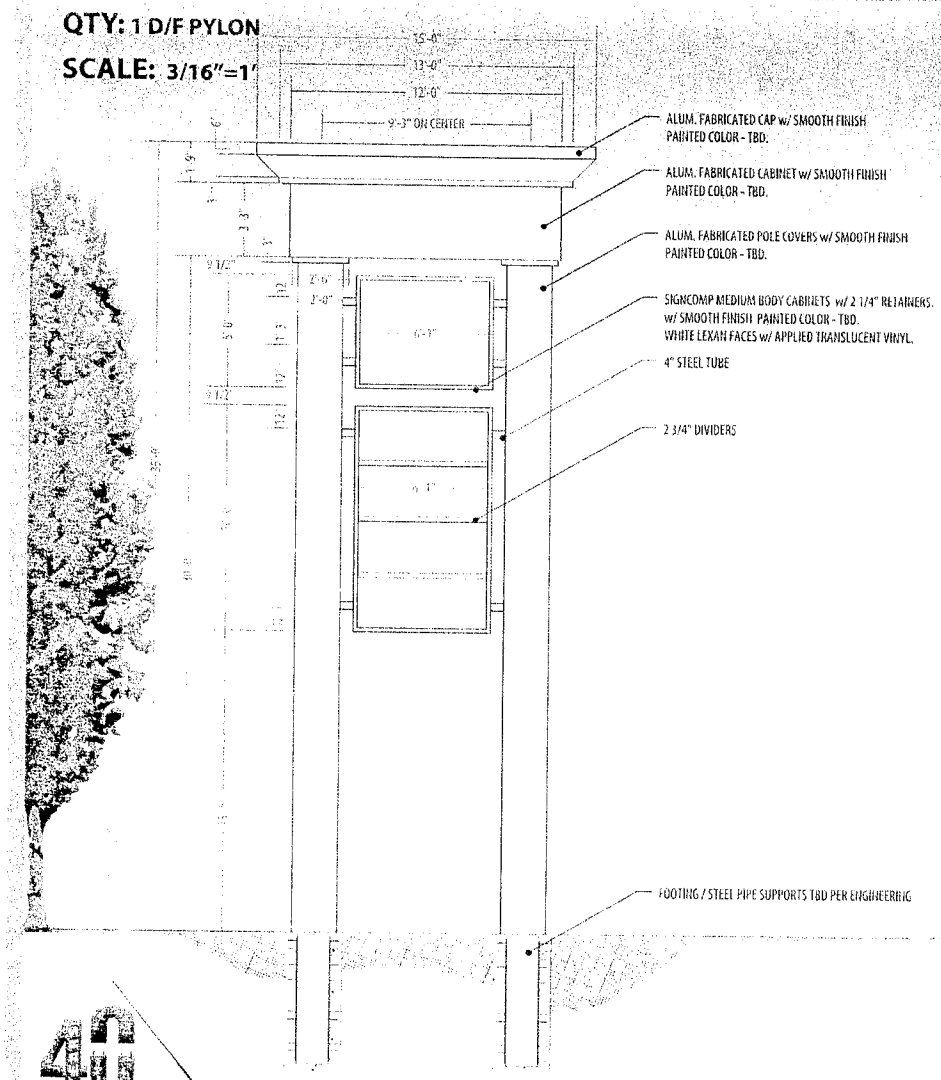
CML ENGINEERS ZUMWALT HANSEN & ASSOCIATES	609 N. Irwin St. Hanford, CA 93232 Office: (559) 582-1056 Fax: (559) 584-4143	Pylon Sign Easement Plat for Hanford Center	Job No. 0740511 Drawn By: JRJ Checked By: AD Indexed By: Date: 05/07/2015
			Sheet No. 1 of 1

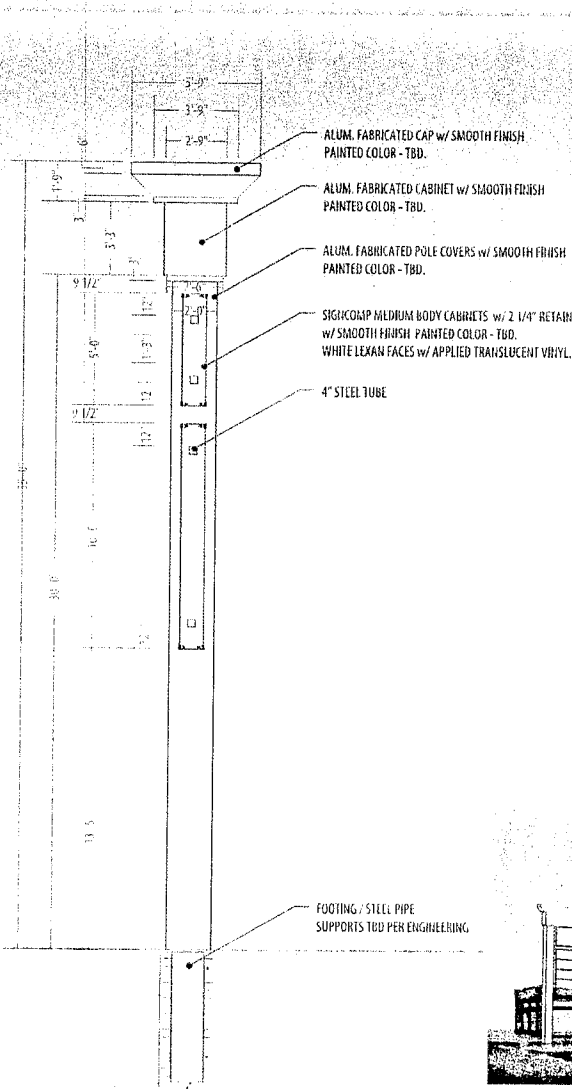
EXHIBIT D

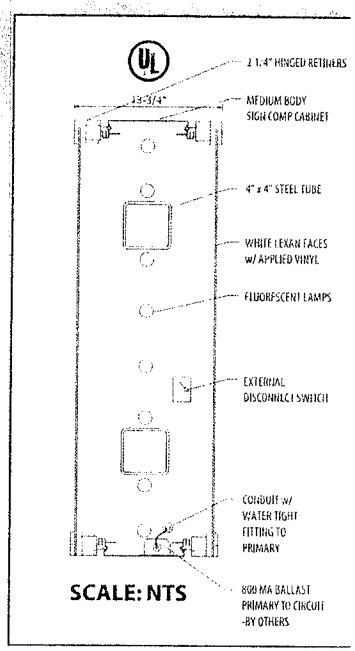
Pylon Sign Elevation

QTY: 1 D/F PYLON

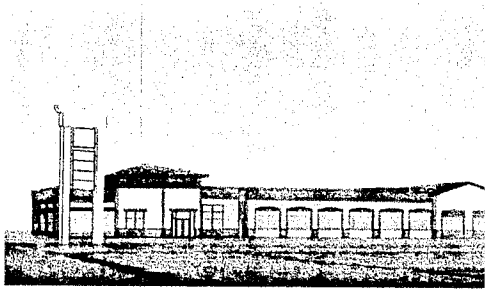
SCALE: 3/16"=1'







SCALE: NTS



Ellis & Ellis
SIGN SYSTEMS

Project: Hanford Marketplace Pylon
Address:

Date: 11.25.14
Revisions:
A 12.11.14 B 01.22.15
C 02.27.15 D 00.00.00
E 00.00.00 F 00.00.00

Customer ID#: Order #:
Designer: Mike T. Sales Rep: Mike T.
Sales Rep: Approval for Production:

Date:

Our artwork, printing and layout: If approved, sign as shown, and return for production. If there are changes, indicate in red ink on the layout to what they look like and sign for revision. Layouts must be returned in ten days. Allow 72 hours after receipt, or a change order will apply. Contact date will be stated. All signs are produced after the approval of shop drawings by client. Production time will be 6-8 weeks after layouts are received and signed without any changes. Any sign name incorrectly spelled or inaccurate, client-approved drawings will not be the responsibility of Ellis & Ellis.

Your checking of a submittal for review/approval of all aspects including, layout, spelling, content, graphics, colors, etc., is saying that you have reviewed, approved and assume full knowledge that any required revisions may result in additional charges. Written dimensions on these drawings shall have precedence over scaled dimensions.

Tenant Signature: Date:

Landlord Signature: Date:

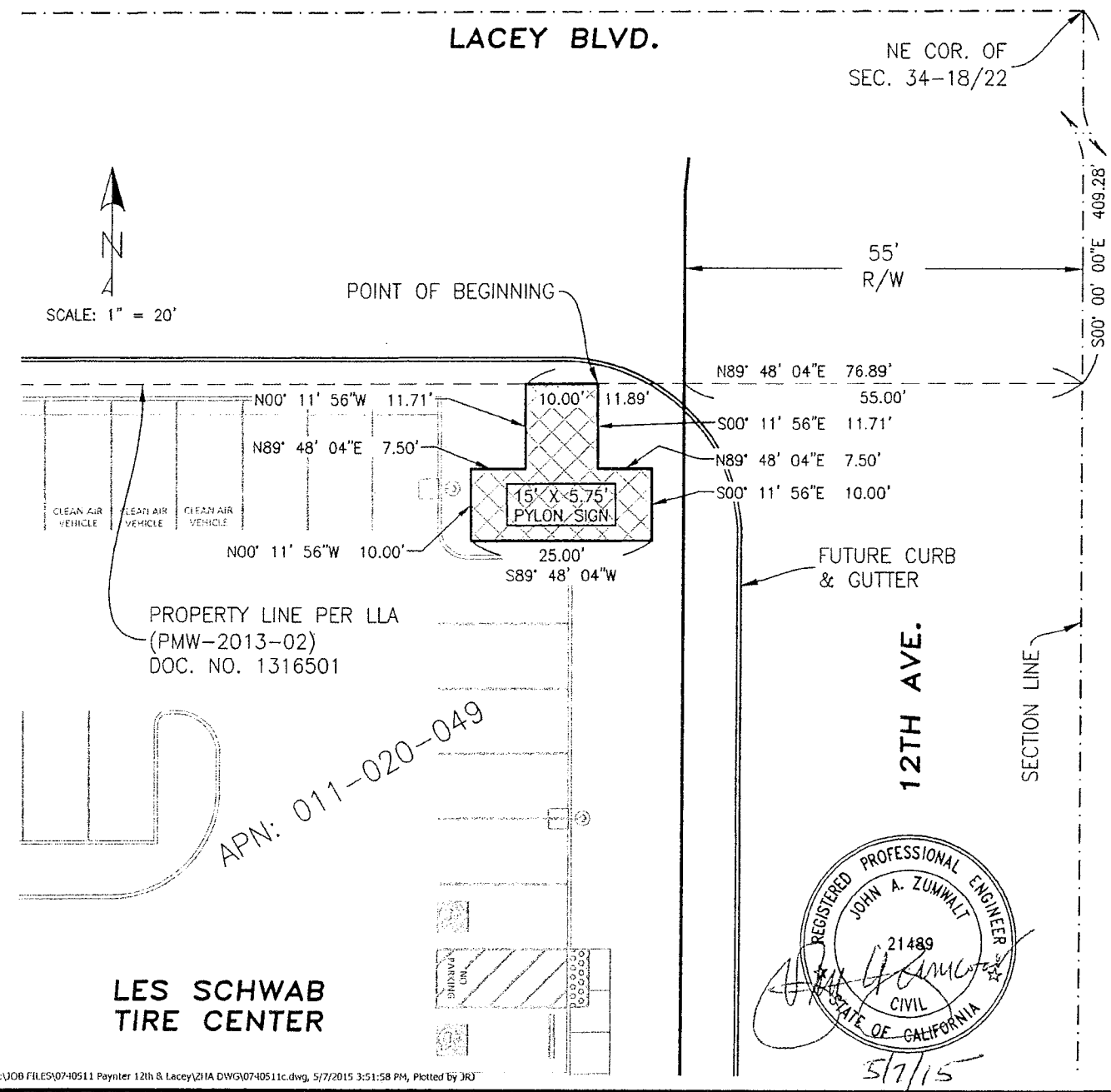
This sign is intended to be installed in accordance with the requirements of article 600 of the national electrical code and/or other applicable local codes. This includes proper grounding and bonding of the sign.

Electrical requirements (client is responsible for):
1) Electrical circuit to exhibit 60 cycle.
2) Must have installed with ground from electrical panel to sign location. 6-24 L.E. requires dedicated circuits for sign.
3) Normal procedure...

Landlord Signature: Date:

Attachment: Exhibit E - Pylon Sign Easement and Operating Agreement (1031 : Planned Unit

EXHIBIT "C"



CIVIL ENGINEERS ZUMWALT HANSEN INC. LAND SURVEYORS	609 N. Irwin St. Hanford, CA 93232 Office: (559) 582-1056 Fax: (559) 584-4143	**Pylon Sign Easement Plat for Hanford Center**	Job No. 0740511 Drawn By: JRJ Checked By: AD Indexed By: Date: 05/07/2015	Sheet No. 1 of 1

NOTICE OF INTENT TO ADOPT

NEGATIVE DECLARATION 2015-06 (RECIRCULATED)

NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN that on Tuesday, August 25, 2015, at 7:00 p.m., a public hearing will be conducted by the Hanford Planning Commission in the Council Chambers of the City of Hanford, Civic Center, 400 Douty Street, Hanford, California, pertaining to the following:

PROJECT DESCRIPTION AND LOCATION: Planned Unit Development No. 2015-02 and Tentative Map No. 2015-02 is a request to construct seven retail buildings totaling 124,300 square feet, dividing one parcel into nine parcels, and allowing a 35 foot Pylon sign in the "PC" Planned Commercial Zone District. The project is located on the SWC of 12th Avenue and Lacey Blvd in the City of Hanford. APN: 011-020-048.

Based on an Initial Study, the Community Development Department has determined that the project described above would not have significant adverse impacts on the environment. The Initial Study incorporates by reference the General Plan Environmental Impact Report for which a Statement of Overriding Considerations was adopted for Air Quality. A Negative Declaration has been prepared for the project. You may review the Negative Declaration, Initial Study, reference material and any comments received on the Negative Declaration at City of Hanford, 317 N. Douty Street, Hanford, CA 93230.

PUBLIC COMMENT INVITED: All interested parties are invited to submit written comment on the Negative Declaration by August 20, 2015 and/or to appear at the hearing described above to present testimony in regard to the above listed request. All comments should be submitted to the City of Hanford, Attention: Melody Haigh, at the above listed address. You may review the Negative Declaration, Initial Study, reference material and any comments received on the Negative Declaration at the above address.

If you challenge any action or decision regarding the project described in this notice in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the City prior to, or at, the public hearing.

For further information, contact the Hanford Community Development Department at (559) 585-2580 or 317 N. Douty Street, Hanford, California, 93230.

HANFORD COMMUNITY DEVELOPMENT DEPARTMENT

NEGATIVE DECLARATION 2015-06

Project Title: Planned Unit Development 2015-02 and Vesting Tentative Map No. 2015-02

File Number: PUD 509-0090 & TPM 506-0403

State Clearinghouse Number:

Lead Agency: City of Hanford

Applicant: Borges Architectural Group
1478 Stone Point Drive #350
Roseville, CA 95661

Property Owner: Hanford Partners LLC
1508 Eureka Road #230
Roseville, CA 95661

Project Description: The project proposes to construct seven retail buildings totaling 124,300 square feet and dividing one parcel into nine parcels in the "PC" Planned Commercial Zone District.

Location: The project is located on the SWC of 12th Avenue and Lacey Blvd in the City of Hanford
APN: 011-020-048.

Attachments:

Initial Study	(X)
Environmental Checklist	(X)
Maps	(X)
Mitigation Measures	( )
Letters	(X)

Environmental Assessment: The Initial Study for the project is available for public review at the City of Hanford, Community Development Department, 317 N. Douty St., Hanford CA.

Declaration of No Significant Effect: The City of Hanford has completed the preparation of an initial study for the project described above. The initial study did not identify any potentially significant environmental effects that would result from the proposed project, with the exception of Air Quality, for which a Statement of Overriding Considerations was previously adopted as part of the certification of the 2002 General Plan. The project is consistent with the 2002 General Plan. The finding of no significant effect is based upon the criteria of the Guidelines of the State Secretary for Resources, Sections 15064 (Determining Significant Effect), 15065 (Mandatory Findings of Significance), and 15070 (Decision to prepare a Negative Declaration), and the following reasons as documented in the Initial Evaluation (Initial Study) for the project, which is attached.

(a) The project does not have the potential to 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, 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) The project does not have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals.

(c) The project does not have environmental effects which are individually limited but cumulatively considerable. Cumulatively considerable means that the incremental effects of an individual 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.

(d) The environmental effects of the project will not cause substantial adverse effects on human beings, either directly or indirectly.

This Negative Declaration has been prepared by the City of Hanford Community Development Department in accordance with the California Environmental Quality Act of 1970, as amended.

Contact Person: Darlene Mata, Community Development Director **Phone:** (559) 585-2590

Signature: **Date:** July 30, 2015

Review Period: 20 days

RECIRCULATED

INITIAL STUDY AND NEGATIVE DECLARATION 2015-06

Prepared For

Planned Unit Development 2015-02 and Vesting Tentative Parcel Map No. 2015-02

Prepared By

City of Hanford

July 30, 2015

INITIAL STUDY

INTRODUCTION AND REGULATORY GUIDANCE

This document is an Initial Study and Negative Declaration (ND) prepared pursuant to the California Environmental Quality Act (CEQA) for the Project. This ND has been prepared in accordance with CEQA, Public Resources Code Section 21000 et seq., and the CEQA Guidelines.

If a project is not otherwise statutorily or categorically exempt from CEQA, an Initial Study is conducted by a lead agency to determine if a project may have a significant effect on the environment. In accordance with the CEQA Guidelines, Section 15064, an environmental impact report (EIR) must be prepared if the Initial Study indicates that the proposed project under review may have a potentially significant impact on the environment. A negative declaration may be prepared in instead, if the lead agency prepares a written statement describing the reasons why a proposed project would not have a significant effect on the environment, and, therefore why it does not require the preparation of an EIR. According to the CEQA Guidelines Section 15070, a negative declaration shall be prepared when either:

1) The initial study show there is no substantial evidence, in light of the whole record before the agency, that the proposed project may have a significant effect on the environment, or

2) The Initial Study identified potentially significant effects, but:

a) Revisions in the project plans or proposals made by or agreed to by the applicant before the proposed negative declaration is released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and
b) There is no substantial evidence, in light of the whole record before the agency, that the proposed project as revised may have a significant effect on the environment.

If the Initial Study reveals that there may be a significant effect upon the environment, but those effects can be avoided or reduced to a less than significant level with revisions to the project plan and/or mitigation measures, and the applicant agrees to the revision and/or mitigation measures, the lead agency may prepare a negative declaration.

PROJECT DESCRIPTION:
The project proposes to construct seven retail buildings totaling 124,300 square feet and dividing one parcel into nine parcels in the "PC" Planned Commercial Zone District. The project is located on the SWC of 12th Avenue and Lacey Blvd in the City of Hanford APN: 011-020-048.

ENVIRONMENTAL IMPACTS
No significant adverse environmental impacts have been identified for this project. The City of Hanford Land Use Element, Zoning Ordinance, and Climate Action Plan contain policies and regulations and measures that are designed to mitigate impacts to a level of non-significance. Environmental measures are methods, measures, standard regulations or practices that avoid, reduce, or minimize a project's adverse effects on various environmental resources. Based on the underlying authority, they may be applied before, during, or after construction of the project. Environmental measures are also commonly listed as conditions of approval. The City Municipal Code and other agencies currently contain measures that assist to mitigate environmental impacts.

In addition, a Statement of Overriding Considerations was adopted for Agriculture and Air Quality for the EIR prepared for the 2002 General Plan Update. The General Plan Update and EIR are herein incorporated by reference, including Resolution 02-39-R.

PROJECT COMPATIBILITY WITH EXISTING ZONES AND PLANS
The project is compatible with the General Plan and Zoning Ordinance as the project relates to surrounding properties. The proposed development is consistent with the Planned Commercial land use designation and the standards for development in the PC (Planned Commercial) zone.

SUMMARY OF INITIAL STUDY/NEGATIVE DECLARATION IMPACT CONCLUSIONS
A Draft Initial Study/Negative Declaration (IS/ND) was prepared for the Planned Unit Development 2015-02 and Vesting Tentative Parcel Map 2015-02 in accordance with the California Environmental Quality Act (CEQA), the State CEQA Guidelines, and the City of Hanford Municipal Code. The Draft IS/ND for the proposed Project is tiered from the 2002 General Plan Update Environmental Impact Report (EIR) (SCH No. 2002021036), certified by the City Council June 18, 2002.

The Proposed IS/ND analyzed the Project's potential impacts with regard to the following environmental topical areas: (1) aesthetics, (2) agriculture and forest resources, (3) air quality, (4) biological resources, (5) cultural resources, (6) geology and soils, (7) greenhouse gas emissions, (8) hazards and hazardous materials, (9) hydrology and water quality, (10) land use and planning, (11) mineral resources, (12) noise, (13) population and housing, (14) public services, (15) recreation, (16) transportation/traffic, and (17) utilities and services systems.

The proposed Project, as analyzed in the Draft IS/ND, incorporates all relevant General Plan policies, standards and Mitigation Measures (MMs), as adopted by the 2002 General Plan EIR for purposes of determining environmental impacts of Project implementation. Based on the Project specific analysis presented in the Draft IS/ND it was determined that the Project in each topical area would have either no impact, a less than significant impact, or that project impacts were adequately analyzed in the 2002 General Plan Update EIR. The Proposed IS/ND concluded that the proposed Project would have no impact or a less than significant Project-specific impact in the following topical areas: aesthetics, agricultural resources, biological resources, cultural resources, geology and soils, greenhouse gas,emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, and utilities and services systems.

Further, it was concluded that the proposed Project would have potentially significant impacts related to air quality. This impact was analyzed in the 2002 General Plan EIR and determined to be a significant and unavoidable impact associated with implementation of the 2002 General Plan, of which the Project is a part and consistent with. Statements of Overriding Considerations for this significant unavoidable impact were adopted by the City Council as part of the approval of the 2002 General Plan Update. There are no mitigation measures that would further reduce the short-term construction and longer term operational air quality impacts. The proposed Project is consistent with and implements the General Plan and would not result in any new impacts that cannot be mitigated to less than significant levels, nor would it increase the severity of any previously identified impacts. Therefore, the Statement of Overriding Considerations is re-affirmed for the proposed Project and a Negative Declaration is the recommended appropriate environmental document for the proposed Project, in accordance with CEQA.

RECIRCULATION

The Proposed Negative Declaration was circulated for public and agency review from July 3 to July 23, 2015. The City received two letters during the comment period; Kings County Health Department and the San Joaquin Valley Air Pollution Control District. A late comment letter was received on July 27, 2015. Based on the comments, the City chose to recirculate the Proposed Negative Declaration, however none of the conditions found in the California Environmental Quality Act Guidelines Section 15073.5(b) were found to occur. The recirculated document provides additional clarification on the assessment of environmental impacts. No new impacts were identified and no mitigation measures are required.

The public hearing that was originally scheduled on July 28, 2015 for the proposed project was continued to a date certain, August 25, 2015.

APPENDIX G: Initial Study and Findings

ENVIRONMENTAL ASSESSMENT NO. 2015-06

1. Project Title: Planned Unit Development 2015-02 and Vesting Tentative Map No. 2015-02

2. Lead Agency Name and Address: City of Hanford
317 N. Douty
Hanford, CA 93230

3. Contact Person/Phone Number: Darlene Mata
Community Development Department
(559) 585-2583

4. Project Location: The project is located at the SWC of 12th Avenue and Lacey Blvd in the City of Hanford (APN: 011-020-048).

5 Project Sponsor's Name/Address: Borges Architectural Group
1478 Stone Point Drive #350
Roseville, CA 95661

6. General Plan Designation: Planned Commercial

7. Zoning: "PC"

8. Description of the Project: Planned Unit Development 2015-01 proposes to construct seven retail buildings totaling 124,300 square feet with shared access and parking and dividing one parcel into seven parcels in the "PC" Planned Commercial Zone District

9. Surrounding land uses and setting:

	Planned Land Use	Existing Zoning	Existing Land Use
North	Commercial	PC	Shopping Center
East	Commercial	PC	Mall
South	Commercial	PC	Shopping Center
West	Commercial	PC	Shopping Center, Car Wash, Wendy's

10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)

San Joaquin Valley Air Pollution Control District

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 on the following pages.

☐ Aesthetics	☐ Agriculture Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology/Soils
☐ Green House Gas Emissions	☐ Hazards & Hazardous Materials	☐ Hydrology/Water Quality
☐ Land Use/Planning	☐ Mineral Resources	☐ Noise
☐ Population/Housing	☐ Public Services	☐ Recreation
☐ Transportation/Traffic	☐ Utilities/Service Systems	☐ Mandatory Findings of Significance

DETERMINATION (To be completed by the Lead Agency)

On the basis of this initial evaluation:

☒ I find that the proposed project **COULD NOT** have a significant effect on the environment. **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 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 **EIR** or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier **EIR** or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

FOR: CITY OF HANFORD

Darlene R. Mata
Community Development Director
City of Hanford

DATE 7/30/15

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:
   a) the significance criteria or threshold, if any, used to evaluate each question; and
   b) the mitigation measure identified, if any, to reduce the impact to less than significance.

Issues:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
I. AESTHETICS -- 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) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☑	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☑	☐

ENVIRONMENTAL SETTING: The City of Hanford is located in the San Joaquin Valley. The City and the surrounding areas are predominately flat. There are no elevated landforms in the community that would represent an opportunity for a scenic vista of surroundings land.

Significance Criteria
The Project may result in significant impacts to aesthetics if it substantially affects the view of a scenic corridor, vista or view open to the public, causes substantial degradation of views from adjacent residences, or results in new night lighting that shines into adjacent residences.

Checklist Discussion:

a) No Impact – The proposed project will not obstruct any federal, state or locally classified scenic areas, historic properties, community landmarks or classified scenic highway or state or national scenic area. The project is surrounding by existing commercial development.
b) No Impact – The project is located in an urban area surrounded by existing commercial development.
c) Less than Significant Impact – The project is surrounded by existing commercial development and is required through the Planned Development Unit process to be developed consistent with the architectural standards of the adjacent commercial developments.
d) Less than Significant Impact – The project will include onsite lighting that will produce new sources of light and glare. The City Municipal Code contains requirements for the shielding of all lighting downward to prevent direct view of light sources from residential properties.

Conclusion: Impacts to aesthetics are anticipated to be less than significant.

Source: General Plan and General Plan EIR, Hanford Municipal Code

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
II. AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. 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?	☐	☐	☐	☑

ENVIRONMENTAL SETTING: The City of Hanford is located in the San Joaquin Valley. The California Division of Land Resource Protection designates this land as "Urban and Built-Up Land." "Urban and built-up land is occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. Common examples include residential, industrial, commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control structures"

The General Plan EIR analyzed the impacts of the City's urban growth on agricultural land and includes mitigation measures to reduce those impacts, however, impacts to agricultural lands remain significant and unavoidable. A Statement of Overriding Considerations was adopted for the impacts to agricultural lands.

Significance Criteria

The Project may result in significant impacts to agricultural resources if the project results in the removal of lands designated as prime farmland, unique farmland, or farmland of statewide importance by the Department of Conservation.

Checklist Discussion:

a) No Impact – The proposed project is not located within an area listed as prime farmland, unique

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact

farmland, or farmland of statewide importance on the Department of Conservation website. Therefore the project will not convert land listed as prime farmland, unique farmland, or farmland of statewide importance.

b) No Impact - The project does not conflict with any agricultural zoning or any Williamson Act contracts. The project site is not under contract.

c) No Impact - The project will not conflict with any forest or timberland zoning. The project does not contain and is not adjacent to any forest or timberland resources.

d) No Impact – The project will not result in the loss of forest land or conversion of forest land to non-forest use.

e) No Impact – The project will not result in changes to the existing environmental which will result in conversion of farmland to a non-farmland use. The project is located in an area that is served by all planned city services and infrastructure, and is surrounded by urban development. The project will not result in other surrounding properties converting from farmland or forest land.

Conclusion: The project will not convert prime agricultural land to a non-agricultural use and will not have any effect on agricultural or forest resources, therefore there is no impact.

Source: General Plan and General Plan EIR

III. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☑	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☑	☐
c) 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☑	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☑	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☑	☐

ENVIRONMENTAL SETTING

The California Air Resource Board (ARB) has divided California into regional air basins according to topographic air drainage features. The City of Hanford is located in the San Joaquin Valley Air Basin (SJVAB), which is approximately 250 miles long and averages 35 miles wide, is the second largest air basin in the state. Air pollution is directly related to a region's topographic features...The valley is basically flat with a slight

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact

downward gradient to the northwest. The valley opens to the sea at the Carquinez Straights where the San Joaquin – Sacramento Delta empties into San Francisco Bay. The San Joaquin Valley (SJV), thus, could be considered a "bowl" open only to the north.

Local climatological effects, including wind speed and direction, temperature, inversion layers, and precipitation and fog, can exacerbate the air quality problem in the SJVAB.

The Clean Air Act (CAA) was passed in 1963 by the US Congress and has been amended several times. The 1970 Clean Air Act amendments laid the foundation for the regulatory activities in the 1970s and 1980s. In 1990, an amendment was approved that adopted more stringent standards. The California Clean Air Act (CCAA), signed in 1988, requires all areas of the state to achieve and maintain the California Ambient Air Quality Standards (AAQS). The California AAQS is more stringent that the National AAQS.

Both California and the federal government have established heath based AAQS for seven air pollutants as shown below. These pollutants are ozone (O3), nitrogen dioxide (NO2), carbon monoxide (CO), sulfur dioxide (SO2), coarse inhalable particulate matter (PM10), fine inhalable particulate matter (PM2.5) and lead (Pb). These standards are designed to protect the health and welfare of the population.

State and Federal Standards Table

POLLUTANT	AVERAGING TIME	FEDERAL STANDARD	STATE STANDARD
Ozone	1-Hour 8-Hour	- 0.075 ppm	0.09 ppm 0.07 ppm
Carbon Monoxide	8-Hour 1-Hour	9.0 ppm 35.0 ppm	9.0 ppm 20.0 ppm
Nitrogen Dioxide	Annual 1-Hour	0.053 ppm 0.100 ppm	0.03 ppm 0.18 ppm
Sulfur Dioxide	Annual 24-Hour 1-Hour	0.03 ppm 0.14 ppm 0.075 ppm	- 0.04 ppm 0.25 ppm
PM10	Annual 24-Hour	- 150 ug/m3	20 ug/m3 50 ug/m3
PM2.5	Annual 24-Hour	15 ug/m3 35 ug/m3	12 ug/m3 -
Lead	30 Day Avg 3 Month Avg	- 1.5 ug/m3	1.5 ug/m3 -

Notes: ppm=parts per million; ug/m3=micrograms per cubic meter
Source: California Air Resources Board 2008. Ambient Air Quality Standards (4/01/08)
http://www.arb.ca.aqs

Attainment Status

The air quality management plans prepared by the San Joaquin Valley Air Pollution Control District (SJVAPCD) provide the framework for SJVAB to achieve attainment of the state and federal AAQS through the SIP. Areas are classified as attainment or nonattainment areas for particular pollutants, depending on whether they meet air quality standards. Classifications of severity range from marginal, moderate, serious to sever and extreme.

At the federal level, the SJVAPCD is designated as extreme nonattainment for the 8-hour ozone standard, attainment for PM 10 and CO, and nonattainment for PM2.5. At the state level, the SJVAB is designated nonattainment for 8-hour zone, PM10, and PM2.5 standards.

The City of Hanford is in the San Joaquin Valley Air Basin, which has been designated as non-attainment for PM-2.5 and extreme non-attainment for ozone. Over the long-term, emissions from planned growth have the potential to degrade local carbon monoxide concentrations along roads that would serve the City and could

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact

result in air emissions or deterioration of ambient air quality. The project will not conflict with the existing air quality plan.

EVALUATION
The City prepared an analysis of the project using the CalEEMod software to determine that the project would result in the emissions shown in the table below. Assuming construction and operations may overlap, the total emissions for ROG and PM10 do not exceed the SJVAPCD thresholds of significance. The total project emissions for NOx exceeds the threshold of significance. The City of Hanford adopted a Statement of Overriding Considerations for Air Quality as part of the certification of the EIR prepared for the 2002 General Plan. The Statement of Overriding Considerations is incorporated by reference as the project is consistent with the land use adopted as part of the 2002 General Plan Update, evaluated in the accompanying EIR, and the current zoning designation.

	SJVAPCD Threshold Significance Tons/year	Project Tons/year Construction	Project Tons/year Operations	Project Tons/year TOTAL
ROG	10	2.7955	6.9041	9.6996
NOx	10	7.0242	18.4552	25.4794
PM10	15	.8941	3.7160	4.6101

The San Joaquin Valley Air Pollution Control District provided comments during early consultation and in response to the initial circulation of the Negative Declaration. This initial study has incorporated a response to those comments.

Toxic Air Contaminants
The proposed project was evaluated using the recommended Guidance for Assessing and Mitigating Air Quality Impacts and the Air Quality and Land Use Handbook. The project does not meet the definition of a Type A project that would expose sensitive receptors to TACs. The project is not listed as a source of TAC's and is not located within any recommended distance requirements to a sensitive land use. The closest source category with distance requirements is a distribution center that would accommodate more than 100 trucks per day or more than 40 truck per day with refrigeration units. A comment letter was received indicating that the proposed project, if it included a grocery, would result in significant TAC's resulting from refrigerated units. The tenants within the project have not been identified and truck traffic that would meet or exceed the levels listed above are not anticipated, therefore impacts from exposure to TAC's are anticipated to be less than significant.. The proposed project is not located adjacent to any sensitive receptor and does not meet distance requirements for completion of a Health Risk Assessment, no further study is required.

Significance Criteria
The SJVAPCD has established the following standards of significance, a project is considered to have a significant impact on air quality if:

1. A project results in new direct or indirect emissions of ozone precursors (ROG and NOx) in excess of 10 tons per year.
2. Any project with the potential to frequently expose members of the public to objectionable odors will be deemed to have a significant impact.
3. Any project with the potential to expose sensitive receptors (including residential area) or the general public to substantial levels of toxic air contaminants would be deemed to have a potentially significant impact.
4. A project produces a PM10 emission of 15 tons per year (82 pounds per day)

The SJVUAPCD significance impact for dust is based on appropriateness of construction dust controls, including compliance with Regulation VIII fugitive PM10 prohibitions. The guidelines provide feasible control

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact

measures for construction emission of PM 10s. If construction activities comply with the applicable rules, then air pollutant emissions for construction activities would be considered less than significant. All construction projects in the City of Hanford are required to comply with the SJVUAPCD Rules and Regulations, which will be included in project approval.

Checklist Discussion

a) Less than Significant Impact. The project is located within the San Joaquin Valley Air Basin which is in non-attainment for the federal and state ambient air quality standards for zone and PM10. The project would not obstruct implementation of an air quality plan and is required to comply with City policies and ordinances, including the General Plan Air Quality Element.

b) Less than Significant Impact. The proposed project will result in short term construction related emissions and operational emissions. The short term construction impacts are considered less than significant by the SJVAPCD based on compliance with the District's mandatory dust control measures. Development of the site will be subject to SJVAPCD's Indirect Source Rule (Rule 9510) procedures. The applicant will be required to obtain permits demonstrating compliance with Rule 9510, or payment of mitigation fees to the SJVAPCD prior to issuance of a building permit. The project may also be subject to Regulation VIII, Rule 4641, Rule 4692 to further reduce air quality impacts. Although emissions resulting from the project exceed the thresholds of significance for PM10, the City of Hanford adopted a Statement of Overriding Considerations for Air Quality as part of the certification of the EIR prepared for the 2002 General Plan, which will be restated in the approval of the negative declaration. No new impacts have been identified that were not previously evaluated, therefore resulting in a finding of less than significant.

c) Less than Significant Impact. This site was evaluated in the EIR for the Hanford General Plan Land Use Element Update for conversion to urban development. The City adopted a Statement of Overriding Considerations for Air Quality with the certification of the EIR. The applicant will be required to obtain permits from the SJVAPCD demonstrating compliance with Rule 9510 or payment of mitigation fees to the SJVAPCD.

d) Less than Significant Impact. The project is surrounding by existing commercial development and will not result in expose of sensitive receptors to substantial pollutant concentrations.

e) Less than Significant Impact. The project will include uses typical of a commercial center. No objections odors are anticipated to occur as part of the project. Any under-fired char-broilers are require required to be in compliance with Rule 5692.

Conclusion: The project will not create or result in any significant air quality impacts, with the incorporation of the standard City conditions of approval for compliance with the rules and regulations of the SJVUAPCD and based on the Statement of Overriding Considerations adopted for the General Plan Update EIR of which the project is consistent.

Source: 2002 General Plan, General Plan EIR, San Joaquin Valley Air Pollution Control District GAMAQI, CalEEMod Model based on 124,000 square feet of commercial.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES -- 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 Game 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 Game or US Fish and Wildlife Service?	☐	☐	☐	☑
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (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?	☐	☐	☐	☑

Environmental Setting

The project site is currently undeveloped and surrounded by existing commercial development. Active

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact

construction is currently taking place to the east and immediately adjacent to the project site.

Standards of Significance

The project would have a significant effect on biological resources if it would:

1. Interfere substantially with the movement of any resident or migratory fish or wildlife species.
2. Substantially diminish habitat for fish, wildlife or plants.
3. Substantially affect a rare, threatened, or endangered species of animal or plant or the habitat of a rare, threatened or endangered species.

Checklist Discussion

a) No Impact. The site is surrounding by urban development and does not contain any natural areas that may be considered habitat. Recent weed control measures and adjacent construction activities eliminate the potential for impacts.

b) No Impact. As part of an early consultation process for a grading permit for the site, the City contacted California Fish and Wildlife regarding a remnant piece of the Mussel Slough. Fish and Wildlife stated that due to the clear disconnect of the previously existing hydrology and isolated nature of the section of the slough that they had no comment and that a grading permit would not require a streambed alteration agreement. In addition, they stated that the loss of this section of the slough was included as part of mitigation that was required of an adjacent project, since that project essentially isolated this section from any other section of the slough. There is no impact.

c) No Impact. See b above.

d) No Impact. The project would not interfere 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 wildlife nursery sites.

e) No Impacts. The project would not conflict with any local policies or ordinances protecting biological resources such as a tree preservation ordinance or policy.

f) No Impacts. The project would not conflict with the provision of an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other local regional or state habitat plans.

Conclusion

The project site is surrounded by commercial development and does not contain any natural features therefore there is no impact to biological resources.

Source: 2002 General Plan, General Plan EIR, California Department of Fish and Wildlife Early Consultation

V. CULTURAL RESOURCES -- Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5?	☐	☐	☐	☑
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5?	☐	☐	☐	☑

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☑
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☑

Environmental Setting
The City of Hanford has completed several records searches for cultural resources. Three sites have been identified in or near the City of Hanford. None of the sites are located in the project area or within a mile of the project. The project is no anticipated to impact any cultural resource, however, as a standard condition of approval for all construction sites, the City requires that should any disturbance of undiscovered archaeological or paleontological resources occur that construction activity cease immediately until a qualified archeologist be consulted and the finding properly investigated before construction may continue."

Significance Criteria
The project may have a significant impact on cultural resources if it causes substantial adverse changes in the significant of a historical or archaeological resource as set forth by the California Register of Historic Places and Section 106 of the National Historic Preservation Act; directly or indirectly destroys a unique paleontological resource or site.

Checklist Discussion

a) No Impact. The project would not cause a substantial adverse change in the significance of a historical resource as defined in 15604.5 of the CEQA Guidelines.

b) No Impact. The project would not cause a substantial adverse change in the significance of an archaeological resource as defined in 15604.5 of the CEQA Guidelines.

c) No Impact. The project will no directly or indirectly destroy any unique paleontological resource or site.

d) No Impact. The site has not been identified as containing areas of human remains. Project conditions of approval will include a requirements that in the case that any human remains are discovered at any time, that construction will cease and the City is notified as well as the County Coroner pursuant to California Health and Safety Code 7050.5 and Public Resources Code 5097.98.

Conclusion
The project would not create any significant impact to cultural resources.

Source: 2002 General Plan, General Plan EIR

VI. GEOLOGY AND SOILS -- Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☐	☑

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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 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?	☐	☐	☐	☑

Environmental Setting

Hanford is located in a seismic zone that is sufficiently far from known faults, and consists of a stable geologic formation such that the effects of ground shaking should be minimal. [1974 Five County Seismic Safety Element] "The nearest known earthquake faults are located approximately 60 miles to the east of Hanford in the Sierra Nevada, and in the eastern Coast Ranges area approximately 50 miles to the west" (City of Hanford General Plan EIR, 2002). The project area is not subject to landslides.

"Several studies around Hanford have concluded that liquefaction potential is low due to the medium dense nature of soils, the distance to active faults, and the relatively deep water table. Therefore, the potential for liquefaction to occur is considered to be low"

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact

Significance Criteria

The project may result in significant earth impacts if it causes substantial erosion or siltation, exposes people to geologic hazards or risk from faults, landslides or unstable soil conditions. Grading that disturbs large amounts of land or sensitive grading areas (such as slopes in excess of 20%) may cause substantial erosion or siltation.

Checklist Discussion

a) No Impact. No known faults are located on the project site. The project will not expose people or structures to shaking, ground failure including liquefaction, or landslides. Construction of the commercial development may require some earth movement resulting in disruption and compaction of soils. This is not significant because the area is designated for urban uses.

b) No Impact. Construction of the commercial development may require some earth movement resulting in disruption and compaction of soils. Soil erosion will be controlled through best management practices in accordance with City regulations.

c) No Impact. The project tis not located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project.

d) No Impact. The project will not expose people to expansive soils.

e) No Impact. The City provides necessary sewer and water systems, which are already in place, for development. The project will not utilize septic or alternative disposal methods.

Conclusion

The project will not result in impact to geophysical conditions, therefore there is no impact.

VII. GREENHOUSE GAS EMISSIONS – 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?	☐	☐	☑	☐

Environmental Setting

Gases that trap heat in the atmosphere are referred to as greenhouse gases (GHGs) because they capture heat radiated from the sun as it is reflected back into the atmosphere. The accumulation of GHGs has been implicated as a driving force for climate change. Individual project contribute to the cumulative effects of climate change by emitting CHG's during construction and operations.

In 2005, the Governor established executive order S-3-05, which set target dates for reduction of GHG. By 2010, reduce GHG to 2000 levels, by 2020 to 1990 levels, and by 2050 to reduce GHG emission to 810% below 1990 levels. In 2006, California passed AB 32, which requires the California Air Resources Board (CARB) to design and implement emission limits, regulation and other measures that are feasible and cost-effective resulting in

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact

GHG emission reduced to 1990 levels by 2020.

In 2009, the California Office of Planning and Research (OPR) published revisions to CEQA to address GHG emissions. The amendments included the following:

Climate Action Plans and other greenhouse gas reduction plans can be used to determine whether a project has significant impact, based upon its compliance with the plan.

Local governments are encouraged to quantify the greenhouse gas emissions of proposed project, noting that they have the freedom to select the models and methodologies that must meet their needs and circumstances. The section also recommends consideration of several qualitative factors that may be used in the determination of significant, such as the extent to which the given project complies with state, regional, or local GHG reduction plans and policies. OPR does not set or dictate specific thresholds of significance.

When creating thresholds of significance, local governments may consider thresholds of significance adopted by other agencies.

On December 30, 2009, the Natural Resources Agency adopted the proposed amendment to the CEQA Guidelines in the California Code of Regulations. Also in December 2009, the SJVAPCD adopted guidance documents for addressing GHG impacts. The guidance reflects on performance based standards know as Best Performance Standards (BPS), to assess significance of projects related GHG emissions on global climate change during the environmental process. Projects can mitigate their impacts to less than significant by including BPS in their project. Compliance with AB32 may also be achieved by reducing emissions 29% less than business as usual.

In May of 2014, the City of Hanford adopted a Climate Action Plan (CAP) to quantify GHG emissions, ensure compliance with AB32 and to streamline the environmental review process in accordance with CEQA Guidelines Section 15152 and 15183.5. The Climate Action Plan includes a baseline GHG emission inventory, reduction measures and reduction targets consistent with State goals. The Hanford General Plan Air Quality Element and CAP include policies that aim to reduce the level of GHG emissions in association with buildout conditions of the General Plan.

Effective October 1, 2005 the State adopted new energy standards for all new buildings (Title 24, Part 6) that require additional energy efficiency in buildings. These new standards require additional attention to orientation of buildings, windows, insulation, heating and air-conditioning systems, lighting systems (incorporating natural lighting where possible), and efficient operational equipment. Each new building design is analyzed and a report must be submitted with building plans that identifies the energy efficiency of the proposed building and how it meets the new higher standard set by the State. The City of Hanford will be responsible for ensuring that new buildings meet the standards in the building-permit process.

Significance Criteria

The project related effects of GHG emissions are cumulative, therefore climate change impacts are addressed as cumulative, than a direct impact. Since climate change is a global phenomenon, no direct impact would be identified for individual projects. The following criteria are used to evaluate whether a project would result in a significant impact for climate change impacts:

Does the project comply with an adopted statewide, regional, or local plan for reduction or mitigation of GHG emissions? If no, then,

Does the project achieve 29% GHG reductions by using approved Best Performance Standards? If no, then

Does the project achieve AB32 targeted 29% emission reductions compared with Business as Usual (BAU)?

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
Project that meet one of these guidelines would have less than significant impact. **Checklist Discussion** Less than Significant Impact. The project complies with the adopted Climate Action Plan and will not impede the State's ability to meet the GHG-emission reduction targets under AB32. Although emissions will be generated as a result of the project, implementation of the General Plan and CAP policies will result in fewer emissions than would be associated with the continuation of baseline conditions. Current and probable future state and local GHG-reduction measures will continue to reduce the project's contribution to climate change. As a result, the project will not contribute significantly, either individually or cumulatively, to GHG emissions. Less than Significant Impact. Compliance with the Climate Action Plan and the rules of the San Joaquin Valley Air Pollution Control District will reduce impact to greenhouse gases to a less than significant level. The proposed project will not impede the State's ability to meet the GHG emission reduction targets under AB32 and will not result in a conflict with any plan, policy or regulation; therefore, impacts to greenhouse gas emissions are less than significant. **Conclusion** The project will comply with the CAP and will not impede the State's ability to meet its GHG reduction targets under AB32. The project will not contribute significantly, either individually or cumulatively, to global climate change, there impacts are determined to be less than significant. Source: 2002 General Plan, Air Quality Element and Hanford Climate Action Plan.				
VIII. HAZARDS AND HAZARDOUS MATERIALS -- 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?	☐	☐	☐	☑

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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 two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☑
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☑
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☑
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☑

Environmental Setting

The General Plan contains a Hazards Management Element which was adopted to reduce potential safety issues associated with urban development. The project site was previously farmed and is not listed as part of the State of California Hazardous Waste and Substances List. Field review by City staff did not reveal any potential for hazards or obvious signs of contamination on the site. Refer to previous sections for discussion of geologic and seismic hazards, water, water quality and flooding and air quality.

Significance Criteria

The project may result in significant hazards if it does any one of the following:

1. Create a public health hazard
2. Involve the use or production, disposal or upset of materials which pose a hazard to people in the area or interferes with an emergency response plan
3. Violates applicable laws intended to protect human health and safety or would expose workers to conditions that do not meet health standards.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact

Checklist Discussion

a) No Impact. No signs of contamination or hazardous materials were identified on the site. All hazardous materials that may be used will require compliance with all applicable local, state and federal regulations.

b) Less than Significant Impact. Construction activities that could involve the release of hazardous materials include maintenance of on-site construction equipment, which could result in minor fuel or oil spills. The use of such materials are required to comply with local, state and federal regulations, therefore impacts are considered less than significant.

c) No Impact. The project is not located within one quarter mile of a school therefore there is no impact.

d) No Impact. The project site is not listed as part of the State of California Hazardous Waste and Substances List (Cortese List) therefore there is no impact.

e) No Impact. The airport is approximately 2.5 miles away from the proposed project. Therefore, no impact is anticipated to occur.

f) No Impact. The project site is not located within two miles of a private or public airport/airstrip therefore there is no impact.

g) No Impact. The project will not interfere with any adopted emergency response or evacuation plan therefore there is no impact.

h) No Impact. The project site is located in an area surrounded by urban uses and is not located adjacent to or in close proximity to wildland areas, therefore there is no impact.

Conclusion

The impact from hazards and hazardous materials are expected to be less than significant.

Source: California EPA, 2002 General Plan, General Plan EIR, Site Visit.

IX. HYDROLOGY AND WATER QUALITY -- Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☑	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☑	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☑	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☑	☐
e) 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?	☐	☐	☑	☐
f) Otherwise substantially degrade water quality?	☐	☐	☑	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☑
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☑
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☑
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☑

Environmental Setting

Recharge of groundwater in the City occurs by 1. Direct infiltration of precipitation falling in the area; 2. Infiltration of surface water entering the area in natural or manmade drainage; 3. Infiltration of a portion of water spread for irrigation (either surface water from drainage or pumped ground water); 4. Underflow of ground water in the area from the north and east; and 5) artificial recharge of excess surface water by KCWD and treated wastewater by City of Hanford. The tenants of the proposed retail space will be required to complete a "FORM A" or "FAT, OILS, and GREASE (FOG)" application when it comes time to submit for a Zoning and Safety Certificate of Occupancy.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact

The form assists the City in estimating the amount and type of sewage to be generated by various commercial businesses. The purpose of the form is to identify potential sewage discharge problems ahead of time and to resolve problems as necessary.

The City Council for the City of Hanford adopted an Arsenic Reduction Study which identified actions to be taken by the City of Hanford in order to meet the new Federal Arsenic MCL requirements. Hanford was given until December 31, 2009, to be in compliance. All the actions in the Arsenic Reduction Study were completed. Therefore, the City's water system and water quality are currently in substantial compliance with the new Federal Arsenic MCL.

Significance Criteria

The project may result in significant impacts if it would violate any water quality standards or waste discharge requirements, substantially deplete groundwater supplies or interfere with groundwater recharge; substantially alter the existing drainage pattern of the site or substantially increase the rate of surface runoff; exceed the existing drainage system.

Checklist Discussion

a) Less than Significant Impact. The project will be required to comply with all City ordinance, standards and policies which will assure proper grading and storm water drainage into the existing storm water system. The project will also be required to comply with all requirements of the Kings County Health Department, State and Federal regulations regarding water quality standards or waste discharge. The project will not violate any water quality standard or waste discharge requirements.

b) Less than Significant Impact. The project would not deplete groundwater supplies or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the aquifer as a result of the project. The majority of water use will be for landscaping, which will be required to comply with newly adopted State standards for landscaping as a result of the drought measures recently implemented by the State and the City of Hanford. The Urban Water Management Plan identified adequate groundwater supplies for the City of Hanford, therefore impacts are determined to be less than significant.

c) Less than Significant Impact. The project would not alter the existing drainage patter of the site or area, including through the alteration of a stream or river or substantially increase that would result in substantial erosion or siltation on or off site. Therefore impacts are determined to be less than significant.

d) Less than Significant Impact. The project would not alter the existing drainage patter of the site or area, including through the alteration of a stream or river or substantially increase the rate or amount of surface runoff in a manner that will result in flooding. The existing storm drain system has been designed for the eventual development of the project site. Therefore impacts are determined to be less than significant

e) Less than Significant Impact. The proposed project would add surface runoff to the existing storm drainage system. The system has been designed to accommodate the runoff from the proposed project. The project has the potential to result in water degradation from construction related activities. Compliance with City regulations pertaining to erosion control and storm water quality management will reduce impacts to less than significant.

f) Less than Significant Impact. See e above

g) No Impact. The project does not include housing and is not located within a flood zone as shown in the Flood Insurance Rate Map for Hanford (Panel 06031C 0185C, June 16, 2009) therefore there is no impact.

h) No Impact. See g above.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact

i) No Impact. The project would not expose people or structures to a significant risk of loss, injury or death involving flooding, including dam failure therefore there is no impact.

j) No Impact. The project is not located near any ocean, coast, or seiche hazard area therefore there is no impact.

Conclusion

The proposed project would result in less than significant impacts to hydrology and water quality resources.

Source: 2002 General Plan, General Plan EIR, FEMA, Arsenic Reduction Study,

X. LAND USE AND PLANNING - Would the project:				
a) Physically divide an established community?	☐	☐	☐	☑
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☑
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☑

Environmental Setting
The project is consistent with the land use policies of the City, including the General Plan and Zoning Ordinance, therefore there are no impacts in this area.

Significance Criteria
The project may result in significant impacts if it physically divides an established community, conflicts with existing off-site land uses, causes substantial adverse change in the types or intensity of land use patterns or conflicts with any applicable land use plan, policy or regulation.

Checklist Discussion

a) No Impact. The project will not physically divide an established community.
b) No Impact. The project is consistent with all City plans, policies and regulations therefore there is no impact.
c) No Impact. There are no habitat conservation plans or natural community conservation plans for the project area therefore there is no impact.

Conclusion

The project is not anticipated to have any land use impacts.

Source: 2002 General Plan, General Plan EIR, Land Use Map, Zoning Map.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
XI. MINERAL RESOURCES -- 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?	☐	☐	☐	☑

Environmental Setting
There are no known mineral resources on the project site based on Hanford's 2002 General Plan EIR; therefore, no impacts are anticipated to occur.

Significance Criteria
The project would create significant impacts to mineral resources if there was a loss of availability of a known mineral resource.

Checklist Discussion

a) No Impact. There project would not result in the loss of a known mineral resource therefore there is no impact.
b) No Impact. There project would not result in the loss of a known mineral resource therefore there is no impact.

Conclusion

There will be no impact to mineral resources.

Source: 2002 General Plan, General Plan EIR

XII. NOISE -- Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☑	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☑	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☑	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☑	☐
e) For a project located within 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?	☐	☐	☑	☐
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☑

Environmental Setting

According to the Hanford General Plan some land uses are more tolerant of noise than others. These uses typically include activities that generate loud noise levels or those that do not require verbal interaction, concentration, or sleep. Commercial and retail facilities require very little speech communication and therefore are generally allowed in noisier environments. The proposed project location would not expose persons to noise levels or ground borne vibration in excess of the standards established in the Hazards Element of the General Plan. Noise levels have been established in the General Plan as shown in the Table below.

Table HZ-3

Noise-Level Performance Standards for New Projects Affected By or Including Non-Transportation Sources

		Exterior Noise-Level Standard (Applicable at Property Line)		Interior Noise-level Standard	
Land Use	**Noise-Level Descriptor**	**Daytime (7 a.m. to 10 p.m.)**	**Nighttime (10 p.m. to 7 a.m.)**	**Daytime (7 a.m. to 10 p.m.)**	**Nighttime (10 p.m. to 7 a.m.)**
Residential	L_{eq} L_{max}	50 70	45 65	40 60	35 55
Transient lodging, hospitals, nursing homes	L_{max}	--	--	40 60	35 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, parks	L_{eq}	65	--	--	--

Notes:

Each of the noise levels specified above shall be lowered by 5 dB for simple tone noises, noises containing 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).

L_{eq} = Noise Equivalent Level
L_{max} = Maximum Noise Equivalent

Significance Criteria

Impacts from the project would be considered significant if they would result in significant noise or exposure of persons to or generation of noise levels in excess of standards established in the Hanford General Plan.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact

Checklist Discussion

a) Less than Significant. The project may result in a temporary increase in noise as a result of construction activities, impacts are anticipated to be less than significant.

b) Less than Significant. The project may result in a temporary increase in groundborne vibration or noise levels as a result of construction activities, impacts are anticipated to be less than significant.

c) Less than Significant. The project may result in an increase in permanent noise levels due to increased traffic, population and activity. Noise was previously evaluated in the General Plan and the project is consistent with the planned land use in the General plan.

d) Less than Significant. A temporary increase in ambient noise would occur in association with construction activities. Construction noise is short term and will occur for limited times. Impacts are less than significant.

e) Less than Significant. The project is approximately 2.5 miles away from airport and is not located within an airport land use plan.

f) No Impact. The project is not located within the vicinity of a private airstrip, there is no impact.

Conclusion

The project would create temporary construction noise, but is considered less than significant.

Source: 2002 General Plan, General Plan EIR

XIII. POPULATION AND HOUSING -- Would the project:				
a) Induce substantial 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 housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑

Environmental Setting

The commercial project will not create a substantial population growth. The project area is in the Hanford city limits and is designated in the Hanford General Plan for commercial development.

Significance Criteria

The project may result in significant impact if it induces substantial growth, displaces a large number of people, or contributes to a job housing imbalance.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
Checklist Discussion a) No Impact. The project will not induce population growth. b) No Impact. The project will not result in displacement of housing. c) No Impact. The project will not result in displacement of people. **Conclusion** The project will not result in impacts to population and housing. Source: 2002 General Plan, General Plan EIR				
XIV. PUBLIC SERVICES --				
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:				
Fire protection?	☐	☐	☑	☐
Police protection?	☐	☐	☑	☐
Schools?	☐	☐	☐	☑
Parks?	☐	☐	☐	☑
Other public facilities?	☐	☐	☐	☑

Environmental Setting

The project would not result in the significant increase for demand of public services. The project is consistent with the Hanford General Plan and all infrastructure planning documents, therefore impacts in this area are anticipated to be less than significant.

Significance Criteria

The project may result in significant public service impacts if it substantially and adversely alters the delivery or provision of fire protection, police protection, schools, facilitates maintenance and other government services.

Checklist Discussion

a) Less than Significant Impact. The project site will receive fire protection service from the City of Hanford Fire Department. The department has indicated that the proposed project will not have a significant

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
impact on its ability to respond to emergencies with its current personnel and equipment. b) Less than Significant Impact Police: The project site will receive police protection service from the City of Hanford Police Department. The department has indicated that they will be able to service the development. No significant impact is anticipated. c) No Impact. The project is a commercial development and not expected to impact school services. d) No Impact. The project is a commercial development and not expected to impact city parks. e) No Impact. The project would not impact any other public facilities. **Conclusion** The project will not result in significant impacts to public services. Source: 2002 General Plan, General Plan EIR, Urban Water Management Plan, Storm Water Master Plan, Sewer Master Plan, Water Master Plan, Hanford Fire Department, Hanford Police Department, Hanford Public Works Department.				
XV. RECREATION --				
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?	☐	☐	☐	☑

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
Environmental Setting The Hanford General Plan designates the project area for commercial development. The impact of the commercial development on existing recreation opportunity is not anticipated to be significant. **Significance Criteria** The project may create impacts if it creates demand for new expanded parks and recreation facilities or substantially alters existing facilities. **Checklist Criteria** a) No Impact The project would not increase the use of existing neighborhood and community parks. b) No Impact. The project will not result in the alteration or construction of new recreation facilities. **Conclusion.** No impact to recreation is anticipated to occur. Source: 2002 General Plan, General Plan EIR				
XVI. TRANSPORTATION/TRAFFIC -- Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☑	☐
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☑	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☑	☐
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☑	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
e) Result in inadequate emergency access?	☐	☐	☑	☐
f) Result in inadequate parking capacity?	☐	☐	☐	☑
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☑

Environmental Setting

The project is accessed by arterial roadways as designated in the Hanford General Plan. A traffic study was prepared to evaluate impacts to traffic as a result of the project, which consisted of a 111,000 square foot project. In response to an amendment to a change in the site plan, the traffic impacts were evaluated for an additional 13,000 square feet of commercial space, which indicated no significant change in impacts. The traffic study for the project was required to consider an adjacent project in the evaluation. Impacts resulting from this project and the adjacent project resulted in potentially significant impacts unless mitigated. The traffic mitigations required to address impact from both projects are currently under construction as part of an adjacent project. Improvements to Lacey Boulevard and 12 Avenue were required and will be complete by the time of occupancy of either project. No additional mitigations are required, therefore no mitigation measures are required from the proposed project.

Significance Criteria

The project may result in significant transportation/circulation impact if it does the following"

1. Cause an increase in traffic which is substantial in relation to the existing traffic loads and capacity of the road system that are inconsistent with adopted standards.
2. Creates traffic conditions which expose people to traffic hazards.
3. Substantially interferes or prevents emergency access to the site or surrounding properties.
4. Conflicts with adopted policies or plans for alternative transportation.

Checklist Discussion

All traffic improvements in the area to accommodate buildout of the area are shown on the proposed project plans and incorporated into the project and are currently under construction. The street and signal improvements will be completed by the time of occupancy of the proposed project, no further traffic mitigations are required.

a) Less than Significant. The LOS levels in the vicinity will operate at level of service D or above with the proposed project Year 2035. A traffic study was prepared for the project and another project adjacent by Peters Engineering. All improvements identified in the traffic studies are currently under construction as part of the development of the retail pads adjacent to the site and will be completed by opening of any buildings within the project. With the improvements under construction, traffic impacts are determined to be less than significant.

b) Less than Significant. A traffic study was prepared to analyze the project and concluded that with the improvements under construction that traffic can be accommodated and impacts are less than significant.

c) Less than Significant. The proposed project may result in a change in traffic patterns due to additional access points on 12th Avenue and Lacey Boulevard, however all access points meet City standards for distance and location, therefore impact to traffic patterns are considered less than significant.

d) Less than Significant. The location of drive access points are adequate for the proposed project and will meet City Engineering standards therefore impacts in this category are less than significant.

e) Less than Significant. The project will not result in inadequate emergency access to the site. During

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact

construction any impacts to access will have to be approved by the City Engineer through the approval of a traffic control plan therefore impacts are less than significant.

f) No Impact. The project will not conflict with any adopted policies, plans or programs supporting alternative transportation therefore there is no impact.

g) No Impact. The project will not result in a change in air-traffic patterns. The project will not substantially increase hazards due to a design feature or incompatible uses. The project will not result in inadequate emergency access. The project provides sufficient parking for an integrated shopping center. The project will not conflict with adopted policies, plans or programs supporting alternative transportation. The project does not cause significant impacts based on LOS criteria at the intersection of Lacey Boulevard and 12th Avenue.

Conclusion

The project will increase traffic volume to the area; however, level of service, delays and queuing conditions with the project are very similar to conditions without the project. The increase in traffic will not significant alter the conditions anticipated in the City General Plan. In addition, the project applicant will pay City impacts as a part of each building permit to further mitigate any impacts that may result from the proposed project. Traffic impacts are anticipated to be less than significant.

Source: 2002 General Plan, General Plan EIR, 12th and Lacey Shopping Center Traffic Study, 12th and Lacey Shops Traffic Study, Letter Peter's Engineering.

XVI. UTILITIES AND SERVICE SYSTEMS -- Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☑	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☑
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☑	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☑	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the projects projected demand in addition to the providers existing commitments?	☐	☐	☐	☑
f) Be served by a landfill with sufficient permitted capacity to accommodate the project=s solid waste disposal needs?	☐	☐	☑	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☑

Environmental Setting

The undeveloped project area has been considered by the City of Hanford for commercial development. Gas is provided by Pacific Gas and Electric, electricity is provided by Southern California Edison, and water is provided by the City of Hanford. This area was reviewed in the context of the General Plan EIR and the 2005 Urban Water Management Plan (UWMP). The City wastewater treatment facility has a capacity of 8 million gallons per day, which is projected to be sufficient for the City's entire growth needs to the year 2020. The water demands associated with the city urbanized area have already been accounted for in the 2005 UWMP, and there should be no significant environmental impact from this project which has not already been addressed.

The Kings County Waste Management Authority was formed in September, 1989, by agreement between the cities of Hanford, Lemoore, Corcoran and the County of Kings in order to provide a reasonable approach to all waste management activities in Kings County. A materials recovery facility (MRF) was constructed at the southeast corner of Hanford-Armona Road and 8th Avenue, which serves the Hanford area. Hanford's General Plan EIR states that the Kings County Waste Management Authority is anticipating future growth and is responding for disposal at landfills during the planning period of the General Plan.

The project will also be required to pay impact fees for wastewater, water, solid waste to further mitigate any impacts to utilities.

Thresholds of Significance

The project may result in significant impacts on utilities and service systems if it substantially and adversely alters the delivery of utilities or substantially increases the demand for utilities.

Checklist Discussion

a) Less than Significant. Wastewater impacts were evaluated in accordance with the adopted Waste Water Master Plan. The City has determined that although the project will increase demand at the treatment plan, that the increase will not exceed wastewater treatments requirements. Impacts are less than significant.

b) No Impact. The project will not result in the need to construct new water or wastewater treatment facilities or expansion, therefore there is no impact.

c) Less than Significant. The storm water drainage system has been constructed. The project will be

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact

required to connect to the existing system. The system has been designed to accommodate full buildout of the area therefore impacts are less than significant.

d) Less than Significant. The City of Hanford supplies water to areas within the City limits, including the project area. The City of Hanford prepared an Urban Water Management Plan and has determined that there is sufficient water to serve the proposed project. Due to the drought, the proposed will be required to comply with all State and local regulations regarding water conservation measures and landscaping. Impact is less than significant.

e) No Impact. The project will not require a determination by a wastewater agency.

f) Less than Significant. According to the City Solid Waste Division, although there will be an increase is solid waste, there is adequate capacity to service the project therefore impacts are less than significant.

g) No Impact. The project will be required to comply with all federal, state and local statues regulating solid waste.

Conclusion Impacts to utilities and services are considered less than significant.

Source: 2002 General Plan, General Plan EIR, Water Master Plan, Urban Water Management Plan, Storm Drain Master Plan, Sewer Master Plan.

XVII. MANDATORY FINDINGS OF SIGNIFICANCE --

a) Does the project have the potential to 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, 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)?	☐	☐	☑	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☑	☐

a) Less than Significant. Based on the analysis provided in the initial study, the project does not have the potential to 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 or threaten to eliminate a plant or animal community, reduce the number or restrict the range of rare or endangered plants or animals.

b) Less than Significant. Based on the analysis provided, the project would not result in any significant cumulative impacts relative to other current projects, or the effects of probable future projects.

c) Less than Significant. Based on the analysis provided, the project will not have environmental effects that will cause substantial adverse effects on human beings.

Prepared by City of Hanford

7/30/15
Date

CUMULATIVE IMPACTS

This section addresses the project's potential to contribute to cumulative impacts in the region, CEQA Guidelines Section 15355 defines cumulative impacts as two or more individual effects that, when considered together, are considerable or which compound or increase other environmental impacts. The individual effects may be changes resulting from a single project or separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects.

Cumulative Setting

The cumulative setting for the proposed project is the buildout of the City of Hanford General Plan.

Impact Analysis

Aesthetics

The proposed project is not expected to result in significant cumulative impacts to visual resources.

Agriculture and Forest Resources

The proposed project would not substantially contribute to the conversion of agricultural land or forest land. The project is surrounded by urban development and there are no forest lands adjacent or near the proposed project.

Air Quality

The project will not result in cumulative short-term construction air quality impacts associated with increased emissions. Additionally, the project will not result in significant air quality impact to the region and would not result in increase to air quality impacts over and above those already evaluated in the 2002 General Plan for which a statement of overriding considerations was adopted for impacts to Air Quality. Cumulative impacts are less than significant.

Biological Resources

The project will not result in impacts to biological resources, therefore cumulative impacts are less than significant.

Cultural Resources

The project will not contribute to any impacts related to cultural or paleontological resources, therefore the project impacts are considered less than significant.

Geology and Soils

The project would not contribute to impacts from seismic hazards, therefor there would be no cumulative impacts.

Greenhouse Gas Emissions

The project would contribute to GHG emission, which is inherently cumulative issue. The emissions during construction would be short-term as a result of fossil fuel burning construction equipment. Since the impacts are short-term and the contribution to GHG emissions would be minor compared to the State's GHG emissions target of 427 MMTCO2 eq by 2020, the construction related GHG emissions of the project would be considered less than significant cumulative impact.

The operational emission from the project would be indirect emissions from electricity usage. Compliance with current building code standards will assist in the reduction of energy use. The emissions are considered less than significant. The projects GHG emissions would not contribute significantly to global climate change and would not impede the State's ability to meet its GHG targets under AB32.

Hazards and Hazardous Materials

The project is not expected to have a significant impact as a result of hazards or hazardous materials therefore the project is expected to have a less than significant impact to cumulative hazards and hazardous materials impacts.

Hydrology/Water Quality

The proposed project would no contribute to cumulative surface water quality impacts associated with the construction and operational activities. As described in Section IX, the project would not substantial alter the direction of groundwater flows, or result in substantial changes in the quality of groundwater. The project would have a less than significant impact to water conditions.

Land Use Planning and Population
The project is being developed consistent with the General Plan, specifically the Land Use Element and will not have significant impacts to housing or population. The project is not anticipated to result in substantial impacts to land use planning, population or housing.

Mineral Resources
The project is not anticipated to have any impacts to mineral resources therefore cumulative impacts are anticipated to be less than significant.

Noise
The project could result in short term noise impacts as a result of construction. The impacts will not contribute to any cumulative noise issues therefore the impacts to noise are cumulatively less than significant.

Public Services
The project will not result in significant impact to public services therefore the cumulative impacts are considered less than significant.

Recreation
The project will not result in impacts to recreation, therefore cumulative impacts are less than significant.

Transportation/Circulation
The project will not contribute to short-term or long-term traffic impacts or congestion. Traffic improvements to the area will result in LOS D or above in year 2035 with the proposed project and surrounding known projects. The circulation pattern in the vicinity has been designed to accommodate the project and future building of the General Plan area. The project will have a less than significant impact to cumulative traffic and circulation conditions.

Utilities and Service Systems
The project would not have a significant cumulative impact on utilities and service demands.

Sources:

2010 Urban Water Management Plan. (2011, June 11). City of Hanford -2010 Urban Water Management Plan.

California Building Standards Code (Title 24, California Code Regulations). (2005, October 1).

City of Hanford 2002 General Plan Update (2002, June 18).

City of Hanford General Plan Update, 2002 – Environmental Impact Report. (June 18, 2002). Hanford, California.

County Important Farmland Data Information. County Important Farmland Data Information.

Final Staff Report – Climate Change Action Plan: Addressing GHG Emission Impacts under CEQA. (2009, December 17) San Joaquin Valley Air Pollution Control District Climate Change Action Report.

Hanford Municipal Code (Hanford, California).

California Department of Fish and Wildlife Central Region – Early Consultation.

United States Federal Emergency Management Agency (FEMA), Flood Insurance Rate Map for Hanford (Community Panel Number 06031C 0185C, June 16, 2009)

Final Regional Climate Action Plan (May 28, 2014)

Traffic Study prepared for Proposed Shopping Center by Peter Engineering (August 11, 2014)

Traffic Study prepared for Proposed Retail Pads by Peter Engineering (July 25, 2014)

CalEEMod Version 2013.2.2 Report prepared for 12 and Lacey Shopping Center

City of Hanford Storm Drain Master Plan

City of Hanford Sewer Master Plan

San Joaquin Valley Air Pollution Control District - Early Consultation

Air Quality and Land Use Handbook: A Community Health Perspective; California Environmental Protection Agency

Guidance for Assessing and Mitigating Air Quality Impacts; San Joaquin Valley Unified Air Pollution Control District

ATTACHMENTS

LOCATION MAP

SITE PLAN

TENTATIVE PARCEL MAP

The following documents are part of the initial study and are available upon request at the City of Hanford Community Development Department, 317 N. Douty, Hanford CA 93230:

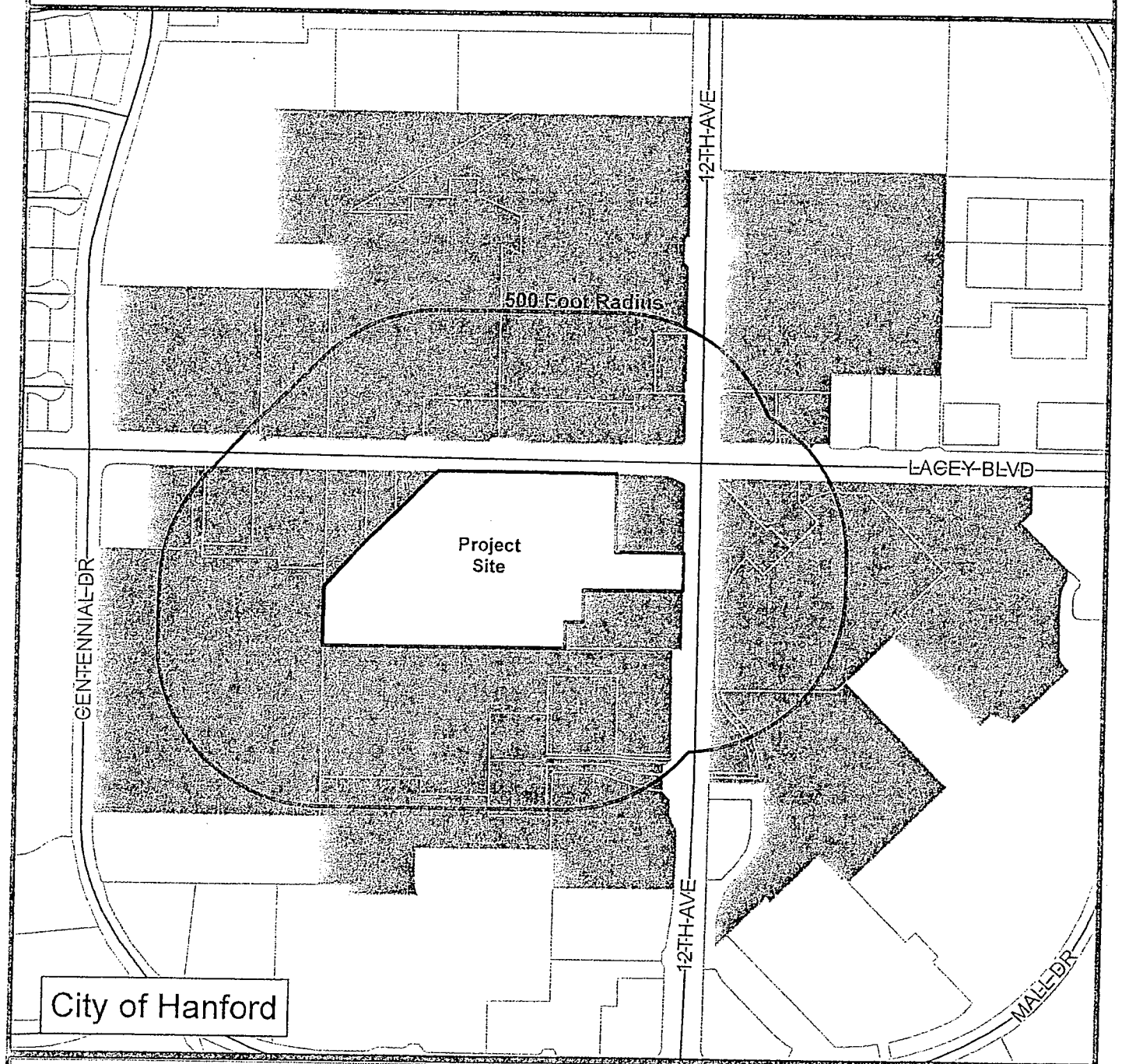
APPENDIX A – TRAFFIC STUDY

APPENDIX B – CALEEMOD REPORT

APPENDIX C – EARLY CONSULTATION LETTERS

APPENDIX D – COMMENTS RECEIVED DURING INITIAL COMMENT PERIOD

Project Location & Mailing List Map
APN:011-020-048



Map prepared by
Kings County
Community Development Agency
April 29, 2015
1400 W. Lacey Boulevard, Hanford, CA 93230 (559) 852-2670

160 80 0 160 Feet

Legend

Project Area

Properties within 500 foot radius

City Limit Boundary

VESTING TENTATIVE PARCEL MAP

Parcel C of PM 13-93, Kings County Record, Being a Portion of the North Half of the Northeast Quarter of Section 34, T.18 S., R.21 E. M.D.B. & M., County of Kings, State of California.

OWNER/APPLICANT

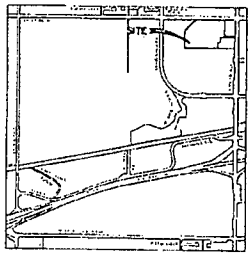
Douglas M. Sutherland, Member
Hanford Partners, LLC
1504 Eureka Road, Suite 230
Roseville, CA 95661
Phone: (916) 791-6466

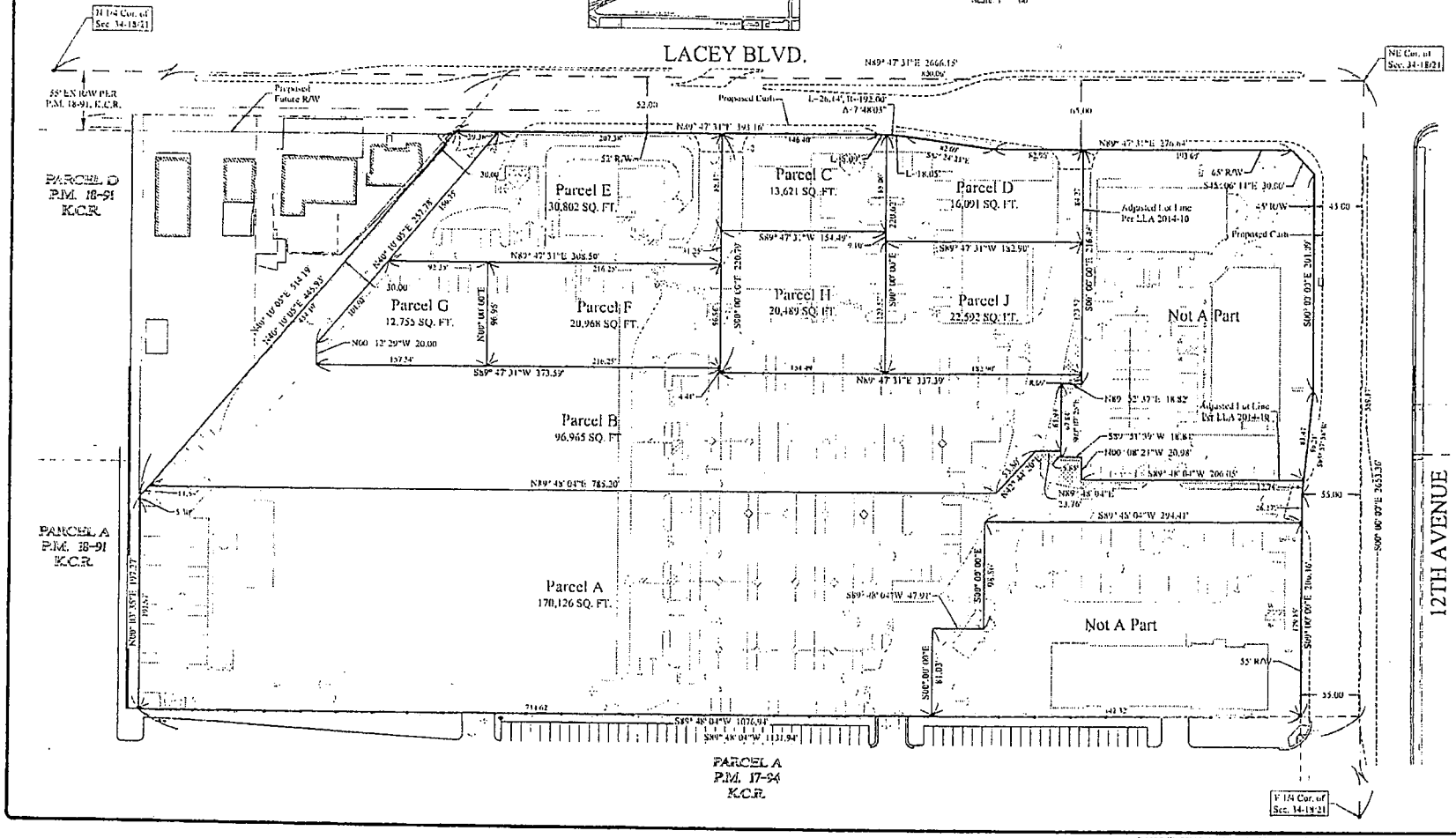
GENERAL INFORMATION

Existing Zone	PC PUD
Proposed Zone	PC PUD
Existing Use	Vacant
Proposed Use	Commercial
Sewer	City of Hanford
Water	City of Hanford
Storm Drainage	City of Hanford
A.P.N.	011-020-048

VICINITY MAP

Scale: None





TENTATIVE VESTING PARCEL MAP
FOR
HANFORD PARTNERS, LLC

CIVIL ENGINEERS
ZUMWALT HANSEN & ASSOCIATES
LAND SURVEYORS
609 N. Irvin St.
Hanford, CA 93232
Office: (559) 582-1056
Fax: (559) 584-4143

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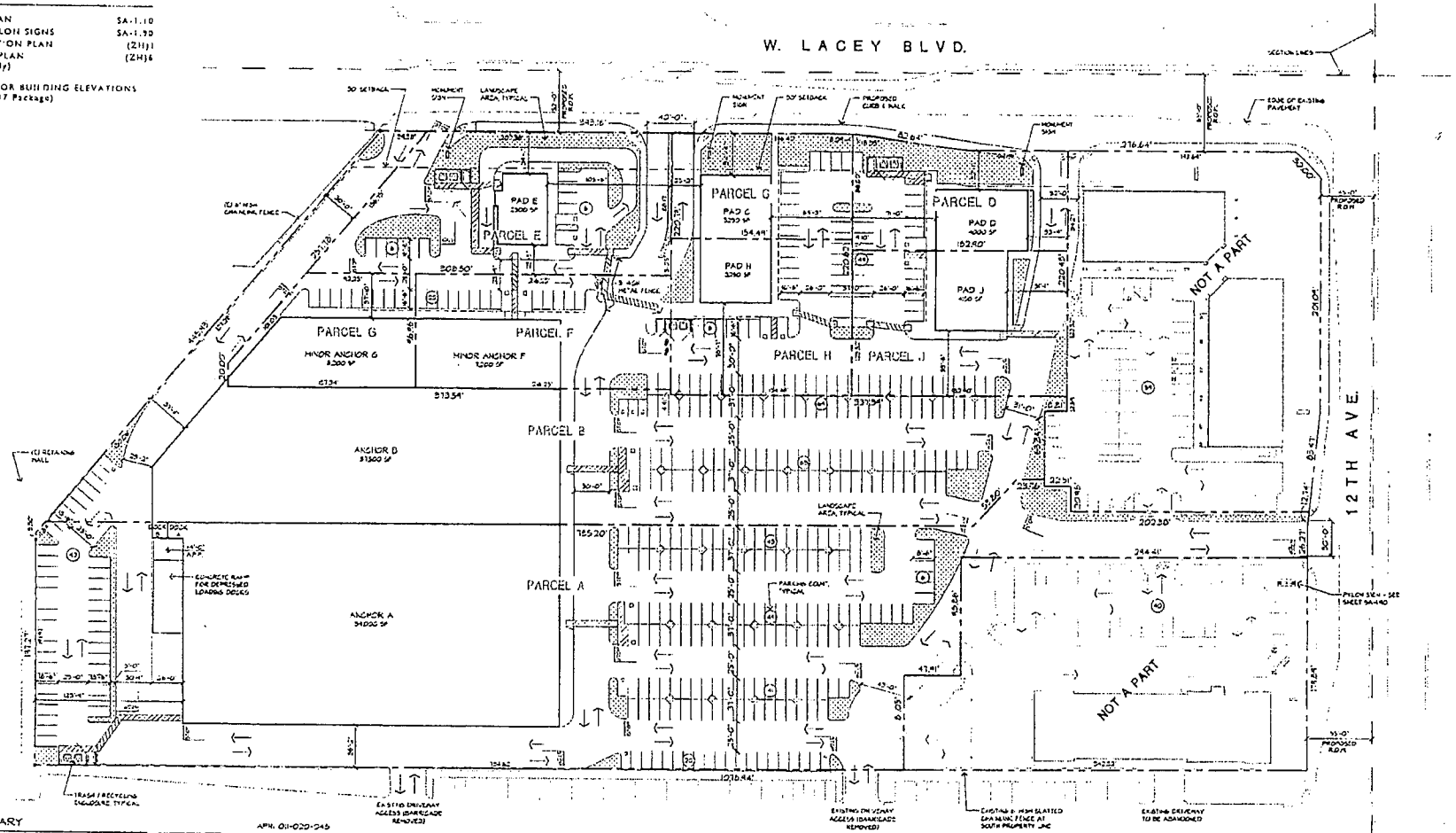
Attachment: Exhibit F -NEGDEC INITIAL STUDY RECIRC (1031 : Planned Unit Development 2015-02 and

SHEET INDEX

OVERALL SITE PLAN	SA-1.10
MONUMENT & PYLON SIGNS	SA-1.20
TRUCK CIRCULATION PLAN	(ZH)1
MASTER UTILITY PLAN (for Reference Only)	(ZH)6

COLORED EXTERIOR BUILDING ELEVATIONS (See Separate 11x17 Package)



SITE SUMMARY

APN: 011-020-045

BUILDING	AREA (sf)	STALLS PROVIDED	REQUIRED PARKING GALC.	STALLS REQUIRED
ANCHOR 'A'	34,000	200	@ 1 / 225 =	152
ANCHOR 'B'	51,300	156	@ 1 / 225 =	13
PAD 'C'	3,250	15	@ 1 / 225 =	15
PAD 'D'	4,000	10	@ 1 / 225 =	2
PAD 'E'	2,500	12	@ 1 / 225 =	6
MINOR ANCHOR 'F'	7,200	17	@ 1 / 225 =	32
MINOR ANCHOR 'G'	8,200	10	@ 1 / 225 =	36
PAD 'H'	3,250	36	@ 1 / 225 =	15
PAD 'J'	4,150	27	@ 1 / 225 =	18
	124,050	485		375

OVERALL SITE PLAN

SCALE: 1" = 40'

NORTH

DATE 06-11-2015

SA-1.10

1478 STONE POINT DRIVE SUITE 350 ROSEVILLE, CA 95661 T: 916 782 2580 F: 916 773 1037

ARCHITECTURAL GROUP Borges

JOB NO.: 06.041

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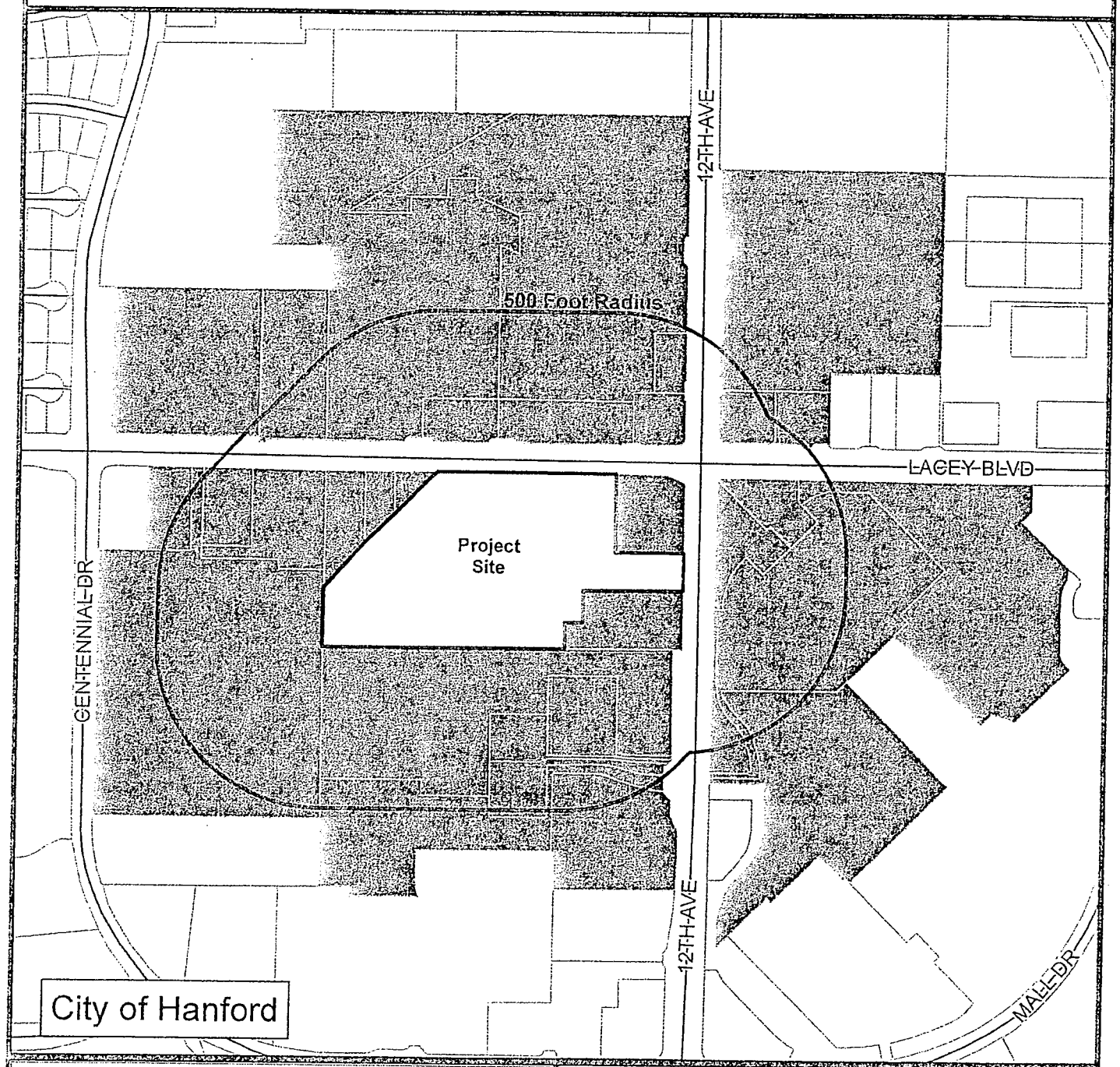
APN:011-020-048



Map prepared by
Kings County
Community Development Agency
April 29, 2015
1400 W. Lacey Boulevard, Hanford, CA 93230 (559) 852-2670

160 80 0 160 Feet

Legend

Project Area

Properties within 500 foot radius

City Limit Boundary

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Parcel C of PM 13-93, Kings County Record, Being a Portion of the North Half of the Northeast Quarter of Section 34, T.18 S., R.21 E. M.D.B. & M., County of Kings, State of California.

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Phone: (916) 791-0466

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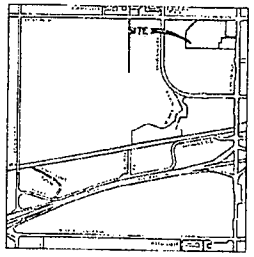
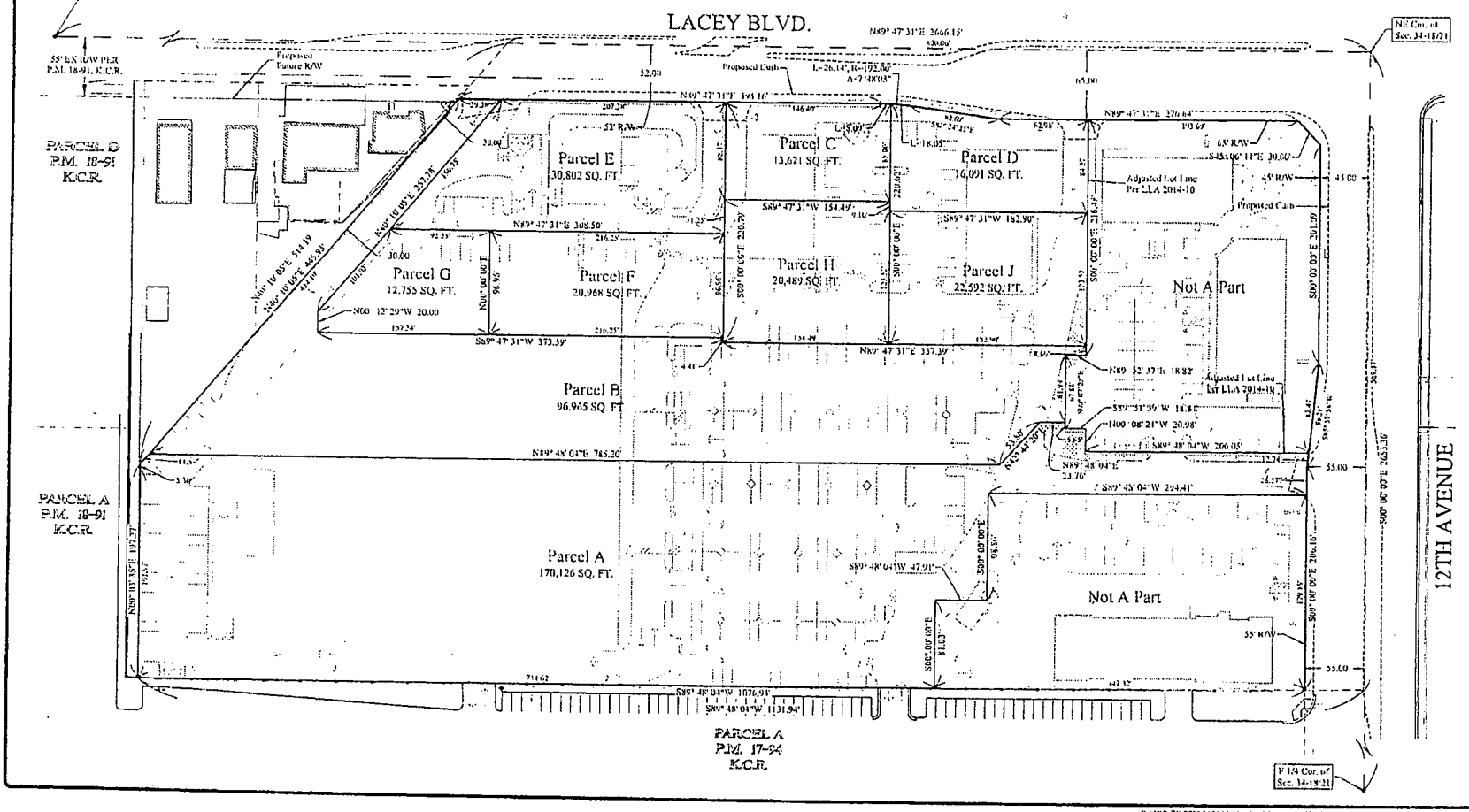
Proposed Zone	PC PUD
Existing Use	Vacant
Proposed Use	Commercial
Sewer	City of Hanford
Water	City of Hanford
Storm Drainage	City of Hanford
A.P.N.	011-020-048

VICINITY MAP

Scale: None





TENTATIVE VESTING PARCEL MAP
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Attachment: Exhibit F - ISND Attachments Part 1 (1031 : Planned Unit Development 2015-02 and Tentative

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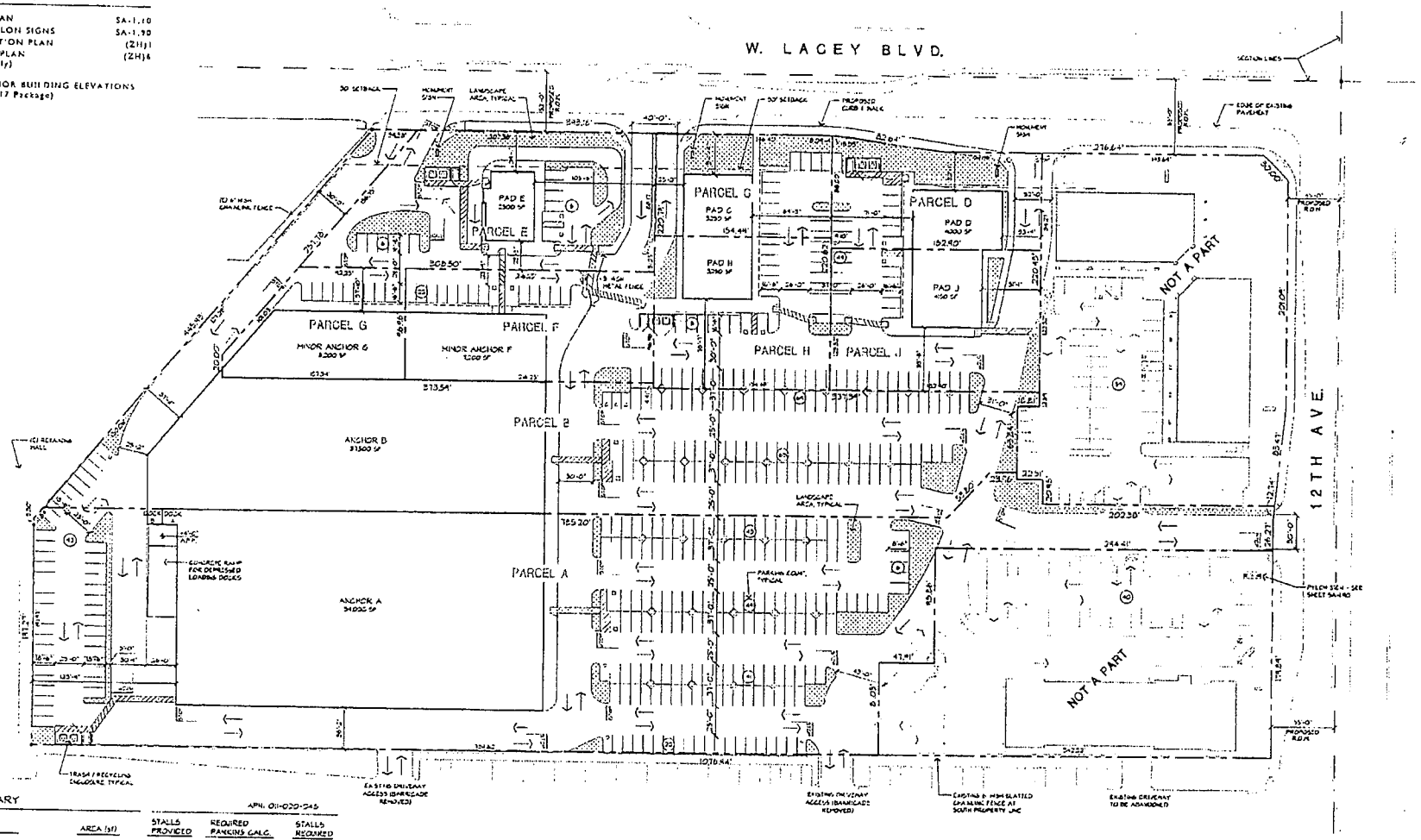
TRUCK CIRCULATION PLAN	(ZH)1
MASTER UTILITY PLAN (for Reference Only)	(ZH)4

COLORED EXTERIOR BUILDING ELEVATIONS (See Separate 11x17 Package)



SITE SUMMARY

APN: 011-020-045

BUILDING	AREA (sf)	STALLS PROVIDED	REQUIRED PARKING GALC.	STALLS REQUIRED
ANCHOR 'A'	54,000	200	@ 1 / 225 =	182
ANCHOR 'B'	37,500	156	@ 1 / 225 =	139
PAD 'C'	5,250	18	@ 1 / 225 =	10
PAD 'D'	4,000	10	@ 1 / 225 =	12
PAD 'E'	2,500	10	@ 1 / 225 =	8
MINOR ANCHOR 'F'	7,200	17	@ 1 / 225 =	32
MINOR ANCHOR 'G'	9,200	16	@ 1 / 225 =	23
PAD 'H'	5,250	36	@ 1 / 225 =	60
PAD 'J'	4,150	21	@ 1 / 225 =	18
	124,050	485		375

OVERALL SITE PLAN

SCALE: 1" = 40'

NORTH

DATE 06-11-2015

SA-1.10

1478 STONE POINT DRIVE SUITE 350 ROSEVILLE, CA 95661 T | 916 782 2260 F | 916 773 3037

ARCHITECTURAL GROUP Borges

JOB NO.: 06091

Attachment: Exhibit F - ISND Attachments Part 1 (1031 : Planned Unit Development 2015-02 and Tentative

APPENDIX A

PETERS ENGINEERING GROUP
A CALIFORNIA CORPORATION

Mr. Lou Camara
City of Hanford
900 South 10th Avenue
Hanford, California 93230

July 31, 2015

Subject: Trip Generation Comparison
Proposed Shopping Center
Southwest of the Intersection of Lacey Boulevard and 12th Avenue
Hanford, California

Dear Mr. Camara:

INTRODUCTION

This report presents the results of trip generation calculations prepared for the subject shopping center. Peters Engineering Group previously prepared a traffic impact study for the proposed shopping center and presented the results in a report dated August 11, 2014 (TIS). The trip generation calculations for the current project site plan are presented herein with a discussion of the applicability of the TIS to the current site plan.

PROJECT DESCRIPTION

The proposed project is a shopping center located southwest of the intersection of Lacey Boulevard and 12th Avenue in Hanford, California. The proposed Project will include the following buildings:

1. Anchor A: 54,000 square feet
2. Anchor B: 37,500 square feet
3. Pad C: 3,250 square feet
4. Pad D: 4,000 square feet
5. Pad E: 2,500 square feet
6. Minor Anchor F: 7,200 square feet
7. Minor Anchor G: 8,200 square feet
8. Pad H: 3,250 square feet
9. Pad J: 4,150 square feet

The total building area will be 124,050 square feet. Site access will remain the same as that described in the TIS.

PROJECT TRIP GENERATION

Tables 1 through 4 present the traffic volumes that would be expected to be generated by the Project, including captured trips, pass-by trips, and primary trips as described in the TIS.

1.m

Attachment: Exhibit F - ISND Attachments Part 1 (1031 : Planned Unit Development 2015-02 and Tentative

Packet Pg. 128

Table 1
Project Trip Generation

Land Use	Size	Daily		A.M. Peak Hour					P.M. Peak Hour				
		Rate	Total	Rate	In:Out	In	Out	Total	Rate	In:Out	In	Out	Total
Shopping Center (820)	121,550 sq. ft.	FC1	7,710	FC2	62:38	109	67	176	FC3	50:50	342	341	683
Fast Food With Drive Through (934)	2,500 sq. ft.	496.12	1,241	45.42	51:49	58	56	114	32.65	52:48	43	39	82
TOTALS	-	-	**8,951**	-	-	**167**	**123**	**290**	-	-	**385**	**380**	**765**

Reference: *Trip Generation Manual, 9th Edition,* Institute of Transportation Engineers 2012
Rates are reported in trips per fueling position or trips per 1,000 square feet of building area as applicable.
FC1: Fitted curve: $Ln(T) = 0.65Ln(X) + 5.83$ FC2: Fitted curve: $Ln(T) = 0.61Ln(X) + 2.24$
FC3: Fitted curve: $Ln(T) = 0.67Ln(X) + 3.31$

Table 2
Captured-Trip Reductions

Time Period	Trips Entering Site	Trips Exiting Site
Weekday	360	360
Weekday A.M. Peak Hour	6	6
Weekday P.M. Peak Hour	16	16

Table 3
External Project Trips

Time Period	Trips Entering Site	Trips Exiting Site	Total
Weekday	4,116	4,115	8,231
Weekday A.M. Peak Hour	161	117	278
Weekday P.M. Peak Hour	369	364	733

Based on data provided in Chapter 5 of the TGH (as described in the TIS) and the type of land use proposed (shopping center, fast food), it is anticipated that many of the trips generated by the Project will be pass-by trips (trips made as intermediate stops on the way from an origin to a primary destination without a route diversion). The TGH indicates that an average of 34 percent of the weekday p.m. peak hour trips generated by Shopping Center (ITE Land Use 820) are pass-by trips. The TGH indicates that an average of 49 percent of the weekday a.m. peak hour trips generated by Fast Food Restaurant With Drive-Through Window (ITE Land Use 934) are pass-by trips. The data also indicate that an average of 50 percent of the weekday p.m. peak hour trips generated by Fast Food Restaurant With Drive-Through Window (Land Use 934) are pass-by trips. Therefore, a pass-by trip percentage of 34 percent is assumed for the Project. This value is considered appropriate, conservative, and feasible during the weekday peak hours.

1.m

Attachment: Exhibit F - ISND Attachments Part 1 (1031 : Planned Unit Development 2015-02 and Tentative

Packet Pg. 129

Table 4
Pass-By Trips and Primary Project Trips

Project Trips	A.M. Peak Hour		P.M. Peak Hour	
	In	Out	In	Out
External Project Trips	161	117	369	364
Project Pass-By Trips	-54	-39	-125	-123
PRIMARY PROJECT TRIPS	**107**	**78**	**244**	**241**

The revised trip generation calculations presented in Tables 1 through 4 indicate that the currently proposed project is expected to generate fewer primary trips than that analyzed in the TIS. Although the site plan includes a slightly larger building area, "tire store" is no longer included in the analysis. Tire stores generate a large percentage of primary trips and fewer pass-by trips than general shopping centers. Furthermore, the TIS utilized conservative assumptions in the analysis, including a low pass-by rate influenced by the tire store. Therefore, the calculated number of primary project trips for the current site plan is slightly less than that analyzed in the TIS.

CONCLUSION

It is the opinion of Peters Engineering Group, based on the calculations presented herein and available published data, that the analyses, conclusions, and recommendations presented in the TIS are applicable to the current site plan.

Thank you for the opportunity to continue to work with you on this project. Please feel free to contact our office if you have any questions.

PETERS ENGINEERING GROUP

John Rowland, PE, TE

REGISTERED PROFESSIONAL ENGINEER
JOHN ROWLAND
NO. 2484
EXP. 6-30-16
TRAFFIC
STATE OF CALIFORNIA

Attachments: Internal Capture Calculations

MULTI-USE TRIP GENERATION AND INTERNAL CAPTURE SUMMARY

Analyst JR
Date 7/31/2015

Name of Development Shopping Center - SW of Lacey/12th
Time Period AM Peak

ITE LU Code 820 — Size 121,550 sf

	Total	Internal	External
Enter	109	3	106
Exit	67	3	64
Total	176	6	170
%	100%	3%	97%

Exit to External: 64
Enter from External: 106

ITE LU Code 934 — Size 2500 sf

	Total	Internal	External
Enter	58	3	55
Exit	56	3	53
Total	114	6	108
%	100%	5%	95%

Enter from External: 55
Exit to External: 53

ITE LU Code — Size

	Total	Internal	External
Enter	0	0	0
Exit	0	0	0
Total	0	0	0
%	#DIV/0!	#DIV/0!	#DIV/0!

Exit to External: 0
Enter from External: 0

ITE LU Code — Size

	Total	Internal	External
Enter		0	0
Exit		0	0
Total	0	0	0
%	#DIV/0!	#DIV/0!	#DIV/0!

Enter from External: 0
Exit to External: 0

Demand 5 | Balanced 3 | Demand 3 (5%)
Demand 3 | Balanced 3 | Demand 3 (5%)
0 Demand (0%)
0 Demand
0 Balanced
0 Demand (0%)
0 Balanced
0 Demand (0%)
0 Demand (0%)
0 Balanced
0 Demand (0%)
0 Demand
0 Balanced
0 Demand
0 Balanced
0 Demand
0 Balanced
0 Demand
0 Balanced
0 Demand
0 Balanced
0 Demand
0 Demand (0%)
Demand 0 | Balanced 0 | Demand 0
Demand 0 | Balanced 0 | Demand 0

Net External Trips for Multi-Use Development

	Land Use A	Land Use B	Land Use C	Land Use D	Total
Enter	106	55	0	0	161
Exit	64	53	0	0	117
Total	170	108	0	0	279
Single-Use Trip Gen. Est.	176	114	0	0	290

	ITE Totals	Captured
Enter	167	6
Exit	123	6

INTERNAL CAPTURE 4%

Attachment: Exhibit F - ISND Attachments Part 1 (1031 : Planned Unit Development 2015-02 and Tentative

MULTI-USE TRIP GENERATION AND INTERNAL CAPTURE SUMMARY

Analyst: JR
Date: 7/31/2015

Name of Development: Shopping Center - SW of Lacey/12th
Time Period: PM Peak

Land Use A — ITE LU Code 820, Size 121,550 sf

	Total	Internal	External
Enter	342	8	334
Exit	341	9	332
Total	683	16	667
%	100%	2%	98%

Exit to External: 332
Enter from External: 334

Land Use B — ITE LU Code 934, Size 2500 sf

	Total	Internal	External
Enter	43	9	34
Exit	39	8	31
Total	82	16	66
%	100%	20%	80%

Enter from External: 34
Exit to External: 31

Between A and B: 20% Demand 68 / Balanced 8 / 20% Demand 8; 68 Demand 20% / 9 Balanced / 9 Demand 20%

Other flows (between A, B and Land Uses C and D): all Demand 0 / Balanced 0, at 0%

Land Use C — ITE LU Code, Size

	Total	Internal	External
Enter	0	0	0
Exit	0	0	0
Total	0	0	0
%	#DIV/0!	#DIV/0!	#DIV/0!

Exit to External: 0
Enter from External: 0

Land Use D — ITE LU Code, Size

	Total	Internal	External
Enter		0	0
Exit		0	0
Total	0	0	0
%	#DIV/0!	#DIV/0!	#DIV/0!

Enter from External: 0
Exit to External: 0

Between C and D: Demand 0 / Balanced 0 / Demand 0; 0 Demand / 0 Balanced / 0 Demand

Net External Trips for Multi-Use Development

	Land Use A	Land Use B	Land Use C	Land Use D	Total
Enter	334	34	0	0	369
Exit	332	31	0	0	364
Total	667	66	0	0	732
Single-Use Trip Gen. Est.	683	82	0	0	765

INTERNAL CAPTURE 4%

ITE Totals	Captured
385	16
380	16

MULTI-USE TRIP GENERATION AND INTERNAL CAPTURE SUMMARY

Analyst JR
Date 7/31/2015

Name of Development Shopping Center - SW of Lacey/12th
Time Period Daily

ITE LU Code 820
Size 121,550 sf

	Total	Internal	External
Enter	3855	186	3669
Exit	3855	174	3681
Total	7710	360	7350
%	100%	5%	95%

Exit to External: 3681
Enter from External: 3669

ITE LU Code 934
Size 2500 sf

	Total	Internal	External
Enter	621	174	447
Exit	620	186	434
Total	1241	360	881
%	100%	29%	71%

Enter from External: 447
Exit to External: 434

28% Demand 1079 | Balanced 186 | 30% Demand 186

1157 Demand 30% | 174 Balanced | 174 Demand 28%

0% 0 Demand

0 Demand | 0% 0 Balanced | 0 Balanced | 0% 0 Demand

0% 0 Demand | 0 Balanced | 0% 0 Demand

0 Demand | 0 Balanced | 0 Demand

0 Demand | 0 Balanced | 0 Demand

0 Balanced | 0 Demand | 0 Balanced

0 Demand | 0 Balanced | 0 Demand

0 Demand | 0 Balanced | 0 Demand

0 Demand | 0% 0 Balanced

0% 0 Demand

ITE LU Code
Size

	Total	Internal	External
Enter	0	0	0
Exit	0	0	0
Total	0	0	0
%	#DIV/0!	#DIV/0!	#DIV/0!

Exit to External: 0
Enter from External: 0

ITE LU Code
Size

	Total	Internal	External
Enter		0	0
Exit		0	0
Total	0	0	0
%	#DIV/0!	#DIV/0!	#DIV/0!

Enter from External: 0
Exit to External: 0

0 Demand | 0 Balanced | 0 Demand

0 Demand | 0 Balanced | 0 Demand

Net External Trips for Multi-Use Development

	Land Use A	Land Use B	Land Use C	Land Use D	Total		ITE Totals	Captured
Enter	3669	447	0	0	4116		4476	360
Exit	3681	434	0	0	4115		4475	360
Total	7350	881	0	0	8231	INTERNAL CAPTURE		
Single-Use Trip Gen. Est.	7710	1241	0	0	8951	8%		

Attachment: Exhibit F - ISND Attachments Part 1 (1031 : Planned Unit Development 2015-02 and Tentative

Traffic Impact Study

Proposed Shopping Center

Southwest of the Intersection of
Lacey Boulevard and 12th Avenue

Hanford, California

Prepared For:
City of Hanford
900 South 10th Avenue
Hanford, California 93230

Date:
August 11, 2014

Job No.:
14-017.01

PETERS ENGINEERING GROUP
A CALIFORNIA CORPORATION

PETERS ENGINEERING GROUP
A CALIFORNIA CORPORATION

Mr. Lou Camara
City of Hanford
900 South 10th Avenue
Hanford, California 93230

August 11, 2014

Subject: Traffic Impact Study
Proposed Shopping Center
Southwest of the Intersection of Lacey Boulevard and 12th Avenue
Hanford, California

INTRODUCTION

This report presents the results of a traffic impact study for a proposed shopping center in Hanford, California. This analysis focuses on the anticipated effect of vehicle traffic resulting from the project, traffic operations in the vicinity of the project site, and on-site circulation.

PROJECT DESCRIPTION

The proposed project is a shopping center located southwest of the intersection of Lacey Boulevard and 12th Avenue in Hanford, California. The proposed Project will include the following buildings:

1. Major A: 85,000 square feet
2. Fast food/drive through: 2,400 square feet
3. Retail/restaurant: 6,500 square feet
4. Retail/restaurant: 5,500 square feet
5. Auto service: 12,000 square feet

Site access will be taken from three proposed driveways on Lacey Boulevard and one right-in/right-out driveway on 12th Avenue. Two scenarios are considered for the driveway connecting to 12th Avenue: 1) right-in/right-out only, and 2) right-in/right-out/left-in. Eventually, the project will have connectivity with an adjacent shopping center with additional driveways. In the ultimate condition, there will be three proposed driveways on Lacey Boulevard (two of which are right-in/right-out only and one of which aligns with an existing median break serving the existing shopping center to the north).

A vicinity map is presented in the attached Figure 1, Site Vicinity Map, and a site plan are presented Figure 2, Site Plan, following the text of this report.

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STUDY AREA AND TIME PERIOD

The study locations were determined in consultation with City of Hanford staff based on the anticipated volume and distribution of traffic expected to be generated by the Project. This report includes analysis of the following intersections:

1. Lacey Boulevard / 12th Avenue
2. Lacey Boulevard / Site Access (potential full access)
3. Site Access / 12th Avenue (Scenario 1: right-in/right-out; Scenario 2: right-in/right-out/left-in)

The study time periods are the weekday a.m. and p.m. peak hours determined between 7:00 and 9:00 a.m. and between 4:00 and 6:00 p.m. The peak hours are analyzed for the following conditions:

- Existing Conditions;
- Existing-Plus-Project Conditions;
- Near-Term-Plus-Project Conditions (includes pending and approved projects);
- Cumulative (Year 2035) Conditions With Project.

The analysis considers the following issues:

- Lane configurations and queue lengths at the intersection of Lacey Boulevard and 12th Avenue, including dual lefts on the eastbound and westbound approaches.
- 12th Avenue project driveway - right-in/right-out versus left in (considering proximity to the signalized intersection and turn pocket lengths) and throat length.
- Lacey Boulevard full-access project driveway - consider signalized versus one-way stop control (considering proximity to the signalized intersection and turn pocket lengths), throat length, and queue lengths.
- On-site circulation and delivery truck turning radii (using AutoTURN software)
- Lacey Boulevard between Centennial Drive and 12th Avenue - determine whether two lanes are required in the eastbound direction.
- Fair share of interim improvements previously identified for the 13th Avenue interchange with State Route 198.

LANE CONFIGURATIONS AND INTERSECTION CONTROL

The existing lane configurations and intersection control at the study intersections are illustrated in Figure 3, Existing Lane Configurations. The year 2035 analyses assume that the existing lane configurations and control will be maintained through the year 2035.

EXISTING TRAFFIC VOLUMES

Existing traffic volumes were determined by performing manual turning movement counts at the study intersection between 7:00 and 9:00 a.m. and between 4:00 and 6:00 p.m. The counts also included determination of truck percentages. The traffic count data sheets are

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attached and include the dates the counts were performed. The existing peak-hour turning movement volumes are presented in Figure 4, Existing Peak Hour Traffic Volumes.

Twenty-four hour road segment counts were performed on Lacey Boulevard west of 12th Avenue and on 12th Avenue south of Lacey Boulevard. The traffic count data sheets are attached and include the dates the counts were performed.

PROJECT TRIP GENERATION

Data provided in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 9th Edition*, are utilized to estimate the number of trips anticipated to be generated by a proposed project. Table 1 presents the traffic volumes that would be expected to be generated by the Project. The land uses considered in Table 1 are those available from ITE that most nearly resemble the proposed Project.

Table 1
Project Trip Generation

Land Use	Size	Daily		A.M. Peak Hour					P.M. Peak Hour				
		Rate	Total	Rate	In:Out	In	Out	Total	Rate	In:Out	In	Out	Total
Shopping Center (820)	97,000 sq. ft.	FC1	6,658	FC2	62:38	95	58	153	FC3	50:50	294	294	588
Tire Store (848)	12,000 sq. ft.	24.87	299	2.89	63:37	22	13	35	4.15	43:57	22	29	51
Fast Food With Drive Through (934)	2,400 sq. ft.	496.12	1,191	45.42	51:49	56	53	109	32.65	52:48	41	38	79
TOTALS	-	-	**8,148**	-	-	**173**	**124**	**297**	-	-	**357**	**361**	**718**

Reference: *Trip Generation Manual, 9th Edition,* Institute of Transportation Engineers 2012
Rates are reported in trips per fueling position or trips per 1,000 square feet of building area as applicable.
FC1: Fitted curve: $Ln(T) = 0.65Ln(X) + 5.83$ FC2: Fitted curve: $Ln(T) = 0.61Ln(X) + 2.24$
FC3: Fitted curve: $Ln(T) = 0.67Ln(X) + 3.31$

Data presented in the ITE *Trip Generation Handbook* dated June 2004 (TGH) suggest that captured-trip reductions are applicable to the proposed Project. Captured-trip reductions are applied to account for the interaction between the various individual land uses assumed for the trip generation calculations. A common example of a captured trip occurs in a multi-use development containing both offices and shops. Trips made by office workers to shops within the site are defined as internal to (i.e., "captured within") the multi-use site. A more complete description of captured trips is presented in the TGH. An example of a captured trip for the proposed project is a retail shopper who also eats at the fast-food restaurant at the site.

Captured-trip reductions were calculated as described by ITE and the calculations are attached. Capture rates were obtained from Tables 7.1 and 7.2 of the TGH. The combined internal capture reduction percentage between various retail uses was limited to the values in Tables 7.1 and 7.2 of the TGH to avoid overstating the number of internal trips. Data are not presented in Tables 7.1 and 7.2 of the TGH for the a.m. peak hour; therefore, the a.m. peak hour internal capture percentage was limited to 5 percent between each use. Table 2 presents the results of the captured-trip analyses.

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Table 2
Captured-Trip Reductions

Time Period	Trips Entering Site	Trips Exiting Site
Weekday	286	286
Weekday A.M. Peak Hour	9	9
Weekday P.M. Peak Hour	24	24

The Project traffic volumes with captured-trip reductions applied (external Project trips) are presented in Table 3. These values represent the Project traffic that would be expected to occur at the site entrances and exits.

Table 3
External Project Trips

Time Period	Trips Entering Site	Trips Exiting Site	Total
Weekday	3,788	3,788	7,576
Weekday A.M. Peak Hour	164	115	279
Weekday P.M. Peak Hour	333	337	670

The ITE *Trip Generation Handbook* dated June 2004 (TGH) presents information suggesting that the Project traffic volumes will include pass-by trips. The TGH states: "There are instances, however, when the total number of trips generated by a site is different from the amount of new traffic added to the street system by the generator. For example, retail-oriented developments such as shopping centers…are often located adjacent to busy streets in order to attract the motorists already on the street. These sites attract a portion of their trips from traffic passing the site… These retail trips may not add new traffic to the adjacent street system."

Based on data provided in Chapter 5 of the TGH and the type of land use proposed (shopping center, fast food), it is anticipated that many of the trips generated by the Project will be pass-by trips (trips made as intermediate stops on the way from an origin to a primary destination without a route diversion). The TGH indicates that an average of 34 percent of the weekday p.m. peak hour trips generated by Shopping Center (ITE Land Use 820) are pass-by trips. The TGH indicates that an average of 49 percent of the weekday a.m. peak hour trips generated by Fast Food Restaurant With Drive-Through Window (ITE Land Use 934) are pass-by trips. The data also indicate that an average of 50 percent of the weekday p.m. peak hour trips generated by Land Use 934 are pass-by trips. Finally, the TGH indicates that an average of 28 percent of the weekday p.m. peak hour trips generated by Tire Store (ITE Land Use 848) are pass-by trips. Therefore, a pass-by trip percentage of 25 percent is assumed for the Project. This value is considered appropriate, conservative, and feasible during the weekday peak hours.

Table 4 presents a breakdown of Project pass-by trips and primary trips.

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Table 4
Pass-By Trips and Primary Project Trips

Project Trips	A.M. Peak Hour		P.M. Peak Hour	
	In	Out	In	Out
External Project Trips	164	115	333	337
Project Pass-By Trips	-41	-29	-83	-84
PRIMARY PROJECT TRIPS	**123**	**86**	**250**	**253**

A select zone analysis was performed by the Kings County Association of Governments (KCAG) using the year 2035 Kings County travel model to assist in the estimation of the regional distribution of Project traffic. It should be noted that the KCAG travel model provides a basis for the regional distribution of Project traffic; however, the Project traffic volumes must adjusted manually using engineering judgment to reflect expected driver behavior, turn pockets, driveways, and similar factors not accommodated by the travel model. Consideration is given to the locations of alternate routes and local roads not in the model, existing traffic patterns, complementary land uses, restrictions on turning movements, and the population of Hanford and surrounding areas. The KCAG select zone analysis request and results are attached.

The percentage distribution of Project traffic to the adjacent streets is presented in Figure 5, Peak-Hour Project Traffic Distribution. New (primary) peak-hour Project traffic volumes are presented in Figure 6, New Project Peak-Hour Traffic Volumes - Scenario 1 and Figure 7, New Project Peak-Hour Traffic Volumes - Scenario 2. The pass-by trips are presented in Figure 8, Peak-Hour Project Pass-By Trips - Scenario 1 and Figure 9, Peak-Hour Project Pass-By Trips - Scenario 2.

EXISTING-PLUS-PROJECT TRAFFIC VOLUMES

Peak-hour existing plus Project traffic volumes are presented in Figure 10, Existing Plus Project Peak-Hour Traffic Volumes - Scenario 1 and Figure 11, Existing Plus Project Peak-Hour Traffic Volumes - Scenario 2.

PENDING PROJECTS

The analyses for the near-term and year 2035 conditions consider the effects of traffic expected to be generated by pending and approved projects in the study area. The projects listed below .

- 16,000 square feet of retail buildings - southwest of the intersection of Lacey Boulevard and 12th Avenue (will share driveways with the proposed project)
- Tract 843 PUD (Lennar of Fresno) - 75-lot residential tract at 12th Avenue and Greenfield Avenue
- Centennial Place Apartments – 176 units located on Centennial Drive north of Lacey Boulevard
- Courthouse –Generally located at the northeast corner of Liberty Street and 12th Avenue
- Tractor Supply – Southeast of State Route 198 12th Avenue.

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- Veterinary Clinic - east end of Glendale Avenue
- Undeveloped lots in the Lowes center

Since the proposed 16,000-square-foot retail project will share driveways with the Project, and will essentially be integrated as one shopping center, a different set of trip generation analyses have been performed to consider the case in which both projects are constructed and are sharing the same driveways. Tables 5 through 8 present the trip generation characteristics of the site with both projects developed.

Table 5
Combined Site Trip Generation

Land Use	Size	Daily		A.M. Peak Hour					P.M. Peak Hour				
		Rate	Total	Rate	In:Out	In	Out	Total	Rate	In:Out	In	Out	Total
Shopping Center (820)	113,000 sq. ft.	FC1	7,353	FC2	62:38	104	64	168	FC3	50:50	325	325	650
Tire Store (848)	12,000 sq. ft.	24.87	299	2.89	63:37	22	13	35	4.15	43:57	22	29	51
Fast Food With Drive Through (934)	2,400 sq. ft.	496.12	1,191	45.42	51:49	56	53	109	32.65	52:48	41	38	79
TOTALS	-	-	**8,843**	-	-	**182**	**130**	**312**	-	-	**388**	**392**	**780**

Reference: *Trip Generation Manual, 9th Edition,* Institute of Transportation Engineers 2012
Rates are reported in trips per fueling position or trips per 1,000 square feet of building area as applicable.
FC1: Fitted curve: $Ln(T) = 0.65Ln(X) + 5.83$ FC2: Fitted curve: $Ln(T) = 0.61Ln(X) + 2.24$
FC3: Fitted curve: $Ln(T) = 0.67Ln(X) + 3.31$

Table 6
Combined Site Captured-Trip Reductions

Time Period	Trips Entering Site	Trips Exiting Site
Weekday	286	286
Weekday A.M. Peak Hour	9	9
Weekday P.M. Peak Hour	24	24

Table 7
Combined Site External Project Trips

Time Period	Trips Entering Site	Trips Exiting Site	Total
Weekday	4,136	4,136	8,272
Weekday A.M. Peak Hour	173	121	294
Weekday P.M. Peak Hour	364	368	732

Table 8
Combined Site Pass-By Trips and Primary Project Trips

Project Trips	A.M. Peak Hour		P.M. Peak Hour	
	In	Out	In	Out
External Project Trips	173	121	364	368
Project Pass-By Trips	-43	-30	-91	-92
PRIMARY PROJECT TRIPS	**130**	**91**	**273**	**276**

New (primary) peak-hour Project traffic volumes combined with the proposed 16,000-square-foot retail development are presented in Figure 12, New Combined Site Peak-Hour Traffic Volumes - Scenario 1 and Figure 13, New Combined Site Peak-Hour Traffic Volumes -

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Scenario 2. The combined pass-by trips are presented in Figure 14, Combined Site Peak-Hour Project Pass-By Trips - Scenario 1 and Figure 15, Combined Site Peak-Hour Project Pass-By Trips - Scenario 2

The traffic volumes expected to be generated by the other pending projects in the vicinity of the site are presented in Figure 16, Pending Projects Peak-Hour Traffic Volumes.

The traffic volumes presented in Figures 14 and 16 were utilized to determine the near-term traffic volumes presented in Figure 17, Near-Term Peak Hour Traffic Volumes - Scenario 1. The traffic volumes presented in Figures 15 and 16 were utilized to determine the near-term traffic volumes presented in Figure 18, Near-Term Peak Hour Traffic Volumes - Scenario 2.

CUMULATIVE TRAFFIC VOLUMES (YEAR 2035)

Cumulative traffic volumes for the year 2035 were based on the Kings County travel model data provided by KCAG. The KCAG traffic model output is attached. The cumulative volumes were determined using an Increment Method in which the difference between the future and base year volumes obtained from the model were added to the existing traffic volumes. Since the Kings County travel model utilizes daily volumes, the existing 24-hour traffic volumes were utilized to determine the percentage of daily traffic volumes that occur during the peak hours. Based on the results of the 24-hour traffic counts, 5.0 percent of the daily traffic occurs during the a.m. peak hour and 8.0 percent of the daily traffic occurs during the p.m. peak hour.

Cumulative turning movements were determined based on the methods presented in Chapter 8 of the Transportation Research Board National Cooperative Highway Research Program Report 255 entitled "*Highway Traffic Data for Urbanized Area Project Planning and Design.*" The year 2035 cumulative traffic volumes are presented in Figure 19, Cumulative (Year 2035) Peak Hour Traffic Volumes - Scenario 1 and Figure 20, Cumulative (Year 2035) Peak Hour Traffic Volumes - Scenario 2. The volumes in Figures 19 and 20 include the Project and the pending projects.

SIGNIFICANCE CRITERIA

The Transportation Research Board *Highway Capacity Manual*, 2010, (HCM2010) defines level of service (LOS) as, "A quantitative stratification of a performance measure or measures that represent quality of service, measured on an A-F scale, with LOS A representing the best operating conditions from the traveler's perspective and LOS F the worst." Automobile mode LOS characteristics for both unsignalized and signalized intersections are presented in Tables 9 and 10.

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Table 9
Level of Service Characteristics for Unsignalized Intersections

Level of Service	Average Vehicle Delay (seconds)
A	0-10
B	>10-15
C	>15-25
D	>25-35
E	>35-50
F	>50

Reference: *Highway Capacity Manual,* Transportation Research Board, 2010

Table 10
Level of Service Characteristics for Signalized Intersections

Level of Service	Description	Average Vehicle Delay (seconds)
A	Volume-to-capacity ratio is low. Progression is exceptionally favorable or the cycle length is very short.	<10
B	Volume-to-capacity ratio is low. Progression is highly favorable or the cycle length is very short.	>10-20
C	Volume-to-capacity ratio is no greater than 1.0. Progression is favorable or cycle length is moderate.	>20-35
D	Volume-to-capacity ratio is high but no greater than 1.0. Progression is ineffective or cycle length is long. Many vehicles stop and individual cycle failures are noticeable.	>35-55
E	Volume-to-capacity ratio is high but no greater than 1.0. Progression is unfavorable and cycle length is long. Individual cycle failures are frequent.	>55-80
F	Volume-to-capacity ratio is greater than 1.0. Progression is very poor and cycle length is long. Most cycles fail to clear the queue.	>80

Reference: *Highway Capacity Manual,* Transportation Research Board, 2010

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 is 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."

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The City of Hanford General Plan Program CI 2.3-A states: "Improve intersections operating at less than peak hour Level of Service "D" conditions by adding appropriate turning lanes to congested approaches, widening intersection approaches, or modifying signal timing at intersections and coordinating with other signals, as appropriate, unless the City's design considerations or other public health, safety, or welfare factors determine otherwise."

Based on these discussions, a target peak hour LOS D will be utilized at the study locations.

A traffic impact will be recognized if the Project will contribute to a decrease in the LOS below the target LOS values presented above. A traffic impact will also be recognized if the Project will contribute to an exacerbation of average delays at a location that is already operating at a substandard LOS under baseline conditions. For purposes of defining an exacerbated condition, an impact will be identified if the Project will contribute to a decrease to the next lower substandard LOS or contribute to an increase in the average delay at an intersection by 5.0 seconds or more.

Queues will be considered in the analyses, particularly to determine if excessive queues are expected to block through lanes, adjacent intersections, or driveways. Blocking typically results in congested conditions that may cause worse conditions at the blocked location than those identified by the LOS analyses alone.

INTERSECTION ANALYSES

The intersection levels of service (LOS) were determined using the computer program Synchro 8, which is based on *Highway Capacity Manual* procedures for calculating levels of service. The intersection analysis sheets are attached.

Tables 11 through 14 present the results of the intersection analyses. For signalized intersections the overall intersection level of service and the average delay per vehicle are presented. For one-way and two-way stop-controlled intersections an overall intersection level of service is not defined by the *Highway Capacity Manual*. Therefore, for one-way and two-way stop-controlled intersections the level of service and average delay per vehicle for the approach with the greatest delay is reported. Levels of service and delays below LOS D are indicated in bold type

Table 11
Intersection Level of Service Summary
Existing and Existing-Plus-Project (Scenario 1) Conditions

Intersection	Control	Existing				Existing Plus Project			
		A.M.		P.M.		A.M.		P.M.	
		Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Lacey / 12th Ave	Signal	19.6	B	28.2	C	21.0	C	34.7	C
Lacey / Site Access*	Two-way stop	14.0	B	34.9	D	18.4	C	**158.7**	**F**
Site Access / 12th Ave	One-way stop	-	-	-	-	10.6	B	13.7	B

* No access south of Lacey Boulevard in the existing condition.

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Table 12
Intersection Level of Service Summary
Existing and Existing-Plus-Project (Scenario 2) Conditions

Intersection	Control	Existing				Existing Plus Project			
		A.M.		P.M.		A.M.		P.M.	
		Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Lacey / 12th Ave	Signal	19.6	B	28.2	C	20.8	C	32.7	C
Lacey / Site Access*	Two-way stop	14.0	B	34.9	D	18.4	C	**158.7**	**F**
Site Access / 12th Ave	One-way stop	-	-	-	-	10.6	B	13.4	B

* No access south of Lacey Boulevard in the existing condition.

Table 13
Intersection Level of Service Summary
Near-Term and Year 2035 Conditions (Scenario 1)

Intersection	Control	Near-Term				Year 2035			
		A.M.		P.M.		A.M.		P.M.	
		Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Lacey / 12th Ave	Signal	23.4	C	41.3	D	45.8	D	**90.2**	**F**
Lacey / Site Access	Two-way stop	23.3	C	**339.4**	**F**	**45.8**	**E**	*	**F**
Site Access / 12th Ave	One-way stop	11.0	B	14.6	B	14.5	B	25.1	D

Table 14
Intersection Level of Service Summary
Near-Term and Year 2035 Conditions (Scenario 2)

Intersection	Control	Near-Term				Year 2035			
		A.M.		P.M.		A.M.		P.M.	
		Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Lacey / 12th Ave	Signal	23.1	C	37.8	D	45.4	D	**85.6**	**F**
Lacey / Site Access	Two-way stop	23.4	C	**339.4**	**F**	**45.8**	**E**	*	**F**
Site Access / 12th Ave	One-way stop	10.9	B	14.3	B	14.4	B	24.4	C

Tables 15 through 18 present the calculated 95th-percentile queues. The reported lengths of the turn lanes are based on measurements taken from aerial photos. Calculated 95th-percentile queues exceeding the length of the turn lane by at least 25 feet (approximate storage required for one vehicle) are presented in bold type.

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Table 15
Intersection Queuing Summary - A.M. Peak Hour (Scenario 1)

Intersection and Movement	Existing Length of Turn Lane (feet)	95th-Percentile Queue Length (feet)			
		Existing	Existing Plus Project	Near-Term	Year 2035
Lacey / 12th Ave					
Eastbound Left	200	55	76	166	**281**
Eastbound Through	500	122	133	142	204
Eastbound Right	50	0	8	20	42
Westbound Left	275	128	145	143	248
Westbound Through	1,190	39	45	53	80
Westbound Right	180	0	0	0	53
Northbound Left	200	65	85	88	174
Northbound Through	885	88	88	135	368
Northbound Right	100	0	36	37	47
Southbound Left	250	132	134	177	**398**
Southbound Through	550	128	143	165	352
Southbound Right	50	0	0	27	59
Lacey / Site Access					
Westbound Left	160	0	5	5	5
Northbound	Not existing	-	10	15	28
Site Access / 12th Ave					
Eastbound Right	Not existing	-	3	3	5

Table 16
Intersection Queuing Summary - P.M. Peak Hour (Scenario 1)

Intersection and Movement	Existing Length of Turn Lane (feet)	95th-Percentile Queue Length (feet)			
		Existing	Existing Plus Project	Near-Term	Year 2035
Lacey / 12th Ave					
Eastbound Left	200	122	172	**241**	**447**
Eastbound Through	500	91	124	132	251
Eastbound Right	50	26	46	51	**187**
Westbound Left	275	**339**	**406**	**425**	**647**
Westbound Through	1,190	104	126	130	211
Westbound Right	180	11	12	20	93
Northbound Left	200	199	**258**	**291**	**496**
Northbound Through	885	178	178	193	518
Northbound Right	100	33	42	42	76
Southbound Left	250	149	149	152	**452**
Southbound Through	550	160	178	206	**674**
Southbound Right	50	0	16	47	148
Lacey / Site Access					
Westbound Left	160	3	10	10	15
Northbound	Not existing	-	88	140	**343**
Site Access / 12th Ave					
Eastbound Right	Not existing	-	15	18	33

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Table 17
Intersection Queuing Summary - A.M. Peak Hour (Scenario 2)

Intersection and Movement	Existing Length of Turn Lane (feet)	95th-Percentile Queue Length (feet)			
		Existing	Existing Plus Project	Near-Term	Year 2035
Lacey / 12th Ave					
Eastbound Left	200	55	76	166	**281**
Eastbound Through	500	122	133	142	204
Eastbound Right	50	0	8	20	42
Westbound Left	275	128	145	143	248
Westbound Through	1,190	39	45	53	80
Westbound Right	180	0	0	0	53
Northbound Left	200	65	71	73	157
Northbound Through	885	88	88	135	368
Northbound Right	100	0	36	37	47
Southbound Left	250	132	134	177	**398**
Southbound Through	550	128	141	163	334
Southbound Right	50	0	0	26	57
Lacey / Site Access					
Westbound Left	160	0	5	5	5
Northbound	Not existing	-	10	15	28
Site Access / 12th Ave					
Eastbound Right	Not existing	-	3	3	5
Northbound Left	Not existing	-	3	3	5

Table 18
Intersection Queuing Summary - P.M. Peak Hour (Scenario 2)

Intersection and Movement	Existing Length of Turn Lane (feet)	95th-Percentile Queue Length (feet)			
		Existing	Existing Plus Project	Near-Term	Year 2035
Lacey / 12th Ave					
Eastbound Left	200	122	172	**241**	**447**
Eastbound Through	500	91	124	132	251
Eastbound Right	50	26	46	51	**187**
Westbound Left	275	**339**	**395**	**414**	**635**
Westbound Through	1,190	104	124	128	209
Westbound Right	180	11	12	20	107
Northbound Left	200	199	222	**250**	**457**
Northbound Through	885	178	182	196	531
Northbound Right	100	33	42	43	79
Southbound Left	250	149	149	152	**452**
Southbound Through	550	160	178	206	**662**
Southbound Right	50	0	16	47	145
Lacey / Site Access					
Westbound Left	160	3	10	10	15
Northbound	Not existing	-	88	140	**335**
Site Access / 12th Ave					
Eastbound Right	Not existing	-	13	15	33
Northbound Left	Not existing	-	10	13	25

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DISCUSSION OF ANALYSES

Existing Conditions

The results of the intersection operational analyses indicate that the intersection of Lacey Boulevard and 12th Avenue is currently operating at acceptable levels of service. Calculated 95th-percentile queues are generally contained within the existing storage lanes, with the exception of the westbound left-turn lane (calculated 95th-percentile queue of 339 feet and existing storage length of 275 feet).

Existing-Plus-Project Conditions

With construction of the Project, the intersection of Lacey Boulevard and 12th Avenue is expected to continue to operate at acceptable levels of service (Scenarios 1 and 2). The calculated 95th-percentile queues are contained within the existing storage lanes, with the exception of the westbound left-turn lane (which is also deficient in the existing condition) in Scenarios 1 and 2, and the northbound left-turn lane in Scenario 1.

The proposed main site access intersection on Lacey Boulevard is expected to operate at substandard levels of service (Scenarios 1 and 2). The substandard levels of service would be experienced by the private driveways, including the driveway on north side of Lacey Boulevard, and would not occur on Lacey Boulevard. Peak hour traffic signal warrants are not expected to be satisfied. Therefore, signalization of the intersection is not recommended based on the existing-plus-Project conditions alone. It should be noted that existing-plus-Project conditions typically do not govern the design, since other pending projects should also be considered. Therefore, the near-term-plus-Project analyses typically govern the design.

The intersection of the proposed driveway and 12th Avenue is expected to operate at acceptable levels of service with acceptable calculated 95th-percentile queues (Scenarios 1 and 2). Since there is very little difference in traffic operations between Scenario 1 and Scenario 2, the results of the year 2035 analyses should be considered when determining whether a left in from 12th Avenue should be allowed.

The analyses suggest that two through lanes on eastbound Lacey Boulevard between Centennial Drive and 12th Avenue will be adequate in the existing-plus-Project condition.

Near-Term-Plus-Project Conditions

With construction of the Project and the pending projects, the intersection of Lacey Boulevard and 12th Avenue is expected to continue to operate at acceptable levels of service for either Scenario 1 or Scenario 2. The calculated 95th-percentile queues are expected to exceed the existing storage length in the westbound, eastbound, and northbound left-turn lanes for both scenarios, although Scenario 1 results in slightly longer queues. Consideration should be given to the construction of additional left-turn lanes. Since right of way is limited, the widening project could include reducing the number of westbound through lanes from three lanes to two lanes. With construction of a second left-turn lane on the eastbound and westbound approaches and two westbound through lanes, the intersection would operate at acceptable levels of service and queues on all approaches would be reduced to acceptable lengths.

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The proposed main site access intersection on Lacey Boulevard is expected to operate at substandard levels of service if constructed as a two-way stop. The substandard levels of service would be experienced by drivers exiting the private driveways, including the driveway on north side of Lacey Boulevard. Two feasible mitigations exist:

1. prevent left turns exiting the private driveways with construction of a median worm that allows left turns into the shopping centers from eastbound and westbound Lacey Boulevard
2. signalize the intersection with protected left-turn phasing on all four approaches (peak-hour traffic signal warrants are expected to be satisfied).

The intersection of the proposed driveway and 12th Avenue is expected to operate at acceptable levels of service with acceptable calculated 95th-percentile queues (Scenarios 1 and 2). Since there is very little difference in traffic operations between Scenario 1 and Scenario 2, the results of the year 2035 analyses should be considered when determining whether a left in from 12th Avenue should be allowed.

Since there are two access scenarios with different project trip characteristics at the 12th Avenue Project driveway which affect traffic volumes at the intersection of Lacey Boulevard and 12th Avenue, the following mitigated scenarios are analyzed for the near-term conditions:

- Mitigation NT-1A: Scenario 1 conditions with left turns out prevented at Lacey / Site Access and a second left-turn lane added to eastbound and westbound Lacey Boulevard at 12th Avenue (see Figure 21 for mitigated near-term traffic volumes);
- Mitigation NT-1B: Scenario 1 conditions with traffic signals at Lacey / Site Access and a second left-turn lane added to eastbound and westbound Lacey Boulevard at 12th Avenue;
- Mitigation NT-2A: Scenario 2 conditions with left turns prevented at Lacey / Site Access and a second left-turn lane added to eastbound and westbound Lacey Boulevard at 12th Avenue (see Figure 22 for mitigated near-term traffic volumes);
- Mitigation NT-2B: Scenario 2 conditions with traffic signals at Lacey / Site Access and a second left-turn lane added to eastbound and westbound Lacey Boulevard at 12th Avenue.

The analyses suggest that two through lanes on eastbound Lacey Boulevard between Centennial Drive and 12th Avenue will be adequate in the near-term condition.

Summaries of the mitigated levels of service and calculated queue lengths for near-term conditions are presented in Tables 19 through 22. Recommended design lengths for turn lanes are discussed below.

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Table 19
Mitigated Intersection Level of Service Summary - Near-Term Conditions (Scenario 1)

Intersection	Mitigation NT-1A				Mitigation NT-1B			
	A.M.		P.M.		A.M.		P.M.	
	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Lacey / 12th Ave	21.1	C	28.2	C	21.0	C	28.1	C
Lacey / Site Access	11.4	B	12.4	B	12.8	B	17.5	B
Site Access / 12th Ave	11.0	B	14.6	B	11.0	B	14.6	B

Table 20
Mitigated Intersection Level of Service Summary - Near-Term Conditions (Scenario 2)

Intersection	Mitigation NT-2A				Mitigation NT-2B			
	A.M.		P.M.		A.M.		P.M.	
	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Lacey / 12th Ave	20.9	C	26.9	C	20.9	C	26.8	C
Lacey / Site Access	11.4	B	13.0	B	12.8	B	17.5	B
Site Access / 12th Ave	10.9	B	14.3	B	10.9	B	14.3	B

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Table 21
Mitigated Intersection Queuing Summary - Near-Term Conditions (Scenario 1)

Intersection and Movement	95th-Percentile Queue Length (feet)			
	Mitigation NT-1A		Mitigation NT-1B	
	A.M.	P.M.	A.M.	P.M.
Lacey / 12th Avenue				
Eastbound Left	85	109	82	101
Eastbound Through	135	132	135	132
Eastbound Right	0	51	0	51
Westbound Left	74	169	74	169
Westbound Through	78	202	78	202
Westbound Right	0	20	0	20
Northbound Left	87	232	87	232
Northbound Through	133	190	133	190
Northbound Right	15	41	15	41
Southbound Left	142	123	142	123
Southbound Through	152	209	152	209
Southbound Right	25	48	25	48
Lacey / Site Access				
Eastbound Left	0	3	21	35
Eastbound Through/Right	-	-	200	184
Westbound Left	5	13	63	128
Westbound Through	-	-	105	252
Westbound Right	-	-	0	0
Northbound Left	-	-	26	58
Northbound Through/Right	8	28	0	0
Southbound Left	-	-	38	89
Southbound Through/Right	3	13	0	0
Site Access / 12th Ave				
Eastbound Right	3	18	3	18

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Table 22
Mitigated Intersection Queuing Summary - Near-Term Conditions (Scenario 2)

Intersection and Movement	95th-Percentile Queue Length (feet)			
	Mitigation NT-2A		Mitigation NT-2B	
	A.M.	P.M.	A.M.	P.M.
Lacey / 12th Avenue				
Eastbound Left	85	109	82	101
Eastbound Through	135	132	135	132
Eastbound Right	0	51	0	51
Westbound Left	74	169	74	169
Westbound Through	78	202	78	202
Westbound Right	0	20	0	20
Northbound Left	72	192	72	192
Northbound Through	133	190	133	190
Northbound Right	15	41	15	41
Southbound Left	142	123	142	123
Southbound Through	149	206	149	206
Southbound Right	24	47	24	47
Lacey / Site Access				
Eastbound Left	0	3	21	35
Eastbound Through/Right	-	-	200	184
Westbound Left	5	13	63	128
Westbound Through	-	-	105	252
Westbound Right	-	-	0	0
Northbound Left	-	-	26	58
Northbound Through/Right	8	28	0	0
Southbound Left	-	-	38	89
Southbound Through/Right	3	13	0	0
Site Access / 12th Ave				
Eastbound Right	3	15	3	15
Northbound Left	3	13	3	13

Cumulative (Year 2035) With-Project Conditions

The Project contributes to a cumulative LOS F at the intersection of Lacey Boulevard and 12th Avenue and at the intersection of the main site access driveway and Lacey Boulevard for both Scenario 1 and Scenario 2. In order to operate at acceptable levels of service in the future, the intersections will need to be improved as described below.

The intersection of Lacey Boulevard and 12th Avenue should be widened to provide two left-turn lanes on all four approaches to the intersection. With implementation of this mitigation, the intersection would operate at acceptable levels of service and queues on all approaches would be reduced to acceptable lengths.

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The proposed main site access intersection on Lacey Boulevard is expected to operate at substandard levels of service if constructed as a two-way stop. The substandard levels of service would be experienced by drivers exiting the private driveways, including the driveway on north side of Lacey Boulevard. Two feasible mitigations exist:

1. prevent left turns exiting the private driveways with construction of a median worm that allows left turns into the shopping centers from eastbound and westbound Lacey Boulevard
2. signalize the intersection with protected left-turn phasing on all four approaches (peak-hour traffic signal warrants are expected to be satisfied).

The intersection of the proposed driveway and 12th Avenue is expected to operate at acceptable levels of service with acceptable calculated 95th-percentile queues (Scenarios 1 and 2).

Since there are two access scenarios with different project trip characteristics at the 12th Avenue Project driveway which affect traffic volumes at the intersection of Lacey Boulevard and 12th Avenue, the following mitigated scenarios are analyzed for the year 2035 conditions:

- Mitigation 2035-1A: Scenario 1 conditions with left turns out prevented at Lacey / Site Access and a second left-turn lane added to all four approaches at the intersection of Lacey Boulevard and 12th Avenue (see Figure 23 for mitigated near-term traffic volumes);
- Mitigation 2035-1B: Scenario 1 conditions with traffic signals at Lacey / Site Access and a second left-turn lane added to all four approaches at the intersection of Lacey Boulevard and 12th Avenue;
- Mitigation 2035-2A: Scenario 2 conditions with left turns prevented at Lacey / Site Access and a second left-turn lane added to all four approaches at the intersection of Lacey Boulevard and 12th Avenue (see Figure 24 for mitigated near-term traffic volumes);
- Mitigation 2035-2B: Scenario 2 conditions with traffic signals at Lacey / Site Access and a second left-turn lane added to all four approaches at the intersection of Lacey Boulevard and 12th Avenue.

Summaries of the mitigated levels of service and calculated queue lengths for year 2035 conditions are presented in Tables 23 through 26. Recommended design lengths for turn lanes are discussed below.

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Table 23
Mitigated Intersection Level of Service Summary - Year 2035 Conditions (Scenario 1)

Intersection	Mitigation 2035-1A				Mitigation 2035-1B			
	A.M.		P.M.		A.M.		P.M.	
	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Lacey / 12th Ave	28.4	C	45.2	D	28.0	C	44.6	D
Lacey / Site Access	12.5	B	16.3	C	12.4	B	19.1	B
Site Access / 12th Ave	14.5	B	25.1	D	14.5	B	25.1	D

Table 24
Mitigated Intersection Level of Service Summary - Year 2035 Conditions (Scenario 2)

Intersection	Mitigation 2035-2A				Mitigation 2035-2B			
	A.M.		P.M.		A.M.		P.M.	
	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Lacey / 12th Ave	28.2	C	44.2	D	27.9	C	43.6	D
Lacey / Site Access	12.5	B	16.3	C	12.4	B	19.1	B
Site Access / 12th Ave	14.4	B	24.4	C	14.4	B	24.4	C

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Table 25
Mitigated Intersection Queuing Summary - Year 2035 Conditions (Scenario 1)

Intersection and Movement	95th-Percentile Queue Length (feet)			
	Mitigation 2035-1A		Mitigation 2035-1B	
	A.M.	P.M.	A.M.	P.M.
Lacey / 12th Avenue				
Eastbound Left	112	186	107	170
Eastbound Through	201	203	201	203
Eastbound Right	65	132	42	132
Westbound Left	101	250	101	250
Westbound Through	122	266	122	266
Westbound Right	53	145	53	143
Northbound Left	73	194	73	194
Northbound Through	288	374	293	374
Northbound Right	42	49	42	49
Southbound Left	167	162	150	162
Southbound Through	310	503	310	503
Southbound Right	49	97	49	97
Lacey / Site Access				
Eastbound Left	0	3	21	35
Eastbound Through/Right	-	-	297	332
Westbound Left	8	18	63	142
Westbound Through	-	-	184	348
Westbound Right	-	-	0	0
Northbound Left	-	-	27	58
Northbound Through/Right	10	40	26	42
Southbound Left	-	-	39	89
Southbound Through/Right	3	13	12	20
Site Access / 12th Ave				
Eastbound Right	5	33	5	33

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Table 26
Mitigated Intersection Queuing Summary - Year 2035 Conditions (Scenario 2)

Intersection and Movement	95th-Percentile Queue Length (feet)			
	Mitigation 2035-2A		Mitigation 2035-2B	
	A.M.	P.M.	A.M.	P.M.
Lacey / 12th Avenue				
Eastbound Left	112	186	107	170
Eastbound Through	201	203	201	203
Eastbound Right	65	132	42	132
Westbound Left	101	250	101	250
Westbound Through	122	266	122	266
Westbound Right	53	156	53	155
Northbound Left	65	177	65	177
Northbound Through	288	374	293	374
Northbound Right	42	49	42	49
Southbound Left	167	162	150	162
Southbound Through	310	491	310	491
Southbound Right	49	94	49	94
Lacey / Site Access				
Eastbound Left	0	3	21	35
Eastbound Through/Right	-	-	297	332
Westbound Left	8	18	63	142
Westbound Through	-	-	184	348
Westbound Right	-	-	0	0
Northbound Left	-	-	27	58
Northbound Through/Right	10	40	26	42
Southbound Left	-	-	39	89
Southbound Through/Right	3	13	12	20
Site Access / 12th Ave				
Eastbound Right	5	33	5	33
Northbound Left	5	25	5	25

Chapter 400 of the Caltrans *Highway Design Manual* dated March 7, 2014 (HDM) presents a method for determining the required left-turn channelization length. In urban areas, it is common to assume that deceleration will occur in the through lane and adjacent to the bay taper in advance of the storage lanes. As such, the turn lane is designed only to accommodate the required storage length. Table 27 presents the recommended design storage lengths based on the HDM left-turn storage analyses (attached) and the calculated 95th-percentile queues.

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Table 27
Highway Design Manual Design Storage Length

Intersection and Movement	2035 Maximum Peak Hour Volume				Minimum Recommended Design Storage Length (feet)			
	1A	1B	2A	2B	1A	1B	2A	2B
Lacey / 12th Ave								
Eastbound Left*	324	305	324	305	250	225	250	225
Westbound Left*	419	419	419	419	300	300	300	300
Northbound Left*	306	306	274	274	225	225	200	200
Southbound Left*	330	330	330	330	250	250	250	250
Lacey / Site Access								
Westbound Left	115	115	115	115	100	100	100	100
Northbound**	158	141	158	141	150	125	150	125
Site Access / 12th Ave								
Eastbound Right	77	77	77	77	75	75	75	75
Northbound Left	-	-	76	76	-	-	75	75

* Two left-turn lanes are recommended on all four approaches at the intersection of Lacey Boulevard and 12th Avenue. The reported length is the length of each turn lane. The actual storage capacity would be twice the reported length.

** Northbound is right-turn only for Mitigations 1A and 2A. For Mitigations 1B and 2B a dedicated left-turn lane with a shared through/right-turn lane is recommended, and the governing volume is used.

Based on a review of the calculated 95th-percentile queues and the design storage lengths calculated using the HDM, it appears that it is feasible to construct back-to-back left-turn lanes on Lacey Boulevard between 12th Avenue and the main site entrance. There is approximately 500 feet available between the driveway and 12th Avenue in which to develop the turn lanes and the bay tapers. The left-turn lane on westbound Lacey Boulevard serving the site entrance should be at least 100 feet long (the existing lane is approximately 150 feet long and would be reduced) and the dual left-turn lanes on eastbound Lacey Boulevard at 12th Avenue should at least be either 225 feet long or 250 feet long (depending upon the actual mitigation scenario installed) after the intersection has been constructed to its ultimate configuration (two left-turn lanes on all four approaches).

Based on a review of the calculated 95th-percentile queues and the design storage lengths calculated using the HDM, it appears that it is feasible to construct a left-turn lane on northbound 12th Avenue serving the main site entrance. The main site entrance must be located far enough south of Lacey Boulevard to allow the construction of dual left-turn lanes on northbound 12th Avenue at Lacey Boulevard that will be at least 200 feet long after the intersection has been constructed to its ultimate configuration (two left-turn lanes on all four approaches).

The analyses suggest that two through lanes on eastbound Lacey Boulevard between Centennial Drive and 12th Avenue will be adequate.

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Comparison of Mitigation Alternatives

Four different mitigation scenarios were analyzed and a preferred alternative must be selected. There are essentially two decisions that must be made:

1. Site Access intersection on Lacey Boulevard: prevent left-turns out or signalize
2. Site Access intersection on 12th Avenue: allow or do not allow left turns into the site from northbound 12th Avenue.

The results of the analyses suggest that all combinations of options will result in very similar operational conditions at the intersection of Lacey Boulevard and 12th Avenue and all appear to be feasible. Therefore, the decision will likely depend upon maintenance considerations and constructing facilities in a manner that is least likely to result in congestion during peak seasons (such as December) or if traffic conditions are not as projected by the Kings County model. Each alternative is discussed below. It should be noted that the only difference between the near-term (NT) and 2035 mitigation scenarios is at the intersection of Lacey Boulevard and 12th Avenue, where the NT mitigation includes dual lefts on the eastbound and westbound approaches while the 2035 mitigation requires dual lefts on all four approaches.

- Mitigation NT-1A and 2035-1A: This scenario does not allow left turns into the site from 12th Avenue and does not allow left turns out of the site on Lacey Boulevard. This scenario requires the least amount of maintenance by the City after construction since no new traffic signals or additional turn lanes are included. This scenario also allows for future construction of longer left-turn lanes on northbound 12th Avenue at Lacey Boulevard if needed (there will be no conflicting turn pocket at the site entrance). This scenario provides the most restricted site access of the four alternatives.
- Mitigation NT-1B and 2035-1B: This scenario does not allow left turns into the site from 12th Avenue and includes signalization of the site access intersection on Lacey Boulevard. This alternative requires a greater amount of maintenance and long-term costs associated with the traffic signals. The minimal distance between traffic signals (approximately 500 feet to 12th Avenue) is typically a concern, and minimizing the number of traffic signals on a given corridor is typically desirable.
- Mitigation NT-2A and 2035-2A: This scenario allows left turns into the site from 12th Avenue and does not allow left turns out of the site on Lacey Boulevard. This scenario requires minimal maintenance by the City after construction since no new traffic signals and only one additional turn lane are included. This scenario may limit the potential for future construction of longer left-turn lanes on northbound 12th Avenue at Lacey Boulevard if needed. This scenario slightly reduces the number of trips at the intersection of Lacey Boulevard and 12th Avenue as compared to the 1A and 1B mitigations discussed above.
- Mitigation NT-2B and 2035-2B: This scenario allows left turns into the site from 12th Avenue and includes signalization of the site access intersection on Lacey Boulevard. This scenario requires the greatest amount of maintenance and long-term costs to the City while also providing the greatest amount of access to the Project site. This

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scenario may limit the potential for future construction of longer left-turn lanes on northbound 12th Avenue at Lacey Boulevard if needed. This scenario slightly reduces the number of trips at the intersection of Lacey Boulevard and 12th Avenue as compared to the 1A and 1B mitigations discussed above. The minimal distance between traffic signals (approximately 500 feet to 12th Avenue) is typically a concern, and minimizing the number of traffic signals on a given corridor is typically desirable.

Based on the considerations discussed above, it is recommended that mitigation scenarios NT-1A and 2035-1A be applied to the Project.

ON-SITE CIRCULATION

A general review of the proposed site plan was performed to identify potential issues related to on-site circulation. The following areas of potential concern were identified:

- The main driveway connecting to the south side of the site runs diagonally through the site and is likely to result in drivers experiencing difficulty establishing a line-of-sight for certain movements. In addition, certain parking stalls near the driveway are situated such that backing straight out of the stall will result in vehicles extending into the main driveway as well as into the parking aisle. This condition requires the driver of the parked vehicle to be aware of traffic in several different directions and at awkward angles. It is recommended that the main driveway utilize 90-degree angles as necessary to transition across the site.
- The main site driveways should have a throat length at least as long as the lengths presented in Table 27 for Mitigation 1A (150 feet at the main Lacey Boulevard access and 75 feet at the 12th Avenue access) and should conform to City of Hanford standards and practices. Parking stalls should not be constructed within the throat.
- The design of the shared site access driveways adjacent to the 16,000-square-foot retail development at the southwest corner of 12th Avenue and Lacey Boulevard should be coordinated with the site plan for that project. As described in the Traffic Impact Study dated July 25, 2014 for the proposed retail pads, the site access driveways adjacent to the retail project are 35 feet wide (transitioning to 30 feet wide at the end of each throat) with one lane entering and one lane exiting. The entrance from 12th Avenue does not require two lanes. Tapers on the adjacent street are provided to accommodate right turns into the site. Throat lengths on the order of 100 feet to 123 feet are provided.
- Crosswalks should not be installed within the required throat length.
- The site plan should be designed to ensure adequate routes for delivery vehicles and emergency vehicles. The site plan does not identify loading docks. Truck paths should be identified and designed for the truck turns.

AutoTURN software was utilized to identify potential physical constraints related to on-site truck circulation. The California Legal Design Vehicle as defined in the Caltrans *Highway Design Manual* was used in the AutoTURN analysis. The results are attached and indicate potential conflicts at the locations described below. The numbers correspond to the numbers on the attached AutoTURN output.

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1. Northwest corner of the site. Trucks entering the westernmost driveway from eastbound Lacey Boulevard will be required to utilize the entire driveway width, including the oncoming direction for vehicles exiting the site, and will require additional driveway width as noted in the attached AutoTURN output.
2. If trucks are required to exit the site at the central site driveway on Lacey Boulevard, a larger curb return radius will be required at the southeast corner of the driveway.
3. If the truck path will require trucks to turn near the southeast corner of Major A, the minimum required amount of space exists for turns, and turns will utilize the entire driveway, including the oncoming direction.
4. Trucks entering the easternmost driveway from eastbound Lacey Boulevard will be required to utilize the entire driveway width, including the oncoming direction for vehicles exiting the site.
5. Trucks traveling southbound on the main driveway and turning right at the south end of the driveway to proceed westbound will be required to travel in oncoming lanes of the driveways and may conflict with a parking stall.

EQUITABLE SHARE CALCULATIONS

Where required future mitigations are not included in established development fees and are not the sole responsibility of a particular project, but rather a cumulative result of regional growth, the responsibility for mitigations can be determined based on equitable share calculations as presented in the Caltrans *Guide for the Preparation of Traffic Impact Studies*.

Caltrans recommends the following equation to determine a project's equitable share of the cost of improvements:

$$P = \frac{T}{T_B - T_E}$$

where:

P = The equitable share of the project's traffic impact;
T = The project trips generated during the peak hour of the adjacent facility;
T_B = The forecasted (2035 with project) traffic volume on the impacted facility;
T_E = The existing traffic on the facility plus approved projects traffic.

Table 28 presents equitable share responsibility calculations for the Project based on mitigation scenario 2035-1A. In addition, Table 28 presents equitable share responsibility calculations for improvements identified in past studies as being necessary at the 13th Avenue interchange with State Route 198. For consistency, traffic volumes utilized in the fair share calculations for the 13th Avenue interchange were obtained from the previous Revised Traffic Impact Study dated March 13, 2007 for the retail and residential development located southeast of the intersection of Lacey Boulevard and Centennial Drive.

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Table 28
Equitable Share Responsibility Calculations – Weekday P.M. Peak Hour

Location	Mitigation	New Project Trips	Existing Traffic	2035 Traffic	Equitable Share
Lacey / 12th Ave	Widening (two left turn lanes on all approaches)	366	2,557	5,267	13.51%
13th Ave / SR-198 WB off ramp	Traffic Signals	11	787	1,335	2.01%
13th Ave / Hanford-Armona Rd (SR-198 WB on ramp)	Traffic Signals	8	723	1,490	1.04%
Hanford-Armona Rd / SR 198 EB ramps	Traffic Signals	3	693	1,427	0.41%

CONCLUSIONS

Generally-accepted traffic engineering principles and methods were employed to estimate the number of trips expected to be generated by the Project and to analyze the traffic conditions expected to occur in the future.

The Project is expected to generate new trips that will utilize Lacey Boulevard and 12th Avenue. A combination of these new trips and regional growth in the Hanford area will result in the need for improvements to the road network. Descriptions of the findings of the traffic impact study for the various scenarios studied are presented below.

Existing Conditions

The intersection of Lacey Boulevard and 12th Avenue is currently operating at acceptable levels of service. Calculated 95th-percentile queues are generally contained within the existing storage lanes, with the exception of the westbound left-turn lane.

Existing-Plus-Project Conditions / Near-Term-Plus-Project Conditions

Construction of the Project and the pending projects does not cause significant impacts based on LOS criteria at the intersection of Lacey Boulevard and 12th Avenue. Consideration should be given to the construction of additional left-turn lanes to mitigate excessive queues in left-turn lanes. Since right of way is limited, the widening project could include reducing the number of westbound through lanes from three lanes to two lanes. With construction of a second left-turn lane on the eastbound and westbound approaches and two westbound through lanes, the intersection would operate at acceptable levels of service and queues on all approaches would be reduced to acceptable lengths.

A median worm should be constructed to prevent left-turns from the northbound and southbound approaches at the intersection of the site access driveway and Lacey Boulevard, which includes the site driveway for the existing shopping center north of Lacey Boulevard. Traffic signals at the intersection are not recommended as the preferred alternative, but could be considered by the City based on discussions presented herein.

The proposed driveway connecting to 12th Avenue should be constructed with a minimum throat length of 75 feet and should be coordinated with the site plan recently submitted for

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the retail project adjacent to the driveway. A dedicated left-turn lane from northbound 12th Avenue into the project driveway is not recommended as the preferred alternative, but could be considered by the City based on discussions presented herein.

Cumulative (Year 2035) With-Project Conditions

The intersection of Lacey Boulevard and 12th Avenue should be widened to provide two left-turn lanes on all four approaches to the intersection by the year 2035.

A median worm should be constructed to prevent left-turns from the northbound and southbound approaches at the intersection of the site access driveway and Lacey Boulevard, which includes the site driveway for the existing shopping center north of Lacey Boulevard. Traffic signals at the intersection are not recommended as the preferred alternative, but could be considered by the City based on discussions presented herein. This is the same conclusion as that presented for the Near-Term-Plus-Project conditions.

A dedicated left-turn lane from northbound 12th Avenue into the project driveway is not recommended as the preferred alternative, but could be considered by the City based on discussions presented herein. This is the same conclusion as that presented for the Near-Term-Plus-Project conditions.

It is feasible to construct back-to-back left-turn lanes on Lacey Boulevard between 12th Avenue and the main site entrance. The left-turn lane on westbound Lacey Boulevard serving the site entrance should be at least 100 feet long and the dual left-turn lanes on eastbound Lacey Boulevard at 12th Avenue should be at least 250 feet long after the intersection has been constructed to its ultimate configuration (two left-turn lanes on all four approaches).

The analyses indicate that two through lanes on eastbound Lacey Boulevard between Centennial Drive and 12th Avenue will be adequate.

On-site circulation was reviewed and locations of potential concern are identified in the report. Areas of potential concern related to truck circulation and turning templates, a diagonal driveway, and throat length were identified and should be addressed in greater detail as part of the site plan review process.

Packet Pg. 160

1.m

Attachment: Exhibit F - ISND Attachments Part 1 (1031 : Planned Unit Development 2015-02 and Tentative

Thank you for the opportunity to perform this traffic impact study. Please feel free to call our office if you have any questions.

PETERS ENGINEERING GROUP

John Rowland, PE, TE

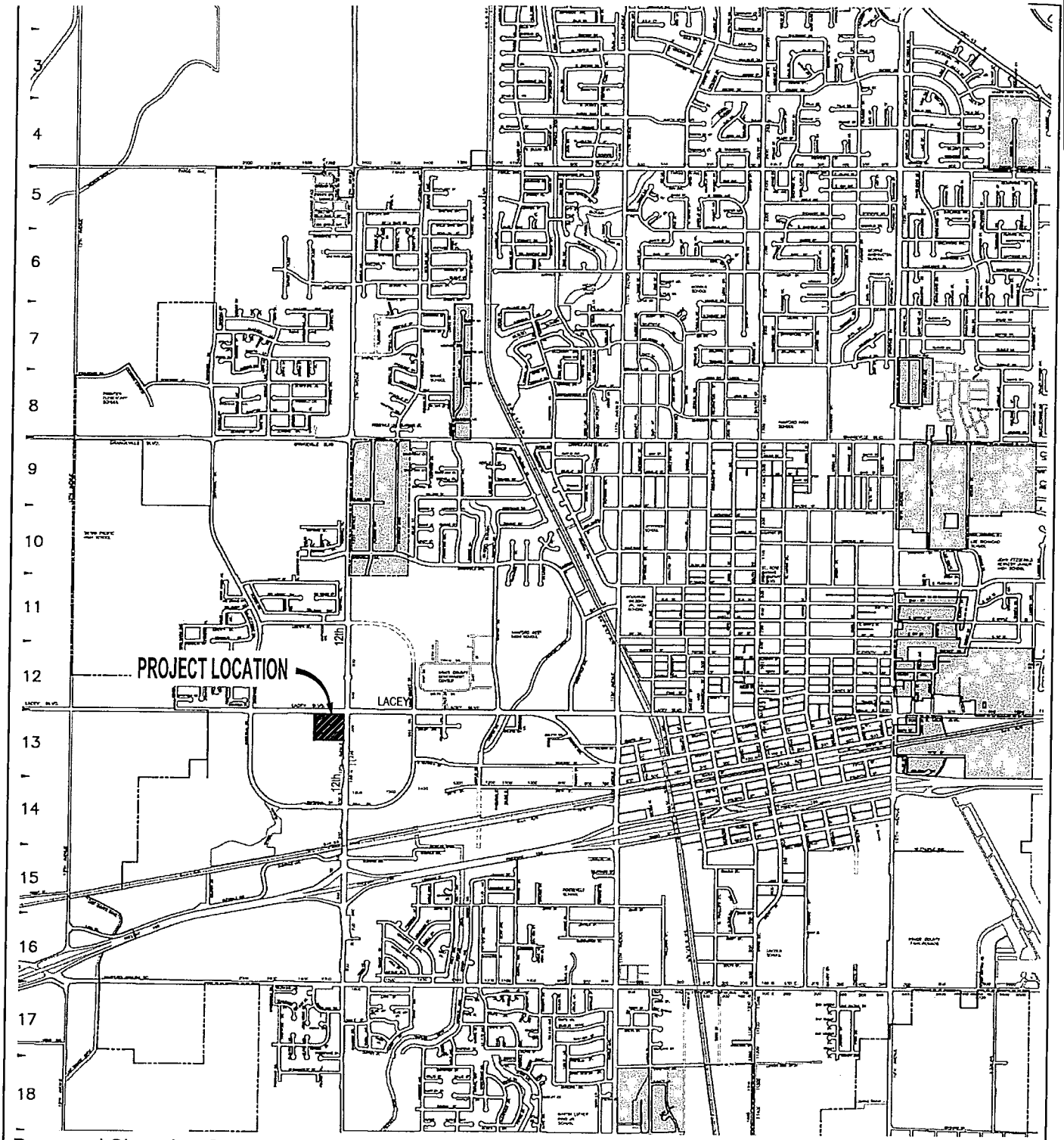
REGISTERED PROFESSIONAL ENGINEER
JOHN ROWLAND
NO. 2484
EXP. 6-30-16
TRAFFIC
STATE OF CALIFORNIA

Attachments: Figures 1 through 28
Traffic Count Data Sheets
Internal Capture Calculations
Kings County Travel Model
Intersection Analyses
HDM Left-Turn Storage Analyses
AutoTURN Analysis
Mitigated Intersection Analyses

Packet Pg. 161

1.m

FIGURES



Proposed Shopping Center
Hanford, California

LEGEND

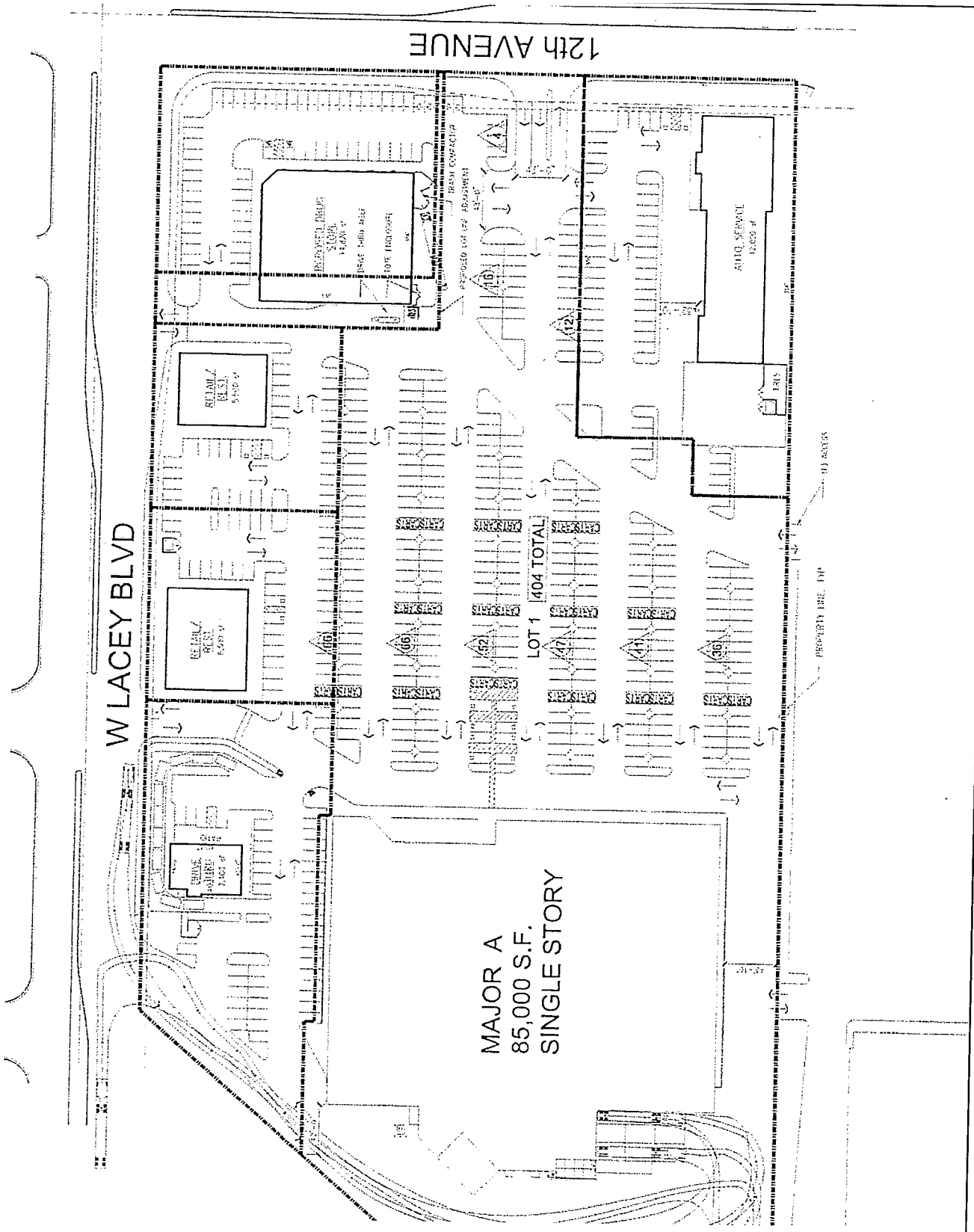
PROJECT SITE

VICINITY MAP

Not to Scale

PETERS ENGINEERING GROUP

Figure 1



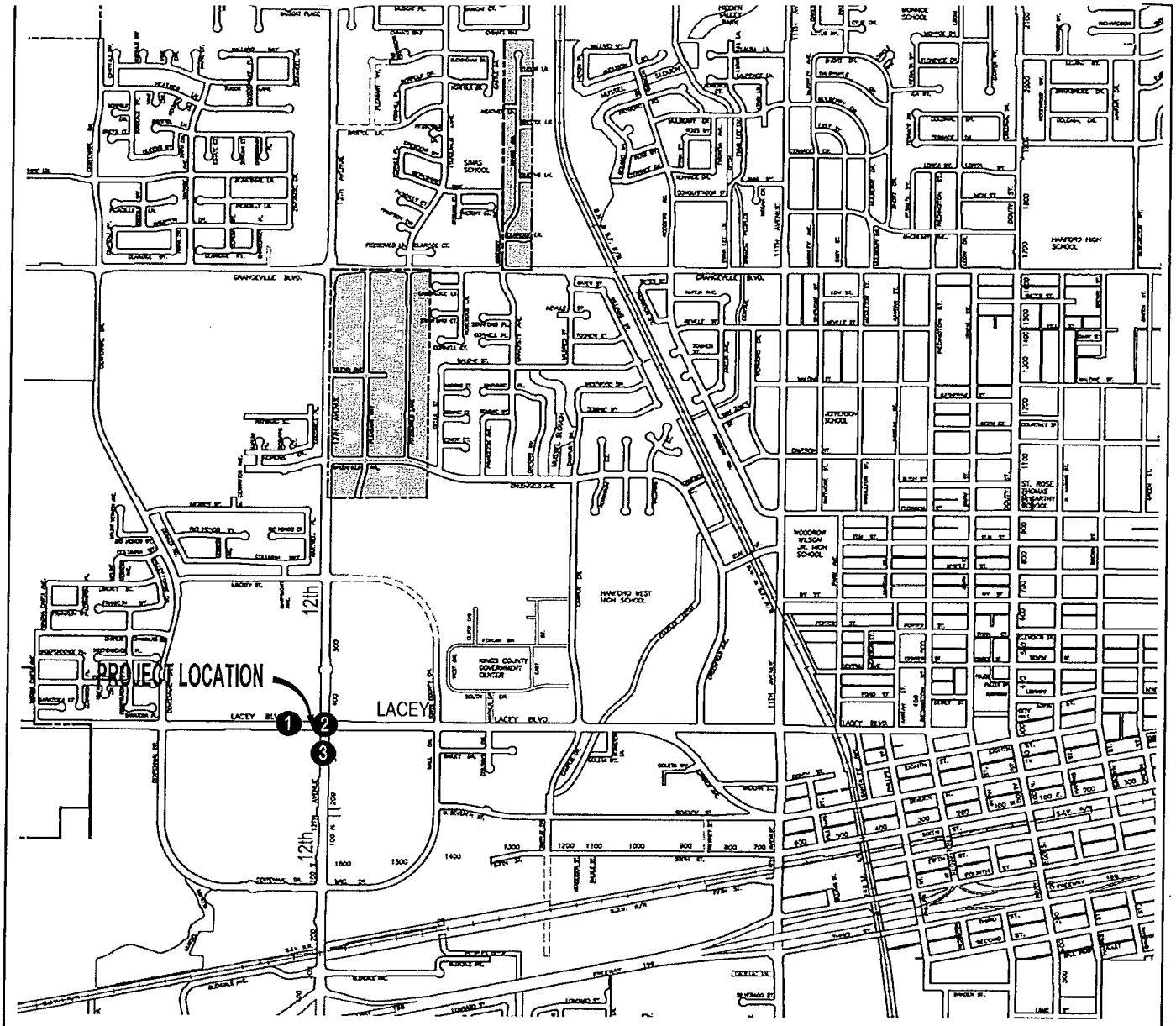
Proposed Shopping Center
Hanford, California

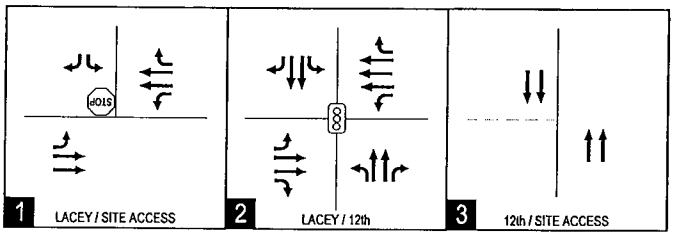
SITE PLAN

Not to Scale

PETERS ENGINEERING GROUP

Figure 2





LEGEND

- XX STUDY AREA INTERSECTIONS
- PROJECT SITE
- SIGNALIZED INTERSECTION
- STOP SIGN
- DIRECTION OF TRAVEL

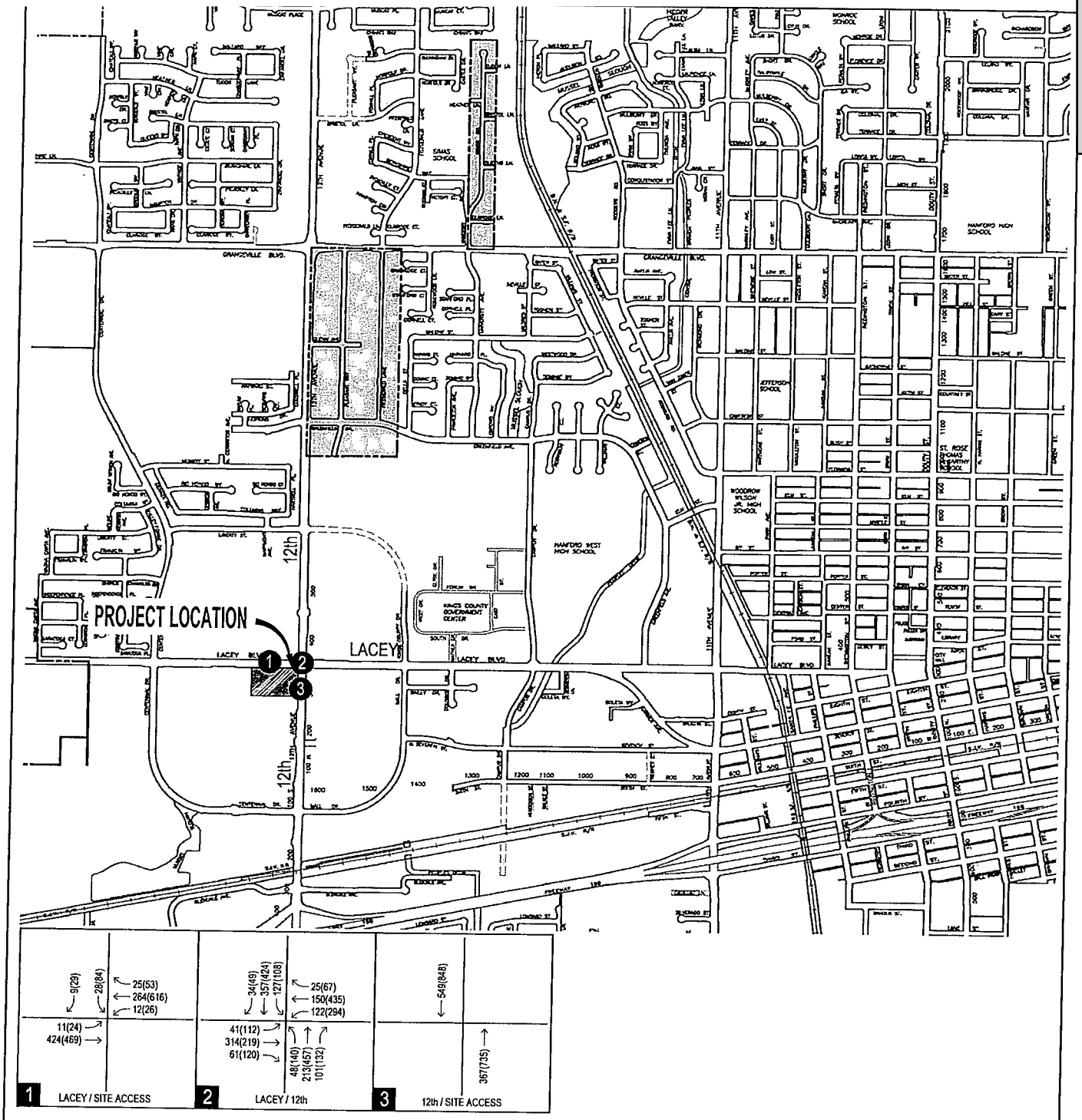
Proposed Shopping Center
Hanford, California

EXISTING LANE CONFIGURATIONS

Not to Scale

PETERS ENGINEERING GROUP

Figure 3



LEGEND

- XX STUDY AREA INTERSECTIONS
- PROJECT SITE
- XX - AM Peak Hour Volumes
- (YY) - PM Peak Hour Volumes

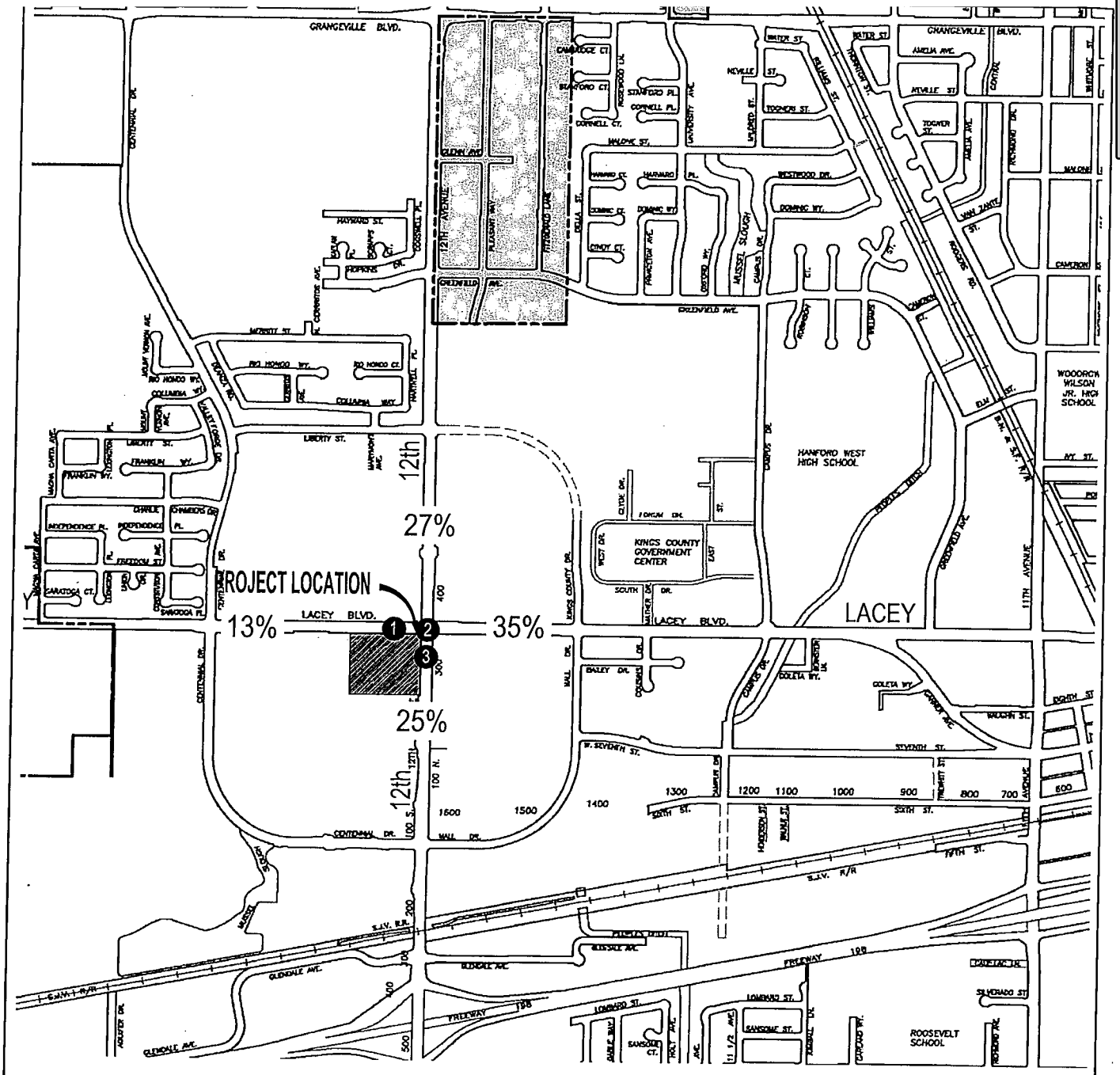
Proposed Shopping Center
Hanford, California

EXISTING PEAK HOUR TRAFFIC VOLUMES

Not to Scale

PETERS ENGINEERING GROUP

Figure 4



LEGEND

XX STUDY AREA INTERSECTIONS

PROJECT SITE

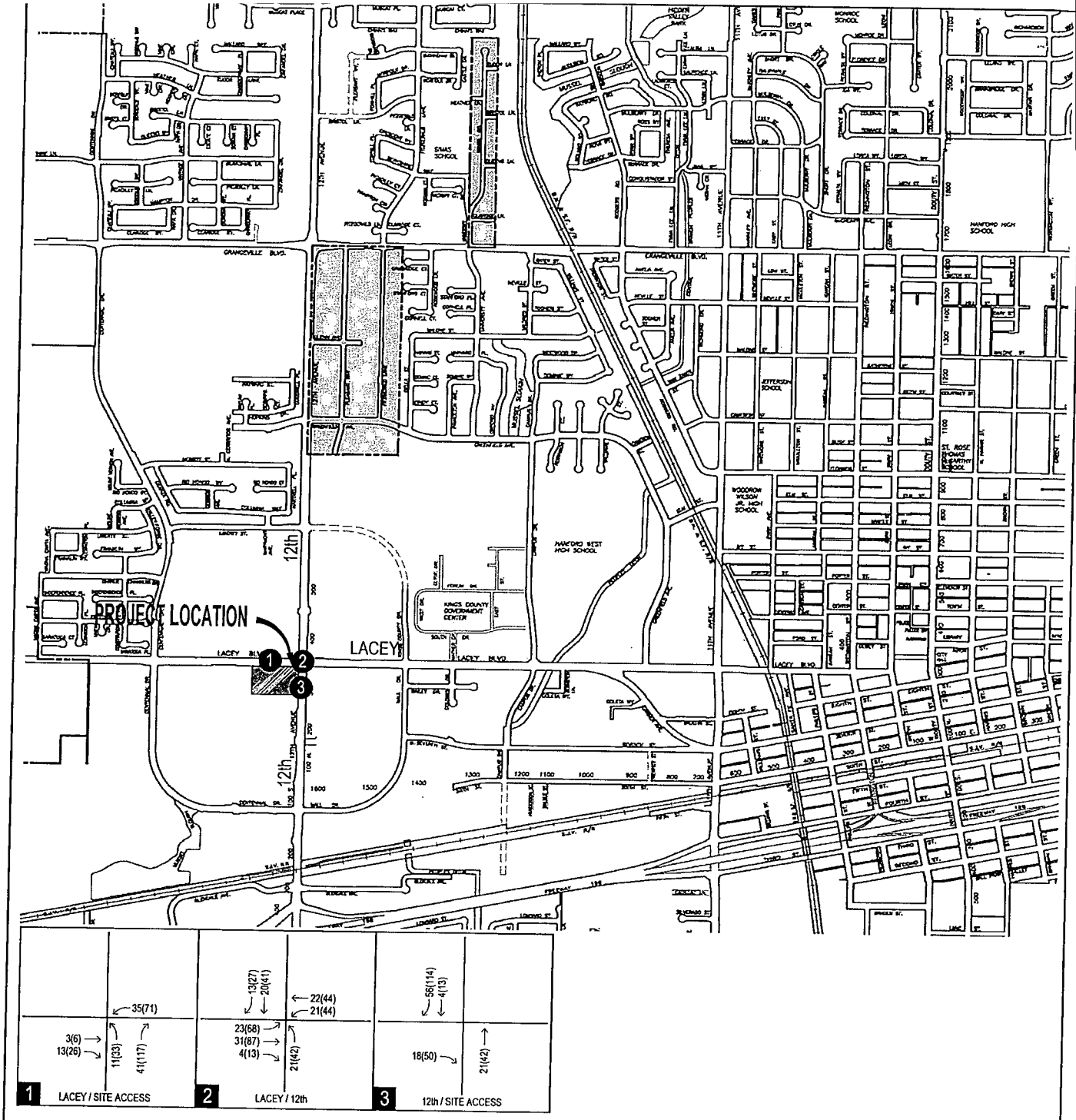
Proposed Shopping Center
Hanford, California

PROJECT TRAFFIC DISTRIBUTION PERCENTAGES

Not to Scale

PETERS ENGINEERING GROUP

Figure 5



LEGEND

XX STUDY AREA INTERSECTIONS

PROJECT SITE

XX - AM Peak Hour Volumes

(YY) - PM Peak Hour Volumes

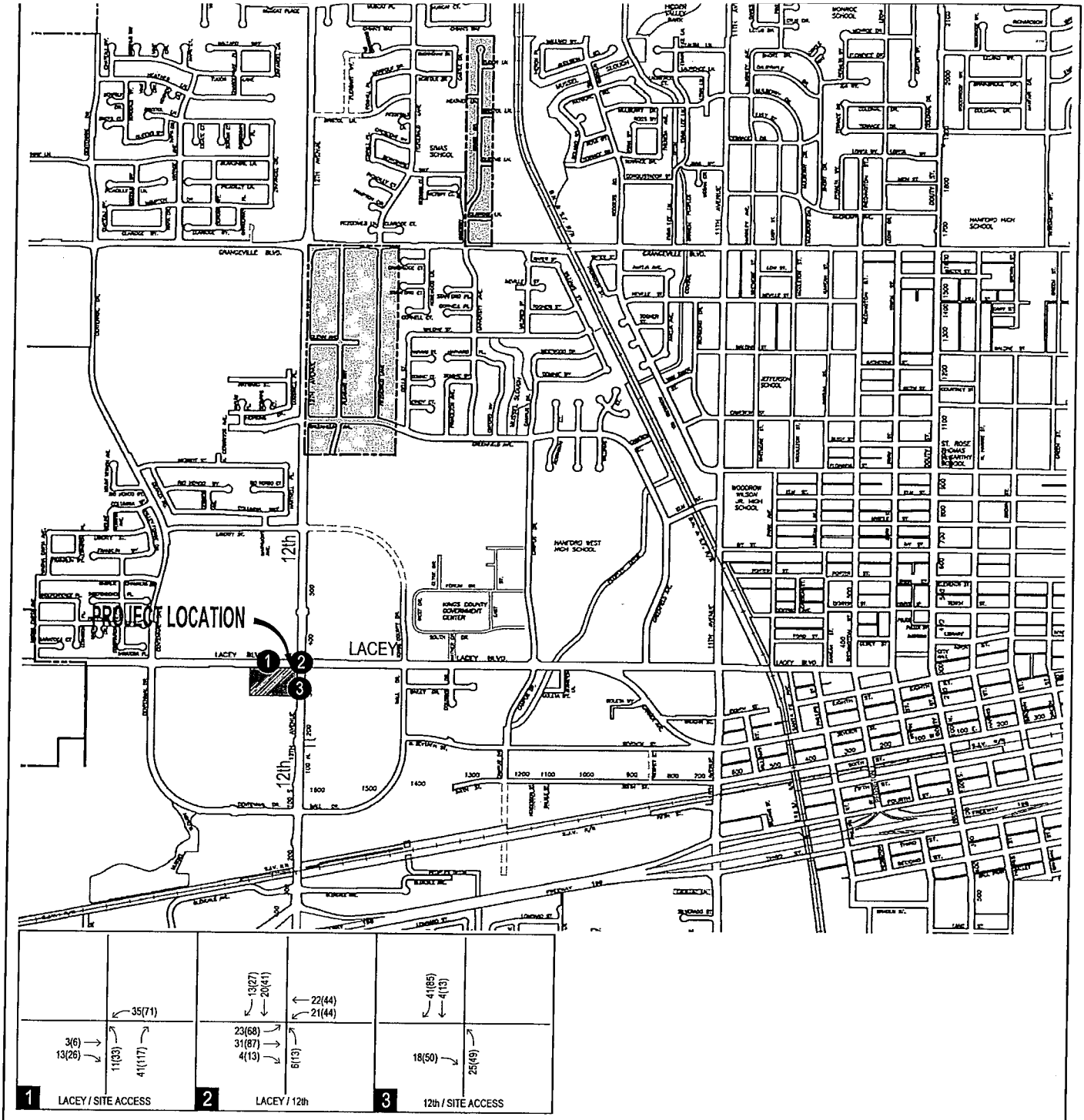
Proposed Shopping Center
Hanford, California

NEW PROJECT PEAK HOUR TRAFFIC VOLUMES
SCENARIO 1

Not to Scale

PETERS ENGINEERING GROUP

Figure 6



LEGEND

XX STUDY AREA INTERSECTIONS

PROJECT SITE

XX - AM Peak Hour Volumes

(YY) - PM Peak Hour Volumes

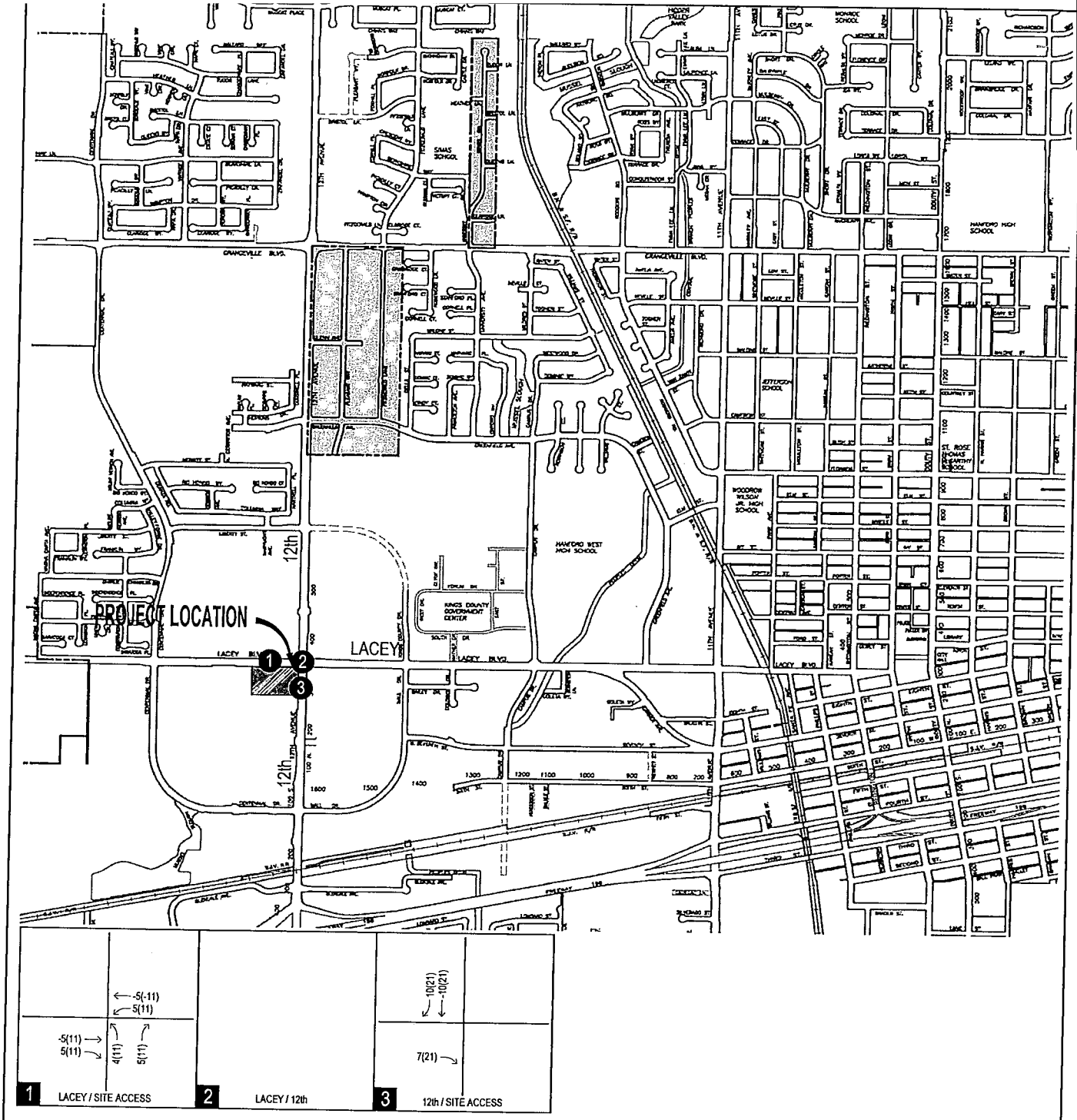
Proposed Shopping Center
Hanford, California

NEW PROJECT PEAK HOUR TRAFFIC VOLUMES
SCENARIO 2

Not to Scale

PETERS ENGINEERING GROUP

Figure 7



LEGEND

XX STUDY AREA INTERSECTIONS

PROJECT SITE

XX - AM Peak Hour Volumes

(YY) - PM Peak Hour Volumes

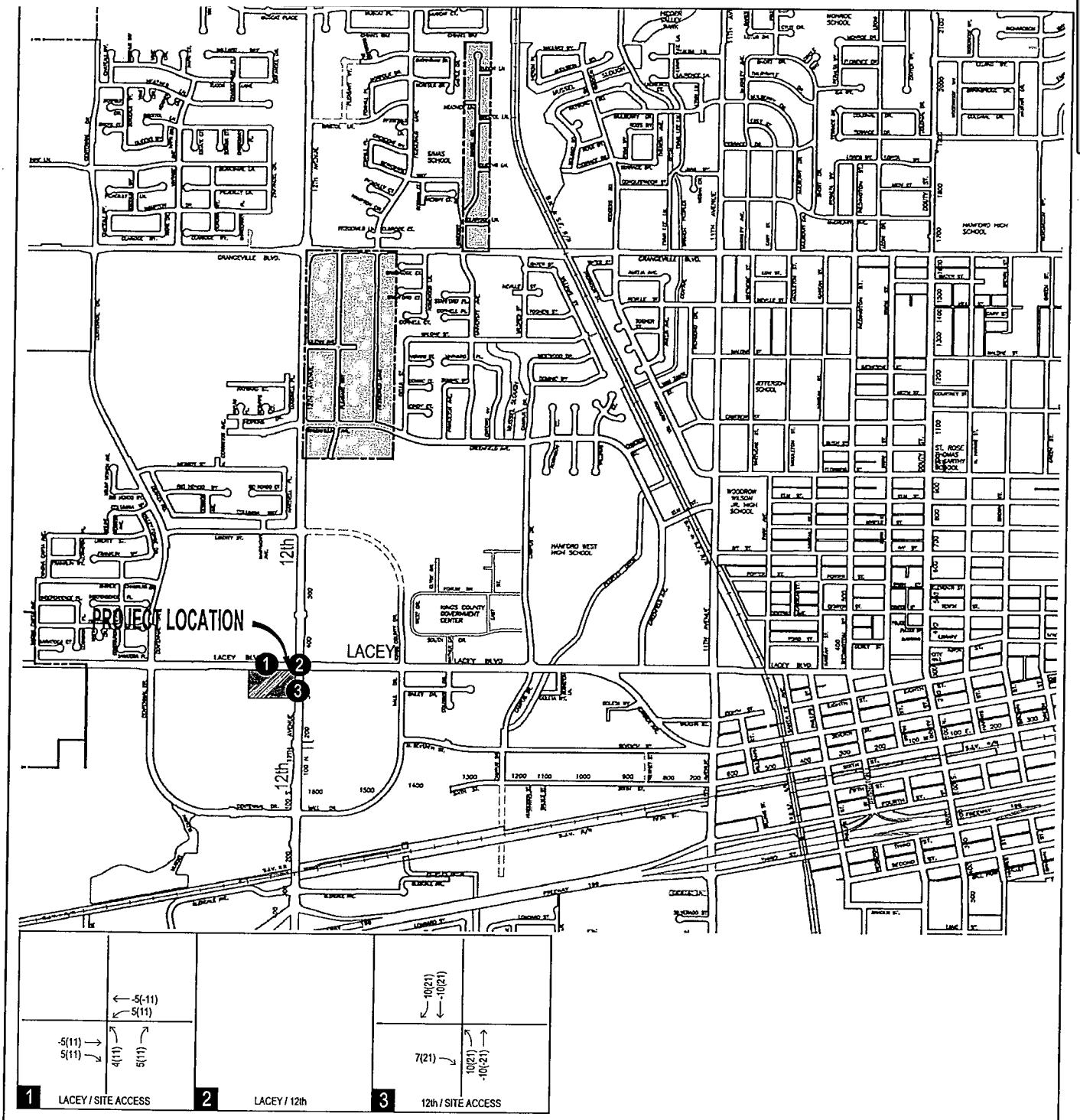
Proposed Shopping Center
Hanford, California

PEAK HOUR PROJECT PASS-BY TRIPS
SCENARIO 1

Not to Scale

PETERS ENGINEERING GROUP

Figure 8



LEGEND

- XX STUDY AREA INTERSECTIONS
- PROJECT SITE
- XX - AM Peak Hour Volumes
- (YY) - PM Peak Hour Volumes

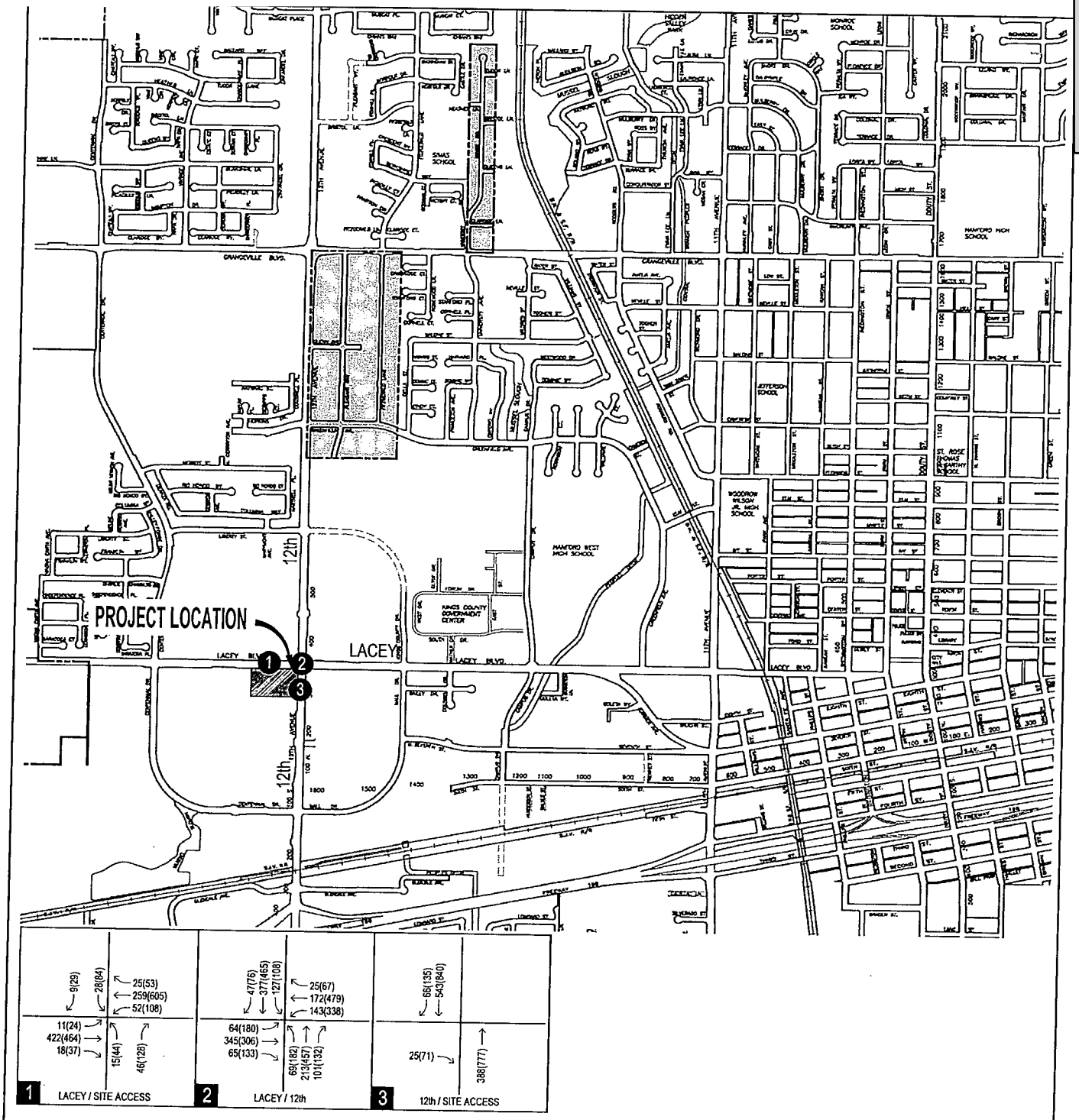
Proposed Shopping Center
Hanford, California

PEAK HOUR PROJECT PASS-BY TRIPS
SCENARIO 2

Not to Scale

PETERS ENGINEERING GROUP

Figure 9



LEGEND

- XX STUDY AREA INTERSECTIONS
- PROJECT SITE
- XX - AM Peak Hour Volumes
- (YY) - PM Peak Hour Volumes

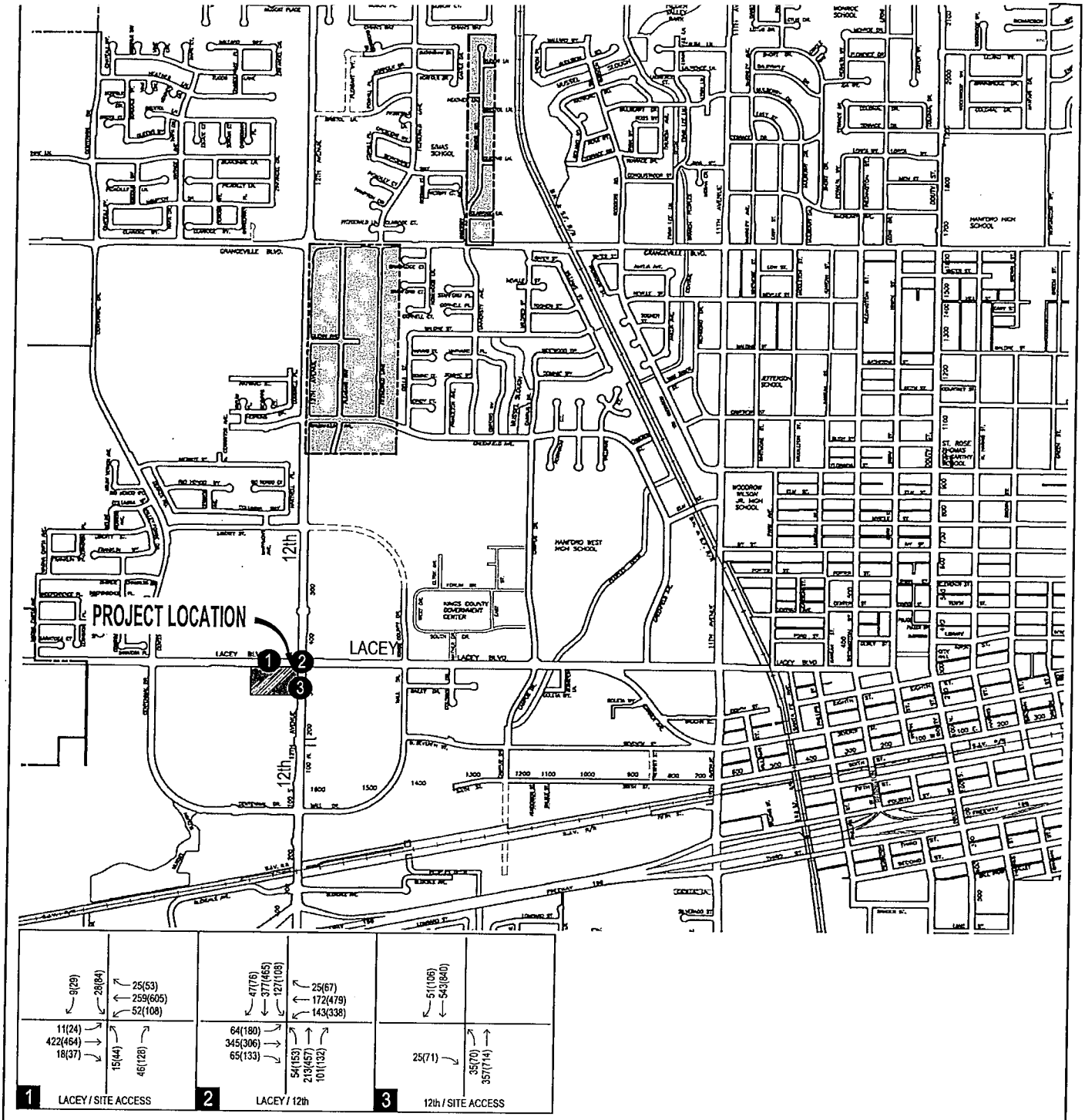
Proposed Shopping Center
Hanford, California

EXISTING PLUS PROJECT PEAK HOUR TRAFFIC VOLUMES
SCENARIO 1

Not to Scale

PETERS ENGINEERING GROUP

Figure 10



LEGEND

- (XX) STUDY AREA INTERSECTIONS
- PROJECT SITE
- XX - AM Peak Hour Volumes
- (YY) - PM Peak Hour Volumes

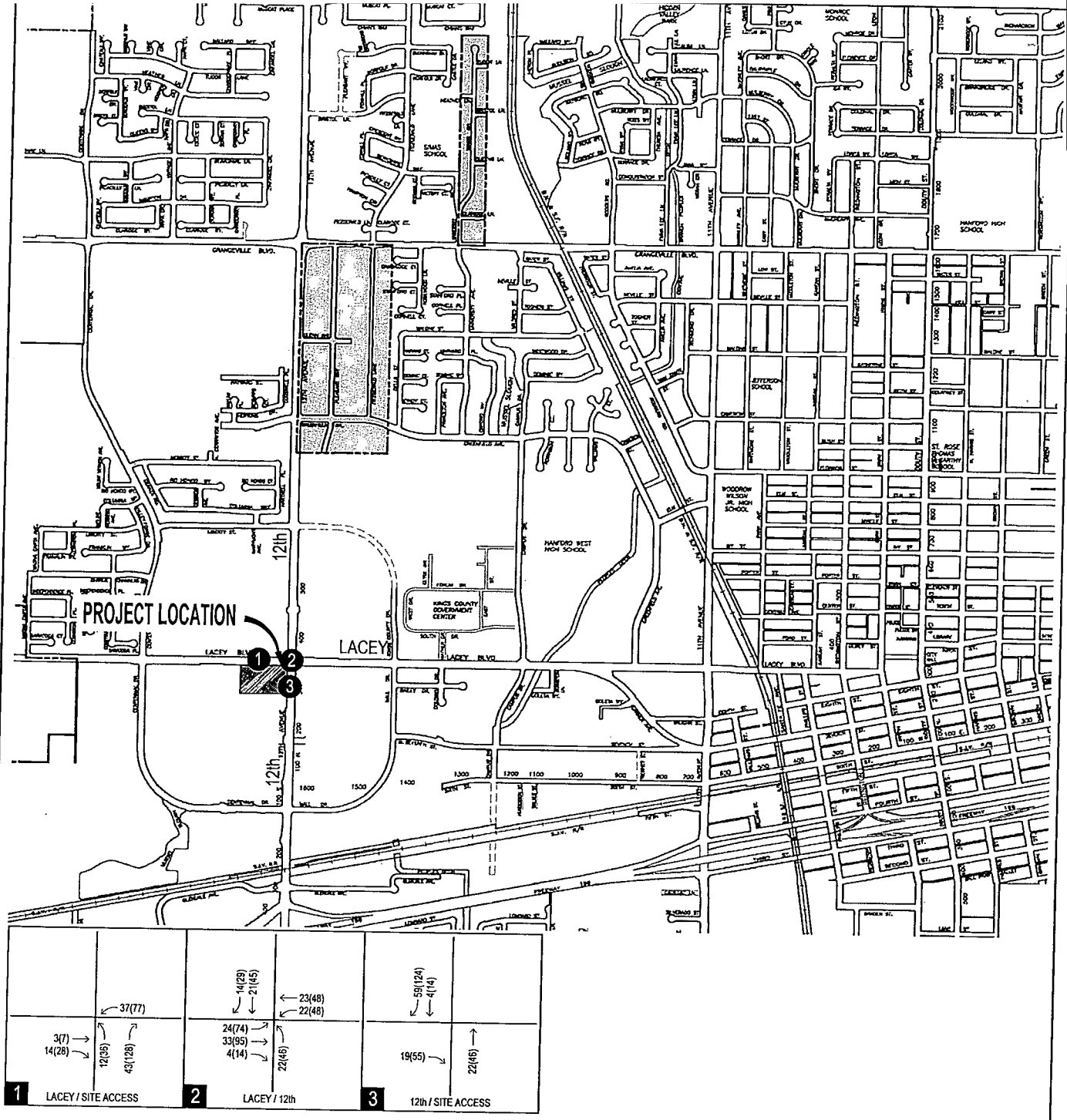
Proposed Shopping Center
Hanford, California

EXISTING PLUS PROJECT PEAK HOUR TRAFFIC VOLUMES SCENARIO 2

Not to Scale

PETERS ENGINEERING GROUP

Figure 11



LEGEND

- XX STUDY AREA INTERSECTIONS
- PROJECT SITE
- XX - AM Peak Hour Volumes
- (YY) - PM Peak Hour Volumes

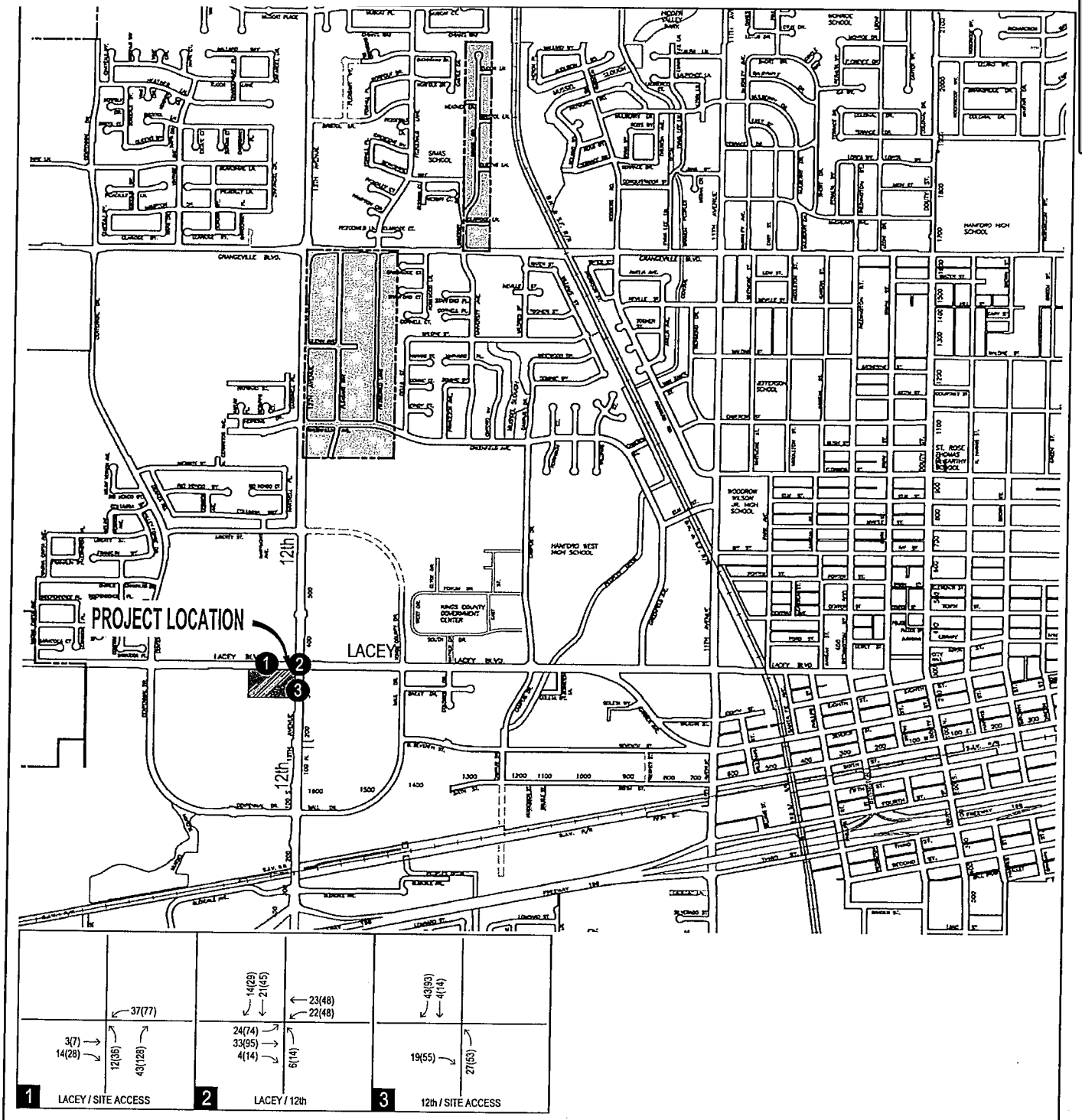
Proposed Shopping Center
Hanford, California

NEW COMBINED SITE PEAK HOUR TRAFFIC VOLUMES
SCENARIO 1

Not to Scale

PETERS ENGINEERING GROUP

Figure 12



LEGEND

- (XX) STUDY AREA INTERSECTIONS
- PROJECT SITE
- XX - AM Peak Hour Volumes
- (YY) - PM Peak Hour Volumes

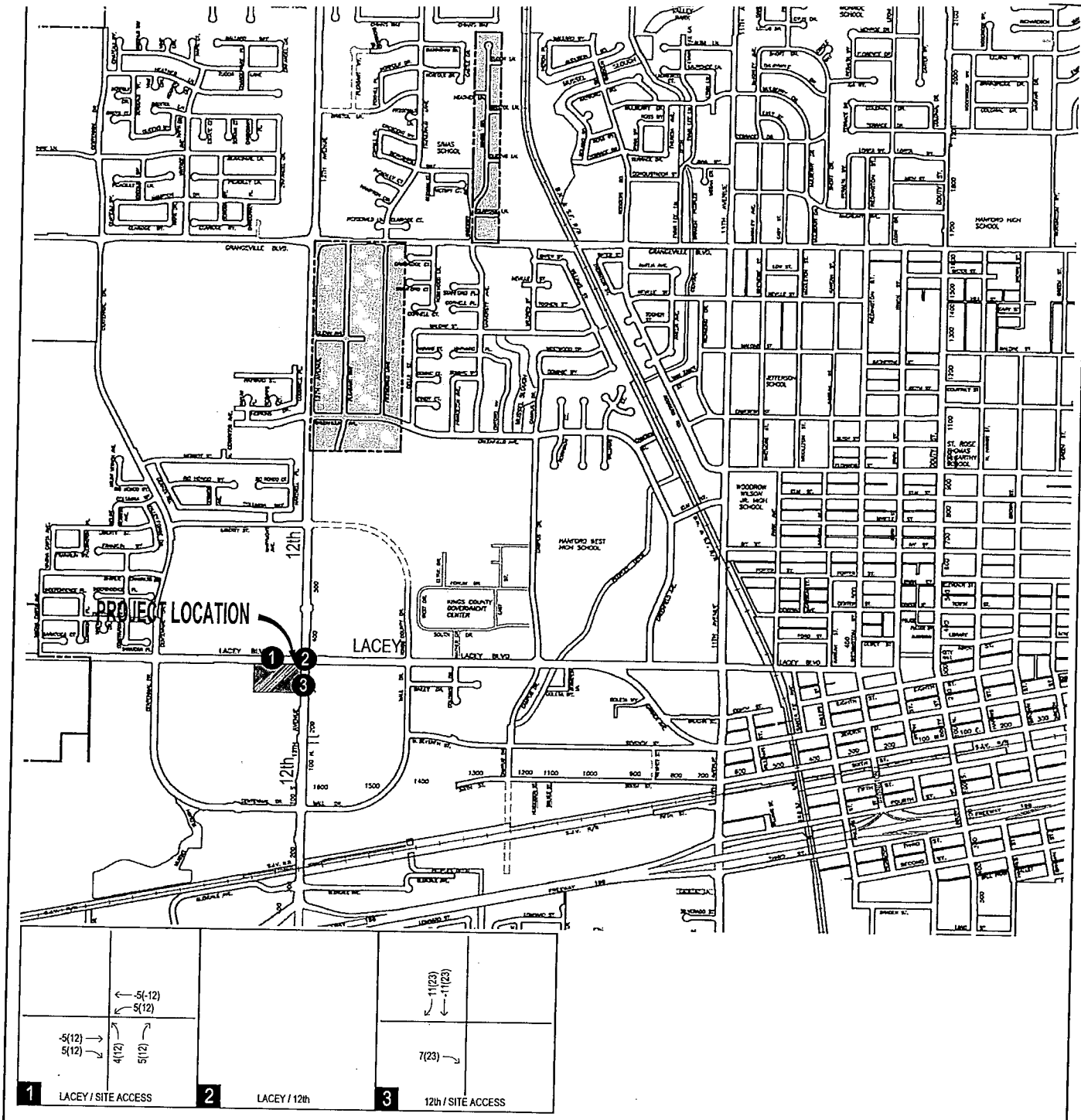
Proposed Shopping Center
Hanford, California

NEW COMBINED SITE PEAK HOUR TRAFFIC VOLUMES
SCENARIO 2

Not to Scale

PETERS ENGINEERING GROUP

Figure 13



LEGEND

XX STUDY AREA INTERSECTIONS

PROJECT SITE

XX - AM Peak Hour Volumes

(YY) - PM Peak Hour Volumes

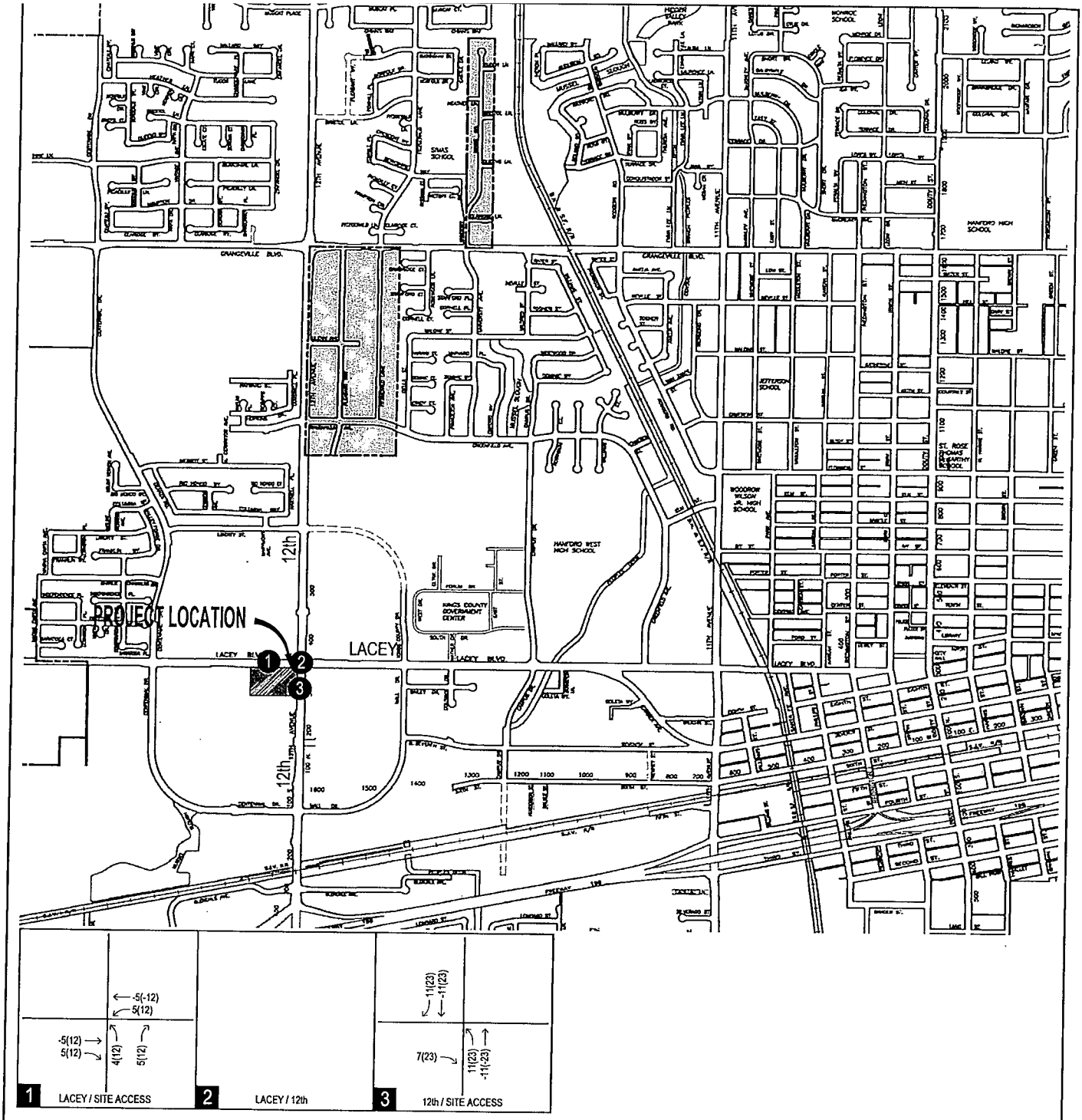
Proposed Shopping Center
Hanford, California

COMBINED SITE PEAK HOUR PASS-BY TRIPS
SCENARIO 1

Not to Scale

PETERS ENGINEERING GROUP

Figure 14



LEGEND

- XX STUDY AREA INTERSECTIONS
- PROJECT SITE
- XX - AM Peak Hour Volumes
- (YY) - PM Peak Hour Volumes

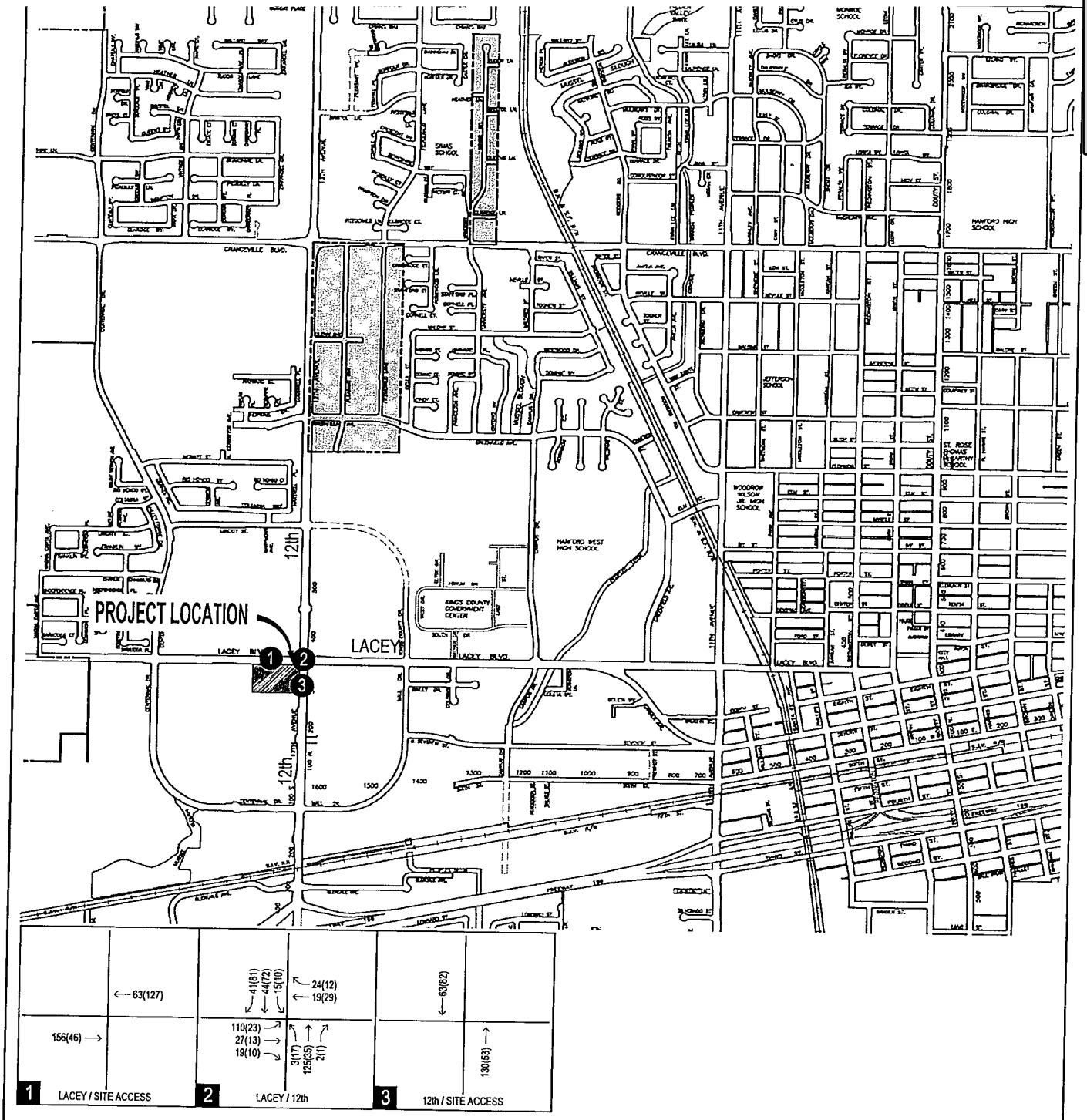
Proposed Shopping Center
Hanford, California

COMBINED SITE PEAK HOUR PASS-BY TRIPS
SCENARIO 2

Not to Scale

PETERS ENGINEERING GROUP

Figure 15



LEGEND

XX STUDY AREA INTERSECTIONS

PROJECT SITE

XX - AM Peak Hour Volumes

(YY) - PM Peak Hour Volumes

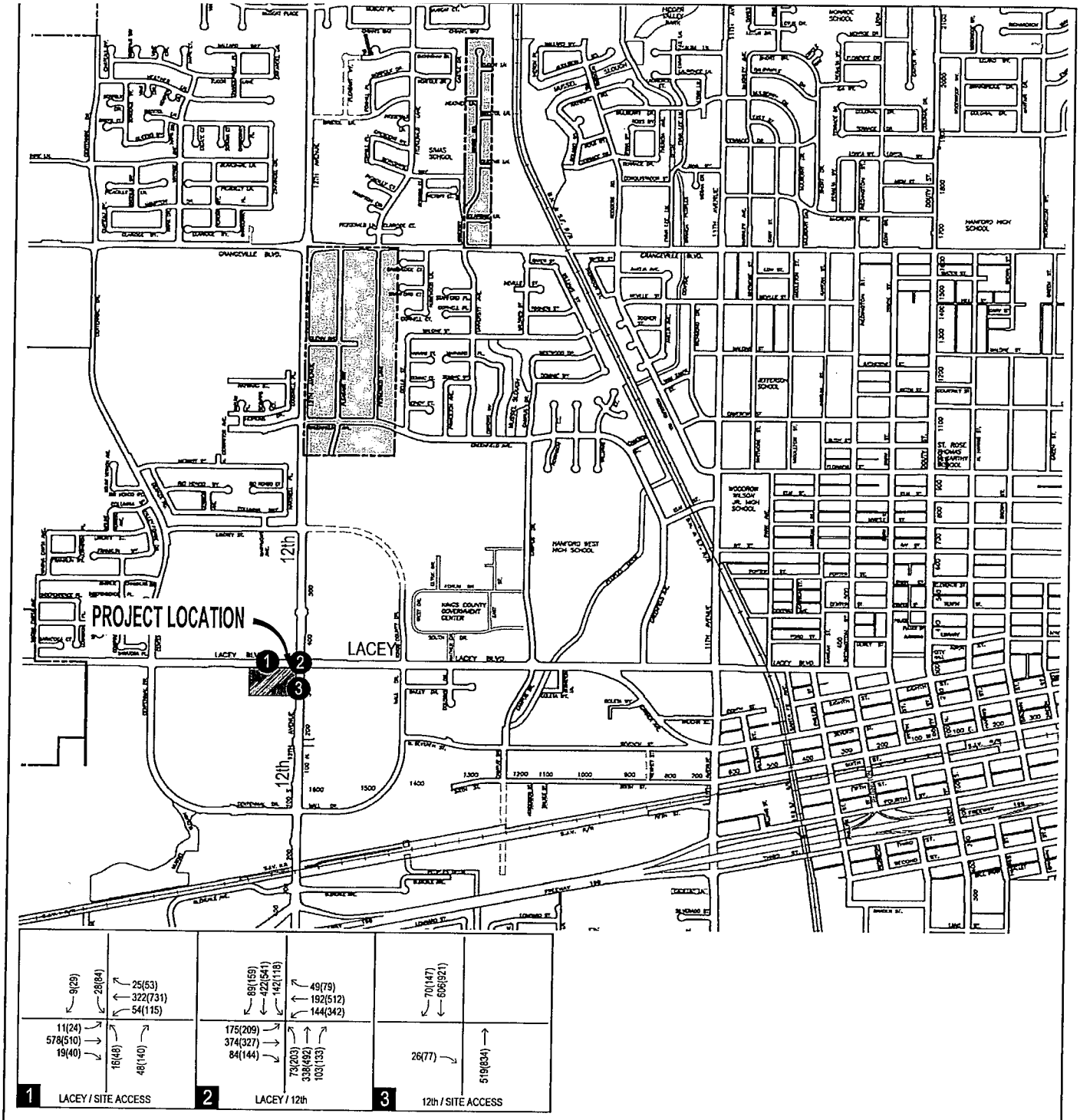
Proposed Shopping Center
Hanford, California

PENDING PROJECT PEAK HOUR TRAFFIC VOLUMES

Not to Scale

PETERS ENGINEERING GROUP

Figure 16



LEGEND

- (XX) STUDY AREA INTERSECTIONS
- PROJECT SITE
- XX - AM Peak Hour Volumes
- (YY) - PM Peak Hour Volumes

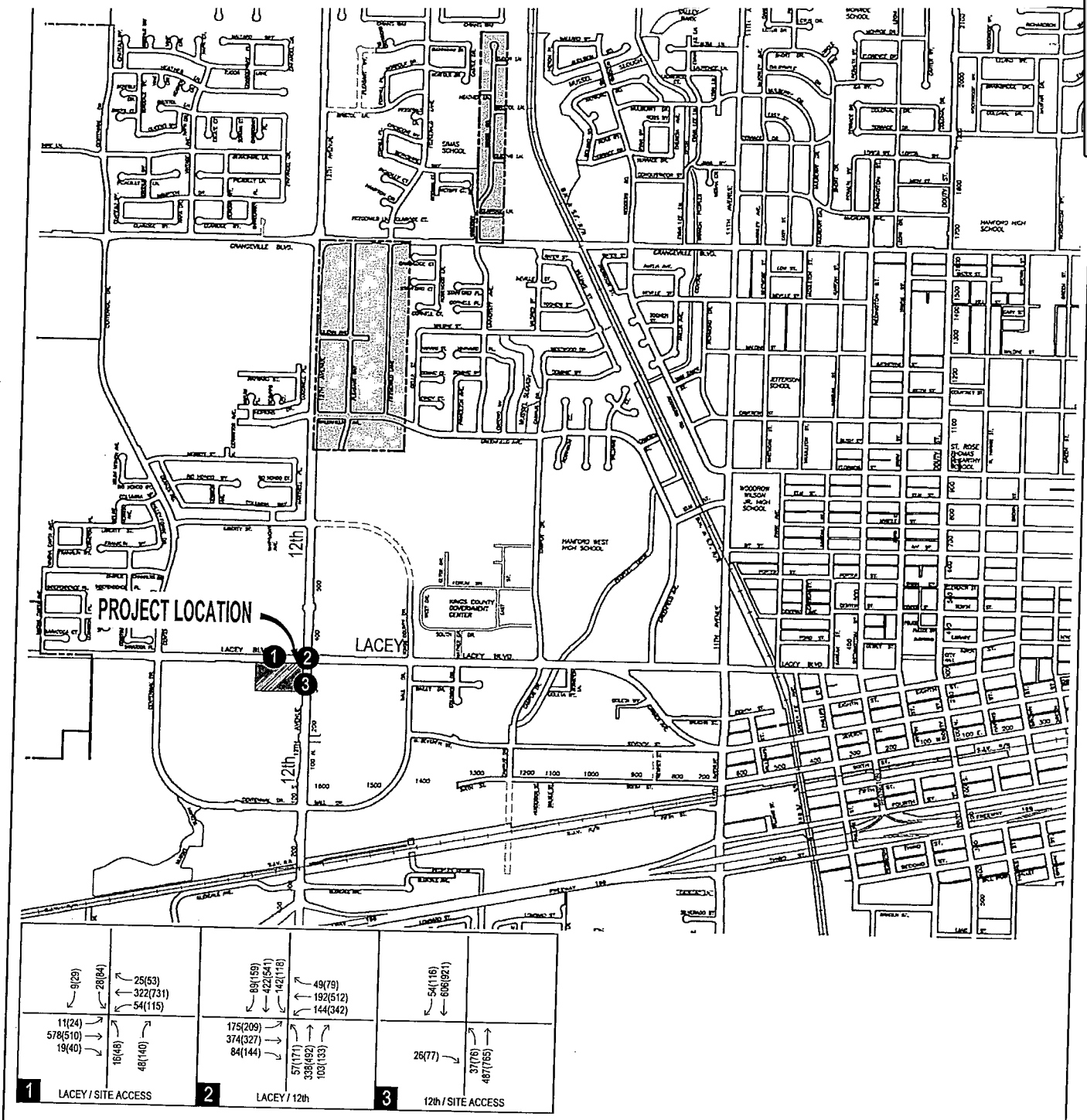
Proposed Shopping Center
Hanford, California

NEAR-TERM WITH PROJECT PEAK HOUR TRAFFIC VOLUMES
SCENARIO 1

Not to Scale

PETERS ENGINEERING GROUP

Figure 17



LEGEND

XX STUDY AREA INTERSECTIONS

PROJECT SITE

XX - AM Peak Hour Volumes

(YY) - PM Peak Hour Volumes

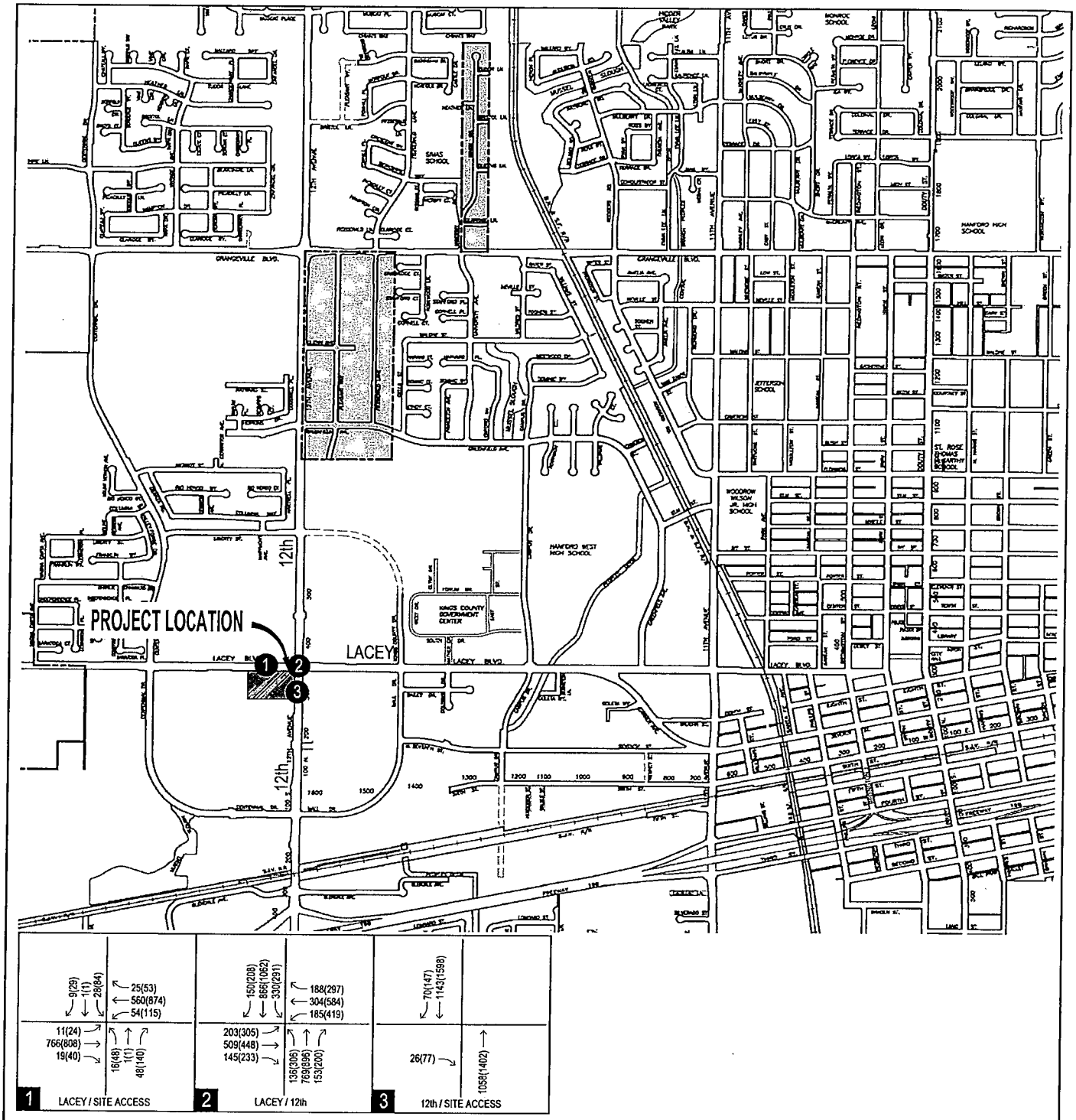
Proposed Shopping Center
Hanford, California

NEAR-TERM WITH PROJECT PEAK HOUR TRAFFIC VOLUMES
SCENARIO 2

Not to Scale

PETERS ENGINEERING GROUP

Figure 18



LEGEND

- XX STUDY AREA INTERSECTIONS
- PROJECT SITE
- XX - AM Peak Hour Volumes
- (YY) - PM Peak Hour Volumes

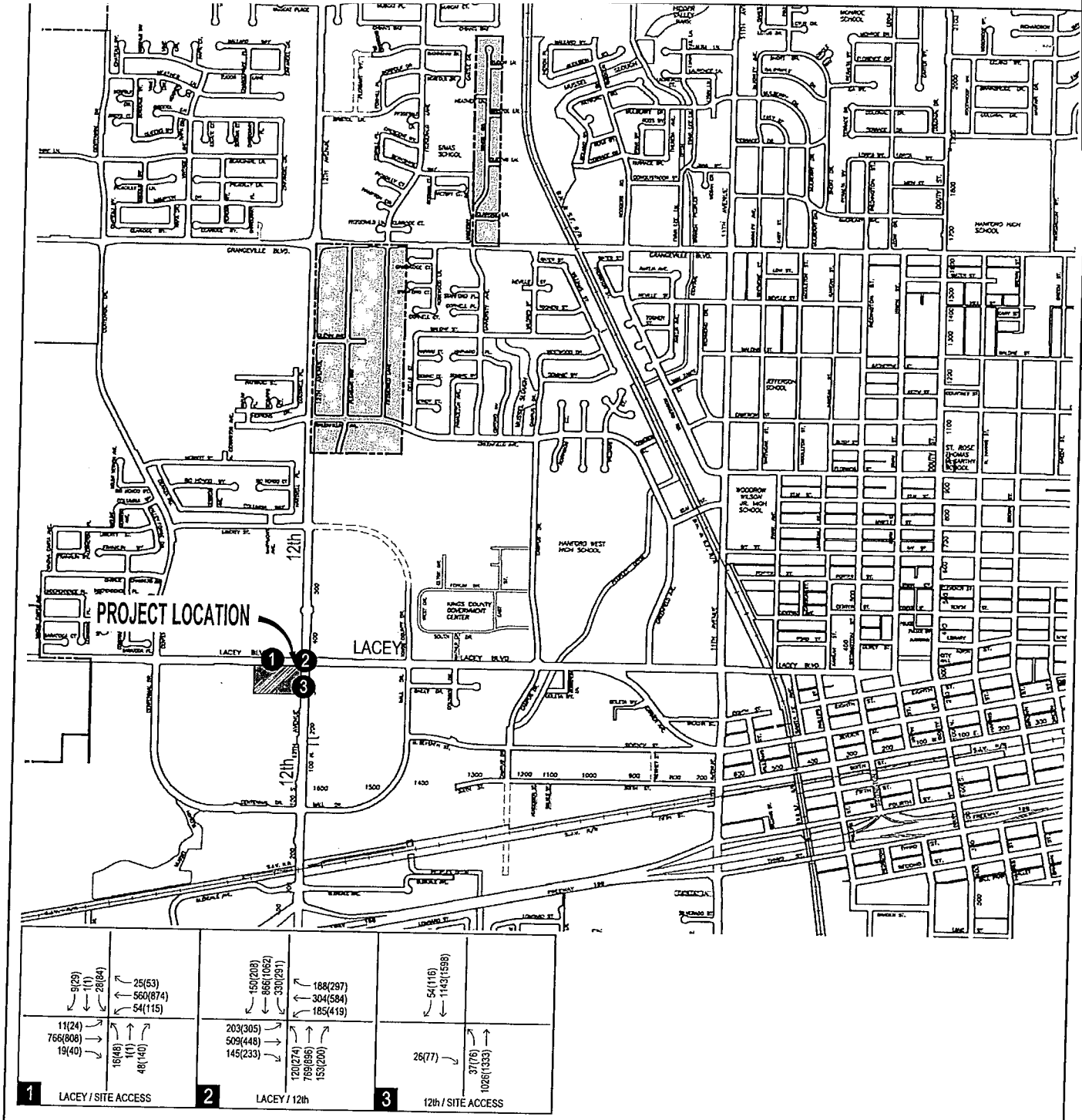
Proposed Shopping Center
Hanford, California

CUMULATIVE 2035 WITH PROJECT PEAK HOUR TRAFFIC VOLUMES
SCENARIO 1

Not to Scale

PETERS ENGINEERING GROUP

Figure 19



LEGEND

- XX STUDY AREA INTERSECTIONS
- PROJECT SITE
- XX - AM Peak Hour Volumes
- (YY) - PM Peak Hour Volumes

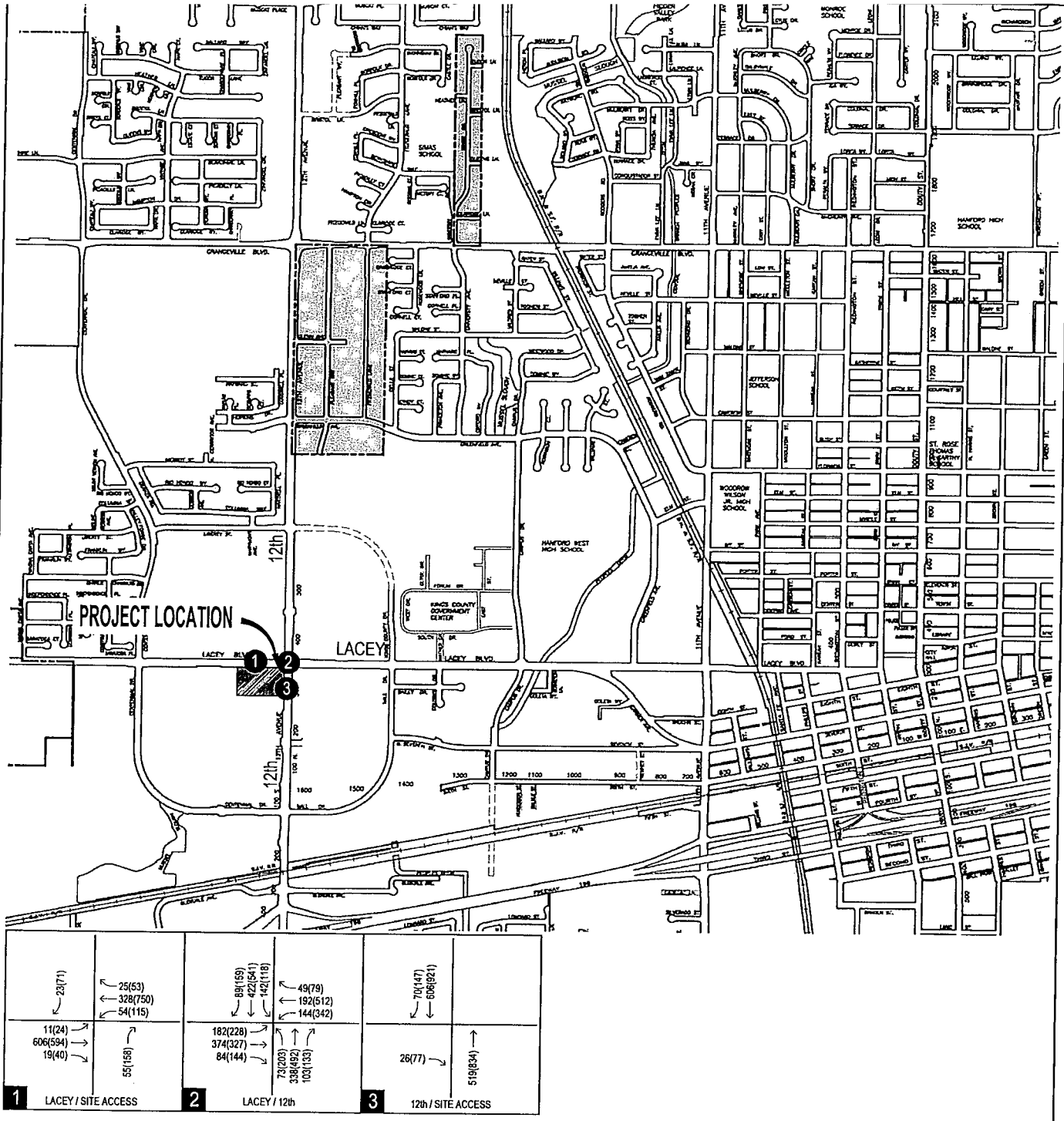
Proposed Shopping Center
Hanford, California

CUMULATIVE 2035 WITH PROJECT PEAK HOUR TRAFFIC VOLUMES
SCENARIO 2

Not to Scale

PETERS ENGINEERING GROUP

Figure 20



LEGEND

- XX STUDY AREA INTERSECTIONS
- PROJECT SITE
- XX - AM Peak Hour Volumes
- (YY) - PM Peak Hour Volumes

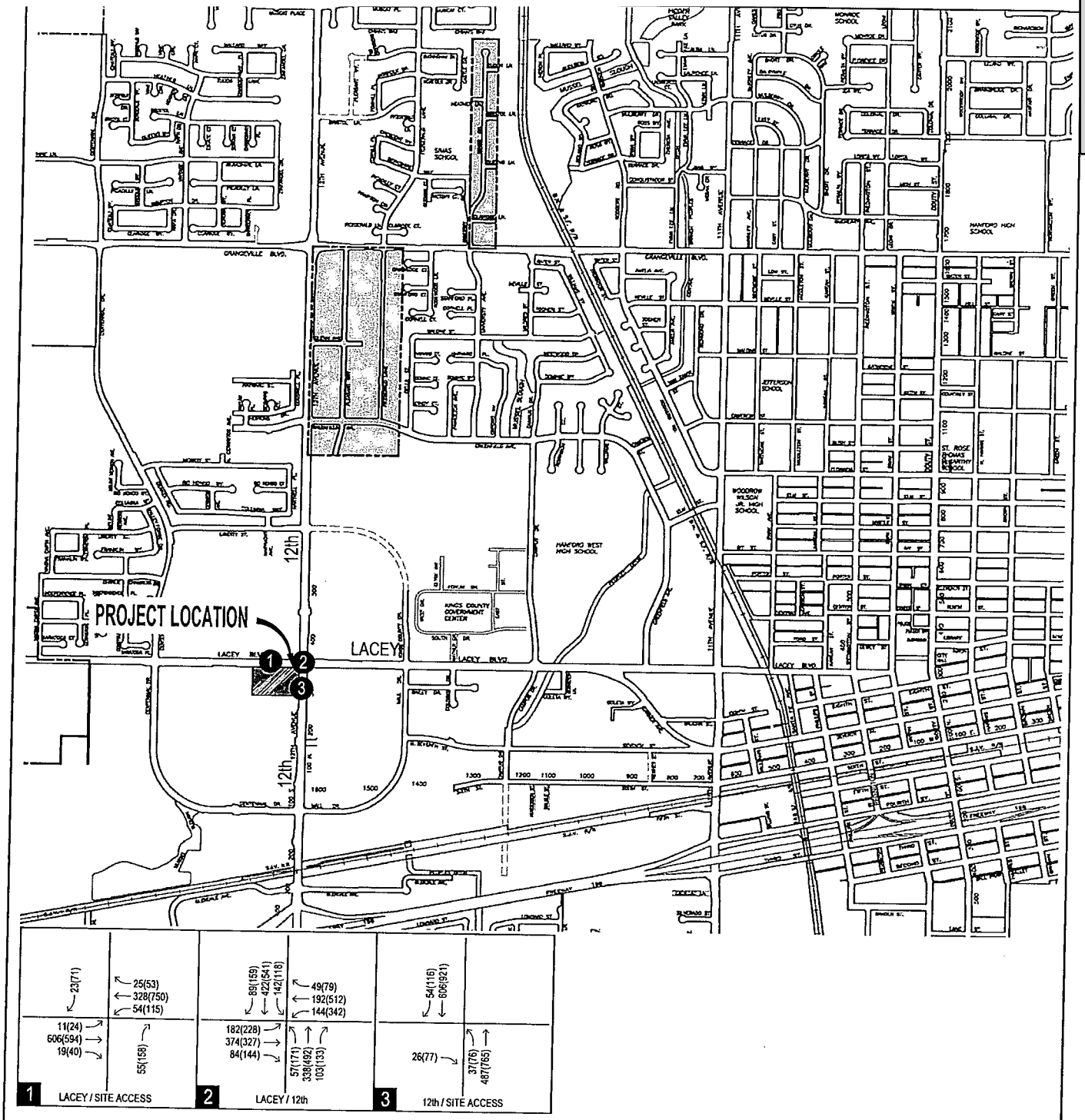
Proposed Shopping Center
Hanford, California

MITIGATED
NEAR-TERM WITH PROJECT PEAK HOUR TRAFFIC VOLUMES
SCENARIO 1

Not to Scale

PETERS ENGINEERING GROUP

Figure 21



LEGEND

XX STUDY AREA INTERSECTIONS

PROJECT SITE

XX - AM Peak Hour Volumes

(YY) - PM Peak Hour Volumes

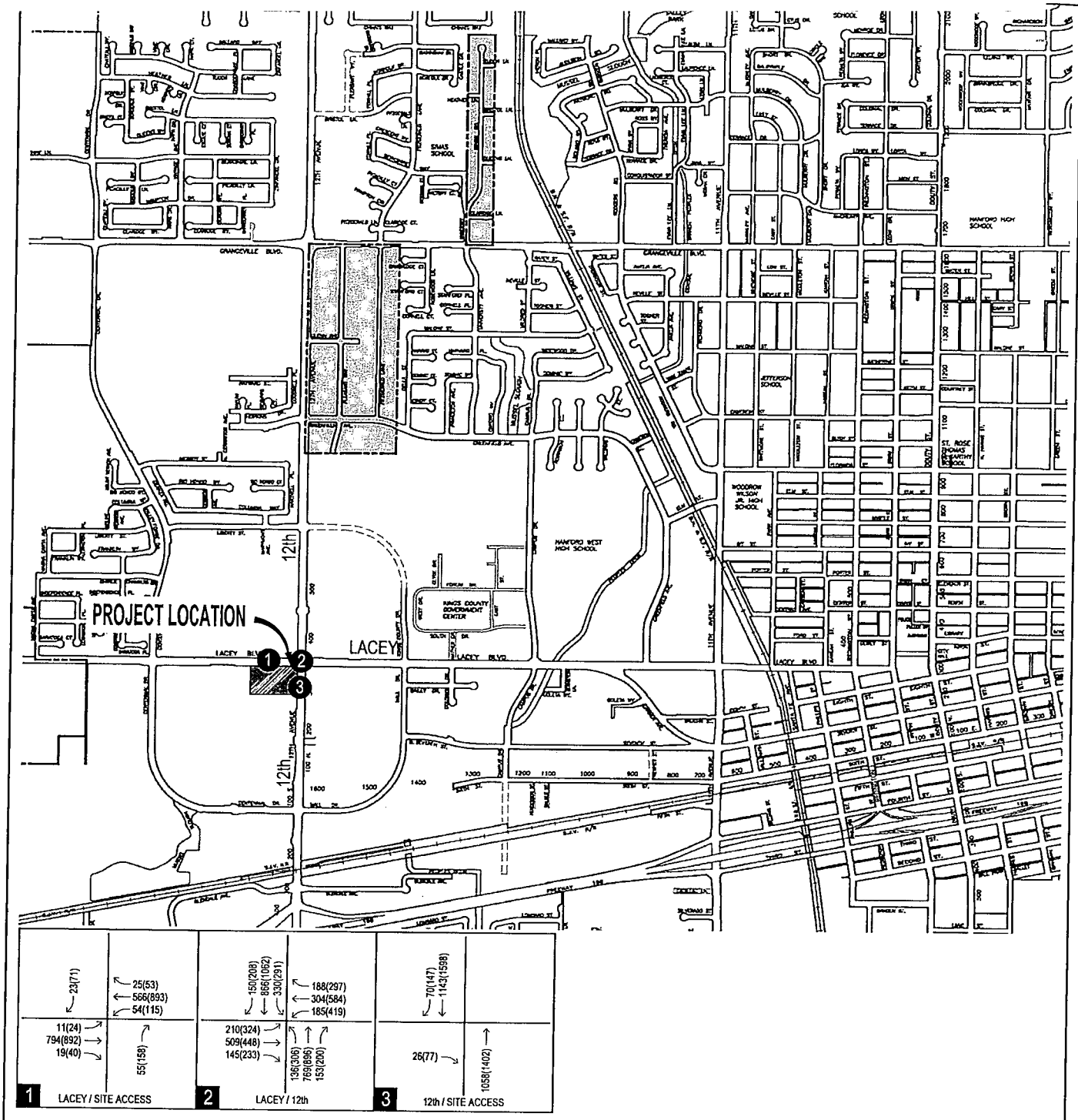
Proposed Shopping Center
Hanford, California

MITIGATED
NEAR-TERM WITH PROJECT PEAK HOUR TRAFFIC VOLUMES
SCENARIO 2

Not to Scale

PETERS ENGINEERING GROUP

Figure 22



LEGEND

XX STUDY AREA INTERSECTIONS

PROJECT SITE

XX - AM Peak Hour Volumes

(YY) - PM Peak Hour Volumes

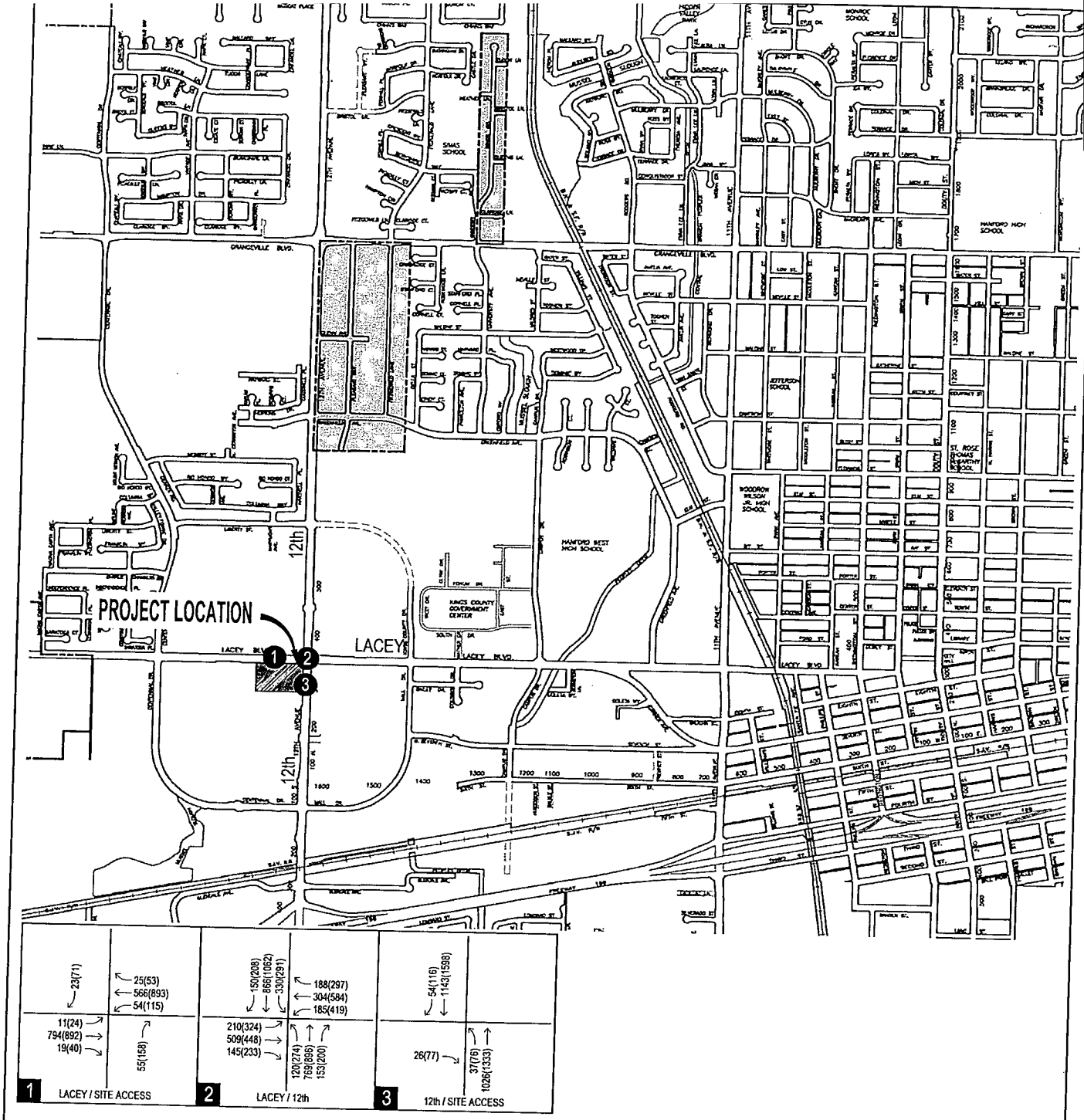
Proposed Shopping Center
Hanford, California

MITIGATED
CUMULATIVE 2035 WITH PROJECT PEAK HOUR TRAFFIC VOLUMES
SCENARIO 1

Not to Scale

PETERS ENGINEERING GROUP

Figure 23



LEGEND

- XX STUDY AREA INTERSECTIONS
- PROJECT SITE
- XX - AM Peak Hour Volumes
- (YY) - PM Peak Hour Volumes

Proposed Shopping Center
Hanford, California

MITIGATED
CUMULATIVE 2035 WITH PROJECT PEAK HOUR TRAFFIC VOLUMES
SCENARIO 2

Not to Scale

PETERS ENGINEERING GROUP

Figure 24

TRAFFIC COUNT DATA SHEETS

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-8043 Cars-001

City: Hanford

Day: Thursday

Date: 4/10/2014

TOTALS

AM

NS/EW Streets:	12th Ave			12th Ave			Lacey Blvd			Lacey Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 2	ER 1	WL 1	WT 3	WR 1	TOTAL
7:00 AM	8	46	7	9	74	2	5	28	13	16	16	1	225
7:15 AM	9	37	19	24	111	10	6	49	4	18	17	5	309
7:30 AM	14	55	20	36	89	6	11	57	6	30	33	4	361
7:45 AM	8	64	29	32	105	8	9	112	18	19	34	8	446
8:00 AM	12	43	28	31	89	10	12	76	12	34	40	5	392
8:15 AM	12	58	20	31	79	7	10	76	15	37	38	6	389
8:30 AM	16	48	24	33	84	9	10	50	16	32	38	6	366
8:45 AM	18	62	17	33	72	10	6	70	11	45	54	5	403
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	97	413	164	229	703	62	69	518	95	231	270	40	2891
APPROACH %'s :	14.39%	61.28%	24.33%	23.04%	70.72%	6.24%	10.12%	75.95%	13.93%	42.70%	49.91%	7.39%	
PEAK HR START TIME :	745 AM												TOTAL
PEAK HR VOL :	48	213	101	127	357	34	41	314	61	122	150	25	1593
PEAK HR FACTOR :		0.896			0.893			0.748			0.917		0.893

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-8043 Cars-001

Day: Thursday

City: Hanford

Date: 4/10/2014

TOTALS

PM

NS/EW Streets:	12th Ave			12th Ave			Lacey Blvd			Lacey Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 2	ER 1	WL 1	WT 3	WR 1	TOTAL
4:00 PM	37	93	34	40	94	6	32	71	25	78	115	19	644
4:15 PM	35	110	33	22	80	16	23	66	30	60	82	15	572
4:30 PM	36	111	39	33	99	9	20	50	35	75	105	19	631
4:45 PM	23	113	29	32	103	16	30	61	29	61	106	17	620
5:00 PM	38	103	30	17	106	14	29	52	21	85	127	15	637
5:15 PM	43	130	34	26	116	10	33	56	35	73	97	16	669
5:30 PM	30	123	21	21	112	13	22	74	41	67	89	15	628
5:45 PM	42	108	41	28	110	7	20	58	27	61	81	22	605
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	284	891	261	219	820	91	209	488	243	560	802	138	5006
APPROACH %'s :	19.78%	62.05%	18.18%	19.38%	72.57%	8.05%	22.23%	51.91%	25.85%	37.33%	53.47%	9.20%	
PEAK HR START TIME :	430 PM												TOTAL
PEAK HR VOL :	140	457	132	108	424	49	112	219	120	294	435	67	2557
PEAK HR FACTOR :		0.880			0.956			0.909			0.877		0.956

CONTROL : Signalized

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 14-8043-001
N/S Street: 12th Ave
E/W Street: Lacey Blvd
DATE: 4/10/2014
CITY: Hanford

DAY: Thursday

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	1	0	0	0	0	0	0	0
7:30 AM	1	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	2	0	0
8:00 AM	0	0	0	0	1	0	0	1
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	1
8:45 AM	0	1	0	0	0	0	0	0
TOTALS	**2**	**1**	**0**	**0**	**1**	**2**	**0**	**2**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	0	0	0	0	2	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	0	0	1	0	0	0	0
8:15 AM	0	0	0	0	1	0	0	0	0	0	0	0
8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**2**	**0**	**0**	**1**	**0**	**0**	**3**	**0**	**0**	**1**	**0**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
4:00 PM	0	2	0	1	0	0	1	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	2	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	1	0	0	1	0	0	1
TOTALS	**0**	**6**	**0**	**1**	**1**	**0**	**1**	**1**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
4:00 PM	0	0	0	0	0	0	0	0	0	1	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	2	0	0
4:30 PM	0	0	0	0	0	0	0	1	0	0	0	0
4:45 PM	0	1	0	0	0	0	0	0	0	0	2	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**3**	**2**	**0**

Prepared by NDS/ATD

VOLUME

12th Ave S/o Lacey Blvd

Day: Thursday
Date: 4/10/2014

City: Hanford
Project #: CA14_8044_001

DAILY TOTALS	NB	SB	EB	WB	Total
	9,197	10,811	0	0	20,008

AM Period	NB		SB		EB	WB	TOTAL	
00:00	26		14				40	
00:15	18		13				31	
00:30	11		14				25	
00:45	4	59	9	50			13	109
01:00	11		3				14	
01:15	7		4				11	
01:30	10		6				16	
01:45	9	37	7	20			16	57
02:00	7		5				12	
02:15	4		2				6	
02:30	4		5				9	
02:45	8	23	3	15			11	38
03:00	2		3				5	
03:15	3		3				6	
03:30	1		4				5	
03:45	13	19	13	23			26	42
04:00	11		8				19	
04:15	8		11				19	
04:30	9		30				39	
04:45	11	39	51	100			62	139
05:00	8		38				46	
05:15	10		59				69	
05:30	25		44				69	
05:45	25	68	48	189			73	257
06:00	24		63				87	
06:15	24		68				92	
06:30	35		93				128	
06:45	53	136	86	310			139	446
07:00	58		101				159	
07:15	68		117				185	
07:30	90		137				227	
07:45	100	316	146	501			246	817
08:00	84		149				233	
08:15	93		116				209	
08:30	90		136				226	
08:45	96	363	132	533			228	896
09:00	106		132				238	
09:15	101		155				256	
09:30	97		138				235	
09:45	113	417	173	598			286	1015
10:00	112		179				291	
10:15	118		159				277	
10:30	118		203				321	
10:45	145	493	216	757			361	1250
11:00	129		183				312	
11:15	167		230				397	
11:30	148		230				378	
11:45	163	607	206	849			369	1456
TOTALS		2577		3945				6522
SPLIT %		39.5%		60.5%				32.6%

PM Period	NB		SB		EB	WB	TOTAL	
12:00	167		211				378	
12:15	174		227				401	
12:30	197		237				434	
12:45	200	738	202	877			402	1615
13:00	214		224				438	
13:15	173		195				368	
13:30	162		175				337	
13:45	184	733	168	762			352	1495
14:00	170		162				332	
14:15	157		157				314	
14:30	178		190				368	
14:45	190	695	161	670			351	1365
15:00	180		182				362	
15:15	157		188				345	
15:30	147		207				354	
15:45	190	674	181	758			371	1432
16:00	168		199				367	
16:15	175		193				368	
16:30	181		187				368	
16:45	170	694	192	771			362	1465
17:00	170		206				376	
17:15	206		220				426	
17:30	171		230				401	
17:45	188	735	189	845			377	1580
18:00	168		150				318	
18:15	170		177				347	
18:30	144		166				310	
18:45	164	646	173	666			337	1312
19:00	159		132				291	
19:15	161		149				310	
19:30	146		157				303	
19:45	139	605	124	562			263	1167
20:00	139		146				285	
20:15	123		115				238	
20:30	127		80				207	
20:45	110	499	92	433			202	932
21:00	110		87				197	
21:15	82		80				162	
21:30	68		71				139	
21:45	69	329	60	298			129	627
22:00	51		49				100	
22:15	34		37				71	
22:30	44		39				83	
22:45	41	170	27	152			68	322
23:00	30		21				51	
23:15	22		20				42	
23:30	24		17				41	
23:45	26	102	14	72			40	174
TOTALS		6620		6866				13486
SPLIT %		49.1%		50.9%				67.4%

DAILY TOTALS	NB	SB	EB	WB	Total
	9,197	10,811	0	0	20,008

AM Peak Hour	11:45	11:45	11:45
AM Pk Volume	701	881	1582
Pk Hr Factor	0.890	0.929	0.911
7 - 9 Volume	679	1034	1713
7 - 9 Peak Hour	07:30	07:15	07:30
7 - 9 Pk Volume	367	549	915
Pk Hr Factor	0.918	0.921	0.930

PM Peak Hour	12:15	12:15	12:15
PM Pk Volume	785	890	1675
Pk Hr Factor	0.917	0.939	0.956
4 - 6 Volume	1429	1616	3045
4 - 6 Peak Hour	17:00	16:45	17:00
4 - 6 Pk Volume	735	848	1580
Pk Hr Factor	0.892	0.922	0.927

Prepared by NDS/ATD

VOLUME

Lacey Blvd W/o 12th Ave

Day: Thursday
Date: 4/10/2014

City: Hanford
Project #: CA14_8044_002

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	6,305	6,536	12,841

AM Period	NB	SB	EB		WB		TOTAL	
00:00			9		6		15	
00:15			10		10		20	
00:30			10		7		17	
00:45			5	34	4	27	9	61
01:00			2		4		6	
01:15			2		6		8	
01:30			5		4		9	
01:45			4	13	1	15	5	28
02:00			2		4		6	
02:15			1		3		4	
02:30			3		1		4	
02:45			1	7	4	12	5	19
03:00			3		2		5	
03:15			1		0		1	
03:30			0		1		1	
03:45			6	10	3	6	9	16
04:00			6		9		15	
04:15			3		8		11	
04:30			8		3		11	
04:45			9	26	15	35	24	61
05:00			3		16		19	
05:15			14		13		27	
05:30			4		16		20	
05:45			12	33	14	59	26	92
06:00			12		22		34	
06:15			23		19		42	
06:30			35		18		53	
06:45			43	113	28	87	71	200
07:00			44		30		74	
07:15			59		35		94	
07:30			65		51		116	
07:45			145	313	48	164	193	477
08:00			102		61		163	
08:15			101		57		158	
08:30			76		66		142	
08:45			90	369	80	264	170	633
09:00			70		70		140	
09:15			99		81		180	
09:30			74		107		181	
09:45			120	363	98	356	218	719
10:00			100		101		201	
10:15			94		89		183	
10:30			113		115		228	
10:45			91	398	120	425	211	823
11:00			116		114		230	
11:15			143		130		273	
11:30			126		134		260	
11:45			130	515	149	527	279	1042
TOTALS				2194		1977		4171
SPLIT %				52.6%		47.4%		32.5%

PM Period	NB	SB	EB		WB		TOTAL	
12:00			125		154		279	
12:15			129		158		287	
12:30			135		136		271	
12:45			142	531	122	570	264	1101
13:00			118		131		249	
13:15			114		144		258	
13:30			126		104		230	
13:45			115	473	128	507	243	980
14:00			96		122		218	
14:15			118		135		253	
14:30			104		105		209	
14:45			127	445	125	487	252	932
15:00			117		142		259	
15:15			153		134		287	
15:30			135		101		236	
15:45			98	503	121	498	219	1001
16:00			120		155		275	
16:15			120		136		256	
16:30			110		146		256	
16:45			119	469	150	587	269	1056
17:00			105		177		282	
17:15			115		143		258	
17:30			130		140		270	
17:45			113	463	128	588	241	1051
18:00			98		124		222	
18:15			93		121		214	
18:30			99		113		212	
18:45			72	362	90	448	162	810
19:00			98		89		187	
19:15			84		79		163	
19:30			82		98		180	
19:45			95	359	90	356	185	715
20:00			87		75		162	
20:15			62		66		128	
20:30			52		67		119	
20:45			53	254	45	253	98	507
21:00			31		48		79	
21:15			41		40		81	
21:30			30		31		61	
21:45			24	126	27	146	51	272
22:00			24		17		41	
22:15			19		17		36	
22:30			21		16		37	
22:45			14	78	14	64	28	142
23:00			15		19		34	
23:15			19		12		31	
23:30			8		15		23	
23:45			6	48	9	55	15	103
TOTALS				4111		4559		8670
SPLIT %				47.4%		52.6%		67.5%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	6,305	6,536	12,841

AM Peak Hour	11:15	11:45	11:45	PM Peak Hour	14:45	16:30	12:00
AM Pk Volume	524	597	1116	PM Pk Volume	532	616	1101
Pk Hr Factor	0.916	0.945	0.972	Pk Hr Factor	0.869	0.870	0.959
7 - 9 Volume	682	428	1110	4 - 6 Volume	932	1175	2107
7 - 9 Peak Hour	07:45	08:00	07:45	4 - 6 Peak Hour	16:00	16:30	16:45
7 - 9 Pk Volume	424	264	656	4 - 6 Pk Volume	469	616	1079
Pk Hr Factor	0.731	0.825	0.850	Pk Hr Factor	0.977	0.870	0.957

INTERNAL CAPTURE CALCULATIONS

MULTI-USE TRIP GENERATION AND INTERNAL CAPTURE SUMMARY

Analyst JR
Date 5/21/2014

Name of Development Shopping Center - SW of Lacey/12th
Time Period AM Peak

ITE LU Code 820 — Size 97000 sf

	Total	Internal	External
Enter	95	3	92
Exit	58	4	54
Total	153	7	146
%	100%	5%	95%

Exit to External: 54
Enter from External: 92

ITE LU Code 934 — Size 2400 sf

	Total	Internal	External
Enter	56	3	53
Exit	53	4	49
Total	109	7	102
%	100%	7%	93%

Enter from External: 53
Exit to External: 49

ITE LU Code 848 — Size 12000 sf

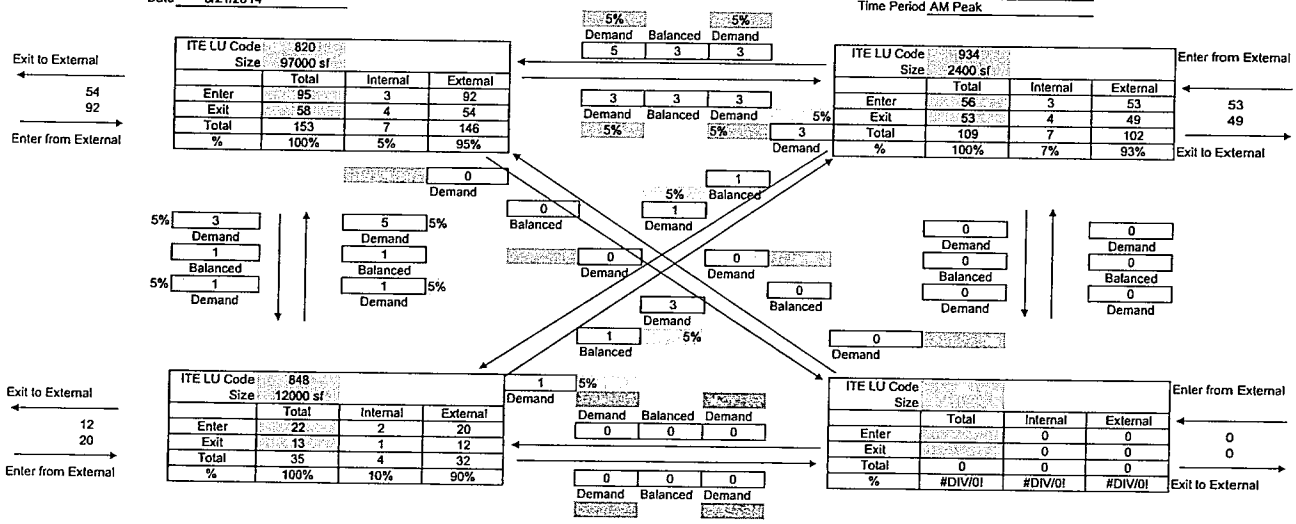
	Total	Internal	External
Enter	22	2	20
Exit	13	1	12
Total	35	4	32
%	100%	10%	90%

Exit to External: 12
Enter from External: 20

ITE LU Code — Size

	Total	Internal	External
Enter		0	0
Exit		0	0
Total	0	0	0
%	#DIV/0!	#DIV/0!	#DIV/0!

Enter from External: 0
Exit to External: 0



Net External Trips for Multi-Use Development

	Land Use A	Land Use B	Land Use C	Land Use D	Total		ITE Totals	Captured
Enter	92	53	20	0	164		173	9
Exit	54	49	12	0	115		124	9
Total	146	102	32	0	279	INTERNAL CAPTURE		
Single-Use Trip Gen. Est.	153	109	35	0	297	6%		

MULTI-USE TRIP GENERATION AND INTERNAL CAPTURE SUMMARY

Analyst JR
Date 5/21/2014

Name of Development Shopping Center - SW of Lacey/12th
Time Period PM Peak

ITE LU Code 820 — Size 97000 sf

	Total	Internal	External
Enter	294	12	282
Exit	294	11	283
Total	588	23	565
%	100%	4%	96%

Exit to External: 283
Enter from External: 282

ITE LU Code 934 — Size 2400 sf

	Total	Internal	External
Enter	41	8	33
Exit	38	8	31
Total	79	16	63
%	100%	20%	80%

Enter from External: 33
Exit to External: 31

ITE LU Code 848 — Size 12000 sf

	Total	Internal	External
Enter	22	4	18
Exit	29	6	23
Total	51	10	41
%	100%	20%	80%

Exit to External: 23
Enter from External: 18

ITE LU Code — Size

	Total	Internal	External
Enter		0	0
Exit		0	0
Total	0	0	0
%	#DIV/0!	#DIV/0!	#DIV/0!

Enter from External: 0
Exit to External: 0

Demand 11% — Balanced 32 — Demand 18%
Demand 7 — Balanced 7 — Demand 7
Demand 38 — Balanced 7 — Demand 7
Demand 13% — Demand 18% — 2% — Demand 1
Demand 0
Balanced 0 — 3% Balanced 1 — Demand 1
7% Demand 21 — Balanced 4 — 17% Demand 4
Demand 26 9% — Balanced 5 — Demand 5 17%
Demand 0 — Demand 0
Demand 0 — Balanced 0
Demand 1 — Balanced 1 — 2%
Demand 0
Demand 0 — Balanced 0 — Demand 0
Demand 0 — Balanced 0 — Demand 0
Demand 1 — 3%
Demand 0 — Balanced 0 — Demand 0
Demand 0 — Balanced 0 — Demand 0

Net External Trips for Multi-Use Development

	Land Use A	Land Use B	Land Use C	Land Use D	Total
Enter	282	33	18	0	333
Exit	283	31	23	0	337
Total	565	63	41	0	669
Single-Use Trip Gen. Est.	588	79	51	0	718

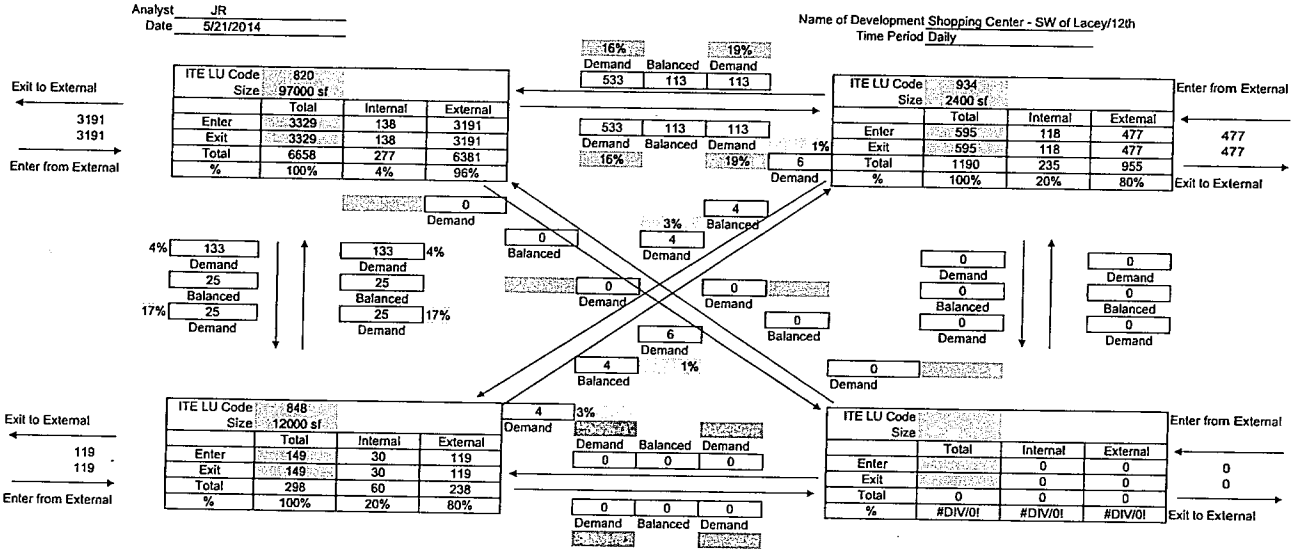
INTERNAL CAPTURE 7%

ITE Totals	Captured
357	24
361	24

MULTI-USE TRIP GENERATION AND INTERNAL CAPTURE SUMMARY

Analyst JR
Date 5/21/2014

Name of Development Shopping Center - SW of Lacey/12th
Time Period Daily



Net External Trips for Multi-Use Development

	Land Use A	Land Use B	Land Use C	Land Use D	Total		ITE Totals	Captured
Enter	3191	477	119	0	3787		4073	286
Exit	3191	477	119	0	3787		4073	286
Total	6381	955	238	0	7575	INTERNAL CAPTURE		
Single-Use Trip Gen. Est.	6658	1190	298	0	8146	7%		

MULTI-USE TRIP GENERATION AND INTERNAL CAPTURE SUMMARY

Analyst JR
Date 5/21/2014

Name of Development Shopping Center - SW of Lacey/12th (combine projects)
Time Period AM Peak

ITE LU Code 820, Size 97000 sf

	Total	Internal	External
Enter	104	3	101
Exit	64	4	60
Total	168	7	161
%	100%	4%	96%

Exit to External: 60
Enter from External: 101

ITE LU Code 934, Size 2400 sf

	Total	Internal	External
Enter	56	3	53
Exit	53	4	49
Total	109	7	102
%	100%	7%	93%

Enter from External: 53
Exit to External: 49

ITE LU Code 848, Size 12000 sf

	Total	Internal	External
Enter	22	2	20
Exit	13	1	12
Total	35	4	32
%	100%	10%	90%

Exit to External: 12
Enter from External: 20

ITE LU Code, Size

	Total	Internal	External
Enter		0	0
Exit		0	0
Total	0	0	0
%	#DIV/0!	#DIV/0!	#DIV/0!

Enter from External: 0
Exit to External: 0

Demand 5% | Balanced 3 | Demand 5%
Demand 3 | Balanced 3 | Demand 3
Demand 5% | Demand 5% | Demand 3 5%
Demand 0
Balanced 0
Demand 1 5%
Balanced 1
Demand 0
Demand 0
Balanced 0
Demand 3
Balanced 1 5%
Demand 0
Demand 3 5%
Balanced 1
Demand 5% | Demand 5%
Demand 1
Balanced 1
Demand 1 5%
Demand 0
Balanced 0
Demand 0
Demand 0
Balanced 0
Demand 0
Demand 1 5%
Demand 0 | Balanced 0 | Demand 0
Demand 0 | Balanced 0 | Demand 0

Net External Trips for Multi-Use Development

	Land Use A	Land Use B	Land Use C	Land Use D	Total
Enter	101	53	20	0	173
Exit	60	49	12	0	121
Total	161	102	32	0	294
Single-Use Trip Gen. Est.	168	109	35	0	312

ITE Totals	Captured
182	9
130	9

INTERNAL CAPTURE
6%

MULTI-USE TRIP GENERATION AND INTERNAL CAPTURE SUMMARY

Analyst JR
Date 5/21/2014

Name of Development Shopping Center - SW of Lacey/12th (combine projects)
Time Period PM Peak

ITE LU Code 820, Size 97000 sf

	Total	Internal	External
Enter	325	12	313
Exit	325	11	314
Total	650	23	627
%	100%	4%	96%

Exit to External: 314
Enter from External: 313

ITE LU Code 934, Size 2400 sf

	Total	Internal	External
Enter	41	8	33
Exit	38	8	31
Total	79	16	63
%	100%	20%	80%

Enter from External: 33
Exit to External: 31

ITE LU Code 848, Size 12000 sf

	Total	Internal	External
Enter	22	4	18
Exit	29	6	23
Total	51	10	41
%	100%	20%	80%

Exit to External: 23
Enter from External: 18

ITE LU Code, Size

	Total	Internal	External
Enter		0	0
Exit		0	0
Total	0	0	0
%	#DIV/0!	#DIV/0!	#DIV/0!

Enter from External: 0
Exit to External: 0

Demand 11% | Balanced 36 | Demand 18% 7 7
Demand 42 | Balanced 7 | Demand 7
Demand 13% | Demand 18% 1 2%
Demand 0
Balanced 0
Demand 1
Balanced 1 3%
Demand 23 7%
Balanced 4
Demand 4 17%
Demand 29 9%
Balanced 5
Demand 5 17%
Demand 0
Demand 0
Balanced 0
Demand 1
Balanced 1
Demand 2%
Demand 0
Balanced 0
Demand 0
Demand 0
Balanced 0
Demand 0
Demand 0
Balanced 0
Demand 0
Demand 1 3%
Demand 0 | Balanced 0 | Demand 0
Demand 0 | Balanced 0 | Demand 0

Net External Trips for Multi-Use Development

	Land Use A	Land Use B	Land Use C	Land Use D	Total
Enter	313	33	18	0	364
Exit	314	31	23	0	368
Total	627	63	41	0	731
Single-Use Trip Gen. Est.	650	79	51	0	780

ITE Totals	Captured
388	24
392	24

INTERNAL CAPTURE 6%

MULTI-USE TRIP GENERATION AND INTERNAL CAPTURE SUMMARY

Analyst JR
Date 5/21/2014

Name of Development Shopping Center - SW of Lacey/12th (combine projects)
Time Period Daily

ITE LU Code 820 — Size 97000 sf

	Total	Internal	External
Enter	4421	138	4283
Exit	4421	138	4283
Total	8842	277	8565
%	100%	3%	97%

Exit to External: 4283
Enter from External: 4283

ITE LU Code 934 — Size 2400 sf

	Total	Internal	External
Enter	595	118	477
Exit	595	118	477
Total	1190	235	955
%	100%	20%	80%

Enter from External: 477
Exit to External: 477

ITE LU Code 848 — Size 12000 sf

	Total	Internal	External
Enter	149	30	119
Exit	149	30	119
Total	298	60	238
%	100%	20%	80%

Exit to External: 119
Enter from External: 119

ITE LU Code — Size

	Total	Internal	External
Enter		0	0
Exit		0	0
Total	0	0	0
%	#DIV/0!	#DIV/0!	#DIV/0!

Enter from External: 0
Exit to External: 0

16% Demand — 707 Balanced — 19% Demand 113
707 Demand 16% — 113 Balanced — 113 Demand 19% — 1% 6 Demand
0 Demand
0 Balanced
4 Balanced — 3% 4 Demand
4% 177 Demand — 25 Balanced — 17% 25 Demand
177 Demand 4% — 25 Balanced — 25 Demand 17%
0 Demand
0 Demand
0 Balanced
6 Demand 1%
4 Balanced
0 Demand
0 Demand
0 Balanced
0 Demand
0 Demand
0 Balanced
0 Demand
4 Demand 3%
Demand 0 — Balanced 0 — Demand 0
0 Demand — 0 Balanced — 0 Demand

Net External Trips for Multi-Use Development

	Land Use A	Land Use B	Land Use C	Land Use D	Total
Enter	4283	477	119	0	4879
Exit	4283	477	119	0	4879
Total	8565	955	238	0	9759
Single-Use Trip Gen. Est.	8842	1190	298	0	10330

ITE Totals	Captured
5165	286
5165	286

INTERNAL CAPTURE 6%

KINGS COUNTY TRAVEL MODEL

John Rowland

From: John Rowland
Sent: Tuesday, September 03, 2013 11:48 AM
To: 'Bounds, Kara'
Cc: Mike Sharp (msharp@peters-engineering.com)
Subject: Request for Select Zone Analysis

Hello Kara,

Peters Engineering Group is performing a traffic impact study for a proposed shopping center to be located on the vacant property southwest of the intersection of Lacey Boulevard and 12th Avenue in Hanford. We are requesting that KCAG perform traffic modeling for the project. Some of the key project information is as follows:

Site area: approximately 12 acres
Total building area: 126,220 square feet (six different buildings)
Site access: three proposed driveways on Lacey Boulevard (one of which is full-access and two of which are right-in/right-out only) and one right-in/right-out driveway on 12th Avenue.

We do not have employment data, so we were hoping that KCAG may have some correlations between building area and employment.

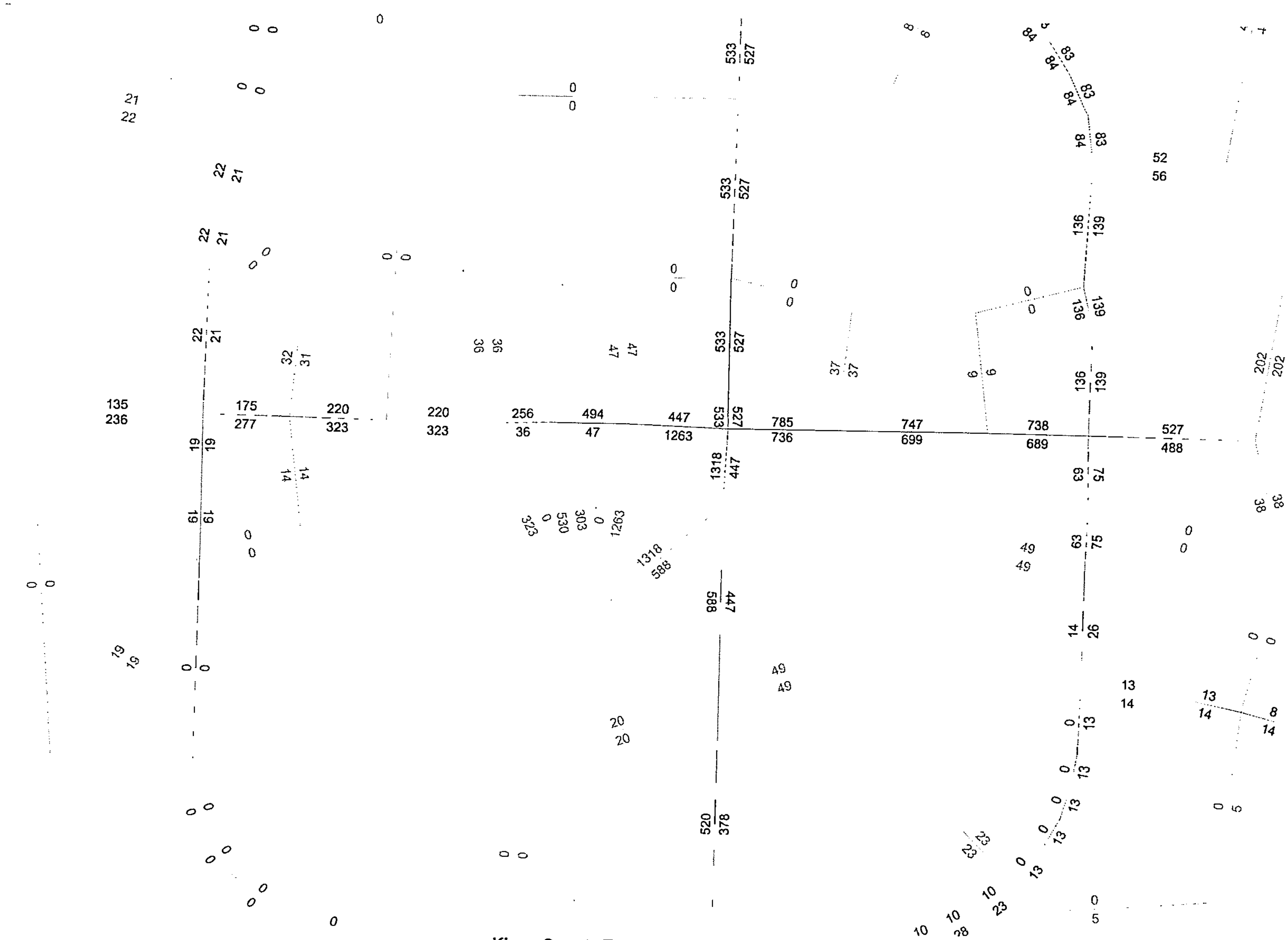
We would like to obtain the following:

1. A select zone analysis showing the distribution of the project traffic for daily and peak volumes. This is often accomplished by creating a new TAZ representing the project.
2. A loaded 2035 network with the project traffic in it for daily and peak volumes.
3. A zero-Project 2035 loaded network (project site assumed to be undeveloped and generating zero traffic) for daily and peak volumes.
4. A 2013 loaded network (representing existing conditions, project site assumed to be undeveloped and generating zero traffic) for daily and peak volumes.

Please give me a call if you have any questions.

Thanks,

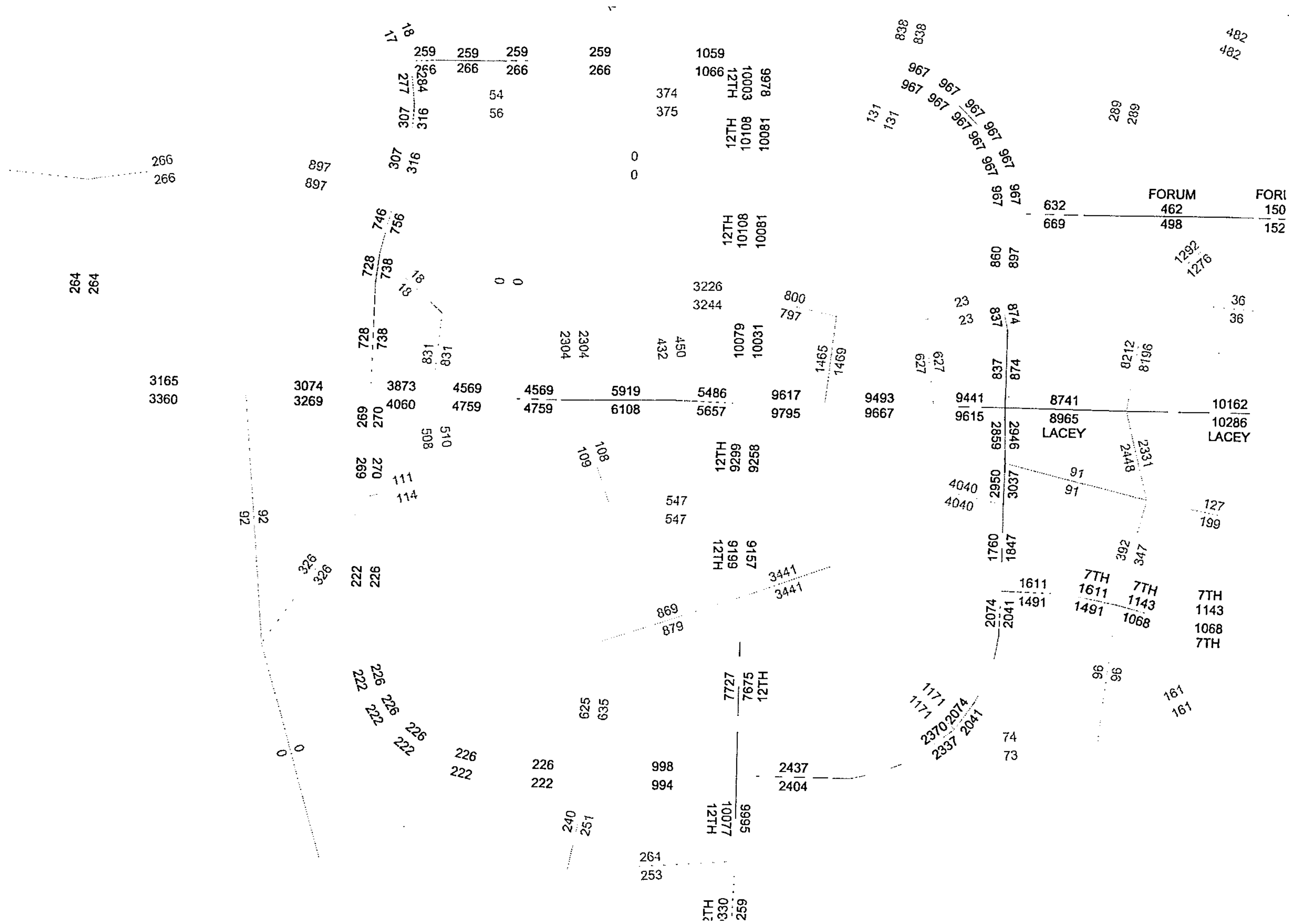
John Rowland, PE, TE
PETERS ENGINEERING GROUP
952 Pollasky Avenue
Clovis, California 93612
Phone: (559) 299-1544 Ext. 112
Fax: (559) 299-1722



Kings County Travel Demand Model
Select Zone Analysis Daily Traffic Volumes

cube

Licensed to Peters Engineering



2011 Kings County Travel Demand Model
Daily Traffic Volumes

cube

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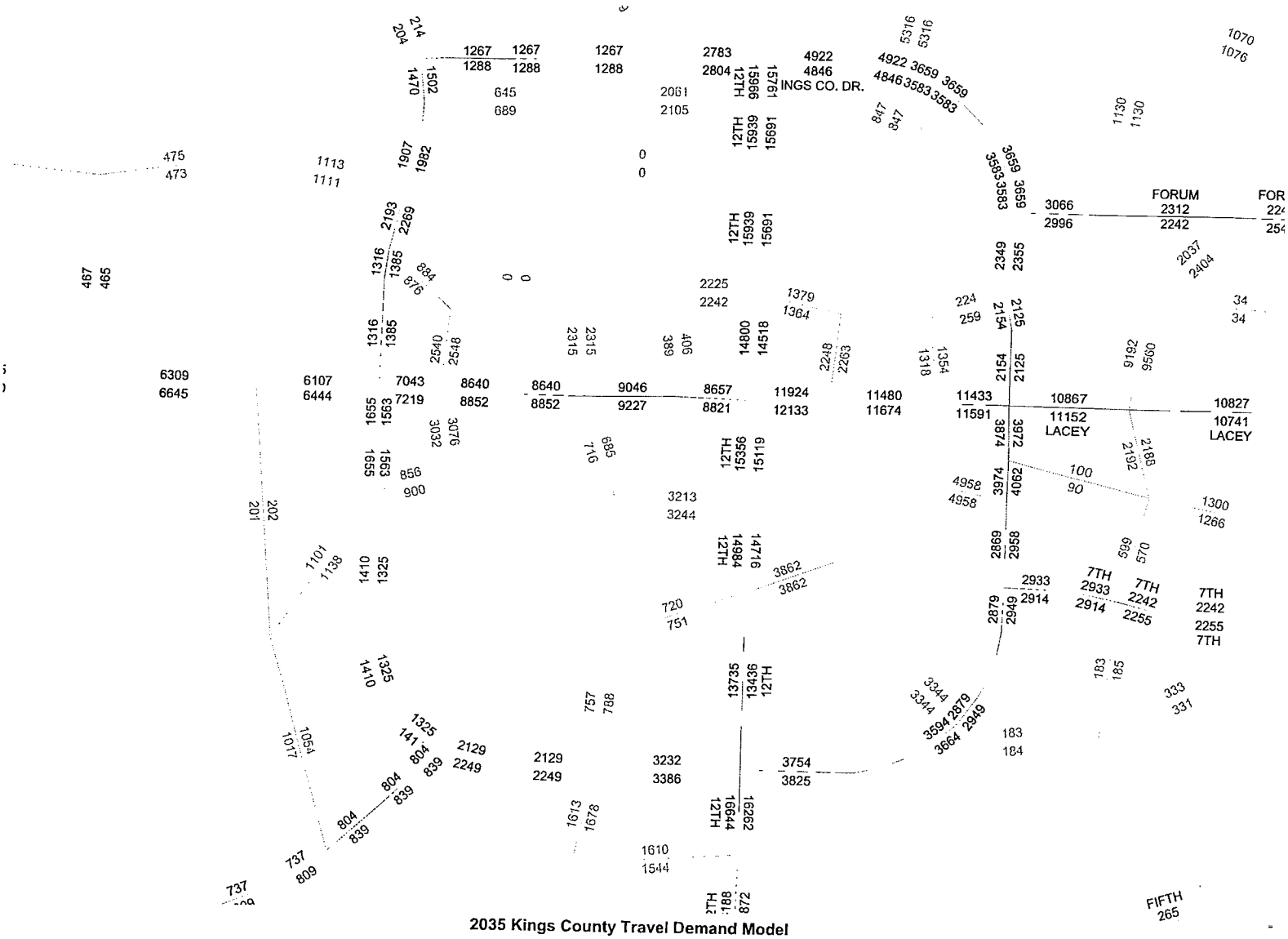


2035 Kings County Travel Demand Model
Daily Traffic Volumes

cube

Licensed to Peters Engineering

INTERSECTION ANALYSES

HCM 2010 TWSC
1: Site Access & Lacey Blvd

Existing-AM
6/2/2014

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	11	424	0	12	264	25	0	0	0
Conflicting Peds, #/hr	10	0	10	10	0	10	10	0	10
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	160	-	-	150	-	260	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	461	0	13	287	27	0	0	0

Major/Minor	Major1			Major2		
Conflicting Flow All	297	0	0	461	0	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	1261	-	-	1096	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %		-	-		-	-
Mov Cap-1 Maneuver	1250	-	-	1087	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB
HCM Control Delay, s	0.2	0.3
HCM LOS		

Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1250	-	-	1087	-	-	430	839
HCM Lane V/C Ratio	0.01	-	-	0.012	-	-	0.071	0.012
HCM Control Delay (s)	7.9	-	-	8.4	-	-	14	9.3
HCM Lane LOS	A	-	-	A	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	0	-	-	0.2	0

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	28	0	9
Conflicting Peds, #/hr	10	0	10
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	None
Storage Length	0	-	0
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	30	0	10

Major/Minor	Minor2		
Conflicting Flow All	577	808	163
Stage 1	323	323	-
Stage 2	254	485	-
Critical Hdwy	6.84	6.54	6.94
Critical Hdwy Stg 1	5.84	5.54	-
Critical Hdwy Stg 2	5.84	5.54	-
Follow-up Hdwy	3.52	4.02	3.32
Pot Cap-1 Maneuver	447	313	853
Stage 1	706	649	-
Stage 2	765	550	-
Platoon blocked, %			
Mov Cap-1 Maneuver	430	0	839
Mov Cap-2 Maneuver	430	0	-
Stage 1	692	0	-
Stage 2	751	0	-

Approach	SB
HCM Control Delay, s	12.9
HCM LOS	B

Minor Lane/Major Mvmt

HCM 2010 Signalized Intersection Summary
2: 12th Ave & Lacey Blvd

Existing-AM
6/2/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	41	314	61	122	150	25	48	213	101	127	357	34
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	177.6	186.3	186.3	182.7	186.3	186.3	175.9	186.3	186.3	186.3	186.3	186.3
Adj Flow Rate, veh/h	55	419	81	133	163	27	53	237	112	143	401	38
Adj No. of Lanes	1	2	1	1	3	1	1	2	1	1	2	1
Peak Hour Factor	0.75	0.75	0.75	0.92	0.92	0.92	0.90	0.90	0.90	0.89	0.89	0.89
Percent Heavy Veh, %	7	2	2	4	2	2	8	2	2	2	2	2
Cap, veh/h	71	841	371	173	1498	462	69	756	334	187	984	435
Arrive On Green	0.04	0.24	0.24	0.10	0.29	0.29	0.04	0.21	0.21	0.11	0.28	0.28
Sat Flow, veh/h	1691	3539	1563	1740	5085	1567	1675	3539	1561	1774	3539	1566
Grp Volume(v), veh/h	55	419	81	133	163	27	53	237	112	143	401	38
Grp Sat Flow(s),veh/h/ln	1691	1770	1563	1740	1695	1567	1675	1770	1561	1774	1770	1566
Q Serve(g_s), s	1.7	5.3	2.2	3.9	1.2	0.6	1.6	2.9	3.1	4.1	4.8	0.9
Cycle Q Clear(g_c), s	1.7	5.3	2.2	3.9	1.2	0.6	1.6	2.9	3.1	4.1	4.8	0.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	71	841	371	173	1498	462	69	756	334	187	984	435
V/C Ratio(X)	0.77	0.50	0.22	0.77	0.11	0.06	0.77	0.31	0.34	0.76	0.41	0.09
Avail Cap(c_a), veh/h	261	1512	668	437	2664	821	259	1580	697	480	1991	881
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	24.5	17.1	15.9	22.7	13.3	13.1	24.6	17.1	17.2	22.5	15.2	13.8
Incr Delay (d2), s/veh	15.8	0.5	0.3	7.1	0.0	0.1	16.1	0.2	0.6	6.4	0.3	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	1.1	2.6	1.0	2.2	0.6	0.3	1.0	1.4	1.4	2.3	2.4	0.4
LnGrp Delay(d),s/veh	40.3	17.5	16.2	29.8	13.3	13.2	40.7	17.4	17.8	28.9	15.5	13.9
LnGrp LOS	D	B	B	C	B	B	D	B	B	C	B	B
Approach Vol, veh/h		555			323			402			582	
Approach Delay, s/veh		19.6			20.1			20.6			18.7	
Approach LOS		B			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	16.0	9.1	17.2	6.1	19.3	6.2	20.1
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	14.0	23.1	13.0	22.1	8.0	29.1	8.0	27.1
Max Q Clear Time (g_c+I1), s	6.1	5.1	5.9	7.3	3.6	6.8	3.7	3.2
Green Ext Time (p_c), s	0.2	4.2	0.2	3.5	0.0	4.5	0.0	4.1

Intersection Summary	
HCM 2010 Ctrl Delay	19.6
HCM 2010 LOS	B

Queues
2: 12th Ave & Lacey Blvd

Existing-AM
6/2/2014

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	55	419	81	133	163	27	53	237	112	143	401	38
v/c Ratio	0.25	0.49	0.15	0.43	0.10	0.04	0.24	0.33	0.23	0.44	0.39	0.07
Control Delay	34.4	25.0	0.6	33.0	18.4	0.1	34.4	25.8	1.1	32.5	21.4	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.4	25.0	0.6	33.0	18.4	0.1	34.4	25.8	1.1	32.5	21.4	0.2
Queue Length 50th (ft)	19	73	0	45	16	0	18	42	0	48	70	0
Queue Length 95th (ft)	55	122	0	128	39	0	65	88	0	132	128	0
Internal Link Dist (ft)		520			767			707			487	
Turn Bay Length (ft)	215		60	275		185	200		240	250		140
Base Capacity (vph)	265	1535	793	443	2679	893	262	1605	819	486	1950	926
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.27	0.10	0.30	0.06	0.03	0.20	0.15	0.14	0.29	0.21	0.04

Intersection Summary

HCM 2010 TWSC
1: Lacey Blvd

Existing-PM
6/2/2014

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	24	469	0	26	616	53	0	0	0
Conflicting Peds, #/hr	10	0	10	10	0	10	10	0	10
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	160	-	-	150	-	260	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	510	0	28	670	58	0	0	0

Major/Minor	Major1			Major2		
Conflicting Flow All	680	0	0	510	0	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	908	-	-	1051	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %		-	-		-	-
Mov Cap-1 Maneuver	900	-	-	1042	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB
HCM Control Delay, s	0.4	0.3
HCM LOS		

Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	900	-	-	1042	-	-	209	630
HCM Lane V/C Ratio	0.029	-	-	0.027	-	-	0.437	0.05
HCM Control Delay (s)	9.1	-	-	8.6	-	-	34.9	11
HCM Lane LOS	A	-	-	A	-	-	D	B
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-	-	2	0.2

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	84	0	29
Conflicting Peds, #/hr	10	0	10
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	None
Storage Length	0	-	0
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	91	0	32

Major/Minor	Minor2		
Conflicting Flow All	1043	1298	355
Stage 1	736	736	-
Stage 2	307	562	-
Critical Hdwy	6.84	6.54	6.94
Critical Hdwy Stg 1	5.84	5.54	-
Critical Hdwy Stg 2	5.84	5.54	-
Follow-up Hdwy	3.52	4.02	3.32
Pot Cap-1 Maneuver	225	160	641
Stage 1	435	423	-
Stage 2	719	508	-
Platoon blocked, %			
Mov Cap-1 Maneuver	209	0	630
Mov Cap-2 Maneuver	209	0	-
Stage 1	420	0	-
Stage 2	692	0	-

Approach	SB
HCM Control Delay, s	28.8
HCM LOS	D

Minor Lane/Major Mvmt

HCM 2010 Signalized Intersection Summary
2: 12th Ave & Lacey Blvd

Existing-PM
6/2/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	112	219	120	294	435	67	140	457	132	108	424	49
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Adj Flow Rate, veh/h	123	241	132	334	494	76	159	519	150	114	446	52
Adj No. of Lanes	1	2	1	1	3	1	1	2	1	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.88	0.88	0.88	0.88	0.88	0.88	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	158	684	301	380	1620	499	197	928	410	145	825	364
Arrive On Green	0.09	0.19	0.19	0.21	0.32	0.32	0.11	0.26	0.26	0.08	0.23	0.23
Sat Flow, veh/h	1774	3539	1559	1774	5085	1568	1774	3539	1565	1774	3539	1563
Grp Volume(v), veh/h	123	241	132	334	494	76	159	519	150	114	446	52
Grp Sat Flow(s),veh/h/ln	1774	1770	1559	1774	1695	1568	1774	1770	1565	1774	1770	1563
Q Serve(g_s), s	4.9	4.2	5.3	13.1	5.3	2.5	6.3	9.1	5.6	4.5	7.9	1.9
Cycle Q Clear(g_c), s	4.9	4.2	5.3	13.1	5.3	2.5	6.3	9.1	5.6	4.5	7.9	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	158	684	301	380	1620	499	197	928	410	145	825	364
V/C Ratio(X)	0.78	0.35	0.44	0.88	0.31	0.15	0.81	0.56	0.37	0.78	0.54	0.14
Avail Cap(c_a), veh/h	297	1087	479	446	1987	613	223	1195	529	198	1146	506
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	31.9	25.0	25.5	27.3	18.4	17.5	31.1	22.9	21.6	32.3	24.1	21.8
Incr Delay (d2), s/veh	8.1	0.3	1.0	16.1	0.1	0.1	17.6	0.5	0.5	13.2	0.6	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	2.7	2.1	2.4	8.1	2.5	1.1	4.0	4.5	2.5	2.8	3.9	0.8
LnGrp Delay(d),s/veh	40.0	25.3	26.5	43.4	18.5	17.6	48.7	23.4	22.1	45.5	24.7	22.0
LnGrp LOS	D	C	C	D	B	B	D	C	C	D	C	C
Approach Vol, veh/h		496			904			828			612	
Approach Delay, s/veh		29.3			27.6			28.0			28.3	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	23.7	19.3	18.7	11.9	21.6	10.4	27.7
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	8.0	24.2	18.0	22.0	9.0	23.2	12.0	28.0
Max Q Clear Time (g_c+I1), s	6.5	11.1	15.1	7.3	8.3	9.9	6.9	7.3
Green Ext Time (p_c), s	0.0	5.6	0.3	4.7	0.0	5.6	0.1	5.4

Intersection Summary	
HCM 2010 Ctrl Delay	28.2
HCM 2010 LOS	C

Queues
2: 12th Ave & Lacey Blvd

Existing-PM
6/2/2014

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	123	241	132	334	494	76	159	519	150	114	446	52
v/c Ratio	0.51	0.42	0.34	0.77	0.32	0.14	0.71	0.63	0.31	0.59	0.58	0.11
Control Delay	39.3	30.1	5.0	41.8	21.9	2.1	52.8	29.0	5.2	48.3	29.0	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.3	30.1	5.0	41.8	21.9	2.1	52.8	29.0	5.2	48.3	29.0	0.5
Queue Length 50th (ft)	50	51	0	132	64	0	67	106	0	48	91	0
Queue Length 95th (ft)	122	91	26	#339	104	11	#199	178	33	#149	160	0
Internal Link Dist (ft)		520			767			727			487	
Turn Bay Length (ft)	215		60	275		185	200		240	250		140
Base Capacity (vph)	299	1096	594	448	2004	681	224	1205	637	199	1155	617
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.22	0.22	0.75	0.25	0.11	0.71	0.43	0.24	0.57	0.39	0.08

Intersection Summary

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	11	422	18	52	259	25	15	0	46
Conflicting Peds, #/hr	10	0	10	10	0	10	10	0	10
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	160	-	-	150	-	260	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	459	20	57	282	27	16	0	50

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	292	0	0	488	0	0	766	907	259
Stage 1	-	-	-	-	-	-	502	502	-
Stage 2	-	-	-	-	-	-	264	405	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32
Pot Cap-1 Maneuver	1267	-	-	1071	-	-	292	274	740
Stage 1	-	-	-	-	-	-	520	540	-
Stage 2	-	-	-	-	-	-	718	597	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1256	-	-	1062	-	-	270	253	728
Mov Cap-2 Maneuver	-	-	-	-	-	-	270	253	-
Stage 1	-	-	-	-	-	-	511	530	-
Stage 2	-	-	-	-	-	-	666	560	-

Approach	EB	WB	NB
HCM Control Delay, s	0.2	1.3	13
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	514	1256	-	-	1062	-	-	300	841
HCM Lane V/C Ratio	0.129	0.01	-	-	0.053	-	-	0.101	0.012
HCM Control Delay (s)	13	7.9	-	-	8.6	-	-	18.4	9.3
HCM Lane LOS	B	A	-	-	A	-	-	C	A
HCM 95th %tile Q(veh)	0.4	0	-	-	0.2	-	-	0.3	0

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	28	0	9
Conflicting Peds, #/hr	10	0	10
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	None
Storage Length	0	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	30	0	10

Major/Minor	Minor2		
Conflicting Flow All	668	917	161
Stage 1	405	405	-
Stage 2	263	512	-
Critical Hdwy	7.54	6.54	6.94
Critical Hdwy Stg 1	6.54	5.54	-
Critical Hdwy Stg 2	6.54	5.54	-
Follow-up Hdwy	3.52	4.02	3.32
Pot Cap-1 Maneuver	344	270	855
Stage 1	593	597	-
Stage 2	719	535	-
Platoon blocked, %			
Mov Cap-1 Maneuver	300	249	841
Mov Cap-2 Maneuver	300	249	-
Stage 1	582	560	-
Stage 2	658	525	-

Approach	SB
HCM Control Delay, s	16.2
HCM LOS	C

Minor Lane/Major Mvmt

HCM 2010 Signalized Intersection Summary
2: 12th Ave & Lacey Blvd

Existing Plus Project-AM
Scenario 1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	64	345	65	143	172	25	69	213	101	127	377	47
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	177.6	186.3	186.3	182.7	186.3	186.3	175.9	186.3	186.3	186.3	186.3	186.3
Adj Flow Rate, veh/h	85	460	87	155	187	27	77	237	112	143	424	53
Adj No. of Lanes	1	2	1	1	3	1	1	2	1	1	2	1
Peak Hour Factor	0.75	0.75	0.75	0.92	0.92	0.92	0.90	0.90	0.90	0.89	0.89	0.89
Percent Heavy Veh, %	7	2	2	4	2	2	8	2	2	2	2	2
Cap, veh/h	107	866	383	200	1506	464	96	743	328	186	911	403
Arrive On Green	0.06	0.24	0.24	0.11	0.30	0.30	0.06	0.21	0.21	0.10	0.26	0.26
Sat Flow, veh/h	1691	3539	1564	1740	5085	1567	1675	3539	1561	1774	3539	1565
Grp Volume(v), veh/h	85	460	87	155	187	27	77	237	112	143	424	53
Grp Sat Flow(s),veh/h/ln	1691	1770	1564	1740	1695	1567	1675	1770	1561	1774	1770	1565
Q Serve(g_s), s	2.7	6.2	2.4	4.7	1.5	0.7	2.5	3.1	3.3	4.3	5.5	1.4
Cycle Q Clear(g_c), s	2.7	6.2	2.4	4.7	1.5	0.7	2.5	3.1	3.3	4.3	5.5	1.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	107	866	383	200	1506	464	96	743	328	186	911	403
V/C Ratio(X)	0.79	0.53	0.23	0.78	0.12	0.06	0.80	0.32	0.34	0.77	0.47	0.13
Avail Cap(c_a), veh/h	309	1431	632	446	2429	749	307	1496	660	422	1690	747
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	25.2	17.9	16.5	23.5	14.1	13.8	25.5	18.3	18.4	23.8	17.1	15.6
Incr Delay (d2), s/veh	12.3	0.5	0.3	6.3	0.0	0.1	14.2	0.2	0.6	6.6	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	1.6	3.1	1.1	2.6	0.7	0.3	1.5	1.5	1.5	2.4	2.7	0.6
LnGrp Delay(d),s/veh	37.6	18.4	16.8	29.8	14.1	13.8	39.6	18.5	19.0	30.4	17.5	15.7
LnGrp LOS	D	B	B	C	B	B	D	B	B	C	B	B
Approach Vol, veh/h		632			369			426			620	
Approach Delay, s/veh		20.8			20.7			22.5			20.3	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	16.4	10.3	18.3	7.1	19.0	7.5	21.1
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	13.0	23.1	14.0	22.1	10.0	26.1	10.0	26.1
Max Q Clear Time (g_c+I1), s	6.3	5.3	6.7	8.2	4.5	7.5	4.7	3.5
Green Ext Time (p_c), s	0.2	4.4	0.2	3.8	0.1	4.4	0.1	4.5

Intersection Summary	
HCM 2010 Ctrl Delay	21.0
HCM 2010 LOS	C

Queues
2: 12th Ave & Lacey Blvd

Existing Plus Project-AM
Scenario 1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	85	460	87	155	187	27	77	237	112	143	424	53
v/c Ratio	0.35	0.52	0.18	0.48	0.13	0.05	0.33	0.31	0.26	0.46	0.50	0.11
Control Delay	36.0	26.2	3.6	34.7	20.5	0.2	35.6	26.2	6.9	35.1	25.7	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.0	26.2	3.6	34.7	20.5	0.2	35.6	26.2	6.9	35.1	25.7	0.5
Queue Length 50th (ft)	32	87	0	58	21	0	29	45	0	54	82	0
Queue Length 95th (ft)	76	133	8	145	45	0	85	88	36	134	143	0
Internal Link Dist (ft)		520			767			335			487	
Turn Bay Length (ft)	215		60	275		185	200		240	250		140
Base Capacity (vph)	314	1460	708	453	2477	814	311	1526	734	429	1724	814
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.32	0.12	0.34	0.08	0.03	0.25	0.16	0.15	0.33	0.25	0.07

Intersection Summary

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	25	0	388	543	66
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	27	0	422	590	72

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	837	331	662	0	-	0
Stage 1	626	-	-	-	-	-
Stage 2	211	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	305	665	922	-	-	-
Stage 1	495	-	-	-	-	-
Stage 2	804	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	305	665	922	-	-	-
Mov Cap-2 Maneuver	305	-	-	-	-	-
Stage 1	495	-	-	-	-	-
Stage 2	804	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	922	-	665	-	-
HCM Lane V/C Ratio	-	-	0.041	-	-
HCM Control Delay (s)	0	-	10.6	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	12.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	24	464	37	108	605	53	44	0	128
Conflicting Peds, #/hr	10	0	10	10	0	10	10	0	10
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	160	-	-	150	-	260	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	504	40	117	658	58	48	0	139

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	668	0	0	555	0	0	1161	1489	292
Stage 1	-	-	-	-	-	-	587	587	-
Stage 2	-	-	-	-	-	-	574	902	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32
Pot Cap-1 Maneuver	918	-	-	1011	-	-	150	123	704
Stage 1	-	-	-	-	-	-	463	495	-
Stage 2	-	-	-	-	-	-	471	355	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	910	-	-	1003	-	-	125	104	692
Mov Cap-2 Maneuver	-	-	-	-	-	-	125	104	-
Stage 1	-	-	-	-	-	-	446	477	-
Stage 2	-	-	-	-	-	-	392	311	-

Approach	EB	WB	NB
HCM Control Delay, s	0.4	1.3	30.9
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	320	910	-	-	1003	-	-	96	636
HCM Lane V/C Ratio	0.584	0.029	-	-	0.117	-	-	0.951	0.05
HCM Control Delay (s)	30.9	9.1	-	-	9.1	-	-	158.7	11
HCM Lane LOS	D	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	3.5	0.1	-	-	0.4	-	-	5.6	0.2

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	84	0	29
Conflicting Peds, #/hr	10	0	10
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	None
Storage Length	0	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	91	0	32

Major/Minor	Minor2		
Conflicting Flow All	1216	1509	349
Stage 1	902	902	-
Stage 2	314	607	-
Critical Hdwy	7.54	6.54	6.94
Critical Hdwy Stg 1	6.54	5.54	-
Critical Hdwy Stg 2	6.54	5.54	-
Follow-up Hdwy	3.52	4.02	3.32
Pot Cap-1 Maneuver	137	119	647
Stage 1	299	355	-
Stage 2	671	485	-
Platoon blocked, %			
Mov Cap-1 Maneuver	96	100	636
Mov Cap-2 Maneuver	96	100	-
Stage 1	288	311	-
Stage 2	516	467	-

Approach	SB
HCM Control Delay, s	120.8
HCM LOS	F

Minor Lane/Major Mvmt

HCM 2010 Signalized Intersection Summary
2: 12th Ave & Lacey Blvd

Existing Plus Project-PM
Scenario 1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	180	306	133	338	479	67	182	457	132	108	465	76
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Adj Flow Rate, veh/h	198	336	146	384	544	76	207	519	150	114	489	80
Adj No. of Lanes	1	2	1	1	3	1	1	2	1	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.88	0.88	0.88	0.88	0.88	0.88	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	241	678	298	405	1444	445	225	965	427	144	804	355
Arrive On Green	0.14	0.19	0.19	0.23	0.28	0.28	0.13	0.27	0.27	0.08	0.23	0.23
Sat Flow, veh/h	1774	3539	1559	1774	5085	1567	1774	3539	1566	1774	3539	1562
Grp Volume(v), veh/h	198	336	146	384	544	76	207	519	150	114	489	80
Grp Sat Flow(s),veh/h/ln	1774	1770	1559	1774	1695	1567	1774	1770	1566	1774	1770	1562
Q Serve(g_s), s	8.5	6.7	6.6	16.8	6.8	2.9	9.1	9.8	6.1	5.0	9.8	3.3
Cycle Q Clear(g_c), s	8.5	6.7	6.6	16.8	6.8	2.9	9.1	9.8	6.1	5.0	9.8	3.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	241	678	298	405	1444	445	225	965	427	144	804	355
V/C Ratio(X)	0.82	0.50	0.49	0.95	0.38	0.17	0.92	0.54	0.35	0.79	0.61	0.23
Avail Cap(c_a), veh/h	405	989	435	405	1444	445	225	1087	481	180	998	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	33.1	28.4	28.4	29.9	22.6	21.2	34.0	24.4	23.0	35.5	27.3	24.8
Incr Delay (d2), s/veh	6.8	0.6	1.2	31.4	0.2	0.2	38.5	0.5	0.5	16.8	0.7	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	4.6	3.3	2.9	11.8	3.2	1.3	6.8	4.8	2.7	3.1	4.8	1.5
LnGrp Delay(d),s/veh	39.9	29.0	29.6	61.3	22.8	21.4	72.5	24.9	23.5	52.3	28.0	25.1
LnGrp LOS	D	C	C	E	C	C	E	C	C	D	C	C
Approach Vol, veh/h		680			1004			876			683	
Approach Delay, s/veh		32.3			37.4			35.9			31.8	
Approach LOS		C			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	26.4	22.0	20.0	14.0	22.8	14.7	27.3
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	8.0	24.2	18.0	22.0	10.0	22.2	18.0	22.0
Max Q Clear Time (g_c+I1), s	7.0	11.8	18.8	8.7	11.1	11.8	10.5	8.8
Green Ext Time (p_c), s	0.0	5.7	0.0	4.8	0.0	5.1	0.3	5.2

Intersection Summary	
HCM 2010 Ctrl Delay	34.7
HCM 2010 LOS	C

Queues
2: 12th Ave & Lacey Blvd

Existing Plus Project-PM
Scenario 1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	198	336	146	384	544	76	207	519	150	114	489	80
v/c Ratio	0.64	0.53	0.37	0.91	0.44	0.16	0.88	0.61	0.31	0.62	0.65	0.19
Control Delay	40.0	31.8	8.1	57.7	26.8	2.7	71.8	29.4	6.5	52.0	32.2	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.0	31.8	8.1	57.7	26.8	2.7	71.8	29.4	6.5	52.0	32.2	3.2
Queue Length 50th (ft)	85	76	0	172	79	0	95	111	0	51	108	0
Queue Length 95th (ft)	172	124	46	#406	126	12	#258	178	42	#149	178	16
Internal Link Dist (ft)		520			767			375			487	
Turn Bay Length (ft)	215		60	275		185	200		240	250		140
Base Capacity (vph)	424	1037	556	424	1491	537	235	1141	600	188	1047	541
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.32	0.26	0.91	0.36	0.14	0.88	0.45	0.25	0.61	0.47	0.15

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	71	0	777	840	135
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	77	0	845	913	147

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1408	530	1060	0	-	0
Stage 1	986	-	-	-	-	-
Stage 2	422	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	130	493	653	-	-	-
Stage 1	322	-	-	-	-	-
Stage 2	629	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	130	493	653	-	-	-
Mov Cap-2 Maneuver	130	-	-	-	-	-
Stage 1	322	-	-	-	-	-
Stage 2	629	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.7	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	653	-	493	-	-
HCM Lane V/C Ratio	-	-	0.157	-	-
HCM Control Delay (s)	0	-	13.7	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.6	-	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	11	422	18	52	259	25	15	0	46
Conflicting Peds, #/hr	10	0	10	10	0	10	10	0	10
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	160	-	-	150	-	260	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	459	20	57	282	27	16	0	50

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	292	0	0	488	0	0	766	907	259
Stage 1	-	-	-	-	-	-	502	502	-
Stage 2	-	-	-	-	-	-	264	405	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32
Pot Cap-1 Maneuver	1267	-	-	1071	-	-	292	274	740
Stage 1	-	-	-	-	-	-	520	540	-
Stage 2	-	-	-	-	-	-	718	597	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1256	-	-	1062	-	-	270	253	728
Mov Cap-2 Maneuver	-	-	-	-	-	-	270	253	-
Stage 1	-	-	-	-	-	-	511	530	-
Stage 2	-	-	-	-	-	-	666	560	-

Approach	EB	WB	NB
HCM Control Delay, s	0.2	1.3	13
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	514	1256	-	-	1062	-	-	300	841
HCM Lane V/C Ratio	0.129	0.01	-	-	0.053	-	-	0.101	0.012
HCM Control Delay (s)	13	7.9	-	-	8.6	-	-	18.4	9.3
HCM Lane LOS	B	A	-	-	A	-	-	C	A
HCM 95th %tile Q(veh)	0.4	0	-	-	0.2	-	-	0.3	0

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	28	0	9
Conflicting Peds, #/hr	10	0	10
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	None
Storage Length	0	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	30	0	10

Major/Minor	Minor2		
Conflicting Flow All	668	917	161
Stage 1	405	405	-
Stage 2	263	512	-
Critical Hdwy	7.54	6.54	6.94
Critical Hdwy Stg 1	6.54	5.54	-
Critical Hdwy Stg 2	6.54	5.54	-
Follow-up Hdwy	3.52	4.02	3.32
Pot Cap-1 Maneuver	344	270	855
Stage 1	593	597	-
Stage 2	719	535	-
Platoon blocked, %			
Mov Cap-1 Maneuver	300	249	841
Mov Cap-2 Maneuver	300	249	-
Stage 1	582	560	-
Stage 2	658	525	-

Approach	SB
HCM Control Delay, s	16.2
HCM LOS	C

Minor Lane/Major Mvmt

HCM 2010 Signalized Intersection Summary
2: 12th Ave & Lacey Blvd

Existing Plus Project-AM
Scenario 2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	64	345	65	143	172	25	54	213	101	127	377	47
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	177.6	186.3	186.3	182.7	186.3	186.3	175.9	186.3	186.3	186.3	186.3	186.3
Adj Flow Rate, veh/h	85	460	87	155	187	27	60	237	112	143	424	53
Adj No. of Lanes	1	2	1	1	3	1	1	2	1	1	2	1
Peak Hour Factor	0.75	0.75	0.75	0.92	0.92	0.92	0.90	0.90	0.90	0.89	0.89	0.89
Percent Heavy Veh, %	7	2	2	4	2	2	8	2	2	2	2	2
Cap, veh/h	107	866	383	200	1506	464	73	743	328	186	959	424
Arrive On Green	0.06	0.24	0.24	0.11	0.30	0.30	0.04	0.21	0.21	0.10	0.27	0.27
Sat Flow, veh/h	1691	3539	1564	1740	5085	1567	1675	3539	1561	1774	3539	1566
Grp Volume(v), veh/h	85	460	87	155	187	27	60	237	112	143	424	53
Grp Sat Flow(s),veh/h/ln	1691	1770	1564	1740	1695	1567	1675	1770	1561	1774	1770	1566
Q Serve(g_s), s	2.7	6.2	2.4	4.7	1.5	0.7	1.9	3.1	3.3	4.3	5.4	1.4
Cycle Q Clear(g_c), s	2.7	6.2	2.4	4.7	1.5	0.7	1.9	3.1	3.3	4.3	5.4	1.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	107	866	383	200	1506	464	73	743	328	186	959	424
V/C Ratio(X)	0.79	0.53	0.23	0.78	0.12	0.06	0.82	0.32	0.34	0.77	0.44	0.12
Avail Cap(c_a), veh/h	309	1431	632	446	2429	749	276	1496	660	422	1755	776
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	25.2	17.9	16.5	23.5	14.1	13.8	25.9	18.3	18.4	23.8	16.5	15.0
Incr Delay (d2), s/veh	12.3	0.5	0.3	6.3	0.0	0.1	19.3	0.2	0.6	6.6	0.3	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	1.6	3.1	1.1	2.6	0.7	0.3	1.3	1.5	1.5	2.4	2.7	0.6
LnGrp Delay(d),s/veh	37.6	18.4	16.8	29.8	14.1	13.8	45.2	18.5	19.0	30.4	16.8	15.2
LnGrp LOS	D	B	B	C	B	B	D	B	B	C	B	B
Approach Vol, veh/h		632			369			409			620	
Approach Delay, s/veh		20.8			20.7			22.6			19.8	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	16.4	10.3	18.3	6.4	19.7	7.5	21.1
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	13.0	23.1	14.0	22.1	9.0	27.1	10.0	26.1
Max Q Clear Time (g_c+I1), s	6.3	5.3	6.7	8.2	3.9	7.4	4.7	3.5
Green Ext Time (p_c), s	0.2	4.4	0.2	3.8	0.0	4.5	0.1	4.5

Intersection Summary	
HCM 2010 Ctrl Delay	20.8
HCM 2010 LOS	C

Queues
2: 12th Ave & Lacey Blvd

Existing Plus Project-AM
Scenario 2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	85	460	87	155	187	27	60	237	112	143	424	53
v/c Ratio	0.35	0.52	0.18	0.48	0.13	0.05	0.27	0.32	0.27	0.46	0.43	0.10
Control Delay	35.5	25.8	3.5	34.2	20.2	0.2	35.2	26.5	7.1	34.6	23.1	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.5	25.8	3.5	34.2	20.2	0.2	35.2	26.5	7.1	34.6	23.1	0.4
Queue Length 50th (ft)	32	86	0	57	20	0	22	45	0	53	81	0
Queue Length 95th (ft)	76	133	8	145	45	0	71	88	36	134	141	0
Internal Link Dist (ft)		520			767			335			487	
Turn Bay Length (ft)	215		60	275		185	200		240	250		140
Base Capacity (vph)	318	1475	714	458	2503	821	283	1541	740	433	1808	848
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.31	0.12	0.34	0.07	0.03	0.21	0.15	0.15	0.33	0.23	0.06

Intersection Summary

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	25	35	357	543	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	27	38	388	590	55

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	888	323	646	0	-	0
Stage 1	618	-	-	-	-	-
Stage 2	270	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	283	673	935	-	-	-
Stage 1	500	-	-	-	-	-
Stage 2	751	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	271	673	935	-	-	-
Mov Cap-2 Maneuver	271	-	-	-	-	-
Stage 1	500	-	-	-	-	-
Stage 2	720	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.6	0.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	935	-	673	-	-
HCM Lane V/C Ratio	0.041	-	0.04	-	-
HCM Control Delay (s)	9	-	10.6	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	12.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	24	464	37	108	605	53	44	0	128
Conflicting Peds, #/hr	10	0	10	10	0	10	10	0	10
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	160	-	-	150	-	260	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	504	40	117	658	58	48	0	139

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	668	0	0	555	0	0	1161	1489	292
Stage 1	-	-	-	-	-	-	587	587	-
Stage 2	-	-	-	-	-	-	574	902	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32
Pot Cap-1 Maneuver	918	-	-	1011	-	-	150	123	704
Stage 1	-	-	-	-	-	-	463	495	-
Stage 2	-	-	-	-	-	-	471	355	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	910	-	-	1003	-	-	125	104	692
Mov Cap-2 Maneuver	-	-	-	-	-	-	125	104	-
Stage 1	-	-	-	-	-	-	446	477	-
Stage 2	-	-	-	-	-	-	392	311	-

Approach	EB	WB	NB
HCM Control Delay, s	0.4	1.3	30.9
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	320	910	-	-	1003	-	-	96	636
HCM Lane V/C Ratio	0.584	0.029	-	-	0.117	-	-	0.951	0.05
HCM Control Delay (s)	30.9	9.1	-	-	9.1	-	-	158.7	11
HCM Lane LOS	D	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	3.5	0.1	-	-	0.4	-	-	5.6	0.2

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	84	0	29
Conflicting Peds, #/hr	10	0	10
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	None
Storage Length	0	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	91	0	32

Major/Minor	Minor2		
Conflicting Flow All	1216	1509	349
Stage 1	902	902	-
Stage 2	314	607	-
Critical Hdwy	7.54	6.54	6.94
Critical Hdwy Stg 1	6.54	5.54	-
Critical Hdwy Stg 2	6.54	5.54	-
Follow-up Hdwy	3.52	4.02	3.32
Pot Cap-1 Maneuver	137	119	647
Stage 1	299	355	-
Stage 2	671	485	-
Platoon blocked, %			
Mov Cap-1 Maneuver	96	100	636
Mov Cap-2 Maneuver	96	100	-
Stage 1	288	311	-
Stage 2	516	467	-

Approach	SB
HCM Control Delay, s	120.8
HCM LOS	F

Minor Lane/Major Mvmt

HCM 2010 Signalized Intersection Summary
2: 12th Ave & Lacey Blvd

Existing Plus Project-PM
Scenario 2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	180	306	133	338	479	67	153	457	132	108	465	76
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Adj Flow Rate, veh/h	198	336	146	384	544	76	174	519	150	114	489	80
Adj No. of Lanes	1	2	1	1	3	1	1	2	1	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.88	0.88	0.88	0.88	0.88	0.88	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	241	688	303	420	1502	463	203	922	408	145	805	355
Arrive On Green	0.14	0.19	0.19	0.24	0.30	0.30	0.11	0.26	0.26	0.08	0.23	0.23
Sat Flow, veh/h	1774	3539	1559	1774	5085	1567	1774	3539	1565	1774	3539	1562
Grp Volume(v), veh/h	198	336	146	384	544	76	174	519	150	114	489	80
Grp Sat Flow(s),veh/h/ln	1774	1770	1559	1774	1695	1567	1774	1770	1565	1774	1770	1562
Q Serve(g_s), s	8.5	6.6	6.5	16.6	6.6	2.8	7.6	10.0	6.2	5.0	9.7	3.3
Cycle Q Clear(g_c), s	8.5	6.6	6.5	16.6	6.6	2.8	7.6	10.0	6.2	5.0	9.7	3.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	241	688	303	420	1502	463	203	922	408	145	805	355
V/C Ratio(X)	0.82	0.49	0.48	0.91	0.36	0.16	0.86	0.56	0.37	0.79	0.61	0.23
Avail Cap(c_a), veh/h	407	991	437	429	1502	463	203	1045	462	181	1000	442
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	33.0	28.2	28.1	29.2	21.8	20.5	34.1	25.2	23.8	35.4	27.2	24.7
Incr Delay (d2), s/veh	6.8	0.5	1.2	23.5	0.1	0.2	28.3	0.5	0.6	16.7	0.7	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	4.6	3.3	2.9	10.9	3.1	1.2	5.3	4.9	2.7	3.1	4.8	1.4
LnGrp Delay(d),s/veh	39.8	28.7	29.3	52.7	22.0	20.7	62.5	25.7	24.3	52.1	27.9	25.0
LnGrp LOS	D	C	C	D	C	C	E	C	C	D	C	C
Approach Vol, veh/h		680			1004			843			683	
Approach Delay, s/veh		32.1			33.6			33.0			31.6	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	25.4	22.6	20.2	13.0	22.8	14.7	28.1
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	8.0	23.2	19.0	22.0	9.0	22.2	18.0	23.0
Max Q Clear Time (g_c+I1), s	7.0	12.0	18.6	8.6	9.6	11.7	10.5	8.6
Green Ext Time (p_c), s	0.0	5.3	0.1	5.0	0.0	5.1	0.3	5.5

Intersection Summary	
HCM 2010 Ctrl Delay	32.7
HCM 2010 LOS	C

Queues
2: 12th Ave & Lacey Blvd

Existing Plus Project-PM
Scenario 2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	198	336	146	384	544	76	174	519	150	114	489	80
v/c Ratio	0.64	0.54	0.37	0.86	0.42	0.16	0.82	0.64	0.32	0.62	0.65	0.19
Control Delay	40.1	31.9	8.1	50.2	25.9	2.5	66.7	30.8	6.8	52.1	32.0	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.1	31.9	8.1	50.2	25.9	2.5	66.7	30.8	6.8	52.1	32.0	3.2
Queue Length 50th (ft)	85	76	0	168	78	0	80	113	0	51	108	0
Queue Length 95th (ft)	172	124	46	#395	124	12	#222	182	42	#149	178	16
Internal Link Dist (ft)		520			767			375			487	
Turn Bay Length (ft)	215		60	275		185	200		240	250		140
Base Capacity (vph)	423	1035	555	447	1555	555	212	1092	580	188	1044	540
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.32	0.26	0.86	0.35	0.14	0.82	0.48	0.26	0.61	0.47	0.15

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	71	70	714	840	106
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	77	76	776	913	115

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1511	514	1028	0	-	0
Stage 1	971	-	-	-	-	-
Stage 2	540	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	111	505	671	-	-	-
Stage 1	328	-	-	-	-	-
Stage 2	548	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	98	505	671	-	-	-
Mov Cap-2 Maneuver	98	-	-	-	-	-
Stage 1	328	-	-	-	-	-
Stage 2	486	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.4	1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	671	-	505	-	-
HCM Lane V/C Ratio	0.113	-	0.153	-	-
HCM Control Delay (s)	11.1	-	13.4	-	-
HCM Lane LOS	B	-	B	-	-
HCM 95th %tile Q(veh)	0.4	-	0.5	-	-

HCM 2010 TWSC
1: Site Access & Lacey Blvd

Near-Term With Project-AM
Scenario 1

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	11	578	19	54	322	25	16	0	48
Conflicting Peds, #/hr	10	0	10	10	0	10	10	0	10
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	160	-	-	150	-	260	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	628	21	59	350	27	17	0	52

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	360	0	0	659	0	0	975	1150	344
Stage 1	-	-	-	-	-	-	673	673	-
Stage 2	-	-	-	-	-	-	302	477	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32
Pot Cap-1 Maneuver	1195	-	-	925	-	-	206	197	652
Stage 1	-	-	-	-	-	-	411	452	-
Stage 2	-	-	-	-	-	-	682	554	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1185	-	-	917	-	-	189	179	641
Mov Cap-2 Maneuver	-	-	-	-	-	-	189	179	-
Stage 1	-	-	-	-	-	-	403	444	-
Stage 2	-	-	-	-	-	-	625	514	-

Approach	EB	WB	NB
HCM Control Delay, s	0.1	1.2	15.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	401	1185	-	-	917	-	-	226	800
HCM Lane V/C Ratio	0.173	0.01	-	-	0.064	-	-	0.135	0.012
HCM Control Delay (s)	15.9	8.1	-	-	9.2	-	-	23.4	9.6
HCM Lane LOS	C	A	-	-	A	-	-	C	A
HCM 95th %tile Q(veh)	0.6	0	-	-	0.2	-	-	0.5	0

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	28	0	9
Conflicting Peds, #/hr	10	0	10
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	None
Storage Length	0	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	30	0	10

Major/Minor	Minor2		
Conflicting Flow All	825	1160	195
Stage 1	477	477	-
Stage 2	348	683	-
Critical Hdwy	7.54	6.54	6.94
Critical Hdwy Stg 1	6.54	5.54	-
Critical Hdwy Stg 2	6.54	5.54	-
Follow-up Hdwy	3.52	4.02	3.32
Pot Cap-1 Maneuver	265	194	814
Stage 1	538	554	-
Stage 2	641	447	-
Platoon blocked, %			
Mov Cap-1 Maneuver	226	177	800
Mov Cap-2 Maneuver	226	177	-
Stage 1	528	514	-
Stage 2	578	439	-

Approach	SB
HCM Control Delay, s	20
HCM LOS	C

Minor Lane/Major Mvmt

HCM 2010 Signalized Intersection Summary
2: 12th Ave & Lacey Blvd

Near-Term With Project-AM
Scenario 1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	175	374	84	144	192	49	73	338	103	142	422	89
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	177.6	186.3	186.3	182.7	186.3	186.3	175.9	186.3	186.3	186.3	186.3	186.3
Adj Flow Rate, veh/h	233	499	112	157	209	53	81	376	114	160	474	100
Adj No. of Lanes	1	2	1	1	3	1	1	2	1	1	2	1
Peak Hour Factor	0.75	0.75	0.75	0.92	0.92	0.92	0.90	0.90	0.90	0.89	0.89	0.89
Percent Heavy Veh, %	7	2	2	4	2	2	8	2	2	2	2	2
Cap, veh/h	283	869	384	201	984	302	102	832	368	203	1022	452
Arrive On Green	0.17	0.25	0.25	0.12	0.19	0.19	0.06	0.24	0.24	0.11	0.29	0.29
Sat Flow, veh/h	1691	3539	1564	1740	5085	1559	1675	3539	1563	1774	3539	1567
Grp Volume(v), veh/h	233	499	112	157	209	53	81	376	114	160	474	100
Grp Sat Flow(s),veh/h/ln	1691	1770	1564	1740	1695	1559	1675	1770	1563	1774	1770	1567
Q Serve(g_s), s	8.2	7.6	3.6	5.4	2.1	1.7	2.9	5.6	3.7	5.4	6.8	3.0
Cycle Q Clear(g_c), s	8.2	7.6	3.6	5.4	2.1	1.7	2.9	5.6	3.7	5.4	6.8	3.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	283	869	384	201	984	302	102	832	368	203	1022	452
V/C Ratio(X)	0.82	0.57	0.29	0.78	0.21	0.18	0.79	0.45	0.31	0.79	0.46	0.22
Avail Cap(c_a), veh/h	440	1323	585	424	1819	558	272	1335	590	317	1393	616
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	24.7	20.4	18.8	26.5	20.9	20.7	28.5	20.1	19.4	26.5	18.0	16.6
Incr Delay (d2), s/veh	7.1	0.6	0.4	6.5	0.1	0.3	12.9	0.4	0.5	6.9	0.3	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	4.4	3.7	1.6	2.9	1.0	0.8	1.7	2.8	1.6	3.0	3.3	1.3
LnGrp Delay(d),s/veh	31.8	21.0	19.3	33.0	21.0	21.0	41.4	20.5	19.9	33.4	18.3	16.9
LnGrp LOS	C	C	B	C	C	C	D	C	B	C	B	B
Approach Vol, veh/h		844			419			571			734	
Approach Delay, s/veh		23.7			25.5			23.4			21.4	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	19.4	11.1	20.0	7.7	22.7	14.3	16.8
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	11.0	23.2	15.0	23.0	10.0	24.2	16.0	22.0
Max Q Clear Time (g_c+I1), s	7.4	7.6	7.4	9.6	4.9	8.8	10.2	4.1
Green Ext Time (p_c), s	0.1	5.4	0.2	4.2	0.1	5.4	0.3	4.7

Intersection Summary	
HCM 2010 Ctrl Delay	23.3
HCM 2010 LOS	C

Queues
2: 12th Ave & Lacey Blvd

Near-Term With Project-AM
Scenario 1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	233	499	112	157	209	53	81	376	114	160	474	100
v/c Ratio	0.69	0.62	0.25	0.56	0.22	0.14	0.41	0.53	0.28	0.62	0.50	0.20
Control Delay	41.5	29.1	6.4	38.2	25.5	0.7	39.5	29.1	7.2	44.0	26.7	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.5	29.1	6.4	38.2	25.5	0.7	39.5	29.1	7.2	44.0	26.7	5.0
Queue Length 50th (ft)	92	103	0	63	29	0	33	78	0	66	97	0
Queue Length 95th (ft)	166	142	20	143	53	0	88	135	37	#177	165	27
Internal Link Dist (ft)		520			767			335			487	
Turn Bay Length (ft)	215		60	275		185	200		240	250		140
Base Capacity (vph)	396	1195	601	382	1643	580	245	1205	605	286	1257	626
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.42	0.19	0.41	0.13	0.09	0.33	0.31	0.19	0.56	0.38	0.16

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	26	0	519	606	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	28	0	564	659	76

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	979	367	735	0	-	0
Stage 1	697	-	-	-	-	-
Stage 2	282	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	247	630	866	-	-	-
Stage 1	455	-	-	-	-	-
Stage 2	741	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	247	630	866	-	-	-
Mov Cap-2 Maneuver	247	-	-	-	-	-
Stage 1	455	-	-	-	-	-
Stage 2	741	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	866	-	630	-	-
HCM Lane V/C Ratio	-	-	0.045	-	-
HCM Control Delay (s)	0	-	11	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	22.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	24	510	40	115	731	53	48	0	140
Conflicting Peds, #/hr	10	0	10	10	0	10	10	0	10
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	160	-	-	150	-	260	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	554	43	125	795	58	52	0	152

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	805	0	0	608	0	0	1295	1693	319
Stage 1	-	-	-	-	-	-	638	638	-
Stage 2	-	-	-	-	-	-	657	1055	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32
Pot Cap-1 Maneuver	815	-	-	966	-	-	120	92	677
Stage 1	-	-	-	-	-	-	431	469	-
Stage 2	-	-	-	-	-	-	420	301	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	808	-	-	958	-	-	98	76	666
Mov Cap-2 Maneuver	-	-	-	-	-	-	98	76	-
Stage 1	-	-	-	-	-	-	414	450	-
Stage 2	-	-	-	-	-	-	342	260	-

Approach	EB	WB	NB
HCM Control Delay, s	0.4	1.2	50.9
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	269	808	-	-	958	-	-	67	575
HCM Lane V/C Ratio	0.76	0.032	-	-	0.13	-	-	1.363	0.055
HCM Control Delay (s)	50.9	9.6	-	-	9.3	-	-	$ 339.4	11.6
HCM Lane LOS	F	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	5.6	0.1	-	-	0.4	-	-	7.6	0.2

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	84	0	29
Conflicting Peds, #/hr	10	0	10
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	None
Storage Length	0	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	91	0	32

Major/Minor	Minor2		
Conflicting Flow All	1394	1715	417
Stage 1	1055	1055	-
Stage 2	339	660	-
Critical Hdwy	7.54	6.54	6.94
Critical Hdwy Stg 1	6.54	5.54	-
Critical Hdwy Stg 2	6.54	5.54	-
Follow-up Hdwy	3.52	4.02	3.32
Pot Cap-1 Maneuver	101	89	585
Stage 1	241	301	-
Stage 2	649	458	-
Platoon blocked, %			
Mov Cap-1 Maneuver	~ 67	74	575
Mov Cap-2 Maneuver	~ 67	74	-
Stage 1	231	260	-
Stage 2	481	440	-

Approach	SB
HCM Control Delay, s	255.3
HCM LOS	F

Minor Lane/Major Mvmt

HCM 2010 Signalized Intersection Summary
2: 12th Ave & Lacey Blvd

Near-Term With Project-PM
Scenario 1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	209	327	144	342	512	79	203	492	133	118	541	159
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Adj Flow Rate, veh/h	230	359	158	389	582	90	231	559	151	124	569	167
Adj No. of Lanes	1	2	1	1	3	1	1	2	1	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.88	0.88	0.88	0.88	0.88	0.88	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	270	713	314	373	1320	406	220	990	438	156	863	381
Arrive On Green	0.15	0.20	0.20	0.21	0.26	0.26	0.12	0.28	0.28	0.09	0.24	0.24
Sat Flow, veh/h	1774	3539	1560	1774	5085	1565	1774	3539	1566	1774	3539	1564
Grp Volume(v), veh/h	230	359	158	389	582	90	231	559	151	124	569	167
Grp Sat Flow(s),veh/h/ln	1774	1770	1560	1774	1695	1565	1774	1770	1566	1774	1770	1564
Q Serve(g_s), s	10.2	7.3	7.3	17.0	7.7	3.6	10.0	10.9	6.2	5.5	11.7	7.3
Cycle Q Clear(g_c), s	10.2	7.3	7.3	17.0	7.7	3.6	10.0	10.9	6.2	5.5	11.7	7.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	270	713	314	373	1320	406	220	990	438	156	863	381
V/C Ratio(X)	0.85	0.50	0.50	1.04	0.44	0.22	1.05	0.56	0.34	0.79	0.66	0.44
Avail Cap(c_a), veh/h	329	964	425	373	1511	465	220	1060	469	198	1017	449
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	33.3	28.7	28.7	31.9	25.0	23.5	35.4	24.9	23.2	36.1	27.5	25.8
Incr Delay (d2), s/veh	16.2	0.6	1.2	57.9	0.2	0.3	75.0	0.6	0.5	15.8	1.2	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	6.2	3.6	3.2	14.2	3.6	1.6	9.4	5.4	2.7	3.4	5.8	3.2
LnGrp Delay(d),s/veh	49.5	29.2	29.9	89.8	25.2	23.8	110.4	25.5	23.6	52.0	28.7	26.6
LnGrp LOS	D	C	C	F	C	C	F	C	C	D	C	C
Approach Vol, veh/h		747			1061			941			860	
Approach Delay, s/veh		35.6			48.8			46.0			31.7	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.1	27.5	21.0	21.2	14.0	24.6	16.3	25.9
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	9.0	24.2	17.0	22.0	10.0	23.2	15.0	24.0
Max Q Clear Time (g_c+I1), s	7.5	12.9	19.0	9.3	12.0	13.7	12.2	9.7
Green Ext Time (p_c), s	0.0	6.1	0.0	5.5	0.0	5.4	0.2	5.9

Intersection Summary	
HCM 2010 Ctrl Delay	41.3
HCM 2010 LOS	D

Queues
2: 12th Ave & Lacey Blvd

Near-Term With Project-PM
Scenario 1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	230	359	158	389	582	90	231	559	151	124	569	167
v/c Ratio	0.74	0.56	0.39	0.99	0.51	0.20	1.00	0.62	0.30	0.63	0.69	0.34
Control Delay	47.6	32.7	9.0	78.5	28.5	3.9	99.3	29.6	6.3	50.9	32.1	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.6	32.7	9.0	78.5	28.5	3.9	99.3	29.6	6.3	50.9	32.1	6.6
Queue Length 50th (ft)	103	84	3	187	93	0	~113	123	0	58	128	0
Queue Length 95th (ft)	#241	132	51	#425	130	20	#291	193	42	#152	206	47
Internal Link Dist (ft)		520			767			375			487	
Turn Bay Length (ft)	215		60	275		185	200		240	250		140
Base Capacity (vph)	346	1015	550	392	1591	566	230	1116	590	207	1070	583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.35	0.29	0.99	0.37	0.16	1.00	0.50	0.26	0.60	0.53	0.29

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 TWSC
3: 12th Ave & Site Access

Near-Term With Project-PM
Scenario 1

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	77	0	834	921	147
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	84	0	907	1001	160

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1534	580	1161	0	-	0
Stage 1	1081	-	-	-	-	-
Stage 2	453	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	107	458	597	-	-	-
Stage 1	287	-	-	-	-	-
Stage 2	607	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	107	458	597	-	-	-
Mov Cap-2 Maneuver	107	-	-	-	-	-
Stage 1	287	-	-	-	-	-
Stage 2	607	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	597	-	458	-	-
HCM Lane V/C Ratio	-	-	0.183	-	-
HCM Control Delay (s)	0	-	14.6	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.7	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	11	578	19	54	322	25	16	0	48
Conflicting Peds, #/hr	10	0	10	10	0	10	10	0	10
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	160	-	-	150	-	260	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	628	21	59	350	27	17	0	52

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	360	0	0	659	0	0	975	1150	344
Stage 1	-	-	-	-	-	-	673	673	-
Stage 2	-	-	-	-	-	-	302	477	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32
Pot Cap-1 Maneuver	1195	-	-	925	-	-	206	197	652
Stage 1	-	-	-	-	-	-	411	452	-
Stage 2	-	-	-	-	-	-	682	554	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1185	-	-	917	-	-	189	179	641
Mov Cap-2 Maneuver	-	-	-	-	-	-	189	179	-
Stage 1	-	-	-	-	-	-	403	444	-
Stage 2	-	-	-	-	-	-	625	514	-

Approach	EB	WB	NB
HCM Control Delay, s	0.1	1.2	15.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	401	1185	-	-	917	-	-	226	800
HCM Lane V/C Ratio	0.173	0.01	-	-	0.064	-	-	0.135	0.012
HCM Control Delay (s)	15.9	8.1	-	-	9.2	-	-	23.4	9.6
HCM Lane LOS	C	A	-	-	A	-	-	C	A
HCM 95th %tile Q(veh)	0.6	0	-	-	0.2	-	-	0.5	0

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	28	0	9
Conflicting Peds, #/hr	10	0	10
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	None
Storage Length	0	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	30	0	10

Major/Minor	Minor2		
Conflicting Flow All	825	1160	195
Stage 1	477	477	-
Stage 2	348	683	-
Critical Hdwy	7.54	6.54	6.94
Critical Hdwy Stg 1	6.54	5.54	-
Critical Hdwy Stg 2	6.54	5.54	-
Follow-up Hdwy	3.52	4.02	3.32
Pot Cap-1 Maneuver	265	194	814
Stage 1	538	554	-
Stage 2	641	447	-
Platoon blocked, %			
Mov Cap-1 Maneuver	226	177	800
Mov Cap-2 Maneuver	226	177	-
Stage 1	528	514	-
Stage 2	578	439	-

Approach	SB
HCM Control Delay, s	20
HCM LOS	C

Minor Lane/Major Mvmt

HCM 2010 Signalized Intersection Summary
2: 12th Ave & Lacey Blvd

Near-Term With Project-AM
Scenario 2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	175	374	84	144	192	49	57	338	103	142	422	89
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	177.6	186.3	186.3	182.7	186.3	186.3	175.9	186.3	186.3	186.3	186.3	186.3
Adj Flow Rate, veh/h	233	499	112	157	209	53	63	376	114	160	474	100
Adj No. of Lanes	1	2	1	1	3	1	1	2	1	1	2	1
Peak Hour Factor	0.75	0.75	0.75	0.92	0.92	0.92	0.90	0.90	0.90	0.89	0.89	0.89
Percent Heavy Veh, %	7	2	2	4	2	2	8	2	2	2	2	2
Cap, veh/h	283	869	384	201	984	302	78	832	368	203	1073	475
Arrive On Green	0.17	0.25	0.25	0.12	0.19	0.19	0.05	0.24	0.24	0.11	0.30	0.30
Sat Flow, veh/h	1691	3539	1564	1740	5085	1559	1675	3539	1563	1774	3539	1568
Grp Volume(v), veh/h	233	499	112	157	209	53	63	376	114	160	474	100
Grp Sat Flow(s),veh/h/ln	1691	1770	1564	1740	1695	1559	1675	1770	1563	1774	1770	1568
Q Serve(g_s), s	8.2	7.6	3.6	5.4	2.1	1.7	2.3	5.6	3.7	5.4	6.6	2.9
Cycle Q Clear(g_c), s	8.2	7.6	3.6	5.4	2.1	1.7	2.3	5.6	3.7	5.4	6.6	2.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	283	869	384	201	984	302	78	832	368	203	1073	475
V/C Ratio(X)	0.82	0.57	0.29	0.78	0.21	0.18	0.81	0.45	0.31	0.79	0.44	0.21
Avail Cap(c_a), veh/h	440	1323	585	424	1819	558	245	1335	590	317	1450	642
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	24.7	20.4	18.8	26.5	20.9	20.7	29.1	20.1	19.4	26.5	17.2	15.9
Incr Delay (d2), s/veh	7.1	0.6	0.4	6.5	0.1	0.3	17.7	0.4	0.5	6.9	0.3	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	4.4	3.7	1.6	2.9	1.0	0.8	1.4	2.8	1.6	3.0	3.3	1.3
LnGrp Delay(d),s/veh	31.8	21.0	19.3	33.0	21.0	21.0	46.8	20.5	19.9	33.4	17.5	16.2
LnGrp LOS	C	C	B	C	C	C	D	C	B	C	B	B
Approach Vol, veh/h		844			419			553			734	
Approach Delay, s/veh		23.7			25.5			23.4			20.8	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	19.4	11.1	20.0	6.9	23.5	14.3	16.8
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	11.0	23.2	15.0	23.0	9.0	25.2	16.0	22.0
Max Q Clear Time (g_c+I1), s	7.4	7.6	7.4	9.6	4.3	8.6	10.2	4.1
Green Ext Time (p_c), s	0.1	5.4	0.2	4.2	0.0	5.6	0.3	4.7

Intersection Summary	
HCM 2010 Ctrl Delay	23.1
HCM 2010 LOS	C

Queues
2: 12th Ave & Lacey Blvd

Near-Term With Project-AM
Scenario 2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	233	499	112	157	209	53	63	376	114	160	474	100
v/c Ratio	0.69	0.62	0.25	0.56	0.22	0.14	0.34	0.54	0.28	0.61	0.44	0.18
Control Delay	40.8	28.8	6.4	37.7	25.3	0.7	38.6	29.4	7.3	43.4	24.1	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.8	28.8	6.4	37.7	25.3	0.7	38.6	29.4	7.3	43.4	24.1	4.7
Queue Length 50th (ft)	90	101	0	62	28	0	25	77	0	64	95	0
Queue Length 95th (ft)	166	142	20	143	53	0	73	135	37	#177	163	26
Internal Link Dist (ft)		520			767			335			487	
Turn Bay Length (ft)	215		60	275		185	200		240	250		140
Base Capacity (vph)	399	1203	604	384	1653	583	222	1213	608	288	1319	651
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.41	0.19	0.41	0.13	0.09	0.28	0.31	0.19	0.56	0.36	0.15

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 TWSC
3: 12th Ave & Site Access

Near-Term With Project-AM
Scenario 2

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	26	37	487	606	54
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	28	40	529	659	59

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1033	359	717	0	-	0
Stage 1	688	-	-	-	-	-
Stage 2	345	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	228	638	880	-	-	-
Stage 1	460	-	-	-	-	-
Stage 2	688	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	218	638	880	-	-	-
Mov Cap-2 Maneuver	218	-	-	-	-	-
Stage 1	460	-	-	-	-	-
Stage 2	657	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.9	0.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	880	-	638	-	-
HCM Lane V/C Ratio	0.046	-	0.044	-	-
HCM Control Delay (s)	9.3	-	10.9	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	22.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	24	510	40	115	731	53	48	0	140
Conflicting Peds, #/hr	10	0	10	10	0	10	10	0	10
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	160	-	-	150	-	260	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	554	43	125	795	58	52	0	152

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	805	0	0	608	0	0	1295	1693	319
Stage 1	-	-	-	-	-	-	638	638	-
Stage 2	-	-	-	-	-	-	657	1055	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32
Pot Cap-1 Maneuver	815	-	-	966	-	-	120	92	677
Stage 1	-	-	-	-	-	-	431	469	-
Stage 2	-	-	-	-	-	-	420	301	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	808	-	-	958	-	-	98	76	666
Mov Cap-2 Maneuver	-	-	-	-	-	-	98	76	-
Stage 1	-	-	-	-	-	-	414	450	-
Stage 2	-	-	-	-	-	-	342	260	-

Approach	EB	WB	NB
HCM Control Delay, s	0.4	1.2	50.9
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	269	808	-	-	958	-	-	67	575
HCM Lane V/C Ratio	0.76	0.032	-	-	0.13	-	-	1.363	0.055
HCM Control Delay (s)	50.9	9.6	-	-	9.3	-	-	$ 339.4	11.6
HCM Lane LOS	F	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	5.6	0.1	-	-	0.4	-	-	7.6	0.2

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	84	0	29
Conflicting Peds, #/hr	10	0	10
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	None
Storage Length	0	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	91	0	32

Major/Minor	Minor2		
Conflicting Flow All	1394	1715	417
Stage 1	1055	1055	-
Stage 2	339	660	-
Critical Hdwy	7.54	6.54	6.94
Critical Hdwy Stg 1	6.54	5.54	-
Critical Hdwy Stg 2	6.54	5.54	-
Follow-up Hdwy	3.52	4.02	3.32
Pot Cap-1 Maneuver	101	89	585
Stage 1	241	301	-
Stage 2	649	458	-
Platoon blocked, %			
Mov Cap-1 Maneuver	~ 67	74	575
Mov Cap-2 Maneuver	~ 67	74	-
Stage 1	231	260	-
Stage 2	481	440	-

Approach	SB
HCM Control Delay, s	255.3
HCM LOS	F

Minor Lane/Major Mvmt

Queues
2: 12th Ave & Lacey Blvd

Near-Term With Project-PM
Scenario 2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	230	359	158	389	582	90	194	559	151	124	569	167
v/c Ratio	0.74	0.56	0.39	0.94	0.48	0.20	0.94	0.66	0.31	0.63	0.69	0.34
Control Delay	47.6	32.7	9.0	64.5	27.4	3.7	87.3	31.2	6.6	50.9	32.1	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.6	32.7	9.0	64.5	27.4	3.7	87.3	31.2	6.6	50.9	32.1	6.6
Queue Length 50th (ft)	103	84	3	184	91	0	94	125	0	58	128	0
Queue Length 95th (ft)	#241	132	51	#414	128	20	#250	196	43	#152	206	47
Internal Link Dist (ft)		520			767			375			487	
Turn Bay Length (ft)	215		60	275		185	200		240	250		140
Base Capacity (vph)	346	1015	550	415	1657	584	207	1070	572	207	1070	583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.35	0.29	0.94	0.35	0.15	0.94	0.52	0.26	0.60	0.53	0.29

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
2: 12th Ave & Lacey Blvd

Near-Term With Project-PM
Scenario 2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	209	327	144	342	512	79	171	492	133	118	541	159
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Adj Flow Rate, veh/h	230	359	158	389	582	90	194	559	151	124	569	167
Adj No. of Lanes	1	2	1	1	3	1	1	2	1	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.88	0.88	0.88	0.88	0.88	0.88	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	270	713	314	395	1383	426	198	946	419	156	863	382
Arrive On Green	0.15	0.20	0.20	0.22	0.27	0.27	0.11	0.27	0.27	0.09	0.24	0.24
Sat Flow, veh/h	1774	3539	1560	1774	5085	1566	1774	3539	1566	1774	3539	1564
Grp Volume(v), veh/h	230	359	158	389	582	90	194	559	151	124	569	167
Grp Sat Flow(s),veh/h/ln	1774	1770	1560	1774	1695	1566	1774	1770	1566	1774	1770	1564
Q Serve(g_s), s	10.2	7.3	7.3	17.6	7.6	3.6	8.8	11.1	6.3	5.5	11.7	7.3
Cycle Q Clear(g_c), s	10.2	7.3	7.3	17.6	7.6	3.6	8.8	11.1	6.3	5.5	11.7	7.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	270	713	314	395	1383	426	198	946	419	156	863	382
V/C Ratio(X)	0.85	0.50	0.50	0.98	0.42	0.21	0.98	0.59	0.36	0.79	0.66	0.44
Avail Cap(c_a), veh/h	329	964	425	395	1574	485	198	1017	450	198	1017	449
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	33.3	28.7	28.7	31.2	24.2	22.7	35.8	25.7	24.0	36.1	27.5	25.8
Incr Delay (d2), s/veh	16.2	0.6	1.2	40.9	0.2	0.2	58.4	0.8	0.5	15.8	1.2	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	6.2	3.6	3.2	13.0	3.6	1.6	7.5	5.5	2.8	3.4	5.8	3.2
LnGrp Delay(d),s/veh	49.5	29.2	29.9	72.1	24.4	23.0	94.2	26.5	24.5	52.0	28.7	26.6
LnGrp LOS	D	C	C	E	C	C	F	C	C	D	C	C
Approach Vol, veh/h		747			1061			904			860	
Approach Delay, s/veh		35.6			41.8			40.7			31.7	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.1	26.5	22.0	21.2	13.0	24.6	16.3	26.9
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	9.0	23.2	18.0	22.0	9.0	23.2	15.0	25.0
Max Q Clear Time (g_c+I1), s	7.5	13.1	19.6	9.3	10.8	13.7	12.2	9.6
Green Ext Time (p_c), s	0.0	5.7	0.0	5.5	0.0	5.4	0.2	6.1

Intersection Summary	
HCM 2010 Ctrl Delay	37.8
HCM 2010 LOS	D

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	77	76	765	921	116
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	84	83	832	1001	126

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1645	564	1127	0	-	0
Stage 1	1064	-	-	-	-	-
Stage 2	581	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	90	469	616	-	-	-
Stage 1	293	-	-	-	-	-
Stage 2	522	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	78	469	616	-	-	-
Mov Cap-2 Maneuver	78	-	-	-	-	-
Stage 1	293	-	-	-	-	-
Stage 2	452	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.3	1.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	616	-	469	-	-
HCM Lane V/C Ratio	0.134	-	0.178	-	-
HCM Control Delay (s)	11.7	-	14.3	-	-
HCM Lane LOS	B	-	B	-	-
HCM 95th %tile Q(veh)	0.5	-	0.6	-	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	11	766	19	54	560	25	16	1	48
Conflicting Peds, #/hr	10	0	10	10	0	10	10	0	10
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	160	-	-	150	-	260	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	833	21	59	609	27	17	1	52

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	619	0	0	863	0	0	1309	1613	447
Stage 1	-	-	-	-	-	-	877	877	-
Stage 2	-	-	-	-	-	-	432	736	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32
Pot Cap-1 Maneuver	957	-	-	775	-	-	117	103	559
Stage 1	-	-	-	-	-	-	310	364	-
Stage 2	-	-	-	-	-	-	572	423	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	949	-	-	769	-	-	105	92	550
Mov Cap-2 Maneuver	-	-	-	-	-	-	105	92	-
Stage 1	-	-	-	-	-	-	304	356	-
Stage 2	-	-	-	-	-	-	515	387	-

Approach	EB	WB	NB
HCM Control Delay, s	0.1	0.9	24
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	259	949	-	-	769	-	-	118	406
HCM Lane V/C Ratio	0.273	0.013	-	-	0.076	-	-	0.258	0.027
HCM Control Delay (s)	24	8.8	-	-	10.1	-	-	45.8	14.1
HCM Lane LOS	C	A	-	-	B	-	-	E	B
HCM 95th %tile Q(veh)	1.1	0	-	-	0.2	-	-	1	0.1

Intersection			
Int Delay, s/veh			

Movement	SBL	SBT	SBR
Vol, veh/h	28	1	9
Conflicting Peds, #/hr	10	0	10
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	None
Storage Length	0	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	30	1	10

Major/Minor	Minor2		
Conflicting Flow All	1187	1623	324
Stage 1	736	736	-
Stage 2	451	887	-
Critical Hdwy	7.54	6.54	6.94
Critical Hdwy Stg 1	6.54	5.54	-
Critical Hdwy Stg 2	6.54	5.54	-
Follow-up Hdwy	3.52	4.02	3.32
Pot Cap-1 Maneuver	144	102	672
Stage 1	377	423	-
Stage 2	557	360	-
Platoon blocked, %			
Mov Cap-1 Maneuver	118	91	661
Mov Cap-2 Maneuver	118	91	-
Stage 1	369	387	-
Stage 2	492	352	-

Approach	SB
HCM Control Delay, s	37.5
HCM LOS	E

Minor Lane/Major Mvmt

HCM 2010 Signalized Intersection Summary
2: 12th Ave & Lacey Blvd

Cumulative 2035 With Project-AM
Scenario 1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	203	509	145	185	304	188	136	769	153	330	866	150
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	177.6	186.3	186.3	182.7	186.3	186.3	175.9	186.3	186.3	186.3	186.3	186.3
Adj Flow Rate, veh/h	221	553	158	201	330	204	148	836	166	359	941	163
Adj No. of Lanes	1	2	1	1	3	1	1	2	1	1	2	1
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, %	7	2	2	4	2	2	8	2	2	2	2	2
Cap, veh/h	213	782	345	219	1123	345	179	899	397	346	1210	537
Arrive On Green	0.13	0.22	0.22	0.13	0.22	0.22	0.11	0.25	0.25	0.19	0.34	0.34
Sat Flow, veh/h	1691	3539	1562	1740	5085	1562	1675	3539	1565	1774	3539	1569
Grp Volume(v), veh/h	221	553	158	201	330	204	148	836	166	359	941	163
Grp Sat Flow(s),veh/h/ln	1691	1770	1562	1740	1695	1562	1675	1770	1565	1774	1770	1569
Q Serve(g_s), s	11.0	12.6	7.6	10.0	4.7	10.2	7.5	20.1	7.7	17.0	20.8	6.7
Cycle Q Clear(g_c), s	11.0	12.6	7.6	10.0	4.7	10.2	7.5	20.1	7.7	17.0	20.8	6.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	213	782	345	219	1123	345	179	899	397	346	1210	537
V/C Ratio(X)	1.04	0.71	0.46	0.92	0.29	0.59	0.83	0.93	0.42	1.04	0.78	0.30
Avail Cap(c_a), veh/h	213	893	394	219	1283	394	211	901	398	346	1210	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	38.1	31.4	29.5	37.7	28.3	30.5	38.1	31.8	27.1	35.1	25.7	21.1
Incr Delay (d2), s/veh	71.4	2.2	0.9	38.5	0.1	1.8	20.1	15.7	0.7	58.6	3.3	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	9.3	6.4	3.4	7.1	2.2	4.6	4.5	11.7	3.4	13.9	10.6	2.9
LnGrp Delay(d),s/veh	109.5	33.6	30.4	76.1	28.5	32.3	58.2	47.5	27.8	93.8	29.0	21.4
LnGrp LOS	F	C	C	E	C	C	E	D	C	F	C	C
Approach Vol, veh/h		932			735			1150			1463	
Approach Delay, s/veh		51.1			42.6			46.0			44.0	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	27.1	15.0	24.2	13.3	34.7	15.0	24.2
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	17.0	22.2	11.0	22.0	11.0	28.2	11.0	22.0
Max Q Clear Time (g_c+I1), s	19.0	22.1	12.0	14.6	9.5	22.8	13.0	12.2
Green Ext Time (p_c), s	0.0	0.0	0.0	3.9	0.0	4.5	0.0	4.7

Intersection Summary	
HCM 2010 Ctrl Delay	45.8
HCM 2010 LOS	D

Queues
2: 12th Ave & Lacey Blvd

Cumulative 2035 With Project-AM
Scenario 1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	221	553	158	201	330	204	148	836	166	359	941	163
v/c Ratio	1.03	0.72	0.34	0.91	0.30	0.41	0.74	0.92	0.32	1.04	0.80	0.27
Control Delay	111.5	37.5	6.3	82.7	29.0	7.0	60.3	49.6	6.3	95.2	33.6	8.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	111.5	37.5	6.3	82.7	29.0	7.0	60.3	49.6	6.3	95.2	33.6	8.3
Queue Length 50th (ft)	~133	148	0	111	55	0	80	237	0	~217	250	14
Queue Length 95th (ft)	#281	204	42	#248	80	53	#174	#368	47	#398	#352	59
Internal Link Dist (ft)		520			767			335			487	
Turn Bay Length (ft)	215		60	275		185	200		240	250		140
Base Capacity (vph)	214	897	517	220	1289	543	212	905	520	346	1173	597
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.03	0.62	0.31	0.91	0.26	0.38	0.70	0.92	0.32	1.04	0.80	0.27

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	26	0	1058	1143	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	28	0	1150	1242	76

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1855	659	1318	0	-	0
Stage 1	1280	-	-	-	-	-
Stage 2	575	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	65	406	520	-	-	-
Stage 1	225	-	-	-	-	-
Stage 2	526	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	65	406	520	-	-	-
Mov Cap-2 Maneuver	65	-	-	-	-	-
Stage 1	225	-	-	-	-	-
Stage 2	526	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	520	-	406	-	-
HCM Lane V/C Ratio	-	-	0.07	-	-
HCM Control Delay (s)	0	-	14.5	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	66.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	24	808	40	115	874	53	48	1	140
Conflicting Peds, #/hr	10	0	10	10	0	10	10	0	10
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	160	-	-	150	-	260	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	878	43	125	950	58	52	1	152

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	960	0	0	932	0	0	1698	2172	481
Stage 1	-	-	-	-	-	-	962	962	-
Stage 2	-	-	-	-	-	-	736	1210	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32
Pot Cap-1 Maneuver	712	-	-	730	-	-	60	46	531
Stage 1	-	-	-	-	-	-	275	332	-
Stage 2	-	-	-	-	-	-	377	254	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	706	-	-	724	-	-	~ 46	36	522
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 46	36	-
Stage 1	-	-	-	-	-	-	263	317	-
Stage 2	-	-	-	-	-	-	289	208	-

Approach	EB	WB	NB
HCM Control Delay, s	0.3	1.2	298.6
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	141	706	-	-	724	-	-	33	352
HCM Lane V/C Ratio	1.457	0.037	-	-	0.173	-	-	2.767	0.093
HCM Control Delay (s)	298.6	10.3	-	-	11	-	-	$ 1053.7	16.3
HCM Lane LOS	F	B	-	-	B	-	-	F	C
HCM 95th %tile Q(veh)	13.7	0.1	-	-	0.6	-	-	10.5	0.3

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	84	1	29
Conflicting Peds, #/hr	10	0	10
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	None
Storage Length	0	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	91	1	32

Major/Minor	Minor2		
Conflicting Flow All	1712	2194	495
Stage 1	1210	1210	-
Stage 2	502	984	-
Critical Hdwy	7.54	6.54	6.94
Critical Hdwy Stg 1	6.54	5.54	-
Critical Hdwy Stg 2	6.54	5.54	-
Follow-up Hdwy	3.52	4.02	3.32
Pot Cap-1 Maneuver	~ 58	45	520
Stage 1	194	254	-
Stage 2	520	325	-
Platoon blocked, %			
Mov Cap-1 Maneuver	~ 33	35	511
Mov Cap-2 Maneuver	~ 33	35	-
Stage 1	185	208	-
Stage 2	351	310	-

Approach	SB
HCM Control Delay, s	$ 780.7
HCM LOS	F

Minor Lane/Major Mvmt

HCM 2010 Signalized Intersection Summary
2: 12th Ave & Lacey Blvd

Cumulative 2035 With Project-PM
Scenario 1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	305	448	233	419	584	297	306	896	200	291	1062	208
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	177.6	186.3	186.3	182.7	186.3	186.3	175.9	186.3	186.3	186.3	186.3	186.3
Adj Flow Rate, veh/h	332	487	253	455	635	323	333	974	217	316	1154	226
Adj No. of Lanes	1	2	1	1	3	1	1	2	1	1	2	1
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, %	7	2	2	4	2	2	8	2	2	2	2	2
Cap, veh/h	338	649	286	362	975	299	279	1038	460	296	1038	460
Arrive On Green	0.20	0.18	0.18	0.21	0.19	0.19	0.17	0.29	0.29	0.17	0.29	0.29
Sat Flow, veh/h	1691	3539	1557	1740	5085	1559	1675	3539	1567	1774	3539	1567
Grp Volume(v), veh/h	332	487	253	455	635	323	333	974	217	316	1154	226
Grp Sat Flow(s),veh/h/ln	1691	1770	1557	1740	1695	1559	1675	1770	1567	1774	1770	1567
Q Serve(g_s), s	23.5	15.6	19.0	25.0	13.8	23.0	20.0	32.2	13.6	20.0	35.2	14.3
Cycle Q Clear(g_c), s	23.5	15.6	19.0	25.0	13.8	23.0	20.0	32.2	13.6	20.0	35.2	14.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	338	649	286	362	975	299	279	1038	460	296	1038	460
V/C Ratio(X)	0.98	0.75	0.89	1.26	0.65	1.08	1.19	0.94	0.47	1.07	1.11	0.49
Avail Cap(c_a), veh/h	338	649	286	362	975	299	279	1038	460	296	1038	460
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	47.8	46.4	47.8	47.5	44.8	48.5	50.0	41.3	34.8	50.0	42.4	35.0
Incr Delay (d2), s/veh	43.8	4.9	26.5	135.5	1.6	75.4	116.3	15.3	0.8	71.7	63.8	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	15.1	8.1	10.3	25.6	6.6	16.1	18.3	17.9	6.0	15.7	26.4	6.3
LnGrp Delay(d),s/veh	91.6	51.3	74.3	183.0	46.3	123.9	166.3	56.7	35.5	121.7	106.2	35.8
LnGrp LOS	F	D	E	F	D	F	F	E	D	F	F	D
Approach Vol, veh/h		1072			1413			1524			1696	
Approach Delay, s/veh		69.2			108.1			77.6			99.7	
Approach LOS		E			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	40.1	29.0	26.9	24.0	40.1	28.0	27.9
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	20.0	35.2	25.0	22.0	20.0	35.2	24.0	23.0
Max Q Clear Time (g_c+I1), s	22.0	34.2	27.0	21.0	22.0	37.2	25.5	25.0
Green Ext Time (p_c), s	0.0	0.9	0.0	0.8	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	90.2
HCM 2010 LOS	F

Queues
2: 12th Ave & Lacey Blvd

Cumulative 2035 With Project-PM
Scenario 1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	332	487	253	455	635	323	333	974	217	316	1154	226
v/c Ratio	0.97	0.80	0.69	1.24	0.69	0.61	1.18	0.93	0.37	1.06	1.10	0.43
Control Delay	89.8	57.9	33.8	170.0	49.8	10.7	155.3	55.7	8.5	115.7	97.6	20.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.8	57.9	33.8	170.0	49.8	10.7	155.3	55.7	8.5	115.7	97.6	20.7
Queue Length 50th (ft)	258	190	93	~442	168	7	~312	387	15	~272	~538	73
Queue Length 95th (ft)	#447	251	187	#647	211	93	#496	#518	76	#452	#674	148
Internal Link Dist (ft)		520			767			335			487	
Turn Bay Length (ft)	215		60	275		185	200		240	250		140
Base Capacity (vph)	342	657	386	366	988	550	282	1052	591	299	1052	530
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.74	0.66	1.24	0.64	0.59	1.18	0.93	0.37	1.06	1.10	0.43

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
, Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	77	0	1402	1598	147
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	84	0	1524	1737	160

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2579	948	1897	0	-	0
Stage 1	1817	-	-	-	-	-
Stage 2	762	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	21	262	310	-	-	-
Stage 1	115	-	-	-	-	-
Stage 2	421	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	21	262	310	-	-	-
Mov Cap-2 Maneuver	21	-	-	-	-	-
Stage 1	115	-	-	-	-	-
Stage 2	421	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	25.1	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	310	-	262	-	-
HCM Lane V/C Ratio	-	-	0.319	-	-
HCM Control Delay (s)	0	-	25.1	-	-
HCM Lane LOS	A	-	D	-	-
HCM 95th %tile Q(veh)	0	-	1.3	-	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	11	766	19	54	560	25	16	1	48
Conflicting Peds, #/hr	10	0	10	10	0	10	10	0	10
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	160	-	-	150	-	260	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	833	21	59	609	27	17	1	52

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	619	0	0	863	0	0	1309	1613	447
Stage 1	-	-	-	-	-	-	877	877	-
Stage 2	-	-	-	-	-	-	432	736	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32
Pot Cap-1 Maneuver	957	-	-	775	-	-	117	103	559
Stage 1	-	-	-	-	-	-	310	364	-
Stage 2	-	-	-	-	-	-	572	423	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	949	-	-	769	-	-	105	92	550
Mov Cap-2 Maneuver	-	-	-	-	-	-	105	92	-
Stage 1	-	-	-	-	-	-	304	356	-
Stage 2	-	-	-	-	-	-	515	387	-

Approach	EB	WB	NB
HCM Control Delay, s	0.1	0.9	24
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	259	949	-	-	769	-	-	118	406
HCM Lane V/C Ratio	0.273	0.013	-	-	0.076	-	-	0.258	0.027
HCM Control Delay (s)	24	8.8	-	-	10.1	-	-	45.8	14.1
HCM Lane LOS	C	A	-	-	B	-	-	E	B
HCM 95th %tile Q(veh)	1.1	0	-	-	0.2	-	-	1	0.1

Intersection			
Int Delay, s/veh			

Movement	SBL	SBT	SBR
Vol, veh/h	28	1	9
Conflicting Peds, #/hr	10	0	10
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	None
Storage Length	0	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	30	1	10

Major/Minor	Minor2		
Conflicting Flow All	1187	1623	324
Stage 1	736	736	-
Stage 2	451	887	-
Critical Hdwy	7.54	6.54	6.94
Critical Hdwy Stg 1	6.54	5.54	-
Critical Hdwy Stg 2	6.54	5.54	-
Follow-up Hdwy	3.52	4.02	3.32
Pot Cap-1 Maneuver	144	102	672
Stage 1	377	423	-
Stage 2	557	360	-
Platoon blocked, %			
Mov Cap-1 Maneuver	118	91	661
Mov Cap-2 Maneuver	118	91	-
Stage 1	369	387	-
Stage 2	492	352	-

Approach	SB
HCM Control Delay, s	37.5
HCM LOS	E

Minor Lane/Major Mvmt

HCM 2010 Signalized Intersection Summary
2: 12th Ave & Lacey Blvd

Cumulative 2035 With Project-AM
Scenario 2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	203	509	145	185	304	188	120	769	153	330	866	150
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	177.6	186.3	186.3	182.7	186.3	186.3	175.9	186.3	186.3	186.3	186.3	186.3
Adj Flow Rate, veh/h	221	553	158	201	330	204	130	836	166	359	941	163
Adj No. of Lanes	1	2	1	1	3	1	1	2	1	1	2	1
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, %	7	2	2	4	2	2	8	2	2	2	2	2
Cap, veh/h	213	782	345	219	1123	345	160	899	397	346	1252	555
Arrive On Green	0.13	0.22	0.22	0.13	0.22	0.22	0.10	0.25	0.25	0.19	0.35	0.35
Sat Flow, veh/h	1691	3539	1562	1740	5085	1562	1675	3539	1565	1774	3539	1570
Grp Volume(v), veh/h	221	553	158	201	330	204	130	836	166	359	941	163
Grp Sat Flow(s),veh/h/ln	1691	1770	1562	1740	1695	1562	1675	1770	1565	1774	1770	1570
Q Serve(g_s), s	11.0	12.6	7.6	10.0	4.7	10.2	6.6	20.1	7.7	17.0	20.4	6.5
Cycle Q Clear(g_c), s	11.0	12.6	7.6	10.0	4.7	10.2	6.6	20.1	7.7	17.0	20.4	6.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	213	782	345	219	1123	345	160	899	397	346	1252	555
V/C Ratio(X)	1.04	0.71	0.46	0.92	0.29	0.59	0.81	0.93	0.42	1.04	0.75	0.29
Avail Cap(c_a), veh/h	213	893	394	219	1283	394	192	901	398	346	1252	555
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	38.1	31.4	29.5	37.7	28.3	30.5	38.7	31.8	27.1	35.1	24.8	20.3
Incr Delay (d2), s/veh	71.4	2.2	0.9	38.5	0.1	1.8	19.8	15.7	0.7	58.6	2.6	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	9.3	6.4	3.4	7.1	2.2	4.6	3.9	11.7	3.4	13.9	10.4	2.9
LnGrp Delay(d),s/veh	109.5	33.6	30.4	76.1	28.5	32.3	58.5	47.5	27.8	93.8	27.4	20.6
LnGrp LOS	F	C	C	E	C	C	E	D	C	F	C	C
Approach Vol, veh/h		932			735			1132			1463	
Approach Delay, s/veh		51.1			42.6			45.9			42.9	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	27.1	15.0	24.2	12.3	35.8	15.0	24.2
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	17.0	22.2	11.0	22.0	10.0	29.2	11.0	22.0
Max Q Clear Time (g_c+I1), s	19.0	22.1	12.0	14.6	8.6	22.4	13.0	12.2
Green Ext Time (p_c), s	0.0	0.0	0.0	3.9	0.0	5.5	0.0	4.7

Intersection Summary	
HCM 2010 Ctrl Delay	45.4
HCM 2010 LOS	D

Queues
2: 12th Ave & Lacey Blvd

Cumulative 2035 With Project-AM
Scenario 2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	221	553	158	201	330	204	130	836	166	359	941	163
v/c Ratio	1.03	0.72	0.34	0.91	0.30	0.41	0.71	0.92	0.32	1.04	0.78	0.27
Control Delay	111.5	37.5	6.3	82.7	29.0	7.0	60.5	49.6	6.3	95.2	31.8	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	111.5	37.5	6.3	82.7	29.0	7.0	60.5	49.6	6.3	95.2	31.8	7.8
Queue Length 50th (ft)	~133	148	0	111	55	0	70	237	0	~217	245	13
Queue Length 95th (ft)	#281	204	42	#248	80	53	#157	#368	47	#398	334	57
Internal Link Dist (ft)		520			767			335			487	
Turn Bay Length (ft)	215		60	275		185	200		240	250		140
Base Capacity (vph)	214	897	517	220	1289	543	192	905	520	346	1211	613
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.03	0.62	0.31	0.91	0.26	0.38	0.68	0.92	0.32	1.04	0.78	0.27

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	26	37	1026	1143	54
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	28	40	1115	1242	59

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1910	651	1301	0	-	0
Stage 1	1272	-	-	-	-	-
Stage 2	638	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	60	411	528	-	-	-
Stage 1	227	-	-	-	-	-
Stage 2	488	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	55	411	528	-	-	-
Mov Cap-2 Maneuver	55	-	-	-	-	-
Stage 1	227	-	-	-	-	-
Stage 2	451	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.4	0.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	528	-	411	-	-
HCM Lane V/C Ratio	0.076	-	0.069	-	-
HCM Control Delay (s)	12.4	-	14.4	-	-
HCM Lane LOS	B	-	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-

HCM 2010 TWSC
1: Site Access & Lacey Blvd

Cumulative 2035 With Project-PM
Scenario 2

Intersection	
Int Delay, s/veh	66.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	24	808	40	115	874	53	48	1	140
Conflicting Peds, #/hr	10	0	10	10	0	10	10	0	10
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	160	-	-	150	-	260	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	878	43	125	950	58	52	1	152

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	960	0	0	932	0	0	1698	2172	481
Stage 1	-	-	-	-	-	-	962	962	-
Stage 2	-	-	-	-	-	-	736	1210	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32
Pot Cap-1 Maneuver	712	-	-	730	-	-	60	46	531
Stage 1	-	-	-	-	-	-	275	332	-
Stage 2	-	-	-	-	-	-	377	254	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	706	-	-	724	-	-	~ 46	36	522
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 46	36	-
Stage 1	-	-	-	-	-	-	263	317	-
Stage 2	-	-	-	-	-	-	289	208	-

Approach	EB	WB	NB
HCM Control Delay, s	0.3	1.2	298.6
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	141	706	-	-	724	-	-	33	352
HCM Lane V/C Ratio	1.457	0.037	-	-	0.173	-	-	2.767	0.093
HCM Control Delay (s)	298.6	10.3	-	-	11	-	-	$ 1053.7	16.3
HCM Lane LOS	F	B	-	-	B	-	-	F	C
HCM 95th %tile Q(veh)	13.7	0.1	-	-	0.6	-	-	10.5	0.3

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	84	1	29
Conflicting Peds, #/hr	10	0	10
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	None
Storage Length	0	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	91	1	32

Major/Minor	Minor2		
Conflicting Flow All	1712	2194	495
Stage 1	1210	1210	-
Stage 2	502	984	-
Critical Hdwy	7.54	6.54	6.94
Critical Hdwy Stg 1	6.54	5.54	-
Critical Hdwy Stg 2	6.54	5.54	-
Follow-up Hdwy	3.52	4.02	3.32
Pot Cap-1 Maneuver	~ 58	45	520
Stage 1	194	254	-
Stage 2	520	325	-
Platoon blocked, %			
Mov Cap-1 Maneuver	~ 33	35	511
Mov Cap-2 Maneuver	~ 33	35	-
Stage 1	185	208	-
Stage 2	351	310	-

Approach	SB
HCM Control Delay, s	$ 780.7
HCM LOS	F

Minor Lane/Major Mvmt

HCM 2010 Signalized Intersection Summary
2: 12th Ave & Lacey Blvd

Cumulative 2035 With Project-PM
Scenario 2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	305	448	233	419	584	297	274	896	200	291	1062	208
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	177.6	186.3	186.3	182.7	186.3	186.3	175.9	186.3	186.3	186.3	186.3	186.3
Adj Flow Rate, veh/h	332	487	253	455	635	323	298	974	217	316	1154	226
Adj No. of Lanes	1	2	1	1	3	1	1	2	1	1	2	1
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, %	7	2	2	4	2	2	8	2	2	2	2	2
Cap, veh/h	338	649	286	377	1017	312	251	1009	446	296	1068	473
Arrive On Green	0.20	0.18	0.18	0.22	0.20	0.20	0.15	0.29	0.29	0.17	0.30	0.30
Sat Flow, veh/h	1691	3539	1557	1740	5085	1560	1675	3539	1567	1774	3539	1568
Grp Volume(v), veh/h	332	487	253	455	635	323	298	974	217	316	1154	226
Grp Sat Flow(s),veh/h/ln	1691	1770	1557	1740	1695	1560	1675	1770	1567	1774	1770	1568
Q Serve(g_s), s	23.5	15.6	19.0	26.0	13.7	24.0	18.0	32.6	13.8	20.0	36.2	14.1
Cycle Q Clear(g_c), s	23.5	15.6	19.0	26.0	13.7	24.0	18.0	32.6	13.8	20.0	36.2	14.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	338	649	286	377	1017	312	251	1009	447	296	1068	473
V/C Ratio(X)	0.98	0.75	0.89	1.21	0.62	1.04	1.19	0.97	0.49	1.07	1.08	0.48
Avail Cap(c_a), veh/h	338	649	286	377	1017	312	251	1009	447	296	1068	473
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	47.8	46.4	47.8	47.0	43.9	48.0	51.0	42.3	35.6	50.0	41.9	34.2
Incr Delay (d2), s/veh	43.8	4.9	26.5	115.6	1.2	60.5	116.4	20.4	0.8	71.7	52.1	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	15.1	8.1	10.3	24.6	6.5	15.5	16.4	18.7	6.1	15.7	25.4	6.2
LnGrp Delay(d),s/veh	91.6	51.3	74.3	162.6	45.1	108.5	167.4	62.8	36.4	121.7	94.0	34.9
LnGrp LOS	F	D	E	F	D	F	F	E	D	F	F	C
Approach Vol, veh/h		1072			1413			1489			1696	
Approach Delay, s/veh		69.2			97.4			79.9			91.3	
Approach LOS		E			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	39.1	30.0	26.9	22.0	41.1	28.0	28.9
Change Period (Y+Rc), s	4.0	4.9	4.0	4.9	4.0	4.9	4.0	4.9
Max Green Setting (Gmax), s	20.0	34.2	26.0	22.0	18.0	36.2	24.0	24.0
Max Q Clear Time (g_c+I1), s	22.0	34.6	28.0	21.0	20.0	38.2	25.5	26.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	85.6
HCM 2010 LOS	F

Queues
2: 12th Ave & Lacey Blvd

Cumulative 2035 With Project-PM
Scenario 2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	332	487	253	455	635	323	298	974	217	316	1154	226
v/c Ratio	0.97	0.80	0.69	1.19	0.66	0.61	1.17	0.95	0.38	1.06	1.07	0.42
Control Delay	89.8	57.9	33.8	150.9	48.1	12.1	156.5	60.7	9.0	115.7	86.9	19.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.8	57.9	33.8	150.9	48.1	12.1	156.5	60.7	9.0	115.7	86.9	19.8
Queue Length 50th (ft)	258	190	93	~430	166	18	~278	391	16	~272	~526	71
Queue Length 95th (ft)	#447	251	187	#635	209	107	#457	#531	79	#452	#662	145
Internal Link Dist (ft)		520			767			335			487	
Turn Bay Length (ft)	215		60	275		185	200		240	250		140
Base Capacity (vph)	342	657	386	381	1031	547	254	1022	578	299	1082	544
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.74	0.66	1.19	0.62	0.59	1.17	0.95	0.38	1.06	1.07	0.42

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	77	76	1333	1598	116
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	84	83	1449	1737	126

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2690	932	1863	0	-	0
Stage 1	1800	-	-	-	-	-
Stage 2	890	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	17	268	320	-	-	-
Stage 1	117	-	-	-	-	-
Stage 2	361	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	13	268	320	-	-	-
Mov Cap-2 Maneuver	13	-	-	-	-	-
Stage 1	117	-	-	-	-	-
Stage 2	267	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	24.4	1.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	320	-	268	-	-
HCM Lane V/C Ratio	0.258	-	0.312	-	-
HCM Control Delay (s)	20.1	-	24.4	-	-
HCM Lane LOS	C	-	C	-	-
HCM 95th %tile Q(veh)	1	-	1.3	-	-

Warrant 3: Peak Hour

1: Site Access & Lacey Blvd

Intersection Information:

	Major Street	Minor Street
Street Name	Lacey Blvd	Site Access
Direction	EB/WB	NB/SB
Number of Lanes	2	2
Approach Speed	40	30

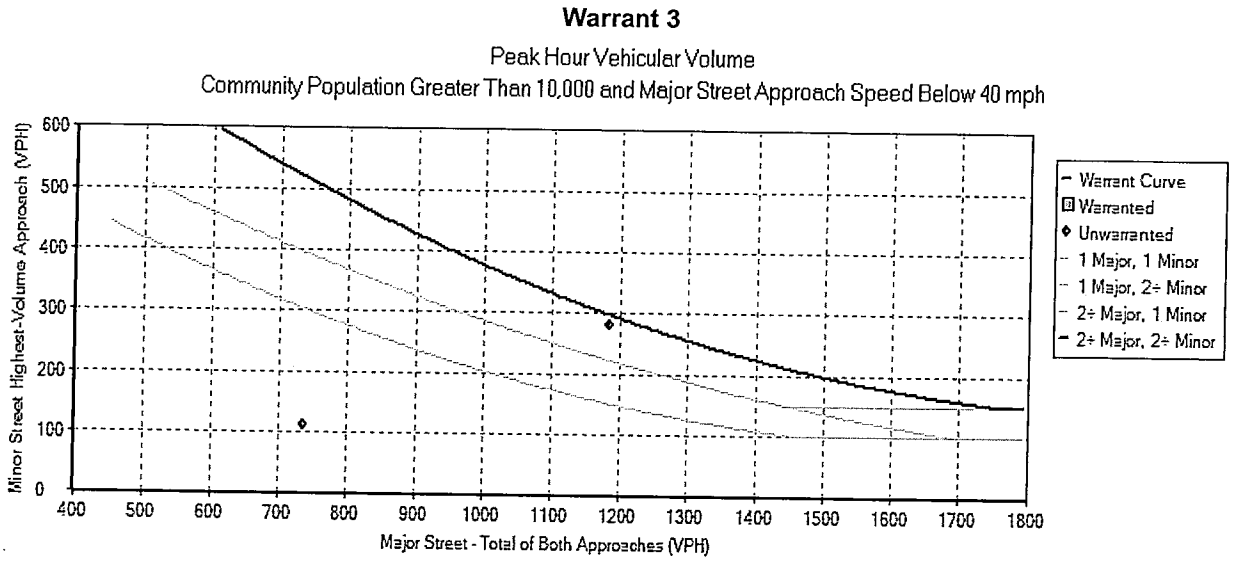
Warrant 3 Met? **No**

Details:

Low Population?	No
Condition A Met?	No
Notes:	0 Hours met (1 required)
Minor Approach Time Delay Condition	Not Met
Minor Approach Volume Condition	Met
Total Entering Intersection Volume Condition	Not Met
Condition B Met?	No
Notes:	0 Hours met (1 required)

Warrant 3: Peak Hour

1: Site Access & Lacey Blvd



Note: Please turn over for volume information.

Warrant 3: Peak Hour

1: Site Access & Lacey Blvd

Intersection Information:

	Major Street	Minor Street
Street Name	Lacey Blvd	Site Access
Direction	EB/WB	NB/SB
Number of Lanes	2	2
Approach Speed	40	30

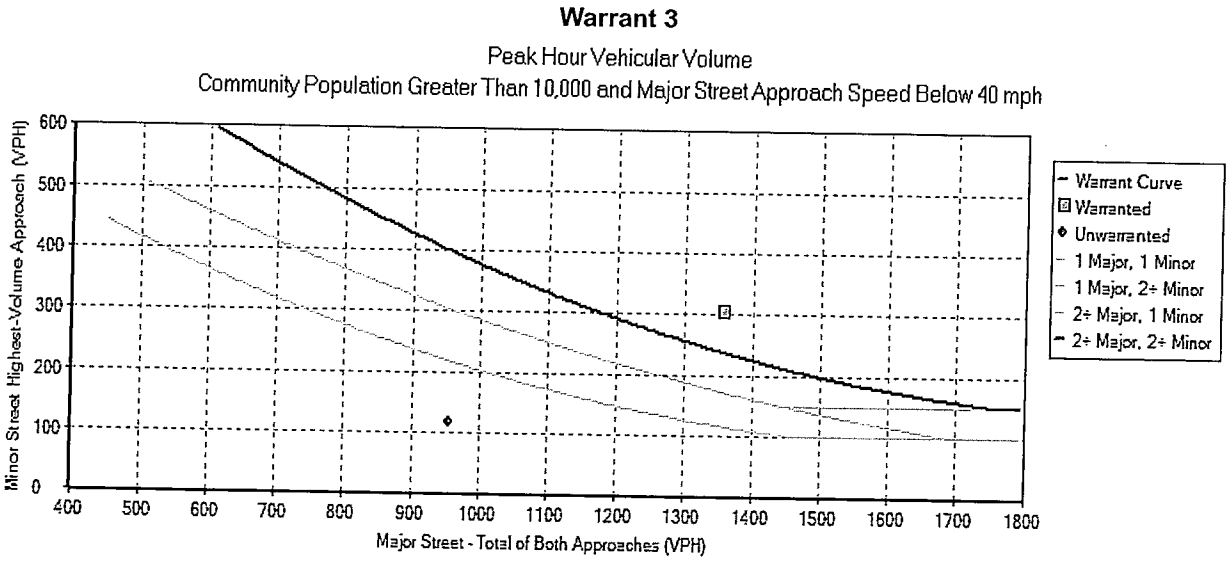
Warrant 3 Met? **Yes**

Details:

Low Population?	No
Condition A Met?	No
Notes:	0 Hours met (1 required)
Minor Approach Time Delay Condition	Not Met
Minor Approach Volume Condition	Met
Total Entering Intersection Volume Condition	Not Met
Condition B Met?	Yes
Notes:	1 Hours met (1 required)

Warrant 3: Peak Hour

1: Site Access & Lacey Blvd



Note: Please turn over for volume information.

Warrant 3: Peak Hour

1: Site Access & Lacey Blvd

Intersection Information:

	Major Street	Minor Street
Street Name	Lacey Blvd	Site Access
Direction	EB/WB	NB/SB
Number of Lanes	2	2
Approach Speed	40	30

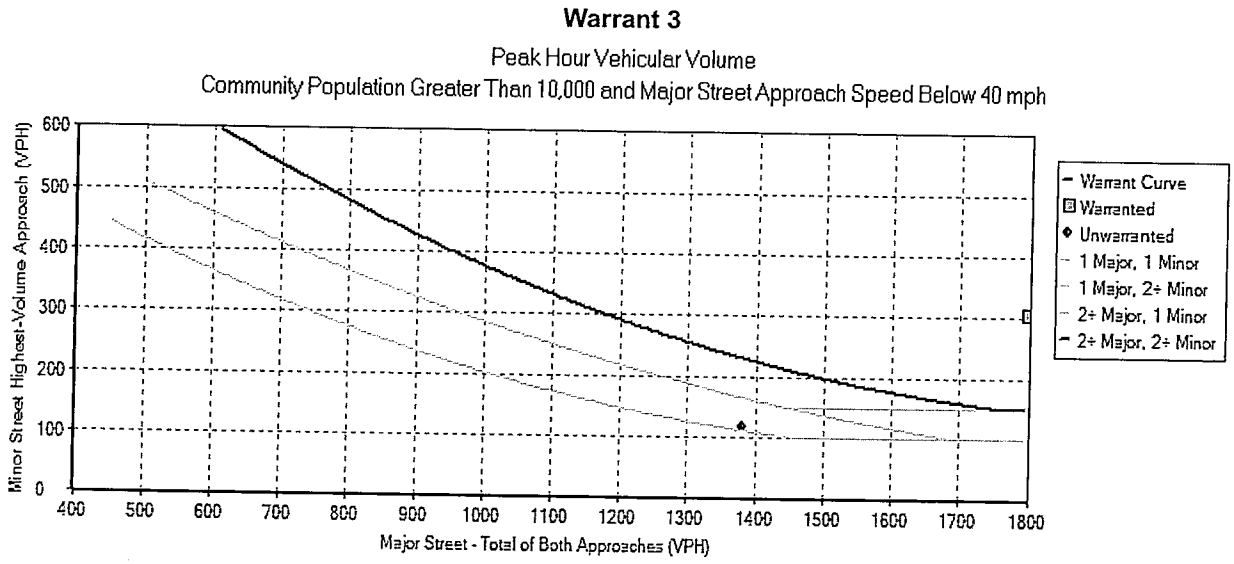
Warrant 3 Met? **Yes**

Details:

Low Population?	No
Condition A Met?	No
Notes:	0 Hours met (1 required)
Minor Approach Time Delay Condition	Not Met
Minor Approach Volume Condition	Met
Total Entering Intersection Volume Condition	Not Met
Condition B Met?	Yes
Notes:	1 Hours met (1 required)

Warrant 3: Peak Hour

1: Site Access & Lacey Blvd



Note: Please turn over for volume information.

HDM LEFT-TURN STORAGE ANALYSES

Proposed Shopping Center
SWC of Lacey and 12th
Left-Turn Analysis

Turn Pocket Calculation

Data Entry

Location: 12th / Lacey
Lane Orientation: NB Left

Number of turning vehicles per hour: 274 vehicles per hour

Traffic signal cycle length: 120 seconds

Vehicle length: 25.0'

Computation

Average vehicles arriving in a two-minute period:	9.133333	
Turn pocket length based on two-minute arrival:	**228.3'**	
		Dual Lanes
Average vehicles arriving during one signal cycle:	9.133333	
Turn pocket length based on 1.5 times average:	**342.5'**	**171.3'**
Turn pocket length based on 2 times average:	**456.7'**	**228.3'**

Average: 199.8'

Turn Pocket Calculation

Data Entry

Location: 12th / Lacey
Lane Orientation: SB Left

Number of turning vehicles per hour: 330 vehicles per hour

Traffic signal cycle length: 120 seconds

Vehicle length: 25.0'

Computation

Average vehicles arriving in a two-minute period:	11	
Turn pocket length based on two-minute arrival:	**275.0'**	
		Dual Lanes
Average vehicles arriving during one signal cycle:	11	
Turn pocket length based on 1.5 times average:	**412.5'**	**206.3'**
Turn pocket length based on 2 times average:	**550.0'**	**275.0'**

Average: 240.6'

Turn Pocket Calculation

Data Entry

Location: 12th / Lacey
Lane Orientation: EB Left

Number of turning vehicles per hour: 305 vehicles per hour

Traffic signal cycle length: 120 seconds

Vehicle length: 25.0'

Computation

Average vehicles arriving in a two-minute period:	10.16667	
Turn pocket length based on two-minute arrival:	**254.2'**	
		Dual Lanes
Average vehicles arriving during one signal cycle:	10.16667	
Turn pocket length based on 1.5 times average:	**381.3'**	**190.6'**
Turn pocket length based on 2 times average:	**508.3'**	**254.2'**

Average: 222.4'

Turn Pocket Calculation

Data Entry

Location: 12th / Lacey
Lane Orientation: WB Left

Number of turning vehicles per hour: 419 vehicles per hour

Traffic signal cycle length: 120 seconds

Vehicle length: 25.0'

Computation

Average vehicles arriving in a two-minute period:	13.96667	
Turn pocket length based on two-minute arrival:	**349.2'**	
		Dual Lanes
Average vehicles arriving during one signal cycle:	13.96667	
Turn pocket length based on 1.5 times average:	**523.8'**	**261.9'**
Turn pocket length based on 2 times average:	**698.3'**	**349.2'**

Average: 305.5'

Proposed Shopping Center
SWC of Lacey and 12th
Left-Turn Analysis

Turn Pocket Calculation

Data Entry

Location: 12th / Lacey
Lane Orientation: NB Left

Number of turning vehicles per hour: 306 vehicles per hour

Traffic signal cycle length: 120 seconds

Vehicle length: 25.0'

Computation

Average vehicles arriving in a two-minute period:	10.2	
Turn pocket length based on two-minute arrival:	**255.0'**	
		Dual Lanes
Average vehicles arriving during one signal cycle:	10.2	
Turn pocket length based on 1.5 times average:	**382.5'**	**191.3'**
Turn pocket length based on 2 times average:	**510.0'**	**255.0'**
	Average:	**223.1'**

Turn Pocket Calculation

Data Entry

Location: 12th / Lacey
Lane Orientation: EB Left

Number of turning vehicles per hour: 324 vehicles per hour

Traffic signal cycle length: 120 seconds

Vehicle length: 25.0'

Computation

Average vehicles arriving in a two-minute period:	10.8	
Turn pocket length based on two-minute arrival:	**270.0'**	
		Dual Lanes
Average vehicles arriving during one signal cycle:	10.8	
Turn pocket length based on 1.5 times average:	**405.0'**	**202.5'**
Turn pocket length based on 2 times average:	**540.0'**	**270.0'**
	Average:	**236.3'**

Proposed Shopping Center
SWC of Lacey and 12th
Left-Turn Analysis

Turn Pocket Calculation

Data Entry

Location: Site / Lacey
Lane Orientation: WB Left

Number of turning vehicles per hour: 115 vehicles per hour

Traffic signal cycle length: 60 seconds

Vehicle length: 25.0'

Computation

Average vehicles arriving in a two-minute period: 3.83333333
Turn pocket length based on two-minute arrival: **95.8'**

Average vehicles arriving during one signal cycle: 1.91666667
Turn pocket length based on 1.5 times average: **71.9'**
Turn pocket length based on 2 times average: **95.8'**

Turn Pocket Calculation

Data Entry

Location: Site / Lacey
Lane Orientation: NB

Number of turning vehicles per hour: 158 vehicles per hour

Traffic signal cycle length: seconds

Vehicle length: 25.0'

Computation

Average vehicles arriving in a two-minute period: 5.3
Turn pocket length based on two-minute arrival: **131.7'**

Average vehicles arriving during one signal cycle: #DIV/0!
Turn pocket length based on 1.5 times average: **#DIV/0!**
Turn pocket length based on 2 times average: **#DIV/0!**

Turn Pocket Calculation

Data Entry

Location: Site / Lacey
Lane Orientation: NB

Number of turning vehicles per hour: 141 vehicles per hour

Traffic signal cycle length: 60 seconds

Vehicle length: 25.0'

Computation

Average vehicles arriving in a two-minute period: 4.7
Turn pocket length based on two-minute arrival: **117.5'**

Average vehicles arriving during one signal cycle: 2.4
Turn pocket length based on 1.5 times average: **88.1'**
Turn pocket length based on 2 times average: **117.5'**

Proposed Shopping Center
SWC of Lacey and 12th
Left-Turn Analysis

Turn Pocket Calculation

Data Entry

Location: Site / 12th
Lane Orientation: NB Left

Number of turning vehicles per hour: 76 vehicles per hour

Traffic signal cycle length: 60 seconds

Vehicle length: 25.0'

Computation

Average vehicles arriving in a two-minute period: 2.533333
Turn pocket length based on two-minute arrival: **63.3'**

Average vehicles arriving during one signal cycle: No signal
Turn pocket length based on 1.5 times average: **No signal**
Turn pocket length based on 2 times average: **No signal**

Turn Pocket Calculation

Data Entry

Location: Site / 12th
Lane Orientation: EB

Number of turning vehicles per hour: 77 vehicles per hour

Traffic signal cycle length: 60 seconds

Vehicle length: 25.0'

Computation

Average vehicles arriving in a two-minute period: 2.6
Turn pocket length based on two-minute arrival: **64.2'**

Average vehicles arriving during one signal cycle: No signal
Turn pocket length based on 1.5 times average: **No signal**
Turn pocket length based on 2 times average: **No signal**

AUTOTURN ANALYSIS

APPENDIX B

Planned Unit Development 2015-02 & Tentative Parcel Map 20

Kings County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	433.00		3.90	173,200.00	0
Regional Shopping Center	124.30	1000sqft	2.85	124,300.00	0
Other Asphalt Surfaces	0.00	Acre	3.30	143,748.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	37
Climate Zone	3			**Operational Year**	2016
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Attachment: Exhibit F - ISND Attachments Part 2 (1031 : Planned Unit Development 2015-02 and Tentative

Project Characteristics -

Land Use - Commercial Building: 124,300 sq. ft. of building area (cumulative)
other asphalt surfaces = 10.05 acres - parking and regional shopping center

Construction Phase - no demolition required.
the lot is vacant.

Off-road Equipment - no demolition required.
site is already vacant.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Demolition - no demolition required.

Architectural Coating - total sq. ft. of buildings = 124,300
reference: PUD application

Land Use Change -

Sequestration -

Mobile Land Use Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	1/14/2016	2/11/2016
tblConstructionPhase	PhaseStartDate	1/1/2016	1/29/2016
tblLandUse	LandUseSquareFeet	0.00	143,748.00
tblLandUse	LotAcreage	0.00	3.30
tblProjectCharacteristics	OperationalYear	2014	2016

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.6342	5.1174	4.8105	7.2100e-003	0.4106	0.2802	0.6908	0.1551	0.2616	0.4167	0.0000	631.0320	631.0320	0.1016	0.0000	633.1656
2017	2.1613	1.9067	1.9867	3.2800e-003	0.0962	0.1072	0.2033	0.0260	0.1004	0.1264	0.0000	279.0674	279.0674	0.0401	0.0000	279.9095
Total	**2.7955**	**7.0242**	**6.7972**	**0.0105**	**0.5068**	**0.3873**	**0.8941**	**0.1812**	**0.3620**	**0.5432**	**0.0000**	**910.0994**	**910.0994**	**0.1417**	**0.0000**	**913.0751**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.6342	5.1174	4.8105	7.2100e-003	0.4106	0.2802	0.6908	0.1551	0.2616	0.4167	0.0000	631.0316	631.0316	0.1016	0.0000	633.1652
2017	2.1613	1.9067	1.9867	3.2800e-003	0.0962	0.1072	0.2033	0.0260	0.1004	0.1264	0.0000	279.0672	279.0672	0.0401	0.0000	279.9093
Total	**2.7955**	**7.0242**	**6.7972**	**0.0105**	**0.5068**	**0.3873**	**0.8941**	**0.1812**	**0.3620**	**0.5432**	**0.0000**	**910.0988**	**910.0988**	**0.1417**	**0.0000**	**913.0745**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	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	0.00

Attachment: Exhibit F - ISND Attachments Part 2 (1031 : Planned Unit Development 2015-02 and Tentative

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.9138	5.0000e-005	5.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.9600e-003	9.9600e-003	3.0000e-005	0.0000	0.0106
Energy	7.4700e-003	0.0679	0.0571	4.1000e-004		5.1600e-003	5.1600e-003		5.1600e-003	5.1600e-003	0.0000	442.3348	442.3348	0.0184	4.8600e-003	444.2265
Mobile	4.9828	18.3872	53.8243	0.0709	3.4867	0.2242	3.7109	0.9388	0.2060	1.1448	0.0000	5,943.0973	5,943.0973	0.1925	0.0000	5,947.1397
Waste						0.0000	0.0000		0.0000	0.0000	26.4944	0.0000	26.4944	1.5658	0.0000	59.3756
Water						0.0000	0.0000		0.0000	0.0000	2.9210	19.9090	22.8300	0.3009	7.2700e-003	31.4043
Total	**6.9041**	**18.4552**	**53.8866**	**0.0713**	**3.4867**	**0.2294**	**3.7160**	**0.9388**	**0.2112**	**1.1500**	**29.4154**	**6,405.3510**	**6,434.7664**	**2.0776**	**0.0121**	**6,482.1567**

Attachment: Exhibit F - ISND Attachments Part 2 (1031 : Planned Unit Development 2015-02 and Tentative

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.9138	5.0000e-005	5.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.9600e-003	9.9600e-003	3.0000e-005	0.0000	0.0106
Energy	7.4700e-003	0.0679	0.0571	4.1000e-004		5.1600e-003	5.1600e-003		5.1600e-003	5.1600e-003	0.0000	442.3348	442.3348	0.0184	4.8600e-003	444.2265
Mobile	4.9828	18.3872	53.8243	0.0709	3.4867	0.2242	3.7109	0.9388	0.2060	1.1448	0.0000	5,943.0973	5,943.0973	0.1925	0.0000	5,947.1397
Waste						0.0000	0.0000		0.0000	0.0000	26.4944	0.0000	26.4944	1.5658	0.0000	59.3756
Water						0.0000	0.0000		0.0000	0.0000	2.9210	19.9090	22.8300	0.3009	7.2600e-003	31.3997
Total	**6.9041**	**18.4552**	**53.8866**	**0.0713**	**3.4867**	**0.2294**	**3.7160**	**0.9388**	**0.2112**	**1.1500**	**29.4154**	**6,405.3510**	**6,434.7664**	**2.0775**	**0.0121**	**6,482.1520**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**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**	**0.08**	**0.00**

Attachment: Exhibit F - ISND Attachments Part 2 (1031 : Planned Unit Development 2015-02 and Tentative

2.3 Vegetation

Vegetation

	CO2e
Category	MT
New Trees	0.0000
Total	**0.0000**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	12/31/2015	5	0	Not required.
2	Site Preparation	Site Preparation	1/29/2016	2/11/2016	5	10	
3	Grading	Grading	2/12/2016	3/24/2016	5	30	
4	Building Construction	Building Construction	3/25/2016	5/18/2017	5	300	
5	Paving	Paving	5/19/2017	6/15/2017	5	20	
6	Architectural Coating	Architectural Coating	6/16/2017	7/13/2017	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 409,866; Non-Residential Outdoor: 136,622 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	162	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	2	8.00	162	0.38
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	125	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	174	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	130	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	173.00	72.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	35.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0254	0.2732	0.2055	2.0000e-004		0.0147	0.0147		0.0135	0.0135	0.0000	18.4386	18.4386	5.5600e-003	0.0000	18.5554
Total	**0.0254**	**0.2732**	**0.2055**	**2.0000e-004**	**0.0903**	**0.0147**	**0.1050**	**0.0497**	**0.0135**	**0.0632**	**0.0000**	**18.4386**	**18.4386**	**5.5600e-003**	**0.0000**	**18.5554**

Attachment: Exhibit F - ISND Attachments Part 2 (1031 : Planned Unit Development 2015-02 and Tentative

3.3 Site Preparation - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-004	5.8000e-004	5.2400e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6326	0.6326	4.0000e-005	0.0000	0.6334
Total	**4.0000e-004**	**5.8000e-004**	**5.2400e-003**	**1.0000e-005**	**7.2000e-004**	**1.0000e-005**	**7.3000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6326**	**0.6326**	**4.0000e-005**	**0.0000**	**0.6334**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0254	0.2732	0.2055	2.0000e-004		0.0147	0.0147		0.0135	0.0135	0.0000	18.4385	18.4385	5.5600e-003	0.0000	18.5553
Total	**0.0254**	**0.2732**	**0.2055**	**2.0000e-004**	**0.0903**	**0.0147**	**0.1050**	**0.0497**	**0.0135**	**0.0632**	**0.0000**	**18.4385**	**18.4385**	**5.5600e-003**	**0.0000**	**18.5553**

Attachment: Exhibit F - ISND Attachments Part 2 (1031 : Planned Unit Development 2015-02 and Tentative

3.3 Site Preparation - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-004	5.8000e-004	5.2400e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6326	0.6326	4.0000e-005	0.0000	0.6334
Total	**4.0000e-004**	**5.8000e-004**	**5.2400e-003**	**1.0000e-005**	**7.2000e-004**	**1.0000e-005**	**7.3000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6326**	**0.6326**	**4.0000e-005**	**0.0000**	**0.6334**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1301	0.0000	0.1301	0.0540	0.0000	0.0540	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0972	1.1222	0.7371	9.3000e-004		0.0538	0.0538		0.0495	0.0495	0.0000	87.2936	87.2936	0.0263	0.0000	87.8465
Total	**0.0972**	**1.1222**	**0.7371**	**9.3000e-004**	**0.1301**	**0.0538**	**0.1839**	**0.0540**	**0.0495**	**0.1034**	**0.0000**	**87.2936**	**87.2936**	**0.0263**	**0.0000**	**87.8465**

Attachment: Exhibit F - ISND Attachments Part 2 (1031 : Planned Unit Development 2015-02 and Tentative

3.4 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3300e-003	1.9300e-003	0.0175	3.0000e-005	2.4100e-003	2.0000e-005	2.4300e-003	6.4000e-004	2.0000e-005	6.6000e-004	0.0000	2.1086	2.1086	1.3000e-004	0.0000	2.1114
Total	**1.3300e-003**	**1.9300e-003**	**0.0175**	**3.0000e-005**	**2.4100e-003**	**2.0000e-005**	**2.4300e-003**	**6.4000e-004**	**2.0000e-005**	**6.6000e-004**	**0.0000**	**2.1086**	**2.1086**	**1.3000e-004**	**0.0000**	**2.1114**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1301	0.0000	0.1301	0.0540	0.0000	0.0540	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0972	1.1222	0.7371	9.3000e-004		0.0538	0.0538		0.0495	0.0495	0.0000	87.2935	87.2935	0.0263	0.0000	87.8464
Total	**0.0972**	**1.1222**	**0.7371**	**9.3000e-004**	**0.1301**	**0.0538**	**0.1839**	**0.0540**	**0.0495**	**0.1034**	**0.0000**	**87.2935**	**87.2935**	**0.0263**	**0.0000**	**87.8464**

Attachment: Exhibit F - ISND Attachments Part 2 (1031 : Planned Unit Development 2015-02 and Tentative

3.4 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3300e-003	1.9300e-003	0.0175	3.0000e-005	2.4100e-003	2.0000e-005	2.4300e-003	6.4000e-004	2.0000e-005	6.6000e-004	0.0000	2.1086	2.1086	1.3000e-004	0.0000	2.1114
Total	**1.3300e-003**	**1.9300e-003**	**0.0175**	**3.0000e-005**	**2.4100e-003**	**2.0000e-005**	**2.4300e-003**	**6.4000e-004**	**2.0000e-005**	**6.6000e-004**	**0.0000**	**2.1086**	**2.1086**	**1.3000e-004**	**0.0000**	**2.1114**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3423	2.8649	1.8599	2.6900e-003		0.1977	0.1977		0.1858	0.1858	0.0000	243.3644	243.3644	0.0604	0.0000	244.6319
Total	**0.3423**	**2.8649**	**1.8599**	**2.6900e-003**		**0.1977**	**0.1977**		**0.1858**	**0.1858**	**0.0000**	**243.3644**	**243.3644**	**0.0604**	**0.0000**	**244.6319**

Attachment: Exhibit F - ISND Attachments Part 2 (1031 : Planned Unit Development 2015-02 and Tentative

3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0906	0.7430	0.9724	1.7300e-003	0.0474	0.0128	0.0602	0.0136	0.0118	0.0254	0.0000	156.9931	156.9931	1.3800e-003	0.0000	157.0221
Worker	0.0771	0.1117	1.0129	1.6300e-003	0.1397	1.1200e-003	0.1408	0.0371	1.0300e-003	0.0381	0.0000	122.2013	122.2013	7.7900e-003	0.0000	122.3649
Total	**0.1676**	**0.8547**	**1.9853**	**3.3600e-003**	**0.1871**	**0.0139**	**0.2010**	**0.0507**	**0.0128**	**0.0635**	**0.0000**	**279.1944**	**279.1944**	**9.1700e-003**	**0.0000**	**279.3870**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3423	2.8649	1.8599	2.6900e-003		0.1977	0.1977		0.1858	0.1858	0.0000	243.3641	243.3641	0.0604	0.0000	244.6316
Total	**0.3423**	**2.8649**	**1.8599**	**2.6900e-003**		**0.1977**	**0.1977**		**0.1858**	**0.1858**	**0.0000**	**243.3641**	**243.3641**	**0.0604**	**0.0000**	**244.6316**

3.5 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0906	0.7430	0.9724	1.7300e-003	0.0474	0.0128	0.0602	0.0136	0.0118	0.0254	0.0000	156.9931	156.9931	1.3800e-003	0.0000	157.0221
Worker	0.0771	0.1117	1.0129	1.6300e-003	0.1397	1.1200e-003	0.1408	0.0371	1.0300e-003	0.0381	0.0000	122.2013	122.2013	7.7900e-003	0.0000	122.3649
Total	**0.1676**	**0.8547**	**1.9853**	**3.3600e-003**	**0.1871**	**0.0139**	**0.2010**	**0.0507**	**0.0128**	**0.0635**	**0.0000**	**279.1944**	**279.1944**	**9.1700e-003**	**0.0000**	**279.3870**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1536	1.3071	0.8974	1.3300e-003		0.0882	0.0882		0.0828	0.0828	0.0000	118.5422	118.5422	0.0292	0.0000	119.1548
Total	**0.1536**	**1.3071**	**0.8974**	**1.3300e-003**		**0.0882**	**0.0882**		**0.0828**	**0.0828**	**0.0000**	**118.5422**	**118.5422**	**0.0292**	**0.0000**	**119.1548**

3.5 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0409	0.3229	0.4565	8.5000e-004	0.0234	5.3000e-003	0.0287	6.6900e-003	4.8700e-003	0.0116	0.0000	76.0301	76.0301	6.3000e-004	0.0000	76.0434
Worker	0.0333	0.0491	0.4411	8.0000e-004	0.0688	5.3000e-004	0.0693	0.0183	4.8000e-004	0.0188	0.0000	57.8696	57.8696	3.4800e-003	0.0000	57.9427
Total	**0.0742**	**0.3720**	**0.8976**	**1.6500e-003**	**0.0922**	**5.8300e-003**	**0.0980**	**0.0250**	**5.3500e-003**	**0.0303**	**0.0000**	**133.8997**	**133.8997**	**4.1100e-003**	**0.0000**	**133.9861**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1536	1.3071	0.8974	1.3300e-003		0.0882	0.0882		0.0828	0.0828	0.0000	118.5420	118.5420	0.0292	0.0000	119.1547
Total	**0.1536**	**1.3071**	**0.8974**	**1.3300e-003**		**0.0882**	**0.0882**		**0.0828**	**0.0828**	**0.0000**	**118.5420**	**118.5420**	**0.0292**	**0.0000**	**119.1547**

Attachment: Exhibit F - ISND Attachments Part 2 (1031 : Planned Unit Development 2015-02 and Tentative

3.5 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0409	0.3229	0.4565	8.5000e-004	0.0234	5.3000e-003	0.0287	6.6900e-003	4.8700e-003	0.0116	0.0000	76.0301	76.0301	6.3000e-004	0.0000	76.0434
Worker	0.0333	0.0491	0.4411	8.0000e-004	0.0688	5.3000e-004	0.0693	0.0183	4.8000e-004	0.0188	0.0000	57.8696	57.8696	3.4800e-003	0.0000	57.9427
Total	**0.0742**	**0.3720**	**0.8976**	**1.6500e-003**	**0.0922**	**5.8300e-003**	**0.0980**	**0.0250**	**5.3500e-003**	**0.0303**	**0.0000**	**133.8997**	**133.8997**	**4.1100e-003**	**0.0000**	**133.9861**

3.6 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0191	0.2030	0.1473	2.2000e-004		0.0114	0.0114		0.0105	0.0105	0.0000	20.6934	20.6934	6.3400e-003	0.0000	20.8266
Paving	9.4300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0285**	**0.2030**	**0.1473**	**2.2000e-004**		**0.0114**	**0.0114**		**0.0105**	**0.0105**	**0.0000**	**20.6934**	**20.6934**	**6.3400e-003**	**0.0000**	**20.8266**

Attachment: Exhibit F - ISND Attachments Part 2 (1031 : Planned Unit Development 2015-02 and Tentative

3.6 Paving - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	8.6000e-004	7.7300e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0137	1.0137	6.0000e-005	0.0000	1.0149
Total	**5.8000e-004**	**8.6000e-004**	**7.7300e-003**	**1.0000e-005**	**1.2100e-003**	**1.0000e-005**	**1.2100e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**1.0137**	**1.0137**	**6.0000e-005**	**0.0000**	**1.0149**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0191	0.2030	0.1473	2.2000e-004		0.0114	0.0114		0.0105	0.0105	0.0000	20.6934	20.6934	6.3400e-003	0.0000	20.8265
Paving	9.4300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0285**	**0.2030**	**0.1473**	**2.2000e-004**		**0.0114**	**0.0114**		**0.0105**	**0.0105**	**0.0000**	**20.6934**	**20.6934**	**6.3400e-003**	**0.0000**	**20.8265**

Attachment: Exhibit F - ISND Attachments Part 2 (1031 : Planned Unit Development 2015-02 and Tentative

3.6 Paving - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	8.6000e-004	7.7300e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0137	1.0137	6.0000e-005	0.0000	1.0149
Total	**5.8000e-004**	**8.6000e-004**	**7.7300e-003**	**1.0000e-005**	**1.2100e-003**	**1.0000e-005**	**1.2100e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**1.0137**	**1.0137**	**6.0000e-005**	**0.0000**	**1.0149**

3.7 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.8997					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.3200e-003	0.0219	0.0187	3.0000e-005		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003	0.0000	2.5533	2.5533	2.7000e-004	0.0000	2.5589
Total	**1.9031**	**0.0219**	**0.0187**	**3.0000e-005**		**1.7300e-003**	**1.7300e-003**		**1.7300e-003**	**1.7300e-003**	**0.0000**	**2.5533**	**2.5533**	**2.7000e-004**	**0.0000**	**2.5589**

Attachment: Exhibit F - ISND Attachments Part 2 (1031 : Planned Unit Development 2015-02 and Tentative

3.7 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3600e-003	2.0100e-003	0.0180	3.0000e-005	2.8100e-003	2.0000e-005	2.8300e-003	7.5000e-004	2.0000e-005	7.7000e-004	0.0000	2.3652	2.3652	1.4000e-004	0.0000	2.3682
Total	**1.3600e-003**	**2.0100e-003**	**0.0180**	**3.0000e-005**	**2.8100e-003**	**2.0000e-005**	**2.8300e-003**	**7.5000e-004**	**2.0000e-005**	**7.7000e-004**	**0.0000**	**2.3652**	**2.3652**	**1.4000e-004**	**0.0000**	**2.3682**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.8997					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.3200e-003	0.0219	0.0187	3.0000e-005		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003	0.0000	2.5533	2.5533	2.7000e-004	0.0000	2.5589
Total	**1.9031**	**0.0219**	**0.0187**	**3.0000e-005**		**1.7300e-003**	**1.7300e-003**		**1.7300e-003**	**1.7300e-003**	**0.0000**	**2.5533**	**2.5533**	**2.7000e-004**	**0.0000**	**2.5589**

Attachment: Exhibit F - ISND Attachments Part 2 (1031 : Planned Unit Development 2015-02 and Tentative

3.7 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3600e-003	2.0100e-003	0.0180	3.0000e-005	2.8100e-003	2.0000e-005	2.8300e-003	7.5000e-004	2.0000e-005	7.7000e-004	0.0000	2.3652	2.3652	1.4000e-004	0.0000	2.3682
Total	**1.3600e-003**	**2.0100e-003**	**0.0180**	**3.0000e-005**	**2.8100e-003**	**2.0000e-005**	**2.8300e-003**	**7.5000e-004**	**2.0000e-005**	**7.7000e-004**	**0.0000**	**2.3652**	**2.3652**	**1.4000e-004**	**0.0000**	**2.3682**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.9828	18.3872	53.8243	0.0709	3.4867	0.2242	3.7109	0.9388	0.2060	1.1448	0.0000	5,943.0973	5,943.0973	0.1925	0.0000	5,947.1397
Unmitigated	4.9828	18.3872	53.8243	0.0709	3.4867	0.2242	3.7109	0.9388	0.2060	1.1448	0.0000	5,943.0973	5,943.0973	0.1925	0.0000	5,947.1397

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Regional Shopping Center	5,337.44	6,211.27	3137.33	9,025,966	9,025,966
Total	5,337.44	6,211.27	3,137.33	9,025,966	9,025,966

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.383251	0.051732	0.132529	0.173155	0.050937	0.006034	0.013841	0.173921	0.002004	0.002292	0.007103	0.001141	0.002060

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Attachment: Exhibit F - ISND Attachments Part 2 (1031 : Planned Unit Development 2015-02 and Tentative

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	368.3755	368.3755	0.0169	3.5000e-003	369.8171
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	368.3755	368.3755	0.0169	3.5000e-003	369.8171
NaturalGas Mitigated	7.4700e-003	0.0679	0.0571	4.1000e-004		5.1600e-003	5.1600e-003		5.1600e-003	5.1600e-003	0.0000	73.9593	73.9593	1.4200e-003	1.3600e-003	74.4094
NaturalGas Unmitigated	7.4700e-003	0.0679	0.0571	4.1000e-004		5.1600e-003	5.1600e-003		5.1600e-003	5.1600e-003	0.0000	73.9593	73.9593	1.4200e-003	1.3600e-003	74.4094

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	1.38595e+006	7.4700e-003	0.0679	0.0571	4.1000e-004		5.1600e-003	5.1600e-003		5.1600e-003	5.1600e-003	0.0000	73.9593	73.9593	1.4200e-003	1.3600e-003	74.4094
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**7.4700e-003**	**0.0679**	**0.0571**	**4.1000e-004**		**5.1600e-003**	**5.1600e-003**		**5.1600e-003**	**5.1600e-003**	**0.0000**	**73.9593**	**73.9593**	**1.4200e-003**	**1.3600e-003**	**74.4094**

Attachment: Exhibit F - ISND Attachments Part 2 (1031 : Planned Unit Development 2015-02 and Tentative

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Regional Shopping Center	1.38595e+006	7.4700e-003	0.0679	0.0571	4.1000e-004		5.1600e-003	5.1600e-003		5.1600e-003	5.1600e-003	0.0000	73.9593	73.9593	1.4200e-003	1.3600e-003	74.4094
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**7.4700e-003**	**0.0679**	**0.0571**	**4.1000e-004**		**5.1600e-003**	**5.1600e-003**		**5.1600e-003**	**5.1600e-003**	**0.0000**	**73.9593**	**73.9593**	**1.4200e-003**	**1.3600e-003**	**74.4094**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	152416	43.6164	2.0000e-003	4.1000e-004	43.7871
Regional Shopping Center	1.13486e+006	324.7591	0.0149	3.0900e-003	326.0300
Total		**368.3755**	**0.0169**	**3.5000e-003**	**369.8171**

Attachment: Exhibit F - ISND Attachments Part 2 (1031 : Planned Unit Development 2015-02 and Tentative

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	152416	43.6164	2.0000e-003	4.1000e-004	43.7871
Regional Shopping Center	1.13486e+006	324.7591	0.0149	3.0900e-003	326.0300
Total		**368.3755**	**0.0169**	**3.5000e-003**	**369.8171**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.9138	5.0000e-005	5.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.9600e-003	9.9600e-003	3.0000e-005	0.0000	0.0106
Unmitigated	1.9138	5.0000e-005	5.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.9600e-003	9.9600e-003	3.0000e-005	0.0000	0.0106

Attachment: Exhibit F - ISND Attachments Part 2 (1031 : Planned Unit Development 2015-02 and Tentative

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1900					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7233					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.1000e-004	5.0000e-005	5.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.9600e-003	9.9600e-003	3.0000e-005	0.0000	0.0106
Total	**1.9138**	**5.0000e-005**	**5.2500e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**9.9600e-003**	**9.9600e-003**	**3.0000e-005**	**0.0000**	**0.0106**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1900					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7233					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.1000e-004	5.0000e-005	5.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.9600e-003	9.9600e-003	3.0000e-005	0.0000	0.0106
Total	**1.9138**	**5.0000e-005**	**5.2500e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**9.9600e-003**	**9.9600e-003**	**3.0000e-005**	**0.0000**	**0.0106**

7.0 Water Detail

Attachment: Exhibit F - ISND Attachments Part 2 (1031 : Planned Unit Development 2015-02 and Tentative

7.1 Mitigation Measures Water

Use Water Efficient Landscaping

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	22.8300	0.3009	7.2600e-003	31.3997
Unmitigated	22.8300	0.3009	7.2700e-003	31.4043

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	9.20721 / 5.64313	22.8300	0.3009	7.2700e-003	31.4043
Total		**22.8300**	**0.3009**	**7.2700e-003**	**31.4043**

Attachment: Exhibit F - ISND Attachments Part 2 (1031 : Planned Unit Development 2015-02 and Tentative

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	9.20721 / 5.64313	22.8300	0.3009	7.2600e-003	31.3997
Total		**22.8300**	**0.3009**	**7.2600e-003**	**31.3997**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	26.4944	1.5658	0.0000	59.3756
Unmitigated	26.4944	1.5658	0.0000	59.3756

Attachment: Exhibit F - ISND Attachments Part 2 (1031 : Planned Unit Development 2015-02 and Tentative

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	130.52	26.4944	1.5658	0.0000	59.3756
Total		**26.4944**	**1.5658**	**0.0000**	**59.3756**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	130.52	26.4944	1.5658	0.0000	59.3756
Total		**26.4944**	**1.5658**	**0.0000**	**59.3756**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

Attachment: Exhibit F - ISND Attachments Part 2 (1031 : Planned Unit Development 2015-02 and Tentative

10.0 Vegetation

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	0.0000	0.0000	0.0000	0.0000

10.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Miscellaneous	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Attachment: Exhibit F - ISND Attachments Part 2 (1031 : Planned Unit Development 2015-02 and Tentative

APPENDIX C

m | r | wolfe
& associates, p.c.
attorneys-at-law

July 27, 2015

By Fax & E-Mail
Acknowledgement of Receipt Requested

Steve Froberg, Chair
Members of the Planning Commission
City of Hanford
c/o City Clerk
319 North Douty
Hanford, CA 93230
Fax: (559) 585-2595
jgomez@cityofhanfordca.com

Re: Revised Negative Declaration 2015-06; Planned Unit Development 2015-02 and Vesting Tentative Map No. 2015-02

Dear Chair Froberg and Members of the Planning Commission:

On behalf of the Hanford Clean Air Coalition, an unincorporated association of citizens who live and/or work in the City of Hanford, please accept the following comments on the Revised Negative Declaration for the proposed retail development project ("Project") at 12th Avenue and Lacey Boulevard in the City of Hanford ("City"), referenced above.

As explained in the body of this letter, the initial study supporting the proposed negative declaration ("ND") contains insufficient analysis to support the conclusion that the Project could have no significant impacts on the environment or on human health, and that no mitigation measures of any kind are required as conditions of approval. On the contrary, the Project not only may but likely will have significant unmitigated impacts in the areas of air quality, human health, and greenhouse gas emissions.

Under these circumstances, the Planning Commission should take no action to approve the Project until City staff have prepared a new initial study that meaningfully evaluates the potential significance of these and other environmental impacts, and determines whether any mitigation is necessary. If impacts are found to

be significant and/or require mitigation, then the City should circulate a mitigated negative declaration or a full environmental impact report ("EIR") as required under CEQA before considering whether to approve the Project.

I. No Evidence of Consultation with Responsible Agencies.

Section 15072(a) of the CEQA Guidelines requires the City, as lead agency, to provide notice of its intent to adopt a ND not only to the public, but also to "responsible agencies, trustee agencies, and the county clerk of each county within which the proposed project is located, sufficiently prior to adoption by the lead agency of the negative declaration or mitigated negative declaration to allow the public and agencies the review period provided under Section 15105." In addition, Section 15063(g) provides that: "As soon as a Lead Agency has determined that an Initial Study will be required for the project, the Lead Agency shall consult informally with all Responsible Agencies and all Trustee Agencies responsible for resources affected by the project to obtain the recommendations of those agencies as to whether an EIR or a Negative Declaration should be prepared."

Ordinarily, notice to responsible and trustee agencies is provided via the State Clearinghouse. Here, neither the original ND dated June 25, 2015, nor the revised ND dated July 8, 2015, includes a State Clearinghouse number. Furthermore, as of the date of this letter the City's notice of intent to adopt the ND does not appear in the State Clearinghouse's CEQAnet Database. This strongly suggests that the City may not have provided the required notice to responsible and trustee agencies as CEQA requires.

If such notice was provided, please provide evidence. If indeed no notice was provided, then the City should re-issue its notice of intent and provide 20 days' notice to these agencies per Section 15105 of the CEQA Guidelines.

II. Inconsistent Reporting of Building Square Footage, Leading to Faulty Trip Generation Estimates.

The initial study describes the Project as including seven retail buildings totaling 124,300 square feet ("SF") of built space. However, the most recent traffic study by Peters Engineering Group from August, 2014, which the initial study references and relies upon for its conclusions about the Project's traffic impacts, describes the Project as including a total of 111,400 SF in five buildings. *See* Peters, Aug. 11, 2014, p. 1. This nearly 13,000 SF difference is substantial, since the Project's new trip generation rates are computed as a function of total building square footage.

It thus appears that the initial study's assumptions regarding Project trip generation – and by extension its conclusions regarding the Project's traffic, air quality, and greenhouse gas emissions impacts -- are predicated on a substantial understatement of the Project's size. At the very least the City should prepare and circulate a revised traffic analysis that is based on accurate square footage assumptions before approving the Project.

III. Inadequate Analysis of Air Quality Impacts From Emissions of Criteria Air Pollutants

The initial study recites the applicable federal Clean Air Act air quality standards for criteria air pollutants, then acknowledges that the San Joaquin Valley Air Basin is designated as "extreme non-attainment" for the federal 8-hour ozone standard, and "nonattainment" for the federal PM2.5 standard, and "nonattainment" for the state ozone, PM10 and PM2.5 standards. The initial study then quotes the air quality impact significance criteria established by the San Joaquin Valley Air Pollution Control District ("SJVAPCD") for purposes of conducting CEQA review.

That is where the analysis stops. The initial study then simply concludes, with no support of any kind, that the Project could not have any significant air quality impact. The initial study simply offers bald conclusions that the Project "would not create a significant impact over the current levels of ozone and PM10 or result in a violation of any applicable air quality standards [and] is not anticipated to conflict with the attainment plans adopted by the SJVAPCD." Initial Study at p. 12. Beyond a generic assertion the Project would be subject to SJVAPCD Rules & Regulations, the initial study neither includes nor cites any data, evidence, or analysis whatsoever to support its overall conclusion of no significant air quality impact.

Please note that an initial study must disclose the actual data or evidence supporting its environmental findings. *Citizens Ass'n for Sensible Dev. v. County of Inyo* (1985) 172 Cal.App.3d 151, 171. Moreover, an initial study that is materially deficient cannot support a finding of less than significant impact and hence a negative declaration under CEQA. *Christward Ministry v. Superior Court* (1986) 184 Cal.App.3d 180, 197. The City should therefore, at a minimum, prepare and circulate a revised initial study that contains data, evidence, and analysis showing whether and to what extent Project-related emissions of criteria air pollutants exceed the applicable standards and significance criteria established by the SJVAPCD and/or the federal Clean Air Act. If the Project is found to exceed these standards/criteria, then a full EIR will be required for the Project.

IV. Insufficient Analysis of Greenhouse Gas Emissions Impacts

The initial study likewise fails to provide any data, evidence, or analysis whatsoever to support its bald conclusion that the Project will have no significant impacts from greenhouse gas emissions. The study simply states that: "[t]he project will not contribute significantly to global climate change and would not impede the State's ability to meet its GHG reduction targets under AB32 [and] the project will not contribute significantly, either individually or cumulatively, to global climate change, there impacts are determined to be less than significant." Initial Study, p. 19.

According to Section 15064.4(a) of the CEQA Guidelines, in determining the significance of a project's greenhouse gas emissions:

> "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. A lead agency shall have discretion to determine, in the context of a particular project, whether to:
>
> > (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model or methodology it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; and/or
> >
> > (2) Rely on a qualitative analysis or performance based standards."

Here, the initial study nowhere quantifies the Project's greenhouse gas emissions. It likewise fails to cite or rely upon a qualitative analysis or performance based standards. Furthermore, there is no indication that the City has considered, as required by Section 15064.4(b):

> "(1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;[1]
>
> (2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.[2]

---

1 The initial study does not disclose the existing environmental setting with regard to GHG emissions.

2 The initial study does not identify a threshold of significance for GHG emissions.

(3) 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 greenhouse gas emissions. Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions."[3]

The City should, at a minimum, prepare and circulate a revised initial study that contains actual data, evidence, and analysis showing whether and to what extent Project-related emissions of GHGs will be individually or cumulatively significant.

V. No Analysis of Human Health Impacts from Exposure to Toxic Air Contaminants

The initial study concludes – once again with no supporting data, evidence, or health risk assessment – that the Project will not have a significant impact on human health, asserting merely that: "[t]he project is surrounding by existing commercial development and will not result in expose of sensitive receptors to substantial pollutant concentrations."

The San Joaquin Air Basin generally, and the area around Hanford/ Visalia in particular, currently experiences an elevated ambient cancer risk due to ambient concentrations of toxic air contaminants ("TACs"). Accordingly, the SJVAPCD has established both modeling protocols and significance criteria for local land use permitting agencies to use in determining whether a project's emissions of TACs, primarily in the form of diesel exhaust particulate matter ("DPM"), will result in a significant cancer risk to exposed individuals.[4]

The Project site plan included in the initial study shows that the largest retail building, "Anchor A," will include loading docks along the site's southwestern boundary. These docks presumably will accommodate deliveries of retail merchandise via heavy diesel trucks. If the end user is a supermarket or grocer, then truck deliveries may be assumed to include trucks with top-mounted, diesel-powered refrigeration units ("TRUs").

---

3 Absent any actual analysis, the initial study's oblique, conclusory statement that the Project's purported compliance with the state's Climate Action Plan and SJVUAPCD rules will reduce GHG impacts to less than significant is inadequate.

4 *See* http://www.valleyair.org/transportation/ceqaanalysislevels.htm

The initial study does not disclose the number of heavy truck deliveries expected at the site on a daily, weekly, or monthly basis. However, the traffic study assumes that 2 percent of the traffic volumes on the roadway segments and intersections affected by the Project comprise heavy trucks. This suggests that the combination of heavy truck deliveries and customer-owned diesel vehicle tricks could generate emissions of TACs that could individually and/or cumulatively increase cancer risks to exposed receptors beyond the applicable significance thresholds.

Please note that notwithstanding the initial study's conclusion, there are receptors (including sensitive receptors such as children and the elderly) located in the residential area at the intersection of Centennial Drive and W. Lacey Blvd., a few hundred feet from the loading docks. TAC emissions form trucks and customer diesel vehicles traveling to the site along this route, as well as from trucks with TRUs idling in the loading bays while goods are unloaded, may well result in an individually or cumulatively significant health risk.

The City should revise and recirculate the initial study to include a health risk assessment that evaluates the potential incremental cancer risk to nearby receptors resulting from Project-generated diesel vehicle trips. The assessment should identify the number and type of heavy trucks making deliveries to the site per day/week/month, along which anticipated routes, and should disclose how many of those will include TRU. If the corresponding cancer risk is found significant, either individually or cumulatively, then a full EIR will be required for the Project.

VI. Inadequate Analysis of Hazardous Materials Impacts.

The initial study reports that "field review by City staff did not reveal any potential for hazards or obvious signs of contamination on the site." Initial Study at p. 20. Again, there is no data or analysis to indicate what the filed review consisted of (visual reconnaissance? soil samples? property record review?), whether it was undertaken by a qualified professional, whether the results were documented, etc. The initial study is likewise silent on what land uses existed at the site previously, and whether such uses may have involved the application, storage, or disposal of hazardous substances, including but not limited to pesticides, herbicides, or petroleum products.

For many if not most large-scale retail projects on vacant land such as this, a Phase I environmental site assessment ("ESA") is generally performed as part of an initial study under CEQA. The City should, at a minimum, revise and recirculate the initial study to include a Phase I ESA. Depending on the results, a more detailed "Phase II" study may be required, which in turn would necessitate preparation of an EIR for the Project.

Attachment: Exhibit F - ISND Attachments Part 2 (1031 : Planned Unit Development 2015-02 and Tentative

Packet Pg. 323

VI. Conclusion

For all these reasons, we respectfully request the Planning Commission to take no action to approve the Project unless and until City staff prepare and circulate and factually supported, legally adequate initial study that meaningfully evaluates the Project's potential to adversely impacts relating to air quality, human health, traffic, and greenhouse gas emissions.

Thank you for your consideration of these concerns.

Yours sincerely,

M. R. WOLFE & ASSOCIATES, P.C.

Mark R. Wolfe
On behalf of Hanford Clean Air Coalition

MRW:am
cc: Melody Haigh, Community Development Manager
(by email to: mhaigh@cityofhanfordca.com)

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

Received
JUL - 6 2015
City of Hanford
Community Development

June 30, 2015

Diana Black
City of Hanford
Community Development Department
317 North Douty Street
Handord, CA 93230

Project: Early Consultation Notice – Planned Unit Development No. 2015-02 and Vesting Tentative Parcel Map No. 2015-02

District CEQA Reference No: 20150544

Dear Ms. Black:

The San Joaquin Valley Unified Air Pollution Control District (District) has reviewed the project referenced above consisting of seven retail buildings totaling 124,300 square feet and dividing one parcel into seven parcels located at south west corner of 12th Avenue in Hanford, CA. The District offers the following comments:

District Comments

1) The District's initial review of the project concludes that emissions resulting from construction and/or operation of the project may exceed the following thresholds of significance: 10 tons per year of oxides of nitrogen (NOx), 10 tons per year of reactive organic gases (ROG), or 15 tons per year particulate matter of 10 microns or less in size (PM10). The District recommends that a more detailed preliminary review of the project be conducted. The additional environmental review of the project's potential impact on air quality should consider the following:

   1a) Project Emissions should be identified and quantified.

      i) Permitted (stationary sources) and non-permitted (mobile sources) sources should be analyzed separately. Preparation of an Environmental Impact Report (EIR) is recommend should emissions from either source exceed the following amounts: 10 tons per year of oxides of nitrogen (NOx), 10 tons per

year of reactive organic gases (ROG), or 15 tons per year particulate matter of 10 microns or less in size (PM10).

ii) Pre- and post-project emissions should be identified. The projects related impacts on air quality can be reduced through incorporation of design elements, for example, that increase energy efficiency, reduce vehicle miles traveled, and reduce construction exhaust related emissions. However, design elements and compliance with District rules and regulations may not be sufficient to reduce project related impacts on air quality to a less than significant level. Another example of a feasible mitigation measure is the mitigation of project emissions through a Voluntary Emission Reduction Agreement (VERA). The VERA is an instrument by which the project proponent provides monies to the District, which is used by the District to fund emission reduction projects that achieve the reductions required by the lead agency. District staff is available to meet with project proponents to discuss a VERA for specific projects. For more information, or questions concerning this topic, please call District Staff at (559) 230-6000.

1b) Nuisance Odors should be discussed as to whether the project would create objectionable odors affecting a substantial number of people.

Toxic Air Contaminants (TACs) –are defined as air pollutants that which may cause or contribute to an increase in mortality or serious illness, or which may pose a hazard to human health. The most common source of TACs can be attributed to diesel exhaust fumes that are emitted from both stationary and mobile sources. If the project is located near residential/ sensitive receptors, the proposed project should be evaluated to determine the health impact of TACs to the near-by receptors. If the analysis indicates that TACs are a concern, the District recommends that a Health Risk Assessment (HRA) be performed. If an HRA is to be performed, it is recommended that the project proponent contact the District to review the proposed modeling approach. More information on TACs, prioritizations and HRAs can be obtained by:

- E-mailing inquiries to: hramodeler@valleyair.org; or
- Visiting the District's website at: http://www.valleyair.org/busind/pto/Tox_Resources/AirQualityMonitoring.htm.

2) If preliminary review indicates that a Mitigated Negative Declaration should be prepared, in addition to the effects identified above, the document should include:

2a) Mitigation Measures – If preliminary review indicates that with mitigation, the project would have a less than significant adverse impact on air quality, the effectiveness of each mitigation measure incorporated into the project should be discussed.

2b) District's attainment status – The document should include a discussion of whether the project would result in a cumulatively considerable net increase of any criteria pollutant or precursor for which the San Joaquin Valley Air Basin is in non-attainment. Information on the District's attainment status can be found online by visiting the District's website at http://valleyair.org/aqinfo/attainment.htm.

3) If preliminary review indicates that an Environmental Impact Report (EIR) should be prepared, in addition to the effects identified above, the document should also include the following:

3a) A discussion of the methodology, model assumptions, inputs and results used in characterizing the project's impact on air quality.

3b) A discussion of the components and phases of the project and the associated emission projections, (including ongoing emissions from each previous phase).

4) Based on information provided to the District, the proposed project would equal or exceed 2,000 square feet of commercial space. Therefore, the District concludes that the proposed project is subject to District Rule 9510 (Indirect Source Review).

District Rule 9510 is intended to mitigate a project's impact on air quality through project design elements or by payment of applicable off-site mitigation fees. Any applicant subject to District Rule 9510 is required to submit an Air Impact Assessment (AIA) application to the District no later than applying for final discretionary approval, and to pay any applicable off-site mitigation fees before issuance of the first building permit. If approval of the subject project constitutes the last discretionary approval by your agency, the District recommends that demonstration of compliance with District Rule 9510, including payment of all applicable fees be made a condition of project approval. Information about how to comply with District Rule 9510 can be found online at: http://www.valleyair.org/ISR/ISRHome.htm.

5) Particulate Matter 2.5 microns or less in size (PM2.5) from under-fired charbroilers (UFCs) pose immediate health risk. Since the cooking of meat can release carcinogenic PM2.5 species like polycyclic aromatic hydrocarbons (PAH), controlling emissions from under-fired charbroilers will have a substantial positive impact on public health.

Charbroiling emissions occur in populated areas, near schools and residential neighborhoods, resulting in high exposure levels for sensitive Valley residents. The air quality impacts on neighborhoods near restaurants with UFCs can be significant on days when meteorological conditions are stable, when dispersion is limited and emissions are trapped near the surface within the surrounding

neighborhoods. This potential for neighborhood-level concentration of emissions during evening or multi-day stagnation events raises environmental concerns.

In addition, the cooking emissions source category is one of the largest single contributors of directly emitted PM2.5 in the Valley. Photochemical modeling conducted for the 2012 PM2.5 Plan showed that reducing commercial charbroiling emissions is critical to achieving PM2.5 attainment in the Valley.

The District will amend Rule 4692 (Commercial Charbroiling) in 2016, with a 2017 compliance date, to add emission control requirements for UFCs, as committed to in the District's 2012 PM2.5 Plan. Installing charbroiler emissions control systems during construction of new facilities is likely to result in substantial economic benefit compared to costly retrofitting.

Therefore, the District strongly recommends that your agency require new restaurants that will operate UFCs to install emission control systems during the construction phase. To ease the financial burden for Valley businesses that wish to install control equipment before it is required, the District will offer incentive funding during the time leading up to the 2016 amendment. Restaurants with UFCs may be eligible to apply for funding to add emission control systems. Please contact the District at (559) 230-5858 for more information.

6) The proposed project may require District permits. Prior to the start of construction the project proponent should contact the District's Small Business Assistance Office at (559) 230-5888 to determine if an Authority to Construct (ATC) is required.

7) The proposed project may be subject to the following District rules: Regulation VIII (Fugitive PM10 Prohibitions), Rule 4102 (Nuisance), Rule 4601 (Architectural Coatings), and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations). In the event an existing building will be renovated, partially demolished or removed, the project may be subject to District Rule 4002 (National Emission Standards for Hazardous Air Pollutants).

8) The District recommends that a copy of the District's comments be provided to the project proponent.

The above list of rules is neither exhaustive nor exclusive. To identify other District rules or regulations that apply to this project or to obtain information about District permit requirements, the applicant is strongly encouraged to contact the District's Small Business Assistance Office at (559) 230-5888. Current District rules can be found online at: www.valleyair.org/rules/1ruleslist.htm.

District staff is available to meet with you and/or the applicant to further discuss the regulatory requirements that are associated with this project. If you have any questions or require further information, please call Michael Corder at (559) 230- 5818.

Sincerely,

Arnaud Marjollet
Director of Permit Services

Michael S Corder for:

Chay Thao
Program Manager

AM: mc

Environmental Health comment

From: Diana Black
Sent: Wednesday, June 17, 2015 3:19 PM
To: Melody Haigh
Subject: FW: PUD No. 2015-02/Vesting Tentative Parcel Map NO. 2015-02

Diana Black
Administrative Support Technician
Community Development Department
317 N. Douty Street
Hanford, CA 93230
(559) 585-2580
FAX: (559) 583-1633

From: Hommerding, Troy [mailto:Troy.Hommerding@co.kings.ca.us]
Sent: Wednesday, June 17, 2015 3:05 PM
To: Diana Black
Subject: RE: PUD No. 2015-02/Vesting Tentative Parcel Map NO. 2015-02

Thank you for the opportunity to comment on this project, our office offers the following comments.

1. Valley Fever: As per the Kings County Public Health Officer, Coccidiodes immiti, the fungus that causes valley fever, a serious and potentially long-term respiratory illness, is endemic in the soils of Kings County. Construction activities that disturb soils containing the spores of the fungus can put workers and the nearby public at risk. Effective dust control must be maintained on the job site at all times in order to reduce the risk of valley fever to workers and nearby residents. More information regarding the prevention of work related valley fever is available at www.cdph.ca.gov/programs/hesis/Documents/CocciFact.pdf and http://www.cdph.ca.gov/programs/ohb/Documents/OccCocci.pdf. Contact the San Joaquin Valley Air Pollution Control District for more information on dust control techniques.

2. Due to the severe drought conditions and water restrictions/reductions issued by the State of California, drinking water if used for dust control, should be minimized or alternative methods should be sought for dust control for this project.

3. Three complete sets of construction plans for the new or remodeled food facilities must be submitted to Kings County Environmental Health Services for review and approval prior to beginning construction work. The plans must include sufficient information and detail to ensure the facility will comply with the California Retail Food Code, and must include cut sheets or other adequate descriptions of all proposed equipment. The plan submittal must include floor, plumbing, lighting, food equipment, and mechanical ventilation schedules of the kitchen, restroom, and food storage areas, as applicable. A plan check application must accompany the plan submittal. The application form can be obtained by contacting KCEHS at

Attachment: Exhibit F - ISND Attachments Part 2 (1031 : Planned Unit Development 2015-02 and Tentative

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559-584-1411 or
via download from the Department's website at:
http://www.countyofkings.com/health/ehs/. A plan check guidance document is also available at that site.

4. If any of the retail spaces may at some point house one or more food service businesses, the applicant should be made aware that the California Health and Safety Code/California Retail Food Code requires outdoor trash enclosures or storage locations be of non-absorbent material such as concrete or asphalt, easily cleanable, durable and sloped to a drain that discharges to an approved sewage treatment system. Furthermore, dumpsters and trash enclosures must be installed so that effective cleaning is possible. Effective cleaning of the dumpster and the outside trash storage area may be accomplished by providing a hot and cold water hose bibb with vacuum breaker in the area, for example, or by use of a portable steam cleaner. As noted above, all waste water from such cleaning operations must drain to the sanitary sewer. In order to avoid potentially expensive retrofits, such installations will likely need to be built early in the process, even before all prospective tenants are identified.

5. Since grease traps or interceptors generally may not be located in a food handling area, the applicant should consider proactive installation of an exterior subterranean grease trap(s) to service potential future food service tenants at the site.

6. If any retail spaces store hazardous materials at or above threshold reporting quantities (55 gallons of a liquid, 500 pounds of a solid, or 200 cubic feet of a gas), the facility must file a Hazardous Materials Business Plan online at http://cers.calepa.ca.gov within 30 days of beginning operations. Hazardous materials are broadly defined, and include fuel, lubricants, antifreeze, motor vehicle batteries, welding gases, paints, solvents, glues, agricultural chemicals, etc. Please contact our office if you require assistance with the online registration process.

7. Any quantities of hazardous wastes generated by any of the retail facility operations must be managed in accordance with Federal, State, and local laws and regulations. Hazardous wastes cannot be disposed of into the municipal waste stream or onsite sewage disposal system. The owner/operator must contact our office with any questions regarding proper management and reporting of hazardous wastes, such as waste oil/filters, damaged products that may contain hazardous wastes.

Troy Hommerding
Kings County Environmental Health Services

Environmental Health comment

330 Campus Dr.
Hanford, CA 93230
From: Diana Black [mailto:DBlack@cityofhanfordca.com]
Sent: Tuesday, June 16, 2015 4:50 PM
To: Ortiz, Rachel; 'AT&T'; 'AT&T - Frank Robles'; 'Comcast'; 'HANFORD ELEMENTARY SCHOOL DISTRICT';
'HANFORD JOINT UNION HIGH SCHOOL DISTRICT'; 'HANFORD JOINT UNION HIGH SCHOOL DISTRICT';
Cooke, Raymond; Hommerding, Troy; 'CEQA@valleyair.org'; Kinney, Chuck; Hawkins, Mike; Kimberger,
Karen; 'SCE'; 'SCE'; 'SCE-Regional Manager'; 'SoCal Gas Co'; 'SoCal Gas Co'
Subject: PUD No. 2015-02/Vesting Tentative Parcel Map NO. 2015-02

Please see the attached notice and reply as requested.

Thank you!

Diana Black
Administrative Support Technician
Community Development Department
317 N. Douty Street
Hanford, CA 93230
(559) 585-2580
FAX: (559) 583-1633

APPENDIX D

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

July 20, 2015

JUL 23 2015

Melody Haigh
City of Hanford
Community Development Department
317 North Douty Street
Hanford, CA 93230

Project: Negative Declaration 2015-06 – Planned Unit Development No. 2015-02 and Vesting Tentative Parcel Map No. 2015-02

District CEQA Reference No: 20150612

Dear Ms. Haigh:

The San Joaquin Valley Unified Air Pollution Control District (District) has reviewed the Negative Declaration for the project referenced above pertaining to the construction of a seven building shopping center totaling 124,300 square feet located at the southwest corner of 12th Avenue and Lacey Boulevard in Hanford, CA. The District offers the following comments:

District Comments

1. The District provides guidance to assist regulatory agencies and the public in addressing air quality impacts under the California Environmental Quality Act (CEQA). The guidance is called *Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI)* and was revised to a March 19, 2015 version. Agencies should implement the latest guidance available from the District on the subject of air quality under CEQA.

   The guidance is available at the following link:
   http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf

2. The District would like to clarify that the District has an adopted threshold of 15 tons per year for PM10.

3. For large construction projects, compliance with District Regulation VIII and Rule 9510 may not reduce project specific construction emissions to below the District's thresholds of significance.

The District provides Small Project Analysis Level (SPAL) to streamline the process of assessing the significance of the impact of criteria pollutant emissions from common projects. Using project type and size, the District has pre-quantified emissions and determined a size below which it is reasonable to conclude that a project would not exceed applicable thresholds of significance for criteria pollutants.

If the initial study demonstrates that construction emissions would be less than significant based on SPAL screening levels, quantification of construction emissions is not necessary.

If the initial study does not demonstrate that construction emissions would be less than significant based on SPAL screening levels, quantification of construction emissions is recommended.

Based on the information provided to the District, the project would be above the SPAL and would have a significant impact.

4. The proposed project would equal or exceed 2,000 square feet of commercial space. Therefore, the District concludes that the proposed project is subject to District Rule 9510 (Indirect Source Review).

    a. District Rule 9510 is intended to mitigate a project's impact on air quality through project design elements or by payment of applicable off-site mitigation fees.

    b. Any applicant subject to District Rule 9510 is required to submit an Air Impact Assessment (AIA) application to the District no later than applying for final discretionary approval.

    c. If approval of the subject project constitutes the last discretionary approval by your agency, the District recommends that demonstration of compliance with District Rule 9510 be made a condition of project approval. Information about how to comply with District Rule 9510 can be found online at: http://www.valleyair.org/ISR/ISRHome.htm.

5. Particulate Matter 2.5 microns or less in size (PM2.5) from under-fired char-broilers (UFCs) pose immediate health risk. Since the cooking of meat can release carcinogenic PM2.5 species like polycyclic aromatic hydrocarbons (PAH), controlling emissions from under-fired charbroilers will have a substantial positive impact on public health.

    Charbroiling emissions occur in populated areas, near schools and residential neighborhoods, resulting in high exposure levels for sensitive Valley residents. The air quality impacts on neighborhoods near restaurants with UFCs can be

significant on days when meteorological conditions are stable, when dispersion is limited and emissions are trapped near the surface within the surrounding neighborhoods. This potential for neighborhood-level concentration of emissions during evening or multi-day stagnation events raises environmental concerns.

In addition, the cooking emissions source category is one of the largest single contributors of directly emitted PM2.5 in the Valley. Photochemical modeling conducted for the 2012 PM2.5 Plan showed that reducing commercial charbroiling emissions is critical to achieving PM2.5 attainment in the Valley.

The District will amend Rule 4692 (Commercial Charbroiling) in 2016, with a 2017 compliance date, to add emission control requirements for UFCs, as committed to in the District's 2012 PM2.5 Plan. Installing char-broiler emissions control systems during construction of new facilities is likely to result in substantial economic benefit compared to costly retrofitting.

Therefore, the District strongly recommends that your agency require new restaurants that will operate UFCs to install emission control systems during the construction phase. To ease the financial burden for Valley businesses that wish to install control equipment before it is required, the District will offer incentive funding during the time leading up to the 2016 amendment. Restaurants with UFCs may be eligible to apply for funding to add emission control systems. Please contact the District at (559) 230-5858 for more information.

6. The proposed project may require District permits. Prior to the start of construction the project proponent should contact the District's Small Business Assistance Office at (559) 230-5888 to determine if an Authority to Construct (ATC) is required.

7. The proposed project may be subject to the following District rules: Regulation VIII Coatings), and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations). In the event an existing building will be renovated, partially demolished or removed, the project may be subject to District Rule 4002 (National Emission Standards for Hazardous Air Pollutants).

The above list of rules is neither exhaustive nor exclusive. To identify other District rules or regulations that apply to this project or to obtain information about District permit requirements, the applicant is strongly encouraged to contact the District's Small Business Assistance Office at (559) 230-5888. Current District rules can be found online at: www.valleyair.org/rules/1ruleslist.htm.

8. The District recommends that a copy of the District's comments be provided to the project proponent.

District staff is available to meet with you and/or the applicant to further discuss the regulatory requirements that are associated with this project. If you have any questions or require further information, please call Cherie Clark at (559) 230- 5940.

Sincerely,

Arnaud Marjollet
Director of Permit Services

Cherie A Clark for:

Chay Thao
Program Manager

AM: cc

m | r | wolfe
& associates, p.c.
attorneys-at-law

August 20, 2015

By Fax & E-Mail
Acknowledgement of Receipt Requested

Steve Froberg, Chair
Members of the Planning Commission
City of Hanford
c/o City Clerk
319 North Douty
Hanford, CA 93230
Fax: (559) 585-2595
jgomez@cityofhanfordca.com

Re: Recirculated Initial Study and Negative Declaration 2015-06; Planned Unit Development 2015-02 and Vesting Tentative Map No. 2015-02

Dear Chair Froberg and Members of the Planning Commission:

On behalf of the Hanford Clean Air Coalition, an unincorporated association of citizens who live and/or work in the City of Hanford, please accept the following comments on the Recirculated Initial Study and Negative Declaration dated July 30, 2015 ("RIS/ND"), for the proposed retail development project ("Project") at 12th Avenue and Lacey Boulevard in the City of Hanford ("City"), referenced above.

The RIS/ND purports to address some of the concerns raised in our July 27, 2015 comment letter on the previous initial study and negative declaration. As explained further below, the revised study does not adequately address these concerns and continues to lack sufficient analysis to support its conclusion that the Project could have no significant impacts on the environment or on human health.

On the issue of air quality, the RIS/ND reports that the City analyzed the Project's criteria pollutant emission using the CalEEMod software package, and found that Project-related emissions of NOx will exceed the SJVAPCD's CEQA significance thresholds by a substantial amount (25.48 tons per year compared to significance criterion of just 10 tons per year). This obviously is a significant environmental impact that by itself would require preparation of an EIR.

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Attachment: Exhibit G - MR Wolfe and SJVAPCD Comment Letters (1031 : Planned Unit Development

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The RIS/ND claims, however, that because the Project is consistent with the land use designations contained in the 2002 General Plan, for which the City adopted (and now incorporates by reference) a Statement of Overriding Considerations for air quality impacts when it certified the accompanying EIR, no further consideration or mitigation for this impact is necessary. There is no indication, however, that emissions from this Project were assumed or included in any of the 2002 General Plan EIR air quality analysis's assumptions or calculations. CEQA requires a de novo analysis of impacts from a project notwithstanding its consistency with a General Plan where, as here, new information shows impacts will be more significant than assumed in an EIR certified for the General Plan. Pub. Resources Code § 21083.3(a).

On the issue of toxic air contaminants ("TACs"), the RIS/ND states that the Project does not meet the criteria for triggering a Health Risk Assessment because it is not identified as a source of TACs and is not located sufficiently close to any sensitive receptor. At the same time, the RIS/ND states that although no tenants have been identified for the Project, truck traffic that would trigger the duty to prepare a risk assessment "is not anticipated." This does not constitute "actual data or evidence supporting . . . environmental findings" as CEQA requires.

Finally, the RIS/ND does not meaningfully address concerns related to the Project's greenhouse gas emissions and hazardous materials impacts.

For these reasons, and for those contained in our July 27 letter, we again respectfully request the Planning Commission to take no action to approve the Project unless and until City staff prepare and circulate and factually supported, legally adequate initial study.

Thank you for your consideration of these concerns.

Yours sincerely,

M. R. WOLFE & ASSOCIATES, P.C.

Mark R. Wolfe
On behalf of Hanford Clean Air Coalition

MRW:am
cc: Melody Haigh, Community Development Manager
(by email to: mhaigh@cityofhanfordca.com)