



City Council Meeting Agenda

May 16, 2023
7:00 PM – Regular Meeting
Council Chambers
400 N. Douty St.

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

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

ROLL CALL BY THE CITY CLERK:

PUBLIC COMMENT:

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

STUDY SESSION:

- A. Presentation and review of Capital Improvement Plan (CIP) for upcoming fiscal year 2024 and 2025 Budget and direction from Council on which projects to prioritize, and review of some operating budgets.
- B. Presentation to Council regarding the City's current Cannabis Tax Structure for non-retail businesses, Council consideration of alternative rate structures and, if supported, Authorization for Staff to Prepare Amendments to the rate structure and the Application Process
- C. Presentation to Council and discussion of the City of Hanford's overall street system and maintenance operations

CALL TO ORDER REGULAR SESSION:

ROLL CALL:

INVOCATION:

Jay Rubalcava

FLAG SALUTE:

RECOGNITION:

- A. Acceptance of a donation from Ali Azizuddin, owner of Jackpot Sinclair Gas Station & Car Wash, benefitting the Hanford Police and Fire Departments.

COUNCIL REPORTS/GENERAL REPORTS:

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

PUBLIC COMMENT:

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

CONSENT CALENDAR:

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

- A. Procedural Waiver: Waive reading in full of resolutions and ordinances and approval and adoption of same by reading title the only.
- B. City Clerk: Approval of the Minutes of the May 2, 2023 Meeting
- C. Human Resources: Approval of a 5-year contract renewal, for Workers' Compensation Third Party Administration services, with Acclamation Insurance Management Services, Inc., with a year one cost of \$124,681.67 and authorization for the City Manager to execute all necessary documents.
- D. Community Development: Approval of an Agreement Between the County of Kings and the City of Hanford for cooperation in updating the Housing Element of the Kings County Comprehensive General Plan pursuant to Government Code Section 65580 and authorization to use the City's award of LEAP grant funds to pay for the City's share of the Housing Element.
- E. Community Development: Approval of Amendment No. 4 to the lease agreement between the City of Hanford and Mechanics Bank for the property located at 218 N. Douty Street (Old Post Office).
- F. Public Works: Adoption of Resolution no. 23-10-R regarding the public transit needs within the City of Hanford and authorization for the City Manager to sign and submit the claim for funds and any subsequent amended claims, and Approve the filing of the Notice of Exemption to certify that projects to be constructed with these funds are categorically exempt from the California Environmental Quality Act.

PUBLIC HEARING:

- A. Community Development: A Public Hearing to accept comments related to the Approval of the 2023 Community Development Block Grant (CDBG) Action Plan and Adoption of Resolution No. 23-8-R, Authorizing and Approving the proposed 2023-24 Annual Action.

- B. Community Development: Public hearing to accept comments related to the adoption of Resolution No. 23-13-R, under the Tax and Equity Fiscal Responsibility Act (“TEFRA”) in connection with the proposed issuance of revenue bonds by the California Municipal Finance Authority (the “CMFA”), a joint exercise of powers authority and public entity of the State of California, in an amount not to exceed \$40,000,000, (the “Bonds”), a portion of the proceeds of the Bonds (approximately \$7,000,000) will be used to construct an approximately 15,000 square foot health center at 939 South 12th Avenue in Hanford, California, containing approximately 24 medical exam rooms and ten dental rooms (the “Project”).

GENERAL BUSINESS:

- A. Public Works: Approval of the City of Hanford Local Road and Safety Plan
- B. Public Works: Adoption of Resolution 23-11-R identifying a “Project List” for Road Maintenance and Rehabilitation Account (RMRA) gas tax funding for Fiscal Year 2023/24

COUNCIL COMMENTS AND COMMUNICATIONS:

At this time, any Council Member may ask a question for clarification, make an announcement, or report briefly on their activities. In addition, subject to Council Policies and Procedures, they may request staff to report back to the Council at a subsequent meeting concerning any matter or take action to direct staff to place a matter of business on a future agenda. (GOV. CODE SEC. 54954.2)

- A. Council Future Agenda Items
- B. Upcoming Events and Important Dates:
 - May 1-27: Spring Cleanup Event Kings Waste and Recycling Authority 7803 Hanford - Armona Rd. (Ticket required. Check your April utility bill)
 - May 20: Walk with a Doc Hanford at Freedom Park 2000 9 1/4 Ave., 9:00 a.m. - 10:00 a.m.
 - May 20 and 27: Free Fitness Court Classes, 9:00 a.m. - 10:00 a.m. at Hidden Valley Park
 - May 28: Reimagining Hidden Valley Park Outreach Event #1, 9 – 11 a.m. at Hidden Valley Park
 - June 1: Reimagining Hidden Valley Park Outreach Event #2, 6 – 8 p.m. at Civic Auditorium
 - June 3: Carnegie Car Show in Civic Park, 8:00 a.m. - 12:00 p.m.
 - June 3: Reimagining Hidden Valley Park Outreach Event #3, 3 - 5 p.m. at Hidden Valley Park
 - June 6: Regular City Council Meeting

ADJOURNMENT:

Materials related to an item on this Agenda submitted to the City Council after distribution of the agenda packet are available to public inspection in the City Clerk’s Office located at 319 N. Douty Street, Hanford, California 93230, during normal business hours. Such agendas are also available at the city’s website, www.cityofhanfordca.com subject to staff’s ability to post the agenda before the meeting.

If you need a disability-related modification or accommodation, including auxiliary aids or services, to participate in this meeting, please contact the City Clerk’s office, 559-585-2515, 319 N. Douty Street, Hanford, California 93230, at least 2 days prior to the meeting {28 CFR 35.102.35.104 ADA Title II}



AGENDA STAFF REPORT

MEETING DATE: 5/16/2023

AGENDA SECTION: STUDY SESSION

SUBJECT:

Presentation and review of Capital Improvement Plan (CIP) for upcoming fiscal year 2024 and 2025 Budget and direction from Council on which projects to prioritize, and review of some operating budgets.

Recommendation: Staff recommends that City Council receive a presentation for fiscal years ending June 30, 2024 and June 30, 2025 of the Capital Improvement Plan (CIP) and provide direction on any changes in project priorities. In addition, review some operating budgets and provide feedback to staff.

Recommended Motion: No motion is required. City Council recommendations or directions are requested at this time.

Outlook and Background:

Overall background

The City of Hanford adopts a two-year (biennial) budget. Part of the budget is a Capital Improvement Plan (CIP) that outlines what capital projects will be done by the City in the upcoming budget period. Fiscal years (FY) 2024 (7/1/2023-6/30/2024) and FY2025 (7/1/2024-6/30/2025) are the upcoming budget years to have an adopted budget. The City adopts a five year Capital Improvement Plan which includes future projects in FY26, FY27 and FY28, anything outside the FY24 and FY25 budget years have no appropriation or authorization to spend (listed for planning purposes only).

Staff will review the CIP with City Council over the course of the two meetings in May, May 2nd and on May 16th. Staff have and will meet multiple times prior to Council discussion to work on a balanced and sustainable budget. The schedule for staff budget review with Council is as follows:

May 2, 2023 - DONE - CIP Review (General Fund, Other Funds)

May 16, 2023 - CIP Review (Other Funds), some operating budget review

June 6, 2023 - Operating budget review

June 20, 2023 - Public Hearing: Budget Adoption, Gann/Appropriation Limit Adoption

As discussed May 2nd at the City Council meeting funding for capital funds can be summarized as follows (Chart 1):

Chart 1 - Capital project funding availability

Fund Groups – Capital \$ availability



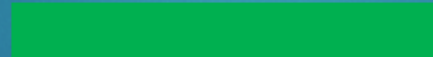
General Fund

- Severely limited



Enterprise Funds

- Subject to funding availability, rates must support



Special Revenue Funds

- Subject to funding availability, limited funding



Internal Service

- Allocated to other funds, limited by other funds

The General Fund:

The General Fund is the City's most discretionary funding source that receives revenues from Sales Tax, Property Taxes, Business Tax, Transient Occupancy Tax among other revenues including fees for recovery of costs. There are several areas of essential services that are paid for out of the General Fund including Policy, Fire, Streets, Administration, Parks/Recreation and Planning/Community Development.

This upcoming budget looks to be very tight for the City's General Fund, in short, it will be a challenge to have a balanced budget as required by Council-adopted resolution. In addition, economic forecasts indicate a slow down in revenue, so cost increases due to inflation and salary increases may be hard pressed to be fully offset. For the past several years, the City has been 'tightening its belt', and in the upcoming budget presentations staff will be looking to tighten even further. However, there are limits as to what can be done as personnel costs are the majority of costs and there are essential costs of operating that must be covered. All non-fixed costs will be scrutinized by staff.

Proving to be a significant challenge to balancing the City's General Fund is the \$12.5 million settlement agreed to in early 2023 of which \$7.5 million has already been paid. This depleted the GF reserve to approximately 6%, well below the 35% goal (15% operating, 20% fiscal emergency). The remaining \$5 million must be paid over the next four years at \$1.25 million annually. This will be a direct impact to the General Fund budget over the next four years as the City must set aside funding for this debt in addition to all other operating, capital and existing debt demands.

Below shows updated approximate budget deficits faced by the City's General Fund in the upcoming 2-year budget cycle:

FY24 - balanced (due to **one-time** revenues which should not be relied for ongoing costs)
FY25 - approximately \$1 million deficit

Table 1 - Draft Summary of General Fund budget

DRAFT SUMMARY OF GF BUDGETS AS OF 05/10/22							
ORG	PROPOSED 2025 BUDGET	PROPOSED 2024 BUDGET	2023 REVISED BUDGET	CURRENT 2023 ACTUALS	2022 REVISED BUDGET	2022 ACTUALS	
NON-DEPARTMENTAL REVENUES	(34,206,710)	(32,534,250)	(32,190,884)	(23,651,992)	(28,981,962)	(29,114,000)	→ INCLUDES \$25M PENSION OBLIGATION BOND PROCEEDS TO PAY TO CALPERS FOR UNFUNDED ACCRUED LIABILITY
ONE-TIME REVENUES (Includes ARPA funds & POB proceeds)	-	(1,833,334)	(2,833,333)	-	(200,000)	(28,055,767)	
ADMINISTRATION	1,863,180	1,796,280	2,292,891	1,597,422	1,866,922	2,548,319	FY22 EXPENSES: TI HIGHER THAN USUAL COSTS ARE ATTRIBUTED TO TI INITIAL PENSION OBLIGATION BOND COST. FOR FUTUR POB REMAINING COSTS WILL BE PAI YEARLY AND DIRECTLY FROM TI GF UNTIL FY 2034.
FINANCE	327,440	267,860	282,365	(214,824)	45,891	257,705	
COMMUNITY DEVELOPMENT*	804,000	844,290	1,206,640	(1,008,668)	714,161	107,060	
POLICE	15,539,680	15,027,890	14,572,839	9,012,977	13,556,938	26,210,371	
FIRE	6,507,210	6,276,290	7,185,083	4,171,180	6,963,968	14,223,833	
PARKS & REC**	4,048,330	3,986,430	13,235,748	1,942,684	13,228,231	5,101,816	
PUBLIC WORKS	2,325,060	2,201,780	3,157,715	1,467,781	2,750,566	4,515,260	
TOTAL NET (BALANCED)/DEFICIT BEFORE DEBT	(2,791,810)	(3,966,764)	6,909,065	(6,683,442)	9,944,715	(4,205,402)	
DEBT SERVICE	3,695,830	3,795,000	-	582,090	-	12,500,000	
TOTAL NET (BALANCED)/DEFICIT	904,020	(171,764)	6,909,065	(6,101,352)	9,944,715	8,294,598	

* Community Development no longer includes Building Safety (formerly Building Inspection). Building Safety is now an Enterprise fund not in the General Fund, beginning FY24.

** Revised budget due to Heroes Park appropriation of \$8.5M and would be offset by incoming grant once received.

These are DRAFT numbers only. Still in review process.

A structurally deficit budget is something that should not occur per City Council resolution. It also goes against Council goals established in March 2023, plus it is not sound fiscal practice and unsustainable in the long term. Should a balanced budget prove especially challenging, staff will consider the following recommendations (among others not listed):

- Budget positions at projected steps (not top step as done in past) - *Included in draft summary*
- Include "optimistic" revenue projections (usually conservative) - *Included in draft summary*
- Substantially reduce operating budgets for departments to include most essential costs only
- Defer reserve (set asides) for future purchases (such as vehicles, equipment and facilities)
- Freeze new positions in the General Fund until reserves begin to recover - *Recommended for budget period*
- Freeze vacant General Fund positions unless essential for ongoing operations - *Recommended for budget period*

General Fund Capital Project Outlook

A committee of staff from each department has ranked the General Fund CIP according to the following criteria and made recommendations based on priority for funding on these priorities and timing needs. These recommended rankings are also for the Council's consideration when looking at authorizing funding for CIP. Due to the projected tight budget, no projects are recommended to be funded from the General Fund unless they are offset by grants or reserves, or of utmost need (see attachment "Project Ranking")

CITY OF HANFORD

General Fund Project Ranking Level Ranking Sub Ranking

1: Highest of highest importance, operational impact A: Health and Safety

2: Useful but lower priority B: Highly desirable, useful

3: Improvements but can wait

Overall for the General Fund, the following principles are recommended:

- No General Fund CIP unless absolutely considered essential
- No new positions unless fully offset by new revenues or proven cost reductions
- Fees are recommended to offset costs as much as possible
- No new spending from prior budget unless a health or safety issue necessitates a purchase
- Adhering to purchasing procedures for optimal pricing on purchases
- Personnel costs are included at top step of pay in order to anticipate typical unknowns or changes that may occur (there may be some salary savings at year end which helps maintain a balanced budget and will help the City recover its reserve)
- After budget adoption, staff will look to enhance cost allocations to offset General Fund costs in order to confirm other funds pay their appropriate share
- As needed and available, re-allocate reserves for CIP priority projects. Although this will delay other projects/needs, higher priority needs can be funded without currently impacting the General Fund

Enterprise Funds, Special Revenue Funds and Other Funds

Similar principles of budgeting apply to these other areas of the City's budget. However, for enterprise funds rates paid by users offset the costs of service. The City's primary Enterprise Funds are Water, Sewer, Storm Drain and Refuse. Some of the City's Special Revenue Funds are Gas Tax, Road Rehabilitation Account, Transportation Development Act, and CDBG. In almost all cases it is important to remember, these funds do not pay for General Fund activities and should support their own activities.

A budget will in most cases be balanced (covered by revenues coming in) but capital needs will need to be prioritized in order to maintain a healthy reserve (15% goal for other funds) for fiscal emergencies and adequate coverage for debt service. Funds outside of the General Fund may only be used for specific purposes. Consideration of what resources are available for investment in capital projects is an important effort as covered by tonight's review of a draft Capital Improvement Program.

For Enterprise and Internal Service Funds, the following are noteworthy observations:

- Transportation funds are limited, projects need to be prioritized
 - ~ General Fund is an option but not recommended as there are many other demands
- CIP needs to be prioritized by Fund in order to have financial sustainability, planning years are useful to line up projects for grants or opportunities to advance should funding become available
- Rate studies are in progress for Water, Sewer and Storm Drain to be completed in 2023
- Housing Division is partially offset by CDBG and other housing funds (federal and state), however, the General Fund must pay for any portion not offset (approximately \$150,000 the last couple of years)
- Allocations/costs charged to Enterprise Funds will be reviewed to consider most complete cost recovery to the General Fund

Fiscal Impact:

This item is to review how the City's five year Capital Improvement Plan (CIP) will be budgeted for FY24 and FY25 and planned through the following three years, FY26, FY27 and FY28. The Operating Budget to be reviewed for FY24 and FY25 will show proposed budgets as follows:

General Fund - balanced, all department operations, projects and debt service supported by incoming revenues

Enterprise (Proprietary) Funds - all operations, projects and debt service supported by user rates and other revenues

Special Revenue and Other Funds - all operations and projects supported by incoming revenues or from other funds

The Council may make changes as it desires before, at budget adoption or anytime thereafter.

ATTACHMENTS:

1. Funding Source Report w fund balance 5.16.23

CITY OF HANFORD
Capital Improvement Plan, Fiscal Years 2024 - 2028

Funding Source	Project Number	Request Title	Project Total	To Date	FY2024	FY2025	FY2026	FY2027	FY2028
12th Ave Sewer Benefit AD		Beginning Fund (estimated) balance available			\$1,353,789.00	\$1,149,879.00	\$1,149,879.00	\$1,149,879.00	\$1,149,879.00
		Capital requests			\$203,910.00	\$0.00	\$0.00	\$0.00	\$0.00
		Ending Fund balance available			\$1,149,879.00	\$1,149,879.00	\$1,149,879.00	\$1,149,879.00	\$1,149,879.00
12th Ave Sewer Benefit AD	823628	12TH AVE SEWER TRUNK MAIN OVERSIZING **823628	\$203,910.00		\$203,910.00				
Total 12th Ave Sewer Benefit AD			\$203,910.00	\$0.00	\$203,910.00	\$0.00	\$0.00	\$0.00	\$0.00
Airport		Beginning Fund (estimated) balance available			\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		Fund Transfers			\$92,000.00				
		Capital requests			\$92,000.00	\$0.00	\$0.00	\$0.00	\$0.00
		Ending Fund balance available			\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Airport	NEW	HANFORD AIRPORT FIXED BASE OPERATIONS (FBO) BLDG ROOF PROJE	\$92,000.00		\$92,000.00				
Total Airport			\$92,000.00	\$0.00	\$92,000.00	\$0.00	\$0.00	\$0.00	\$0.00
Funding Source	Project Number	Request Title	Project Total	To Date	FY2024	FY2025	FY2026	FY2027	FY2028
ARPA		Beginning Fund (estimated) balance available			\$5,297,140.00	\$0.00	\$0.00	\$0.00	\$0.00
		Capital requests			\$5,297,140.00	\$0.00	\$0.00	\$0.00	\$0.00
		Ending Fund balance available			\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ARPA	821611	YAC CONCESSION BLDG RESTORATION **821611	\$617,930.00		\$617,930.00				
	822601	ARPA PUBLIC SAFETY RADIO REPLACEMENT **822601	\$699,105.00	\$505,495.00	\$193,610.00				
	823647	ARPA HIDDEN VALLEY PARK CONCEPTUAL PLAN **823647	\$75,000.00	\$5,600.00	\$69,400.00				
	823646	ARPA DOWNTOWN STREET AND PEDESTRIAN IMPROVEMENTS **823	\$4,416,200.00		\$4,416,200.00				
Total ARPA			\$5,808,235.00	\$511,095.00	\$5,297,140.00	\$0.00	\$0.00	\$0.00	\$0.00
Funding Source	Project Number	Request Title	Project Total	To Date	FY2024	FY2025	FY2026	FY2027	FY2028
Accumulated Capital Outlay		Beginning Fund (estimated) balance available			\$1,160,124.00	\$108,184.00	\$43,904.00	\$43,904.00	\$43,904.00
		Capital requests			\$1,051,940.00	\$64,280.00	\$0.00	\$0.00	\$0.00
		Ending Fund balance available			\$108,184.00	\$43,904.00	\$43,904.00	\$43,904.00	\$43,904.00
Accumulated Capital Outlay	821611	YAC CONCESSION BLDG RESTORATION **821611	\$330,270.00		\$330,270.00				
	823602	VETERANS BUILDING ROOF REPL **823602	\$22,560.00		\$22,560.00				
	823601	FIRE STA 1 CONCRETE REPL **823601	\$50,590.00		\$50,590.00				
	823611	EARL F JOHNSON PARK RENO **823611 *Multi funded	\$252,000.00		\$252,000.00				
	822604	CIVIC AUD SEWER MAIN REPLACEMENT **822604	\$69,512.00	\$5,232.00		\$64,280.00			
	823607	CIVIC AUD HARDWOOD FLOOR REPLACEMENT **823607	\$53,460.00		\$53,460.00				
	823606	CIVIC AUD ACOUSTIC CEILING REPLACEMENT **823606	\$196,190.00		\$196,190.00				
	820634	CITY HALL SECURITY PROJECT **820634	\$180,000.00	\$77,600.00	\$102,400.00				
	823603	CIVIC AUD INTERIOR PAINTING **823603	\$44,470.00		\$44,470.00				
Total Accumulated Capital Outlay			\$1,199,052.00	\$82,832.00	\$1,051,940.00	\$64,280.00	\$0.00	\$0.00	\$0.00
Funding Source	Project Number	Request Title	Project Total	To Date	FY2024	FY2025	FY2026	FY2027	FY2028
Building Safety		Beginning Fund (estimated) balance available			\$320,000.00	\$0.00	\$0.00	\$0.00	\$0.00
		Capital requests			\$320,000.00	\$0.00	\$0.00	\$0.00	\$0.00
		Ending Fund balance available			\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Building Safety	New	4 Electric inspector vans	\$320,000.00		\$320,000.00				
Total Building Safety			\$320,000.00	\$0.00	\$320,000.00	\$0.00	\$0.00	\$0.00	\$0.00

CITY OF HANFORD
Capital Improvement Plan, Fiscal Years 2024 - 2028

Funding Source	Project Number	Request Title	Project Total	To Date	FY2024	FY2025	FY2026	FY2027	FY2028
CMAQ		Beginning Fund (estimated) balance available			\$332,770.00	\$788,660.00	\$165,290.00	\$0.00	\$0.00
		Capital requests			\$332,770.00	\$788,660.00	\$165,290.00	\$0.00	\$0.00
		Ending Fund balance available			\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CMAQ	823619	LACEY WIDEN/RECON/10TH-SIERRA **823619	\$867,200.00		\$270,250.00	\$431,660.00	\$165,290.00		
	820644	TRAF SIGNAL/12TH AV TO HUME **820644	\$360,390.00		\$3,390.00	\$357,000.00			
	822645	9TH AVE & LACEY SIGNAL **822645	\$59,130.00		\$59,130.00				
Total CMAQ			\$1,286,720.00	\$0.00	\$332,770.00	\$788,660.00	\$165,290.00	\$0.00	\$0.00
Funding Source	Project Number	Request Title	Project Total	To Date	FY2024	FY2025	FY2026	FY2027	FY2028
Computer Replacement Reserve		Beginning Fund (estimated) balance available			\$172,900.00	\$135,900.00	\$118,900.00	\$101,900.00	\$84,900.00
		Capital requests			\$37,000.00	\$17,000.00	\$17,000.00	\$17,000.00	\$17,000.00
		Ending Fund balance available			\$135,900.00	\$118,900.00	\$101,900.00	\$84,900.00	\$67,900.00
Computer Replacement Reserve	New	FY COMPUTER REPLACEMENTS	\$105,000.00		\$37,000.00	\$17,000.00	\$17,000.00	\$17,000.00	\$17,000.00
Total Computer Replacement Reserve			\$105,000.00	\$0.00	\$37,000.00	\$17,000.00	\$17,000.00	\$17,000.00	\$17,000.00
Funding Source	Project Number	Request Title	Project Total	To Date	FY2024	FY2025	FY2026	FY2027	FY2028
Facilities		Beginning Fund (estimated) balance available			\$416,000.00	\$159,410.00	\$115,820.00	\$115,820.00	\$115,820.00
		Capital requests			\$256,590.00	\$43,590.00	\$0.00	\$0.00	\$0.00
		Ending Fund balance available			\$159,410.00	\$115,820.00	\$115,820.00	\$115,820.00	\$115,820.00
Facilities									
	NEW	CARNEGIE BUILDING ROOF UNDERLAYMENT REPLACEMENT	\$46,000.00		\$46,000.00				
	NEW	CIVIC AUD BLINDS REPLACEMENT PROJECT	\$14,950.00		\$14,950.00				
	823602	VETERANS BUILDING ROOF REPL **823602	\$28,350.00		\$28,350.00				
	NEW	1750 DROP DECK AND DUMP 12' TRAILER	\$31,090.00			\$31,090.00			
	NEW	1750 KARCHER 80/100 AUTO SCRUBBER CIVIC	\$12,500.00			\$12,500.00			
	823607	CIVIC AUD HARDWOOD FLOOR REPLACEMENT **823607	\$167,290.00		\$167,290.00				
Total Facilities			\$300,180.00	\$0.00	\$256,590.00	\$43,590.00	\$0.00	\$0.00	\$0.00
Funding Source	Project Number	Request Title	Project Total	To Date	FY2024	FY2025	FY2026	FY2027	FY2028
Fire Impact Fees		Beginning Fund (estimated) balance available			\$682,900.00	\$450,100.00	\$450,100.00	\$450,100.00	\$450,100.00
		Capital requests			\$232,800.00	\$0.00	\$0.00	\$0.00	\$0.00
		Ending Fund balance available			\$450,100.00	\$450,100.00	\$450,100.00	\$450,100.00	\$450,100.00
Fire Impact Fees	New	Fire Station 5 Land Acquisition	\$232,800.00		\$232,800.00				
Total Fire Impact Fees			\$232,800.00	\$0.00	\$232,800.00	\$0.00	\$0.00	\$0.00	\$0.00
Funding Source	Project Number	Request Title	Project Total	To Date	FY2024	FY2025	FY2026	FY2027	FY2028
Fleet Reserve		Beginning Fund (estimated) balance available			\$13,700,000.00	\$12,650,000.00	\$12,219,400.00	\$11,769,400.00	\$11,769,400.00
		Capital requests			\$1,050,000.00	\$430,600.00	\$450,000.00	\$0.00	\$550,000.00
		Ending Fund balance available			\$12,650,000.00	\$12,219,400.00	\$11,769,400.00	\$11,769,400.00	\$11,219,400.00
Fleet Reserve	NEW	2050 VACUUM TRUCK (REPL 174)	\$350,600.00			\$350,600.00			
	NEW	2050 AUTOMATED REFUSE TRUCK	\$900,000.00				\$450,000.00		\$450,000.00
	New	New Battalion Chief Response Pickup with Buildup *Fund w/ reserve if	\$80,000.00	1A		\$80,000.00			
	New	Fire Engine Pumper - Replacement #161 *Authorize reallocation of Ge	\$1,050,000.00		\$1,050,000.00				
	New	New Fire Engine Pumper - 2	\$100,000.00						\$100,000.00
Total Fleet Reserve			\$2,480,600.00	\$0.00	\$1,050,000.00	\$430,600.00	\$450,000.00	\$0.00	\$550,000.00

CITY OF HANFORD
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Funding Source	Project Number	Request Title	Project Total	To Date	FY2024	FY2025	FY2026	FY2027	FY2028
Gas Tax		Beginning Fund (estimated) balance available			\$926,500.00	\$566,500.00	\$206,500.00	-\$265,500.00	\$349,500.00
		Gas Tax revenues			\$1,100,000.00	\$1,100,000.00	\$1,100,000.00	\$1,100,000.00	\$1,100,000.00
		Capital requests			\$1,460,000.00	\$1,460,000.00	\$1,572,000.00	\$485,000.00	\$1,485,000.00
		Ending Fund balance available			\$566,500.00	\$206,500.00	-\$265,500.00	\$349,500.00	-\$35,500.00
Gas Tax	NEW	10th Avenue from Fargo to SH43 reconstruct road	\$872,500.00				\$872,500.00		
	NEW	Centennial Drive Storm Drainage Improvements south of Berkshire La	\$70,000.00				\$70,000.00		
	NEW	Solar powered RRFB Pedestrian Crosswalk System at Three locations	\$144,500.00				\$144,500.00		
	823618	PAVEMENT RESURFACING TREATMENT **823618	\$1,950,000.00		\$975,000.00	\$975,000.00			
	823615	STREET DIVISION MAINTENANCE **823615	\$2,125,000.00		\$425,000.00	\$425,000.00	\$425,000.00	\$425,000.00	\$425,000.00
	NEW	LACEY BLVD WIDEN/RECONST MAGNA CARTA TO 13TH	\$1,000,000.00						\$1,000,000.00
	823614	NEW SIDEWALK/ADA IMPROVEMENTS **823614	\$300,000.00		\$60,000.00	\$60,000.00	\$60,000.00	\$60,000.00	\$60,000.00
	821621	CAMPUS DR RESURF, LACEY BLVD TO GREENFIELD AVE **821621	\$796,247.00	\$796,247.00					
Total Gas Tax			\$7,258,247.00	\$796,247.00	\$1,460,000.00	\$1,460,000.00	\$1,572,000.00	\$485,000.00	\$1,485,000.00
Funding Source	Project Number	Request Title	Project Total	To Date	FY2024	FY2025	FY2026	FY2027	FY2028
RMRA		Beginning Fund (estimated) balance available			\$926,500.00	\$580,000.00	\$291,810.00	\$416,810.00	\$541,810.00
		RMRA revenues			\$1,100,000.00	\$1,100,000.00	\$1,100,000.00	\$1,100,000.00	\$1,100,000.00
		Capital requests			\$1,446,500.00	\$1,388,190.00	\$975,000.00	\$975,000.00	\$975,000.00
		Ending Fund balance available			\$580,000.00	\$291,810.00	\$416,810.00	\$541,810.00	\$666,810.00
RMRA	823619	LACEY WIDEN/RECON/10TH-SIERRA **823619	\$2,834,690.00		\$1,446,500.00	\$1,388,190.00			
	823618	PAVEMENT RESURFACING TREATMENT **823618	\$2,925,000.00				\$975,000.00	\$975,000.00	\$975,000.00
Total RMRA			\$5,759,690.00	\$796,247.00	\$1,446,500.00	\$1,388,190.00	\$975,000.00	\$975,000.00	\$975,000.00
Funding Source	Project Number	Request Title	Project Total	Project Ranking	FY2024	FY2025	FY2026	FY2027	FY2028
General Fund		Beginning Fund (estimated) balance available			\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		Capital requests			\$11,720,443.00	\$1,903,395.00	\$3,624,710.00	\$3,228,180.00	\$61,061,605.00
		Grant funding			\$11,720,443.00	\$1,903,395.00	\$0.00	\$0.00	\$0.00
		General Fund need			\$0.00	\$0.00	\$3,624,710.00	\$3,228,180.00	\$61,061,605.00
		Ending Fund balance available			\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Funding Source	Project Number	Request Title	Project Total	Project Ranking	FY2024	FY2025	FY2026	FY2027	FY2028
General Fund	New	Station 2 Updated Alerting System	\$95,000.00	1A					\$95,000.00
	New	Station 1 Updated Alerting System	\$95,000.00	1A			\$95,000.00		
	New	New Public Safety Building	\$30,000,000.00	1A			\$500,000.00	\$1,500,000.00	\$28,000,000.00
	New	Replace Battalion Chief Response Pickup with Buildup	\$80,000.00	1A					\$80,000.00
	New	System Integration for AVL Dispatch	\$40,000.00	1A			\$40,000.00		
	New	Freedom Playground Resurfacing Project	\$45,000.00	2A			\$45,000.00		
	New	Freedom Splash Pad Refurbishment	\$15,000.00	2A			\$15,000.00		
	New	ADA Parks/Recreation Modifications	\$133,500.00	2A			\$44,500.00	\$44,500.00	\$44,500.00
	NEW	Remove or Upgrade Mid Block crosswalks in Downtown	\$163,000.00	2A			\$163,000.00		
	New	Completion of ALPR Camera system install	\$82,500.00	2A			\$43,500.00	\$39,000.00	
	New	Replace Bathroom Fixtures at PAL Building	\$11,000.00	2A					\$11,000.00
	New	Portable Training Tower	\$465,000.00	2A			\$465,000.00		
	New	Fire Station 2 Asphalt Repair / Replacement	\$165,000.00	2A			\$165,000.00		
	New	Fire Station 1 Asphalt Repair / Replacement	\$190,000.00	2A			\$190,000.00		
	New	New Fire Engine Pumper - 2	\$950,000.00	2A					\$950,000.00
	New	Park Drinking Fountain Replacement Project	\$187,500.00	2B			\$105,000.00	\$40,000.00	\$42,500.00
	New	Centennial and Coe Park Basketball Renovation	\$300,000.00	2B			\$150,000.00	\$150,000.00	
	New	Street Medians Landscape Renovation	\$310,000.00	2B			\$155,000.00		\$155,000.00
	New	Hallway walls in the upstairs of PD.	\$11,000.00	2B				\$11,000.00	
	New	Restroom Building Replacement (COE, Lacey, Cent, HVP)	\$610,000.00	3A			\$305,000.00		\$305,000.00
Funding Source	Project Number	Request Title	Project Total	Project Ranking	FY2024	FY2025	FY2026	FY2027	FY2028

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General Fund	New	Coe Park Sidewalk and Parking Lot Upgrade	\$100,000.00	3A				\$100,000.00	
	NEW	Replace the driveway approach at the Golden West Credit Union Publi	\$35,000.00	3A					\$35,000.00
	NEW	Replace City Hall Parking Lot Driveway	\$41,500.00	3A					\$41,500.00
	823649	COMPREHENSIVE ACTV TRANS PLAN **823649 GRANT funded	\$256,143.00	3A	\$256,143.00				
	New	Bauer Air Compressor Replacement	\$79,500.00	3A				\$79,500.00	
	New	Fire Station 1 Extractor Replacement	\$12,000.00	3A				\$12,000.00	
	New	Fire Station 2 Extractor	\$14,000.00	3A			\$14,000.00		
	New	Fire Station 4 Design and Build	\$11,772,000.00	3A					\$11,772,000.00
	New	New Ladder Truck	\$1,600,000.00	3A					\$1,600,000.00
	New	Centennial Parking Lot Refurbish	\$110,000.00	3B					\$110,000.00
	New	Roofing Project at Centennial	\$60,000.00	3B				\$60,000.00	
	New	Freedom Dog Park	\$25,000.00	3B				\$25,000.00	
	New	Freedom Park Trash Enclosures	\$12,500.00	3B			\$12,500.00		
	New	Recirculating Systems for Splash Pads	\$1,050,000.00	3B			\$350,000.00	\$350,000.00	\$350,000.00
	New	Centennial Table and Benches	\$60,000.00	3B			\$30,000.00		\$30,000.00
	New	Civic Park Renovation Project (contingent on GRANT funding)	\$3,000,000.00	3B	\$3,000,000.00				
	New	Hidden Valley Park Expansion	\$16,397,855.00	3B					\$16,397,855.00
	New	YAC Football Goal Relocation	\$35,000.00	3B			\$35,000.00		
	New	Lakewood Park Drive Approach and Landscaping Renovation	\$35,000.00	3B			\$35,000.00		
	New	Skate Park Drainage Project	\$40,000.00	3B					\$40,000.00
	New	Rotary Sports Field Reconditioning	\$50,000.00	3B			\$50,000.00		
	New	Lacey Water Conservation Project	\$160,000.00	3B			\$10,000.00	\$150,000.00	
	New	Lacey Park Splash Pad Removal	\$100,000.00	3B					\$100,000.00
	New	Harris Ball Park / Brown Street Parking Lot	\$425,000.00	3B				\$425,000.00	
	New	Centennial Park Lighting Upgrades	\$200,000.00	3B			\$30,000.00	\$170,000.00	
	New	Indoor Multi-Generational Facility *Multi funded	\$600,000.00	3B				\$25,000.00	\$575,000.00
	New	2104 TRANSFER ALL CITY FACILITIES TO VALLEY ALARM	\$43,390.00	3B			\$16,210.00	\$27,180.00	
	New	Replace Awning Covers at Golden West Credit Union and Workingmar	\$55,500.00	3B			\$55,500.00		
	New	Statistics Software for Fire Departments	\$64,500.00	3B			\$24,500.00	\$20,000.00	\$20,000.00
	New	Safety Trailer with Tow Vehicle	\$250,000.00	3B					\$250,000.00
	New	Landscaping Police Department	\$17,250.00	3B					\$17,250.00
	New	Landscaping PAL Building	\$20,000.00	3B					\$20,000.00
	New	Awning cover at the back of the POP Building	\$20,000.00	3B					\$20,000.00
	NEW	1750 PUBLIC WORKS ENCLOSED WAREHOUSE	\$250,000.00	3B			\$250,000.00		
	822649	HEROES PARK **822649 - GF GRANT FUNDED	\$10,367,695.00	3B	\$8,464,300.00	\$1,903,395.00			
	NEW	2040 FLEET DIV-DIESEL EXHAUST FLUID (D.E.F.) DISPENSER FOR FUEL	\$18,000.00	3B			\$18,000.00		
	New	Fire Station 2 Awning for Reserve Equipment	\$30,000.00	3B			\$30,000.00		
	New	Fire Station 1 Awning for Reserve Equipment	\$33,000.00	3B			\$33,000.00		
	New	Fire Station 2 Xeriscape	\$75,000.00	3B			\$75,000.00		
	New	Fire Station 1 Xeriscape	\$75,000.00	3B			\$75,000.00		
Total General Fund			\$81,538,333.00	\$0.00	\$11,720,443.00	\$1,903,395.00	\$3,624,710.00	\$3,228,180.00	\$61,061,605.00

CITY OF HANFORD
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Funding Source	Project Number	Request Title	Project Total	To Date	FY2024	FY2025	FY2026	FY2027	FY2028
Information Technology		Beginning Fund (estimated) balance available			\$40,000.00	\$0.00	\$0.00	\$0.00	\$0.00
		Capital requests			\$40,000.00	\$0.00	\$0.00	\$0.00	\$0.00
		Ending Fund balance available			\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Information Technology	New	VEHICLE FOR IT SERVICES	\$40,000.00		\$40,000.00				
Total Information Technology			\$40,000.00	\$0.00	\$40,000.00	\$0.00	\$0.00	\$0.00	\$0.00
Funding Source	Project Number	Request Title	Project Total	To Date	FY2024	FY2025	FY2026	FY2027	FY2028
Landscape Assessment District (LAD)		Beginning Fund (estimated) balance available			\$0.00	\$0.00	\$0.00	\$0.00	\$50,000.00
		Capital requests			\$0.00	\$0.00	\$0.00	\$0.00	\$50,000.00
		Ending Fund balance available			\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Landscape Assessment District (LAD)	New	Glacier Play Equipment	\$50,000.00						\$50,000.00
Total Information Technology			\$50,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$50,000.00
Funding Source	Project Number	Request Title	Project Total	To Date	FY2024	FY2025	FY2026	FY2027	FY2028
Parks Facility Impact Fees		Beginning Fund (estimated) balance available			\$3,406,000.00	\$896,522.00	\$604,462.00	\$76,558.00	-\$2,007,316.00
		Estimated Park Impact Fees			\$250,000.00	\$250,000.00	\$250,000.00	\$250,000.00	\$250,000.00
		Capital requests			\$2,759,478.00	\$542,060.00	\$777,904.00	\$2,333,874.00	\$5,800,000.00
		Ending Fund balance available			\$896,522.00	\$604,462.00	\$76,558.00	-\$2,007,316.00	-\$7,557,316.00
Parks Facility Impact Fees	New	Heroes Park Build (contingent on GRANT funding)	\$2,231,278.00				\$197,404.00	\$2,033,874.00	
	New	Indoor Multi-Generational Facility	\$5,853,610.00			\$53,610.00		\$150,000.00	\$5,650,000.00
	New	Centennial Park Playground Construction	\$108,650.00			\$108,650.00			
	823609	PARK DEV OVERSIZING REQUIREMNT **823609	\$750,000.00		\$150,000.00	\$150,000.00	\$150,000.00	\$150,000.00	\$150,000.00
	822649	HEROES PARK **822649 - GF GRANT FUNDED	\$2,231,278.00		\$2,231,278.00				
	823611	EARL F JOHNSON PARK RENO **823611	\$660,300.00			\$229,800.00	\$430,500.00		
	823612	CENTENNIAL PARK LIGHTING PROJECT **823612	\$378,200.00		\$378,200.00				
Total Parks Facility Impact Fees			\$12,213,316.00	\$0.00	\$2,759,478.00	\$542,060.00	\$777,904.00	\$2,333,874.00	\$5,800,000.00
Funding Source	Project Number	Request Title	Project Total	To Date	FY2024	FY2025	FY2026	FY2027	FY2028
Refuse		Beginning Fund (estimated) balance available			\$2,400,000.00	\$1,323,410.00	\$134,410.00	\$0.00	\$0.00
		Fund Transfers			\$0.00	\$0.00	\$80,590.00	\$99,000.00	\$14,000.00
		Capital requests			\$1,076,590.00	\$1,189,000.00	\$215,000.00	\$99,000.00	\$14,000.00
		Ending Fund balance available			\$1,323,410.00	\$134,410.00	\$0.00	\$0.00	\$0.00
Refuse	New	Utility customer payment kiosks (2)	\$83,000.00		\$27,000.00	\$14,000.00	\$14,000.00	\$14,000.00	\$14,000.00
	NEW	2037 CAMERA SYSTEM	\$50,000.00			\$50,000.00			
	NEW	2037 FORKLIFT (NEW)	\$100,000.00				\$100,000.00		
	NEW	2037 REFUSE SERVICE TRUCK (NEW)	\$160,000.00		\$75,000.00			\$85,000.00	
	NEW	2037 FRONT LOAD REFUSE TRUCK (NEW)	\$450,000.00			\$450,000.00			
	NEW	2037 CITY ENCLOSURE REBUILD (6)	\$150,000.00		\$75,000.00	\$75,000.00			
	NEW	2037 ASPHALT BIN AREA	\$40,000.00		\$40,000.00				
	823008	AUTOMATED REFUSE CONTAINERS **823008	\$450,000.00		\$225,000.00	\$225,000.00			
	NEW	1750 PUBLIC WORKS ENCLOSED WAREHOUSE	\$101,000.00				\$101,000.00		
	823608	PAINT BOOTH (REFUSE) **823608	\$25,960.00		\$25,960.00				
	822606	REFUSE OFFICE BREAKROOM **822606	\$203,630.00		\$203,630.00				
	NEW	2031 AUTOMATED REFUSE CONTAINERS (96GAL)	\$450,000.00		\$225,000.00	\$225,000.00			
	823007	COMMERCIAL/RECYCLE/ORG DUMPSTERS **823007	\$300,000.00		\$150,000.00	\$150,000.00			
	NEW	2040 FLEET DIV-DIESEL EXHAUST FLUID (D.E.F.) DISPENSER FOR FUEL	\$30,000.00		\$30,000.00				
Total Refuse			\$2,593,590.00	\$0.00	\$1,076,590.00	\$1,189,000.00	\$215,000.00	\$99,000.00	\$14,000.00

CITY OF HANFORD
Capital Improvement Plan, Fiscal Years 2024 - 2028

Funding Source	Project Number	Request Title	Project Total	To Date	FY2024	FY2025	FY2026	FY2027	FY2028
Storm Drain		Beginning Fund (estimated) balance available			\$2,937,000.00	\$1,682,805.00	\$546,755.00	\$126,185.00	-\$482,815.00
		Fund Transfers			\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		Capital requests			\$1,254,195.00	\$1,136,050.00	\$420,570.00	\$609,000.00	\$159,000.00
		Ending Fund balance available			\$1,682,805.00	\$546,755.00	\$126,185.00	-\$482,815.00	-\$641,815.00
Storm Drain	NEW	Courthouse Parking Lot Reconstruction	\$310,000.00			\$310,000.00			
	New	Utility customer payment kiosks (2)	\$83,000.00		\$27,000.00	\$14,000.00	\$14,000.00	\$14,000.00	\$14,000.00
	823624	HOUSTON AV PIPELIN/SAND SLOUGH **823624	\$111,390.00		\$111,390.00				
	818631	STORM DRAIN PUMP #39 **818631	\$70,000.00		\$70,000.00				
	NEW	LACEY BLVD WIDEN/RECONST MAGNA CARTA TO 13TH	\$500,000.00					\$500,000.00	
	NEW	2062 LIFT STATION REHAB	\$100,000.00				\$50,000.00		\$50,000.00
	NEW	2062 PORTABLE PUMPS 6" / 4"	\$65,000.00			\$65,000.00			
	NEW	2050 VACUUM TRUCK (REPL 174)	\$129,400.00			\$129,400.00			
	822621	TREE TRIM/REMOVAL PROGRAM **822621	\$375,000.00		\$75,000.00	\$75,000.00	\$75,000.00	\$75,000.00	\$75,000.00
	NEW	2062 BROWN STREET MAIN ADDITION-HWY 198 TO BROWN STREET B	\$250,000.00				\$250,000.00		
	NEW	1750 PUBLIC WORKS ENCLOSED WAREHOUSE	\$75,000.00				\$75,000.00		
	823619	LACEY WIDEN/RECON/10TH-SIERRA **823619	\$978,800.00		\$305,020.00	\$487,210.00	\$186,570.00		
	817634	STONECREST BASIN PUMP EQ **817634	\$45,930.00		\$45,930.00				
	822622	LIFT STA 23 & 56 PANEL REPL **822622	\$48,000.00		\$48,000.00				
	823621	INCR FLOW CAP/PEOPLE DITCH **823621	\$35,440.00			\$35,440.00			
	820646	GATE CROSSING SECURITY/LOCKS **820646	\$18,450.00		\$18,450.00				
	823620	CURB AND GUTTER INSTALL **823620	\$143,049.00	\$15,844.00	\$47,205.00	\$20,000.00	\$20,000.00	\$20,000.00	\$20,000.00
	820647	BONNEYVIEW BASIN/SAND SLOUGH BASIN **820647	\$262,496.00	\$6,296.00	\$256,200.00				
Total Storm Drain			\$3,600,955.00	\$22,140.00	\$1,254,195.00	\$1,136,050.00	\$420,570.00	\$609,000.00	\$159,000.00
Funding Source	Project Number	Request Title	Project Total	To Date	FY2024	FY2025	FY2026	FY2027	FY2028
Storm Drain Impact Fee		Beginning Fund (estimated) balance available			\$424,000.00	\$294,310.00	\$131,310.00	-\$23,690.00	-\$73,690.00
		Storm Drain Impact Fees			\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00
		Capital requests			\$129,690.00	\$163,000.00	\$155,000.00	\$50,000.00	\$50,000.00
		Ending Fund balance available			\$294,310.00	\$131,310.00	-\$23,690.00	-\$73,690.00	-\$123,690.00
Storm Drain Impact Fee	NEW	Centennial Drive Storm Drainage Improvements south of Berkshire La	\$24,000.00		\$24,000.00				
	NEW	Courthouse Parking Lot Reconstruction	\$113,000.00			\$113,000.00			
	NEW	Irwin Street from 7th Street north to alley - replace sidewalk, drains, c	\$105,000.00				\$105,000.00		
	823624	HOUSTON AV PIPELIN/SAND SLOUGH **823624	\$55,690.00		\$55,690.00				
	823622	STORM DRAIN SYS OVERSIZING REQ **823622	\$250,000.00		\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00
Total Storm Drain Impact Fee			\$547,690.00	\$0.00	\$129,690.00	\$163,000.00	\$155,000.00	\$50,000.00	\$50,000.00
Funding Source	Project Number	Request Title	Project Total	To Date	FY2024	FY2025	FY2026	FY2027	FY2028
T D A - Transportation		Beginning Fund (estimated) balance available			\$4,193,000.00	\$4,369,610.00	\$3,450,370.00	\$2,631,420.00	\$1,956,420.00
		TDA Funds			\$350,000.00	\$350,000.00	\$350,000.00	\$350,000.00	\$350,000.00
		Capital requests			\$173,390.00	\$1,269,240.00	\$1,168,950.00	\$1,025,000.00	\$1,025,000.00
		Ending Fund balance available			\$4,369,610.00	\$3,450,370.00	\$2,631,420.00	\$1,956,420.00	\$1,281,420.00
T D A - Transportation	823613	SIDEWALK/MISC CONCRETE REPAIRS **823613	\$236,130.00		\$36,130.00	\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00
	823618	PAVEMENT RESURFACING TREATMENT **823618 *MULTI FUND	\$2,925,000.00				\$975,000.00	\$975,000.00	\$975,000.00
	NEW	2011 ECONOLITE SIGNAL VIDEO DETECTION	\$60,000.00				\$60,000.00		
	823619	LACEY WIDEN/RECON/10TH-SIERRA **823619 (could need more \$)	\$1,440,450.00		\$137,260.00	\$1,219,240.00	\$83,950.00		
Total T D A - Transportation			\$4,661,580.00	\$0.00	\$173,390.00	\$1,269,240.00	\$1,168,950.00	\$1,025,000.00	\$1,025,000.00

CITY OF HANFORD
Capital Improvement Plan, Fiscal Years 2024 - 2028

Funding Source	Project Number	Request Title	Project Total	To Date	FY2024	FY2025	FY2026	FY2027	FY2028
Transportation Impact Fees		Beginning Fund (estimated) balance available			\$3,330,070.00	\$956,866.00	-\$1,580,144.00	-\$3,406,824.00	-\$3,206,824.00
		Transportation Impact Funds			\$650,000.00	\$650,000.00	\$650,000.00	\$650,000.00	\$650,000.00
		Capital requests			\$3,023,204.00	\$3,187,010.00	\$2,476,680.00	\$450,000.00	\$7,100,000.00
		Ending Fund balance available			\$956,866.00	-\$1,580,144.00	-\$3,406,824.00	-\$3,206,824.00	-\$9,656,824.00
Transportation Impact Fees	NEW	Grangeville Blvd. - Complete sidewalk between Douty Street and Harri	\$81,500.00		\$81,500.00				
	NEW	Irwin Street from 7th Street north to alley - replace sidewalk, drains, c	\$342,000.00				\$342,000.00		
	823616	UNSCH ARTERIAL UPGR/TRAFF SIGNAL **823616	\$2,250,000.00		\$450,000.00	\$450,000.00	\$450,000.00	\$450,000.00	\$450,000.00
	NEW	LACEY BLVD WIDEN/RECONST MAGNA CARTA TO 13TH	\$3,355,000.00				\$625,000.00		\$2,730,000.00
	NEW	2181 GRANGEVILLE/CENTENNIAL TO 13TH	\$4,420,000.00				\$500,000.00		\$3,920,000.00
	823619	LACEY WIDEN/RECON/10TH-SIERRA **823619	\$2,936,360.00		\$915,070.00	\$1,461,610.00	\$559,680.00		
	820644	TRAFF SIGNAL/12TH AV TO HUME **820644	\$1,494,200.00		\$218,800.00	\$1,275,400.00			
	823644	GRADE SEP FEASBLTY/GRGVL **823644	\$333,620.00		\$333,620.00				
	822647	DEVELOP LRSP 5091-067 **822647	\$24,214.00		\$24,214.00				
	822645	9TH AVE & LACEY SIGNAL **822645	\$1,000,000.00		\$1,000,000.00				
Total Transportation Impact Fees			\$16,236,894.00	\$0.00	\$3,023,204.00	\$3,187,010.00	\$2,476,680.00	\$450,000.00	\$7,100,000.00
Funding Source	Project Number	Request Title	Project Total	To Date	FY2024	FY2025	FY2026	FY2027	FY2028
WWTP/Sewer		Beginning Fund (estimated) balance available			\$1,702,000.00	\$969,570.00	\$530,020.00	-\$899,010.00	-\$1,868,010.00
		Fund Transfers			\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		Capital requests			\$732,430.00	\$439,550.00	\$1,429,030.00	\$969,000.00	\$504,000.00
		Ending Fund balance available			\$969,570.00	\$530,020.00	-\$899,010.00	-\$1,868,010.00	-\$2,372,010.00
WWTP/Sewer	NEW	2104 VALLEY ALARM ACCESS CONTROL WWTP	\$15,230.00		\$15,230.00				
	New	Utility customer payment kiosks (2)	\$83,000.00		\$27,000.00	\$14,000.00	\$14,000.00	\$14,000.00	\$14,000.00
	823630	WWTP EXPANSION RESERVE **823630	\$1,245,000.00				\$415,000.00	\$415,000.00	\$415,000.00
	823626	UNSCH MAIN EXTEN/REPL-WWTP **823626	\$101,930.00		\$101,930.00				
	823627	SEWER SYSTEM VIDEO INSP **823627	\$18,000.00		\$18,000.00				
	823625	SEWER MAIN OVERSIZING REQ **823625	\$92,180.00		\$92,180.00				
	NEW	2073 UTILITY TRUCK (NEW)	\$90,000.00				\$90,000.00		
	NEW	2073 PICKUP TRUCK (NEW)	\$65,000.00		\$65,000.00				
	NEW	2073 VACUUM TRUCK (NEW)	\$600,000.00				\$600,000.00		
	NEW	LACEY BLVD WIDEN/RECONST MAGNA CARTA TO 13TH	\$400,000.00					\$400,000.00	
	NEW	2071 SPARE BARSCREEN MOTOR	\$40,000.00				\$40,000.00		
	NEW	2071 SPARE MOTOR SCREW PUMP	\$40,000.00			\$40,000.00			
	NEW	1750 PUBLIC WORKS ENCLOSED WAREHOUSE	\$101,000.00				\$101,000.00		
	NEW	2071 PICKUP TRUCK (NEW)	\$130,000.00			\$65,000.00		\$65,000.00	
	823619	LACEY WIDEN/RECON/10TH-SIERRA **823619	\$493,310.00		\$153,730.00	\$245,550.00	\$94,030.00		
	823632	SPARE PUMPS **823632	\$92,640.00		\$92,640.00				
	823629	MANHOLE REPR/COATING PROJECT **823629	\$404,720.00		\$104,720.00	\$75,000.00	\$75,000.00	\$75,000.00	\$75,000.00
	822627	PROTECTIVE GRATING **822627	\$50,000.00		\$50,000.00				
	NEW	2040 FLEET DIV-DIESEL EXHAUST FLUID (D.E.F.) DISPENSER FOR FUEL	\$12,000.00		\$12,000.00				
Total WWTP/Sewer			\$4,074,010.00	\$0.00	\$732,430.00	\$439,550.00	\$1,429,030.00	\$969,000.00	\$504,000.00

CITY OF HANFORD
Capital Improvement Plan, Fiscal Years 2024 - 2028

Funding Source	Project Number	Request Title	Project Total	To Date	FY2024	FY2025	FY2026	FY2027	FY2028
Water		Beginning Fund (estimated) balance available			\$9,331,000.00	\$4,486,100.00	\$37,660.00	\$0.00	\$0.00
		Capital transfer from operating funds			\$0.00	\$1,200,000.00	\$2,630,210.00	\$1,084,000.00	
		Capital requests			\$4,844,900.00	\$5,648,440.00	\$2,667,870.00	\$1,084,000.00	\$10,184,000.00
		Ending Fund balance available			\$4,486,100.00	\$37,660.00	\$0.00	\$0.00	-\$10,184,000.00
Water	823639	WATER SYS SECURITY UPGRADES **823639	\$605,740.00		\$605,740.00				
	New	Utility customer payment kiosks (2)	\$83,000.00		\$27,000.00	\$14,000.00	\$14,000.00	\$14,000.00	\$14,000.00
	823640	INDUSTRIAL PARK WATER STORAGE **823640	\$3,879,800.00			\$3,879,800.00			
	821645	TANK 4 CHLORINATION **821645	\$66,070.00		\$66,070.00				
	822644	REPR WELL 45 AND WELL 49 **822644	\$86,060.00		\$86,060.00				
	NEW	LACEY BLVD WIDEN/RECONST MAGNA CARTA TO 13TH	\$500,000.00					\$500,000.00	
	NEW	2910 WELL PUMP REHAB/WELL 42 AND WELL 38	\$240,000.00		\$120,000.00	\$120,000.00			
	NEW	2910 SPARE MOTOR 250	\$60,000.00				\$60,000.00		
	823638	WATER DISTRIB MAIN EXT PROGRAM **823638	\$480,000.00			\$480,000.00			
	822635	WATER MAIN REPL PROGRAM **822635	\$2,100,000.00		\$700,000.00		\$700,000.00		\$700,000.00
	823637	NEW WATER SUPPLY WELL **823637	\$2,700,000.00		\$900,000.00		\$900,000.00		\$900,000.00
	NEW	2910 METER REPLACEMENT	\$8,000,000.00						\$8,000,000.00
	823633	UNSCH MAIN EXTEN/REPL-WATER **823633	\$250,000.00		\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00
	NEW	2081 FIRE HYDRANTS	\$28,000.00		\$28,000.00				
	NEW	1750 PUBLIC WORKS ENCLOSED WAREHOUSE	\$200,000.00				\$200,000.00		
	823619	LACEY WIDEN/RECON/10TH-SIERRA **823619	\$1,174,530.00		\$366,020.00	\$584,640.00	\$223,870.00		
	823635	METER REPLACEMENT PROGRAM **823635	\$1,337,830.00		\$857,830.00	\$120,000.00	\$120,000.00	\$120,000.00	\$120,000.00
	823651	AUTOMATED METER ZENNER EQ REPAIR **823651	\$790,260.00	\$152,080.00	\$638,180.00				
	823636	AMR REPLACEMENT PROGRAM **823636	\$2,000,000.00		\$400,000.00	\$400,000.00	\$400,000.00	\$400,000.00	\$400,000.00
Total Water			\$24,581,290.00	\$152,080.00	\$4,844,900.00	\$5,648,440.00	\$2,667,870.00	\$1,084,000.00	\$10,184,000.00
Funding Source	Project Number	Request Title	Project Total	To Date	FY2024	FY2025	FY2026	FY2027	FY2028
Water System Impact Fee		Beginning Fund (estimated) balance available			\$3,260,000.00	\$2,655,340.00	\$1,380,300.00	\$775,640.00	\$1,275,640.00
		Water System Impact Funds			\$550,000.00	\$550,000.00	\$550,000.00	\$550,000.00	\$550,000.00
		Capital requests			\$1,154,660.00	\$1,825,040.00	\$1,154,660.00	\$50,000.00	\$1,154,660.00
		Ending Fund balance available			\$2,655,340.00	\$1,380,300.00	\$775,640.00	\$1,275,640.00	\$670,980.00
Water System Impact Fee	823640	INDUSTRIAL PARK WATER STORAGE **823640	\$945,040.00			\$945,040.00			
	823638	WATER DISTRIB MAIN EXT PROGRAM **823638	\$830,000.00			\$830,000.00			
	823637	NEW WATER SUPPLY WELL **823637	\$3,313,980.00		\$1,104,660.00		\$1,104,660.00		\$1,104,660.00
	823634	WATER MAIN OVERSIZING REQUIRE **823634	\$250,000.00		\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00
Total Water System Impact Fee			\$5,339,020.00	\$0.00	\$1,154,660.00	\$1,825,040.00	\$1,154,660.00	\$50,000.00	\$1,154,660.00



AGENDA STAFF REPORT

MEETING DATE: 5/16/2023

AGENDA SECTION: STUDY SESSION

SUBJECT:

Presentation to Council regarding the City's current Cannabis Tax Structure for non-retail businesses, Council consideration of alternative rate structures and, if supported, Authorization for Staff to Prepare Amendments to the rate structure and the Application Process

RECOMMENDATION:

Recommendation: Authorize staff to prepare ordinances that will modify the City's cannabis tax structure and application process

BACKGROUND:

The City's Municipal Code authorizes cannabis retail, manufacturing, distribution, cultivation, and testing businesses to operate within city limits if the business obtains the proper permits and approvals. The City also has the ability to establish tax rates for cannabis businesses operating in Hanford. Currently, Hanford does not have any non-retail cannabis businesses but has three approved retail businesses, two of which are operating and pay Hanford's cannabis tax.

The City has adopted several resolutions that establish the City's cannabis tax rate and permitting process. *Hanford Municipal Code Chapter 5.60 Cannabis Business Tax* identifies the City's cannabis tax rate and *Chapter 5.56 Commercial Cannabis Activity* outlines the application and approval process for cannabis regulatory permits. The established "not to exceed" tax rate in the *5.60.050 Tax imposed*. is as follows:

C. The city council may, by resolution or ordinance, adjust the rate of the cannabis business tax. However, in no event may the city council set any adjusted rate that exceeds the maximum rate calculated pursuant to subsection D of this section for the date on which the adjusted rate will commence.

D. The maximum rate shall be calculated as follows:

- 1. For every person who is engaged in commercial cannabis cultivation in the city:*
 - a. Beginning July 1, 2021, the maximum rate shall be:*
 - i. Ten dollars (\$10.00) annually per square foot of canopy space in a facility that uses exclusively artificial lighting.*
 - ii. Seven dollars (\$7.00) annually per square foot of canopy space in a facility that uses a*

combination of natural and supplemental artificial lighting.

iii. Four dollars (\$4.00) annually per square foot of canopy space in a facility that uses no artificial lighting, should the city ever allow such lighting after the adoption of the ordinance establishing the taxes identified in this chapter.

iv. Two dollars (\$2.00) annually per square foot of canopy space for any nursery.

b. On July 1, 2022 and on each July 1 thereafter, the maximum annual tax rate per square foot of each type of canopy space shall increase by the percentage change between January of the calendar year prior to such increase and January of the calendar year of the increase in the Consumer Price Index ("CPI") for all urban consumers in the San Francisco-Oakland-Hayward area as published by the United States Government Bureau of Labor Statistics. However, no CPI adjustment resulting in a decrease of any tax imposed by this subsection shall be made.

2. For every person who engages in the operation of a testing laboratory, the maximum tax rate shall not exceed two and one-half percent (2.5%) of gross receipts.

3. For every person who engages in the retail sales of cannabis as a retailer (dispensary) or non-storefront retailer (delivery business), or microbusiness (retail sales activity) the maximum tax rate shall not exceed six percent (6%) of gross receipts, should the city ever allow such operations after the adoption of the ordinance establishing the taxes identified in this chapter.

4. For every person who engages in a cannabis distribution business, the maximum tax rate shall not exceed three percent (3%) of gross receipts.

5. For every person who engages in a cannabis manufacturing, processing, or microbusiness (non-retail activity) or any other type of cannabis business not described in subsection (D)(1), (2), (3) or (4), the maximum tax rate shall not exceed four percent (4%) of gross receipts. (Ord. 19-04 § 1, 2019)

The rates listed above are currently adopted in the City's fee schedule.

In an effort to determine the competitiveness of the City's cannabis tax rates, staff conducted an analysis comparing the City's tax structure with other cities that have operational cannabis businesses. Generally speaking, the City's retail tax rate (6%) is competitive; however, the City's non-retail rates are higher than other cities in the area.

Per the Hanford Municipal Code, Council has the authority to adopt a cannabis tax structure that reduces tax rates for non-retail businesses. Council may also modify the regulatory permit application process to simplify the cannabis permitting process.

One of the Council-Adopted goals for FY 23-24 is Fiscal Sustainability. A modification to the current non-retail rate structure has the potential to attract new non-retail businesses and a new revenue stream for the City's general fund.

FISCAL IMPACT

Potential for increased General Fund revenues

ATTACHMENTS:

None



AGENDA STAFF REPORT

MEETING DATE: 5/16/2023	AGENDA SECTION: STUDY SESSION
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SUBJECT:

Presentation to Council and discussion of the City of Hanford's overall street system and maintenance operations

RECOMMENDATION:

Recommendation: That the City Council receive this presentation from staff and provide direction as appropriate.

Recommended Motion:

BACKGROUND:

A recent Council action to approve a contract for annual street maintenance prompted questions to staff about the overall status of the City of Hanford Streets system. Additionally, ongoing presentations to the City Council for the FY 24 & 25 budgets will have an impact on the City's ability to improve the conditions of roads throughout the City. This presentation is the first phase of educating the Council and the Public on the City's street system, the current conditions, and the funding sources used to maintain streets.

FISCAL IMPACT:

ATTACHMENTS:

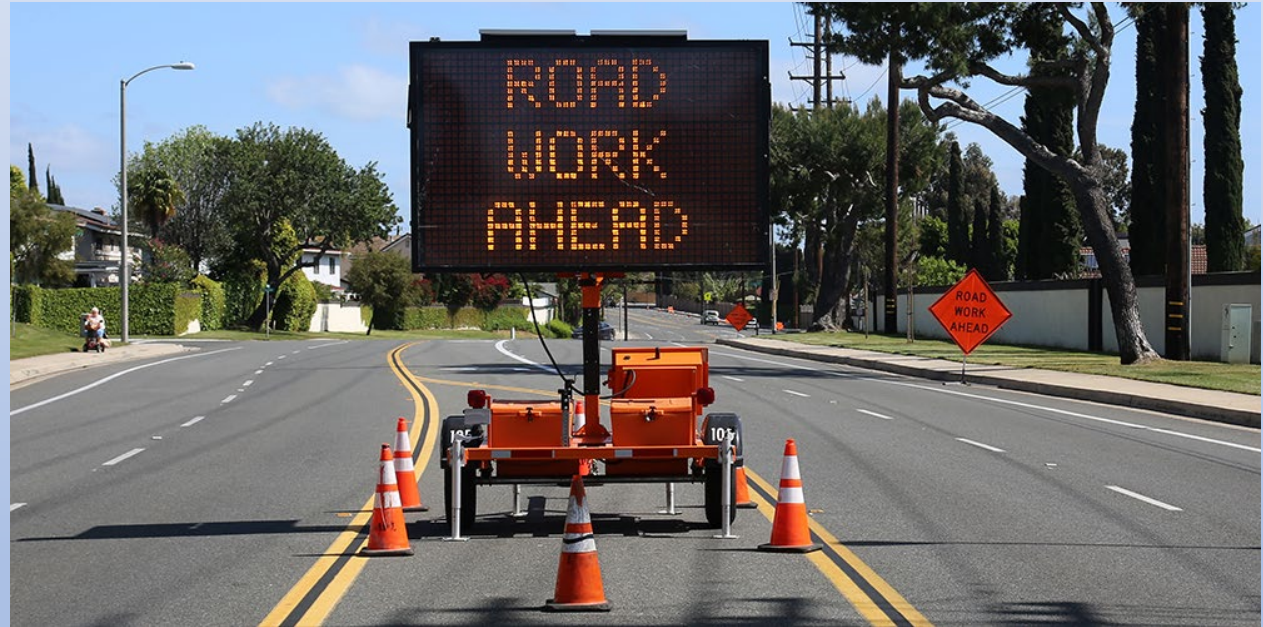
1. Street Presentation 051623

Streets Maintenance Operations



Topics of Discussion

- Current Streets Network
- Categories of Streets
- Circulation Element
- PCI Study
- Street Selection Process
- Treatment Methods
- Street Saver
- Funding Sources

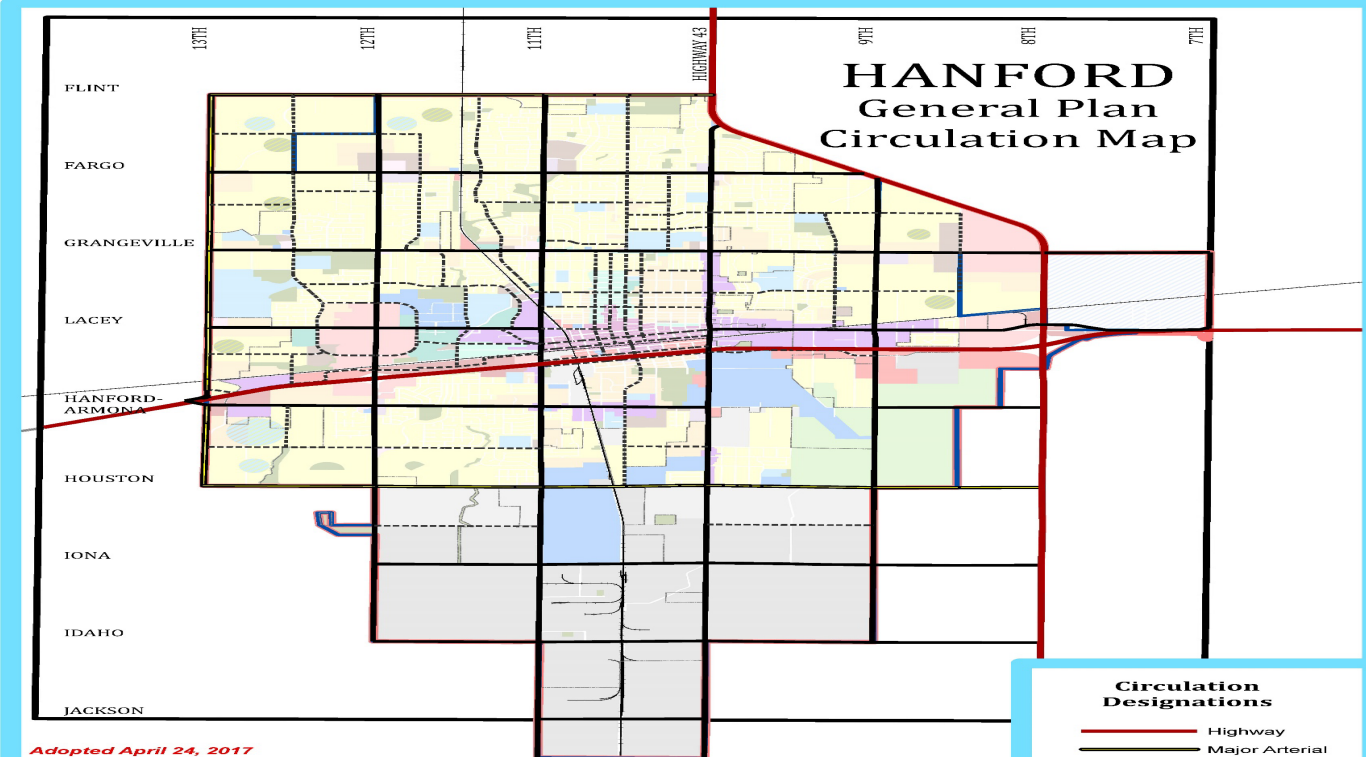


Street Classifications and Definitions

- Residential – Local streets that provide direct access to adjoining land and connections to collectors.
 - Example would be any street you would find in a neighborhood.
- Collector- Collectors can provide a balance of land access and mobility functions within residential, commercial and industrial land use. Collectors connect local streets to arterials.
 - Example would be Centennial, Leland, Douty, Glacier.
- Arterial- Provide a high level of mobility with limited access to adjacent properties. Arterials connect highway interchanges and support the principal roadway system. Arterials provide access to collectors and some local streets.
 - Example would be Grangeville, Lacey, Hanford-Armona, Fargo, 10th, 11th and 12th Ave.

Hanford's Current Street System

- Hanford currently maintains 219.03 center lane miles of streets.
 - 63.7% or 152.74 center line miles of Hanford's streets currently fall into the residential category with an average PCI of 54.
 - 7.4% or 13.8 Center line miles of Hanford's streets are classified as collectors with an average PCI of 61.
 - 28.9% or 53.10 center lane miles of Hanford's streets are classified as arterials with an average PCI of 63.



Adopted April 24, 2017



**City of Hanford
2035 General Plan**

Approved by
City Council

0 0.5 1 1.5 2
1 inch = 1/4 Mile

Area	Acres
2035 Growth Boundary	1,000
Planned Area (proposed Primary Sphere of Influence)	1,000
General Plan Study Area	1,000

Boundaries

- Hanford City Limits (2014)
- 2035 Growth Boundary
- Planned Area (proposed Primary Sphere of Influence)
- General Plan Study Area

Circulation Designations

- Highway
- Major Arterial
- Arterial
- Collector
- Railroad

PCI Study

2019/2020 NCE was selected by King County Association of Governments (KCAG) to implement a pavement management system for various agencies within Kings County, including Hanford.

May of 2020 NCE provided its final report to the City.

NCE accessed every street in Hanford and assigned a PCI number (Pavement Condition Index).

Data updated annually.

Selection Process

- Staff uses the Street Saver program for project recommendations, along with calls from the public and visual inspections to determine future projects.
- ADT (Average Daily Traffic), surface condition, subgrade issues are all taken into consideration when determining projects and applications.
- One downfall of the Street Saver program is it recommends small jobs all over town and contractors charge a mobilization fee for every job.
- Typically, we do our best to finish a neighborhood.
- There are occasions, such as this year, that we must pivot from one area to another due to circumstances out of our control, such as a change in traffic patterns, new residential developments, or weather.

Treatment Methods

Ordered from Brain surgery to Band-Aid

- Reconstruction
- CIR (Cold in Place Recycling)
- Mill and Fill
- Double Fiber Seal
- Single Fiber Seal
- Deep Patching
- Crack Sealing
- Slurry Seal
- Patching
- Reclamite

- Reconstruction

- Contractor hired to perform work.
- Completely demoed and redesigned.
- Storm drains, sidewalks, curb and gutter installed.
- Various streets
- Emma Lee Ln \$1,176,924.70 included widening, storm drainage, lift station, widening of culvert, sidewalk and curb and gutter
- 20–25-year life expectancy

Emma Lee Ln between Grangeville and Jana Way



- CIR (Cold in place recycling)
 - Contractor is hired to grind asphalt in place.
 - Then put back down and re-emulsified and compacted.
 - Overlay of fresh permanent paving installed.
 - Major collectors
 - More cost effective than reconstruction.
 - Lacey, 12th and 11th Ave. done at \$36.69 a square yard (2015/16) 62,200 square yards
 - 15-20-year life expectancy.

11th Ave between Grangeville and Lacey Ave



- Mill & Fill

- A contractor is hired to mill out a predetermined depth of asphalt and pave back the same amount.
- City staff will repair sub grade issues ahead of time.
- Various areas
- Contract for Davis St and Northstar cost \$415,178.00 Included ADA improvements, manholes brought to finish grade, some concrete improvements and placing 2,015 tons of permanent paving at an average of \$206.00 a ton
- 12–15-year life expectancy.

Campus Dr between Greenfield and Lacey Ave



- Double Fiber Seal
 - City staff will repair sub grade issues and crack seal.
 - Contractor is hired to apply two lifts of sealant with fiber additive.
 - Manholes are then lifted to grade.
 - Done on arterials and collectors
 - \$5.20 per square yard (2022)
 - 8–12-year life expectancy.

Greenfield between Campus Dr and 12th Ave.



- Single Fiber Seal

- City staff crack seals ahead of project.
- A Contractor is hired to apply a single lift of sealant with a fiber additive.
- Used on residential streets
- Adds additional wear surface
- \$2.90 per square yard (2022)
- 5-10 years life expectancy

Richmond and Malone St



- Deep Patching

- Performed by City Street crews.
- 77,000 SF deep patched last year.
- Various streets.
- Repairs subbase issues, such as wheel rutting and base failure.
- Performed in advance of mill and fill and double fiber projects.
- City cost for material, labor and equipment last year was \$279,514.96
- Life expectancy varies on location and additional treatment.

Hanford Armona Rd between 11th Ave. and 12th Ave.



- Crack Sealing

- Performed by City staff.
- Prevents water intrusion into subbase of street.
- Performed ahead of double/single fiber projects.
- Routine maintenance.
- Applied to various streets.
- City applied 51,680 pounds last year at a cost of \$73,231.52 Equipment, labor and material.
- Typically needs reapplied every 4 to 5 years if not sealed with another treatment.

11th Ave between Fargo and Flint Ave.



Slurry Seal

- City staff crack seals ahead of project.
- A Contractor is hired to apply a single thin lift of small aggregate and oil.
- Used on residential streets.
- Adds additional wear surface.
- .98 per square yard (2016/17)
- 5-7 years life expectancy.
- No longer performed in Hanford, replace by fiber seals due to longer life expectancy.

Foxhill Pl between Cortner and Bella Oaks Way



- Patching
 - Performed by City staff.
 - Uses cold patch as well as permanent paving.
 - City staff cleans pothole, applies a tack coat of emulsion, installs new material and compacts.
 - Typically, a temporary fix due to other underlying issues.
 - Various streets.
 - Cost is minimal, time, labor and material



- Reclamite
 - Applied by a contractor.
 - Thin lift of penetrating oil applied to the street.
 - Sand is applied once the oil sets.
 - Sand is then swept up and disposed off.
 - Traffic is left to “kneed” the oil into the asphalt.
 - Applied to arterials and collectors.
 - Cost .85 a square yard in 2021

Stock picture, not a Hanford application

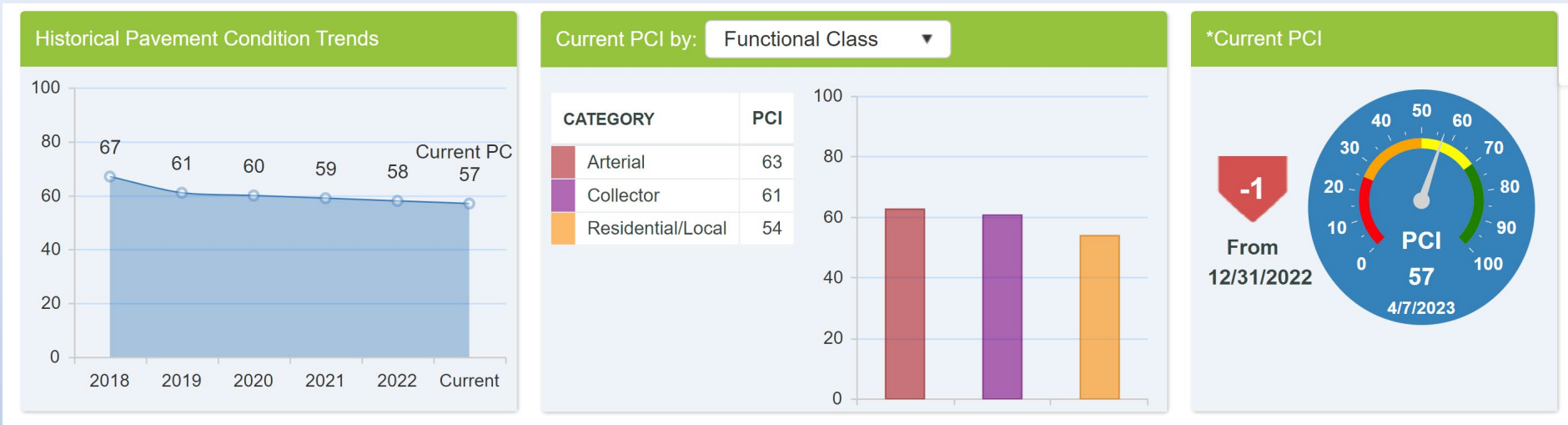


Street Saver Program



- Cloud based program
- All City streets are broken into segments and a PCI is assigned according to the pavement sections
- Program allows staff to run various scenarios including budget scenarios, life expectancy and treatment scenarios

PCI Historical Index



PCI in 2018 was 67

Current PCI is 57

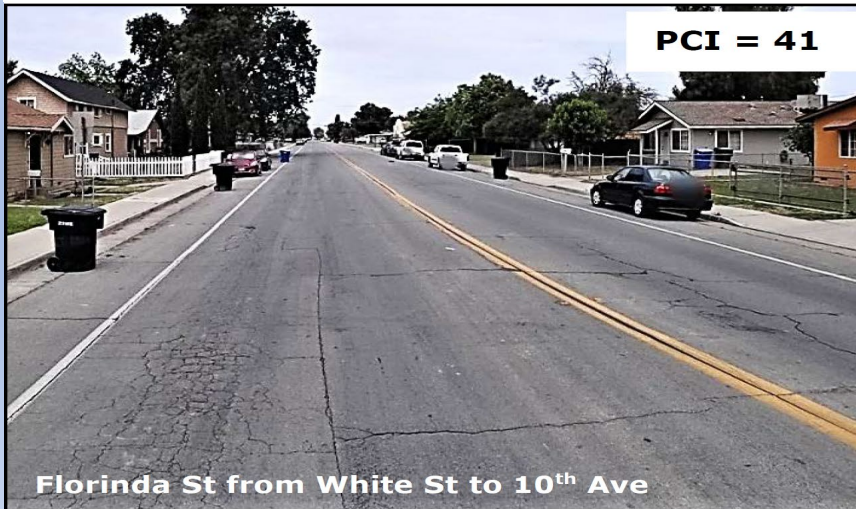
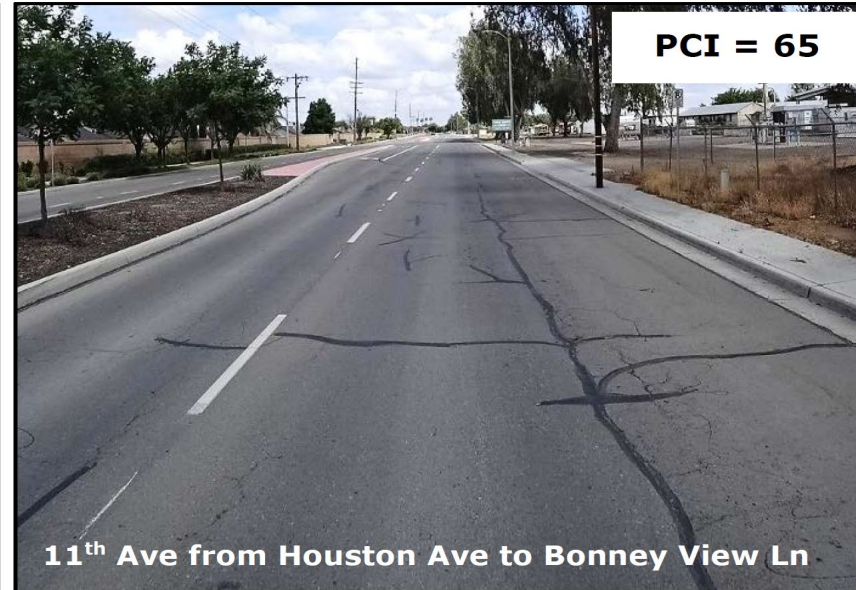
Arterial Streets are at 63

Collector Streets are at 61

Residential Streets are at 54

I	Very Good		100
II/III	Good (non-load)	Good (load related)	70
IV	Poor		50
V	Very Poor		25
			0
Condition Category	Pavement Condition		PCI

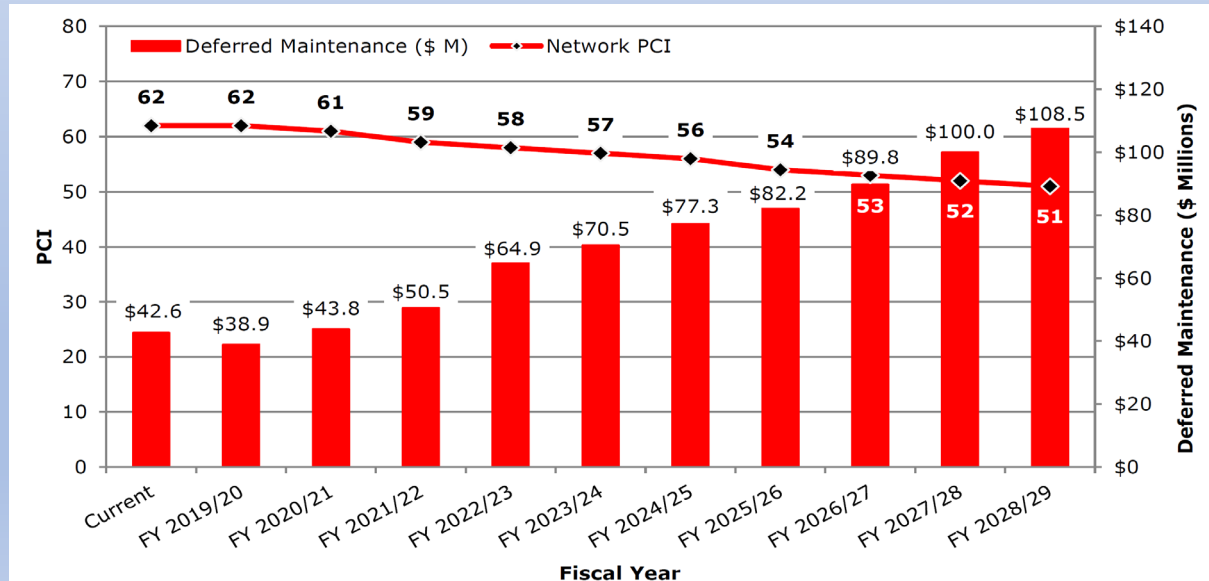
PCI Examples



2020 Scenario 1

- Scenario 1: The City's anticipated funding for paving projects is approximately \$3.7 million per year. At this funding level, the network PCI is expected to decrease from 62 to 51 by FY 2028/29

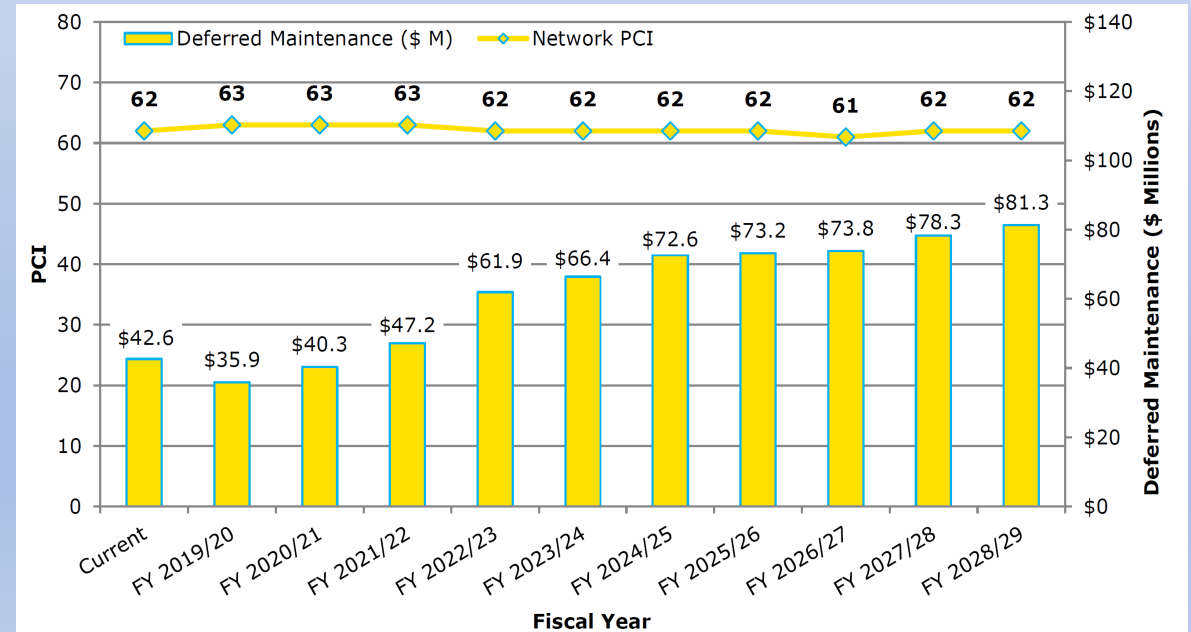
Year	Current	FY 2019 /20	FY 2020 /21	FY 2021 /22	FY 2022 /23	FY 2023 /24	FY 2024 /25	FY 2025 /26	FY 2026 /27	FY 2027 /28	FY 2028 /29	Total
Budget (\$M)	N/A	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	37.0
Rehabilitation (\$M)	N/A	3.6	3.6	3.7	3.7	3.5	3.5	3.5	3.4	3.4	3.5	35.4
Preventive Maintenance (\$M)	N/A	0.1	0.1	0.0	0.0	0.2	0.2	0.2	0.3	0.3	0.2	1.6
Deferred Maintenance (\$M)	42.6	38.9	43.8	50.5	64.9	70.5	77.3	82.2	89.8	100.0	108.5	N/A
Treated PCI	62	62	61	59	58	57	56	54	53	52	51	N/A



2020 Scenario 2

- Scenario 2: To maintain PCI at 62, the City will need approximately \$6.7 million per year over the next 10 years

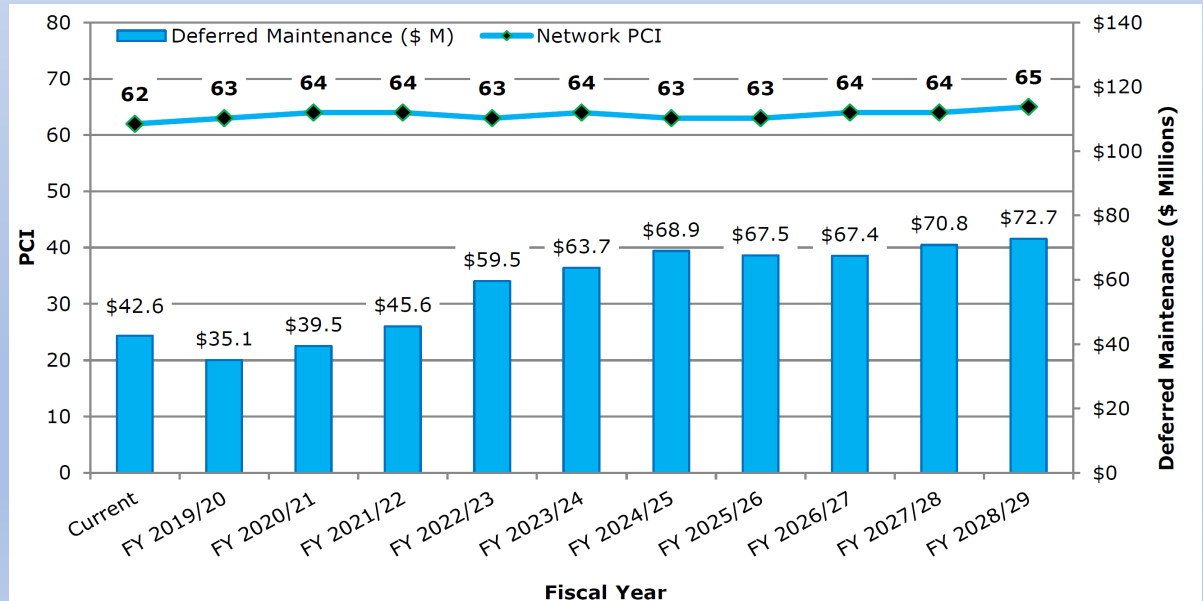
Year	Current	FY 2019 /20	FY 2020 /21	FY 2021 /22	FY 2022 /23	FY 2023 /24	FY 2024 /25	FY 2025 /26	FY 2026 /27	FY 2027 /28	FY 2028 /29	Total
Budget (\$M)	N/A	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	67.0
Rehabilitation (\$M)	N/A	6.6	6.6	6.7	6.7	6.5	6.5	6.5	6.4	6.5	6.5	65.5
Preventive Maintenance (\$M)	N/A	0.1	0.1	0.0	0.0	0.2	0.2	0.2	0.3	0.2	0.2	1.5
Deferred Maintenance (\$M)	42.6	35.9	40.3	47.2	61.9	66.4	72.6	73.2	73.8	78.3	81.3	N/A
Treated PCI	62	63	63	63	62	62	62	62	61	62	62	N/A



2020 Scenario 3

- Scenario 3: To improve PCI to 65, approximately \$7.5 million per year through FY2028/29

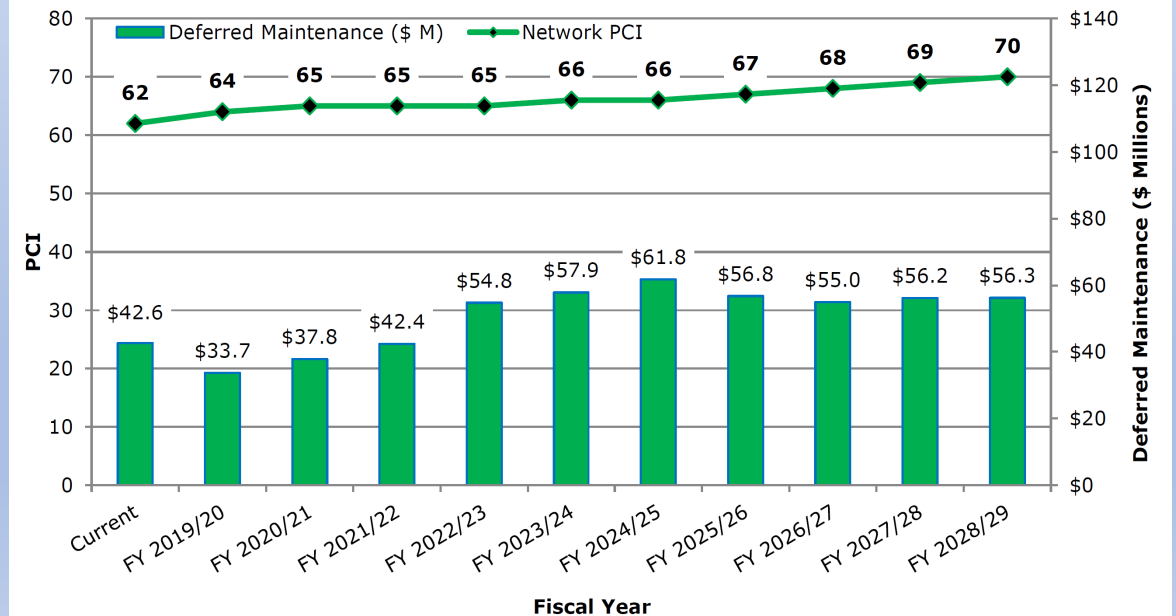
Year	Current	FY 2019 /20	FY 2020 /21	FY 2021 /22	FY 2022 /23	FY 2023 /24	FY 2024 /25	FY 2025 /26	FY 2026 /27	FY 2027 /28	FY 2028 /29	Total
Budget (\$M)	N/A	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	75.0
Rehabilitation (\$M)	N/A	7.4	7.4	7.5	7.5	7.3	7.3	7.3	7.2	7.2	7.2	73.3
Preventive Maintenance (\$M)	N/A	0.1	0.1	0.0	0.0	0.2	0.2	0.2	0.3	0.3	0.3	1.7
Deferred Maintenance (\$M)	42.6	35.1	39.5	45.6	59.5	63.7	68.9	67.5	67.4	70.8	72.7	N/A
Treated PCI	62	63	64	64	63	64	63	63	64	64	65	N/A



Scenario 4

- Scenario 4: To improve PCI to 70, approximately \$8.9 million per year over the next ten years.

Year	Current	FY 2019 /20	FY 2020 /21	FY 2021 /22	FY 2022 /23	FY 2023 /24	FY 2024 /25	FY 2025 /26	FY 2026 /27	FY 2027 /28	FY 2028 /29	Total
Budget (\$M)	N/A	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	89.0
Rehabilitation (\$M)	N/A	8.8	8.8	8.9	8.9	8.7	8.7	8.7	8.6	8.6	8.6	87.3
Preventive Maintenance (\$M)	N/A	0.1	0.1	0.0	0.0	0.2	0.2	0.2	0.3	0.3	0.3	1.7
Deferred Maintenance (\$M)	42.6	33.7	37.8	42.4	54.8	57.9	61.8	56.8	55.0	56.2	56.3	N/A
Treated PCI	62	64	65	65	65	66	66	67	68	69	70	N/A



Excluded costs

- All scenario costs are for street maintenance only
- Does not include costs for:
 - Sidewalk repair
 - ADA improvements
 - Buried utilities
 - Lighting
 - Signage

Typical Funding Sources

- Federal
 - Community Development Block Grants
 - Surface Highway Transportation Grant Program
 - Highway Safety Improvement Program
- State
 - State Transportation Improvement Program
 - Active Transportation Program
 - Transportation Development Act
- Local
 - Sales Tax
 - Development Impact Fees
 - Parking and Permit Fees
 - Parcel Taxes



AGENDA STAFF REPORT

MEETING DATE: 5/16/2023

AGENDA SECTION: CONSENT CALENDAR

SUBJECT:

Approval of the Minutes of the May 2, 2023 Meeting

RECOMMENDATION:

Recommendation: Approve the minutes from May 2, 2023 Regular City Council Meeting.

BACKGROUND:

FISCAL IMPACT:

ATTACHMENTS:

1. May 2, 2023



**City Council Regular Meeting
Minutes**

**May 2, 2023 7:00 PM
Council Chambers
400 N. Douty St.**

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

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

ROLL CALL BY THE CITY CLERK:

Present:	Absent:
Council Member Lou Martinez Council Member Mark Kairis Council Member Kalish Morrow Council Member Diane Sharp Council Member Travis Paden	

PUBLIC COMMENT:

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

None.

STUDY SESSION:

- A. Presentation and Review of potential projects to include in Capital Improvement Plan (CIP) for upcoming fiscal year 2024 and 2025 Budget and Direction from Council on which projects to prioritize.

Finance Director Chris Tavarez discussed the 2023/24 and 2024/25 Budget and Capital Improvement Plan. The Council reviewed the CIP General Fund rankings and provided their feedback. Staff will not be making project recommendations to be funded from the General Fund by this budget unless they are offset by grants or reserves, or of utmost need. Staff answered questions from the Council. No action was taken. The CIP review will continue at the May 16, 2023 City Council Study Session.

- B. Presentation regarding existing and future Downtown lighting and discussion and Council direction regarding the Repair and Replacement Strategy

Deputy City Manager Waters discussed the need for new lights and a consistent design in the downtown area. He

provided the history of the lights and discussed the challenges of replacing them. He provided photos of the current conditions of the lights. Staff would like to establish a design standard. Staff answered questions from the Council. The Council spoke in favor of the project with the white and gold design, and directed staff to establish a design standard. Staff will bring the project back to a future meeting for the Council's review and approval.

- C. Discussion of the history of City support for the Hanford Chamber of Commerce and Council consideration of the reformation of a Council Ad-Hoc subcommittee to work with the Chamber on the possibility of future City support

City Manager Cifuetez provided a brief background. The Chamber of Commerce Director Amory Marple discussed the Chamber's accomplishments since her employment at the Chamber. She also discussed their events, future goals, potential partnerships, their occupancy in the Courthouse, and future growth opportunities. City Manager Cifuentez and Ms. Marple answered questions from the Council. After a brief discussion, the Council directed staff to move forward with a Ad-Hoc Subcommittee. The Council selected Council Member Morrow and Vice Mayor Kairis with Council Member Martinez as the alternate for the subcommittee.

The Council adjourned to closed session at 6:06 p.m.

CLOSED SESSION FOR DISCUSSION OF THE FOLLOWING:

- A. CONFERENCE WITH LEGAL COUNSEL-ANTICIPATED LITIGATION (54956.9 (d)(2))
Anticipated litigation involving Annexation 159

CALL TO ORDER REGULAR SESSION:

Mayor Paden called the meeting to order at 7:00 p.m.

ROLL CALL:

Present:	Absent:
Council Member Lou Martinez Council Member Mark Kairis Council Member Kalish Morrow Council Member Diane Sharp Council Member Travis Paden	

INVOCATION:

The invocation was led by Council Member Sharp.

FLAG SALUTE:

The flag salute was led by Mayor Paden.

RECOGNITION/PROCLAMATION:

- A. Proclamation for recognition of "National Public Works Week", May 21-27, 2023.

Mayor Paden presented the "National Public Works Week" Proclamation to Public Works Director Jim Ross.

COUNCIL REPORTS/GENERAL REPORTS:

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

The Council discussed the meetings and events they attended. During this time, the Council addressed the community's feedback regarding the Downtown Traffic and Pedestrian Improvements Project.

PUBLIC COMMENT:

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

Bob Ramos addressed Vice Mayor Kairis's comments made during Council comments. He also discussed a meeting he had with Mr. Kairis. Mr. Ramos suggested Council Member Sharp recuse herself from voting on GB item A.

Nick Wagner addressed the comments made by Vice Mayor Kairis and Council Member Morrow. He also commented on past meetings regarding the traffic circle project.

Craig Johnson complemented Maintenance Worker Carmen Navarro for her work in the community. He also commented on the newspaper article regarding the downtown traffic circle project. City Manager Cifuentez addressed his comments.

Jack Schwartz provided an update for the Carnegie Museum and invited the Council and public to the Carnegie's upcoming events.

Angel Rodriguez commented on the Downtown Traffic and Pedestrian Improvements Project and the amount of money the city is spending on the project. She also asked that the city keep the money local.

Dennis Ham commented on the downtown project and shared concerns about the negative affects this project will have on traffic and parking downtown.

Dulce Velazquez, of the American Cancer Society in Fresno, provided her background and expressed her concerns regarding second-hand smoke.

Sylvia Rios, a local volunteer of the American Cancer Society, discussed the negative affects of second-hand smoke and provided information packets for the Council.

Micheal Quinn spoke in opposition to putting a traffic circle downtown. He also expressed his concerns regarding the construction time of a traffic circle.

Kimber Reagan expressed her concerns about the downtown businesses being affected by a traffic circle.

Lynn Nelson commended Vice Mayor Kairis and Mayor Paden for their presentation regarding Heroes Park. She also commented on the traffic circle project.

Anna Brookshire commented on the budget for the traffic circle project.

Adrea Barona thanked the Council for following up on an issue he had in his neighborhood. He also shared his suggestions on how to keep the public informed. He also commented on the Sentinel article and suggested other areas in the city for a traffic circle.

Jim Showmaker expressed his concerns regarding a traffic circle in the central business district.

David Ayers commented on the Air Pollution Control District. He also spoke in opposition to the traffic circles in the downtown area and shared his past experience being on the City Council.

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.

Motion to Approve.

RESULT:	Passed (UNANIMOUS)
MOVER:	Council Member Diane Sharp
SECONDER:	Council Member Kalish Morrow

AYES: Diane Sharp, Mark Kairis, Kalish Morrow, Travis Paden, Lou Martinez

- A. Procedural Waiver: Waive reading in full of resolutions and ordinances and approval and adoption of same by reading title the only.
- B. City Clerk: Approval of the Minutes of the April 4, 2023 Meeting
- C. City Clerk: Approval of the Minutes of the April 18, 2023 Meeting
- D. Administration: Approval of a new 1-year Service Agreement with Main Street Hanford for the same annual compensation amount of \$81,090.
- E. Finance: Acceptance and authorization for staff to File the City of Hanford's Quarterly Investment Portfolio and Transactions Reports as of 03/31/2023.

GENERAL BUSINESS:

- A. Community Development: Authorization to award a contract to Interwest Consulting Group, for an amount not to exceed \$391,944.72 and appropriation of said amount to provide engineering and design services for the Downtown Traffic and Pedestrian Improvements Project.

Deputy City Manager Waters discussed the consulting services for the Downtown Traffic and Pedestrian Improvements Project and the project's key milestones for the Council's review and consideration. Interwest Consulting Group Director Nicole Jules (teleconference) addressed the Council's questions and concerns. Staff answered questions from the Council. After much discussion, Council Member Sharp made the motion to award the contact to Interwest Consulting Group.

RESULT:	Passed
MOVER:	Council Member Diane Sharp
SECONDER:	Council Member Kalish Morrow
AYES:	Diane Sharp, Mark Kairis, Kalish Morrow, Travis Paden
NAYS:	Lou Martinez

COUNCIL COMMENTS AND COMMUNICATIONS::

At this time, any Council Member may ask a question for clarification, make an announcement, or report briefly on their activities. In addition, subject to Council Policies and Procedures, they may request staff to report back to the Council at a subsequent meeting concerning any matter or take action to direct staff to place a matter of business on a future agenda. (GOV. CODE SEC. 54954.2)

It was a Council consensus to direct staff to prepare a letter in opposition to AB 650. Council Member Martinez and Mayor Paden also expressed their concerns regarding the lights at Lacely Park.

A. Council Future Agenda Items

B. Upcoming Events and Important Dates:

May 1: Summer Day Camp Registration opens. Camp dates June 5, 2023 - August 4, 2023. Contact Parks and Community Services for more information at 559-585-2525 or

[Register Here](#)

May 4: Thursday Night Market 5:30 pm - 9:00 pm

May 6: Food Truck Take Over in Civic Park 5:30 pm -9:00 pm

May 10: City/County 2nd Quarter Coordinating Conference 6:00 pm at Fugazzi's hosted by the City of Hanford

May 13: Helping Hands Volunteer Program YAC/Rotary 1098 Campus Drive 8:00 am -
Noon [Sign up here](#)
May 16: Regular City Council Meeting

ADJOURNMENT:

Mayor Paden adjourned the meeting at 9:41 p.m.

Respectfully submitted,

/s/ Natalie Corral
Natalie Corral, City Clerk



AGENDA STAFF REPORT

MEETING DATE: 5/16/2023

AGENDA SECTION: CONSENT CALENDAR

SUBJECT:

Approval of a 5-year contract renewal, for Workers' Compensation Third Party Administration services, with Acclamation Insurance Management Services, Inc., with a year one cost of \$124,681.67 and authorization for the City Manager to execute all necessary documents.

RECOMMENDATION:

Recommendation: It is recommended that the City Council approve, by motion, the Claim Administrator Agreement between Acclamation Insurance Management Services, Inc. and the City of Hanford for five years and grant the City Manager authority to execute all necessary documents.

Recommended Motion: I move that the City Council approve the Claim Administrator Agreement between Acclamation Insurance Management Services, Inc. and the City of Hanford for five years and grant the City Manager authority to execute all necessary documents.

BACKGROUND:

A Third Party Administrator (TPA) is a company that Self-Insured employers, like the City of Hanford, contract with to administer the claims administration process. The process of properly and effectively administering claims is very complex as there are numerous mandated deadlines where actions must be taken. The reserving process is governed by a wide body of law and court cases, and effectively providing benefits and facilitating the injured worker to return to work has a direct effect on controlling the costs associated with a company's workers' compensation program.

The City of Hanford has established a workers' compensation program with Acclamation Insurance Management Systems (AIMS) as our TPA. Upon the decision to move from our previous excess workers' compensation liability pool (CSJVRMA) to the city's current excess workers' compensation liability pool (PRISM), the City of Hanford needed to establish a five (5) year claims trend with AIMS before a flat contract for claims administration would be available. Currently, the City of Hanford is billed per claim for administration fees. The current administration fees are based on several factors including the type of injury claim reported and the length of time each claim is active. The senior vice president of operations reached out to discuss establishing a new contract with a flat annual fee for administration costs, now that Hanford has established a 5 year claims trend.

The flat annual fee is based upon the five-year claims trend and current open claims. The City of Hanford has approximately 87 open workers' compensation claims with 47 identified as indemnity claims, 34 identified as future medical claims, and 6 identified as medical only claims. Should there be a 5% increase or decrease in open claims during any period of the Agreement due to significant change in the number of employees, and/or as a result of a catastrophic event, then both the Claim Administrator and the City of Hanford will negotiate in good faith, a reasonable fee increase or decrease based on the revision of required staffing.

The proposed agreement for services is for 5 years, including a 2.5% cost of living adjustment beginning in year 2, invoiced in 12 equal monthly amounts in arrears beginning July 1, 2023. The total annual flat fee proposed includes

handling all claims activity in a 12-month period (claims already open at the beginning of the 12-month term and any new claims reported during the 12-month term).

Utilizing the last 12 months (3/2022 - 3/2023) of Administrative Fees paid for services, costs were \$122,300.91. Year One of the proposed contract is \$124,681.67, which is a \$2,380.76 increase for the first year. Given that the current rate of inflation is 8.3%, which would equate to \$132,451.89 if utilized from our current billing schedule with an increase for inflation, the City will actually incur a cost savings of \$7,770.22 in the first year of the proposed contract.

FISCAL IMPACT:

The annual cost of the contract is listed below and those fees are paid from the Workers' Compensation Fund (0410), which is funded by an allocation to all City departments.

Year One: \$124,681.67
Year Two: \$127,798.71*
Year Three: \$130,993.68*
Year Four: \$134,268.52*
Year Five: \$137,625.23*

* Annual cost of living adjustment of 2.5%

ATTACHMENTS:

1. New Hanford 2023-2028 Contracts
2. Hanford Client Guidelines

CLAIM ADMINISTRATOR AGREEMENT

THIS AGREEMENT is made and entered into as of this first (1st) day of July, 2023, between, **CITY OF HANFORD (hereinafter referred to as "CLIENT")**, and **ACCLAMATION INSURANCE MANAGEMENT SERVICES, INC. (hereinafter called the "Claim Administrator" and/or "AIMS")**. Client and Acclamation Insurance Management Services, Inc. may each be referred to herein as a "Party", or collectively as "Parties".

In consideration of the mutual covenants herein contained, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereto agree as follows:

I. APPOINTMENT AND AUTHORITY

A. Appointment. Subject to the express limitations of authority set forth herein and in accordance with the provisions of this Agreement, the CLIENT hereby appoints the Claim Administrator to adjust and administer claims, and the Claim Administrator accepts such appointment, for such class(es) of business and in such territories as are set forth in Schedule A, attached to this Agreement and incorporated by this reference herein.

B. Exclusivity. During the Term of this Agreement the Claim Administrator is the CLIENT'S only claims administrator in connection with claims outlined on Schedule A attached. All new notices of such claims that the CLIENT or its designee(s) first receive during the Term of this Agreement will be forwarded only to the Claim Administrator for the purposes of providing claim services as set out herein.

C. General Scope of Authority. In providing the claims services contemplated under this Agreement, the Claim Administrator agrees and is hereby authorized:

1. To investigate, adjust, settle, resist or otherwise process all submitted claims, pursuant to the procedures and within the authority granted by the CLIENT as set forth in Schedule B attached to this Agreement.
2. To investigate, adjust, settle, resist, or otherwise handle all submitted claims in excess of the authority granted or in variance of the procedures only with the prior approval of the CLIENT.
3. To make payment on claims approved for settlement in accordance with the procedures set forth in Schedule B attached.
4. To handle all submitted claims according to the requirements of any appropriate legislative and/or regulatory authority.
5. To file any reports, maintain any licenses or any other authorization necessary or required by law to carry out the Claim Administrator's obligations and duties under this Agreement.

D. Settlement Authority. The Claim Administrator has the authority to do whatever is reasonably necessary, legal and proper to administer claims within the Claim Administrator's settlement authority limit and

in accordance with the procedures established under this Agreement. The Claim Administrator shall, in connection with such claims, exercise its own judgment unless the CLIENT specifically advises otherwise.

II. REPORTS AND RECORDS

A. Records. The Claim Administrator shall keep accurate, complete and separate records of all claims handled under this Agreement and for the duration set forth herein or as required by law and/or regulation. The claim files and records shall be established and maintained in accordance with applicable law and/or regulation and shall at a minimum contain all documents, notes, and work papers that reasonably pertain to each claim in such detail that pertinent events and the dates of the events can be reconstructed and the Claim Administrator's actions pertaining to the claim can be ascertained. The open claim files shall be electronically stored in the Claim Administrator's offices. Closed files will be maintained by the Claim Administrator for the term of this Agreement or sent to the CLIENT as requested by the CLIENT. All claim files, both open and closed, remain the property of the CLIENT no matter where they are held or stored. If the CLIENT chooses to have claim files shipped to a different location, costs of such shipping and photocopying of open claim files will be borne by the CLIENT.

B. Right to Inspect. The CLIENT, or its duly authorized representative, and any state insurance regulatory official may at all reasonable times inspect and copy any and all files, records, books, and bank account records maintained by the Claim Administrator for services provided under this Agreement. This right to inspect and copy records, books and bank account records shall survive the cancellation, suspension or termination of this Agreement and shall continue until all claims under this Agreement have been closed or returned to the CLIENT, and all regulatory requirements have been met.

C. Loss Run Reports. The Claim Administrator shall furnish the CLIENT and/or its designee(s) with standard loss run reports on a periodic and timely basis. The reports shall contain such information, in such form, and on such schedule as is reflected in Schedule B attached to this Agreement.

D. Reports for Regulatory Purposes. Upon written request, the Claim Administrator shall also provide the CLIENT with any reports or computer data related to the services performed for the CLIENT under this Agreement, that may be required by the CLIENT to satisfy various boards, bureaus, and state regulatory report requirements.

III. SERVICE FEES AND EXPENSES; PAYMENT TERMS

A. Service Fees. The CLIENT agrees to pay and the Claim Administrator will accept as full compensation for claim services provided under this Agreement the claim service fees as set out in Schedule C attached to this Agreement and incorporated herein by this reference.

B. Allocated Expenses. The CLIENT shall also be responsible for and shall pay all Allocated Expenses, as defined herein, in addition to the claim service fees as provided for in this Agreement. For the purposes of this contract, Allocated Expenses include but are not limited to the following:

1. Fees for medical examinations of claimants, including the reasonable and necessary transportation expenses of claimants.
2. Costs of reports from attending or examining physicians.
3. Attorney's fees and disbursements.
4. Costs of Medicare Lien negotiation & objections.

5. Costs of court reporting services and transcripts.
6. Witness attendance fees.
7. Court costs.
8. Printing costs related to trials and appeals.
9. Fees associated with the procuring of testimony, opinions, reports, and analyses of professionals and experts.
10. The costs of reports from government agencies or branches.
11. The costs of credit bureau reports.
12. The costs of private investigators.
13. The costs of photographs.
14. Medical or vocational rehabilitation costs and expert testimony.
15. Charges for medical costs containment services, i.e., utilization review, pre-admission authorization, Medical Provider Network, hospital bill audit, provider bill audit and medical case management and Call Center/Injury Intake.
16. Extraordinary travel expense incurred at the request of the CLIENT.
17. The costs of services related to the collection of the subrogation rights of the Client, for which the CLIENT shall have given prior approval.
18. All fees, excluding membership fees, for indexing claimants' injuries and/or liability claims.
19. Mediation and arbitration costs.
20. Medicare Conditional Lien Negotiation costs

Such Allocated Expenses are limited to reasonable, customary and necessary expenses incurred by the Claim Administrator in the course of the performance of this Agreement.

C. Invoices and Disputes. Applicable service fees and Allocated Expenses (if paid directly by Client and not off the individual Claim File) will be invoiced to the CLIENT on a monthly basis. The CLIENT shall remit payment to the Claim Administrator within thirty (30) days (excluding holidays) after receiving the Invoice. The CLIENT may only withhold from payment an amount disputed by the CLIENT in good faith if it provides Claim Administrator with written notice of such dispute, together with reasonable detail of the facts underlying such dispute, within ten (10) days following the date of such invoice; otherwise such invoice shall be deemed final.

D. Audit Rights. During the Term upon the CLIENT'S request, the CLIENT shall have the right to inspect and audit the services provided the Claim Administrator within the previous twelve (12) month period. The Claim Administrator shall make the applicable records relevant to the services provided during such period, and appropriate personnel, available during normal business hours for inspection or audit by the CLIENT or its authorized representative. The CLIENT will pay the cost of such audit unless an audit reveals an overbilling of five percent (5%) or more, in which case the Claim Administrator shall reimburse the CLIENT for the reasonable cost of the audit. The Claim Administrator shall immediately upon notice from the CLIENT pay or credit the CLIENT the amount of any overpayment exceeding five percent (5%) as revealed by the audit, together with any reimbursement pursuant to the preceding sentence.

IV. COMPLIANCE WITH APPLICABLE LAW

The Claim Administrator agrees to operate at all times in compliance with applicable federal, state, and local statutes, regulations, codes and ordinances, including those applicable to unfair trade and claim practices, complaint handling, and records retention pertaining to the services contemplated under this Agreement.

V. TERM AND TERMINATION

A. Term. The term of this Agreement shall be for a period of five (5) years commencing on the date first written above (the "Initial Term") and may be extended for subsequent one (1) year periods (each, a "Renewal Term") by mutual agreement of the Parties in writing for an additional two (2) years. This Agreement covers the Initial Term stated above unless terminated pursuant to the provisions of this Agreement. Any Renewal Term shall be the subject of further negotiations between the Parties. The Initial Term and all Renewal Terms are collectively referred to as the "Term."

B. Termination Without Cause. Either Party may terminate this Agreement by giving sixty (60) days' advance written notice to the other Party.

C. Termination for Cause. Either Party may terminate this Agreement effective upon written notice to the other Party, if the other Party breaches this Agreement and such breach: (1) is incapable of being cured; or (2) being capable of cure, remains uncured for sixty (60) days after the breaching party receives written notice thereof.

D. Termination for Insolvency. Either Party may terminate this Agreement by written notice to the other Party if the other Party: (i) becomes insolvent or admits inability to pay its debts generally as they become due; (ii) becomes subject, voluntarily or involuntarily, to any proceeding under any domestic or foreign bankruptcy or insolvency law which is not fully stayed within seven (7) business days or is not dismissed or vacated within forty-five (45) days after filing; (iii) is dissolved or liquidated or takes any corporate action for such purpose; (iv) makes a general assignment for the benefit of creditors; or (v) has a receiver, trustee, custodian, or similar agent appointed by order of any court of competent jurisdiction to take charge of or sell any material portion of its property or business.

E. Effect of Expiration or Termination. If the Agreement is terminated or not renewed:

1. the client shall exercise the following option within sixty (60) days prior to the date of termination/expiration:

a. Require the Claim Administrator to return all open files, at the Client's expense, at the termination of the Agreement and the Claim Administrator shall be entitled to payment for all undisputed services rendered and Allocated Expenses incurred up to that time under this Agreement. The Client will secure services for the return of such files.

2. If any fees have been prepaid by the CLIENT, the Claim Administrator shall refund to the CLIENT the amount of any such prepaid fees that exceeds the value of services actually rendered by the Claim Administrator prior to the termination date.

F. Survival. Sections III.C (Invoices and Disputes), V.E (Effect of Expiration or Termination), VI.B (Claim Administrator Indemnification), VI.C (CLIENT Indemnification), VI.D (Indemnification Procedures), VI.E (Limitation on Liability), VII (Representations and Warranties), VIII (Dispute Resolution), IX (Confidentiality), X (Relationship of the Parties), and XI (General Provisions), and any right or obligation of the Parties in this Agreement which, by its express terms or nature and context is intended to survive termination or expiration of this Agreement, will survive any such termination or expiration.

VI. INSURANCE, INDEMNITY, AND LIMITATION ON LIABILITY

A. Insurance.

1. The Claim Administrator, at its sole cost and expense, is required to maintain in full force and effect during the Term of this Agreement:

- a. A policy of errors and omissions insurance coverage appropriate to the Claim Administrator's profession, which affords coverage in the minimum amount of \$5,000,000 per occurrence/claim, with a per claim or occurrence deductible not to exceed \$25,000; and
- b. A policy of general liability insurance and automobile liability insurance coverages, which afford coverage in the minimum amount of \$1,000,000, with coverage including but not limited to Bodily Injury and Property Damage.

2. Insurance required hereunder shall be primary and non-contributing coverage over any other valid and collectible insurance available to the CLIENT. The Claim Administrator shall furnish proof of such insurance to the CLIENT prior to initiation of this Agreement and each renewal thereof, and shall provide notification to the CLIENT in the event of lapse of such coverage.

B. Claim Administrator Indemnification. The Claim Administrator hereby agrees to indemnify, defend, and hold the CLIENT harmless from any and all third party claims, damages, actions, liability or loss which result solely from negligent or willful acts, errors or omissions of the Claim Administrator, or its servants, agents or employees, in the performance of duties under this Agreement, except to the extent such Losses are caused by the gross negligence or willful misconduct of the CLIENT or its officers, employees, or agents.

C. CLIENT Indemnification. The CLIENT hereby agrees to and hereby does indemnify, defend (with counsel reasonably acceptable to the Claim Administrator) and hold harmless Claim Administrator (and its affiliates, agents, employees, attorneys, successors and assigns) from and against any and all suits, actions, claims, demands, losses, liabilities, damages, judgments, fines, penalties, deficiencies, costs and expenses, including interest, penalties and reasonable attorneys' fees and costs, based upon, arising out of or otherwise in connection with: (i) any breach by the CLIENT of any warranty, covenant or agreement, or any inaccuracy in any representation of the CLIENT contained in this Agreement; or (ii) the CLIENT'S failure to duly perform or observe, or otherwise negligent act, error, or omission, regarding any term, provision, covenant or agreement to be performed or observed by the CLIENT to this Agreement.

D. Indemnification Procedures. The party seeking indemnification ("Indemnitee") will promptly notify the indemnifying party ("Indemnitor") in writing of any action for which it seeks to be indemnified and cooperate with the Indemnitor at the Indemnitor's sole cost and expense. The Indemnitor shall immediately take control of the defense and investigation at its sole cost and expense. The Indemnitor shall not settle any action in a manner that adversely affects the rights of the Indemnitee without its prior written consent, which shall not be unreasonably withheld. The Indemnitee's failure to provide notice as promptly as practicable will not relieve the Indemnitor of its indemnity obligations except to the extent that the Indemnitor can demonstrate that it has been materially prejudiced as a result of such failure. The Indemnitee may participate in and observe the proceedings at its own cost and expense with counsel of its own choosing.

E. Limitation on Liability. IN NO EVENT WILL EITHER PARTY BE LIABLE UNDER THIS AGREEMENT FOR ANY CONSEQUENTIAL, INCIDENTAL, INDIRECT, EXEMPLARY, SPECIAL, OR PUNITIVE DAMAGES WHETHER ARISING OUT OF BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE), OR OTHERWISE, REGARDLESS OF

WHETHER SUCH DAMAGE WAS FORESEEABLE AND WHETHER EITHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. NOTWITHSTANDING THE FOREGOING OR ANY OTHER PROVISION OF THIS AGREEMENT, ANY PURPORTED LIMITATION ON A PARTY'S LIABILITY SHALL NOT APPLY TO ANY CLAIM ARISING FROM (a) THE PARTY'S BREACH OF ITS OBLIGATIONS WITH RESPECT TO CONFIDENTIAL INFORMATION; OR (b) DAMAGES TO THE EXTENT CAUSED BY THE GROSS NEGLIGENCE OR WILLFUL MISCONDUCT OF THE PARTY'S EMPLOYEES, DIRECTORS, OFFICERS, OR SUBCONTRACTORS.

VII. REPRESENTATIONS AND WARRANTIES

A. Mutual Representations and Warranties. Each party represents and warrants to the other party that: it is duly organized, validly existing, and in good standing under the laws of its jurisdiction of incorporation or organization; it has the full right, power, and authority to enter into this Agreement, and to perform its obligations hereunder; and when executed and delivered by both parties, this Agreement will constitute the legal, valid, and binding obligation of such party, enforceable against such party in accordance with its terms.

B. Performance Warranty. The Claim Administration further represents and warrants to CLIENT that it will perform all services under this Agreement in a professional and workmanlike manner in accordance with industry standards and practices for similar services, and shall devote adequate resources to meet its obligations under this Agreement.

C. Licenses. The Claim Administrator warrants that it and its adjuster employees now have all licenses necessary to perform the services described in this Agreement. The Claim Administrator agrees it and specifically the adjusting employees who are assigned to the CLIENT's account will maintain during the Term any such necessary licenses. In the event that the Claim Administrator's license expires or terminates, for any reason, the Claim Administrator shall immediately notify the CLIENT and this Agreement shall automatically terminate as of the date of such licenses expiration or termination, unless within ten (10) days from the date the CLIENT receives notice of the license expiration or termination from the Claim Administrator, the CLIENT agrees, in writing, to modify the provisions set forth in this Paragraph.

D. DISCLAIMER OF WARRANTIES. EXCEPT FOR THE EXPRESS WARRANTIES SET FORTH IN THIS AGREEMENT, EACH PARTY HEREBY DISCLAIMS ALL WARRANTIES, WHETHER EXPRESS, IMPLIED, STATUTORY, OR OTHERWISE, WITH RESPECT TO SERVICE PROVIDED UNDER THIS AGREEMENT.

VIII. DISPUTE RESOLUTION

A. Arbitration. The Parties agree to meet and confer in good faith to resolve any disputes (e.g., regarding the Agreement's existence, interpretation, validity, or termination) that may arise between them under this Agreement. If such disputes cannot be resolved informally within twenty (20) days or such other reasonable period of time, the Parties may agree to submit the dispute(s) to binding arbitration. Following the expiration of the meet and confer period required above, such arbitration may be initiated by either party making a written demand for arbitration on the other party. There shall be one arbitrator. The Parties shall mutually agree upon an arbitrator. Should the Parties not agree, the Parties shall request a list of five qualified arbitrators from the American Arbitration Association, and the parties shall select the arbitrator by lot from the names submitted. The arbitrator shall be impartial and shall be a licensed claims person or an attorney admitted to practice in the State of California, who during the 24 months immediately preceding the nomination has devoted 75% of his or her practice to the defense of employers before the California Department of Labor and Industrial Relations. The arbitrator shall conduct the arbitration in accordance with the Rules of the

American Arbitration Association then in effect. The Parties agree that this Agreement will be interpreted and enforced pursuant to the laws of the State of California. The decision of the arbitrator shall be final and reduced to writing. The judgment of the arbitrator will be accompanied by a written statement of the basis for such judgment, and judgment on the award rendered by the arbitrator may be entered in any court having jurisdiction thereof. Any such arbitration shall take place in Sacramento, California. The Claim Administrator and the CLIENT shall bear the cost of arbitration equally between them, and each shall bear and pay their own attorneys' fees and costs.

B. Venue. Any suit, action or proceeding by or against either Party, including any proceeding to compel arbitration, to confirm the arbitration award, or to enforce any remedy available to either Party, shall be brought in the appropriate court in the State of California, City and County of Sacramento, or in the United States District Court Northern District of California, and each of the Parties submits and consents to the non-exclusive jurisdiction of either of such courts for the purpose of any such suit, action or proceeding. Process in any suit, action or proceeding may be served by registered or certified mail addressed to the Party at its last known address.

IX. CONFIDENTIALITY

A. Confidential Information Defined. During the performance of this Agreement, a Party may provide to the other Party information orally, in writing or by electronic means (whether through secured access through their respective internal websites, systems networks, and/or databases or otherwise), that is confidential and/or proprietary information ("Confidential Information"), including, but not limited to: (i) business and financial data, technical data, manuals, forms, records, methods, product information, strategic plans, potential and existing strategic partner information, sales and marketing information, and other information necessary for Claim Administrator to perform its duties; (ii) trade secrets and other intellectual property, and software applications or components thereof, including the source code, whether developed in-house or otherwise owned by either of the Parties; and (iii) personally identifiable consumer information and nonpublic personal information of the CLIENT's employees, customers, and consumers. For purposes of this Section, the Party providing Confidential Information is referred to as the "Disclosing Party" and the Party receiving Confidential Information is referred to as the "Receiving Party".

B. Restrictions on Use. The Receiving Party shall maintain such Confidential Information as confidential and shall use reasonable efforts to ensure that it shall be used only for the purposes contemplated in this Agreement. The Receiving Party shall not disclose or release any Confidential Information to any entity or person other than its employees and representatives on an as-needed basis without the express written consent of the Disclosing Party or as may be required by law or court order.

C. Safeguards. The Receiving Party shall implement and maintain appropriate information security policies and procedures with the same care as used by a reasonable person in protecting his or her own Confidential Information, which policies and procedures shall include administrative, technical and physical safeguards designed to: (1) ensure the security and confidentiality of Confidential Information; (2) protect against any anticipated threats or hazards to the security or integrity of Confidential Information; and (3) protect against unauthorized access to or use of Confidential Information. The Claim Administrator further agrees, upon request by the CLIENT, to provide confirmation that such safeguards have been implemented.

D. Data Security Incident. The Receiving Party shall immediately, and in any event within seventy-two (72) hours, notify the Disclosing Party of any unauthorized access, use, disclosure, alteration or theft

involving the Disclosing Party's Confidential Information and shall cooperate with the Disclosing Party to determine any applicable notice requirements. By way of clarification and not limitation, any compilation, aggregations, reports, studies, or analyses generated by the Claim Administrator is expressly permitted under this Agreement and shall not be deemed the CLIENT's Confidential Information and may be used internally by the Claim Administrator solely to assist in making assessments pursuant to this Agreement, and shall not be disseminated.

E. Compelled Disclosure of Confidential Information. If the Claim Administrator is served with a subpoena, court order, or other legal document demanding or requiring the release of Confidential Information, Claim Administrator shall immediately give notice to the CLIENT. The CLIENT shall decide whether to take any legal action in response to any such subpoena, court order, or other legal document and Claim Administrator shall cooperate with and assist the CLIENT (at no cost or expense to the Claim Administrator) in seeking a protective order, moving to quash the subpoena, or otherwise obtaining relief from disclosing Confidential Information. If the CLIENT waives compliance or, after providing the notice and assistance, the Claim Administrator remains required by law to disclose any Confidential Information, the Claim Administrator shall disclose only that portion of the Confidential Information that it is legally required to disclose.

X. RELATIONSHIP OF THE PARTIES

A. Independent Contractor. The Claim Administrator and its employees, in their performance of their duties under this Agreement shall do so as independent contractors, and shall act in compliance with such rules, regulations, or instructions as the CLIENT may prescribe in writing. Nothing contained in this Agreement shall be construed as creating any agency, partnership, joint venture, or other form of joint enterprise, employment, or fiduciary relationship between the parties, and neither party shall have authority to contract for or bind the other party in any manner whatsoever. The CLIENT does not, by this Agreement, reserve control over the methods or procedures to be utilized by the Claim Administrator or any of the Claim Administrator's employees, contractors, or vendors. All personnel used to perform the specified services under this Agreement shall be employees, contractors or vendors of The Claim Administrator, and shall not be deemed to be the employees or agents of the CLIENT. The Claim Administrator shall determine the wages, working hours, and other working conditions for its personnel and shall monitor and control the quality of their work performance. The Claim Administrator acknowledges that its personnel have no right, entitlement, or claim against the CLIENT for Social Security benefits, workers' compensation benefits, disability insurance, pension pay, vacation pay, sick pay, or any other employee benefit of any kind.

B. Service Provider Status under California Law. Under the Agreement, CLIENT will provide the Claim Administrator with consumers' personal information so that the Claim Administrator may provide services to the CLIENT. In addition to the confidentiality obligations set forth in the Agreement, the Claim Administrator further agrees that it shall not: (1) sell, rent, release, disclose, disseminate, make available, transfer, or otherwise communicate orally, in writing or by electronic or other means, the personal information of consumers disclosed to it by the CLIENT to another business or third party for monetary or other valuable consideration; (2) retain, use, or disclose such personal information of consumers for any purpose (including for a commercial purpose) other than for the specific purpose of performing the services specified in the Agreement; or (3) retain, use, or disclose such personal information outside of the direct business relationship with the CLIENT. Pursuant to California Civil Code section 1798.140(w)(2)(A)(ii), the Claim Administrator hereby certifies that it understands the restrictions set forth above and it will comply with such restrictions. For purposes of this Section X.B, the following terms shall have the meanings set forth in California Civil Code section 1798.140: business, business purpose, consumer, personal information, sell and third party. The parties

further acknowledge that federal and state laws regarding data security and privacy are rapidly changing and therefore agree to take any necessary action, including amendment of this Agreement if required, to ensure continued compliance with applicable law, including without limitation, California Civil Code section 1798.140(w)(2).

C. Non-Solicitation. The CLIENT acknowledges that it may obtain knowledge of or access to employees of the Claim Administrator during the Term. The CLIENT agrees that during the Term of this Agreement and for one (1) year after expiration or termination of this Agreement, the CLIENT will not directly or affirmatively solicit, or induce any other person to solicit, any employee of the Claim Administrator while such employee is employed by the Claim Administrator, to become an employee or contractor of the CLIENT. The CLIENT acknowledges that the Claim Administrator is operationally dependent upon its employees (including employee use of the Claim Administrator trade secrets and other proprietary information), and in the event any of its employees are solicited and hired by the CLIENT or another claim administrator contracting with the CLIENT, the Claim Administrator would incur costs incident to recruiting, hiring, and training a replacement for the solicited employee, in addition to any operational impairment or disruption (and related costs and damages) that might occur between the departure of the solicited employee and the hiring and training of a replacement. This paragraph shall not apply to general, public solicitations, such as advertisements or job postings, which are directed to the public at-large. If the Claim Administrator employee is hired by the CLIENT or a claim administrator contracted by the CLIENT, the CLIENT shall pay the Claim Administrator an amount equal to 125% of such employee's annual the Claim Administrator salary, as liquidated damages. The parties agree that quantifying losses arising from the solicitation of the Claim Administrator employees will be inherently difficult to estimate accurately given the use of the Claim Administrator trade secret and proprietary information and the true extent and duration of the damages may not be able to be estimated. The parties further agree that the above established sum is not a penalty but rather a reasonable measure of damages that would result from the CLIENT's breach of this paragraph, based on the parties' experience within the industry and given the nature of the losses the Claim Administrator might incur in connection with the solicitation of its employees.

XI. GENERAL PROVISIONS

A. Severability. If any term or provision of this Agreement, or the application of any term or provision of this Agreement to a particular situation, shall be finally found to be void, invalid, illegal or unenforceable by a court, then notwithstanding that determination, the term or provision shall remain in force and effect to the extent allowed by such ruling and all other terms and provisions of the Agreement or the application of this Agreement to other situations shall remain in full force and effect. Notwithstanding the foregoing, if any material term or provision of this agreement or the application of such material term or condition to a particular situation is finally found to be void, invalid, illegal or unenforceable by a court, then the Parties agree to work in good faith and fully cooperate with each other to amend this Agreement to carry out its intent.

B. Entire Agreement. This Agreement, together with the exhibits attached hereto, constitutes the entire agreement between the parties pertaining to its subject matter, superseding all prior and contemporaneous agreements, proposals, letters of intent and memorandums of understanding, and no other representations or understandings of the parties, whether written or oral, shall be binding.

C. Assignment. Neither party may, voluntarily or by operation of law, assign, delegate, or transfer any of its rights or obligations under this Agreement without the prior written consent of the other party. This

Agreement is binding upon and inures to the benefit of the parties hereto and their respective permitted successors and assigns.

D. Force Majeure. Any delay or failure of either party to perform its obligations under this Agreement will be excused to the extent that the delay or failure was caused directly by an event beyond such party's control, without such party's fault or negligence and that by its nature could not have been foreseen by the party, or if it could have been foreseen, was unavoidable (which events may include natural disasters, embargoes, explosions, riots, wars or acts of terrorism, and labor disputes) (each, a "Force Majeure Event"). The affected party shall give the other party prompt written notice of any event or circumstance that is reasonably likely to result in a Force Majeure Event, and the anticipated duration. The affected party shall use all diligent efforts to ensure the effects of any Force Majeure Event are minimized and resume full performance under this Agreement as soon as possible.

E. Interpretation. The captions of the various provisions of this Agreement shall not be deemed a part of this Agreement and shall not be construed in any way to limit the content thereof but are inserted herein only for reference and for the convenience of the parties.

F. Governing Law. This Agreement shall in all respects be interpreted, enforced and governed under the laws of the State of California, exclusive of its choice of law rules.

G. Equitable Relief. Each party acknowledges that a breach or threatened breach by a party of Section IX (Confidentiality) would cause the other party irreparable harm for which monetary damages would not be an adequate remedy and agrees that, in the event of such breach or threatened breach, the other party will be entitled to equitable relief and any other relief that may be available from any court, without any requirement to post a bond or other security, or to prove actual damages or that monetary damages are not an adequate remedy. Such remedies are not exclusive and are in addition to all other remedies that may be available at law, in equity, or otherwise.

H. No Third-Party Beneficiaries. Except as expressly provided herein, no provision of this Agreement is intended to confer any benefit upon any third party and no third party shall have the right to enforce any provision of this Agreement.

I. Amendment and Modification; Waiver. This Agreement, including, without limitation, its schedules attached hereto, may not be modified except in a writing executed by authorized representatives of the parties. No waiver of any of the provisions of this Agreement shall be deemed, or shall constitute, a waiver of any other provision, whether or not similar, nor shall any waiver constitute a continuing waiver.

J. Effective Date. This Agreement shall be effective as of the date first written above.

K. Notices. All notices or other communications given hereunder shall be in writing and shall be deemed to have been duly given (i) on the date delivered if delivered by personal delivery or by overnight delivery service (such as FedEx); (ii) on the third (3rd) business day after mailing via U.S. registered or certified mail, first class, postage prepaid; or (iii) on the date transmitted by facsimile with confirmation of successful transmission. Any notices or other communications given hereunder shall be addressed as follows, provided that either party may specify a different address by written notice to the other party in accordance with this Section.

If to the Client:

City of Hanford
900 South 10th Avenue
Hanford, CA 93230
Phone: (559) 585-2500
Fax:

If to the Claim Administrator:

Attn: Shauna Biagio, Risk Management Analyst
Acclamation Insurance Management Services, Inc.
10445 Old Placerville Road
Sacramento, CA 95827
Phone: (916) 563-1900
Fax: (916) 563-1919
Attn: President & Chief Executive Officer

L. Counterparts. This Agreement may be executed in two or more counterparts, each of which will be deemed an original, but all of which together will constitute but one and the same Agreement.

[Signatures on Following Page]

IN WITNESS WHEREOF the Parties hereto have caused this Agreement to be executed by their duly authorized representative as of the Effective Date.

CITY OF HANFORD

By: _____

Name: _____

Title: _____

**ACCLAMATION INSURANCE MANAGEMENT
SERVICES, INC.**

By: _____

Name: Dominic Russo

Title: President & CEO

LIST OF SCHEDULES

Schedule A	Program Scope and Territory
Schedule B	Claim Administration Procedures and Authority
Schedule C	Claims Service Fees

SCHEDULE A
SCOPE AND TERRITORY

Program Administrator: Acclamation Insurance Management Services, Inc.

Class of Business: Workers' Compensation

Territory: State of California

SCHEDULE B
CLAIM ADMINISTRATION PROCEDURES AND AUTHORITY

The CLIENT and AIMS maintain the performance standards outlined in the Client Service Guidelines and/or AIMS' Best Practices Manual, which is incorporated herein by reference and is made part of this Agreement as if fully set forth herein.

SCHEDULE C
CLAIM SERVICE FEE AND OTHER FEES

The Claim Administrator (AIMS) Fees

The CLIENT agrees to pay and the Claim Administrator will accept as full compensation for claim services provided under this Agreement the claim service fees as set out below.

The Claim Administrator's "flat annual fee" for the Claims Administration Services includes the handling of all current open claims, new indemnity claims, and new medical only claims during the life of the Agreement.

The flat annual fee is based upon the current open claims (approximately 87 open claims with approximately 47 identified as indemnity claims, approximately 34 identified as future medical claims and approximately 6 identified as medical only claims).

Should there be a 5% increase/decrease in open claims during any period of the Agreement due to significant change in the number of employees, and/or as a result of a catastrophic event, then both the Claim Administrator and the CLIENT will negotiate, in good faith, a reasonable fee increase/decrease fee adjustment based on any revised required staffing.

Claim Administrator's flat annual fees:

Year One	\$ 124,681.67
Year Two	\$ 127,798.71*
Year Three	\$ 130,993.68*
Year Four	\$ 134,268.52*
Year Five	\$ 137,625.23*

** Annual cost of living adjustment of 2.5%.*

The total annual flat fee proposed above contemplates handling all claims activity in a 12-month period (claims already open at the beginning of the 12-month term and any new claims reported during the 12-month term). The annual fee will be invoiced in 12 equal monthly amounts, in arrears, with payment terms of net 30 days.

Medical Management Services Utilizing Allied Managed Care, Inc. (AMC) Fees

AMC PRICING AND BILLING – FEE FOR SERVICES

- On a monthly basis, the Contractor will invoice for all services included in the Fee for Service. The invoice will include a report by claim number, employee name and date and type of service provided.
- Below are the fees for services.

Service	Pricing	Notes
Utilization Review	\$95.00	Flat Rate
Peer Review	\$225.00	Flat Rate
TCM	\$95.00	Hourly
FCM	\$120 .00	Hourly
Bill Review – Per bill plus PPO	\$8.50 per bill	
Bill Review – Specialty	10% of savings	Cap at \$5,000K
PPO	Blue Cross	26% of savings
EDI Billing	\$1.00 per bill	Pass through
MPN	\$1,500.00 per month	
Call Center/Injury Reporting	\$165.00 per call	Resulting in WC Claim Filed

IX. ALLIED MANAGED CARE MEDICAL PROVIDER NETWORK

- Annual Pricing - \$18,000.00 per year/\$1,500.00 per month (regardless of claim volume). This includes Certification from State & Enrollment Notices to all employees. Complete monitoring of the MPN for State Compliance and reporting with toll free access/assistance for employers and injured employees and all services listed under the no charge services.



CITY OF
HANFORD

Client Guidelines

May 2023



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INTRODUCTION

The following are guidelines for handling instructions for City of Hanford Workers' Compensation Program.

❖ **Program Contacts:**

Shauna Biagio
Risk Management Analyst
319 N. Douty Street
Hanford, CA 93230
(559) 537-7993
Email: sbiagio@hanford.city

Sara Cardoza
Human Resources Manager
319 N. Douty Street
Hanford, CA 93230
(559) 585-2521
Email: scardoza@hanford.city

❖ **Day to Day Contact, Return to Work Coordinator:**

Shauna Biagio
Risk Management Analyst
319 N. Douty Street
Hanford, CA 93230
(559) 537-7993
Email: sbiagio@hanford.city

❖ **Wage Statement Requests, Job Description Requests**

Shauna Biagio
Risk Management Analyst
319 N. Douty Street
Hanford, CA 93230
(559) 537-7993
Email: sbiagio@hanford.city

❖ **Broker Contact:**

Conor Boughey, ARM
SVP, Alliant Specialty
Alliant Insurance Services, Inc

Mobile: (415) 744-4889
Email: cboughey@alliant.com

AIMS Contacts:

Acclamation Insurance Management Services AIMS- Fresno Office
Mail Scanning Center: P. O. Box 269120 Sacramento, CA 95826
Operator (559) 559-9891 • Fax (559) 227-1579
Mail Fax (916)563-1919

Name/Title	Phone / E-mail
Jennifer White <i>Claims Manager - Fresno</i>	(559) 227-9972 Ext: 4909 JWhite@Aims4Claims.com
Karla Artist-Vilhauer <i>Supervisor</i>	(559) 227-9972 Ext: 4935 KAVilhauer@Aims4Claims.com
Eric Guzman (Safety Departments) <i>Sr. Claims Examiner</i>	(559) 227-9972 Ext: 4912 EGuzman@Aims4Claims.com
Mily Excinia (Non-Safety Departments) <i>Sr. Claims Examiner</i>	(559) 227-9972 Ext: 4947 MExcinia@Aims4Claims.com
Rebecca Sanchez <i>Medical Only Examiner</i>	(559) 227-9972 Ext: 4915 RSanchez@Aims4Claims.com
Lorraine Maull <i>Future Medical Examiner</i>	(559) 227-9972 Ext: 4907 LMaull@Aims4Claims.com
Corporate Resources	
Dominic Russo <i>CEO</i>	(916) 563-1900 Ext: 2207 DRusso@aims4claims.com
Lynn Cavalcanti <i>Senior Vice President, Operations</i>	(916) 563-1900 Ext: 2259 LCavalcanti@aims4claims.com
Tricia Baker <i>Assistant Vice President, Operations</i>	(916) 563-1900 Ext: 2389 TBaker@aims4claims.com
Tina Patterson <i>Data Delivery Services (DDS)</i>	(916) 563-1900 Ext: 2218 KPatterson@Aims4Claims.com
Marileigh Olivares <i>Data Delivery Services (DDS)</i>	(916) 563-1900 Ext: 2343 MOlivares@Aims4Claims.com

❖ **AIMS System Issue Assistance**

DDS.Support@Aims4claims.com Use for urgent issues regarding access to report 5020, computer error message on AIMS site as all team members are alerted, or call the main number, (916) 563-1900 and explain your issue to be directed to an available DDS support member.)

The client may also request special reports via email to DDS.Support@AIMS4claims.com.

❖ **Allied Managed Care (AMC) Contacts:**

Name/Title	Phone / Fax / E-mail
Mark Denison <i>Senior Vice-President Operations</i> Sacramento Corporate Office	Phone: (916) 563-1900 Fax: (916) 563-1919 Cell: (916) 716-6363 Email: MDenison@alliedmanagedcare.com
Osanna Anastasio <i>Client Service Manager</i> Sacramento Branch Office	Phone: (916) 563-1911 Fax: (916) 563-1919 Email: OAnastasio@AlliedManagedCare.com
Amrit Rathor <i>Handling Districts – Folsom Cordova, Rocklin USD, Loomis, and Marysville Joint.</i>	Phone: (916) 563-1911 Fax: (661) 705-2985 Email: ARathor@AlliedManagedCare.com

❖ **Invoicing or Billing Contact:**

COMPANY	NAME/TITLE/CONTACT	PHONE/FAX/E-MAIL
AIMS	Chris Vergers <i>VP Finance & Controller</i> Debbie Jones <i>A/R Analyst</i>	Sacramento Corporate office 10445 Old Placerville Road Sacramento, California 95827 Phone: (916)563-1900 Fax: (916) 563-1919 CVergers@aims4claims.com DJones@aims4claims.com

❖ **Banking Contact:**

COMPANY	NAME/TITLE/CONTACT	PHONE/FAX/E-MAIL
AIMS Client Reconciled Trust-Wells Fargo	Kim Chanu <i>Sr. Accountant</i> Contact: Stop pays, voids, check copies	Sacramento Corporate office 10445 Old Placerville Road Sacramento, California 95827 Phone: (916)563-1900 Fax: (916) 563-1919 KChanu@aims4claims.com

❖ **Check Front and Back Copies for checks:** Check Front and Back Copies for checks email and include the claimant name, claim number, and check number and issue date. Contact AIMS Sr. Accountant for voids and stop payment requests.

❖ **Funding:**

This account is funded monthly with the bank reconciliation. Kim Chanu sends the reconciliation to finance@cityofhanfordca.com and Shauna Biagio sbiagio@cityofhanfordca.com, then funds are wired within a few days.

❖ **Basic Communication**

Any email containing confidential information should be sent via secure email to protect the Injured Workers' data and privacy.

Examiner should contact and share the intent to either accept/deny with client. They should explain the facts leading to their decision and include the efforts made on investigations, if applicable.

❖ **3-Point Contact:**

Contact will be made with the injured employee, the employee's Supervisor, and the medical provider within 24 hours. A minimum of 3 attempts will be made at reaching the parties. All attempt shall be documented.

❖ **Bargaining Units**

Update the union code in claim detail for all new claims at the time of creation.

City of Hanford Police Officer's Association

Ombudsperson: Maria Mariotto

IME Panel: Yes

First Care Panel: Yes

Specialist Panel: Yes

❖ **ISO Searches**

AIMS established Best Practices specify ISO searches are completed on all new claims and re-indexed on an as needed basis thereafter. (i.e. a future medical file that was closed for several years is seeking treatment again).

❖ **Plan of Action (POA) Updates:** As a requirement when receiving a new claim file, the Examiner must include a plan of action detailing what avenues the Examiner will pursue to reach an early disposition of the claim file. Plans of Action are usually updated once milestones have been accomplished and when an event or other item is received that changes the direction of the claim. If no activity takes place that would change the Plans of Action, the Examiner will comment on that fact in the file notes and update the plan to reflect same.

❖ **Lost Time Benefits**

Temporary Disability

Wage Loss
4850 Benefits

We issue payments on Hanford's payroll schedule. All TD and 4850 payments are sent via vouchers to the City: Injured Worker c/o City of Hanford unless they no longer work there or are part time. Examiner confirms with Shauna Biagio if Integration is applicable. If no integration, then checks will be issued and go directly to the injured worker.

❖ **Investigations**

Obtain authority from client

Examiners may request a copy of the claimant's photo ID from client to conduct a claims investigation (i.e. surveillance).

❖ **Medical Provider Network:**

The City of Hanford does not have an MPN.

❖ **Medical Treatment Authorization/Initial Treatment**

Kings Industrial Occupational Medical Center
1028 N Douty St
Hanford CA 93230

Kings Industrial Medical Centers
5135 W. Noble Ave.
Visalia, CA 93277

❖ **Bill Review: AMC**

❖ **Utilization Review: AMC**

Client prefers adjusters authorize most common treatments and DME's, etc. Surgeries and Opioid medications are always sent to UR.

❖ **Pharmacy Benefit Management (PBM)**

HealtheSystems
www.healthesystems.com
(800) 758-5779 - 24/7
support@healthesystems.com
NDC Bin# 012874

The HealtheSystems Pharmacy program is in place for nurse case management to address non-exempt drugs and the new California formulary in place 01/01/2018.

❖ **Nurse Case Management (NCM): Allied Managed Care:** Examiner obtains client approval for referrals.

❖ **Return to Work (RTW)/Program**

Examiner will provide client with all medical notices and work slips indicating work restrictions as soon as possible after receipt.

Examiner will contact Shauna Biagio to determine if work restrictions can be accommodated.

❖ **Litigation**

Examiner will handle issues directly with an applicant attorney whenever possible to avoid unnecessary litigation costs.

When the Examiner determines a defense attorney is needed, the Examiner will outline the issues and request client authority for assignment. The notepad will be updated with the authorization.

Examiner referrals are made through the AIMS Rapid Referral Program. The referral will clearly outline the issues and give direction to the defense attorney.

Notice of any appearance is to be provided at least 15 days prior to the WCAB calendar date.

❖ **Special filings such as 132(a), Serious & Willful (S&W) and petition for penalties**

Any mention of harassment or other Equal Employment Opportunity (EEO) type of issue notify client based on alpha split immediately.

A copy of all petitions for penalties, increased benefits, or which allege violations of safety or anti-harassment rules, must be immediately forwarded to client.

❖ **Subrogation**

AIMS handles subrogation and recovery for City of Hanford. Checks should be payable to City of Hanford in care of AIMS.

Subrogation potentials are to be explored against any potential recovery. When any third-party is identified as a responsible party, the adjuster will update the file and send an email to client outlining information on the third party. Subrogation legal referrals need client authorization.

AIMS does not have authority to waive subrogation claim, or accept less than a full recovery for a subrogation demand, without client's authority. In some cases, excess carrier may also need to approve waiving subrogation or accepting less than full value.

❖ **Medicare**

Obtain client authorization for MSA referrals.

ExamWorks Solutions (ECS) is the vendor that reports Medicare data. Conditional Liens are preauthorized by the client for ECS to handle as ECS normally receives the conditional lien directly from CMS. The Examiner will work with the vendor and the client to resolve or deny the liens.

❖ **Settlements**

Examiner is to complete a Settlement Authority Request (SAR) form for Stipulated Awards or Compromise and Release for all settlements, including 0% Stipulated Awards.

Settlement must give consideration to Medicare Set-aside exposure, Medicare reimbursement for conditional payments, and Medicare eligibility of the injured employee.

Settlement evaluations will be based on the Claims Examiner's knowledge of the claim, facts of the claim, and overall experience.

Examiners will complete their settlement evaluations within 14-days of receipt of a finalized MMI reports from PTP and/or Med/Legal report.

C&R of current employee should be considered if it makes financial sense.

When considering for C&R's, include the basis of the valuation in support of the recommendation.

❖ **Reserves**

Reserving must be adequate for the exposure expressed in the medical reports, litigation status or investigation results and based on probable ultimate cost. Examiner will need to provide the rationale to support the reserve change, include a PD rating string if applicable.

A reserve worksheet outlining the rationale is required per AIMS Best Practices.

Examiner e-mails client for large reserve increases and all reserve adjustments at the time of settlement for PD and FM values.

❖ **Claim Review Meetings**

Bi-Annual claim reviews have previously taken place in person. Reviews can be done at the City's location or in AIMS Fresno office. Most recently done by Zoom due to the pandemic.

❖ **Excess Insurance**

Prior to 07/01/2012 – part of CSJVRMA pool

07/01/2012 – 06/30/2019

EIA-PE 13 EWC-134

SIR: \$250k; reportable at \$125k

07/01/2019 – 06/30/2020
EIA 2020
SIR: \$250k; reportable at \$125k

07/01/2020 – 06/30/2021
EIA 2021
SIR \$250k; reportable at \$125k

07/01/2021 – 06/30/2022
EIA 2022
SIR \$250k; reportable at \$125k

07/01/2022 – 06/30/2023
EIA 2023
SIR \$250k; reportable at \$125k



AGENDA STAFF REPORT

MEETING DATE: 5/16/2023

AGENDA SECTION: CONSENT CALENDAR

SUBJECT:

Approval of an Agreement Between the County of Kings and the City of Hanford for cooperation in updating the Housing Element of the Kings County Comprehensive General Plan pursuant to Government Code Section 65580 and authorization to use the City's award of LEAP grant funds to pay for the City's share of the Housing Element.

RECOMMENDATION:

Recommended Motion: Approve the Agreement Between the County of Kings and the City of Hanford for cooperation in updating the Housing Element of the Kings County Comprehensive General Plan pursuant to Government Code Section 65580 and authorize the use of LEAP grant funds to pay for the City's share of the Housing Element

BACKGROUND:

The City, and all other jurisdictions in Kings County, are required to update the General Plan Housing Element every eight years. The City is currently participating in a multi-jurisdictional effort to prepare the 2024 Kings County Multi-Jurisdictional Housing Element Update. As part of the process, the City must enter into an agreement with Kings County, Arvin, Corcoran and Lemoore that outlines the responsibilities and costs associated with preparing the Housing Element.

Kings County, in coordination with the City, recently completed the Request for Proposals process and Realty Planners Group was selected as the firm that will prepare the Housing Element.

The overall cost to prepare the Housing Element is \$489,300. LEAP funds will pay for approximately \$311,858 of the cost associated with the update. The remaining \$177,442 will be split between the cities and county based on population. Hanford's share of the Housing Element update will be \$78,573.15, which will be paid for with the City's LEAP grant funds.

FISCAL IMPACT:

\$78,573.15 to be paid for using LEAP grant funds

ATTACHMENTS:

1. Cost Sharing for Housing Element
2. Housing Element Agreement

	US Census Bureau population estimate as of July 1, 2021	Percentage of total population	Cost by jurisdiction \$311,858 REAP funds (as of 4/14/23)
Hanford	57990	44.28%	\$78,573.15
Corcoran	12087	9.23%	\$16,377.20
Lemoore	27038	20.65%	\$36,634.95
Avenal	8989	6.86%	\$12,179.58
Kings	24855	18.98%	\$33,677.11
Total	130959	100.00%	\$177,442.00

**AGREEMENT BETWEEN THE COUNTY OF KINGS AND
THE CITIES OF AVENAL, CORCORAN, HANFORD, AND LEMOORE,
FOR COOPERATION IN UPDATING THE HOUSING ELEMENT
OF THE KINGS COUNTY COMPREHENSIVE GENERAL PLAN
PURSUANT TO GOVERNMENT CODE SECTION 65580 *ET SEQ.***

This Agreement (the “Agreement”) is entered into between the County of Kings, a political subdivision of the State of California (“County”); and the following participating agencies (individually, “City”; collectively, “Cities”):

- The City of Avenal, an incorporated city within the geographic boundaries of Kings County (“Avenal”);
- The City of Corcoran, an incorporated city within the geographic boundaries of Kings County (“Corcoran”);
- The City of Hanford, an incorporated city within the geographic boundaries of Kings County (“Hanford”); and
- The City of Lemoore, an incorporated city within the geographic boundaries of Kings County (“Lemoore”)

(individually, a “Party”; collectively, the “Parties”).

RECITALS

WHEREAS, pursuant to California Government Code section 65580, *et seq.*, every eight years local governments are required to update the housing element to their comprehensive general plan.

WHEREAS, the next update for County and Cities’ plans are required to be completed no later than January 31, 2024;

WHEREAS, County, on behalf of its Community Development Agency, is advertising through a Request for Proposal (“RFP”), attached to this Agreement as **Exhibit A**, for services to update the housing element of the County’s comprehensive general plan (the “Update”);

WHEREAS, Cities each desires their updates to be consistent with that of the County, which streamlines development and eases the growth process of all local communities throughout Kings County;

WHEREAS, collaboration between the Parties is more likely to produce updates that provides consistency across jurisdictions;

WHEREAS, when contrasted with developing individual updates, collaboration between the Parties will have the added benefit of significant cost savings to each of the Parties;

WHEREAS, the County is eligible for grant funding to cover a substantial portion of its costs in producing the Update, further improving on the cost saving to all jurisdictions;

WHEREAS, because of these factors, collaborating to produce a joint housing element update is in the best interest of all Parties;

**AGREEMENT BETWEEN COUNTY OF KINGS AND THE CITIES OF AVENAL, CORCORAN, HANFORD, AND LEMOORE,
REGARDING THE 2024 KINGS COUNTY MULTI-JURISDICTIONAL HOUSING ELEMENT UPDATE**

Page 1 of 6

NOW, THEREFORE, The Parties agree as follows:

1. TERM

This Agreement commences upon execution by all Parties. It terminates on the approval of the Update by the Parties through the legislative body or other designated officer of each Party and upon County's receipt of all remuneration owed by Cities, subject to any survivability terms contained in the Agreement.

2. OBLIGATIONS OF THE PARTIES

A. During the RFP Process

1. County, through its Community Development Agency, shall oversee the RFP process, and receive all submitted proposals. County has sole discretion as to whether a proposal complies with the requirements of the RFP. County may unilaterally reject any incomplete or otherwise non-conforming proposal without presenting such proposal to the Cities for input.

2. Cities shall independently review and evaluate all accepted proposals, and to provide comments to County. County must receive all City comments not more than five business days before the date designated as "Notice of Intent to Award sent to Proposers" in section 3.3 of the RFP.

3. County shall give Cities notice of, and allow Cities to participate in, any discussions with or presentations by any proposer intended to clarify a proposal or to determine if a proposer has the ability to perform the requested work or services.

4. County will have sole authority to make the final determination as to which proposer or proposers shall be awarded the contract to consult on and prepare the Update ("Update Contract"). The agreement for services shall be between County and the selected contractor or contractors ("Contractor"), with Cities recognized as participating agencies. County, in making its final determination, shall consider all input received from Cities.

Any City who objects to County's choice of Contractor may withdraw from further participation in the Update prior to the commencement of the update process. Such withdrawal must be in writing, and received by County before there is a fully executed agreement between County and Contractor.

B. During the Update Process

1. The Parties shall cooperate with Contractor in its performance of its Scope of Work under the Update Contract. The Parties shall share all relevant information with Contractor, and make all necessary contributions to the process in a timely manner.

C. Upon Completion of the Update

1. County shall provide an appropriate number of copies of the final Update to all Cities for review by their respective legislative bodies or designated officer to review.

2. Upon receipt, all Parties shall review the proposed update as soon as practicable. Cities shall report back to County their approval or rejection of the proposed update within a reasonable time after receipt of the proposed Update. Rejection shall state the specific reasons for the rejection, including the specific components of the Update to which the City objects. A City rejecting the proposed Update shall meet and confer with the other Parties to discuss their objection, with the intention of such meeting to formulate a resolution to the objection.

3. FISCAL PROVISIONS

A. County is eligible for grant funding applicable to the Update through the Kings County Association of Governments, documentation of which is attached to this Agreement as **Exhibit B**. County shall diligently pursue all available funding sources prior to and during the Update process. Should one or more Cities also be eligible for grant funding or other reimbursement, any such funds shall also be applied to the joint Update.

B. Should the contract price of the Update Contract exceed the grant funding received by all Parties, the remaining contract amount shall be divided between the Parties proportionate to each Party's population pursuant to the table below:

Jurisdiction	Estimated Population ¹	Percent of County Population
Avenal	13,819	8.6
Corcoran	22,535	14.8
Hanford	58,496	38.2
Lemoore	27,259	17.8
County (Unincorporated)	31,334	20.6
TOTAL	153,443	100.00%

C. County shall invoice Cities for their proportionate remuneration of contract amount. Cities shall each remit their remuneration to County within 45 days of receiving an invoice from County.

D. If, after Cities have remitted their proportionate renumerations to County, any Party receives additional grant funding not previously contemplated, County will within 45 days of receipt of such additional funds refund to Cities a proportionate recompence up to the complete amount previously remitted to County by Cities.

E. County shall promptly notify Cities in advance of any proposed amendment to the Update Contract affecting the price of the Update Contract.

¹ Figures based on United States Census Bureau population estimates as of July 1, 2021.

F. County shall be solely responsible for ensuring that all payments due for services performed under the Agreement are delivered to Contractor.

4. TERMINATION AND WITHDRAWAL

This Agreement may terminate upon the concurrence of all Parties on the condition the termination is memorialized in writing in accordance with Section 6. The withdrawal of one or more City shall not terminate this Agreement as among County and remaining Cities. A City that withdraws from this Agreement shall not be entitled to any reimbursement for funds, man-hours, or other resources invested in its performance of its obligations under this Agreement prior to the Party's withdrawal. A City that withdraws from this agreement shall not be included in the Update.

5. INDEMNIFICATION AND INSURANCE

Each Party shall hold harmless, defend and indemnify the other Parties, their officials, agents, officers and employees from and against any liability, claims, actions, costs, including reasonable attorney's fees, damages, or losses of any kind, including injury or death to any person and/or damage to property, arising from, or in connection with, the performance by the other Parties or their officials, agents, officers and employees under this Agreement, except that no Party is responsible for that portion of a claim, damage, liability, cost, or expense that occurs by reason of the negligence, wrongful acts, or willful misconduct of another Party or of another Parties' officials, agents, officers, or employees. This duty to indemnify, defend, and hold harmless shall survive the termination of this Agreement as to acts or omissions giving rise to any type of liability that occurs during the term of this Agreement.

The County and Participating Agencies shall each maintain their own liability insurance coverage, against any claim of civil liability arising out of the performance of this Agreement and upon request provide appropriate evidence of such coverage to the other Parties.

6. AMENDMENTS

Parties may propose amendments to this Agreement to the other Parties. No amendment to this Agreement shall be valid except in writing and approved by the legislative body or otherwise authorized officer of each of the Parties, but no amendment shall change the financial obligations of any Party without equitably changing the financial obligations of all Parties.

7. NO THIRD-PARTY BENEFICIARY RELATIONSHIP

The RFP contemplates that there are no third-party beneficiaries to the Update Contract. This Agreement is not intended to, and shall not be interpreted as to, create a third-party beneficiary relationship between the parties to the Update Contract and any City.

8. CONTACTS

The name and contact information for the primary representative of each Party is attached to this Agreement as **Exhibit C**. All Parties agree to notify the other Parties upon any change in that Party's primary representative. The change in a Party's primary representative shall not constitute nor require an amendment to this Agreement.

9. SURVIVABILITY

The Parties agree that, except in areas of the county where other law controls, the Update shall have the force of law through all jurisdictions within Kings County.

10. SEVERABILITY

If any term of this Agreement, or application thereof to any person or circumstances, proves to be invalid or unenforceable, the remainder of the Agreement or the application thereof to any other person or circumstances shall not be affected, and each remaining term shall remain in full force and effect. When possible, invalid, or unenforceable terms shall be interpreted to allow for the purpose of this Agreement to be achieved to the greatest extent practicable.

11. CHOICE OF LAW

This Agreement is entered into, and is fully executed, in the State of California, County of Kings. The Parties acknowledge that the laws of the State of California apply to this Agreement, and that the County of Kings is the appropriate venue for any dispute regarding the terms or application of it.

12. DISPUTE RESOLUTION

In the event a dispute arises between two or more Parties over any matter covered by this Agreement, all Parties shall meet and confer to use their best efforts to resolve any such dispute.

13. COUNTERPARTS

The Parties may execute this Agreement in two or more counterparts, that are to be construed as one document.

14. ELECTRONIC SIGNATURES

The Parties may execute this Agreement by electronic means. The electronic signatures affixed by the Parties respective signatories give rise to a valid, enforceable, and fully effective Agreement.

15. AUTHORITY OF SIGNATORY

The undersigned representatives for each Party affirm that they are legally authorized to enter into this Agreement on behalf of the Party they purport to represent and to bind that Party to the terms herein. Each signatory represents that the Parties are able to perform the obligations imposed under the terms of this Agreement.

16. EXHIBITS AND ATTACHMENTS

The attached exhibits are integral parts of this Agreement, and are hereby incorporated by reference into this Agreement.

IN WITNESS WHEREOF, the Parties executed this Agreement the day and year written below.

For the City of Avenal

By: _____

Name: _____

Title: _____

Date: _____

For the City of Hanford

By: _____

Name: _____

Title: _____

Date: _____

For the City of Corcoran

By: _____

Name: _____

Title: _____

Date: _____

For the City of Lemoore

By: _____

Name: _____

Title: _____

Date: _____

For the County of Kings

By: _____

Name: _____

Title: _____

Date: _____

Attachments and Exhibits:

Exhibit A: Request for Proposal

Exhibit B: Proposed agreement for grant funding between County of Kings and Kings County Association of Governments

Exhibit C: Contact information for Participating Agencies



PURCHASING DIVISION

COUNTY OF KINGS

REQUEST FOR PROPOSAL

NO. 2023-36

For Consulting Services to Prepare a
Housing Element Update

PROPOSALS DUE

April 3, 2023

AT OR BEFORE 4:00 P.M. LOCAL TIME

March 3, 2023

SECTION 1

INTENT OF THE REQUEST FOR PROPOSAL

1.1 BACKGROUND INFORMATION

The County of Kings (“County”), on behalf of the Community Development Agency, is soliciting proposals from consulting services to prepare a Housing Element update.

Proposers providing a proposal in response to this Request for Proposal (“RFP”) must address each and every item in the Description of Services to be Performed, as set forth below in Section 2. In addition, proposals must be in the format set forth in Section 3.2 of this RFP. Failure to include all elements in Section 2 or submit a proposal in the required format may be grounds for rejection of the proposal.

In the event Proposers wish to take an exception to any of the requirements set forth in Section 2 or terms of the proposed contract, as attached hereto as Exhibit F, those exceptions must be clearly stated in the proposal. Failure to include any item in the specifications without taking exception will result in a waiver of the Proposer’s ability to negotiate a contract term, attempt to request additional compensation for elements in Section 2 that were not included in the pricing set forth in the proposal, and may be grounds for rejection.

The County reserves the right to reject any and all proposals and/or to waive any informality or informalities in the accepted bid. The County further reserves the right to reject any and all bids with or without cause and re-issue this RFP if deemed to be in the County’s best interests.

1.2 LOCATION WHERE SERVICES ARE TO BE PERFORMED

Location varies with scope of work, but most of the work will be at the consultant’s office, off-campus.

1.3 PRICE

Proposers must include any and all information about pricing in their proposals. Although the County will base its selection upon a consideration of all factors, pricing information is required in order for the County to ensure that it is receiving the requested services or work at a fair and reasonable price. Failure to include pricing information in a proposal may result in a rejection of the proposal as non-responsive.

1.4 PROPOSED TERM

The County anticipates a 13-month agreement between the County and the successful Proposer. Services shall begin within 30 days of the approval from the Kings County Board of Supervisors, approximately June 15, 2023.

1.5 PROPOSERS' CONFERENCE

There will be no Proposers' conference for this RFP.

SECTION 2

DESCRIPTION OF SERVICES TO BE PROVIDED

2.1 HOUSING ELEMENT UPDATE

Kings County is currently in the process of conducting a comprehensive update of the Kings County Housing Element, which includes preparing the multijurisdictional Housing Element update for the County unincorporated areas as well as the four incorporated Cities (Avenal, Corcoran, Hanford, and Lemoore). The Kings County Community Development Agency is assigned coordination of this project and seeks proposals from qualified consultants to provide professional services for the development of the Housing Element update.

The Housing Element update is required pursuant to California Government Code Section 65580 et seq. The purpose of this project is to update the Housing Element to be internally consistent with the County and City General Plans and be in compliance with state statutes to be certified by the California Department of Housing and Community Development (HCD). The update shall contain an overview of the housing needs in the unincorporated and incorporated areas of Kings County and provide analysis of both the constraints that may impact housing development as well as the resources available to facilitate it. State Housing Element law requires that each city and county identify and analyze existing and projected housing needs within their jurisdiction and prepare goals, policies, programs, and quantified objectives to further the development, improvement, and preservation of housing. The five jurisdictions in Kings County have collectively decided to prepare a joint countywide Housing Element with administrative support from the Kings County Community Development Agency. Kings County's last Housing Element was for the planning period 2016 to 2024. This Housing Element update will be for the planning period 2024 to 2032.

Kings County is seeking one or more qualified firms (Consultant) that have experience in General Plan and Housing Element updates. An emphasis will be placed on developing a clear, concise, and legally defensible Housing Element update that meets the varied housing needs of

the Kings County community. It is requested that the consultants present a scope of work and methodology for preparing the 2024-2032 Housing Element. Additionally, the Housing Element update will need to integrate the 2024-2032 Regional Housing Needs Allocation (RHNA) and other pertinent updated demographic, economic, and land use information. New HCD regulations, requirements, and practices and other relevant City, County, State, and Federal regulations that have changed since the last Housing Element update, will need to be incorporated. The consultants should indicate the interrelationship of all work products, including the depth and scope of the research proposed.

The scope of work should consider the following:

- Meetings with County and City staff, other agencies' staff, public officials, and the general public
- Coordination with other Consultants or subcontractors engaged, if necessary, in a supportive and joint effort
- Develop team assignments and a project task timeline compatible with Housing Element update due dates
- Complete an evaluation of the 2016-2024 Housing Element update
- Coordinate with County and City staff to develop a current housing inventory and complete a Housing Needs Assessment to ensure conformance with Government Code Section 65583 et seq.
- Analysis of resources that cover land inventory, site analysis, financial and administrative resources, and energy conservation
- Analysis of constraints, including governmental and nongovernmental
- Provide public review, final documents, and any appendices or references in a format acceptable to the County
- Upon completion of agency and public review, comments will be addressed and incorporated into relative context and submitted to the County for review, comment, and further revision, as necessary
- Provide timely progress updates to the Kings County Community Development Agency as requested and adhere to timelines as possible
- Prepare staff reports and other relative documents for Planning Commissions, City Councils, and Boards of Supervisors

- Effort with public outreach, including preparation of event materials, solicitation of comments, workshops, and public meetings throughout Kings County

Deliverables shall include:

- Project Task Timeline and Team Assignments
- Working and Final Drafts of the 2024-2032 Housing Element
- Hearing Drafts
- Public Participation Summaries
- 2024-2032 Housing Element Study
- Associated documents, appendices, and background studies
- Staff reports and related documentation
- HCD Draft of the 2024-2032 Housing Element and mandated information for certification
- Environmental documents, findings, and/or Notice of Exemption in compliance with California Environmental Quality Act (CEQA)
- Synopsis of recommended changes by HCD following the review period of HCD Draft
- HCD Certified 2024-2032 Housing Element
- 2024-2032 Housing Element Certificate Letter from HCD

2016 – 2024 Housing Element:

<https://www.countyofkings.com/home/showpublisheddocument/17093/636518076585130000>

2016 – 2024 Housing Element Appendices:

<https://www.countyofkings.com/home/showpublisheddocument/17095/636518076925170000>

SECTION 3

INSTRUCTIONS TO PROPOSERS

3.1 SUBMISSION INSTRUCTIONS

Proposals must be received in the County's Purchasing Department, located at 1400 W. Lacey Blvd., Building 6, in Hanford, California at or before **4:00 p.m. local time on April 3, 2023**. All proposals shall be submitted on 8 ½ x 11-inch paper and shall be bound or contained in a binder. An electronic version of the proposal must also be provided on a USB drive.

Proposers shall submit one (1) original proposal and three (3) copies. The original proposal shall be marked as "Original" on the first page of the proposal in a location and font size that are easily identifiable. All proposals must be submitted under seal in either an envelope(s) or box, which shall be clearly marked on the outside to read:

Name of Proposer
RFP number and title
Proposal submittal deadline and time

Proposals shall be delivered to:

Kings County Purchasing Department
Attn: Evan Jones, Purchasing Manager
1400 W. Lacey Blvd, Bldg. 6
Hanford, California 93230

3.2 PROPOSAL FORMAT

Proposals must be submitted in the following format. Non-conforming proposals will not be considered. Each section shall be clearly marked with either tabs or sections, which correspond to the sections below.

In the event any of the sections below do not apply, Proposers shall indicate "Not Applicable" in response thereto.

3.2.1 SIGNATURE PAGE

Proposers must include a completed Signature Page, as attached hereto as Exhibit A, at the front of their proposals. Failure to include a completed Signature Page shall be grounds for rejection of the proposal.

3.2.2 COVER LETTER

The cover letter must include the Proposer's name, address, and telephone number, as well as the name and email address of a designated contact individual. The email address provided must be available to receive service of any notices sent regarding this RFP.

3.2.3 COMPANY OVERVIEW

A brief description of the company and its structure, including, but not limited to, the name(s), business address(es), and telephone number(s) of the company's officers, directors, and associates, and the name(s) and address(es) of any parent or subsidiary companies.

3.2.4 SUBCONTRACTORS

If the Proposer will be using subcontractors to perform some or all of the work, the name(s) and address(es) of these subcontractors must be included, along with a description of which portion of the work or service they will perform. Said information shall be provided on the Subcontractor List, attached hereto as Exhibit B.

If the Proposer is part of a joint venture, one legal entity must be designated as the Primary Proposer. All other participants shall be considered subcontractors.

3.2.5 RELEVANT EXPERIENCE

Provide a brief description of your company's past relevant experience as it relates to the requested work or services. Include a minimum of five (5) references. Each reference should include the name, address, and phone number, along with a contact person and a description of the work performed. References should be listed in the Reference List, attached hereto as Exhibit C.

3.2.6 SUPPORT TEAM

Identify the individual(s) who will form the support team for performing the work or services for this RFP. Include brief descriptions of each individual's experience and a description of the role he or she will take in performing the work or service.

3.2.7 TIMEFRAME FOR COMPLETION

Provide a realistic approach to complete the work or services within the timeframe provided within this RFP.

3.2.8 ASSISTANCE FROM COUNTY

Provide a written summary of any information, access, or assistance you will expect or need from the County to complete the work or services within the given timeframe.

3.2.9 PROJECT COST

Provide a detailed breakdown of the costs associated with the work or services to be performed as well as an overall, total, cost for the services or work to be performed. In addition, provide the proposed costs for any services or work that may be performed at the County's request, in addition to the work or services requested in this RFP, if applicable. Proposers are responsible for ensuring that all costs are set forth in this section. Failure to properly calculate costs or include additional costs will not be a basis for re-negotiation of the compensation for the winning bid.

Proposals must include a 60-day price guarantee.

3.2.10 PROPOSED SCOPE OF WORK

Provide a summary of the work or services to be performed to be attached to the parties' agreement as a scope of work. The scope of work must be concise and address each and every requirement of the proposed work or services, as set forth in Section 2. Proposals submitted without a concise scope of work suitable to be attached to the parties' agreement as an exhibit will not be considered; copies of the proposal will not be accepted as a scope of work.

3.2.11 ACKNOWLEDGMENT OF ADDENDA

Provide an acknowledgment of any addenda issued for this RFP, if applicable.

3.2.12 EVALUATION OF THE PROPOSED AGREEMENT

Proposers must review the proposed agreement, which is attached to this RFP as Exhibit F, and acknowledge their willingness to enter into a final, negotiated agreement if awarded the bid. Proposers must list any exceptions to the terms of the proposed agreement in their proposals, acknowledge their ability to satisfy the insurance and any other requirements as set forth therein, and acknowledge their ability to abide by all other terms of the agreement. Failure to take exception to a term in the proposed contract will result in a waiver of the successful Proposer's right to negotiate that term.

The County reserves the right to negotiate any term in the proposed agreement.

3.2.13 CONFLICT OF INTEREST

Proposers shall certify in their proposals that no official or employee of the County, or any business entity in which an official or employee of the County has an interest, has been employed or retained to solicit or aid in the procuring the award of this RFP.

3.2.14 AFFIDAVIT OF NON-COLLUSION

Proposers shall include a completed Affidavit of Non-Collusion with their proposals on the form attached hereto as Exhibit D. Failure to include a completed Affidavit of Non-Collusion may result in the rejection of the proposal as non-responsive.

3.3 TIMELINE OF EVENTS

The County expects this RFP to follow the below timeline:

March 3, 2023	Issuance of the RFP
March 10, 2023	Deadline for questions 5:00 p.m. local time
April 3, 2023	Proposals due 4:00 p.m. local time
April 17, 2023	Notice of Intent to Award sent to Proposers
May 16, 2023	Present final agreement to the Board of Supervisors for approval
June 15, 2023	Services begin

The County reserves the right to amend this schedule at any time.

3.4 EVALUATION CRITERIA

The Evaluation Committee will review and score only those proposals that are deemed responsive to this RFP and presented in the format as set forth in Section 3.2. Failure to include any sections in the proposal will result in that proposal being deemed non-responsive.

During the scoring process, the Evaluation Committee may contact the Proposer's references, or any other sources deemed relevant by the Evaluation Committee as part of their review of the Proposer's qualifications to perform the requested services or work.

Selection will not be based on the lowest priced proposal, but will be based on the following criteria:

1. Proposer's ability and history in providing the requested services or work for public agencies of similar size, population, and need as the County. **10 points.**
2. Responsiveness of the proposal and the clarity and completeness of the proposed Scope of Work. **15 points.**
3. Demonstrated technical competence and experience to perform the services or work requested in the RFP. **15 points.**
4. Past record of performance of similar work or services as determined by all available information. These criteria will be based not only on the information contained within the proposal, but also by discussions with the Proposers and their references, as well as other relevant entities or individuals who have used the Proposer for similar work or services. **40 points.**
5. Proposer's demonstrated ability to perform the work or services set out in the RFP within the given time frame. **20 points.**

3.5 DISCUSSION WITH PROPOSERS AND CLARIFICATIONS TO PROPOSALS

The County reserves the right to contact Proposers to seek clarification of their submitted proposals during the evaluation process. These discussions shall be solely for the purpose of ensuring that the County has a full and complete understanding of the submitted proposals and the Proposer's qualifications to perform the requested work or services. The County will not discuss the contents of other Proposer's proposals during these discussions.

3.6 ORAL PRESENTATIONS

The County reserves the right to request the Proposers to make oral presentations to further explain their proposals and demonstrate their ability to perform the requested work or services. Proposers will be advised in writing whether an oral presentation will be required and, if so, when, and where said presentation shall take place.

3.7 REQUESTS FOR INFORMATION OR CLARIFICATION OF RFP

Proposers are responsible for submitting any and all questions concerning the work or services set forth in Section 2 or any other aspect of this RFP no later than 5:00 pm on March 10, 2023. Questions must be presented in writing and submitted to the Purchasing Manager at the address noted above or via email at Evan.Jones@co.kings.ca.us . Proposers must include the RFP number in their requests for information.

3.8 WITHDRAWAL OR REVISION OF PROPOSALS

Proposers may withdraw or revise their proposals anytime before the submittal date. Requests to withdraw or revise proposals must be made in writing and submitted to the Purchasing Manager at the address above or via email to: Evan.Jones@co.kings.ca.us . Proposals may not be withdrawn or revised after the submittal date.

3.9 SELECTION AND ANNOUNCEMENT OF APPARENT SUCCESSFUL PROPOSER

Proposals will be evaluated by an Evaluation Committee as selected by the County. The Evaluation Committee will use the Evaluation Criteria as set forth in Section 3.4 in scoring the submitted proposals and determining which proposal will be presented to the Kings County Board of Supervisors (“the Board”) for approval.

Proposers will be notified of the County’s decision in writing through a Notice of Intent to Award. The Notice of Intent to Award will be sent through email.

3.10 PROTEST OF AWARD

Proposers who wish to protest the RFP or announcement of award must submit their protests in writing and submitted to the Purchasing Manager at the address above or via email at Evan.Jones@co.kings.ca.us .

Protests of the process, terms, conditions, or any other aspect of the RFP must be submitted before the RFP’s submittal date. Failure to submit a protest before this date will act as a waiver of the Proposer’s right to protest these portions of the RFP.

Protests of the announcement of the award must be made within five (5) working days of the date of the Notice of Intent to Award. Protests must include the following information:

- 1) The name, address, telephone number, and email address of the protesting Proposer;
- 2) The signature of the protesting Proposer or the representative of the Proposer;
- 3) The RFP number;
- 4) A detailed statement of the legal or factual basis for the protest;
- 5) All documents or other records that support the Proposer’s basis for the protest;
- 6) The form of relief requested; and

7) Acknowledgment of the Proposer's willingness to accept any and all notices or decisions regarding this protest and any resulting appeal via email.

Protests will be considered and responded to by the Purchasing Manager or designee within five (5) working days of the receipt of the protest. In the event the protesting Proposer wishes to appeal the decision of the Purchasing Manager or designee, said appeal shall be presented in writing to the Clerk of the Board within five (5) working days of the date of the Purchasing Manager's response.

Proposers appealing the Purchasing Manager's decision must work with the Clerk of the Board to schedule a hearing of the Proposer's appeal on the Board's agenda for the next regular meeting. The hearing will be conducted informally and will not be a full evidentiary hearing. However, the Proposer and the County will be given the opportunity to present arguments and provide evidence at the hearing.

Any evidence to be presented at the hearing must be presented to the Clerk of the Board and the Purchasing Manager at least three (3) working days prior to the scheduled hearing. Proposers may be represented by counsel, but the rules of evidence governing civil proceedings will not apply to this hearing.

The Board will issue its decision either orally at the hearing or in writing within three (3) working days of the hearing.

Any costs incurred by a Proposer in filing and pursuing a protest or appeal shall be the sole responsibility of the Proposer. The County shall not reimburse the Proposer for the costs of a protest or appeal, even if the protest or appeal results in a favorable outcome for the Proposer.

The procedures set forth above are mandatory and constitute a Proposer's sole and exclusive remedy in the event of a protest or appeal of the RFP or the award thereof. Failure to comply with these procedures shall constitute a waiver of any right to further pursue a protest or appeal, including filing a claim or initiating legal proceedings. In addition, failure to appear at the hearing set for an appeal shall constitute a waiver of the Proposer's right to appeal.

The County reserves the right to extend any of the above timeframes as necessary. Said extensions shall be communicated to the protesting Proposer in writing via email.

SECTION 4

NOTICE TO PROPOSERS; GENERAL INFORMATION

4.1 NOTICE TO PROPOSERS

This RFP does not constitute an agreement or offer of employment between the County and the Proposers. The costs of preparing proposals shall be the sole obligation of the Proposers. Once submitted, all proposals become the property of the County.

The successful Proposer shall be considered an independent consultant and not an agent, officer, or employee of the County or entitled to any benefits arising therefrom.

4.2 CONFIDENTIALITY

Proposals are only confidential during the evaluation process. Once an agreement has been signed between the County and the successful Proposer, any and all proposals shall be subject to disclosure under the California Public Records Act (“the Act”) as found under Section 7920 *et seq.* of the Government Code. Proposers are therefore responsible for ensuring that they have not included any confidential information in their proposals, such as trade secrets, social security numbers, or proprietary information.

Proposers are hereby put on notice that the County will not redact any portions of the submitted proposals when releasing them pursuant to a request under the Act.

4.3 LATE PROPOSALS

The County assumes no responsibility for the submission of late proposals. It is the sole responsibility of the Proposers to ensure their proposals are received in the Purchasing Division. The County will not accept proposals via email or fax. Late proposals will not be considered.

4.4 ADDENDA TO THE RFP

Proposers must carefully examine the specifications set forth in Section 2 and submit any and all questions or requests for information to the County no later than 5:00 pm on March 10, 2023 as set forth in Section 3.7. Failure to submit a request for information before the designated date will result in a waiver of the Proposer’s right to protest any award under this RFP on the basis of the process, terms, conditions, or claimed ambiguity regarding this RFP.

The County reserves the right to make corrections via written addenda to this RFP as needed prior to the submittal date. Addenda shall only be valid if issued in writing; oral

communications about this RFP with County employees will not be binding on the County unless set forth in a written addendum.

Addenda shall be posted on the County's website under the Purchasing Division tab under the section dedicated to this RFP and available in hard copy in the office of the Purchasing Manager. Proposers must acknowledge any and all addenda issued by signing and dating the addenda and including them with the proposal.

Proposers are solely responsible for checking the County's website and contacting the Purchasing Manager prior to the submittal date to ensure that they are aware of and acknowledge any and all addenda in their proposals. Failure to acknowledge and include any or all addenda may result in the proposal being deemed non-responsive.

4.5 COMMUNICATIONS WITH THE EVALUATION COMMITTEE OR COUNTY STAFF

Proposers shall not contact any member of the Evaluation Committee or any other County employee during the evaluation phase for this RFP unless contacted by the Evaluation Committee as allowed under Sections 3.5 or 3.6. Proposers who contact County personnel in an attempt to badger, cajole, bribe, influence, or obtain confidential information about the evaluations of the proposals during the evaluation phase may have their proposals declared disqualified from consideration.

4.6 FALSE OR MISLEADING STATEMENTS

Proposals containing false or misleading statements, or which include references that do not support an attribute or skill claimed by the Proposer, may be rejected as non-responsive to this RFP.

If the County determines that a Proposer's false or misleading statements were provided with intent to mislead the County in its evaluation of the proposal, the proposal will be deemed non-responsive. The County reserves the right to also prohibit the Proposer from submitting proposals for work or services under future RFPs.

4.7 PREVAILING WAGE AND REGISTRATION WITH THE DEPARTMENT OF INDUSTRIAL RELATIONS

The work or services set forth in Section 2 may constitute a public work for purposes of California's prevailing wage laws. Proposers shall be solely responsible for determining whether the proposed work is a public work and subject to the payment of prevailing wage and registration with the Department of Industrial Relations for the audit of the same. Proposers who fail to verify whether the work or services requested in this RFP constitute a public work and are subject to California's prevailing wage laws when

calculating the amount of their bids shall not be allowed to amend the proposed amount to account for this mistake.

4.8 NEWS RELEASES

Proposers shall not issue news releases pertaining to the award resulting from this RFP without prior written approval of the County.

EXHIBIT A
SIGNATURE PAGE

(Proposer to complete and place in front of proposal)

Individual/Company: _____

Address: _____

Contact Person's name: _____

Contact Person's title: _____

Contact Person's telephone number: _____

Contact Person's email address: _____

The undersigned hereby certifies that he/she is a duly authorized official of their organization and has the authority to submit this proposal and sign on behalf of the organization and assure that all statements made in the proposal are accurate and truthful. The undersigned agrees to provide the work or services requested in this Request for Proposal at the price contained therein and will comply with all terms and conditions of the proposed agreement, unless otherwise stipulated through a written exception.

Authorized Representative – Name	Title
----------------------------------	-------

Authorized Representative's signature

Business License No. (if applicable):

(Hanford) _____

(Kings County) _____

Professional License No. (if applicable): _____

EXHIBIT B
SUBCONTRACTOR LIST

(Proposer to complete and return with proposal)

Subcontractor No. 1 - Name: _____

Address: _____

Contact Person: _____

Email: _____ Title: _____

Amount of work or services to be performed (percentage): _____

Types of work or services to be performed: _____

Subcontractor No. 2 - Name: _____

Address: _____

Contact Person: _____

Email: _____ Title: _____

Amount of work or services to be performed (percentage): _____

Types of work or services to be performed: _____

Subcontractor No. 3 - Name: _____

Address: _____

Contact Person: _____

Email: _____ Title: _____

Amount of work or services to be performed (percentage): _____

Types of work or services to be performed: _____

EXHIBIT C
REFERENCE LIST

(Proposer to complete and return with proposal)

List five (5) references where the same or similar work or services were provided.

Reference No. 1 – Name: _____

Address: _____

Contact Person: _____ Title: _____

Email: _____ Telephone No.: _____

Amount of contract: _____ Date and type of work or services performed: _____

Reference No. 2 – Name: _____

Address: _____

Contact Person: _____ Title: _____

Email: _____ Telephone No.: _____

Amount of contract: _____ Date and type of work or services performed: _____

Reference No. 3 – Name: _____

Address: _____

Contact Person: _____ Title: _____

Email: _____ Telephone No.: _____

Amount of contract: _____ Date and type of work or services performed: _____

Reference No. 4 – Name: _____

Address: _____

Contact Person: _____ Title: _____

Email: _____ Telephone No.: _____

Amount of contract: _____ Date and type of work or services performed: _____

Reference No. 5 – Name: _____

Address: _____

Contact Person: _____ Title: _____

Email: _____ Telephone No.: _____

Amount of contract: _____ Date and type of work or services performed: _____

EXHIBIT D

AFFIDAVIT OF NON-COLLUSION

I hereby affirm that:

- 1) I am the Proposer (if Proposer is an individual), a partner of the Proposer (if the Proposer is a partnership), or an officer or employee of the Proposer having authority to sign on the Proposer's behalf (if Proposer is a corporation).
- 2) The proposal has been arrived at by the Proposer independently and has been submitted without collusion with, or without agreement, understanding, or planned common course of action with, any other vendor or materials, supplies, equipment, or services described in the request for proposal, designed to limit the independent bidding or competition.
- 3) The contents of the proposal have not been communicated by the Proposer or its employees or agents, to any person not an employee or agent of the Proposer or its surety or any bond furnished with the proposal and will not be communicated to any such person prior to the official opening of the proposal.
- 4) I have fully informed myself regarding the accuracy of the statements made on this affidavit.

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

Executed in: _____, _____ on: _____ by:
(City) (State) (Date)

Name of Proposer

Address

City, State, Zip Code

Authorized Signature

EXHIBIT E
ADA GRIEVANCE PROCEDURE

Appendix E.

Kings County ADA Grievance Procedure

Kings County

Grievance Procedure under ADA or

California State Disability Civil Rights Laws

This grievance procedure is established to meet the requirements of the Americans with Disabilities Act of 1990 ("ADA"), the Americans with Disabilities Amendments Act (ADAAA) and California State law. Except as otherwise indicated, it may be used by anyone wishing to file a complaint alleging discrimination on the basis of disability in the provision of services, activities, programs or benefits by Kings County. The procedure should also be used to address all complaints regarding barriers to physical access to any County facility.

NOTE: Discrimination complaints by applicants for, and recipients of, public benefits administered by the County are handled by the Human Services Agency, pursuant to state law and the Human Services Agency's Administrative policy and Procedure No. 23. Notice of this fact is provided to all applicants and recipients. For more information, please contact the Program Manager/Civil Rights Coordinator for the Human Services Agency at 559.852.2201. If you submit a complaint to the ADA Coordinator that should be directed to the Human Services Agency, your complaint will be forwarded to the Human Services Agency, and will be deemed received by the Human Services Agency upon actual receipt by it for purposes of the filing and response deadlines stated in Policy and procedure No. 23. Please also note that the County's Personnel Rules govern employment related complaints of disability discrimination. Please refer to section 10200 to 10250 of the Personnel Rules regarding the County's grievance procedure, as well as Chapter 14 of the Personnel Rules regarding discrimination complaints. The process described in either part may be relied upon to make a complaint of disability discrimination.

A complaint using this procedure should be in writing and should contain information about the alleged discrimination such as name, address, and phone number of the complainant and location, date and description of the problem(s). If you are viewing these instructions online at the County's website, please find the form for making a complaint below. Copies of the complaint form are also available from the Public Works Department or County Administration Office, County Government Center, 1400 West Lacey, Hanford, CA 93230. Alternative means of filing a complaint, such as personal interviews or a tape recording of the complaint, are available to person with disabilities upon request.

The complaint should be submitted by the complainant and/or his/her designee as soon as possible, but not later than 60 calendar days after the alleged violation to:

Dominic Tyburski, ADA Coordinator

County Government Center

1400 West Lacey Blvd.

Hanford, CA 93230

If this complaint is being made on behalf of someone other than me, that person's contact information is:

My complaint relates to circumstances that occurred:

- a) On the following date:
- b) At the following location:

My complaint is as follows:

(Please be as specific as possible and include the names and contact information of anyone who might have knowledge of the facts giving rise to your complaint. To help us to address your concerns promptly, please stick to the facts: who, what, when, where, and how. Please attach additional pages if necessary.)

EXHIBIT F

COUNTY OF KINGS

AGREEMENT FOR SERVICES

THIS AGREEMENT is made and entered into as of the ____ day of _____, 2023, by and between the County of Kings, a political subdivision of the State of California (hereinafter “County”) and _____, a _____ (hereinafter “Contractor”).

RECITALS

WHEREAS, County requires services related to the update of the multi-jurisdiction Housing Element for the 2024 – 2032 planning period, prepared for the County of Kings and Cities of Avenal, Corcoran, Hanford, and Lemoore; and

WHEREAS, Contractor is ready, willing, able, and qualified to perform such services.

NOW, THEREFORE, the parties mutually agree as follows:

1. SCOPE OF SERVICES

County hereby engages Contractor and Contractor shall do, perform, and carry out the services as set forth in **Exhibit A**.

2. RESPONSIBILITIES OF CONTRACTOR

Contractor possesses the requisite skills necessary to perform the work under this Agreement and County relies upon such skills. Contractor shall, at all times utilizing its ability, experience and talent, faithfully, industriously and professionally perform the work set forth in **Exhibit A** to County’s reasonable satisfaction. County’s acceptance of Contractor’s work does not constitute a release of Contractor from its professional responsibility.

Contractor affirms that it possesses current valid appropriate licensure, including, but not limited to, driver’s license, professional license, certificate of tax-exempt status, or permits, as required to perform the work under this Agreement.

Contractor affirms that it has reviewed **Exhibit A** and agrees that in its professional judgment, the work can and shall be completed within the maximum amount of costs and time as set forth in this Agreement.

3. COMPENSATION

Consultant shall not be entitled to nor receive from County any additional consideration, compensation, or other remuneration for services rendered under this Agreement except as set forth in **Exhibit B**.

Should no funds or insufficient funds be appropriated for this Agreement, County reserves the right to propose an amendment or unilaterally terminate this Agreement immediately.

Upon submission of an invoice by Contractor, and upon approval of County's representative, County shall pay Contractor monthly in arrears, up to the maximum amount provided for in Section 3. Each invoice must include a description of services rendered, to whom, date of service and the charges according to the agreed upon method.

4. TERM

This Agreement shall remain in full force and effect until both parties have completed performance or the Agreement is otherwise terminated in accordance with its terms.

Following termination, Contractor shall turn over to the County all completed deliverables and then shall be reimbursed for all expenditures made in good faith that are due and unpaid at the time of termination not to exceed the maximum amount payable under this Agreement.

5. RECORDS AND INSPECTIONS.

Contractor shall maintain full, complete, and accurate records with respect to all matters covered under this Agreement. All such records shall be prepared in accordance with generally accepted accounting procedures, shall be clearly identified, and shall be kept readily accessible. County shall have free access during normal work hours to such records and the right to examine, inspect, copy, or audit them, at no cost to County. Records shall be maintained for seven (7) years after the termination of this Agreement or any extension of this Agreement.

6. AMENDMENTS

This Agreement may be modified only by a written amendment signed by Contractor and County Board of Supervisors or other representative authorized by County Board of Supervisors.

7. TERMINATION

The right to terminate this Agreement under this section may be exercised without prejudice to any other right or remedy to which the terminating party may be entitled at law or under this Agreement.

A. Without Cause. Either party shall have the right to terminate this Agreement without cause by giving the other party thirty (30) calendar days prior written notice of its intention to terminate pursuant to this provision, specifying the date of termination. If the termination is for non-appropriation of funds, County may terminate this Agreement effective immediately.

B. With Cause. This Agreement may be terminated by either party should the other party materially breach this Agreement. Upon a material breach, the non-defaulting party

shall provide written notice to the defaulting party of its intention to terminate this Agreement and allow a period of ten (10) days to cure the breach. If the breach is not remedied within that ten (10) day period, the non-defaulting party may terminate the Agreement on further written notice specifying the date of termination.

Alternatively, County may elect to cure the default and any expense incurred shall be payable by Contractor to County.

If the nature of the breach is such that it cannot be cured within a ten (10) day period, the defaulting party may submit a written proposal within that period which sets forth a specific means to resolve the default and a date certain for completion. If the non-defaulting party consents to that proposal in writing, the defaulting party shall immediately embark on its plan to cure. If the default is not cured within the time specified, the non-defaulting party may terminate upon written notice specifying the date of termination.

C. Effects of Termination. Termination of this Agreement shall not terminate any obligations of any liability to County for damages sustained by County because of any breach of contract by Contractor, nor to indemnify, to maintain and make available any records pertaining to this Agreement, to cooperate with any audit, to be subject to offset, or to make any reports of pre-termination contract activities.

D. Forbearance Not to be Construed as Waiver of Breach or Default. In no event shall any act of forbearance by either party constitute a waiver of any breach of this Agreement or any default which may then exist, nor shall such act impair or prejudice any remedy available to the non-breaching party with respect to the breach or default.

8. INSURANCE

A. Without limiting County's right to obtain indemnification from Contractor or any third parties, prior to commencement of work, Contractor shall purchase and maintain the following types of insurance for minimum limits indicated during the term of this Agreement and provide an Endorsed Additional Insured page from Contractor's Insurance Carrier guaranteeing such coverage to County. Such page shall be mailed as set forth under the Notice Section of this Agreement prior to the execution of this Agreement. In the event Contractor fails to keep in effect at all times insurance coverage as herein provided, County may, in addition to other remedies it may have, suspend, or terminate this Agreement upon the occurrence of such event.

1. Commercial General Liability. Two Million Dollars (\$2,000,000) per occurrence and Five Million Dollars (\$5,000,000) annual aggregate covering bodily injury, personal injury and property damage. County and its officers, employees and agents shall be endorsed to above policies as additional insured, using ISO form CG 20 26 or an alternate form that is at least as broad as form CG 20 26, as to any liability arising from the performance of this Agreement.

2. Automobile Liability. Comprehensive Automobile Liability Insurance with limits for bodily injury of not less than Five Hundred Thousand Dollars (\$500,000) per person, One Million Dollars (\$1,000,000) per accident and for property damages not less than One Hundred Thousand Dollars (\$100,000), or such coverage with a combined single limit of One Million Dollars (\$1,000,000). Coverage should include owned and non-owned vehicles used in connection with this Agreement.

3. Workers Compensation. Statutory coverage, if and as required according to the California Labor Code. The policy shall be endorsed to waive the insurer's subrogation rights against County.

4. Professional Liability. One Million Dollars (\$1,000,000) limit per occurrence or claim and Three Million Dollars (\$3,000,000) annual aggregate limit covering Contractor's wrongful acts, errors and omissions.

B. Insurance is to be placed with admitted insurers rated by A.M. Best Co. as A:VII or higher. Lower rated, or approved but not admitted insurers, may be accepted if prior approval is given by County's Risk Manager.

C. Each of the above required policies shall be endorsed to provide County with thirty (30) days prior written notice of cancellation. County is not liable for the payment of premiums or assessments on the policy. No cancellation provisions in the insurance policy shall be construed in derogation of the continuing duty of Contractor to furnish insurance during the term of this Agreement.

9. INDEMNIFICATION

A. When the law establishes a professional standard of care for Contractor's services, to the fullest extent permitted by law, Contractor shall indemnify, defend, and hold harmless County and any and all of its Board members, officials, employees and agents from and against any and all losses, liabilities, damages, costs, and expenses, including legal counsel's fees and costs but only to the extent Contractor is responsible for such damages, liabilities, and costs on a comparative basis of fault between Contractor and County in the performance of professional services under this Agreement. Contractor shall not be obligated to defend or indemnify County for County's own negligence or for the negligence of third parties.

B. Other than in the performance of professional services and to the full extent permitted by law, Contractor shall indemnify, defend, and hold harmless County, and any and all of its Board members, officials, employees, and agents from and against any liability (including liability for claims, suits, actions, arbitration proceedings, administrative proceedings, regulatory proceedings, losses, expenses or costs of any kind, whether actual, alleged or threatened, including legal counsel's fees and costs, court costs, interest, defense costs, and expert witness fees), where the same arise out of, are a consequence of, or are in any way attributable to, in whole or in part, any act, omission,

fault or negligence, whether active or passive, by Contractor or by any individual or entity for which Contractor is legally liable, including, but not limited to, officers, agents, employees, or subcontractors of Contractor.

C. This indemnification specifically includes any claims that may be against County by any taxing authority or third party asserting that an employer-employee relationship exists by reason of this Agreement.

D. These indemnification obligations shall survive the termination of this Agreement as to any act, omission, fault or negligence occurring during this Agreement or any extension of this Agreement. The County's rights to indemnification are in addition to and shall not limit any other rights or remedies that County may have under law or this Agreement.

10. INDEPENDENT CONTRACTOR

Contractor is an independent contractor and not an agent, officer or employee of County. The parties mutually understand and agree that this Agreement is by and between two independent contractors and is not intended to, and shall not be construed to create, the relationship of agent, servant, employee, partnership, joint venture or association.

11. COMPLIANCE WITH LAW

Contractor shall comply with all federal, state and local laws and regulations applicable to its performance including, but limited to, Government Code section 8350 *et seq.* regarding a drug free workplace and all health and safety standards set forth by the State of California and County.

12. CONFIDENTIALITY

Contractor shall not use County confidential information for any purpose other than carrying out Contractor's obligations under this Agreement. Contractor shall prevent unauthorized disclosure of any County confidential information. Contractor shall promptly transmit to County all requests for disclosure of County confidential information.

13. CONFLICT OF INTEREST

Contractor warrants that its employees or their immediate families or Board of Directors or officers have no financial interest, including, but not limited to, other projects or independent contracts, and shall not acquire any financial interest, direct or indirect, which conflicts with the rendering of services under this Agreement. Contractor shall employ or retain no such person while rendering services under this Agreement. Services rendered by Contractor's associates or

employees shall not relieve Contractor from personal responsibility under this clause. Contractor has an affirmative duty to disclose to County in writing the name(s) of any person(s) who have an actual, potential or apparent conflict of interest.

14. NONDISCRIMINATION

In rendering services under this Agreement, Contractor shall comply with all applicable federal, state and local laws, rules and regulations and shall not discriminate based on age, ancestry, color, gender, marital status, medical condition, national origin, physical or mental disability, race, religion, gender identity, or sexual orientation.

Further, Contractor shall not discriminate against its employees, which includes, but is not limited to, employment upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation and selection for training, including apprenticeship.

15. SUBCONTRACTORS

Services under this Agreement are deemed to be personal services. Contractor warrants that it has not and it shall not subcontract any work under this Agreement without the prior written consent of County subject to any required state or federal approval.

16. ASSIGNMENT

Contractor shall not assign this Agreement or monies due without the prior written consent of County subject to any required state or federal approval. Assignment by Contractor of any monies due shall not constitute an assignment of the Agreement.

17. UNFORESEEN CIRCUMSTANCES

Neither party shall be responsible for any delay caused by natural disaster, war, civil disturbance, labor dispute or other cause beyond a party's reasonable control, provided written notice is provided to the other party of the cause of the delay within ten (10) days of the start of the delay. Thereafter, the parties shall meet and confer as to whether to amend, suspend, or terminate this Agreement.

18. OWNERSHIP OF DOCUMENTS

County shall be the owner of and shall be entitled to possession of any computations, plans, correspondence or other pertinent data and information gathered by or computed by Contractor prior to termination of this Agreement by County or upon completion of the work pursuant to this Agreement. County's reuse of any such materials on any project other than the project for which they were originally intended shall be at County's sole risk. No material prepared in connection with the project shall be subject to copyright in the United States or in any other county.

19. NOTICE

Any notice necessary to the performance of this Agreement shall be given in writing by personal delivery, fax, overnight carrier, e-mail or by prepaid first-class mail addressed as follows:

COUNTY:

COUNTY OF KINGS
PURHCASING DIVISION
1400 W. LACEY BLVD.
HANFORD, CA 93230

CONTRACTOR:

If notice is given by: a) personal delivery, it is effective as of the date of personal delivery; b) fax, it is effective as of the date of the fax; c) overnight carrier, it is effective as of the date of delivery; d) e-mail, it is effective as of the date it was sent; e) mail, it is effective as of five (5) days following the date of mailing or the date of delivery reflected upon a return receipt, whichever occurs first.

20. CHOICE OF LAW

The parties have executed and delivered this Agreement in the County of Kings, State of California. The parties agree that the laws of the State of California shall govern the validity, enforceability or interpretation of this Agreement and Kings County shall be the venue for any action or proceeding, in law or equity that may be brought in connection with this Agreement. Contractor hereby waives any rights it may possess under Section 394 of the Code of Civil Procedure to transfer to a neutral county or other venue any action arising out of this Agreement.

21. SEVERABILITY

If any of the provisions of this Agreement is found to be unenforceable, the remainder shall be enforced as fully as possible and the unenforceable provision shall be deemed modified to the limited extent required to permit enforcement of the Agreement as a whole.

22. SURVIVAL

The following sections shall survive the termination of this Agreement: Section 5 Records and Inspections, Section 8 Insurance, Section 9 Indemnification, and Section 12 Confidentiality.

23. NO THIRD-PARTY BENEFICIARIES.

County and Contractor are the only parties to this Agreement and are the only parties entitled to enforce its terms. Nothing in this Agreement gives, is intended to give, or shall be construed to give or provide, any right or benefit, whether directly or indirectly or otherwise, to

a third party.

24. ENTIRE AGREEMENT; CONTRIBUTIONS OF BOTH PARTIES; IMAGED AGREEMENT

This Agreement, including its Recitals and Exhibits which are fully incorporated into and are integral parts of this Agreement, constitutes the entire agreement between the parties and there are no inducements, promises, terms, conditions or obligations made or entered into by County or Contractor other than those contained herein.

The parties agree that each party had had an opportunity to review this Agreement and consult with legal counsel and it is expressly agreed and understood that the rule stated in Civil Code section 1654, that ambiguities in a contract should be construed against the drafter, shall have no application to the construction of the Agreement.

An original executed Agreement may be imaged and electronically stored. Such imaged Agreement may be used in the same manner and for the same purposes as the original. Neither party may object to the admissibility of the imaged Agreement on the basis that it was not originated or maintained in documentary form.

25. AUTHORITY

Each signatory to this Agreement represents that it is authorized to enter into this Agreement and to bind the party to which its signature represents.

IN WITNESS WHEREOF the parties have executed this Agreement the day and year first written above.

COUNTY OF KINGS _____

By: _____
Joe Neves,
Chairman

By: _____

ATTEST:

Catherine Venturella, Clerk to the Board

Approved and Endorsements Received:

Sarah Poots

APPROVED AS TO FORM:
Diane Freeman, County
Counsel

By: _____

Exhibits/Attachments:
Exhibit A: Scope of Work
Exhibit B: Fees

**MEMORANDUM OF UNDERSTANDING
REGARDING
COUNTY OF KINGS
REGIONAL EARLY ACTION PLANNING FUNDS**

This Memorandum of Understanding ("MOU"), effective as of _____, 2023 is made and entered into by and between KINGS COUNTY ASSOCIATION OF GOVERNMENTS, a Joint Powers Authority established under California Government Code section 6500, *et seq.* ("KCAG") and the COUNTY OF KINGS ("Sponsor") (collectively, "Parties").

RECITALS

WHEREAS, the California Department of Housing and Community Development ("HCD") has provided funds to local public agencies as part of the Regional Early Action Planning ("REAP") Program; and

WHEREAS, REAP Program funds may be used to conduct planning activities that will accelerate housing production and housing-related initiatives; and

WHEREAS, the REAP funds have been made available to the Central Valley region through the San Joaquin Valley REAP Committee on behalf of the Fresno Council of Governments, the Kern Council of Governments, KCAG, the Madera County Transportation Commission, the Merced County Association of Governments, the Stanislaus Council of Governments, the Tulare County Association of Governments, and the San Joaquin Council of Governments; and

WHEREAS, members of the San Joaquin Valley REAP Committee signed a regional Memorandum of Understanding ("RMOU") to facilitate the further sub-allocation of the funds to local jurisdictions. A copy of the RMOU is attached hereto as **Exhibit A** and incorporated herein by this reference; and

WHEREAS, the RMOU has delegated the responsibility to KCAG for administration of the grant allocation locally, and KCAG has established the procedures and processes necessary to fulfill that responsibility; and

WHEREAS, KCAG desires to work with Sponsor to support the local housing planning efforts of its constituent agencies (City of Avenal, City of Corcoran, City of Hanford, City of Lemoore, and County of Kings) through the use of REAP Program funds.

NOW, THEREFORE, in consideration of the mutual promises and undertakings herein made and the mutual benefits to be derived therefrom, the Parties agree as follows:

AGREEMENT

1.1 Project Description. The project descriptions, scope of work, delivery schedule, and the anticipated timing for release of REAP funds are specified in **Exhibit B** and incorporated herein by this reference (the "Project").

1.2 Change In Project Scope. A change in the Project Scope of Work as described in Exhibit B may not be implemented until it has been approved in writing by KCAG.

1.3 Eligible Reimbursement Costs. Eligible reimbursement costs shall be the same as defined by HCD statutes, rules and regulations.

1.4 Use of Funds. Sponsor shall use REAP funds consistent with the Project Scope of Work as described in Exhibit B or as approved by KCAG pursuant to Section 1.2.

1.5 Timely Use of Funds. REAP funds are one-time, housing planning funds that must be expended no later than December 31, 2024. KCAG staff will monitor Sponsor's expenditures on an annual basis to minimize the risk of losing funds that are intended to benefit the region. If expenditures appear to be behind schedule, Sponsor agrees to work with KCAG to establish a schedule to expend funds or to determine whether to reprogram funds to maximize the regional benefit. The Parties agree that, to meet the State expenditure deadline and to submit required reporting and invoicing timely, all REAP funds shall be expended by August 31, 2024.

1.6 Completion of Project. Sponsor shall be responsible for the timely completion of the Project and to provide management of consultant and contractor activities, including responsibility for scheduling, budgeting, and oversight of the services, consistent with Exhibit B.

1.7 Invoices and Progress Reports. Sponsor shall submit to KCAG an invoice and progress report monthly reflecting all expenses incurred up to the date of submission for eligible activities conducted during the MOU period.

1.8 Termination of MOU. The Parties agree that this MOU will terminate on December 31, 2024, unless modified in writing and signed by both Parties prior to that date.

IN WITNESS WHEREOF, the undersigned Parties have executed this MOU on the day and year first written above.

Terri King, Executive Director
Kings County Association
of Governments

Date

Chuck Kinney, Director
Kings County Community Development

Date

APPROVED AS TO FORM:

General Counsel
Kings County Association
of Governments

Date

APPROVED AS TO FORM:

County Counsel
County of Kings

Date

EXHIBITS:

Exhibit A- San Joaquin Valley RMOU
Exhibit B- Project Scope of Work

EXHIBIT A

SAN JOAQUIN VALLEY REAP COMMITTEE
REGIONAL MOU

AMENDMENT No. 1 TO MEMORANDUM OF UNDERSTANDING
SAN JOAQUIN VALLEY REGIONAL EARLY ACTION PLANNING COMMITTEE
FOR HOUSING

This Amendment to Agreement (hereinafter "Amendment No. 1 to MOU") amends that certain agreement (hereinafter "MOU") entered into November 19, 2020, by and between the agencies ("**Members**") comprising the San Joaquin Valley Regional Early Action Planning Committee for Housing ("**Committee**") set forth below:

Fresno Council of Governments

2035 Tulare Street Suite 201
Fresno, CA 93721
Email: tboren@fresnocog.org

Kern Council of Governments

1401 19th Street, Suite 300
Bakersfield, California 93301
Email: ahakimi@kerncog.org

Kings County Association of Governments

339 W D Street
Lemoore, CA 93245
Email: terri.king@co.kings.ca.us

Madera County Transportation Commission

2001 Howard Road, Suite 201
Madera, CA 93637
Email: patricia@maderactc.org

Merced County Association of Governments

369 W 18th Street
Merced, CA 95340
Email: stacie.guzman@mcagov.org

San Joaquin Council of Governments

555 E Weber Avenue
Stockton, CA 95202
Email: achesley@sjcog.org

Stanislaus Council of Governments

1111 "I" Street, Suite 308
Modesto, CA 95354
Email: rpark@stancog.org

Tulare County Association of Governments

210 N Church Street, Suite B
Visalia, CA 93291
Email: tsmalley@tularecog.org

RECITALS

- A. The Members have decided to amend the distribution of the proceeds of the Initial Grant (defined in the November 19, 2020 MOU).
- B. The revised distribution is attached hereto and incorporated herein by reference as Exhibit B-1, which the Members intend to replace Exhibit B under the November 19, 2020 MOU.

///

///

AGREEMENT

In consideration for their mutual promises, the Members agree as follows:

1. Section 1, Allocation of Initial Grant of the November 19, 2020 MOU shall be deleted in its entirety and replaced with the following:
 1. Allocation of Initial Grant. The Members agree to allocate the \$10,218,830.75 of the Initial Grant as follows:
 - a. FCOG will retain \$4,475,000 of the Initial Grant to perform the following tasks:
 - i. FCOG shall prepare a comprehensive housing report and policy recommendations for implementation, as stated in the Application. FCOG may enter into agreements as necessary to perform its obligations under this provision of the MOU and under the Application and Agreement.
 - ii. FCOG shall conduct regional planning and coordination, and provide technical assistance, as stated in the Application. FCOG may enter into agreements as necessary to perform its obligations under this term of the MOU and under the Application and Agreement.
 - iii. FCOG shall administer of the Application, Agreement, this MOU, and the Initial Grant, as stated in the Application.
 - b. FCOG shall distribute the remaining \$4,743,830.75 of the Initial Grant directly to each of the Members, as more particularly described in Exhibit B-1, "Phase I" in proportion to each Member's relative population using California Department of Finance population estimates updated as of January 2020.
 - c. FCOG shall distribute and additional \$1,000,000 of the Initial Grant directly to each of the Members, on the basis of \$125,000 each as more particularly described in Exhibit B-1, "Phase II."
2. It is the intent of the parties this Amendment No. 1 to MOU shall become effective July 1, 2021 ("**Effective Date**").
3. Unless expressly modified by the terms of this Amendment No. 1 to MOU, all other terms of the November 19, 2020 MOU remain in full force and effect.

4. Each Member represents and warrants that the individual signing this Amendment No. 1 to MOU is duly authorized to do so and their signature on this Amendment No. 1 to MOU legally binds that Member to the terms of this Amendment No. 1 to MOU.
5. This MOU may be signed in counterparts, each of which is an original, and all of which together constitute this MOU. #

[Signature pages follow.]

The Members have caused this Amendment 1 to MOU to be executed as of the date and year first above written.

Fresno Council of Governments

By: Tony Boren
Tony Boren, Director

Approved as to Legal Form:

By: _____

Print: _____

Kern Council of Governments

By: _____
Ahron Hakimi, Director

Approved as to Legal Form:

By: _____

Print: _____

Kings County Association of Governments

By: _____
Terri King, Director

Approved as to Legal Form:

By: _____

Print: _____

Madera County Transportation Commission

By: _____
Patricia Taylor, Director

Approved as to Legal Form:

By: _____

Print: _____

The Members have caused this Amendment No. 1 to MOU to be executed as of the Effective Date.

Fresno Council of Governments

By:

Tony Boren, Director

Kern Council of Governments

By:

Ahron Hakimi, Director

Kings County Association of Governments

By:

Terri King, Director

Madera County Transportation Commission

By:

Patricia Taylor, Director

Merced County Association of Governments

By:

Stacie Dabbs, Director

San Joaquin Council of Governments

By:

Diane Nguyen, Director

Stanislaus Council of Governments

By:

Rosa Park, Director

Tulare County Association of Governments

By:

Ted Smalley, Director

The Members have caused this Amendment No. 1 to MOU to be executed as of the Effective Date.

Fresno Council of Governments

By:

Tony Boren, Director

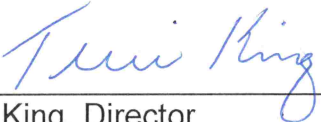
Kern Council of Governments

By:

Ahron Hakimi, Director

Kings County Association of Governments

By:

By: 

Terri King, Director

Madera County Transportation Commission

By:

Patricia Taylor, Director

Merced County Association of Governments

By:

Stacie Dabbs, Director

San Joaquin Council of Governments

By:

Diane Nguyen, Director

Stanislaus Council of Governments

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Rosa Park, Director

Tulare County Association of Governments

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Ted Smalley, Director

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Merced County Association of Governments

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Stacie Dabbs, Director

San Joaquin Council of Governments

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Stanislaus Council of Governments

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Rosa Park, Director

Tulare County Association of Governments

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Madera County Transportation Commission

By:

Patricia Taylor, Director

Merced County Association of Governments

By:

Stacie Guzman
Stacie Guzman, Director

San Joaquin Council of Governments

By:

Diane Nguyen, Director

Stanislaus Council of Governments

By:

Rosa Park, Director

Tulare County Association of Governments

By:

Ted Smalley, Director

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Ahron Hakimi, Director

Kings County Association of Governments

By:

Terri King, Director

Madera County Transportation Commission

By:

Patricia Taylor, Director

Merced County Association of Governments

By:

Stacie Dabbs, Director

San Joaquin Council of Governments

By:

DocuSigned by:
Diane Nguyen
EBB731587E874D1...

Diane Nguyen, Director

Stanislaus Council of Governments

By:

Rosa Park, Director

Tulare County Association of Governments

By:

Ted Smalley, Director

The Members have caused this Amendment No. 1 to MOU to be executed as of the Effective Date.

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Kern Council of Governments

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Ahron Hakimi, Director

Kings County Association of Governments

By:

Terri King, Director

Madera County Transportation Commission

By:

Patricia Taylor, Director

Merced County Association of Governments

By:

Stacie Dabbs, Director

San Joaquin Council of Governments

By:

Diane Nguyen, Director

Stanislaus Council of Governments

By:



Rosa Park, Director

Tulare County Association of Governments

By:

Ted Smalley, Director

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Diane Nguyen, Director

Stanislaus Council of Governments

By:

Rosa Park, Director

Tulare County Association of Governments

By:

Ted Smalley, Director

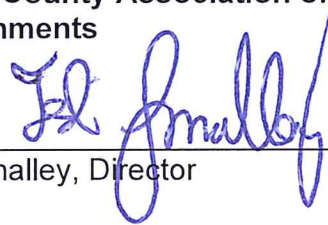


EXHIBIT B-1

San Joaquin Valley REAP Summary Funding Table

----- Initial Funding ----->

	Phase I (1st app)				Phase II (2nd app)			Phase III (3rd app)	Summary		
	Original for RHNA	Sub Alloc Cities\County	Additional RHNA (a)	Total Phase I	Valleywide Planning	Supplemental RHNA (b)	Total Phase II	Sub Alloc Cities\County	Funds Dedicated to REAP	Funds Dedicated to RHNA	Total HCD Program
FCOG	187,989	762,257	164,491	1,114,738	4,475,000	125,000		2,057,660	7,294,918	477,480	7,772,398
Kern	168,871	684,737	147,762	1,001,370		125,000		1,848,399	2,533,136	441,633	2,974,769
Kings	28,492	115,527	24,930	168,949		125,000		311,858	427,386	178,422	605,808
Madera	29,155	118,219	25,511	172,886		125,000		319,124	437,344	179,666	617,010
Merced	52,345	212,248	45,802	310,395		125,000		572,948	785,196	223,147	1,008,343
San Joaquin	142,517	577,877	124,703	845,097		125,000		1,559,939	2,137,817	392,220	2,530,037
Stanislaus	102,407	415,238	89,606	607,250		125,000		1,120,905	1,536,143	317,013	1,853,156
Tulare	88,223	357,727	77,195	523,145		125,000		965,658	1,323,384	290,419	1,613,803
Total	800,000	3,243,831	700,000	4,743,831	4,475,000	1,000,000	5,475,000	8,756,492	16,475,323	2,500,000	18,975,323
Percentage	17%	68%	15%	100%	82%	18%	100%	100%	87%	13%	100%

Significant Local
Agency Involvement
in REAP process

Proposed future
funding, subject to
change by HCD

Notes: (a) Sum of Valleywide Tech Assist, Admin and Housing Report that was in the 1st app and subsequently moved to the 2nd app.

(b) \$1M transferred from Valleywide to regional planning agencies for RHNA planning. Also can be used for admin and project staffing/management.

Phase II (2nd app) Valleywide Budget	
Supplemental RHNA	1,000,000
Comprehensive Housing Report	500,000
Housing Report Policy Implem.	1,000,000
Household Travel Survey	500,000
Consultant Bench	1,500,000
Outreach, Marketing	250,000
Fresno COG Admin	300,000
Housing Program Manager	314,200
Reserve/Contingencies	110,800
	5,475,000

MEMORANDUM OF UNDERSTANDING

San Joaquin Valley Regional Early Action Planning Committee for Housing

This memorandum of understanding (“**MOU**”) is made this 19th day of November 2020 (“**Effective Date**”), by and between the agencies (“**Members**”) comprising the San Joaquin Valley Regional Early Action Planning Committee for Housing (“**Committee**”) set forth below:

Fresno Council of Governments

2035 Tulare Street Suite 201
Fresno, CA 93721
Email: tboren@fresnocog.org

Kern Council of Governments

1401 19th Street, Suite 300
Bakersfield, California 93301
Email: ahakimi@kerncog.org

Kings County Association of Governments

339 W D Street
Lemoore, CA 93245
Email: terri.king@co.kings.ca.us

Madera County Transportation Commission

2001 Howard Road, Suite 201
Madera, CA 93637
Email: patricia@maderactc.org

Merced County Association of Governments

369 W 18th Street
Merced, CA 95340
Email: stacie.guzman@mcagov.org

San Joaquin Council of Governments

555 E Weber Avenue
Stockton, CA 95202
Email: achesley@sjcog.org

Stanislaus Council of Governments

1111 “I” Street, Suite 308
Modesto, CA 95354
Email: rpark@stancog.org

Tulare County Association of Governments

210 N Church Street, Suite B
Visalia, CA 93291
Email: tsmalley@tularecog.org

RECITALS

- A. Under section 50515.02, subdivision (a), of the Health and Safety Code, the State of California Department of Housing and Community Development (“**HCD**”) has made available one hundred twenty-five million dollars (\$125,000,000) in local government planning support grants to regional entities and working groups as outlined by the statute.
- B. The Committee is one of the working groups identified in section 50515.02, subdivision (a), of the Health and Safety Code.
- C. On June 26, 2020, the Members approved submission of an application for grant funding (“**Application**”) to HCD by Fresno Council of Governments (“**FCOG**”) as the fiscal agent on behalf of the Committee.

- D. On August 14, 2020, HCD approved the Application and an allocation of \$10,218,830.75 in grant funds (the “**Initial Grant**”) to the Members through FCOG.
- E. On August 20, 2020, FCOG and HCD executed grant funding agreement number 19-REAP-14029 (“**Agreement**”). A true and correct copy of the Agreement is attached hereto as “Exhibit A.”
- F. This MOU is intended to reflect the Members’ understanding of the distribution of the Initial Grant and to facilitate the subsequent implementation of activities by the Members in furtherance of the purposes for which the Initial Grant was approved by HCD.

The Members therefore agree as follows:

1. Allocation of Initial Grant. The Members agree to allocate the \$10,218,830.75 of the Initial Grant as follows:
 - a. FCOG will retain \$5,475,000 of the Initial Grant to perform the following tasks:
 - i. FCOG shall prepare a comprehensive housing report and policy recommendations for implementation, as stated in the Application. FCOG may enter into agreements as necessary to perform its obligations under this provision of the MOU and under the Application and Agreement.
 - ii. FCOG shall conduct regional planning and coordination, and provide technical assistance, as stated in the Application. FCOG may enter into agreements as necessary to perform its obligations under this term of the MOU and under the Application and Agreement.
 - iii. FCOG shall administer of the Application, Agreement, this MOU, and the Initial Grant, as stated in the Application.
 - b. FCOG shall distribute the remaining \$4,743,830.75 of the Initial Grant directly to each of the Members, as more particularly described in “Exhibit B,” in proportion to each Member’s relative population using California Department of Finance population estimates updated as of January 2020.
2. Compliance with the Agreement and MOU. Each Member hereby acknowledges its cognizance of and its understanding of its obligation to comply with the terms and conditions of the Agreement and MOU. Each Member agrees to abide by the terms and conditions of the Agreement and to undertake all actions requested by FCOG pursuant to the Agreement or MOU, in order to facilitate FCOG’s compliance with the terms and conditions of the Agreement.
3. Compliance with the Law. Each Member agrees to comply with all Federal, State, and local laws in the performance of its obligations under this MOU.

4. Sub-Agreements. Copies of all agreements between any Member and any sub-recipient, contractor or subcontractor shall be submitted to FCOG, so that they then may be provided to HCD's Program Manager as required by Exhibit D, section 8, paragraph B of the Agreement.
5. Quarterly Reports. Each Member also shall deliver to FCOG, on a quarterly basis, status reports and accounting records reflecting any expenditure of the Initial Grant by that Member or by a sub-recipient of that Member. Each Member shall deliver its status reports and accounting records within thirty (30) days following the end of the period covered by the document. Each member's quarterly status reports shall, at a minimum, include discussion of any allocations or sub-allocations of the Initial Grant, a description of any project initiated in whole or in part with the Initial Grant and a description of the progress made on any such project.
6. Retention of Records. Each Member shall maintain public records (as that term is defined in Government Code section 6252) (collectively, "**Records**") required under the Agreement, relating to any matter contained in this MOU, or demonstrating that the Initial Grant was used in a manner consistent with the Agreement. Each Member shall make the Records available to FCOG, HCD or the State Auditor upon demand. Each Member shall maintain the Records and make them available for inspection for a period of at least one (1) year following the termination of this MOU or the time specified in Government Code section 8546.7, whichever is later. Records relating to any audit or litigation relevant to this MOU or the Agreement shall be retained by each Member for five years after the conclusion or final resolution of such matter, as required by Exhibit D, section 3, paragraph E of the Agreement.
7. Disallowed Costs. Each Member shall return to FCOG any funds which HCD has disallowed within 90 days following notice to the Member.
8. Indemnity.
 - a. Each Member shall indemnify FCOG, along with FCOG's officers, directors, and employees, for any costs or liabilities (including without limitation for damages, court costs, attorneys' fees, and expert witness fees) arising from, resulting from, or in connection with that Member's actions with respect to subject matter of this MOU or relating in any way to the use of the Initial Grant proceeds by that Member or any sub-recipient, contractor, or subcontractor of that Member.
 - b. Notwithstanding, the obligation to indemnify shall not apply to any costs or liabilities caused solely by the active negligence or willful misconduct of FCOG or any of its officers, directors, and employees.
9. Duration of MOU. This MOU shall be in effect from the Effective Date until December 31, 2024 unless its term is extended by written modification in accordance with the provisions of section 12, paragraph c of this MOU.

10. Subsequent MOUs. The Members understand and agree that subsequent MOUs may be necessary to facilitate the distribution of further grant funding from HCD under section 50515.02, subdivision (a), of the Health and Safety Code. The Members hereby commit to negotiate the terms and conditions of such subsequent MOUs in good faith, in order to achieve concurrence and ensure execution of same in a timely fashion.
11. Notices. All notices provided for or permitted under this MOU must be in writing and delivered either by personal service, by first-class United States mail, by an overnight commercial courier service, or as a PDF attachment to an email sent to the addresses provided for the Members above. Any Member may change its address for receipt of notice by providing notice of that change as provided in this section 11.
 - a. A notice delivered by personal service is effective upon service to the recipient.
 - b. A notice delivered by first-class United States mail is effective three business days after deposit in the United States mail, postage prepaid, addressed to the recipient.
 - c. A notice delivered by an overnight commercial courier service is effective one County business day after deposit with the overnight commercial courier service, delivery fees prepaid, with delivery instructions given for next day delivery, addressed to the recipient.
 - d. A notice delivered by email is effective when sent, if the email is sent between the hours of 8:00 am and 5:00 pm on a business day. If sent outside the hours of 8:00 am and 5:00 pm on a business day, a notice delivered by email becomes effective on the first business day following.
12. General Provisions.
 - a. This MOU is binding upon and shall inure to the benefit of any successors or assigns of the Members.
 - b. This MOU represents the entire understanding of the Members as to those matters contained in this MOU. No prior oral or written understanding shall be of any force or effect with respect to those matters covered in this MOU.
 - c. This MOU may not be modified or altered except by writing signed by all Members.
 - d. No Member may assign, delegate or transfer its rights and duties in this MOU without the written consent of all other Members, except that any Member may enter into one or more sub-agreements with any sub-recipient, contractor, or subcontractor to implement activities in furtherance of the

purposes for which the Initial Grant was approved by HCD without the necessity of obtaining such consent.

- e. Any dispute arising under this MOU, which is not resolvable by informal mediation between or among the Members, shall be adjudicated in a court of law under the laws of the State of California.
- f. For all claims arising from or related to this MOU, nothing in this MOU establishes, waives, or modifies any claims presentation requirements or procedures provided by law, including the Government Claims Act (Division 3.6 of Title 1 of the Government Code, beginning with section 810).
- g. This MOU shall be administered and interpreted under the laws of the State of California. Jurisdiction of litigation arising from this MOU shall only be in California. Any action brought to interpret or enforce this MOU, or any of the terms or conditions hereof, shall be brought and maintained in the Fresno County Superior Court.
- h. If any part of this MOU is found by a court of competent jurisdiction to be unlawful or otherwise unenforceable, the balance of this MOU remains in full force and effect, and the Members shall make best efforts to replace the unlawful or unenforceable part of this MOU with lawful and enforceable terms intended to accomplish the Members' original intent.
- i. Section headings are provided for convenience only and are not part of this MOU.
- j. This MOU does not and is not intended to create any rights or obligations for any person or entity except for the Members.
- k. Each Member represents and warrants that the individual signing this MOU is duly authorized to do so and their signature on this MOU legally binds that Member to the terms of this MOU.
- l. This MOU may be signed in counterparts, each of which is an original, and all of which together constitute this MOU.

[Signature pages follow.]

The Members have caused this MOU to be executed as of the date and year first above written.

Fresno Council of Governments

By: Tony Boren

Tony Boren, Director

Approved as to Legal Form:

By: _____

Print: _____

Kern Council of Governments

By: Ahron Hakimi

Ahron Hakimi, Director

Approved as to Legal Form:

By: _____

Print: _____

Kings County Association of Governments

By: Terri King

Terri King, Director

Approved as to Legal Form:

By: _____

Print: _____

Madera County Transportation Commission

By: Patricia Taylor

Patricia Taylor, Director

Approved as to Legal Form:

By: _____

Print: _____

Merced County Association of Governments

By: 

Stacie Guzman, Director

Approved as to Legal Form:

By:

Print:

San Joaquin Council of Governments

By: 

Andrew Chesley, Director

Approved as to Legal Form:

By:

Print:

Stanislaus Council of Governments

By:

Rosa Park, Director

Approved as to Legal Form:

By: 

Print:

Tulare County Association of Governments

By:

Ted Smalley, Director

Approved as to Legal Form:

By: 

Print:

Exhibit A

Grant funding agreement number 19-REAP-14029

STATE OF CALIFORNIA - DEPARTMENT OF GENERAL SERVICES

STANDARD AGREEMENT

STD 213 (Rev. 03/2019)

AGREEMENT NUMBER

19-REAP-14029

PURCHASING AUTHORITY NUMBER (if applicable)

1. This Agreement is entered into between the Contracting Agency and the Contractor named below:

CONTRACTING AGENCY NAME

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

CONTRACTOR'S NAME

Fresno Council of Governments

2. The term of this Agreement is:

START DATE

Upon HCD Approval

THROUGH END DATE

12/31/2024

3. The maximum amount of this Agreement is:

\$10,218,830.75

4. The parties agree to comply with the terms and conditions of the following exhibits, which are by this reference made a part of the Agreement.

EXHIBITS	TITLE	PAGES
Exhibit A	Authority, Purpose and Scope of Work	3
Exhibit B	Budget Detail and Payment Provisions	3
Exhibit C*	State of California General Terms and Conditions	GTC - 04/2017
Exhibit D	REAP General Terms and Conditions	9
Exhibit E	Special Conditions	0
TOTAL NUMBER OF PAGES ATTACHED		15

Items shown with an asterisk (), are hereby incorporated by reference and made part of this agreement as if attached hereto.**These documents can be viewed at <https://www.dgs.ca.gov/OLS/Resources>*

IN WITNESS WHEREOF, THIS AGREEMENT HAS BEEN EXECUTED BY THE PARTIES HERETO.

CONTRACTOR

CONTRACTOR NAME (if other than an individual, state whether a corporation, partnership, etc.)

Fresno Council of Governments

CONTRACTOR BUSINESS ADDRESS

2035 Tulare St., #201

CITY

Fresno

STATE

CA

ZIP

93721

PRINTED NAME OF PERSON SIGNING

TONY BOREN

TITLE

EX. DIRECTOR

CONTRACTOR AUTHORIZED SIGNATURE

Tony Boren

DATE SIGNED

8/20/20

STATE OF CALIFORNIA

CONTRACTING AGENCY NAME

Department of Housing and Community Development

CONTRACTING AGENCY ADDRESS

2020 W. El Camino Ave., Suite 130

CITY

Sacramento

STATE

CA

ZIP

95833

PRINTED NAME OF PERSON SIGNING

Shaun Singh

TITLE

Contracts Manager,
Business & Contract Services Branch

CONTRACTING AGENCY AUTHORIZED SIGNATURE

Shaun Singh

DATE SIGNED

9/3/2020

California Department of General Services Approval (or exemption, if applicable)

Exempt per; SCM Vol. 1 4.04.A.3 (DGS memo dated 6/12/1981)

EXHIBIT A

AUTHORITY, PURPOSE AND SCOPE OF WORK

1. Authority

The Local Government Planning Support Grants Program is established for the purpose of providing regions and jurisdictions with one-time funding, including grants for planning activities to enable jurisdictions to meet the sixth cycle of the regional housing needs assessment. Up to two hundred fifty million dollars (\$250,000,000) shall be distributed under the program in accordance with Health and Safety Code sections 50515.02 and 50515.03. Of this amount, approximately one hundred twenty-five million dollars (\$125,000,000) is available to councils of governments and other regional entities. The Department of Housing and Community Development (Department or HCD) shall administer the Program (referred to herein as the Regional Early Action Planning Grant Program, or "REAP") to councils of governments and other regional entities in accordance with the Notice of Funding Availability ("NOFA") pursuant to Health and Safety Code section 50515.04, subdivision (f).

Pursuant to Health and Safety Code section 50515.02, subdivision (d)(3), a council of governments or a fiscal agent of a multiagency working group, as defined in section 50515.02, may request up to 25 percent of its available funding in advance. This Standard Agreement authorizes the encumbrance of full funds available to the applicant pursuant to the NOFA, subject to all statutory requirements and all applicable provisions including the NOFA, initial application and award for advance payment, subsequent advance payment application and award, application and award for the full remaining fund amount and amendment to this agreement.

The Grantee shall consult with the Department on any amendment or other provision related to the implementation of the Program. The Department decisions related to the administration of the Program shall be final pursuant to Health and Safety Code section 50515.04, subdivision (g).

2. Purpose

In accordance with the authority cited above, the Grantee has been awarded financial assistance in the form of a grant from the Program. The Department has agreed to make the grant for planning activities pursuant to the NOFA and this Agreement. By entering into this Agreement and thereby accepting the award of the Program funds, the Grantee agrees to comply with the terms and conditions

Regional Early Action Planning Grant Program (REAP)

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EXHIBIT A

of the NOFA, this Agreement, subsequent amendments to this Agreement, the representations contained in the initial advance payment and subsequent full application(s), and the requirements of the authority cited above. Based on all representations made by the Grantee, the Department shall encumber the full amount pursuant the NOFA and provide advance payment and subsequent payments in accordance with Exhibit B. All terms, conditions and other relevant provisions will be subject to amendments as a result of subsequent applications and awards for remaining funds after the initial application up to 25 percent of the full amount described in Exhibit B.

3. **Definitions**

Terms herein shall have the same meaning as defined by the NOFA.

4. **Scope of Work**

Grantee shall use the awarded funds in accordance with the approved Scope of Work as contained in the timeline and budget and related information outlined in the application for 25 percent advance payment and any subsequent applications for partial or full funding. The Scope of Work may be amended in compliance with statutory requirements subject to approval by the Department.

5. **Monitoring**

- A. The Grantee shall maintain books, records, documents, and other evidence that demonstrates the funding was used for the appropriate purposes, as described in the Scope of Work, approved application, subsequent approved applications and all other pertinent documents. These books, records, documents and other evidence shall be made available for audit and inspection by the Department at any point during the term of the agreement and subject to any amendments to this agreement.
- B. The Department may request additional information, as needed, to meet the statutory requirements of the Program and facilitate amendments to this agreement, including but not limited to reporting or audit requirements, progress in implementing advance payment(s), or award of the full amount available to the Grantee.

EXHIBIT A

- C. The Department may monitor expenditures and activities of an applicant, as the Department deems necessary, to ensure compliance with statutory or Department requirements.
- D. The Department may, as it deems appropriate or necessary, request the repayment of funds from an applicant, or pursue any other remedies available to it by law for failure to comply with statutory or Department requirements.
- E. The Department's decision to approve or deny an application or request for funding pursuant to the Program, and its determination of the amount of funding to be provided, shall be final.
- F. Monitoring provisions may be amended and are subject to additional provisions in accordance with this agreement or subsequent amendments.

6. Department Contract Coordinator

The Contract Coordinator of this Agreement for the Department is the Housing Policy Development Manager, or the Manager's designee. Unless otherwise informed, any notice, report, or other communication required by this Agreement shall be mailed by first class mail to the Department Contract Coordinator at the following address:

Department of Housing and Community Development
Housing Policy Development Division
Land Use Planning Unit
Attention: REAP Program Manager
2020 West El Camino Avenue, Suite 500
Sacramento, CA 95833
P. O. Box 952050
Sacramento, CA 94252-2050

EXHIBIT B

BUDGET DETAIL AND PAYMENT PROVISIONS

1. Application for Funds

- A. The Department is entering into this Agreement on the basis of, and in reliance on facts, information, assertions and representations contained in any application and award and any subsequent modifications or additions thereto approved by the Department. All awarded applications for funding and any approved modifications and additions thereto are hereby incorporated into this Agreement.
- B. The Grantee warrants that all information, facts, assertions and representations contained in any approved application and approved modifications and additions thereto are true, correct, and complete to the best of the Grantee's knowledge. In the event that any part of an application and any approved modification and addition thereto is untrue, incorrect, incomplete, or misleading in such a manner that would substantially affect the Department's approval, disbursement, or monitoring of the funding and the grant or activities governed by this Agreement, the Department may declare a breach hereof and take such action or pursue such remedies as are provided for breach hereof.

2. Grant and Reimbursement Limit

- A. The maximum total amount encumbered to the Grantee pursuant to this Agreement shall not exceed \$10,218,830.75.
- B. This Agreement authorizes an initial advance payment(s) for eligible activities as described in the application.
- C. This Agreement authorizes subsequent award amounts or advance payment up to the total award amount as described in Section 2A, of this Exhibit, and subject to Department approval.
- D. The Grantee shall submit and follow a schedule for the expenditure of the advance payment, any subsequent payment and the total amount prior to

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disbursement of funds. The schedule is subject to Department approval and may be revised as the Department deems necessary.

3. Grant Timelines

- A. This Agreement is effective upon approval by the Department representative's signature on page one of the fully executed Standard Agreement, STD 213, (the "Effective Date").
- B. All Grant funds must be expended by December 31, 2023 pursuant to Health and Safety Code section 50515.04(c)(1).
- C. The Grantee shall deliver to the Department all final invoices for reimbursement on or before November 1, 2023, to ensure the Department meets the December 31, 2023 expenditure deadline. Under special circumstances, approved by the Department, the Department may modify the November 1, 2023 deadline and may provide exception, including, but not limited to, advance payment to carry out the terms of this agreement.
- D. It is the responsibility of the Grantee to monitor the project and timeliness of draws within the specified dates.

4. Allowable Uses of Grant Funds

- A. The Department shall not award or disburse funds unless it determines that the grant funds shall be expended in compliance with the terms and provisions of the NOFA which includes associated forms and guidelines and this Agreement.
- B. Grant funds shall only be used by the Grantee for project activities approved by the State that involve planning activities in accordance with the NOFA.
- C. Grant funds may not be used for administrative costs of persons employed by the Grantee for activities not directly related to eligible activities.
- D. The Grantee shall use no more than 5 percent of the total grant amount for costs related to administration of the project.

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- E. A Grantee that receives funds under this Program may use a subcontractor and Grantee shall be accountable to the Department to ensure subcontractor's performance. The subcontract shall provide for compliance with all the requirements of the Program. The subcontract shall not relieve the Grantee of its responsibilities under the Program.
- F. After the contract has been executed by the Department and all parties, approved and eligible costs for eligible activities may be reimbursed for the project(s) upon completion of deliverables or paid in advance in accordance with the scope of work and subject to the terms and conditions of this Agreement.
- G. Only approved and eligible costs incurred for work after October 1, 2019, continued past the date of execution and acceptance of the Standard Agreement and completed during the grant term will be reimbursable.

5. Performance

The Grantee will be subject to amendments to this section as a result of future applications and awards.

6. Fiscal Administration

- A. The Grantee will be subject to amendments to this section as a result of subsequent applications and awards, in consultation with the Grantee.
- B. It is mutually agreed that if the Budget Act of the current year and/or any subsequent years covered under this Agreement does not appropriate sufficient funds for the program, this Agreement shall immediately terminate and be of no further force and effect. In this event, the State and Contractor shall be relieved of any and all obligations under this Grant Agreement.
- C. If funding for any fiscal year is reduced or deleted by the Budget Act for purposes of this program, the State shall have the sole discretion to cancel this Agreement without cause, no liability occurring to the State, or amend the current Grant Agreement and amount allocated to Contractor.

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REAP TERMS AND CONDITIONS

1. Reporting

- A. During the term of the Standard Agreement the Grantee shall submit, upon request of the Department, a performance report that demonstrates satisfaction of all requirements identified in this Standard Agreement.
- B. The Grantee will be subject to amendments to this section as a result of subsequent applications and awards.

2. Accounting Records

- A. The Grantee, its staff, contractors and subcontractors shall establish and maintain an accounting system and reports that properly accumulate incurred project costs by line. The accounting system shall conform to Generally Accepted Accounting Principles (GAAP), enable the determination of incurred costs at interim points of completion, and provide support for reimbursement payment vouchers or invoices.
- B. The Grantee shall establish a separate ledger account for receipts and expenditures of grant funds and maintain expenditure details in accordance with the scope of work, project timeline and budget. Separate bank accounts are not required.
- C. The Grantee shall maintain documentation of its normal procurement policy and competitive bid process (including the use of sole source purchasing), and financial records of expenditures incurred during the course of the project in accordance with GAAP.
- D. The Grantee agrees that the State or designated representative shall have the right to review and to copy any records and supporting documentation pertaining to the performance of the Standard Agreement.
- E. Subcontractors employed by the Grantee and paid with moneys under the terms of this Standard Agreement shall be responsible for maintaining accounting records as specified above.

3. Audits

- A. At any time during the term of the Standard Agreement, the Department may
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perform or cause to be performed a financial audit of any and all phases of the award. At the Department's request, the Grantee shall provide, at its own expense, a financial audit prepared by a certified public accountant. The State of California has the right to review project documents and conduct audits during and over the project life.

- 1) The Grantee agrees that the Department or the Department's designee shall have the right to review, obtain, and copy all records and supporting documentation pertaining to performance of this Agreement.
 - 2) The Grantee agrees to provide the Department or the Department's designee, with any relevant information requested.
 - 3) The Grantee agrees to permit the Department or the Department's designee access to its premises, upon reasonable notice, during normal business hours for the purpose of interviewing employees who might reasonably have information related to such records and inspecting and copying such books, records, accounts, and other material that may be relevant to a matter under investigation for the purpose of determining compliance with statutes, Program guidelines, and this Agreement.
- B. If a financial audit is required by the Department, the audit shall be performed by an independent certified public accountant. Selection of an independent audit firm shall be consistent with procurement standards contained in Exhibit D, Section 8 subsection A. of this Standard Agreement.
- 1) The Grantee shall notify the Department of the auditor's name and address immediately after the selection has been made. The contract for the audit shall allow access by the Department to the independent auditor's working papers.
 - 2) The Grantee is responsible for the completion of audits and all costs of preparing audits.
 - 3) If there are audit findings, the Grantee shall submit a detailed response acceptable to the Department for each audit finding within 90 days from the date of the audit finding report.
- C. The Grantee agrees to maintain such records for possible audit after final payment pursuant to Exhibit D, Section 3, subsection E. below, unless a longer period of records retention is stipulated.

EXHIBIT D

- 1) If any litigation, claim, negotiation, audit, monitoring, inspection or other action has been started before the expiration of the required record retention period, all records must be retained by the Grantee, contractors and sub-contractors until completion of the action and resolution of all issues which arise from it. The Grantee shall include in any contract that it enters into in an amount exceeding \$10,000.00, the Department's right to audit the contractor's records and interview their employees.
 - 2) The Grantee shall comply with the caveats and be aware of the penalties for violation of fraud and for obstruction of investigation as set forth in California Public Contracts Code section 10115.10.
- D. The determination by the Department of the eligibility of any expenditure shall be final.
- E. The Grantee shall retain all books and records relevant to this Agreement for a minimum of (3) three years after the end of the term of this Agreement. Records relating to any and all audits or litigation relevant to this Agreement shall be retained for five years after the conclusion or resolution of the matter.

4. **Remedies of Non-performance**

- A. Any dispute concerning a question of fact arising under this Standard Agreement that is not disposed of by agreement shall be decided by the Department's Housing Policy Development Manager, or the Manager's designee, who may consider any written or verbal evidence submitted by the Grantee. The decision of the Department's Housing Policy Development Manager or Designee shall be the Department's final decision regarding the dispute, not subject to appeal.
- B. Neither the pendency of a dispute nor its consideration by the Department will excuse the Grantee from full and timely performance in accordance with the terms of this Standard Agreement.
- C. In the event that it is determined, at the sole discretion of the Department, that the Grantee is not meeting the terms and conditions of the Standard Agreement, immediately upon receiving a written notice from the Department to stop work, the Grantee shall cease all work under the Standard Agreement. The Department has the sole discretion to determine that the Grantee meets the terms and conditions after a stop work order, and to deliver a written notice to the grantee to resume work under the Standard Agreement.

EXHIBIT D

- D. Both the Grantee and the Department have the right to terminate the Standard Agreement at any time upon 30 days written notice. The notice shall specify the reason for early termination and may permit the Grantee or the Department to rectify any deficiency(ies) prior to the early termination date. The Grantee shall submit any requested documents to the Department within 30 days of the early termination notice.
- E. A strong implementation component for the funded activity through this Program is required, including, where appropriate, agreement by Grantee and its subcontractors to formally adopt or complete a planning or other activity consistent with the NOFA. The Grantee must carry out provisions to ensure the adoption or completion of activities in accordance with the NOFA, including activities subcontracted to localities. Grantee may be subject to repayment of the grant should the Grantee or any of its subcontractors under this agreement fail to adopt or complete activities set forth in its application, this Agreement or any amendments to this Agreement.
- F. The following shall each constitute a breach of this Agreement:
- 1) Grantee's failure to comply with any term or condition of this Agreement.
 - 2) Use of, or permitting the use of, grant funds provided under this Agreement for any ineligible costs or for any activity not specified and approved under this Agreement.
 - 3) Any failure to comply with the deadlines set forth in this Agreement unless approved by the Program Manager in writing.
- G. In addition to any other remedies that may be available to the Department in law or equity for breach of this Agreement, the Department may at its discretion, exercise a variety of remedies, including but not limited to:
- 1) Revoke existing REAP award(s) to the Grantee;
 - 2) Require the return of unexpended REAP funds disbursed under this Agreement;
 - 3) Require repayment of REAP Funds disbursed and expended under this agreement;
 - 4) Seek a court order for specific performance of the obligation defaulted upon, or the appointment of a receiver to complete the obligations in accordance

EXHIBIT D

with the REAP Program requirements; and

- 5) Other remedies available at law, by and through this agreement. All remedies available to the Department are cumulative and not exclusive.
- 6) The Department may give written notice to the Grantee to cure the breach or violation within a period of not less than 15 days.

H. The Grantee may be subject to amendment of this section as a result of subsequent applications and awards.

5. **Indemnification**

Neither the Department nor any officer or employee thereof is responsible for any injury, damage or liability occurring by reason of anything done or omitted to be done by the Grantee, its officers, employees, agents, its contractors, its sub-recipients or its subcontractors under or in connection with any work, authority or jurisdiction conferred upon the Grantee under this Standard Agreement. It is understood and agreed that the Grantee shall fully defend, indemnify and save harmless the Department and all of the Department's staff from all claims, suits or actions of every name, kind and description brought forth under, including, but not limited to, tortuous, contractual, inverse condemnation or other theories or assertions of liability occurring by reason of anything done or omitted to be done by the Grantee, its officers, employees, agents contractors, sub-recipients, or subcontractors under this Standard Agreement.

6. **Waivers**

No waiver of any breach of this Agreement shall be held to be a waiver of any prior or subsequent breach. The failure of the Department to enforce at any time the provisions of this Agreement, or to require at any time, performance by the Grantee of these provisions, shall in no way be construed to be a waiver of such provisions nor to affect the validity of this Agreement or the right of the Department to enforce these provisions.

7. **Relationship of Parties**

It is expressly understood that this Standard Agreement is an agreement executed by and between two independent governmental entities and is not intended to, and shall not be construed to, create the relationship of agent, servant, employee, partnership, joint venture or association, or any other relationship whatsoever other than that of an independent party.

8. **Third-Party Contracts**

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- A. All state-government funded procurements must be conducted using a fair and competitive procurement process. The Grantee may use its own procurement procedures as long as the procedures comply with all City/County laws, rules and ordinances governing procurement, and all applicable provisions of California state law.
- B. Any contract entered into as a result of this Agreement shall contain all the provisions stipulated in this Agreement and shall be applicable to the Grantee's sub-recipients, contractors, and subcontractors. Copies of all agreements with sub-recipients, contractors, and subcontractors shall be submitted to the Department's program manager.
- C. The Department does not have a contractual relationship with the Grantee's sub-recipients, contractors, or subcontractors, and the Grantee shall be fully responsible for monitoring and enforcement of those agreements and all work performed thereunder.

9. **Compliance with State and Federal Laws, Rules, Guidelines and Regulations**

- A. The Grantee agrees to comply with all state and federal laws, rules and regulations that pertain to construction, health and safety, labor, fair employment practices, equal opportunity, and all other matters applicable to the grant, the Grantee, its contractors or subcontractors, and any other grant activity.
- B. During the performance of this Agreement, the Grantee assures that no otherwise qualified person shall be excluded from participation or employment, denied program benefits, or be subjected to discrimination based on race, color, ancestry, national origin, sex, gender, gender identity, gender expression, genetic information, age, disability, handicap, familial status, religion, or belief, under any program or activity funded by this contract, as required by Title VI of the Civil Rights Act of 1964, the Fair Housing Act (42 USC 3601-20) and all implementing regulations, and the Age Discrimination Act of 1975 and all implementing regulations.
- C. The Grantee shall include the nondiscrimination and compliance provisions of this clause in all agreements with its sub-recipients, contractors, and subcontractors, and shall include a requirement in all agreements that each of them in turn include the nondiscrimination and compliance provisions of this

EXHIBIT D

clause in all contracts and subcontracts they enter into to perform work under REAP.

- D. The Grantee shall, in the course of performing project work, fully comply with the applicable provisions of the Americans with Disabilities Act (ADA) of 1990, which prohibits discrimination on the basis of disability, as well as all applicable regulations and guidelines issued pursuant to the ADA. (42 U.S.C. 12101 et seq.)
- E. The Grantee shall adopt and implement affirmative processes and procedures that provide information, outreach and promotion of opportunities in the REAP project to encourage participation of all persons regardless of race, color, national origin, sex, religion, familial status, or disability. This includes, but is not limited to, a minority outreach program to ensure the inclusion, to the maximum extent possible, of minorities and women, and entities owned by minorities and women, as required by 24 CFR 92.351.

10. Litigation

- A. If any provision of this Agreement, or an underlying obligation, is held invalid by a court of competent jurisdiction, such invalidity, at the sole discretion of the Department, shall not affect any other provisions of this Agreement and the remainder of this Agreement shall remain in full force and effect. Therefore, the provisions of this Agreement are, and shall be, deemed severable.
- B. The Grantee shall notify the Department immediately of any claim or action undertaken by or against it, which affects or may affect this Agreement or the Department, and shall take such action with respect to the claim or action consistent with the terms of this Agreement and the interests of the Department.

11. Changes in Terms/Amendments

- A. The Grantee may be subject to amendments to this section as a result of subsequent applications and awards.
- B. This Agreement may only be amended or modified by mutual written agreement of both parties.

12. State-Owned Data

- A. Definitions

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1) Work:

The work to be directly or indirectly produced by the Grantee, its employees, or by and of the Grantee's contractor's, subcontractor's and/or sub-recipient's employees under this Agreement.

2) Work Product:

All deliverables created or produced from Work under this Agreement including, but not limited to, all Work and Deliverables conceived or made, either solely or jointly with others during the term of this Agreement, which relates to the Work commissioned or performed under this Agreement. Work Product includes all deliverables, inventions, innovations, improvements, or other works of authorship Grantee and/or Grantee's contractor subcontractor and/or sub-recipient may conceive of or develop in the course of this Agreement, whether or not they are eligible for patent, copyright, trademark, trade secret or other legal protection.

3) Inventions:

Any ideas, methodologies, designs, concept, technique, invention, discovery, improvement or development regardless of patentability made solely by the Grantee or jointly with the Grantee's contractor, subcontractor and/or sub-recipient and/or Grantee's contractor, subcontractor, and/or sub-recipient's employees with one or more employees of the Department during the term of this Agreement and in performance of any Work under this Agreement, provided that either the conception or reduction to practice thereof occurs during the term of this Agreement and in performance of Work issued under this Agreement.

B. Ownership of Work Product and Rights

- 1) All work Product derived by the Work performed by the Grantee, its employees or by and of the Grantee's contractor's, subcontractor's and/or sub-recipient's employees under this Agreement, shall be owned by the Department and shall be considered to be works made for hire by the Grantee and the Grantee's contractor, subcontractor and/or subrecipient for the Department. The Department shall own all copyrights in the work product.
- 2) Grantee, its employees and all of Grantee's contractor's, subcontractor's and sub-recipient's employees agree to perpetually assign, and upon creation of each Work Product automatically assign, to the Department, ownership of all United States and international copyrights in each and

EXHIBIT D

every Work Product, insofar as any such Work Product, by operation of law, may not be considered work made for hire by the Grantee's contractor, subcontractor and/or subrecipient from the Department. From time to time upon the Department's request, the Grantee's contractor, subcontractor and/or subrecipients, and/or its employees, shall confirm such assignments by execution and delivery of such assignment, confirmations or assignment or other written instruments as the Department may request. The Department shall have the right to obtain and hold in its name all copyright registrations and other evidence of rights that may be available for Work Product under this Agreement. Grantee hereby waives all rights relating to identification of authorship restriction or limitation on use or subsequent modification of the Work.

- 3) Grantee, its employees and all Grantee's contractors, subcontractors and sub-recipients hereby agree to assign to the Department all Inventions, together with the right to seek protection by obtaining patent rights therefore and to claim all rights or priority thereunder and the same shall become and remain the Department's property regardless of whether such protection is sought. The Grantee, its employees and Grantee's contractor, subcontractor and /or subrecipient shall promptly make a complete written disclosure to the Department of each Invention not otherwise clearly disclosed to the Department in the pertinent Work Product, specifically noting features or concepts that the Grantee, its employees and/or Grantee's contractor, subcontractor and/or subrecipient believes to be new or different.
- 4) Upon completion of all work under this Agreement, all intellectual property rights, ownership and title to all reports, documents, plans, specifications and estimates, produced as part of this Agreement shall automatically vest in the Department and no further agreement will be necessary to transfer ownership to the Department.

13. **Special Conditions**

The State reserves the right to add any special conditions to this Agreement it deems necessary to assure that the policy and goals of the Program are achieved, in consultation with the Grantee.

Exhibit B

Pro-rata Initial Allocations to Each Regional Transportation Planning Agency Based on January 2020 California Department of Finance Population Estimates

REAP PLANNING GRANT INITIAL ALLOCATIONS			MPO
			DISTRIBUTION
MPO Share by Population*			
Fresno Council of Governments	1,032,227	23.50%	\$1,114,737.62
Kern Council of Governments	927,251	21.11%	\$1,001,370.41
Kings County Association of Governments	156,444	3.56%	\$168,949.28
Madera County Transportation Commission	160,089	3.64%	\$172,885.65
Merced County Association of Governments	287,420	6.54%	\$310,394.79
San Joaquin Council of Governments	782,545	17.81%	\$845,097.40
Stanislaus Council of Governments	562,303	12.80%	\$607,250.45
Tulare County Association of Governments	484,423	11.03%	\$523,145.14
Total	4,392,702	100.00%	\$4,743,830.75

EXHIBIT B

PROJECT SCOPE OF WORK

PROJECT SCOPE OF WORK FOR THE 2024-2032 HOUSING ELEMENT UPDATE

I. HOUSING ELEMENT UPDATE

Kings County is currently in the process of conducting a comprehensive update of the Kings County Housing Element, which includes preparing the multijurisdictional Housing Element update for County unincorporated areas as well as the four incorporated Cities (Avenal, Corcoran, Hanford, and Lemoore). The Kings County Community Development Agency is assigned coordination of this project and seeks proposals from qualified consultants to provide professional services for the development of the Housing Element update.

The Housing Element update is required pursuant to California Government Code Section 65580 et seq. The purpose of this project is to update the Housing Element to be internally consistent with County and City General Plans and in compliance with state statutes to be certified by the California Department of Housing and Community Development (HCD). The update shall contain an overview of the housing needs in the unincorporated and incorporated areas of Kings County and provide analysis of both the constraints that may impact housing development as well as the resources available to facilitate it. State Housing Element law requires that each city and county identify and analyze existing and projected housing needs within their jurisdiction and prepare goals, policies, programs, and quantified objectives to further the development, improvement, and preservation of housing. The five jurisdictions in Kings County have collectively decided to prepare a joint countywide Housing Element with administrative support from the Kings County Development Agency. Kings County's current Housing Element is for the planning period from 2016 to 2024. This Housing Element update will be for the planning period from 2024 to 2032.

The scope of work shall include the following:

- Meetings with County and City staff, other agencies' staff, public officials, and the general public
- Coordination with other Consultants or subcontractors engaged, if necessary, in a supportive and joint effort
- Develop team assignments and a project task timeline compatible with Housing Element update due dates
- Complete an evaluation of the 2016-2024 Housing Element update
- Coordinate with County and City staff to develop a current housing inventory and complete a Housing Needs Assessment to ensure conformance with Government Code Section 65583 et seq.
- Analysis of resources that cover land inventory, site analysis, financial and administrative resources, and energy conservation
- Analysis of constraints, including governmental and nongovernmental
- Provide public review and final document and any appendices or references in a format acceptable to the County

- Upon completion of agency and public review, comments will be addressed and incorporated into relative context and submitted to the County for review, comment, and further revision, if necessary
- Provide timely progress updates to the Kings County Community Development Agency as requested and adhere to timelines as possible
- Prepare staff reports and other relative documents for Planning Commissions, City Councils, and Boards of Supervisors
- Effort with public outreach, including preparation of event materials, solicitation of comments, workshops, and public meetings throughout Kings County

Deliverables shall include:

- Project Task Timeline and Team Assignments
- Working and Final Drafts of the 2024-2032 Housing Element
- Hearing Drafts
- Public Participation Summaries
- 2024-2032 Housing Element Study
- Associated documents, appendices, and background studies
- Staff reports and related documentation
- HCD Draft of the 2024-2032 Housing Element and mandated information for certification
- Environmental documents, findings, and/or Notice of Exemption in compliance with California Environmental Quality Act (CEQA)
- Synopsis of recommended changes by HCD following the review period of HCD Draft
- HCD Certified 2024-2032 Housing Element
- 2024-2032 Housing Element Certificate Letter from HCD

EXHIBIT C
CONTACT INFORMATION FOR PARTICIPATING AGENCIES

For the County of Kings:

Chuck Kinney
Director of Community Development
1400 W. Lacey Blvd. Bldg. #6
Hanford, CA 93230
559-852-2670
Chuck.Kinney@co.kings.ca.us

For the City of Hanford

Jason Waters
Deputy City Manager
317 Douty St.
Hanford, CA 93230
559-585-2580
jwaters@cityofhanford.com

For the City of Avenal:

Kao Nou Yang
Director of Community and Economic
Development
919 Skyline Blvd.
Avenal, CA 93204
559-401-9854
kyang@cityofavenal.us

For the City of Lemoore

Kristie Baley
Management Analyst
711 Cinnamon Dr.
Lemoore, CA 93245
559-924-6744 * 740
kbaley@lemoore.com

For the City of Corcoran:

Kevin Tromborg
Community Development Director
932 Whitley Ave.
Corcoran, CA 93212
559-992-2151
Kevin.Tromborg@cityofcorcoran.com



AGENDA STAFF REPORT

MEETING DATE: 5/16/2023

AGENDA SECTION: CONSENT CALENDAR

SUBJECT:

Approval of Amendment No. 4 to the lease agreement between the City of Hanford and Mechanics Bank for the property located at 218 N. Douty Street (Old Post Office).

RECOMMENDATION:

Recommended Motion: That the City Council, by motion, Approve Amendment No. 4 to the lease agreement between the City of Hanford and Mechanics Bank for the property located at 218 N. Douty Street

BACKGROUND:

The City owns the property located at 218 N. Douty Street and leases it to Mechanics Bank. The original lease agreement for the property was entered into in August 1998 and several amendments to the agreement, extending the terms of the lease, have been approved since the original agreement. The most recent lease extension is set to expire on June 30, 2023.

Amendment No. 4 would extend the current lease of the property for an additional five years commencing on July 1, 2023 and expiring on June 30, 2028, unless sooner terminated or extended in accordance with the terms of the lease. The monthly base rent for the terms of the lease can be found below:

07/01/23 – 06/30/24: \$6,110.77
 07/01/24 – 06/30/25: \$6,294.10
 07/01/25 – 06/30/26: \$6,482.92
 07/01/26 – 06/30/27: \$6,677.41
 07/01/27 – 06/30/28: \$6,877.73

Additional details associated with the terms, options to extend, and responsibilities of the tenant and landlord can be found in the attached agreement.

FISCAL IMPACT:

Revenues associated with the terms of the lease agreement are collected in the City's General Fund.

ATTACHMENTS:

1. Amendment No. 4 - Mechanics Bank Lease

AMENDMENT NO. 4 TO LEASE

218 N. Douty Street, Hanford, California

This AMENDMENT NO. 4 TO LEASE (this "**Amendment**") is made and effective as of May 3, 2023 by and between CITY OF HANFORD, a municipal corporation ("**Landlord**"), and MECHANICS BANK, a California banking corporation ("**Tenant**").

R E C I T A L S :

A. Landlord and Kings River State Bank, a California corporation ("**Original Tenant**") entered into that certain Lease Agreement dated as of August 12, 1998 (the "**Lease**") whereby Landlord leased to Original Tenant and Original Tenant leased from Landlord that certain space containing approximately 4,398 square feet (the "**Premises**") of that certain building located at 218 N. Douty Street, Hanford, California, California (the "**Building**").

B. The Original Lease has been amended by that certain First Amendment to Lease dated August 18, 1998 (the "**First Amendment**") between Landlord and Original Tenant, that certain Amendment No. 2 to Lease May 11, 2018 (the "**Second Amendment**") between Landlord and Rabobank, N.A., as successor-in-interest to Original Tenant ("**Rabobank**"), and that certain Amendment No. 3 to Lease dated September 10, 2018 (the "**Third Amendment**") between Landlord and Rabobank. The Original Lease, First Amendment, Second Amendment and Third Amendment may be referred to herein collectively as the "**Lease**".

C. Effective as of August 29, 2019, Rabobank merged with Tenant and Tenant has succeeded to all of Rabobank's interests under the Lease.

D. The Term of the Lease originally commenced on July 1, 1998 and is currently scheduled to expire on June 30, 2023.

E. The parties now desire to amend the Lease to extend the Term of the Lease, and modify various terms and provisions of the Lease, all as hereinafter provided.

A G R E E M E N T :

NOW, THEREFORE, in consideration of the foregoing recitals and the mutual covenants contained herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto hereby agree as follows:

1. Capitalized Terms. All capitalized terms when used herein shall have the same meanings given such terms in the Lease unless expressly superseded by the terms of this Amendment. All references in the Lease and in this Amendment to "**the Lease**" or "**this Lease**" shall be construed to mean the Lease referenced above as amended and supplemented by this Amendment.

2. Extension of Term. The Term of the Lease which is scheduled to expire on June 30, 2023 is hereby extended for one (1) additional period of five (5) years, commencing on July 1, 2023 (the "**Extended Term Commencement Date**") and expiring on June 30, 2028, unless sooner terminated or extended in accordance with the terms of the Lease (such 5-year extension term shall be referred to herein as the "**Extended Term**").

3. Monthly Base Rent. During the Extended Term, Tenant shall pay Monthly Base Rent to Landlord for the Premises in accordance with the following schedule:

<u>Periods of Extended Term</u>	<u>Monthly Base Rent</u>
07/01/23 – 06/30/24	\$6,110.77
07/01/24 – 06/30/25	\$6,294.10
07/01/25 – 06/30/26	\$6,482.92
07/01/26 – 06/30/27	\$6,677.41
07/01/27 – 06/30/28	\$6,877.73

4. Condition of Premises. Tenant is in possession of the Premises and accepts the same in its current "AS IS" condition without any agreements, understandings, or obligations on the part of Landlord to perform or pay for any alterations, repairs or improvements thereto.

5. [Intentionally Deleted].

6. Options to Extend Extended Term. Tenant shall have the right to extend the Term of the Lease following the expiration of Extended Term for two (2) additional periods of five (5) years each (each an "**Option Term**"), in accordance with the terms of Section 2.D. of the Original Lease, except that (a) each Option Term shall be exercised by Tenant, if at all, by delivery of written notice to Landlord not less than six (6) months prior to the expiration of the Extended Term and the first Option Term, as the case may be, electing to extend the Lease Term for the applicable Option Term and (b) during an Option Term, the Monthly Base Rent shall increase on July 1 of each year by three percent (3%).

7. Tenant's Address for Notices. The address of Tenant for notices set forth in the Lease is hereby deleted and replaced with the following:

"Mechanics Bank
18400 Von Karman, Suite 1100
Irvine, CA 92612
Attn: Christopher Pierce
Email: Chris_Pierce@mechanicsbank.com

With a copies sent concurrently to:

Mechanics Bank
18400 Von Karman, Suite 1100
Irvine, CA 92612
Attn: Lisa Twomey / Facilities Department
Email: Lisa_Twomey@mechanicsbank.com

and

Kennerly, Lamishaw & Rossi LLP
707 Wilshire Boulevard, Suite 1400
Los Angeles, CA 90017
Attn: William J. Birney, Esq.
Email: wbirney@klrfirm.com"

8. Authorization. Landlord and Tenant represent and warrant to each other respectively that they have the requisite power and authority to enter into this Amendment; that all necessary and appropriate approvals, authorizations and other steps have been taken to effect the legality of this Amendment; that the signatories executing this Amendment on behalf of Landlord and Tenant have been duly authorized and empowered to execute this Amendment on behalf of Landlord and Tenant, respectively; and that this Amendment is valid and shall be binding upon and enforceable against Landlord and Tenant and their respective successors and assigns and shall inure to the benefit of Landlord and Tenant, and their respective successors and assigns.

9. Full Force and Effect. Except as set forth herein, all of the terms, covenants, and conditions of the Lease shall remain in full force and effect and there exists as of the date hereof no default or breach by Tenant of (or to Landlord's knowledge the occurrence of an event which, with the passage of time or the giving of notice or either of them would constitute a default or breach by Tenant of) any of the terms or conditions of, or obligations of Tenant under the Lease. If a conflict or inconsistency exists between the terms and provisions of this Amendment and the terms and provisions of the Lease, the terms and provisions of this Amendment shall control to the extent of any such conflict or inconsistency.

10. Counterparts; Electronic Signatures. This Amendment may be executed in any number of counterparts, all of which shall be deemed an original, but such counterparts, when taken together, shall constitute one agreement. The parties hereto may deliver their signatures to this Amendment by electronic (portable data format - .pdf) transmission, or other electronic transmission, including without limitation, DocuSign and AdobeSign (collectively, "**Electronic Signatures**"). The use of Electronic Signatures and electronic records (including, without limitation, any contract or other record created, generated, sent, communicated, received or stored by electronic means) shall have the same legal effect, validity and enforceability as a manually executed signature or use of a paper-based recordkeeping system to the fullest extent permitted by applicable law, including, without limitation, the Electronic Signatures in Global and National Commerce Act, any state law based on the Uniform Electronic Transactions Act and the Uniform Commercial Code. In connection with the foregoing, the parties hereto

incorporate the provisions of California Civil Code (“CC”) § 1633.1 et seq, which provides in relevant part that the parties to an Agreement (CC §1633.2(a)), or Contract (CC §1633.2(d)), can agree to conduct a transaction by electronic means, and that such agreements shall not be denied legal effect solely because it is in electronic form, and “If a law requires a record to be in writing, an electronic record satisfies the law.” (CC § 1633.7). In the event a signature is transmitted electronically, the party so transmitting shall deliver original signature pages as soon as reasonably possible thereafter; provided, however, that the failure to deliver such original signature pages shall not diminish the binding nature of any Electronic Signatures.

[SIGNATURES APPEAR ON THE FOLLOWING PAGE.]

IN WITNESS WHEREOF, this Amendment has been executed as of the day and year first above written.

"Landlord"

CITY OF HANFORD

By:

MARIO A. CIFUENTEZ, II
Its: City Manager

"Tenant"

MECHANICS BANK,
a California banking corporation

By:

Christopher Pierce
Its Chief Operating Officer



AGENDA STAFF REPORT

MEETING DATE: 5/16/2023

AGENDA SECTION: CONSENT CALENDAR

SUBJECT:

Adoption of Resolution no. 23-10-R regarding the public transit needs within the City of Hanford and authorization for the City Manager to sign and submit the claim for funds and any subsequent amended claims, and Approve the filing of the Notice of Exemption to certify that projects to be constructed with these funds are categorically exempt from the California Environmental Quality Act.

RECOMMENDATION:

That the City Council, by motion:

1. Adopt the attached resolution no. 23-10-R regarding the public transit needs within the City of Hanford and authorize the City Manager to sign and submit the claim for funds and any subsequent amended claims required;
2. Determine, based on the City's financial participation in and support of the existing Kings County Area Transit Agency System, that there are no areas within the City of Hanford with unmet public transit needs which could reasonably be met by the expansion of the system or by the establishment of a new system;
3. Approve the filing of the attached Notice of Exemption to certify that projects to be constructed with these funds are categorically exempt from the California Environmental Quality Act.

BACKGROUND:

Attached are estimates of TDA funding for Fiscal Year 2023/24 prepared by the Kings County Auditor pursuant to section 6620 of the California Administrative Code.

Listed below is a summary distribution of TDA funds received for the past few years:

Description:	<u>2018/19</u>	<u>2020/21</u>	<u>2021/22</u>	<u>2022/23</u>
KCAG Transportation Planning Costs	\$71,218	\$110,501	\$48,365	\$47,169
Kart Bus System Costs	\$613,667	\$629,833	\$952,136	\$986,683
Local Streets and Roads - Claim Amt.	\$978,390	\$1,114,223	\$1,280,099	\$1,190,378
Hanford's TDA Fund Total	\$1,663,275	\$1,854,557	\$2,280,600	\$2,224,230

The attached resolution no. 23-10-R permits the City Manager to sign and submit this claim as well

as any amended claims, as may be required.

In regards to filing of an Exemption Notice, Title 14, Section 14104 (c) Public Resources Code stipulates that rehabilitation and or reconstruction of existing highways and streets within existing rights of way is categorically exempt from EIR requirements.

FISCAL IMPACT:

The estimated funds of \$1,170,803, based on estimates and subject to adjustment, will be deposited into the Gas Tax Transportation Capital Improvement Fund for use on the street projects capital improvement program.

ATTACHMENTS:

1. Resolution 23-10-R
2. TDA FY 23-24
3. FY 23/24 TDA Claim
4. Attachment C - CIP FY22-26
5. NOE 2023

ATTACHMENT “B”

RESOLUTION NO. 23-10-R

**RESOLUTION OF THE CITY COUNCIL OF THE CITY OF HANFORD
REGARDING THE PUBLIC TRANSIT NEEDS WITHIN THE CITY OF HANFORD
AND AUTHORIZING THE FILING OF A CLAIM FOR LOCAL TRANSPORTATION FUNDS**

At a regular meeting of the City Council of the City of Hanford, duly called and held on May 16th, 2023 it was moved by Council Member _____, and seconded by Council Member _____, and carried that the following resolution be adopted:

WHEREAS, the Transportation Development Act provides for Local Transportation Funds (LTF) for meeting transportation needs that can be reasonably met; and

WHEREAS, once public transportation needs are met, the balance of the LTF may be claimed for local streets and roads; and

WHEREAS, the City of Hanford has participated with the Kings County Area Public Transit Agency to provide public transportation for the City of Hanford; and

WHEREAS, the Kings County Area Public Transportation Authority Board, a joint powers authority, will conduct a Public Hearing on behalf of the City Council to determine if there are unmet transportation needs that are reasonable to meet; and

WHEREAS, the aforementioned service is currently meeting all transit needs that are reasonable to be met.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Hanford does hereby find that, based on current evidence, there are no areas within the City of Hanford with unmet public transit needs which could reasonably be met by expansion of existing transportation systems or by establishing new systems.

BE IT FURTHER RESOLVED that the City Council of the City of Hanford claim the unused balance of the Local Transportation Funds, not used for public transportation and transportation planning, for maintenance of local streets and roads and that maintenance of streets and roads is categorically

exempt from environmental review and that the City Manager is authorized to sign and submit the claim for funds and any subsequent amended claims required.

Passed and Adopted at a regular meeting of the City Council of the City of Hanford duly called and held on the 16th day of May, 2023, by the following vote:

AYES:	Council Member	_____

NOES:	Council Member	_____
ABSTAIN:	Council Member	_____
ABSENT:	Council Member	_____

		_____, Mayor

ATTEST: _____
City Clerk

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

I, NATALIE CORRAL, City Clerk of the City of Hanford, do hereby certify the foregoing Resolution was duly passed and adopted by the City Council of the City of Hanford at a regular meeting thereof held on the 16th day of May, 2023.

Dated: May 16, 2023

Natalie Ortega, City Clerk

**ESTIMATED FY 2023-24
TRANSPORTATION DEVELOPMENT ACT SHARES**

FY 2023-24 LOCAL TRANSPORTATION FUND SHARES				AMOUNT CLAIMED	AMOUNT REMAINING
1. Estimate of LTF for Fiscal Year 2023-24 by Kings County Auditor pursuant to Section 6620 of the California Administrative Code:					\$6,200,000
2. Article 3, Pedestrian and Bicycle Facilities:				\$124,000 (amount available)	\$6,200,000
AMOUNT					
Claimed to date				\$0	
3. Shares of remaining LTF based on the Department of Finance population estimate as of May 1, 2022:					\$6,200,000
AGENCY	POPULATION*	PERCENTAGE	SHARE		
Avenal	13,186	8.6737%	\$537,769		
Corcoran	22,047	14.5024%	\$899,149		
Hanford	58,299	38.3488%	\$2,377,626		
Lemoore	27,058	17.7986%	\$1,103,513		
Kings Co.	31,433	20.6765%	\$1,281,943		
TOTAL	152,023	100.0000%	\$6,200,000		
4. LTF Administration and Article 8 Transportation Planning cost for KCAG:				\$120,000	\$6,080,000
AGENCY	PERCENTAGE	SHARE			
Avenal	8.6737%	\$10,408			
Corcoran	14.5024%	\$17,403			
Hanford	38.3488%	\$46,019			
Lemoore	17.7986%	\$21,358			
Kings Co.	20.6765%	\$24,812			
TOTAL	100.0000%	\$120,000			
5. Article 4, Public Transit, KART (Not Shared by Corcoran):				\$2,000,000	\$4,080,000
AGENCY	PERCENTAGE (Based on Pop. & Hrs. of Service)	SHARE			
Avenal	5.6285%	\$112,570			
Corcoran	0.0000%	\$0			
Hanford	58.0402%	\$1,160,804			
Lemoore	21.3811%	\$427,622			
Kings Co.	14.9502%	\$299,004			
TOTAL	100.0000%	\$2,000,000			
6. Article 8, Transportation Services and Planning, City of Avenal: (From Avenal's Share)				\$4,000	\$4,076,000
AGENCY	SHARE				
Avenal	\$4,000				
7. Article 4, Public Transit, Corcoran Dial-A-Ride: (From Corcoran's Share)				\$786,746	\$3,289,254
AGENCY	SHARE				
Corcoran	\$786,746				
8. Article 8, Transportation Services: (From Corcoran's Share)				\$95,000	\$3,194,254
AGENCY	SHARE				
Corcoran KART tickets	\$0				
Corcoran Amtrak tickets	\$95,000				
9. Remaining Article 8 shares for streets and roads. (By population % shown in item #3 above):				\$3,194,254	\$0
AGENCY	SHARE				
Avenal	\$410,791				
Corcoran	\$0				
Hanford	\$1,170,803				
Lemoore	\$654,533				
Kings Co.	\$958,127				
TOTAL	\$3,194,254				
Estimated FY 2023-24 LTF:				\$6,200,000	

* Based on 2022 Department of Finance estimates released on May 1, 2022

2/24/2023

CLAIM FOR TDA FUND

OTHER CLAIMS ARTICLE 8

1. Claimant: City of Hanford
900 S. 10th Ave.
Hanford, CA 93230
2. Claim for FY 2023-24
3. Amount of Apportionment (estimate): 38.3488% \$ 2,377,626
4. Purpose for which claimed funds will be used:

Article 8, Section 99400(a), Local Street and Roads and projects which are provided for use by pedestrians and bicycles. \$ 1,170,803

Article 8, Section 99400(b), Passenger Rail Service Operations and Capital Improvements (including Article 3, Section 99234.9, Rail Passenger Service Projects). \$ 0

Article 8, Section 99400(c), Contracted Transportation Services. \$ 0

Article 8, Section 99400(d), Contracted Transportation Services Administrative and Planning. \$ 0

Article 8, Section 99402, Transportation Planning Process (including Article 3, Section 99233.1, RTPA Administration). \$ 46,019
5. NOTE: KCAPTA will Claim \$ 1,160,804 through Article 4.
6. Has your governing body conducted a public hearing for the purpose of soliciting comments on the unmet transit needs that may exist within your jurisdiction?

NO _____

YES ✓ Kings County Area Public Transportation Authority Board, a joint powers authority, will conduct a Public Hearing on behalf of the City Council to determine if there are unmet transportation needs that are reasonable to meet.
7. Has your governing body passed a resolution in which the finding was made that there are no areas within your jurisdiction with unmet public transit needs which could reasonably be met by expansion of existing transportation systems or by establishing a new system?

NO _____

YES ✓ 5/16/2023 City Council Meeting

Include a copy of that resolution and documentation of the finding, including evidence and information that provides the basis for the finding, and designate it as "Attachment B".

- YES ✓

- \$ 6,228,345

NO _____

YES ✓

11. _____
Signature and Title
- _____
Date

Payment for projects approved by KCAG will be made to Claimant as money is available for distribution in Claimant's account.

TRANSPORTATION PROJECTS - FIVE YEAR CAPITAL PLAN

PROJECT TITLE	2022	2023	2024	2025	2026
Sidewalk and Miscellaneous Concrete Repairs	42,140	41,030	43,000	43,000	43,000
New Sidewalk and ADA Improvements	52,100	51,410	54,000	54,000	54,000
Street Division Maintenance	315,798	311,645	327,000	327,000	327,000
Unscheduled Arterial Upgrades & Traffic Signal Installation	210,530	207,750	218,000	218,000	218,000
Survey Monumentation / Benchmark Update	15,780	15,580	15,000	15,000	15,000
Pavement Resurfacing Treatment	996,850	983,690	950,000	950,000	950,000
East Lacey Boulevard Widening / Reconstruction, 10th Avenue to Sierra Drive	4,679,020	4,617,240	0	0	0
Reclamite Seal Treatment	181,580	0	187,500	0	187,500
Grangeville Blvd. Widening, Centennial Dr. to 13th Ave.	0	0	500,000	3,920,000	0
Lacey Blvd. Widening / Reconstruction, from Magna Carta to 13th Ave. and 13th Ave. from Lacey Blvd. to 1300 feet north.	0	0	0	625,000	5,130,000
TOTAL	\$6,493,798	\$6,228,345	\$2,294,500	\$6,152,000	\$6,924,500
FUNDING SOURCES					
0040 Gas Tax	864,638	674,057	864,500	677,000	864,500
0045 Gas Tax (RMRA)	994,423	981,293	0	0	0
0050 Gas Tax (TDA Transportation)	959,351	946,129	697,000	1,697,000	1,697,000
0052 Gas Tax (RSTP Exchange Funds)	0	0	0	0	0
0055 Congestion Mitigation and Air Quality (CMAQ)	463,715	457,592	0	0	0
0181 Transportation Impact Fees	1,780,671	1,757,159	718,000	2,313,000	2,948,000
0359 Storm Drainage Capital	523,380	524,260	7,500	507,500	507,500
0362 Wastewater Capital	271,674	268,091	7,500	457,500	407,500
0391 Water Capital	635,946	619,764	0	500,000	500,000
TOTAL	\$6,493,798	\$6,228,345	\$2,294,500	\$6,152,000	\$6,924,500

Notice of Exemption

To: ☐ Office of Planning and Research
P.O. Box 3044, Room 212
Sacramento, CA 95812-3044

☒ County Clerk
County of Kings
Kings County Government Center
Hanford, CA 93230

From: City of Hanford – Public Works
900 S. 10th Avenue
Hanford, CA 93230

Project Title: Streets and Roads Maintenance and Reconstruction

Project Location – Existing street rights of way within the Hanford City Limits

Project Location – City: Hanford **Project Location** – County: Kings County

Description of Nature, Purpose and Beneficiaries of Project:

Improvement of City streets for the benefit of the citizens of Hanford and Kings County.

Name of Public Agency Approving Project: City of Hanford

Name of Person or Agency Carrying Out Project: City of Hanford, Public Works Department

Exempt Status: **(check one)**

- ☐ Ministerial (Sec. 21080 (b) (1); 15268);
- ☐ Declared Emergency (Sec. 21080 (b) (3); 15269(a);
- ☐ Emergency Project (Sec. 21080 (b) (4); 15269(b) (c);
- ☒ Categorical Exemption State type and section number: (Sec. 15301 (c));
- ☐ Statutory Exemption. State code number: 15301 Existing Facilities
- ☐ Other (Sec. 1410 (c) Public Resources Code).

Reasons why project is exempt:

Street maintenance and construction within existing City rights of way is exempt per CEQA 15301 (c) – Existing highways and streets, sidewalks, gutter, bicycle and pedestrian trails and similar facilities.

Lead Agency

Contact Person: Lisa Dock Area Code/Telephone: (559) 585-2555

Signature: _____ Date: _____ Title: City Engineer

- ☐ Signed by Lead Agency
 - ☐ Signed by Applicant
- Date received for filing at OPR: _____



AGENDA STAFF REPORT

MEETING DATE: 5/16/2023

AGENDA SECTION: PUBLIC HEARING

SUBJECT:

A Public Hearing to accept comments related to the Approval of the 2023 Community Development Block Grant (CDBG) Action Plan and Adoption of Resolution No. 23-8-R, Authorizing and Approving the proposed 2023-24 Annual Action.

BACKGROUND:

SEE ATTACHED STAFF REPORT

FISCAL IMPACT:

ATTACHMENTS:

1. Staff Report CC-051623 Public Hearing AP23
2. Attachment 1 - CDBG Action Plan 2023-24
3. Attachment 2 Resolution 22-09-R

**CITY OF HANFORD CITY COUNCIL
STAFF REPORT**

MEETING DATE: May 16, 2023

SUBJECT: Public Hearing to Consider the Draft Community Development Block Grant (CDBG) Annual Action Plan for 2023-2024

STAFF RECOMMENDATION

1. Open the public hearing and accept comments about the CDBG proposed 2023-24 Action Plan.
2. Adopt R-23-8 Resolution Authorizing and Approving the proposed 2023-24 Annual Action.

BACKGROUND

The 2019-2023 Consolidated Plan, approved by City Council on May 7, 2019, established a multi-year strategy for using CDBG funds in the community. CDBG funding supports the development of viable urban communities by supporting projects and activities that create or enhance the availability of decent housing, suitable living environments, and expansion of economic opportunities, principally for low- and moderate-income persons. The Annual Action Plan identifies specific projects and activities funded through CDBG each year of the Consolidated Plan. The 2023-24 Annual Plan is an expenditure plan using the upcoming year's CDBG allocation for the specific activities outlined in the Consolidated Plan.

As presented during the Study Session on March 7, 2023. Hanford must adopt the 2023-24 Annual Action Plan to identify projects for the upcoming budget year. The Council directed staff to distribute the budget of \$521,703 to the following projects:

2023-24 ANNUAL ACTION PLAN (ATTACHMENT 1)

Housing Rehabilitation	\$	139,108
Homeless Housing Navigation Center	\$	200,000
Kings County Commission on Aging- Meal Program	\$	48,255
Warming Center	\$	20,000
Kings Tulare COC	\$	10,000
Administration	\$	104,340
Total		\$521,703

“Backup” Projects

The Annual Action Plan contains a list of projects funded for the program year with funding anticipated. However, additional funding may become available during each program year due to program income, projects completed below budget, or projects canceled or delayed for various reasons.

Therefore, a list of affordable housing, public facility, infrastructure improvement projects, and public services (subject to the 15% cap) be included in the Annual Action Plan and approved by the City Council for funding as backup projects. The City may activate these backup projects when funding becomes available. The City receives HUD approval for these backup projects and the approved and funded projects as part of its approval for the Annual Action Plan. Initiation and funding of these projects do not constitute a “substantial amendment,” as defined above.

Preferential consideration will be given to projects that demonstrate the ability to spend CDBG funds on time, consistent with the City’s goal to meet CDBG timeliness rules and projects that meet the community’s needs defined in the Consolidated Plan.

Housing Rehabilitation (additional funding to be added to the total)	\$ 200,000
First-time Homebuyer Assistance	\$ 150,000
Homeless Housing Navigation Center	\$ 200,000
Eligible Public Facility and Improvements	\$ 200,000
Additional funding for Public Service Subrecipients	Subject to 15% CAP

Public Review:

The Action Plan was released for a 30-day public review period on April 10, 2023, with a public notice of availability published in the *Hanford Sentinel* on March 7, 2023, and April 22, 2023. One comment has been received as of the date of preparation of this report. Public comments received before the closing of the comment period on May 11, 2023, will be summarized in the final document.

FISCAL IMPACT

This action is a prerequisite to ensuring the City can receive its anticipated \$521,703 CDBG entitlement funds.

ACTION FOLLOWING APPROVAL

Staff will submit the 2023-24 Annual Action Plan to HUD. Funds will be available upon HUD’s approval of the plan.

City of Hanford

ATTACHMENT 1

Draft 2023-24 Action Plan



CITY OF HANFORD

COMMUNITY DEVELOPMENT BLOCK GRANT

ACTION PLAN

2023-2024



All sources and uses are considered estimates pending HUD finalization of the program year 2023, allocations, and city council adoption.

AP-05 Executive Summary - 24 CFR 91.200(c), 91.220(b)

Introduction:

The City of Hanford (City) is an Entitlement Jurisdiction that receives federal funds from the U.S. Department of Housing and Urban Development (HUD) to invest in local communities. The City gets HUD funding under the Community Development Block Grant (CDBG) Program, designed to assist low- and moderate-income (LMI) households.

The primary objective of the CDBG program is to develop viable communities by providing decent housing, a suitable living environment, and expanded economic opportunities. CDBG grantees can use the resources they receive for Planning and Administration, Public Services, Community and Economic Development, Capital Improvement Projects (CIP), Public Facilities/Infrastructure, and CIP Housing Rehabilitation. Planning and Administration costs include staffing, general management, oversight, and coordination. Public Service projects provide social services and other direct support to individuals and households needing assistance. Community and Economic Development projects focus on assisting businesses and organizations with small business loans and other initiatives. CIP Public Facilities/Infrastructure projects aim to improve public facilities and infrastructure. Finally, CIP Housing Rehabilitation projects are for housing rehabilitation improvements of single and multi-unit housing.

The city anticipates \$521,703 in CDBG funding for FY 2023/2024.

Hanford's 2019/20-2023/24 Consolidated Plan constitutes the City's strategy for addressing its housing and community development needs utilizing federal entitlement funds. The Consolidated Plan includes broad five-year objectives and a method to accomplish these goals—specific identifiable benchmarks for measuring progress in realizing the City's system proposed in the Annual Action Plans.

Objectives and outcome measures identified in the Plan:

The U.S. Department of Housing and Urban Development (HUD) has established three predetermined objectives and outcome measures to capture the range of community impacts from CDBG-funded programs. Each activity or program funded with CDBG must fall under one of three objectives and one of three outcome measures. The framework for selecting these objectives and outcomes is HUD's CPD Outcome Performance Measurement System.

Targeted goals and outcome measure categories are listed below:

Objectives:

- **Create Suitable Living Environments** activities designed to benefit the community, families, or individuals by addressing issues in their living environment, from physical problems with their environment to social issues.
- **Provide Decent Housing** covers a wide range of housing activities where the purpose is to meet individual family or community housing needs.
- **Create Economic Opportunities** applies to economic development, commercial revitalization, or job creation activities.

Outcomes:

- **Availability/Accessibility** applies to activities that make services, infrastructure, public services, public facilities, housing, or shelter available or accessible to low- and moderate-income people, including persons with disabilities.
- **Affordability** applies to activities that provide affordability in numerous ways to low- and moderate-income people and is appropriate to use whenever an activity lowers the cost, improves the quality, or increases the affordability of a product or service benefits a low-income household.
- **Sustainability** applies to activities aimed at improving communities or neighborhoods, helping to make them livable or viable by providing benefits to low- and moderate-income persons or by removing or eliminating slums or blighted areas through multiple activities or services that sustain their communities or neighborhoods.

Hanford's Consolidated Plan Needs Assessment was developed by reviewing Census statistical data and building upon already adopted planning documents, coupled with consultation with housing, homeless, and service providers, City Departments, and the public via community meetings, public hearings, and a Community Needs Assessment Survey. The result was the formation of five areas of priority need, including:

1. Provide decent, affordable housing.
2. Maintain and promote neighborhood preservation.
3. Support special-needs programs and services.
4. Construct or upgrade public facilities and infrastructure.
5. Business and Jobs (Economic Development).

Evaluation of Past Performance:

During the 2022-23 Program Year (PY), the City expended CDBG funds on eligible activities primarily benefiting low- and moderate-income persons. As a result, the City implemented programs to achieve its goals as specified in the Consolidated and Annual Action Plans by using CDBG funds for affordable housing and public services by focusing on the needs of the most vulnerable populations, which included seniors, individuals, and families who were homeless, and those at-risk of becoming homeless.

The City of Hanford, as an Entitlement, is responsible for ensuring compliance with all the rules and regulations associated with the CDBG Program. Hanford's Annual Action Plan and Consolidated Annual Performance Report (CAPER) provide many details about the goals, projects, program expenditures, and performance.

The City has allocated grant funding to the following:

- Housing Rehabilitation
- Stardust Motel/ Sunrise Apartment- multifamily rehabilitation motel conversion
- CSET – Fair Housing
- Kings Tulare Homeless Alliance
- Kings County Commission on Aging
- Pal Building – ADA improvements

Summary of Citizen Participation Process and consultation process:

The city followed its Citizen Participation Plan and HUD's guidelines for citizen and community involvement in preparing the 2023 Annual Action Plan.

All public meetings were notified, as per the Brown Act. In addition, notices included requesting physical accommodations and documents in alternate formats.

The meetings aimed to inform the community about the Action Plan process, identify opportunities to improve collaborative efforts, and eliminate service delivery gaps to develop and sustain decent and affordable housing, suitable living environments, and expanded community and economic opportunities.

The city followed its Citizen Participation Plan and HUD's guidelines for citizen and community involvement in preparing the 2023 Annual Action Plan.

Summary of public comments:

A summary of the comment will be added following the public comment period.

Summary of comments or views not accepted and reasons for not taking them:

All comments will be accepted and taken into consideration.

Summary:

The City of Hanford has undertaken diligent and good-faith efforts to reach all community segments that may benefit from the CDBG programs. The City of Hanford will continue to concentrate its maximum impact and strive to address the needs, priorities, and goals identified in the 2019-2023 Consolidated Plan and the 2023-24 Action Plan.

PR-05 Lead & Responsible Agencies – 91.200(b)

Describe the agency/entity responsible for preparing the Consolidated Plan and those responsible for administering each grant program and funding source.

Agency Role	Name	Department/Agency
CDBG Administrator	Hanford	Community Development Housing

Table 1 – Responsible Agencies

The City of Hanford (City) is the Lead Agency for the United States Department of Housing and Urban Development (HUD) entitlement programs. In addition, the City's Department of Community Development administers the funds it receives under the Community Development Block Grant (CDBG).

Consolidated Plan Public Contact Information:

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AP-10 Consultation – 91.100, 91.200(b), 91.215(l)

Introduction:

Public participation plays a significant role in the development of the Consolidated Plan. The City developed its five-year (2019/20-2023/24) Consolidated Plan through consultation with the Kings County Housing Authority, City departments, health and social service providers, and adjacent local governments. To gain input from housing, homeless, and social service providers active in Hanford, the City provided agencies with a brief survey requesting information on services, priority needs, and service gaps.

Provide a concise summary of the jurisdiction's activities to enhance coordination between public and assisted housing providers and private and governmental health, mental health, and service agencies (91.215(l))

The City reached out to several agencies and worked collaboratively with public officials, City departments, community residents, stakeholders, and beneficiaries of entitlement funds to seek input on the priorities and strategies included in this Action Plan and further strengthen the dialogue between public and assisted housing providers and private and governmental health, mental health and service agencies that receive federal funding. Table #2 contains the agencies consulted and their participation status.

Describe coordination with the Continuum of Care and efforts to address the needs of homeless persons (particularly chronically homeless individuals and families, families with children, veterans, and unaccompanied youth) and persons at risk of homelessness.

The Kings Tulare Homeless Alliance (KTHA), also known as the Continuum of Care, comprises a group of advocates, public agencies, homeless individuals, and service providers to confront the homeless population's needs within the Kings and Tulare County regions. The City of Hanford continues to participate in the monthly Alliance meetings to enhance coordination between organizations, disseminate knowledge on best practices, and develop a more vital understanding of the homeless population's needs within both counties. The Alliance also works to reduce the duplication of such services and improve service delivery to homeless people. The City's Community Development Department regularly attends Alliance meetings. Furthermore, in adherence to the institutional delivery system, the City financially supports the Alliance, recognized as a 501(c)(3) organization of partners. The Alliance implements a coordinated entry and assessment system called *Every Door Open* to serve both counties. The plan aims to help at-risk or current homeless people by prioritizing the most vulnerable, including chronically homeless, veterans, families with children, and unaccompanied minors, to obtain necessary services.

Describe consultation with the Continuum(s) of Care that serves the jurisdiction's area in determining how to allocate ESG funds, develop performance standards for and evaluate outcomes of projects and activities assisted by ESG funds, and develop funding, policies, and procedures for the operation and administration of HMIS.

Not applicable. The City does not receive ESG funding. The Alliance applies on behalf of the applicants.

2. Describe Agencies, groups, organizations, and others who participated in the process and describe the jurisdiction's consultations with housing, social service agencies, and other entities.

Representatives of the following agencies, groups, and organizations contributed to the narratives. Data included in the Consolidated Plan and Action Plan preparation are listed in Table 2 below.

Table 2- Agencies, groups, and organizations that participated.

1	Agency/Group/Organization	Champions Recovery Alternative Programs, Inc.
	Agency/Group/Organization Type	Services-Homeless Services-Health Services-Education Services-Employment Services-Fair Housing
	What section of the Plan was addressed by Consultation?	Substance abuse
	How was the Agency/Group/Organization consulted, and what are the anticipated outcomes of the consultation or areas for improved coordination?	The agency was invited to participate in public hearings and a 30-day review of plans. The anticipated consultation outcome is improved data and planning within the selected sections above.
2	Agency/Group/Organization	Housing Authority of Kings County
	Agency/Group/Organization Type	PHA
	What section of the Plan was addressed by Consultation?	Housing Need Assessment Public Housing Needs
	How was the Agency/Group/Organization consulted, and what are the anticipated outcomes of the consultation or areas for improved coordination?	The agency was invited to participate in public hearings and a 30-day review of plans. The anticipated consultation outcome is improved data and planning within the selected sections above.

3	Agency/Group/Organization	Kings Community Action Organization
	Agency/Group/Organization Type	Housing Services - Housing Services-Children Services-Elderly Persons Services-Persons with Disabilities Services-Persons with HIV/AIDS Services-Victims of Domestic Violence Services-Homeless
	What section of the Plan was addressed by Consultation?	Housing Need Assessment Public Housing Needs Homelessness Strategy Homeless Needs - Chronically homeless Homeless Needs - Families with children Homeless Needs - Veterans Homeless Needs - Unaccompanied youth Non-Homeless Special Needs
	How was the Agency/Group/Organization consulted, and what are the anticipated outcomes of the consultation or areas for improved coordination?	The agency was invited to participate in public hearings and a 30-day review of plans. The anticipated consultation outcome is improved data and planning within the selected sections above.
4	Agency/Group/Organization	Kings Tulare Continuum of Care
	Agency/Group/Organization Type	Services-homeless
	What section of the Plan was addressed by Consultation?	Public Housing Needs Homeless Strategy Homeless Needs - Chronically homeless Homeless Needs - Families with children Homeless Needs - Veterans Homeless Needs - Unaccompanied youth
	How was the Agency/Group/Organization consulted, and what are the anticipated outcomes of the consultation or areas for improved coordination?	The agency was invited to participate in public hearings and a 30-day review of plans. The anticipated consultation outcome is improved data and planning within the selected sections above.

5	Agency/Group/Organization	Federal Communication Commission
	Agency/Group/Organization Type	Other government – Federal
	What section of the Plan was addressed by Consultation?	Broadband Internet Needs
	How was the Agency/Group/Organization consulted, and what are the anticipated outcomes of the consultation or areas for improved coordination?	An Internet search for data related to the broadband internet needs for Hanford City. https://broadbandmap.fcc.gov Information from the Federal Communications Commission addressed HUD's requirement to discuss broadband access and "the digital divide." Refer to Section MA-50.
6.	Agency/Group/Organization	Federal Emergency Management Agency Database and maps to help determine flood-prone areas of Hanford. https://msc.fema.gov/portal/search
	Agency/Group/Organization	COMCAST
	Agency/Group/Organization Type	Business Leaders Major Employer
	What section of the Plan was addressed by Consultation?	Housing Needs Assessment
6.	How was the Agency/Group/Organization consulted, and what are the anticipated outcomes of the consultation or areas for improved coordination?	The City consulted with COMCAST, a broadband ISP, concerning the Internet Essentials program they offer to decrease the digital divide. The program allows low-income households to access affordable high-speed internet without a credit check, contract, or installation fee. In addition, the City is incorporating the distribution of brochures for the Internet Essentials program for all recipients of federal housing assistance.

Identify any Agency Types not consulted and provide a rationale for not consulting.

The city provided information regarding the community forums and public hearings, contacted several different agencies, groups, and organizations, and invited them to participate in preparing the 5-year Consolidated Plan.

The types of other agencies were businesses, educational services, groups, and organizations, employment service providers, fair housing services, health, domestic violence, children, and elderly service providers.

The providers listed below in table #3, were notified and encouraged to provide feedback.

Other local/regional/state/federal planning efforts considered when preparing the Plan.

Table 3 – Other local/regional/federal planning efforts

Name of Plan	Lead Organization	How do the goals of your Strategic Plan overlap with the goals of each plan?
Continuum of Care	City of Hanford	Connecting the Dots is a Ten-Year Plan to prevent and end homelessness in the Kings and Tulare County region. This effort is aligned with the Strategic Plans' goal to support activities that prevent and end homelessness.
San Joaquin Valley Fair Housing and Equity Assessment	California Coalition for Rural Housing	San Joaquin Valley Fair Housing and Equity Assessment
County of Kings Housing Element	City of Hanford	The Housing Element identifies the community's housing needs, goals, and objectives to address those needs and outlines the community's efforts to pursue specific policies and programs to achieve its goals and objectives. The Strategic Plan supports the Housing Elements plan to ensure an adequate supply of affordable housing to meet the current and future needs of the population.

AP-12 Participation – 91.105, 91.200(c)

Summary:

As part of the 2019-2023 Consolidated Plan development, the City undertook a comprehensive outreach program to solicit input from residents and beneficiaries of the entitlement programs and to consult with elected officials, City departments, and various organizations, agencies, and service providers to inform and develop the priorities and strategies.

A public input meeting and public hearing were scheduled to obtain citizen input and respond to questions. In addition, the City of Hanford held a CDBG meeting on March 7, 2023, to receive the community's information and feedback on the needs within Hanford.

A public notice was published on February 25, 2023, for a public meeting on March 7, 2023, a 30-day public comment period, and a public hearing on May 2, 2023. A second notice was published on April 21, 2023. Citizens were informed of the public hearing through the City's social media and website. The public notice included information about the locations where the action plan would be available for review and was published in English and Spanish in *The Hanford Sentinel*, which services the surrounding areas. The public input meeting and the public hearing were held during evening hours at convenient locations accommodating persons with disabilities. The following public and city council meetings were held to review the draft and obtain public comment.

- City Council Public Meeting on March 7, 2023, at 4:00 pm
- City Council Public Hearing on May 2, 2023, at 7:00 pm

A summary of public comments will be provided in the Final Action Plan after the conclusion of the public review period.

A Draft of the Action Plan will be available for public review beginning April 10, 2023, to May 11, 2023.

Table 4- Citizen Participation Outreach

Sort Order	Mode of Outreach	Target of Outreach	Summary of response/ attendance	Summary of comments received	Summary of comments not accepted and reasons	URL (If applicable)
1	Newspaper Ad	Published in the <i>Hanford Sentinel</i> on February 25 th - Public Notice March 7, 2023, meeting for the development of the 2023 Action	See the results of the public meeting	N/A	Two comments were received.	

Sort Order	Mode of Outreach	Target of Outreach	Summary of response/ attendance	Summary of comments received	Summary of comments not accepted and reasons	URL (If applicable)
2	Public Meetings	The Community Development Housing staff held a meeting on 3/7/2023 to solicit public input on community development needs.	<i>Comments to be added</i>	N/A	All comments are welcomed and appreciated	
3	Newspaper Ads 2/25/2023 4/22/2023	Minorities Non-English Speaking-Specify other languages: Spanish Non-targeted/broad community Residents of Public Assisted Housing	Published notice requesting comments during a 30-day comment period leading to the public hearing. <i>Comments to be added</i>	Comments will be updated after a 30-day comment period, and a 2 nd public hearing will occur.	All comments are welcomed and appreciated.	

AP-15 Expected Resources – 91.220(c) (1,2)

Introduction:

The city must still receive notice of its 2023 annual entitlement award through CDBG. However, the city estimates receiving comparable to the prior year's funding level.

The city has planned for the following allocations in the fourth year covering **July 1, 2023, to June 30, 2024.**

- **\$521,703 in CDBG Funds**

For FY 23/24, the city will have \$500,000 in HOME -18 funds from an awarded grant. These funds will be used to meet affordable housing needs. HOME PI results from payments received by the City for First Time Homebuyer Loans made in the past with State HOME grants. An estimated \$1,449,944 in New PI from debt repayment of home loans returned to the First Time Homebuyer Loan Program. This program has been put on hold per direction from the Housing Community Development (HCD) State of California.

The City anticipates that HOME Investment Partnerships Program (HOME) funds will be available to meet the goals of the Consolidated Plan. HOME funding is intended to be used for various housing-related programs and activities. HOME funds are used to address the housing needs of jurisdictions through the preservation or creation of affordable housing.

The City will pursue competitive public and private grants to develop and preserve programs, housing, and services and work to support legislation that promotes funding for future affordable housing during the Consolidated Plan period.

Table 5 - Expected Resources – Priority Table

Explain how federal funds will leverage those additional resources (private, state, and local funds), including how matching requirements will be satisfied.

Program	Source of Funds	Uses of Funds	Expected Amount Available Year 1				Desired Amount Available Remainder of ConPlan	Narrative Description
			Annual Allocation: \$	Program Income: \$	Prior Year Resources: \$	Total: \$		
CDBG	public federal	Acquisition Admin and Planning Economic Development Housing Public Improvements Public Services	\$521,703	0	\$521,703	\$521,703	\$521,703	Entitlement funds allocation plus estimated program income.

Federal funds play a crucial role in implementing the Action Plan. Local private and non-federal funds must be increased to meet our community's heavy demand for housing and services.

Agencies receiving CDBG funds use those funds to get a commitment from other funding sources and increase their stakeholders. This encourages collaboration and partnerships between agencies and enhances the level of services agencies can provide low- and moderate-income residents.

If appropriate, describe publicly owned land or property located within the jurisdiction that may be used to address the needs identified in the plan.

Discussion:

The City of Hanford does not currently have land considerably viable for the needs and uses identified in the plan. However, there is plenty of land for these purposes, as described below.

The Regional Housing Needs Assessment (RHNA) is part of the statewide mandate to address housing issues related to future growth in a region. State housing element law assigns the responsibility for preparing the RHNA for the Kings County region. Kings County Association of Governments (KKAG) and other California councils of governments (COGs) undertake the RHNA process before the housing element cycle.

The City Planning Department lists lands available for development in its sites inventory list. However, it is still being determined as to who will develop and when development will occur.

DRAFT

AP-20 Annual Goals and Objectives:

Table 6 – Goals Summary Information:

Goal Name	Start Year	End Year	Category	Geographic Area	Needs Addressed	Funding	Goal Outcome Indicator
Provide decent, affordable housing	2023	2023	Affordable Housing	CITY OF HANFORD	To preserve, rehabilitate, and enhance existing conservation and development of affordable housing	CDBG: \$338,000	Homeowner Housing Rehabilitated: 10
Support special needs programs and services	2023	2024	Homeless Non-Homeless Special Needs	CITY OF HANFORD	Provide support services for the City's residents	CDBG: \$78,255	Public service activities for Low/Moderate Income Housing Benefit: Households Assisted 34 Homelessness Prevention: 255 Persons Assisted

Goal Descriptions:

Table 7 – Goals Summary:

1	Goal Name	Provide decent, affordable housing
	Goal Description	The production, conservation, and development of affordable housing opportunities
2	Goal Name	Maintain and promote neighborhood preservation
	Goal Description	To preserve, rehabilitate, and enhance existing neighborhoods and infrastructure.
3	Goal Name	Support special needs programs and services
	Goal Description	Provide support services for the City's residents.

DRAFT

AP-35 Projects – 91.220(d)

Introduction:

The city plans to undertake the following CDBG-funded activities during the Fiscal Year 2023/24 to address its priority housing and community development needs. All proposed activities are eligible and meet program service targets. With a CDBG budget of \$521,703, the City of Hanford allocated \$78,255 for public services, representing 15% of the CDBG entitlement. Therefore, this Annual Action Plan proposes to give the following to 2023/24 two-year grant public service providers: Homeless Alliance (\$10,000); Kings Commission on Aging (\$48,255); and new in 2023 Warming Center (\$20,000 new project).

Project Summary:

Table 8 - Project Information:

#	Project Name
1	Emergency/Minor Repair Housing Rehabilitation
2	Stardust Apartments/ Housing Rehabilitation Multi
3	Public Service/ Fair Housing Education
4	Public Service /Kings Tulare Homeless Alliance (COC)
5	Public Service/ Warming Center
6	Administration and Planning

“Backup” Projects:

Back-up Projects - The Annual Action Plan contains a list of projects funded for the program year with anticipated funding. However, additional funding may become available during each program year due to program income, projects completed below budget, or projects canceled or delayed for various reasons. Therefore, the Annual Action Plan includes a list of affordable housing, public facility, infrastructure improvement projects, and public services (subject to the 15% cap) and approved by the City Council for funding as “backup projects.” The City may activate these backup projects when funding becomes available.

The City receives HUD approval for these backup projects and the approved and funded projects as part of its approval for the Annual Action Plan. Therefore, initiation and funding of these projects do not constitute a “substantial amendment,” as defined above.

Preferential consideration will be given to projects that demonstrate the ability to spend CDBG funds on time, consistent with the City’s goal to meet CDBG timeliness rules and projects that meet the community’s needs, as defined in the Consolidated Plan.

Back-up Projects List:

- Additional funding for Primary List Public Service Subrecipients (Subject to 15% Cap)
- First-time homebuyers: \$150,000
- Housing Rehabilitation: \$200,000
- Homeless Navigation Center \$200,000
- Public Facility and Improvements \$200,000

Describe the reasons for allocation priorities and any obstacles to addressing underserved needs:

All program activities funded with the City's CDBG funds will benefit low- to moderate-income people. The priority of each category was based on the identified needs expressed during the consultation and citizen-participation process. In addition, priorities were determined by information gathered from the Census, a market study, and existing community documents, including the City of Hanford's 2016 Housing Element.

The primary obstacle to addressing underserved needs is the lack of funding. The City relies on CDBG Entitlement funds, program income, and any state funds it can apply to carry out the programs identified in this Action Plan.

The above projects and their allocations were selected primarily because they were identified as a higher need in the City's Consolidated Plan.

AP-38 Projects:

Table 9 – Project Summary:

1	Project Name	Housing Rehabilitation – Emergency Repair
	Target Area	To preserve and rehabilitate existing Housing. Conservation and development of affordable housing
	Goals Supported	Affordable Housing
	Needs Addressed	Rehabilitation of existing housing in Hanford with loans and grants to maintain single and multifamily affordable housing.
	Funding	\$139,108
	Description	Rehabilitation of existing housing in Hanford with loans and grants to maintain single and multifamily affordable housing.
	Target Date	City of Hanford Limits

	Estimate the number and type of families benefitting from the proposed activities.	An estimated nine (9) very low - to moderate-income households will benefit from this activity.
	Location Description	Scattered sites throughout the City of Hanford.
	Planned Activities	The City of Hanford will continue to offer the Emergency Repair Program. Through this program, qualifying residents are offered financing for emergency home repairs. The program provides up to \$15,000 per household. Repairs include but are not limited to roof repair or replacement, water meter replacements, heating and air repair or replacement, painting of the exterior, and accessibility modifications.
2	Project Name	Homeless Navigation Center
	Target Area	CITY OF HANFORD
	Goals Supported	Increase and Improve the Supply of Affordable Housing
	Needs Addressed	Housing
	Funding	CDBG: \$200,000
	Description	The joint-use building would house a kitchen, foodbank, navigation center, and low-barrier emergency shelter. The foodbank and 75% of the facility, while the remaining 25% would be used as a shelter and navigation center.
	Target Date	12/30/2024
	Estimate the number and type of families benefitting from the proposed activities.	<i>Information will be updated before the approval of the final draft.</i>
	Location Description	<i>Location to be determined.</i>

	Planned Activities	<i>Information will be updated before the approval of the final draft.</i>
3	Project Name	Kings County Commission on Aging – Home Delivery Meal Program
	Target Area	The City of Hanford and unincorporated areas
	Goals Supported	Support special needs programs and services.
	Needs Addressed	Provide Support for
	Funding	CDBG: \$48,255 for year two of the award
	Description	The program will deliver meals to homebound elders & disabled persons in the city and unincorporated areas who are homebound and unable to go out or cook meals themselves. Kings County Commission on Aging provides food services for seniors that otherwise would be limited in their eating and nutrition abilities.
	Target Date	6/30/2024
	Estimate the number and type of families benefitting from the proposed activities.	CDBG funding will provide an estimated 6,391 meals.
	Location Description	City of Hanford
	Planned Activities	Public Service
4	Project Name	Warming Center
	Target Area	CITY OF HANFORD
	Goals Supported	Affordable Housing
	Needs Addressed	Affordable Housing
	Funding	CDBG: \$20,000 – <i>Information will be updated before the approval of the final draft.</i>
	Description	CDBG funds will assist in operating the warming center

	Target Date	6/30/2024
	Estimate the number and type of families benefitting from the proposed activities.	<i>Information will be updated before the approval of the final draft.</i>
	Location Description	Citywide
	Planned Activities	<i>Information will be updated before the approval of the final draft.</i>
5	Project Name	Public Services –Kings Tulare Homeless Alliance KTHA/Continuum of Care (COC)
	Target Area	CITY OF HANFORD
	Goals Supported	Homelessness
	Needs Addressed	Homeless Shelters and Services
	Funding	CDBG: \$10,000 – two-year grant contingent on funding
	Description	Kings Tulare Homeless Alliance (KTHA) will hold an ongoing Local Initiatives Navigation Center (LINC) in Hanford. LINC will connect the homeless and persons at risk of homelessness with critical services such as health and dental care, employment assistance, housing assistance, legal services, social services, and access to mainstream benefits. They will also provide consumables and services to homeless clients (including prescription eyeglasses, bus passes, DMV reduced-fee ID cards, sleeping bags, laundry cards, hygiene kits, and food).
	Target Date	6/30/2024
	Estimate the number and type of families that will benefit from the proposed activities	An estimated 250 very low-to-moderate persons will benefit from this activity.
	Location Description	City Wide

7	Planned Activities	The KTHA, also known as the Continuum of Care, is a non-profit organization that partners with several area agencies to address the homeless needs in Hanford. CDBG funds will be used to help fund various activities, including, but not limited to, the Annual Project Homeless Connect and the Point in Time census.
	Project Name	Administration and Planning
	Target Area	CITY OF HANFORD
	Goals Supported	Provide decent, affordable housing. Maintain and promote neighborhood preservation. Support special needs programs and services.
	Needs Addressed	To preserve, rehabilitate, and enhance existing housing. Neighborhood/Facility Preservation Provide support services for the City's residents— conservation and development of affordable housing, Economic and Employment Opportunities.
	Funding	CDBG: \$104,340
	Description	The City of Hanford will utilize up to 20% of the CDBG FY2023/2024 budget to provide administration and oversight and hire a consultant to assist staff with developing the Action Plan for the City's CDBG Program.
	Target Date	6/30/2024
	Estimate the number and type of families that will benefit from the proposed activities	not applicable
	Location Description	Citywide
	Planned Activities	Program Administration

AP-50 Geographic Distribution – 91.220(f)

Description of the geographic areas of the entitlement (including areas of low-income and minority concentration) where assistance will be directed.

Table 10 - Geographic Distribution:

Target Area	Percentage of Funds
City of Hanford	80

The rationale for the priorities for allocating investments geographically.

The City will use a place-based strategy during the planning period. The geographic distribution of funding is predicated on the nature of the activity to be funded. The City intends to support activities in the areas most directly affected by the needs of low-income residents and those with other special needs. The Annual Action Plan directs investment geographically to an area-benefit neighborhood. The area-benefit category is the most used national objective for activities that benefit a residential community. An area-benefit activity helps all residents in a particular area where at least 51% are low- and moderate-income persons. Public infrastructure improvements are an area-benefit activity in a predominately quiet- or moderate-income neighborhood.

Discussion:

The Low-and Moderate-Income Concentration Census Tract Map utilized for the 2023 Action Plan is based on the Low-and-Moderate-Income Summary Data (LMISD).

AP-55 Affordable Housing – 91.220(g)

Introduction:

Although limited entitlement resources are limited, the city anticipates spending a significant portion of its CDBG entitlement on preserving and providing affordable housing. A detailed discussion of how HUD entitlements will be used to support community and economic development needs within the City is provided in AP-35, with the number of households to be assisted itemized by the goal.

The City received funding from the PLHA Grant Program to develop affordable owner-occupied homes and provide secondary financing for Idlewood infill lots and Parkside projects. Also, assist with the development of Northstar Apartments, an affordable multifamily project serving low- to very low-income households to include permanent supportive housing units. In addition, the City provided funds for the Sunrise Apartments project to assist in renovating the Stardust Motel and partnered with Kings/Tulare Homeless Alliance to provide permanent housing for low- to very-low-income residents.

Table 11- One Year Goals for Affordable Housing by Support Requirement:

One-Year Goals for the Number of Households to be Supported	
Homeless	0
Non-Homeless	0
Special-Needs	0
Total	0

Table 12 - One Year Goals for Affordable Housing by Support Type:

One-Year Goals for the Number of Households Supported Through	
Rental Assistance	0
The Production of New Units	
Rehab of Existing Units	30
Acquisition of Existing Units	0
Total	30

Discussion:

Traditionally, the City has allocated CDBG federal funding to homeowner rehabilitation, preserving existing housing stock, and helping income-eligible first-time homebuyers.

AP-60 Public Housing – 91.220(h)

Introduction:

This section describes the city's actions in the given program year to carry out the public housing portion of the Strategic Plan. In addition, the section will identify how its plan will address the needs of public housing during the program year. For example, suppose the public housing agency is designated as troubled by HUD or performing poorly.

Actions planned during the next year to address the needs to public housing.

The City of Hanford does not own public housing. However, the City collaborates closely with Kings County Housing Authority to provide shared accommodation within the City. Hanford will continue to work independently and closely with the HA and local nonprofits to assist low-income families. In addition, as population demographics continue to change, the City will continue to work with the county housing authority and local (and regional) nonprofits to develop public housing projects in Hanford and provide the

following Section 8 assistance:

- *Housing Choice Voucher Program*. HCV is the County's Section 8 voucher program, including other programs and services available to HA participants, such as Moving to Work.
- *Moving to Work*. Moving to Work (MTW) is a demonstration program supported by HUD created to accomplish three (3) goals: 1) promote self-sufficiency among assisted families; 2) achieve program efficiency and reduce costs; and 3) increase housing choice for low-income households.

Actions to encourage public housing residents to become more involved in the management and participate in homeownership.

Kings County Housing Authority (KCHA) encourages resident involvement through various methods, focusing on self-sufficiency and enhancing the quality of one's own life. KCHA connects residents and participants to services, activities, and other organizations that promote that vision. Neighborhood Network Centers (including public computer centers) and community partnerships for residents to utilize. On the Kings County Housing Authority website, residents can locate relevant services and service providers in the dedicated "resident" and "resident services" sections. Additionally, Kings County Housing Authority provides newsletters and reports about the status of its programs and residents for current and future participants.

If the PHA is designated as troubled, describe how financial assistance will be provided or other assistance.

KINGS COUNTY HOUSING AUTHORITY is not designated as "troubled."

Discussion:

N/A

AP-65 Homeless and Other Special Needs Activities – 91.220(i)

Describe the jurisdiction's one-year goals and actions for reducing and ending homelessness.

Introduction:

The City of Hanford (City) is closely involved with the Kings/Tulare Homeless Alliance (Alliance), which serves as the local Continuum of Care for Homelessness (CoC). The City's programs, designed to help homeless persons, are coordinated with the Alliance when possible.

There are several ongoing efforts that the City and Alliance are involved in as collaborative partners, including:

- Monthly Alliance Membership Meetings
- Kings Task Force on Homelessness
- Homeless Services Partnerships Meetings
- Emergency Shelter/Bridge Housing Project
- Local Initiatives Navigation Center (LINC)

Reaching out to homeless persons (especially unsheltered) and assessing their needs.

This section describes the City's one-year goals and the specific action steps it will undertake in the program year to carry out the homeless strategy outlined in the SP-60 Homelessness Strategy. The city will partner with Kings Tulare Homeless Alliance and Kings Community Action Organization (KCAO) to accomplish one-year goals and objectives. It will also describe the jurisdiction's one-year goals and specify the activities it will undertake to serve the housing and supportive services needs of non-homeless populations who require supportive housing. In addition, the City will fund its Emergency Repair programs to assist non-homeless people who require supportive housing.

Addressing the emergency shelter and transitional housing needs of homeless persons

The City of Hanford supports and collaborates with local service providers to assist homeless individuals and families through the Alliance.

The Alliance has implemented *Every Door Open*, a coordinated entry and assessment system serving Kings/Tulare counties. This system assists individuals and families at risk of or experiencing homelessness within the region. Clients seeking assistance can access the system through any provider. Upon submittal and completion of the Kings/Tulare Housing Assistance application, staff/case managers complete a needs assessment to determine the appropriate level of services within 72 hours. Using the

Needs Assessment tool, each applicant is evaluated on various criteria, including rental history, criminal history, domestic violence, mental health challenges, disabling conditions, language barriers, educational attainment, employment status, and length of homelessness. Services are then assigned based on the client-level determination. The coordinated intake and assessment system is a best practice for prioritizing the homeless and most vulnerable people, including people who are chronically homeless, families with children, veterans, and unaccompanied youth.

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

All programs within the Homeless Alliance — emergency, transitional, and permanent housing— including support services for their clients. Each program designs and implements supportive services based on its target population and partnerships leveraged within the community. The supportive services aim to link individuals and families with mainstream benefits, income support, education, employment, and health and life skills services. These linkages are critical in assisting clients in self-sufficiency, reducing episodes of homelessness, and preventing recidivism. Programs that serve these vulnerable subpopulations include:

- Champions, Cornerstone, KCAO, and Kings County Behavioral Health— PSH programs for chronically homeless individuals, families, and families with children.
- Westcare— Rapid Re-housing and Homeless Prevention for veterans and their families through the SSVF program.
- Aspiranet— Transitional housing program for youth ages 18-24.
- The Salvation Army— Rapid Re-housing and Homeless Prevention services for homeless individuals and families.

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

One of the primary goals for the Homeless Alliance and the City of Hanford is increasing access to housing for chronically homeless individuals and families, veterans, persons with disabilities, and youth. Obtaining permanent housing for these individuals and families will shorten the time spent in emergency shelters and transitional housing.

The City of Hanford will continue facilitating new permanent-housing beds by partnering with the Alliance to provide leadership and technical assistance to agencies interested in developing homeless housing units. This will be accomplished by partnering with existing, under-utilized, and new programs to promote set-aside units for these target populations.

The supportive services aim to link individuals and families with mainstream benefits, income support, education, employment, and health and life skills services. These linkages are a critical component in assisting clients in self-sufficiency, reducing episodes of homelessness,

AP-75 Barriers to affordable housing – 91.220(j)

Introduction:

The City's 2016 Housing Element includes an analysis of potential and actual governmental constraints on the maintenance, improvement, or development of housing for all income levels, including land-use controls, building codes and their enforcement, site improvements, fees, and other exactions required of developers, and local processing and permits procedures.

Actions it planned to remove or ameliorate the negative effects of public policies that serve as barriers to affordable housing such as land use controls, tax policies affecting land, zoning ordinances, building codes, fees, growth limitations, and policies affecting the return on residential investment.

Providing affordable housing and supporting existing and new affordable housing is critical to ensuring all households have access to quality housing. The City of Hanford is committed to removing or reducing barriers to affordable housing, producing diverse housing types. It has adequate land to support the projected housing needs of lower-income households.

According to the City's 2016 Housing Element, market factors and government regulations can significantly impact the cost of new housing. Although market factors are beyond the influence of local governments, Kings County jurisdictions can continue to implement responsive programs to mitigate the impact of market conditions and governmental regulations.

GOAL 3. Remove or mitigate potential governmental constraints to the extent feasible and appropriate to housing production, maintenance, improvement, and affordability.

Policy 3.1. Offer regulatory and financial incentives, as available and appropriate, to encourage quality housing construction.

Policy 3.2. Review local ordinances and building regulations periodically to ensure they do not impede housing investment.

Policy 3.3. Utilize planned developments and other creative mechanisms to facilitate the construction of more innovative, well-designed housing projects.

Policy 3.4. Ensure that developments are processed efficiently to minimize holding costs and comply with the Permit Streamlining Act.

Discussion:

Providing affordable housing opportunities and maintaining Hanford's existing housing stock are high priorities in Hanford. The City's strategies to remove barriers to affordable housing include the following:

First Time Home Buyers Assistance Program- Hanford's First Time Home Buyers Assistance Program is used to help low-income households purchase their first homes by providing government assistance with down payments, gap financing, and closing costs on their home. This is one approach to alleviating the number of residents needing affordable housing rental units, allowing them to have a place to call home. The City of Hanford plans to continue this program with past entitlement and prior PI funds next year. Additionally, the City has been awarded HOME grants funds and HOME PI funds.

Governmental barriers to producing housing are minimal; land use regulations, expedited permit processing, and low development fees push for the construction of lower-cost housing units compared to other Central Valley Communities. A further discussion can be read below:

- **Residential Density** – Hanford allows up to thirty dwelling units per acre residential densities.
- **Zoning and Parking Standards** - These standards are not highly stringent. Hence, the minimum single-family lot size is enough to persuade developers to build single-family units for LMI first-time home buyers. In addition, most residential zones allow for alternative housing types, such as mobile homes, group homes, and secondary dwelling units.

AP-85 Other Actions – 91.220(k)

Introduction:

This section will describe the City's planned actions to carry out the following strategies outlined in the Consolidated Plan:

- Foster and maintain affordable housing;
- Evaluate and reduce lead-based paint hazards.
- Reduce the number of poverty-level families.
- Develop institutional structure; and
- Enhance coordination.

In addition, the city will identify obstacles to meeting underserved needs and propose actions to overcome those obstacles.

Actions planned to address obstacles to meeting underserved needs.

The City's strategies to address obstacles to meeting underserved needs include, but are not limited to, providing information and education about the City's programs to the public through forums, workshops, and a continued partnership with nonprofit agencies that provide services to the underserved population; and to leverage their programs and projects with CDBG funding to the greatest extent possible.

Actions planned to foster and maintain affordable housing.

Providing affordable housing opportunities and maintaining Hanford's existing housing stock are high priorities in Hanford. The City's strategies to promote and sustain affordable housing include:

- Implementing a first-time homebuyer program to assist low- to moderate-income persons with financing to ensure their housing costs are within their affordability range.
- Implementing an owner-occupied rehabilitation program to assist low-income homeowners in preserving their homes.
- Implement ongoing code enforcement services.
- Continue to support applications to HCD for rental new construction projects that target low-to-moderate income families.

Actions planned to reduce lead-based paint hazards.

The City's strategies to reduce the presence of lead-based paint include the following:

- Implementing the lead-based paint regulations of 24 CFR Part 92 in all federally assisted City housing programs.
- Enforcing federal laws through the permit process and code enforcement services requires contractors to be certified (if they are doing work that disturbs paint surfaces).
- Providing *Renovate-Right* pamphlets to homeowners, homebuyers, and contractors.
- Offering housing-rehabilitation loans and grants to qualifying households to remove/remedy lead-based paint.
- Refer individuals affected by lead-based paint to their doctors or the Kings County Health Department nurse.

Actions planned to reduce the number of poverty-level families.

The City will continue its efforts to improve the quality of housing in Hanford, promote safe, decent accommodation for Hanford residents, and support public-services agencies targeting poverty-level families.

The City's strategies are as follows:

- Continue to partner with KCAO, Kings-Tulare Continuum of Care, and other agencies providing services to homeless and low-income persons without access. Funding has been allocated in this Action Plan for homeless prevention services.
- Continue to promote new construction rental activities targeted at lower-income households.
- Continue to fund revitalization programs, such as housing rehabilitation and emergency-repair programs, improving housing conditions for low- to moderate-income homeowners who could not afford to finance the repairs.
- The city will continue to work closely with and support the community service providers in meeting the needs of its homeless and low- and moderate-income populations. Further, the city will continue to evaluate its delivery system and those of the agencies it works with to see if improvements can be made.
- The City anticipates that at least twelve (12) households will qualify for the purchase of a home under the City's First Time Low-Income Homebuyer Program funded with HOME or CalHome funds.

Actions planned to develop an institutional structure.

The primary gap in the institutional structure and service delivery system is the lack of funding to meet all service needs of the special needs and homeless population. The strategy to address these needs has been an aggressive push to acquire additional resources. The city will continue pursuing other state and federal funding to close the gap.

Actions planned to enhance coordination between public and private housing and social service agencies.

The City of Hanford maintains a list of the area’s public- and private-housing social services agencies and will include these agencies in developing the Consolidated and Action Plans, notifying them of funding through the City’s public services NOFA.

Discussion:

See the sections above.

AP-90 Program Specific Requirements – 91.220(l) (1,2,4)

Introduction:

Projects planned with all CDBG funds expected to be available during the year are identified in the Table. In addition, the following identifies program income available for use included in projects to be conducted.

Community Development Block Grant Program (CDBG) Reference 24 CFR 91.220(l)(1)

1. The total amount of program income that will have been received before the start of the following program year and that has not yet been reprogrammed	0
2. The number of proceeds from section 108 loan guarantees will be used during the year to address the priority needs and specific objectives identified in the grantee’s strategic plan.	0
3. The number of surplus funds from urban renewal settlements	0
4. The amount of any grant funds returned to the line of credit for which the planned use has not been included in a prior statement or plan	0
5. The amount of income from float-funded activities	0
Total Program Income:	0

Other CDBG Requirements:

1. The number of urgent needs activities	0
2. The estimated percentage of CDBG funds for activities that benefit low- and moderate-income persons will be used. Overall Benefit - A consecutive period of one, two, or three years may determine that a minimum overall benefit of 70% of CDBG funds is used to benefit persons of low and moderate-income. Specify the years covered that include this Annual Action Plan.	100.00%

Attachments

Citizen Participation Comments:

Public comments received will be summarized in the final document.

No comments were received.

CDBG MAPS

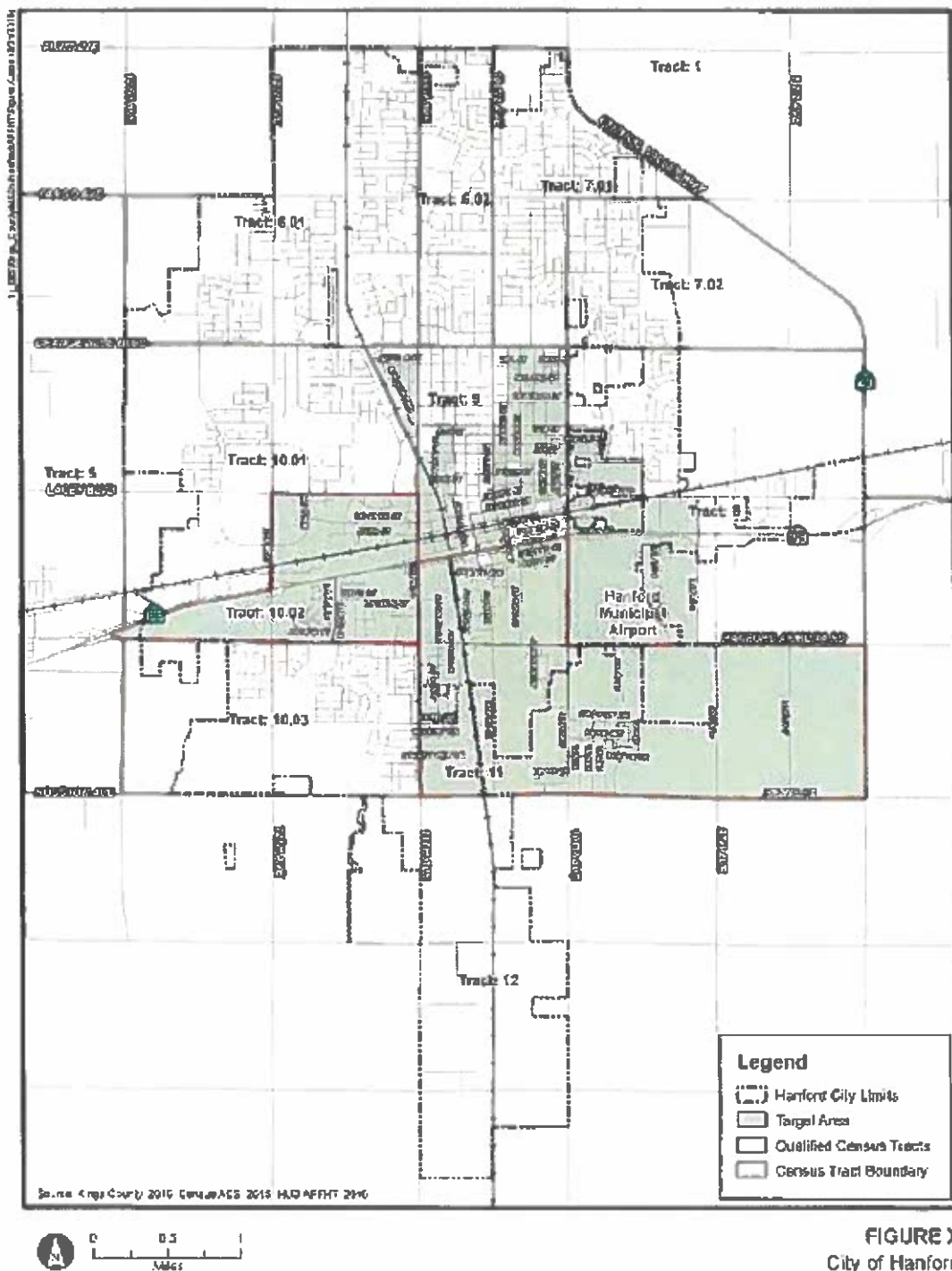


FIGURE X
City of Hanford

Michael Baker
INTERNATIONAL

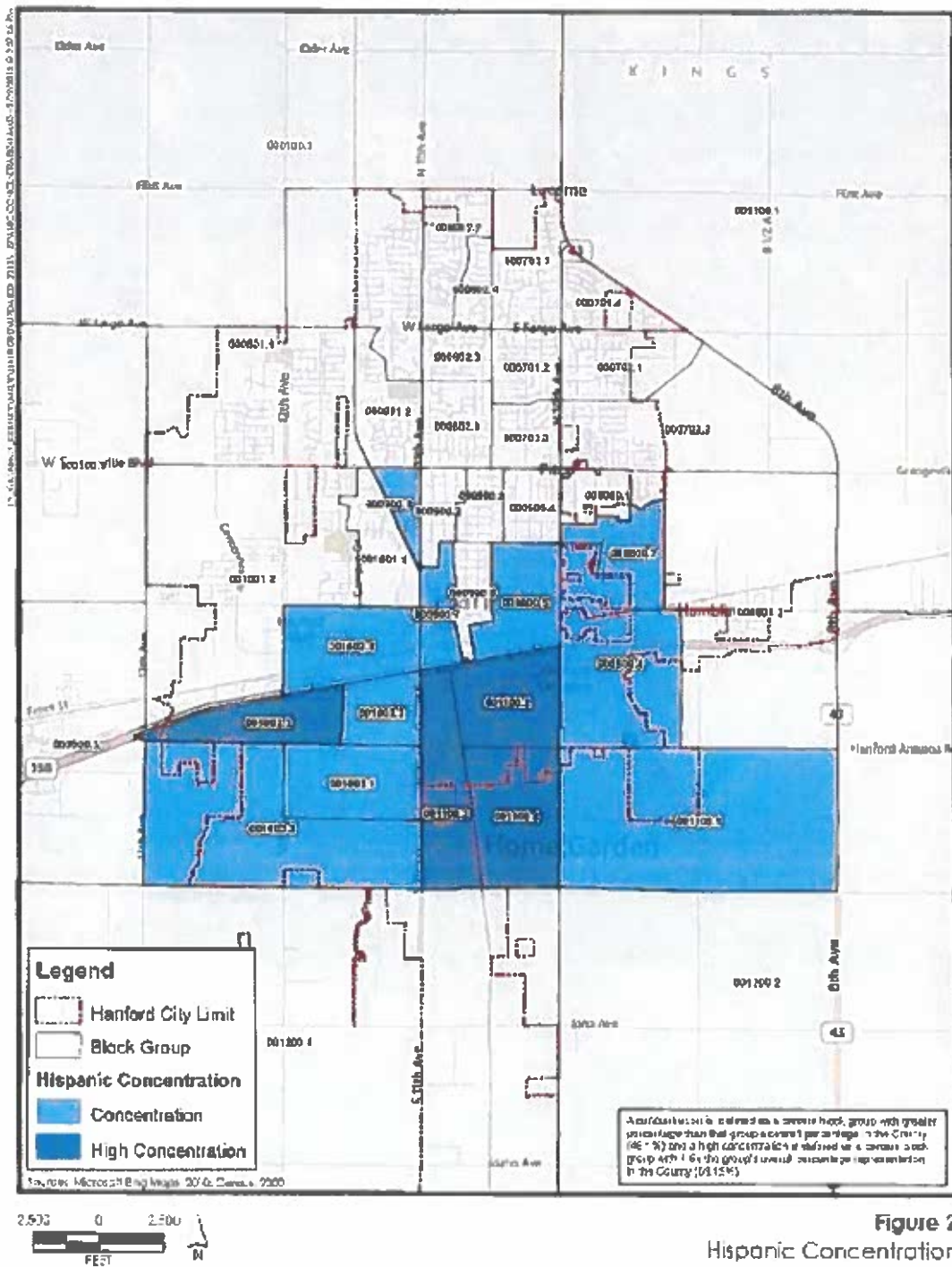
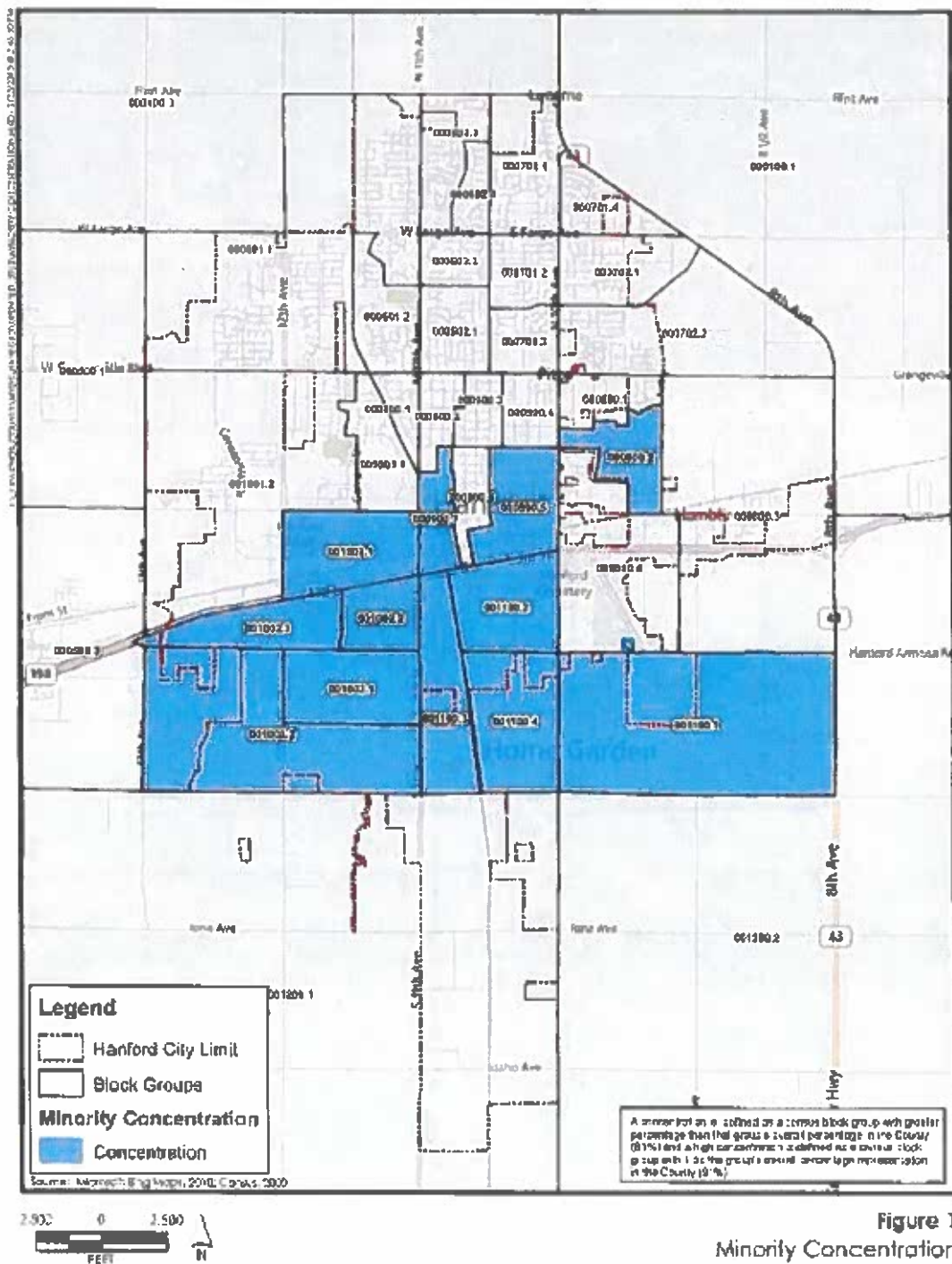


Figure 2
Hispanic Concentration
PMC



Grantee SF-424 and Certification(s)

To be included in the final document

City of Hanford

ATTACHMENT 2

Resolution 22-09-R Community Development Action Plan Year 2023-24

ATTACHMENT 2

RESOLUTION NO. 23-09-R

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF HANFORD APPROVING THE COMMUNITY DEVELOPMENT BLOCK GRANT ACTION PLAN FOR THE ACTION PLAN YEAR 2023-24

At a regular meeting of the City Council of the City of Hanford duly called and held May 2, 2023, upon motion of Council Member _____, and seconded by Council Member _____, and carried, the following resolution was adopted:

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

WHEREAS, the City of Hanford should receive \$521,703 in CDBG Entitlement Funds in Program Year 2023-24; and

WHEREAS, the \$521,703 in annual funds are to be used to benefit low- to moderate-income households and neighborhoods in the elimination or prevention of slum and blight for such programs as housing rehabilitation, affordable homeownership assistance, neighborhood improvement, community services, as well as community development activities, such as the construction or rehabilitation of community infrastructure and facilities and economic development; and

WHEREAS, under the provisions of the Housing and Community Development Act of 1974, as amended, the thirty-day review period for the Action Plan for the program year 2023-24 will expire on May 11, 2023, and all comments received shall be incorporated in the final document. .

NOW, THEREFORE, BE IT RESOLVED that the City Council adopt the Community Development Block Grant Action Plan from July 1, 2023, to June 30, 2024.

Passed and adopted at a regular meeting of the City Council of the City of Hanford duly called and held on the 2nd day of May 2023 by the following vote:

I HEREBY CERTIFY that the foregoing Resolution was passed and adopted by the Council of the City of Hanford at a special meeting thereof held on May 2, 2023, by the following vote:

AYES: _____
NOES: _____
ABSTAIN: _____
ABSENT: _____

APPROVED: _____
Travis Paden
MAYOR of the City of Hanford

ATTEST: _____
Natalie Corral
CITY CLERK

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

I, Natalie Corral, City Clerk of the City of Hanford, certify that the foregoing Resolution was duly passed and adopted at a regular meeting of the City Council of the City of Hanford on the 2nd day of May 2023.

Date: _____

City Clerk



AGENDA STAFF REPORT

MEETING DATE: 5/16/2023	AGENDA SECTION: PUBLIC HEARING
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SUBJECT:

Public hearing to accept comments related to the adoption of Resolution No. 23-13-R, under the Tax and Equity Fiscal Responsibility Act ("TEFRA") in connection with the proposed issuance of revenue bonds by the California Municipal Finance Authority (the "CMFA"), a joint exercise of powers authority and public entity of the State of California, in an amount not to exceed \$40,000,000, (the "Bonds"), a portion of the proceeds of the Bonds (approximately \$7,000,000) will be used to construct an approximately 15,000 square foot health center at 939 South 12th Avenue in Hanford, California, containing approximately 24 medical exam rooms and ten dental rooms (the "Project").

BACKGROUND:

See attached staff report.

FISCAL IMPACT:

ATTACHMENTS:

1. Family Healthcare Network Staff Report
2. TEFRAResolutionHanford 051623

**CITY OF HANFORD CITY COUNCIL
STAFF REPORT**

MEETING DATE: Tuesday, May 16, 2023

SUBJECT: Conduit financing for Family Healthcare Network

STAFF RECOMMENDATION

SUMMARY:

Conduct a public hearing under the Tax and Equity Fiscal Responsibility Act (“TEFRA”) on May 16, 2023, in connection with the proposed issuance of revenue bonds by the California Municipal Finance Authority (the “CMFA”), a joint exercise of powers authority and public entity of the State of California, in an amount not to exceed \$40,000,000, (the “Bonds”), a portion of the proceeds of the Bonds (approximately \$7,000,000) will be used to construct an approximately 15,000 square foot health center at 939 South 12th Avenue in Hanford, California, containing approximately 24 medical exam rooms and ten dental rooms (the “Project”).

Adopt a resolution to approve the financing of the Project by the CMFA.

Recommendations

- 1) Conduct the public hearing under the requirements of TEFRA and the Internal Revenue Code of 1986, as amended (the “Code”).
- 2) Adopt resolution 23-13-R approving the issuance of the Bonds by the CMFA for the benefit of Family HealthCare Network to provide for the financing of the Project; such adoption is solely to satisfy the requirements of TEFRA, the Code, and the California Government Code Section 6500 (and follow).

BACKGROUND

Family HealthCare Network, a California nonprofit, public benefit corporation and an organization described in section 501(c)(3) of the Internal Revenue Code of 1986 (“FHCN”), has requested that the CMFA serve as the municipal issuer of the Bonds in an aggregate principal amount not to exceed \$40,000,000 (the “Bonds”). A portion of the proceeds of the Bonds (approximately \$7,000,000) will be used to construct an approximately 15,000-square-foot health center at 939 South 12th Avenue in Hanford, California, containing approximately 24 medical exam rooms and ten dental rooms.

For all or a portion of the Bonds to qualify as tax-exempt bonds, the City of Hanford must conduct a public hearing (the “TEFRA Hearing”) providing for the members of the community an opportunity to speak in favor of or against the use of tax-exempt bonds for the financing of the Project. Before such TEFRA Hearing, reasonable notice must be provided to the community members. Following the close of the TEFRA Hearing, an “applicable elected representative” of the governmental unit hosting the Project must provide its approval of the issuance of the Bonds for the financing of the Project.

CALIFORNIA MUNICIPAL FINANCE AUTHORITY:

The CMFA was created on January 1, 2004, under a joint exercise of powers agreement to promote economic, cultural, and community development through financing economic development and charitable activities throughout California. Over 350 municipalities, including the City of Hanford, have become members of CMFA. The city became a member of the CMFA on December 15, 2015.

The CMFA was formed to assist local governments, non-profit organizations, and businesses with issuing taxable and tax-exempt bonds to improve California's standard of living. The CMFA's representatives and its Board of Directors have considerable experience in bond financing.

FISCAL IMPACT:

The Bonds to be issued by the CMFA for the Project will be the sole responsibility of the Borrower, and the City will have no financial, legal, or moral obligation, liability, or responsibility for the Project or the repayment of the Bonds for the financing of the Project. All financing documents for the issuance of the Bonds will contain clear disclaimers that the Bonds are not the obligations of the City or the State of California but are to be paid for solely from funds provided by the Borrower.

The Board of Directors of the California Foundation for Stronger Communities, a California non-profit public benefit corporation (the "Foundation"), acts as the Board of Directors for the CMFA. Through its conduit issuance activities, the CMFA shares a portion of the issuance fees it receives with its member communities and donates a portion of these fees to the Foundation to support local charities. Concerning the City of Hanford, it is expected that the CMFA will grant a portion of the issuance fee attributable to the City to the general fund of the City. Such a grant may be used for any lawful purpose of the city.

SUMMARY:

Considering the foregoing, and to support affordable housing, staff recommend that the city conduct the TEFRA Hearing and adopt resolution 23-13-R in favor of the issuance of the Bonds by the CMFA.

CITY OF HANFORD**RESOLUTION NO. 23-13-R****RESOLUTION OF THE CITY COUNCIL OF THE CITY OF HANFORD
APPROVING THE ISSUANCE OF REVENUE BONDS BY THE CALIFORNIA
MUNICIPAL FINANCE AUTHORITY IN AN AGGREGATE PRINCIPAL AMOUNT
NOT TO EXCEED \$40,000,000 TO FINANCE THE ACQUISITION,
CONSTRUCTION, IMPROVEMENT, AND EQUIPPING OF HEALTH FACILITIES
FOR FAMILY HEALTHCARE NETWORK, AND CERTAIN OTHER MATTERS
RELATING THERETO**

RESOLVED, by the City Council (the "Council") of the City of Hanford (the "City"), as follows:

WHEREAS, Family HealthCare Network, a California nonprofit, public benefit corporation and an organization described in section 501(c)(3) of the Internal Revenue Code of 1986 ("FHCN"), has requested that the California Municipal Finance Authority (the "Authority") participate in the issuance of one or more series of revenue bonds in an aggregate principal amount not to exceed \$40,000,000 (the "Bonds"). A portion of the proceeds of the Bonds (approximately \$7,000,000) will be used to construct an approximately 15,000-square-foot health center at 939 South 12th Avenue in Hanford, California, containing approximately 24 medical exam rooms and ten dental rooms.

WHEREAS, pursuant to section 147(f) of the Internal Revenue Code of 1986 (the "Code"), the issuance of the Bonds by the Authority must be approved by the City because the Project is located within the territorial limits of the City;

WHEREAS, the Council is the elected legislative body of the City and is one of the "applicable elected representatives" required to approve the issuance of the Bonds under Section 147(f) of the Code;

WHEREAS, the Authority has requested that the Council approve the issuance of the Bonds by the Authority to satisfy the public approval requirement of section 147(f) of the Code and the requirements of Section 4 of the Joint Exercise of Powers Agreement Relating to the California Municipal Finance Authority, dated as of January 1, 2004, (the "Agreement"), among certain local agencies, including the City; and

WHEREAS, pursuant to section 147(f) of the Code, the Council has, following notice duly given, held a public hearing regarding the issuance of the Bonds and now desires to approve the issuance of the Bonds by the Authority;

NOW, THEREFORE, it is hereby ORDERED and DETERMINED as follows:

Section 1. The foregoing recitals are true and correct.

Section 2. The Council hereby approves the issuance of the Bonds by the Authority. It is the purpose and intent of the Council that this resolution constitutes approval of the issuance of the Bonds by the Authority for (a) section 147(f) of the Code by the applicable elected

representative of the governmental unit having jurisdiction over the area in which the Project is located, in accordance with said section 147(f) and (b) Section 4 of the Agreement.

Section 3. The officers of the City are hereby authorized and directed, jointly and severally, to do any things and to execute and deliver any documents which they deem necessary or advisable to carry out, give effect to, and comply with the terms and intent of this resolution and the financing transaction approved hereby.

Section 4. This resolution shall take effect immediately upon its adoption.

* * * * *

I, the undersigned, hereby certify that the foregoing Resolution was duly and regularly adopted and passed by the City Council of the City of Hanford in a regular meeting assembled on the 16th day of _____, 2023, by the following vote:

PASSED, APPROVED, AND ADOPTED this day ____ of _____, 2019 by the following vote:

AYES: _____

NOES: _____

ABSTAIN: _____

ABSENT: _____

Travis Paden, Mayor of Hanford

ATTEST: _____
Natalie Corral, City Clerk

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

I, Natalie Corral, City Clerk of the City of Hanford, do hereby certify the foregoing Resolution was duly passed and adopted by the City Council of the City of Hanford at a regular meeting thereof held on the 16th day of May, 2023.

Dated: _____, 2023

Natalie Corral, City Clerk



AGENDA STAFF REPORT

MEETING DATE: 5/16/2023

AGENDA SECTION: GENERAL BUSINESS

SUBJECT:

Approval of the City of Hanford Local Road and Safety Plan

RECOMMENDATION:

Recommendation: That the City Council, by motion, approve the attached City of Hanford Local Road and Safety Plan

BACKGROUND:

A Local Roadway Safety Plan (LRSP) is a comprehensive document that outlines strategies and actions to improve traffic, bicycle, and pedestrian safety on local roads.

LRSPs are developed by city and county governments, and are required by state and federal agencies as a condition for many grant applications. The attached LRSP plan analyses data and identifies multiple safety improvement projects in Hanford that are candidates for potential Highway Safety Improvements Program (HSIP) grant funding.

In September 2021, the City was awarded a State of California Local Roadway Safety Plan preparation grant in the amount of \$57,000 for developing an LRSP for the City of Hanford.

On May 3, 2022, Council awarded a contract to 4Creeks Engineering of Hanford for the amount of \$71,861.00 to complete the preparation of a Local Roadway Safety Plan.

The process of preparing an LRSP creates a framework to identify and analyze safety problems, and recommend safety improvements. Preparation of the City's LRSP was accomplished through acquiring and analyzing data, involving stakeholders reviewing the data, selecting emphasis areas, developing safety strategies and countermeasures, and adopting the final plan.

The LRSP has played a critical role in addressing traffic collision risks and has identified specific or unique conditions that contribute to traffic collisions within the city. During the project development, there were two meetings held with the public and stakeholders. The first Stakeholders Meeting was held July 13, 2022. Comments were received and a second Stakeholders Meeting was held November 16, 2022. The LRSP provides the City with the opportunity to proactively correct high collision or problem locations in hopes of preventing local road fatalities and injuries. The final plan includes proven countermeasures, provides a structured and realistic set of responses that implement changes over time, will integrate the "4 E's" approach (Education, Enforcement, Emergency Service, and Engineering) in its proposed solution strategies, and will identify road safety partners that could sustain a long-term effort.

On March 23, 2023, the Parking and Traffic Commission approved the recommendation to City Council to approve the DRAFT LRSP. Attached are the meeting minutes for Council review. The document was posted on the City of Hanford webpage for (30) days with a call for the public to review and comment. The attached draft has been amended based on the comments of the Parking and Traffic Commission, stakeholders and public comments.

FISCAL IMPACT:

The City received grant funding from The Department of Transportation in the amount of \$57,000.00 for Agency Preliminary Engineering for the Local Roadway Safety Plan. The additional city share in the amount of \$14,900.00 was funded through the Transportation Development Act Fund (TDA Fund).

ATTACHMENTS:

1. Hanford LRSP_ Final Draft
2. 3.23.23 Parking and Traffic Minutes



CITY OF HANFORD

LOCAL ROADWAY SAFETY PLAN

PREPARED BY:





DRAFT

CITY OF HANFORD
LOCAL ROADWAY SAFETY PLAN

March 13, 2023

Prepared by: 4Creeks, Inc.



ACKNOWLEDGMENTS

The City of Hanford employees and partners were instrumental in the development, review, and refinement of this Local Roadway Safety Plan. 4Creeks would like to express their appreciation to the supporting staff and partners for their participation and contributions.

City of Hanford

Jennifer Minear, Project Manager

Lisa Dock, City Engineer

Russ Sterling, Deputy Public Works Director/Street Manager

Shawn Dailey, Engineering Technician II

Steve Pendergrass, Fire Chief

Parker Sever, Police Chief

Karl Anderson, Police Captain

4Creeks, Consultant Team

Lisa Wallis-Dutra

Molly Muirhead

Joe Christianson

Maggie Navarrete

STATUTORY NOTICE

STATUTORY NOTICE 23 U.S.C. § 409: US Code - Section 409: Discovery and admission as evidence of certain reports and surveys

Notwithstanding any other provision of law, reports, surveys, schedules, lists, or data compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential accident sites, hazardous roadway conditions, or railway- highway crossings, pursuant to sections 130, 144, and 148 of this title or for the purpose of developing any highway safety construction improvement project which may be implemented utilizing Federal-aid highway funds shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

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(STP) Grants

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Hanford Downtown East Precise Plan (2013)

Engineering And Traffic Survey (2015)

Suggested Route To School Maps

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City Construction Standards And Specifications

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LIST OF ACRONYMS

AASHTO – American Association of State Highway and Transportation Officials

AHSC – Affordable Housing and Sustainable Housing Communities

ATP – Active Transportation Program

BIL – Bipartisan Infrastructure Law

BUILD – Better Utilizing Investments to Leverage Development

Caltrans – California Department of Transportation

City – City of Hanford

CMAQ – Congestion Mitigation and Air Quality

CPUC – California Public Utilities Commission

CRF – Crash Reduction Factor

CTC – California Transportation Commission

DPR – Department of Parks and Recreation

DLA – Division of Local Assistance

EEM – Environmental Enhancement and Mitigation

EPDO – Equivalent Property Damage Only

FHWA – Federal Highway Administration

GIS – Geographic Information System

GPU – General Plan Amendment

HSIP – Highway Safety Improvement Program

HSM – Highway Safety Manual

HVE – High-Visibility Enforcement

INFRA – Infrastructure for Rebuilding America

LPP – Local Partnership Program

LRSM – Local Roadway Safety: A Manual for California's Local Road Owners

LRSP – Local Roadway Safety Plan

NHTSA – National Highway Traffic Safety Administration

OTS – Office of Traffic Safety

PCF – Primary Collision Factor

PDO – Property Damage Only

RAISE – Rebuilding American Infrastructure with Sustainability and Equity

RHCP – Railway-Highway Crossing Program

Safe TREC – Safe Transportation Research & Education Center

SHOPP – State Highway Operation and Protection Program

SHS – State Highway System

SMART – Strengthening Mobility and Revolutionizing Transportation

SS4A – Safe Streets and Roads for All

STBG – Surface Transportation Block Grant

STP – Sustainable Transportation Planning

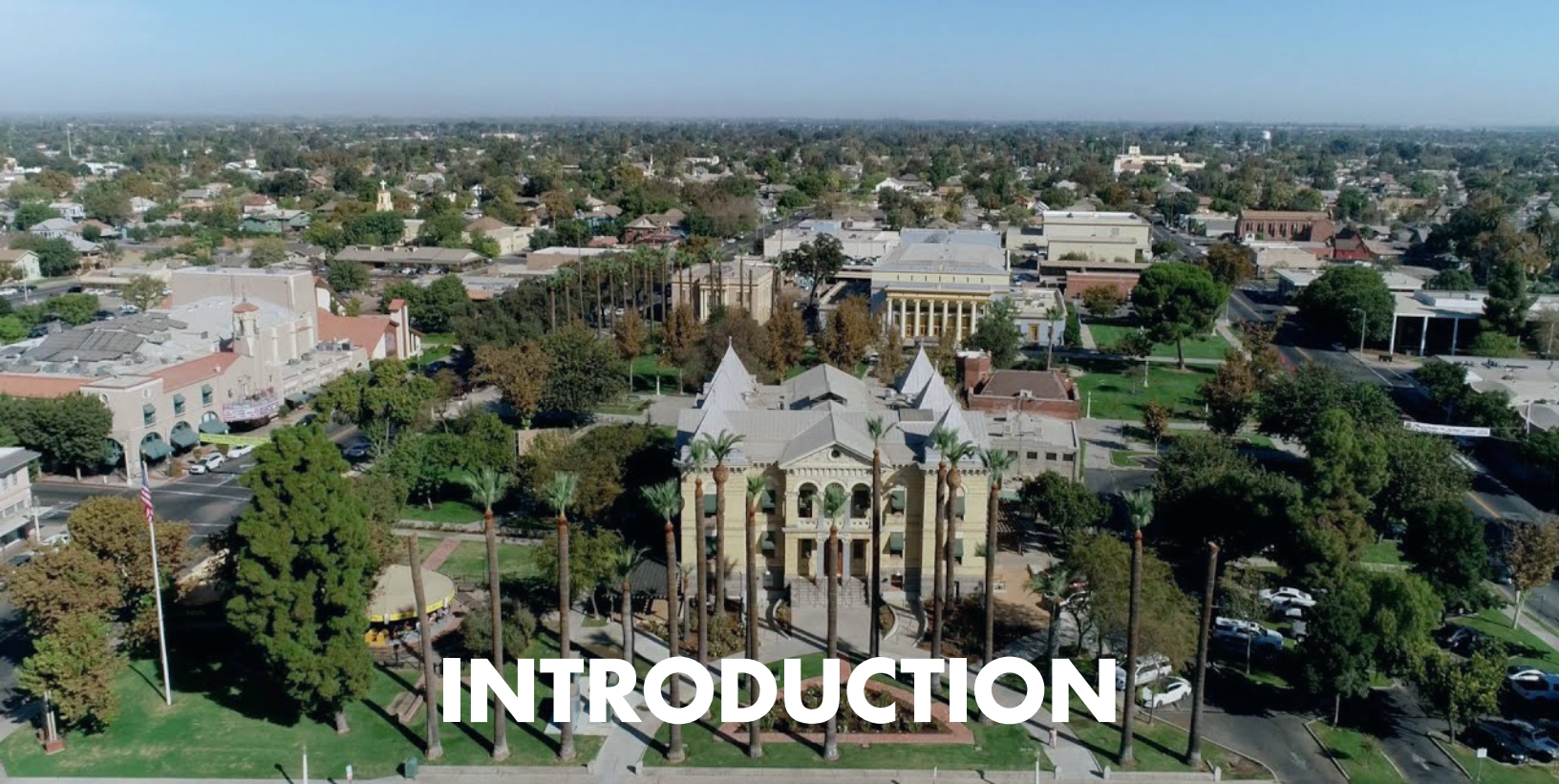
SWITRS – Statewide Integrated Traffic Records System

TCC – Transformative Climate Communities

TIGER – Transportation Investment Generating Economic Recovery

TIMS – Transportation Injury Mapping System

USDOT – United States Department of Transportation



PURPOSE

The City of Hanford (City) is the county seat of Kings County, California, in the south-central San Joaquin Valley with an estimated population of 58,496 residents over a total area of approximately 17.4 square miles¹. For a five-year period from 2015 to 2019, there was a total of 1,669 reported crashes with an average of 12.6 fatal and serious injury crashes per year on City of Hanford roadways. The City is committed to reducing fatalities and serious injury crashes on its streets. In that effort, the City initiated the development of this Local Roadway Safety Plan (LRSP).

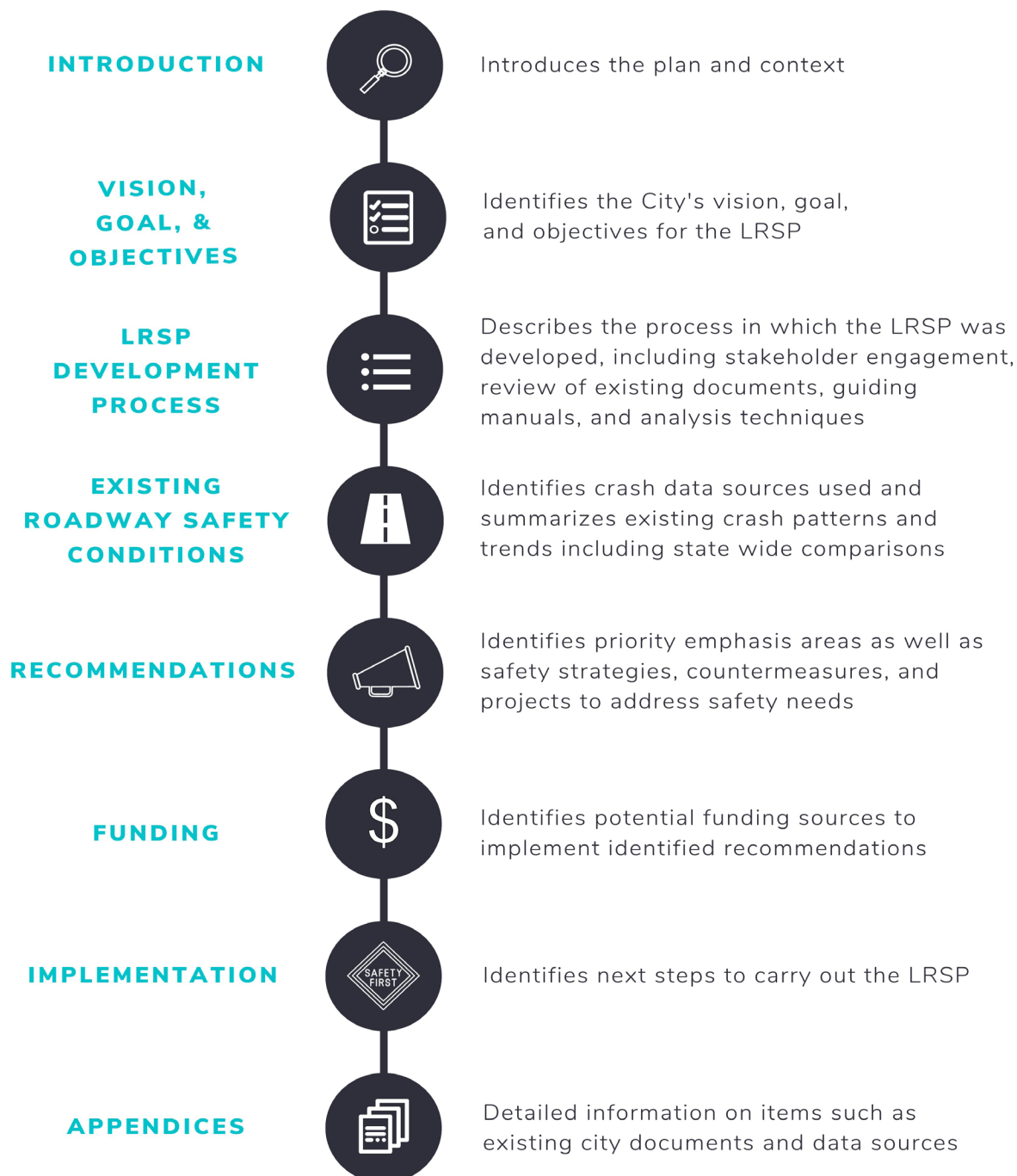
This LRSP is a proactive approach the City has undertaken to address roadway safety with the goal of preventing local roadway fatalities and serious injuries. The process included acquiring and analyzing crash data to identify emphasis areas, as well as “high-risk” intersections and corridors, to address through the development of systemic treatments, safety strategies, and countermeasures to improve roadway safety in the City. This effort included stakeholder input and resulted in prioritized safety improvements for the City. However, this LRSP should be considered a living document to be reviewed and updated as the City continues to work on achieving its goal of reducing fatalities and serious injury crashes.



¹ US Census Bureau (2021). Quick Facts Hanford city, California. Retrieved from <https://www.census.gov/quickfacts/hanfordcitycalifornia>

LRSP ORGANIZATION

THE LRSP IS ORGANIZED INTO THE FOLLOWING SECTIONS:





VISION, GOAL, & OBJECTIVES

Following an initial review of existing plans and policies for the City and discussions with City staff and stakeholders, the following Vision, Goal, and Objectives were established for the LRSP.

VISION: To contribute to California’s vision of reducing fatalities and serious injuries for all road users

GOAL: To reduce fatalities and severe injuries in the City of Hanford by identifying and implementing safety countermeasures

OBJECTIVES:

- Analyze crash data and identify priority locations for safety improvements
- Identify feasible, cost-effective, and systemic safety countermeasures
- Improve pedestrians’ and bicyclists’ safety by implementing proven and effective safety countermeasures
- Continually seek funding for safety improvements
- Ensure prioritization and selection of safety improvements is fair and equitable for all City of Hanford residents
- Continue monitoring crash data and updating the City’s LRSP document and implementation



LRSP DEVELOPMENT PROCESS

DEVELOPMENT OF LRSP

In general, the development of the LRSP includes acquiring and analyzing crash data; identifying and coordinating with stakeholders to review the data; developing the plan vision, goal, and objectives; identifying “high-risk” corridors and intersections; selecting emphasis areas; developing safety strategies and countermeasures; prioritizing safety improvements; preparing the final LRSP; and ultimately evaluating and updating the LRSP.

**The LRSP project timeline
is presented in Figure 1 on
the following page.**

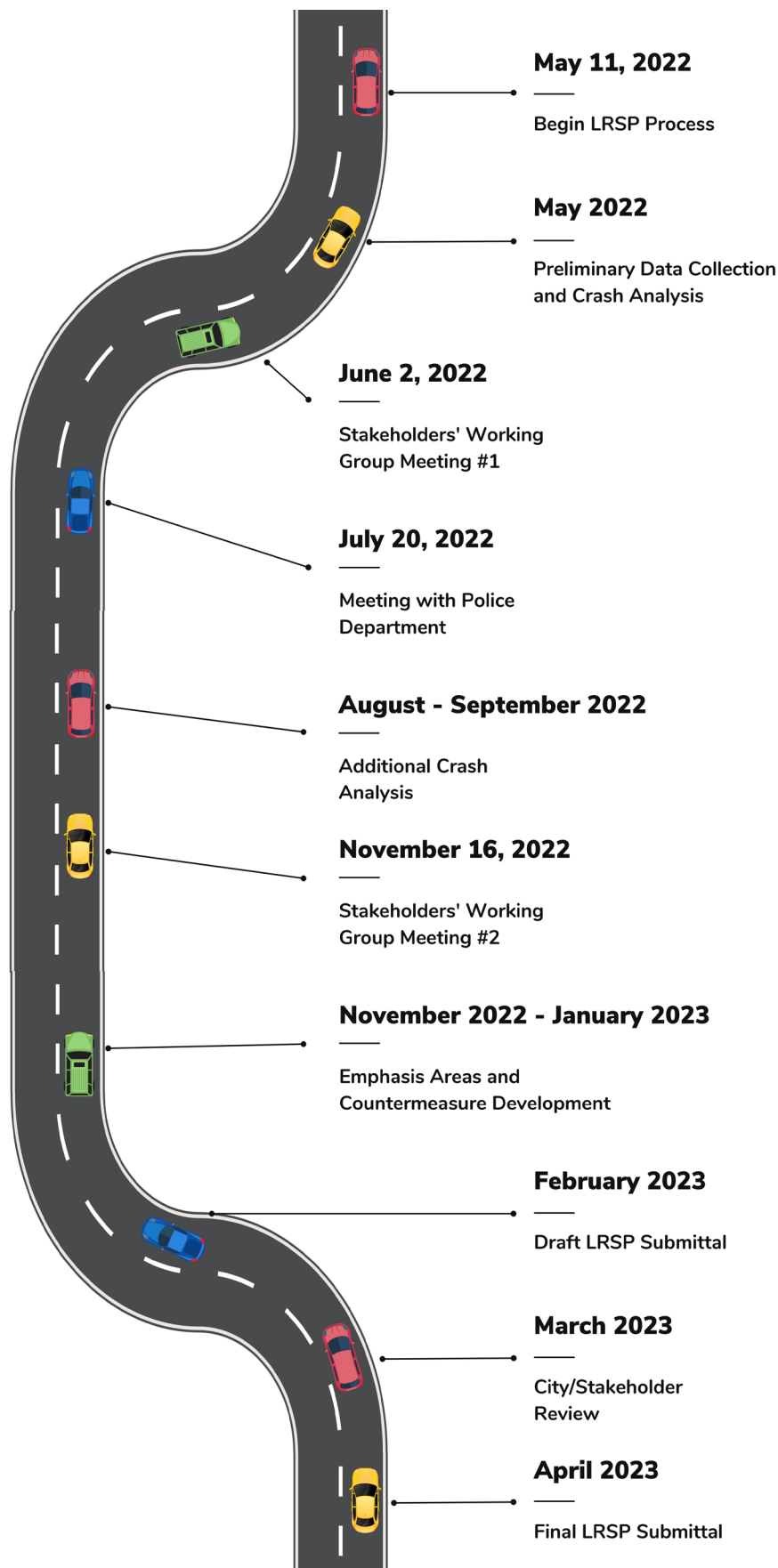


Figure 1

STAKEHOLDER ENGAGEMENT

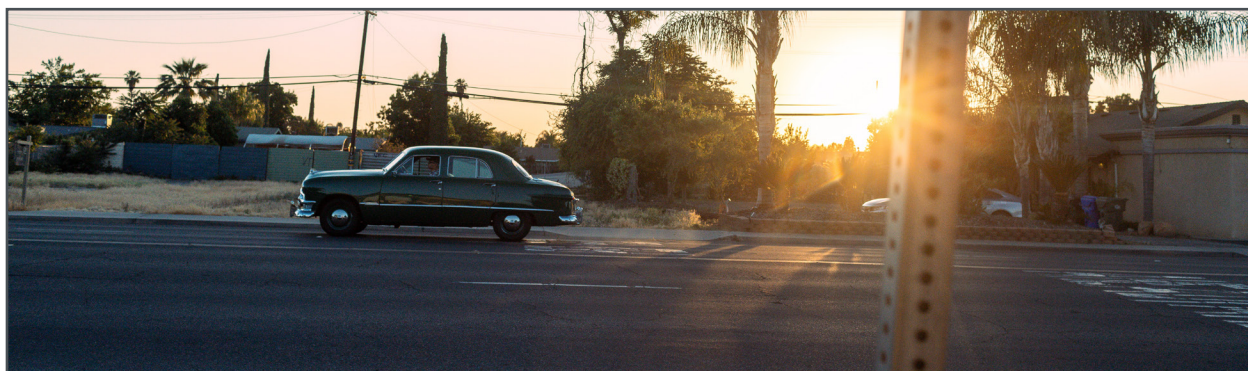
To ensure the community's perspective was considered and remained a priority during the LRSP process, a local stakeholders' working group comprised of City staff and external stakeholders was formed and engaged in the LRSP process. This group was crucial in helping to establish priorities, give local context, and evaluate the analysis. The stakeholders' working group will also be crucial in assisting the City to advance the safety strategies identified in the LRSP. The stakeholders involved in the development of this LRSP include:

- Hanford Administration Department
- Hanford Community Development Department
- Hanford Public Works Department
- Hanford Fire Department
- Hanford Police Department
- Hanford City Parking and Traffic Commission
- Kings County Transit
- Kings County Association of Governments

STAKEHOLDER MEETINGS

The first stakeholders' working group meeting was held on June 2, 2022, at the City Corporation Yard conference room. At this meeting, the group was introduced to the project and given a presentation on what is a LRSP. The group was also presented preliminary collision analysis findings for the City; prepared the draft vision, goal, and objectives of the LRSP; discussed preliminary emphasis areas for the plan; and discussed the City's existing efforts and strategies for current roadway safety measures. The presentation as well as a technical memorandum with all information presented in the meeting was distributed to the stakeholders' working group for further review and comment.

The second stakeholders' working group meeting was held on November 16, 2022, at the same location. The LRSP process was again reviewed for the group. At this meeting, the group finalized and approved the vision, goal, and objectives for the LRSP. Updated collision analysis findings, which included data from Hanford Police Department, was presented. The results of the network screening analysis and "high-risk" intersections and roadway segments were reviewed with the stakeholders, as well as the preliminary emphasis areas and countermeasures. Members of the group provided input and comments for the LRSP.





REVIEW OF EXISTING CITY DOCUMENTS

Existing City documents and relevant projects recently completed or underway were reviewed at the start of the LRSP process to understand existing efforts and to ensure the LRSP vision, goal, and objectives, as well as potential safety strategies, are consistent with existing City policies, programs, and guidelines. The following documents were reviewed:

- City of Hanford 2035 General Plan Update
- Pedestrian and Bicycle Master Plan
- Downtown East Precise Plan
- Engineering and Traffic Survey
- Suggested Route to School Maps
- Capital Improvement Program
- City Construction Standards and Specifications
- Kings County Local Roadway Safety Plan

For detailed information and findings from the existing City documents listed above, please see Appendix A at the end of the LRSP.

GUIDING MANUALS

Guiding manuals for the LRSP process are provided by the Federal Highway Administration (FHWA) and the California Department of Transportation (Caltrans). Both agencies have provided typical frameworks for the LRSP process based on the following guiding manuals.

HIGHWAY SAFETY MANUAL

The American Association of State Highway and Transportation Officials (AASHTO) Highway Safety Manual (HSM) (2010) provides various methods and analytical tools that may be used to quantify the potential effects that planning, engineering, operations, and maintenance decisions may have on crash frequency and severity.

Chapter 4, Network Screening, of the HSM discusses the process of network screening which can be used by a local agency to review their transportation network and identify and rank locations from most likely to least likely to realize a reduction in crash frequency with the implementation of a countermeasure.

Figure 2 identifies the five major steps of the network screening process.

NETWORK SCREENING PROCESS

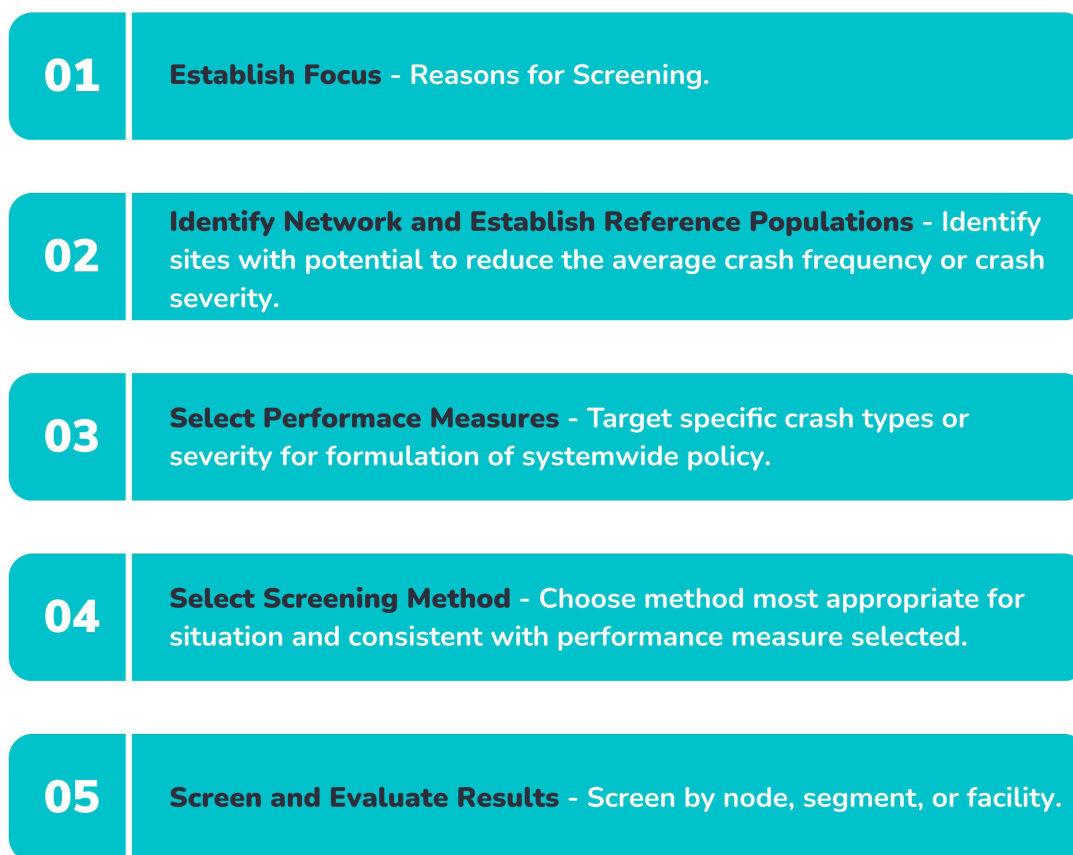


Figure 2

LOCAL ROADWAY SAFETY: A MANUAL FOR CALIFORNIA'S LOCAL ROAD OWNERS

Local Roadway Safety: A Manual for California's Local Road Owners (Version 1.6, April 2022) is created by Caltrans in conjunction with FHWA and the Safe Transportation Research & Education Center (Safe TREC) for the express benefit of California local agencies. By encouraging all local agencies to proactively identify and analyze their safety issues and position themselves to effectively compete for Caltrans' statewide, data-driven project funding opportunities, the agency hopes to maximize the safety advantages for local roadways.



This document's main objective is to offer a simple, all-inclusive framework for the procedures and analytical tools required to locate problematic areas for roadway safety and the suitable solutions. Although it follows the same principles of the HSM, it provides a more streamlined process with specific information related to safety countermeasure selection and project benefit-to-cost ratios for those competing for the statewide, project funding opportunities.

ANALYSIS TECHNIQUES

The HSM provides numerous performance measure analysis techniques; however, the amount of data available may limit the performance measures that can be used. Based on data available at the time, this LRSP used the following three performance measures:

- Number of crashes
- Number of fatal and serious injury crashes
- Equivalent Property Damage Only (EPDO)

CRASH AND NETWORK SCREENING ANALYSIS

The initial screening process categorized the crashes as either intersection or roadway segments. The intersection crashes were further subcategorized as by the intersection control type, either signalized or unsignalized. Roadway segments screened for this LRSP were all categorized as arterials. These screening processes were used to determine those areas that may see more crashes than expected or determine where higher number of specific crash types may occur.

For this LRSP, a short list of locations was identified and approved by the stakeholders on which to focus. These locations were reviewed for various crash factors including:

- **Crash severity** – fatal, serious injury, other visible injury, complaint of pain, and property damage only (PDO)
- **Crash type** – broadside, rear-end, sideswipe, hit object, head on, overturned, and other, as well as pedestrian, and bicycle
- **Driver behavior** – aggressive, distracted, and impaired driving
- **Environmental factors** – day/night, lighting, and wet roads

EQUIVALENT PROPERTY DAMAGE ONLY (EPDO)

The EPDO method assigns weighting factors to crashes by severity to develop a combined property damage only score for each location. An injury crash cost is determined for each location. For this LRSP, these costs were taken from the Local Roadway Safety: A Manual for California's Local Road Owners and are shown in Table 1. This value is then divided by the cost for a property damage only crash. The result then allows the locations to be compared and prioritized based on equivalent number of property damage only crashes.

Severity	Cost	Weight
Fatal & Severe - Signal	\$1,787,000.00	120
Fatal & Severe - Unsignalized	\$2,843,000.00	191
Fatal & Severe - Roadway	\$2,461,000.00	165
Injury	\$159,900.00	11
Complaint of Pain	\$90,900.00	6
PDO	\$14,900.00	1



EXISTING ROADWAY SAFETY CONDITIONS

The results of the crash analysis completed for this LRSP are shown in this chapter. It includes information on the data sources, the analysis results including crash patterns and trends, and identifies “high-risk” intersections and roadway segments. It also includes a comparison of Hanford’s traffic safety statistics with cities of similar-sized populations as indicated by the California Office of Traffic Safety (OTS).

DATA SOURCES

The most recent, available crash data for the City of Hanford was collected from the California Statewide Integrated Traffic Records System (SWITRS) and the Transportation Injury Mapping System (TIMS) for a 5-year period between January 1, 2015 and December 31, 2019. TIMS is a geocoded mapping system of the SWITRS data which is a database of the statewide collision reports. Data from TIMS does not include Property Damage Only (PDO) crashes. PDO data was collected from SWITRS and combined with the TIMS information. In addition, this data was compared to information provided by the Hanford Police Department. Data that appeared to conflict was verified when possible. For instance, when the location description was not identifiable or did not match geocoded data that was provided, it was verified with the Hanford Police Department when possible.

Crash types were also broken into categories of roadway segments or intersections. This information was identified from TIMS and SWITRS which is originally identified in the collision report. This category was compared to the location description and geocoded data for confirmation. Intersections were also classified by signalized or unsignalized control type which was verified in the field. Categories of roadway segments were identified from the City’s 2035 General Plan.



CRASH PATTERNS AND TRENDS

The initial crash analysis considers the combined data of all local roadway crashes to identify crash patterns and trends and “high-risk” corridors and intersections to develop safety strategies and countermeasures, prioritize safety improvements, and select emphasis areas.

CRASHES BY SEVERITY

There was a total of 1,669 total crashes reported in the City of Hanford. See Figure 3 on the following page for locations of crashes by severity. 7 crashes resulted in fatalities, 56 resulted in a severe injury, 288 resulted in other visible injuries, 448 resulted in complaint of pain, and 870 resulted in property damage only (PDO). Figure 4 below shows the percent distribution of crashes by severity.

PERCENT DISTRIBUTION OF CRASHES BY SEVERITY

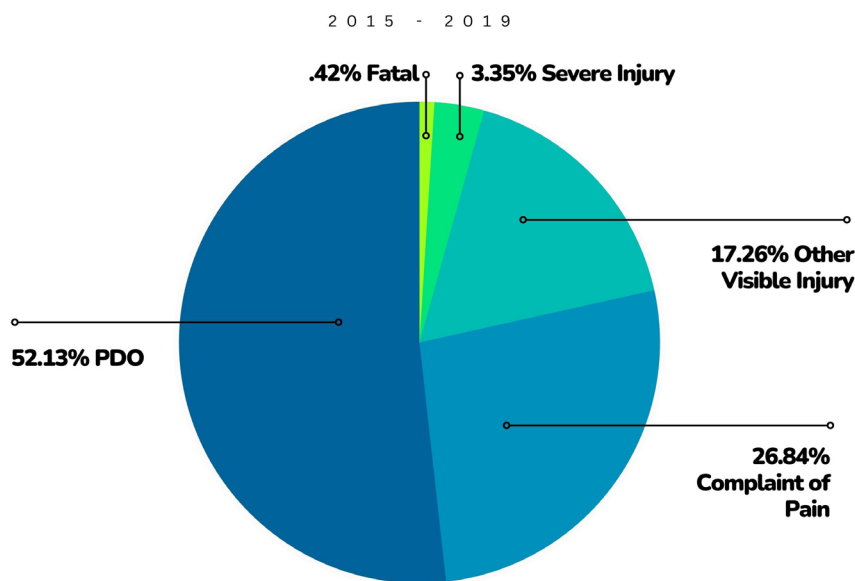


Figure 4

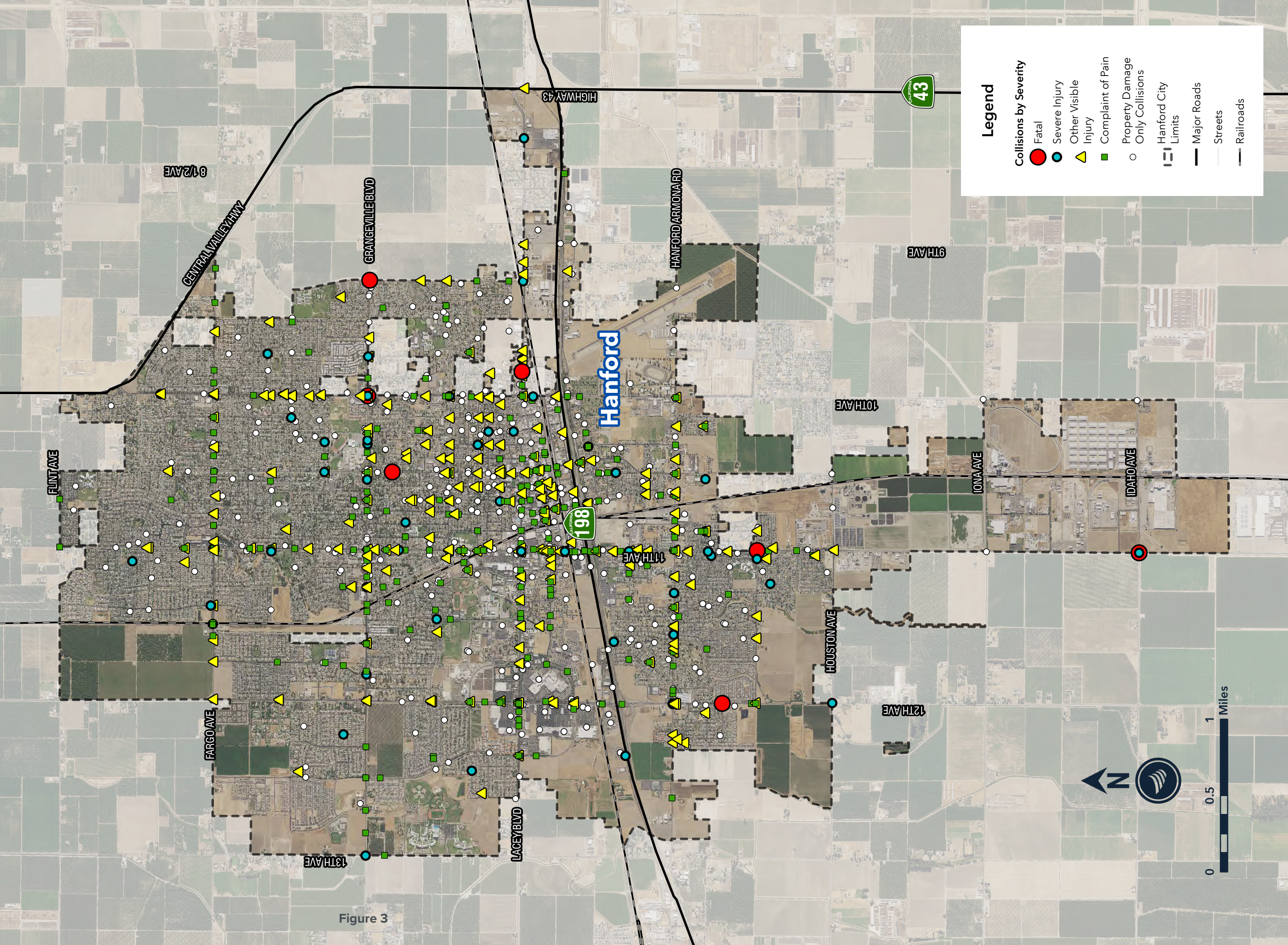


Figure 3



CITY OF
HANFORD

City of Hanford

2015-2019 Traffic Collisions

Figure 3





CRASHES BY TYPE

The number of crashes by type is shown in Figure 5. The analysis shows 642 crashes (38.5%) resulted in broadside, followed by 371 (22.2%) rear-end crashes.

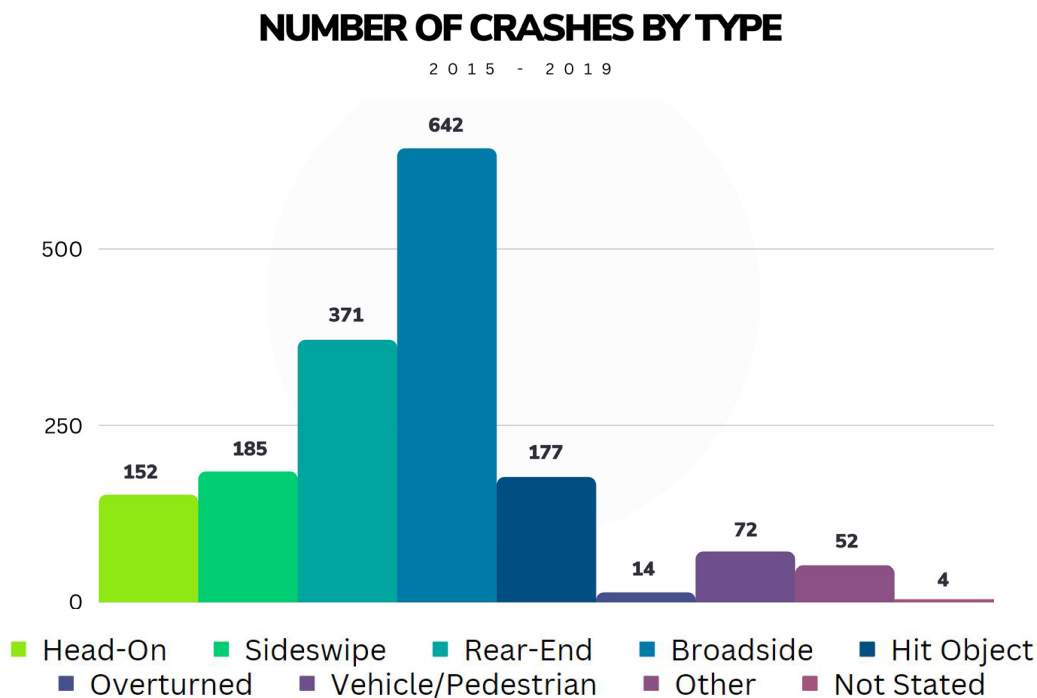


Figure 5

CRASHES BY TIME OF DAY

The number of crashes by time of day is shown in the below Figure 6. The analysis shows 14.5% of crashes occur between 4:00 PM and 6:00 PM, followed by 13.5% occurring between 2:00 PM and 4:00 PM and 12.0% occurring between 12:00 PM and 2:00 PM.

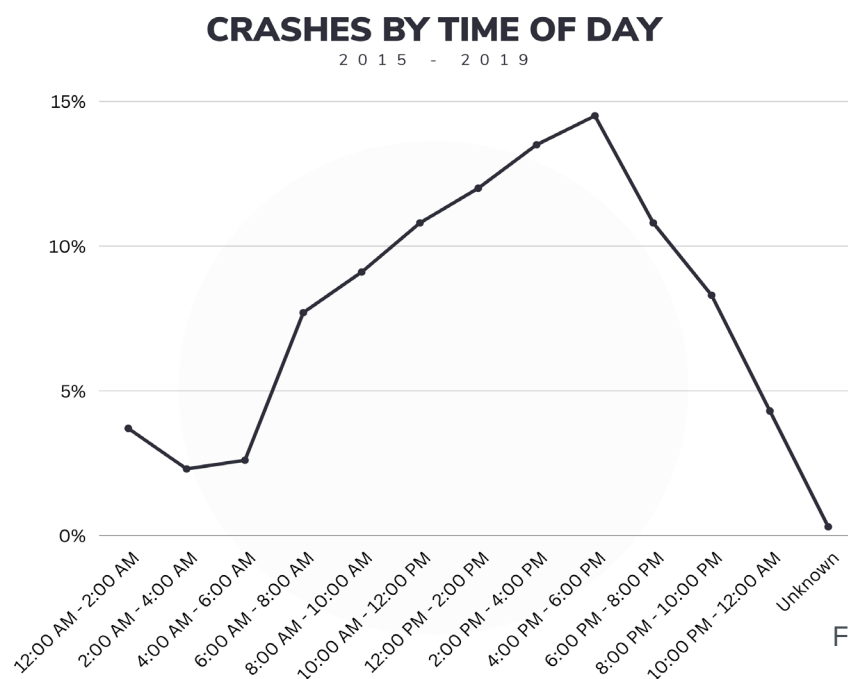


Figure 6



PRIMARY COLLISION FACTORS

The primary collision factor (PCF) is the primary cause of the crash as assigned by the responding or reporting officer. Of the 1,669 crashes in Hanford, automobile right of way violations accounted for 367 crashes (22.0%). This was followed by 355 crashes (21.3%) due to unsafe speed. This was followed by 286 crashes (17.1%) with an improper turning PCF, 233 crashes (14.0%) with a traffic signals and signs PCF, and 173 crashes (10.4%) with a driving or bicycling under the influence of alcohol or drug PCF. The number of crashes by primary collision factor is shown in Figure 7 below.

NUMBER OF CRASHES BY PRIMARY COLLISION FACTOR

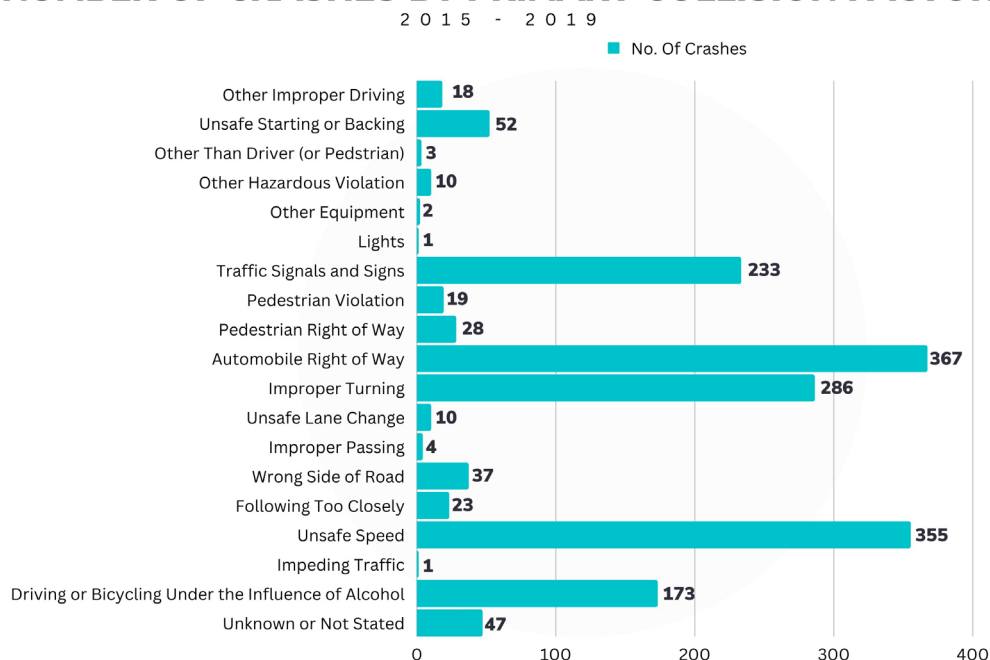


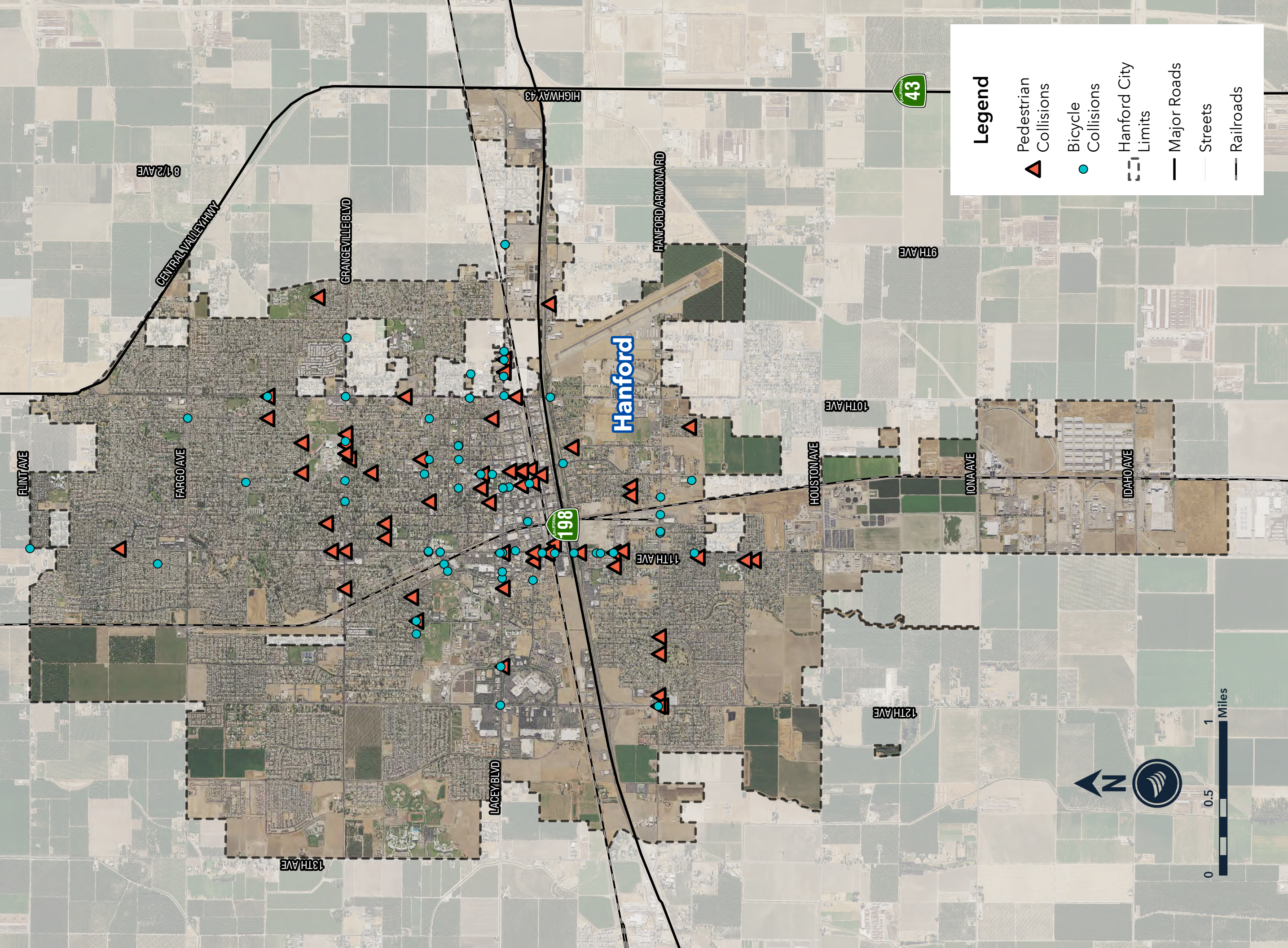
Figure 7

PEDESTRIAN CRASHES

Of the 1,669 crashes in Hanford, 74 (4.4%) involved a pedestrian. See Figure 8 on the following page for pedestrian crash locations. In 24 (32.4%) of those crashes, the pedestrian was crossing in a crosswalk at an intersection. In another 24 (32.4%) of those crashes, the pedestrian was crossing not in a crosswalk. In 14 (18.9%) of those crashes, the pedestrian was in the road, including the shoulder. Figure 9 shows the number of crashes by pedestrian action.

Of the 74 pedestrian crashes, 29 (39.2%) were due to the driver's failure to yield the right of way to the pedestrian at a marked or unmarked crosswalk. In 10 (13.5%) of the pedestrian crashes, the pedestrian failed to yield right of way to vehicles when crossing outside of a marked or unmarked crosswalk.

Also of the 74 pedestrian crashes, 39 (52.7%) occurred during the daylight, one (1.4%) occurred at dusk or dawn, 29 (39.2%) occurred during dark where there were streetlights, and five (6.8%) occurred during dark where there were no streetlights.



City of Hanford

2015-2019 Pedestrian and Bicycle Collisions

Figure 8





Most of the pedestrian crashes, 70 (94.6%) occurred when the weather was clear, one (1.4%) occurred when it was cloudy, and three (4.1%) occurred when it was raining.

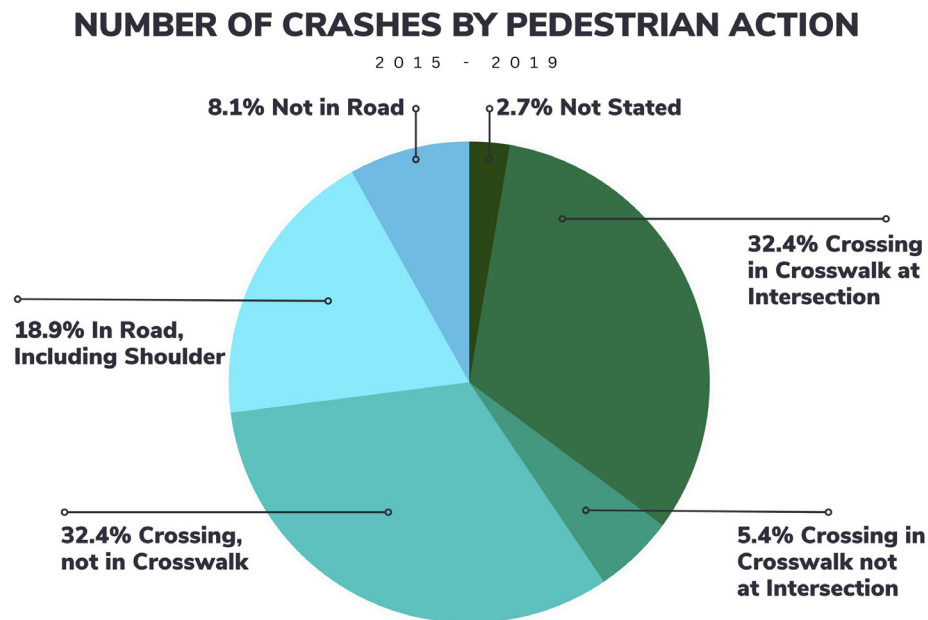


Figure 9

BICYCLE CRASHES

Of the 1,669 crashes in Hanford, 67 (4.0%) involved a bicyclist. See Figure 8 for bicycle crash locations. Although there were no fatalities of the bicycle crashes, eight (11.9%) resulted in a severe injury. Other visible injuries occurred in 34 (50.7%) of the bicycle crashes, and 22 (32.8%) of the bicycle crashes resulted in complaint of pain injuries. Figure 10 shows the number of bicycle crashes by severity.

Of the 67 crashes involving a bicyclist, the PCF for 26 (38.8%) of them were wrong side of road, followed by 13 (19.4%) that were automobile right of way, and 10 (14.9%) that were traffic signals and signs.

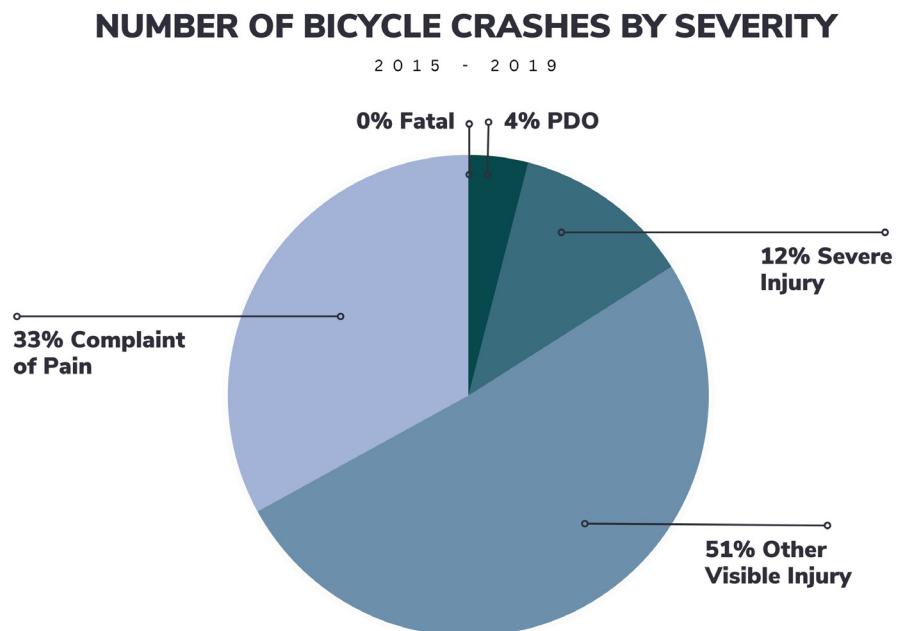


Figure 10



HIGH-RISK LOCATIONS

In analyzing the crashes, “high-risk” intersections and roadway segments were identified. “High-risk” locations do not mean unsafe locations. An LRSP is a proactive process to improve safety; therefore, these locations are those that may benefit the most from improvements.

The crash data was analyzed to determine how many crashes occurred at intersections as compared to roadway segments. Of the City’s 1,669 crashes, 1,102 (66%) occurred at intersections while 501 (30%) occurred on roadway segments. Of the data analyzed, 66 crash reports (4%) did not state if the crash occurred at an intersection or roadway segment. Figure 11 below shows the percent distribution of crashes that occurred at intersections vs. roadway segments.

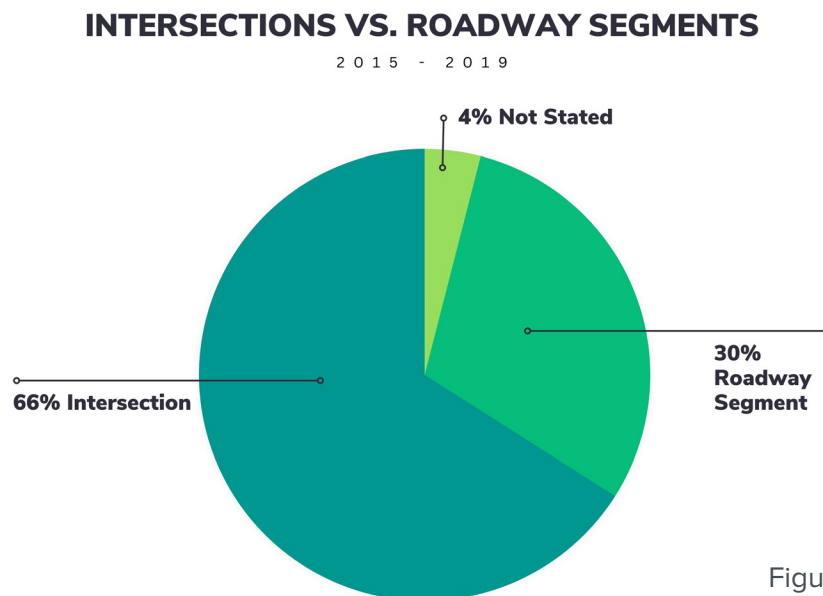


Figure 11

The initial network screening process determines intersections and roadway segments based on the number of crashes, EPDO score, as well as reviewing crash factors that may be higher than expected for that type of location. After completing the initial network screening process, the following signalized intersection, unsignalized intersections, and roadway segments were identified as “high-risk” locations:

Signalized Intersections:

- 11th Avenue and Lacey Boulevard
- 11th Avenue and Florinda Street/Rodgers Road
- 12th Avenue and Lacey Boulevard
- 11th Avenue and Hanford-Armona Road
- 11th Avenue and Grangeville Boulevard
- 10th Avenue and Grangeville Boulevard
- 12th Avenue and Centennial Drive/Mall Drive
- 11th Avenue and Fargo Avenue
- Grangeville Boulevard and Redington Street
- 11th Avenue and Elm Street
- Lacey Boulevard and Mall Drive
- 11th Avenue and Davis Street
- Grangeville Boulevard and Rodgers Road
- Grangeville Boulevard and University Avenue

- Douty Street and Florinda Street
- Redington Street and Seventh Street
- Douty Street and Seventh Street
- Douty Street and Fargo Avenue
- 11th Avenue and Seventh Street
- 11th Avenue and Cortner Street

Unsignalized Intersections:

- 12th Avenue and Glendale Avenue
- Sixth Street and Phillips Street
- Douty Street and Third Street
- 11th Avenue and Sixth Street
- Douty Street and Center Street



Roadway Segments:

- Grangeville Boulevard – 10th Avenue to 11th Avenue
- 11th Avenue – Fourth Street to Lacey Boulevard
- Grangeville Boulevard – 11th Avenue to 12th Avenue
- Hanford-Armona Road – 11th Avenue to 12th Avenue
- Hanford-Armona Road – 10th Avenue to 11th Avenue

Additionally, the stakeholders identified several different intersections they wanted included in the review and analysis. Several of those locations were already identified in the network screening process. The remaining intersections identified by the stakeholders include the following:

Signalized Intersections:

- 10th Avenue and Lacey Boulevard/Seventh Street
- Douty Street and Grangeville Boulevard
- 10th Avenue and Fargo Avenue

Unsignalized Intersections:

- Park Avenue and Ivy Street
- Fargo Avenue and Glacier Way
- 11th Avenue and Pepper Drive
- 10th Avenue and Second Street

Detailed information on crash numbers, EPDO score, and crash severity and type for each location can be found in Appendix B.

OFFICE OF TRAFFIC SAFETY (OTS) STATEWIDE COMPARISON

The OTS rankings were also reviewed to compare Hanford's traffic safety statistics to those of other cities with similar-sized populations (50,001 to 100,000). The results can also help the City identify traffic safety problem areas to be addressed. For 2019, the most recent OTS rankings available, Hanford rankings are noted in Table 2. The first number shown in the OTS ranking column is the number the City ranks in that category. The second number (105) is the total number of cities/counties within that population group. It should be noted that number 1 in the rankings is the highest, or worst, ranking of the total 105 cities compared.

Type of Crash	Victims Killed & Injured	Hanford Ranking/ OTS CA City Ranking
Total Fatal and Injury	231	47/105
Alcohol Involved	32	• 25/105
Had Been Drinking Driver < 21	1	35/105
Had Been Drinking Driver 21 - 34	5	45/105
Motorcycles	13	• 17/105
Pedestrians	20	• 30/105
Pedestrians < 15	3	• 30/105
Pedestrians 65+	1	+ 73/105
Bicyclists	14	39/105
Bicyclists < 15	1	+ 63/105
Composite	107	37/105
Speed Related	41	37/105
Nighttime (9:00pm - 2:59am)	14	+ 74/105
Hit and Run	14	46/105

Source: California Office of Traffic Safety, 2022

- Hanford's Highest (Worst) Rankings
- + Hanford's Lowest (Best) Rankings

Table 2

HANFORD'S HIGHEST (WORST) OTS RANKINGS (-)



Motorcycles - 17/105

Crashes in which there were victims killed or injured and a motorcycle was involved.



Alcohol Involved - 25/105

Crashes in which there were victims killed or injured where a party (driver, pedestrian, bicyclist) was classified as "Had Been Drinking".



Pedestrians - 30/105

Crashes in which there were victims killed or injured and a pedestrian was involved.



Pedestrians <15 - 30/105

Crashes in which there were victims killed or injured and a pedestrian under the age of 15 was involved.

HANFORD'S LOWEST (BEST) OTS RANKINGS (+)



Pedestrian 65+ - 73/105

Crashes in which there were victims killed or injured and a pedestrian age 65 or older was involved.



Bicyclists <15 - 63/105

Crashes in which there were victims killed or injured and a bicyclist under age 15 was involved.



Nighttime (9:00pm - 2:59am) - 74/105

Crashes in which there were victims killed or injured that occurred between those hours, which are prime hours for DUI, speeding, and drowsy driving crashes.



RECOMMENDATIONS

IMPROVING ROADWAY SAFETY IN HANFORD

It will take a coordinated effort from a wide range of stakeholders to get the greatest improvement in roadway safety in the City of Hanford. Emphasis areas on which to focus those efforts have been identified and are noted on the following pages. Strategies, or countermeasures, are identified and incorporate the four E's of traffic safety: **Engineering, Education, Enforcement, and Emergency Medical Services**. The likelihood of success in improving roadway safety rises when countermeasures from all four E's are combined.

Four E's of Traffic Safety

ENGINEERING

EDUCATION

ENFORCEMENT

EMERGENCY MEDICAL SERVICES



EMPHASIS AREAS

Based on the crash patterns and trends identified, the greatest opportunity to improve roadway safety in the City and thereby reduce fatal and serious injury crashes is through implementing the following identified emphasis areas:

1. IMPROVE INTERSECTION SAFETY

2. SPEED MANAGEMENT

3. IMPROVE PEDESTRIAN SAFETY

4. REDUCE WRONG SIDE OF ROAD BICYCLE CRASHES

5. REDUCE IMPAIRED DRIVING AND INCREASE DRIVER AWARENESS



EMPHASIS AREA 1 - IMPROVE INTERSECTION SAFETY

66%

City crashes that occur
at intersections

38.5%

Broadside crashes
(most common)

22.2%

Rear-end crashes

The following Table 3 are 4 E strategies and countermeasures that may be used in Hanford to address Emphasis Area 1.

Objective: To reduce the number of collisions at intersections			
Strategy		Performance Measure	Monitoring & Evaluation
Engineering	S01, Add intersection lighting S02, Improve signal hardware: lenses, backplates with retroreflective borders, mounting, size, and number S03, Improve signal timing (coordination, phases, red, yellow, or operation) S06, Install left-turn lane and add turn phase (signal has no left-turn lane or phase before) S08, Convert signal to mast arm (from pedestal-mounted) S09, Install raised pavement markers and striping (through intersection) S12, Install raised median on approaches (S.I.) S16, Convert intersection to roundabout (from signal) NS01, Add intersection lighting NS02, Convert to all-way STOP control (from 2-way or YIELD control) NS06, Install/upgrade larger or additional stop signs or other intersection warning/regulatory signs NS07, Upgrade intersection pavement markings NS08, Install flashing beacons at STOP-controlled intersections NS10, Install transverse rumble strips on approaches NS11, Improve sight distance to intersection (clear sight triangle) R01, Install segment lighting R22, Install/Upgrade signs with new fluorescent sheeting (regulatory or warning)	Number of intersections improved	Number of intersection crashes related to traffic movement compared to the previous year
Education	High-visibility media campaign about intersection safety laws regarding traffic signals/stop signs, turning violations, pedestrian movements, and speeding.	Number of media outlets and campaigns	Number of responses received from the public
Enforcement	High-visibility enforcement targeting "high-risk" intersections	Number of warnings/citations issued at "high-risk" intersections	Number of intersection crashes compared to previous year
EMS	"Move-over" media campaign S05, Install emergency vehicle preemption systems	EMS response time	EMS response time compared to previous year

Table 3

EMPHASIS AREA 2 - SPEED MANAGEMENT

21%

Crashes due to unsafe speed

21%

Fatal and severe injury crashes due to unsafe speed

63%

Rear-end crashes

The following Table 4 are 4 E strategies and countermeasures that may be used in Hanford to address Emphasis Area 2.

Objective: To reduce the number of speed-related crashes within the City			
Strategy		Performance Measure	Monitoring & Evaluation
Engineering	S03, Improve signal timing (coordination, phases, red, yellow, or operation) S09, Install raised pavement markers and striping (through intersection) S11, Improve pavement friction (high friction surface treatments) S12, Install raised median on approaches (S.I.) S16, Convert intersection to roundabout (from signal) NS06, Install/upgrade larger or additional stop signs or other intersection warning/regulatory signs NS07, Upgrade intersection pavement markings NS10, Install transverse rumble strips on approaches NS11, Improve sight distance to intersection (clear sight triangle) NS12, Improve pavement friction (high friction surface treatments) R03, Install Median Barrier R22, Install/Upgrade signs with new fluorescent sheeting (regulatory or warning) R27, Install delineators, reflectors and/or object markers R30, Install centerline rumble strips/stripes R31, Install edgeline rumble strips/stripes Install speed feedback signs Decrease lane width Install bulbouts at intersection curb returns	Number of engineering safety projects pursued and amount of funding awarded	Number of safety project locations improved
Education	Speed monitoring radar trailer High-visibility media campaign about unsafe speeding	Number of media outlets, campaigns, and deployments of trailer	Number of responses received from the public
Enforcement	High-visibility enforcement targeting unsafe speeding	Number of citations issued for unsafe speeding	Citations issued for unsafe speeding compared to previous year
EMS	First-aid training "Move-over" media campaign S05, Install emergency vehicle preemption systems	Number of fatalities in unsafe speed crashes	Number of fatalities in unsafe speed crashes compared to previous year

Table 4

EMPHASIS AREA 3 - IMPROVE PEDESTRIAN SAFETY

32.4%

Of pedestrian crashes involved a pedestrian crossing in a crosswalk at an intersection

23%

Of pedestrian crashes involved alcohol

32.4%

Of pedestrian crashes involved a pedestrian crossing **not** in a crosswalk

4 E strategies and countermeasures that may be used for Emphasis Area 3 are shown in Table 5.

Objective: To reduce the number of pedestrian-related crashes within the City			
	Strategy	Performance Measure	Monitoring & Evaluation
Engineering	S02, Improve signal hardware: lenses, backplates with retroreflective borders, mounting, size, and number S03, Improve signal timing (coordination, phases, red, yellow, or operation) S09, Install raised pavement markers and striping (through intersection) S12, Install raised median on approaches (S.I.) S16, Convert intersection to roundabout (from signal) S17PB, Install pedestrian countdown signal heads S21PB, Modify signal phasing to implement a leading pedestrian interval (LPI) NS06, Install/upgrade larger or additional stop signs or other intersection warning/regulatory signs NS07, Upgrade intersection pavement markings NS11, Improve sight distance to intersection (clear sight triangle) NS19PB, Install raised medians/refuge islands NS21PB, Install/upgrade pedestrian crossing at uncontrolled locations (with enhanced safety features) NS22PB, Install Rectangular Rapid Flashing Beacon (RRFB) R22, Install/Upgrade signs with new fluorescent sheeting (regulatory or warning) R30, Install centerline rumble strips/strips R31, Install edgeline rumble strips/strips R35PB, Install/upgrade pedestrian crossing (with enhanced safety features) Install bulbouts at intersection curb returns or mid-block crossings Install high-visibility type crosswalks	Number of engineering safety projects pursued and amount of funding awarded	Number of safety project locations improved
Education	Road safety education to children High-visibility media campaign about pedestrian safety	Number of media outlets and campaigns	Number of responses received from the public
Enforcement	High-visibility enforcement targeting pedestrian safety traffic violations Zero tolerance of traffic law violations in school zones	Number of warnings/citations issued for pedestrian safety traffic violations	Number of pedestrian crashes compared to previous year
EMS	First-aid training "Move-over" media campaign S05, Install emergency vehicle preemption systems	Number of fatalities in pedestrian crashes	Number of fatalities in pedestrian crashes compared to previous year

Table 5



EMPHASIS AREA 4 - REDUCE WRONG SIDE OF THE ROAD BICYCLE CRASHES

38.8%

Of bicycle crashes are wrong side of the road

61.2%

Of bicycle crashes occurred at an intersection

32.8%

Of bicycle crashes are broadside (most common)

4 E strategies and countermeasures that may be used for Emphasis Area 4 are shown in Table 6.

Objective: To reduce the number of wrong side of road violations that lead to bicycle crashes			
Strategy		Performance Measure	Monitoring & Evaluation
Engineering	S21PB, Modify signal phasing to implement a Leading Pedestrian Interval (LPI) R22, Install/Upgrade signs with new fluorescent sheeting (regulatory or warning) - to install bike wrong way signs on the back of bike lane signs	Number of engineering safety projects pursued and amount of funding awarded	Number of safety project locations improved
Education	Road safety education to children High-visibility media campaign about bicycling rules of the road	Number of media outlets and campaigns, as well as school events	Number of responses received from the public
Enforcement	High-visibility enforcement targeting bicycling on the wrong side of the road Zero tolerance of traffic law violations in school zones	Number of warnings/citations issued for bicycling on wrong side of road	Warnings/citations issued for bicycling on wrong side of road compared to previous year
EMS	First-aid training	Number of individuals trained in first-aid	Number of individuals trained in first-aid compared to previous year

Table 6

EMPHASIS AREA 5 - REDUCE IMPAIRED DRIVING AND INCREASE DRIVER AWARENESS

10.4%

Crashes PCF cited as driving or bicycling under the influence of alcohol or drug

25TH

Ranking out of 105 cities of similar-sized population for crashes in which there were victims killed or injured where a party had been drinking

12.7%

Crashes involving alcohol

The following Table 7 are 4 E strategies and countermeasures that may be used in Hanford to address Emphasis Area 5.

Objective: To reduce the number of crashes caused due to impaired driving and increase driver awareness			
	Strategy	Performance Measure	Monitoring & Evaluation
Engineering	S03, Improve signal timing (coordination, phases, red, yellow, or operation) S06, Install left-turn lane and add turn phase (signal has no left-turn lane or phase before) S09, Install raised pavement markers and striping (through intersection) S11, Improve pavement friction (high friction surface treatments) S12, Install raised median on approaches (S.I.) S16, Convert intersection to roundabout (from signal) NS06, Install/upgrade larger or additional stop signs or other intersection warning/regulatory signs NS07, Upgrade intersection pavement markings NS10, Install transverse rumble strips on approaches NS11, Improve sight distance to intersection (clear sight triangle) NS12, Improve pavement friction (high friction surface treatments) R03, Install Median Barrier R22, Install/Upgrade signs with new fluorescent sheeting (regulatory or warning) R27, Install delineators, reflectors and/or object markers R30, Install centerline rumble strips/stripes R31, Install edgeline rumble strips/stripes	Number of engineering safety projects pursued and amount of funding awarded	Number of safety project locations improved
Education	High-visibility media campaign about impaired driving	Number of media outlets and campaigns	Number of responses received from the public
Enforcement	High-visibility enforcement targeting impaired driving	Number of citations issued for DUI	Citations issued for DUI compared to previous year
EMS	First-aid training "Move-over" media campaign S05, Install emergency vehicle preemption systems	Number of fatalities in impaired driving crashes	Number of fatalities in impaired driving crashes compared to previous year

Table 7

COUNTERMEASURES TOOLBOX - THE 4 E'S

Strategies and countermeasures have been chosen based on the City's existing roadway safety conditions, as well as potential for success. As conditions continue to change, or the traffic safety professionals' approach to these issue progresses, these countermeasures should be reviewed with the LRSP updates and revised as appropriate.

ENGINEERING COUNTERMEASURES

This section identifies the engineering safety countermeasures that can be used to reduce the frequency and severity of crashes throughout the City. The Caltrans LRSM provides 81 countermeasures: 20 for signalized intersections, 23 for unsignalized intersections, and 38 for roadway segments, and provides guidance on how and where they should be used. While there may be many countermeasures to improve roadway safety, Table 8 is a summary of the engineering countermeasures chosen as the most likely considered effective for the "high-risk" locations identified in this LRSP. Table 8 identifies the countermeasures, crash types, Crash Reduction Factor (CRF), expected life of the countermeasure in years, the Highway Safety Improvement Program (HSIP) funding percentage eligibility, and whether the countermeasure provided a high opportunity for a systemic approach. The Caltrans LRSM detailing all available engineering countermeasures is available for reference in Appendix C .

Engineering Countermeasures Toolbox

Code	Safety Countermeasure	Crash Type(s)	Crash Reduction Factor (CRF)	Expected Life (Years)	HSIP Funding Eligibility	Systematic Approach Opportunity
SIGNALIZED INTERSECTIONS						
S01	Install intersection lighting	Night	40%	20	90%	Medium
S02	Improve signal hardware: lenses, retroreflective backplates, signal size, and number	All	15%	10	90%	Very High
S03	Improve signal timing: coordination, red, and yellow	All	15%	10	50%	Very High
S05	Install emergency vehicle preemption systems	Emergency Vehicle	70%	10	90%	High
S06	Install left-turn lane and add left-turn phase	All	55%	20	60%	Low
S08	Convert signal to mast arm (from pedestal-mounted)	All	30%	20	90%	Medium
S09	Install raised pavement markers and striping (through intersection)	All	10%	10	90%	Very High
S11	Improve pavement friction (high friction surface treatments)	All	55%	10	90%	Medium
S12	Install raised median on approaches (SI)	All	25%	20	90%	Medium
S16	Convert intersection to roundabout (from signal)	All	Varies	20	90%	Low
S17PB	Install pedestrian countdown signal heads	Pedestrian & Bicycle	25%	20	90%	Very High
S21PB	Modify signal phasing to implement a Leading Pedestrian Interval (LPI)	Pedestrian & Bicycle	60%	10	90%	Very High

S - Signalized intersection countermeasures
NS - Non-signalized intersection countermeasures
R - Roadway Segment Countermeasures

Table 8



Engineering Countermeasures Toolbox Continued

Code	Safety Countermeasure	Crash Type(s)	Crash Reduction Factor (CRF)	Expected Life (Years)	HSIP Funding Eligibility	Systematic Approach Opportunity
UNSIGNALIZED INTERSECTIONS						
NS01	Add intersection lighting	Night	40%	20	90%	Medium
NS02	Convert to all-way STOP control (from 2-way or YIELD control)	All	50%	10	90%	High
NS06	Install/upgrade larger or additional stop signs or other intersection warning/regulatory signs	All	15%	10	90%	Very High
NS07	Upgrade intersection pavement markings	All	25%	10	90%	Very High
NS08	Install flashing beacons at STOP-controlled intersections	All	15%	10	90%	High
NS10	Install transverse rumble strips on approaches	All	20%	10	90%	High
NS11	Improve sight distance to intersection, including installing red curb	All	20%	10	90%	High
NS12	Improve pavement friction (high friction surface treatments)	All	55%	10	90%	Medium
NS19PB	Install raised medians/refuge islands (NSI)	Pedestrian & Bicycle	45%	20	90%	Medium
NS21PB	Install/upgrade pedestrian crossing at uncontrolled locations (with enhanced safety features)	Pedestrian & Bicycle	35%	20	90%	Medium
NS22PB	Install Rectangular Rapid Flashing Beacon (RRFB)	Pedestrian & Bicycle	35%	20	90%	Medium
ROADWAY SEGMENTS						
R01	Add segment lighting	Night	35%	20	90%	Medium
R03	Install raised median	All	25%	20	90%	Medium
R22	Install/Upgrade signs with new fluorescent sheeting (regulatory or warning)	All	15%	10	90%	Very High
R27	Install delineators, reflectors and/or object markers	All	15%	10	90%	Very High
R30	Install centerline rumble strips/stripes	All	20%	10	90%	High
R31	Install edgeline rumble strips/stripes	All	15%	10	90%	High
R33PB	Install separated bike lanes	Pedestrian & Bicycle	45%	20	90%	High
R35PB	Install/upgrade pedestrian crossing (with enhanced safety features)	Pedestrian & Bicycle	35%	20	90%	Medium
	Install speed feedback signs					
	Decrease lane width					
	Install bulbouts at intersection curb returns or mid-block crossings					
	Install high-visibility type crosswalks					

S - Signalized intersection countermeasures
 NS - Non-signalized intersection countermeasures
 R - Roadway Segment Countermeasures

Table 8 Continued



EDUCATION COUNTERMEASURES

Everyone needs to be involved in improving roadway safety, including users of the City's roadway network. For this reason, educating the users is an important strategy for the plan's success. The following education countermeasures were identified for the City:

Speed Monitoring Radar Trailer – Speed monitoring radar trailers are portable trailers that visually displays a drivers' speed as compared to the posted speed limit. These are an educational tool to help make a driver more aware of their speed. These are often used in residential neighborhoods, school zones, or used in conjunction with other safety education programs. Hanford currently has one speed monitoring radar trailer and a second one for the City is recommended.

Road Safety Education to Children – Educating children on roadway safety provides many advantages. Children will not only be less likely to be involved in a crash but will also carry those lessons forward to become more knowledgeable and careful drivers, pedestrians, and cyclists. Educating children on roadway safety can also inform families of the safety benefits and promote walking and biking as viable modes of transportation. Road safety education programs for children have been implemented by many agencies and school districts, and there are extensive resources that are available through the National Center for Safe Routes to School (National Center) at <https://www.saferoutesinfo.org/>. One choice is Walk, Bike, & Roll to School Day activities, which unite elected officials and community members together to pledge to address traffic safety in the City and promote the benefits of walking, biking, and rolling to school.

High-Visibility Media Campaign – A high-visibility media campaign for roadway safety aims to spread awareness of safe driving habits and traffic laws through a variety of mass media outlets. Media campaign(s) should be used to target the emphasis areas and may include billboards, print ads, radio, television, digital ads, and social media. The objective is to reach a large audience, increase awareness of the issue, and inspire improvement.

ENFORCEMENT COUNTERMEASURES

Although best efforts may be made implementing education and engineering countermeasures, motorists failing to follow traffic laws can still result in fatal and severe crashes. Police enforcement plays a role in reducing traffic crashes; however, research has found that many enforcement strategies do not have long-term success. The most successful strategies are those that are visible and transparent to the community, done regularly, and done along with educational campaigns.

High-Visibility Enforcement (HVE) – HVE is a traffic safety approach which combines enforcement, visibility elements, and a publicity strategy to educate and promote voluntary compliance of traffic laws. HVE are proactive efforts targeting a specific traffic safety issue but must be highly visible to the public. Examples are checkpoints, saturation patrols, and waves (increased enforcement of a specific traffic violation at a targeted location that occurs periodically). HVE should occur at locations chosen based on data; therefore, "high-risk" locations identified in the LRSP could be chosen. The HVE objective is to make the public aware and deter them of the specific, unsafe traffic behaviors.

Zero Tolerance in School Zones – One enforcement countermeasure that can improve the safety of children walking and biking to school as well as motorists is the strict enforcement of traffic



laws in school zones. Potential solutions include enacting a "zero tolerance" policy for drivers who speed in school zones and even raising the fines they must pay.

EMERGENCY MEDICAL SERVICES COUNTERMEASURES

First-Aid Training – The City can partner with other groups to provide first aid training to community members, as they may be first on scene of a crash and able to provide aid to those injured. The Hanford Fire Department currently trains City staff first aid which can be used by the many City workers in the field each day.

“Move-Over” Media Campaign – A “move-over” campaign is designed to inform motorists how to respond when an emergency vehicle approaches. It also informs motorists of the importance of slowing down and switching lanes when they come across an emergency vehicle on the side of the road, giving the emergency personnel sufficient room to work safely. The goal is to improve roadway safety, improve emergency vehicle response times, and reduce the likelihood of crashes involving emergency vehicles.

Emergency Vehicle Preemption (EVP) – EVP is used at traffic signals to change normal traffic signal operations to provide a green signal indication to an approaching emergency vehicle while providing a red signal indication to others. The City of Hanford currently utilizes EVP for fire vehicles only. Modifications to existing traffic signal systems where EVP does not exist should be considered, and EVP should be installed with any new traffic signal system.

SAFETY PROJECTS

The next step in the LRSP process is to identify specific safety improvements for the "high-risk" priority locations based on the emphasis areas and using the countermeasures identified. Safety projects are identified and the benefit of implementing the proposed improvements is then estimated. In general, a project is rated by calculating its Benefit-to-Cost (B/C) ratio. The B/C ratio is simply calculated by taking the project's overall benefit and dividing it by the project's overall cost.

The specific engineering countermeasures chosen for the projects were from the Caltrans LRSM to be best positioned for future HSIP funding. Also, “to allow agencies maximum flexibility in combining countermeasures and locations into a single project while ensuring projects can be consistently ranked on a statewide basis, Caltrans only allows up to three (3) individual countermeasures can be utilized in the B/C ratio for a project location site.”² Therefore, the countermeasures identified are based on the crash analysis, field observations, stakeholder input, and those most likely to improve safety at the locations.

Table 9 lists a summary of the safety projects for the “high-risk” intersections and roadway segments, along with the project costs and B/C ratio. Complete cost, benefit, and B/C ratio calculations for the safety projects are included in Appendix D. The total cost per location includes construction costs; plans, specifications, and estimates; environmental reporting; and construction engineering. Construction costs are based on 2023 industry standards from recent projects in the Central Valley. Detailed methodology for calculating B/C ratio is included in the Caltrans LRSM in Appendix C.

² Local Roadway Safety: A Manual for California's Local Road Owner's, Version 1.6 April 2022, Caltrans, pp.37, <https://dot.ca.gov/-/media/dot-media/programs/local-assistance/documents/hsip/2020/lrsm2020.pdf>



Safety Projects

Location	CM 1	CM 2	CM 3	Total Cost per Location	Total Costs All Locations (Costs 2023)	B/C
Project 1 - Signalized Intersection Safety Improvement Upgrades						
11th Avenue & Lacey Boulevard	S02	S03	S21PB	\$54,096	\$1,097,473	20.02
11th Avenue & Florinda Street/Rodgers Road	S02	S03	S21PB	\$53,082		
12th Avenue & Lacey Boulevard	S02	S03	S21PB	\$56,801		
11th Avenue & Hanford-Armona Road	S02	S03		\$54,096		
11th Avenue & Grangeville Boulevard	S02	S03	S21PB	\$54,096		
10th Avenue & Grangeville Boulevard	S02	S03	S21PB	\$54,096		
12th Avenue & Centennial Drive/Mall Drive	S02	S03		\$47,334		
11th Avenue & Fargo Avenue	S02	S03		\$54,096		
Grangeville Boulevard & Redington Street	S02	S03	S21PB	\$51,391		
11th Avenue & Elm Street	S02	S03	S21PB	\$41,924		
Lacey Boulevard & Mall Drive	S02	S03	S21PB	\$54,096		
11th Avenue & Davis Street	S02	S03	S21PB	\$51,391		
Grangeville Boulevard & Rodgers Road	S02	S03	S21PB	\$51,391		
Grangeville Boulevard & University Avenue	S02	S03		\$54,096		
Douty Street & Florinda Street	S02	S03		\$48,686		
Douty Street & Fargo Avenue	S02	S03		\$47,334		
11th Avenue & Seventh Avenue	S02	S03	S21PB	\$55,448		
11th Avenue & Cortner Street	S02	S03		\$51,391		
10th Avenue & Lacey Boulevard/Seventh Street	S02	S03	S21PB	\$54,096		
Douty Street & Grangeville Boulevard	S02	S03		\$54,434		
10th Avenue & Fargo Avenue	S02	S03		\$54,096		
Project 2 - Unsignalized Intersection Safety Improvement Upgrades						
12th Avenue & Glendale Avenue		NS06	NS07	\$10,143	\$186,800	18.77
Sixth Street & Phillips Street	NS01	NS06	NS07	\$34,655		
Douty Street & Third Street		NS06	NS07	\$10,143		
11th Avenue & Sixth Street	NS01	NS06	NS07	\$38,882		
Douty Street & Center Street	NS01	NS06	NS07	\$32,965		
Park Avenue & Ivy Street	NS01	NS06	NS07	\$20,286		
Fargo Avenue & Glacier Way		NS06	NS07	\$7,607		
11th Avenue & Pepper Drive		NS06	NS07	\$7,607		
10th Avenue & Second Street	NS01	NS06	NS07	\$24,512		
Project 3 - Redington Street and Seventh Street						
Replace pedestal mounted traffic signal	S08			\$673,089	\$673,089	1.45

CM = Countermeasure

B/C = Benefit-to-Cost Ratio

Location's chosen by Stakeholder's Working Group

Table 9

COUNTERMEASURE NAME
S02 - Improve signal hardware: lenses, backplates with retroreflective borders, mounting, size, and number
S03 - Improve signal timing (coordination, phases, red, yellow, or operation)
S08 - Convert signal to mast arm (from pedestal-mounted)
S21PB - Modify signal phasing to implement a Leading Pedestrian Interval (LPI)
NS01 - Add intersection lighting (NS.I.)
NS06 - Install/upgrade larger or additional stop signs or other intersection warning/regulatory signs
NS07 - Upgrade intersection pavement markings (NS.I.)



Following are brief descriptions of the projects identified in Table 9.

Signalized Intersection Safety Improvement Upgrades – The improvements at these intersections include the installation of near-side vehicle signal heads and backplates with retroreflective borders. Only two of the intersections (12th Avenue/Centennial Drive/Mall Drive and Douty Street/Fargo Avenue) currently have near-side vehicle signal heads. The remaining intersections should have near-side signal heads installed. None of the intersections currently have the retroreflective backplates. The installation of the near-side signal heads and retroreflective backplates will help improve visibility and aid the drivers' advance perception of the upcoming intersection. Additionally, the countermeasures include signal timing improvements at the intersections, as well as modifying signal phasing to implement a leading pedestrian interval at the intersections where pedestrian or bicycle collisions occurred.

Unsignalized Intersection Safety Improvement Upgrades – The improvements at the unsignalized intersections include the installation of intersection safety lighting, as well as upgrades to signing and pavement markings such as advance warning signs and markings.

Redington Street and Seventh Street – The safety project identified for this location is the replacement of the existing pedestal-mounted traffic signals with a mast arm traffic signals to improve visibility and the driver's advance perception of the intersection.

These above-listed projects can be used when preparing for future grant programs, including developing future HSIP grant applications. It should be noted that the above projects were based on the "high-risk" locations identified in the LRSP; however, it should be noted that the grant applications may be expanded to include numerous locations in the City. For instance, more signalized locations could be included in the signalized intersection safety improvement upgrades project if the additional locations were found to be beneficial to the overall B/C ratio. The HSIP is a competitive program based on a B/C analysis. Therefore, the higher the B/C ratio, the more competitive the project.

It should be noted there are many pedestal mounted traffic signals in Downtown Hanford. Although these other locations were not included with the Redington Street and Seventh Street project, they could be included and combined as one HSIP grant application if beneficial to the overall B/C ratio.

It should also be noted that the Douty Street and Seventh Street signalized intersection has not been included with the signalized intersection safety improvement upgrades. There is a current City project to remove the existing pedestal traffic signal at the intersection and to install a new roundabout. Therefore, since the City has a current project planned for this location, one has not been included in this document.



FUNDING

FEDERAL PROGRAMS

Various funding resources exist to help local agencies in the planning and implementation of roadway safety projects. The City of Hanford should seek to utilize available funding sources and grant opportunities to advance roadway safety projects in the City. The following is a summary of both federal and state funding sources and grant opportunities of which the City should be aware and apply for funding as appropriate.

SURFACE TRANSPORTATION BLOCK GRANT (STBG) PROGRAM

Managing Agency: Federal Highway Administration

Website: <https://www.fhwa.dot.gov/specialfunding/stp/>

The STBG program provides flexible funding for State and local agencies for their transportation projects. STBG funding may be used to preserve and improve any Federal-aid highway, bridge, and tunnel projects on any public road, pedestrian, and bicycle infrastructure, and transit capital projects, including intercity bus terminals.

REBUILDING AMERICAN INFRASTRUCTURE WITH SUSTAINABILITY AND EQUITY (RAISE) GRANT

Managing Agency: US Department of Transportation (USDOT)

Website: <https://www.transportation.gov/RAISEgrants>

The RAISE Discretionary Grant program is a unique opportunity for USDOT to invest in road, rail, transit, and port projects to achieve national objectives. Previously known as Better Utilizing



Investments to Leverage Development (BUILD) and Transportation Investment Generating Economic Recovery (TIGER) Discretionary Grants, Congress has dedicated nearly \$12.1 billion for 14 rounds of National Infrastructure Investments to fund projects that have a significant local or regional impact. Based on the program requirements, agencies can obtain funding for multi-modal, multi-jurisdictional projects that are more difficult to support through traditional USDOT programs.

INFRASTRUCTURE FOR REBUILDING AMERICA (INFRA) GRANT

Managing Agency: US Department of Transportation

Website: <https://www.transportation.gov/grants/infra-grants-program>

INFRA (known statutorily as the Nationally Significant Multimodal Freight & Highway Projects) awards competitive grants for multimodal freight and highway projects of national or regional significance to improve safety, efficiency, and reliability of the movement of freight and people in and across rural and urban areas. Although the INFRA program is not new, it was updated with the Bipartisan Infrastructure Law (BIL) in 2021 that included new eligibilities, set-asides, and other programming changes. Eligible projects include those that improve safety, generate economic benefits, reduce congestion, and improve critical freight movements.

SAFE STREETS AND ROADS FOR ALL (SS4A) FUNDING

Managing Agency: US Department of Transportation

Website: <https://www.transportation.gov/grants/SS4A>

The BIL established the SS4A discretionary program with \$5 billion in appropriated funds over five years for regional, local, and Tribal initiatives through grants to prevent deaths and serious injuries on our nation's roadways. Grant funding is eligible to develop or update a comprehensive safety action plan (Action Plan); conduct planning, design, and development activities in support of an Action Plan; and carry out projects and strategies identified in an Action Plan.

STRENGTHENING MOBILITY AND REVOLUTIONIZING TRANSPORTATION (SMART) GRANTS PROGRAM

Managing Agency: US Department of Transportation

Website: <https://www.transportation.gov/grants/SMART>

The BIL established the SMART discretionary grant program to provide grants to eligible public sector agencies to conduct demonstration projects focused on advanced smart community technologies and systems in order to improve transportation efficiency and safety. Although cities are not eligible, a State; a political subdivision of a State; a Tribal government; a public transit agency or authority; a public toll authority; a metropolitan planning agency; and a group of two more eligible entities detail above, applying through a single lead applicant are eligible. Projects should target real-world challenges where the use of new technologies and approaches can create benefits for the community.

CONGESTION MITIGATION AND AIR QUALITY (CMAQ) IMPROVEMENT PROGRAM

Managing Agency: Federal Highway Administration

Website: https://www.fhwa.dot.gov/environment/air_quality/cmaq/

The CMAQ program provides a funding source for State and local governments to fund transportation projects and programs to help meet the requirements of the Clean Air Act. CMAQ funds support state- and locally-selected transportation projects that reduce mobile source emissions in both current and former areas designated by the U.S. Environmental Protection Agency to be in nonattainment or maintenance of the national ambient air quality standards for ozone, carbon monoxide, and/or particulate matter.

Many types of projects are eligible under the CMAQ program including bicycle and pedestrian facilities, transit improvements, and electric vehicles and charging stations. In addition to improving air quality and reducing congestion, safety projects may also qualify for CMAQ funding.

STATE PROGRAMS

ACTIVE TRANSPORTATION PROGRAM (ATP) GRANTS

Managing Agency: California Transportation Commission (CTC)

Website: <https://catc.ca.gov/programs/active-transportation-program>

The California ATP consolidated various transportation programs into a single program which uses both federal and state funds to encourage increased use of active modes of transportation, such as walking and biking. The program aims to increase the percentage of trips accomplished by walking and biking, increase the safety and mobility of non-motorized users, advance efforts to achieve greenhouse gas reduction, enhance public health efforts, ensure disadvantage communities fully share in the program, and provide a broad spectrum of projects to benefit many types of active transportation users. Agencies are eligible for both infrastructure and non-infrastructure projects. The ATP indicates project cycles are to be released every even year with funding adopted on the following odd year.

LOCAL HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP) GRANTS

Managing Agency: California Department of Transportation

Website: <https://dot.ca.gov/programs/local-assistance/fed-and-state-programs/highway-safety-improvement-program>

The HSIP is a core federal-aid program to states with the aim to achieve a significant reduction in traffic fatalities and serious injuries on all public roads. The local agency share of California's Local HSIP funds are managed by the Caltrans' Division of Local Assistance (DLA). Local HSIP focuses



on infrastructure projects with nationally recognized crash reduction factors and projects must be identified on the basis of crash experience, crash potential, crash rate, and other data-supported means. Local agencies must have completed their LRSP, or equivalent, to be eligible for HSIP funds. HSIP calls for projects are typically made at two year intervals.

CALIFORNIA OFFICE OF TRAFFIC SAFETY (OTS) GRANTS

Managing Agency: California Office of Traffic Safety

Website: <https://www.ots.ca.gov/grants/>

The OTS is one of California's leaders in the efforts to make California roadways safe for all users. Made available by the National Highway Traffic Safety Administration (NHTSA), OTS annually funds over \$80 million in innovative, evidence-based education and enforcement programs and technologies designed to make California's roadways safer. A selection of grants are provided to local and state agencies aimed at eliminating fatalities, injuries, and economic losses resulting from crashes.

STATE-LOCAL PARTNERSHIP PROGRAM (LPP)

Managing Agency: California Transportation Commission

Website: <https://catc.ca.gov/programs/sb1/local-partnership-program>

The Road Repair and Accountability Act of 2017 (Senate Bill 1) created the LPP and continues to appropriate \$200 million annually in funding. The primary objective is to provide funding to local and regional transportation agencies that have approved sales tax measures, developer fees, or other imposed fees dedicated to transportation improvements. These funds may be used to improve aging infrastructure, road conditions, active transportation, transit and rail, and health and safety benefits.

SUSTAINABLE TRANSPORTATION PLANNING (STP) GRANTS

Managing Agency: California Department of Transportation

Website: <https://dot.ca.gov/programs/transportation-planning/division-of-transportation-planning/regional-and-community-planning/sustainable-transportation-planning-grants>

The STP Grant Program was created to support Caltrans' mission to provide a safe and reliable transportation network that serves all people and respects the environment. The STP Grant Program includes three types of grants: 1) Sustainable Communities Grants to ultimately achieve the State's greenhouse gas reduction targets, 2) Climate Adaptation Planning Grants to support development of local climate adaptation plans and identify adaptation projects and strategies for transportation infrastructure, and 3) Strategic Partnerships Grants (federally-funded) to support Federal Planning Factors and address State highway/transit issues of regional, interregional, and/or statewide significance, in partnership, with Caltrans.



STATE HIGHWAY OPERATION AND PROTECTION PROGRAM (SHOPP) GRANTS

Managing Agency: California Department of Transportation

Website: <https://dot.ca.gov/programs/financial-programming/state-highway-operation-protection-program-shopp-minor-program-shopp>

The SHOPP is the State Highway System's (SHS) "fix-it-first" program that funds the repair and preservation, emergency repairs, safety improvements, and some highway operational improvements on the SHS. The funded projects improve the condition, operation, and sustainability of the SHS and associated transportation infrastructure. It is intended for projects on the SHS, including the interstate system, and other state-owned assets such as bicycle and pedestrian facilities, culverts, transportation management systems, safety roadside rest areas, and maintenance stations.

RECREATIONAL TRAILS PROGRAM

Managing Agency: California Department of Parks and Recreation (DPR)

Website: https://www.parks.ca.gov/?page_id=24324

The RTP is administered at the federal level by the FHWA and at the state level by the California DPR and the Caltrans' ATP. The RTP provides funds annually to develop and maintain recreational trails and trails-related facilities for both non-motorized and motorized projects.

AFFORDABLE HOUSING AND SUSTAINABLE HOUSING COMMUNITIES (AHSC) GRANT PROGRAM

Managing Agency: California Strategic Growth Council

Website: <https://www.sgc.ca.gov/programs/tcc/>

The vision of AHSC is to make it easier for Californians to drive less by making sure housing, jobs, and key destinations are accessible by walking, biking, and transit. AHSC provides funding for newly constructed or renovated affordable housing developments and transportation-related infrastructure and amenities. Such infrastructure and amenities may include new transit vehicles; sidewalks; bike lanes; bus shelters; benches; shade trees; and programs that encourage residents to walk, bike, and use public transit. Eligible applicants include local governments, transportation agencies, housing developers, joint powers of authorities, education districts, and Federally recognized Indian tribes.

TRANSFORMATIVE CLIMATE COMMUNITIES (TCC) PROGRAM

Managing Agency: California Office of Traffic Safety

Website: <https://www.ots.ca.gov/grants/>



The TCC Program funds community-led development and infrastructure projects that achieve major environmental, health, and economic benefits in California's most disadvantaged communities. Projects must significantly reduce greenhouse gas emissions over time, leverage additional funding sources, and provide health, environmental, and economic benefits to the community. While the program can fund many types of projects, transportation-related projects may include, but is not limited to: public transit projects, bicycle and pedestrian facilities, roundabouts, and car sharing and mobility enhancement projects. Eligible applicants include community-based organizations, local governments, non-profit organizations, philanthropic organizations and foundations, faith-based organizations, coalitions or associations of nonprofits, community development finance institutions, community development corporations, joint powers authorities, and California Native American Tribes.

ENVIRONMENTAL ENHANCEMENT AND MITIGATION (EEM) GRANT PROGRAM

Managing Agency: California Natural Resources Agency

Website: <https://resources.ca.gov/grants/environmental-enhancement-and-mitigation-eem/>

The EEM Program authorizes the legislature to allocate up to \$7 million each fiscal year from the Highway Users Tax Account. Projects must contribute to mitigation of the environmental effects of transportation facilities. The Natural Resources Agency recommends projects for funding to the CTC who awards grants from the recommendations. Eligible projects may include those designed to offset vehicular emissions of carbon dioxide; projects for the acquisition or enhancement of resource lands to mitigate the loss of, or the detriment to, resource lands lying within the right of way acquired for transportation improvements; or projects to mitigate the impact of proposed transportation facilities or to enhance the environment, where the ability to do so is beyond the scope of the lead agency responsible.

CALTRANS RAILWAY-HIGHWAY CROSSING PROGRAM (RHCP) SECTION 130

Managing Agency: California Department of Transportation

Website: <https://dot.ca.gov/programs/local-assistance/fed-and-state-programs/sec130>

The RHCP Section 130 program aims to reduce the number and severity of crashes and to improve safety for motorists, bicyclists, and pedestrians at existing at-grade railroad crossings. The program is a collaborative effort led by the California Public Utilities Commission (CPUC), funded by FHWA, and managed by Caltrans DLA in cooperation with local agencies and railroads. Each year, the CPUC evaluates at-grade crossings that could benefit from funded improvements and creates a priority list of projects based on crash history, vehicle and train volumes, pedestrian issues, geometry, and diagnostic site visits. The list is typically finalized in August each year and sent to Caltrans RHCP. Improvements for at-grade crossings not on the list will not be funded by the program.

A photograph of a street scene at dusk. In the foreground, there are several black streetlights with ornate, curved arms and dark lampshades. A pedestrian crossing sign, featuring a yellow diamond shape with a black border and a black silhouette of two people walking, is visible on the right. In the background, there are buildings, a flagpole with a flag, and a clear blue sky. The word "IMPLEMENTATION" is overlaid in large, white, bold, sans-serif capital letters across the middle of the image.

IMPLEMENTATION

IMPLEMENTATION AND EVALUATION

The success of the LRSP will depend on the implementation of the various countermeasures and safety projects as identified to help the City reduce fatal and severe injury collisions. It is recommended the City continue to coordinate with the stakeholders to monitor and evaluate the progress of the LRSP. The City should seek funding to begin completing the various projects and programs identified in the LRSP. These can be completed in coordination with the City's Capital Improvement Program. Performance measures as identified for each emphasis area should be evaluated annually once countermeasures have been implemented. And monitoring of fatal and severe injury crashes should continue annually to determine if there is a decrease in these crashes as the countermeasures are implemented. If the City does not see a decrease in the fatal and severe injury crashes as expected for a specific countermeasure, it should be reviewed. These annual reviews are recommended in coordination with an annual stakeholders' working group meeting.

It is also recommended an update to the LRSP should be completed after no more than five years. The LRSP update can resolve any issue identified in the annual reviews. The update should also include the latest collision data, and may include new emphasis areas and 4E strategies, as well as progress of the previous plan.



APPENDICES



APPENDIX A

EXCERPTS FROM EXISTING CITY DOCUMENTS

CITY OF HANFORD 2035 GENERAL PLAN UPDATE (COMPLETED IN 2017)

The 2035 General Plan Update (GPU) establishes the City's policies and guidance regarding future development and land uses. The below sections of the GPU are related to roadway safety and must be considered when preparing the LRSP.

Included in Chapter 4, Transportation & Circulation, of the GPU Policy Document are the following guiding principles related to transportation and circulation:

- Coordinated land use and circulation systems
- Safe, reliable, efficient movement of people and goods
- Less reliance on private motorized transportation
- A prosperous community
- Downtown area as the physical, cultural, civic, and commercial center of Hanford
- Hanford as the regional commercial, service, and government center of Kings County
- Enhancement of quality of life
- Respect for private property rights
- Enhancement of the historic center of the City
- A well-designed, physically integrated, livable community

The GPU Policy Document also identifies the below goals. The document also includes several policies and actions to meet these identified goals.

Goal T3: City streets that meet the needs of bicyclists, pedestrians, children, motorists, persons with disabilities, the elderly, users of public transportation, and commercial good movers.



Goal T4: An interconnected bikeway and community pedestrian network that facilitates and encourages nonmotorized travel throughout Hanford.

Goal T12: Improved performance and expanded capacity of the street network by means other than roadway widening or construction.

CITY OF HANFORD PEDESTRIAN AND BICYCLE MASTER PLAN (2016)

The vision of the City's Pedestrian and Bicycle Master Plan is "Hanford – A City where walking and cycling are fully integrated into daily life, providing environmentally-friendly transportation alternatives that are both safe and convenient for people of all ages and abilities." Identified in the Pedestrian and Bicycle Master Plan are the following safety-related objectives and policies in support of the plan's vision.

Objective 4: Improve safety for pedestrians and bicyclists by implementing education and promotion programs for all Hanford residents and by enforcing pedestrian, bicycle and motorist laws and regulations affecting pedestrian and bicycle safety.

Objective 8: Street crossings should be safe and accessible.

HANFORD DOWNTOWN EAST PRECISE PLAN (2013)

The Downtown East Precise Plan serves as a guide for the City in promoting development and revitalization of residential and commercial uses in the Downtown East area which encompasses approximately 63-acres. The area is identified as 10th Avenue to Harris Street (east-west), and Ninth Street to the San Joaquin Valley railroad tracks (north-south), as well as the area bounded by Brown Street, Ninth Street, 10th Avenue, and Tenth Street. The plan identifies bike and pedestrian improvements, streetscape, lighting, and street furnishings as priority projects. One of the plan objectives for circulation and mobility is to promote a safe and comfortable multi-modal district and pedestrian and bicycle friendly environment. The plan also identifies several traffic calming measures to improve overall traffic safety, including curb extensions, special crosswalk paving, and mid-block crossings.

ENGINEERING AND TRAFFIC SURVEY (2015)

The City of Hanford completed an Engineering and Traffic Survey in 2015 to update posted speed limits throughout the City. Recommended speeds from this study will be utilized when determining appropriate countermeasures for identified roadway safety issues.



SUGGESTED ROUTE TO SCHOOL MAPS

The City of Hanford maintains Suggested Route to School Maps for the elementary and middle schools in the City, including the following:

Hanford Elementary School District

- Hamilton Elementary
- Jefferson Academy
- Lee Richmond Elementary
- Lincoln Elementary
- Martin Luther King Jr. Elementary
- Monroe Elementary
- Roosevelt Elementary
- Simas Elementary
- Washington Elementary
- John F. Kennedy Jr. High
- Woodrow Wilson Jr. High

Pioneer Union Elementary School District

- Pioneer Elementary
- Frontier Elementary
- Pioneer Middle

St. Rose-McCarthy Catholic School

The suggested route to school maps will be utilized when determining appropriate countermeasures for identified roadway safety issues.

CAPITAL IMPROVEMENT PROGRAM

The City of Hanford's 2022-2026 Five-Year Capital Improvement Plan (CIP) was reviewed, and projects were identified that might affect roadway safety issues. The CIP identifies the following potential safety-related projects:

- **New Sidewalk and ADA Improvements** – to install in areas currently void of such improvements to provide pedestrians with safe walkways outside vehicular travel areas.
- **East Lacey Boulevard Widening/Reconstruction, 10th Avenue to Sierra Drive** – to improve traffic flow capacity and safety by providing additional travel lanes, a protected left-turn lane, and traffic signal system at the East Lacey Boulevard/Ninth Avenue intersection, as well as improving pedestrian safety with the addition of curb, gutter, sidewalks, and street lighting.
- **Traffic Signal at 12th Avenue and Hume Avenue** – to improve traffic flow efficiency and reduce intersection congestion in an area where development continues to increase



placing demands on the City's transportation system.

- **Campus Drive Resurfacing, Lacey Boulevard to Greenfield Avenue** – to improve roadway surfacing, install accessibility ramps, and restripe the roadway.

CITY CONSTRUCTION STANDARDS AND SPECIFICATIONS

Included in the City's Construction Standards and Specifications are the following standard details related to roadway safety:

- ST-44 Standard X-walk Markings
- ST-47 Stop & Yield Pavement Markings
- ST-50 School X-ing and Pedestrian X-ing Pavement Markings
- ST-53 Railroad X-ing Pavement Markings

KINGS COUNTY LOCAL ROADWAY SAFETY PLAN (2022)

Kings County recently completed their LRSP with the vision to “encourage and promote safety on Kings County roadways to serve the mobility needs of all people.” The County’s mission is “to create a safer roadway system and develop a culture in support of traffic safety in Kings County.” The County established the following goals to meet their identified vision and mission.

- Advance delivery of safety enhancements in underserved communities.
- Educate the public on traveling safety throughout the County.
- Provide targeted safety education for school-age population.
- Reduce the annual number of severe and fatal transportation-related injuries.
- Increase enforcement targeted around driving under the influence.



APPENDIX B

PRIORITY TABLES

HIGH-RISK INTERSECTIONS

INTERSECTION	Total Crashes	Fatal & Injury Crashes	Equivalent Property Damage Only	<i>Fatal</i>	<i>Serious Injury</i>	<i>Other Visible Injury</i>	<i>Complaint of Pain</i>	<i>Property Damage Only</i>	Broadside	Rear-End	Sideswipe	Hit Object	Head On	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
SIGNALIZED INTERSECTIONS																						
11th Ave & Lacey Blvd	29	18	276	0	1	9	8	11	16	4	3	0	4	0	0	1	2	22	0	2	7	1
11th Ave & Florinda St/Rodgers Rd	27	11	111	0	0	6	5	16	11	6	1	0	7	0	2	0	2	20	0	1	12	1
12th Ave & Lacey Blvd	23	17	242	0	1	4	12	6	13	6	2	0	1	0	0	0	1	18	0	1	9	1
11th Ave & Hanford-Armona Rd	20	15	115	0	0	4	11	5	7	10	0	2	1	0	0	0	0	15	0	1	7	2
11th Ave & Grangeville Blvd	20	9	75	0	0	2	7	11	8	6	2	1	1	0	1	1	0	15	0	1	5	1
10th Ave & Grangeville Blvd	17	14	325	1	1	2	10	3	6	5	1	2	2	0	1	0	1	11	0	2	4	0
12th Ave & Centennial Dr/Mall Dr	17	5	47	0	0	1	4	12	9	3	3	0	2	0	0	0	0	9	0	1	4	1
11th Ave & Fargo Ave	16	8	175	0	1	1	6	8	7	2	2	3	2	0	0	0	0	11	0	2	7	2
Grangeville Blvd & Redington St	15	9	70	0	0	2	7	6	12	1	2	0	0	0	0	0	1	13	0	0	3	1
11th Ave & Elm St	12	8	57	0	0	1	7	4	4	4	0	0	4	0	0	0	1	8	0	1	3	1
Lacey Blvd & Mall Dr	12	4	32	0	0	0	4	8	8	2	0	1	0	0	1	0	1	9	0	0	2	1
11th Ave & Davis St	11	8	70	0	0	4	4	3	2	1	0	1	5	0	0	2	0	5	0	3	7	3
Grangeville Blvd & Rodgers Rd	11	7	170	0	1	2	4	4	5	2	1	0	2	0	0	1	0	7	0	2	4	1
Grangeville Blvd & University Ave	11	6	60	0	0	4	2	5	7	3	0	1	0	0	0	0	0	11	0	0	2	1
Douty St & Florinda St	11	6	46	0	0	1	5	5	4	3	1	0	3	0	0	0	0	9	0	0	1	0
Redington St & Seventh St	10	6	54	0	0	3	3	4	6	1	1	0	2	0	0	0	0	7	0	0	3	0
Douty St & Seventh St	9	5	44	0	0	2	3	4	3	3	0	0	2	0	0	1	0	8	0	1	1	0
Douty St & Fargo Ave	9	2	19	0	0	0	2	7	7	2	0	0	0	0	0	0	0	8	0	0	0	0
11th Ave & Seventh St	8	6	52	0	0	3	3	2	3	2	2	0	0	0	0	1	0	4	0	0	0	1
11th Ave & Cortner St	8	6	43	0	0	1	5	2	2	5	0	0	1	0	0	0	0	5	0	2	2	0
10th Ave & Lacey Blvd/Seventh St	7	4	37	0	0	2	2	3	1	3	1	2	0	0	0	0	1	1	0	3	1	0
Douty St & Grangeville Blvd	5	2	20	0	0	1	1	3	2	1	0	1	1	0	0	0	0	3	0	1	2	0
10th Ave & Fargo Ave	5	1	15	0	0	1	0	4	2	0	1	2	0	0	0	0	0	1	0	1	3	0
UNSIGNALIZED INTERSECTIONS																						
12th Ave & Glendale Ave	11	5	37	0	0	0	5	6	3	4	1	1	2	0	0	0	0	6	0	2	5	0
Sixth St & Phillips St	10	6	50	0	0	2	4	4	6	0	2	1	1	0	0	0	0	9	0	1	2	0
Douty St & Third St	10	4	40	0	0	2	2	6	8	1	1	0	0	0	0	0	1	7	0	0	0	0
11th Ave & Sixth St	9	3	29	0	0	1	2	6	6	2	1	0	0	0	0	1	0	6	0	2	2	1
Douty St & Center St	9	2	24	0	0	1	1	7	5	1	0	1	0	0	1	0	1	5	0	0	1	0
Park Ave & Ivy St	6	3	21	0	0	0	3	3	4	0	1	0	1	0	0	0	0	4	0	0	1	1
Fargo Ave & Glacier Wy	5	3	25	0	0	1	2	2	3	2	0	0	0	0	0	0	0	4	0	0	0	1
11th Ave & Pepper Dr	3	3	27	0	0	2	1	0	2	0	0	0	0	0	0	1	0	2	0	0	0	0
10th Ave & Second St	2	1	7	0	0	0	1	1	2	0	0	0	0	0	0	0	0	1	0	1	1	0

Locations chosen by Stakeholder's Working Group

HIGH-RISK ROADWAY SEGMENTS

FACILITY	Cross Street 1	Cross Street 2	Total Crashes	Fatal & Injury Crashes	Equivalent Property Damage Only	<i>Fatal</i>	<i>Serious Injury</i>	<i>Other Visible Injury</i>	<i>Complaint of Pain</i>	<i>Property Damage Only</i>	Broadside	Rear-End	Sideswipe	Hit Object	Head On	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
Grangeville Blvd	10th Ave	11th Ave	22	8	699	0	4	0	4	14	5	6	6	1	0	0	1	3	3	12	0	2	4	1
11th Ave	Fourth St	Lacey Blvd	19	15	427	0	2	3	10	4	4	7	0	0	2	0	3	6	2	12	0	1	5	0
Grangeville Blvd	11th Ave	12th Ave	13	13	93	0	0	3	10	0	3	3	1	2	3	0	1	0	0	11	0	1	4	2
Hanford-Armona Rd	11th Ave	12th Ave	11	11	717	0	4	3	4	0	3	5	2	0	1	0	0	1	1	4	0	4	5	0
Hanford-Armona Rd	10th Ave	11th Ave	10	10	84	0	0	5	5	0	1	4	1	1	2	0	1	0	2	6	0	1	6	0



APPENDIX C

CALTRANS LRSM 2022

Local Roadway Safety

A Manual for California's Local Road Owners

Version 1.6
April 2022



Created by Caltrans in conjunction with FHWA and SafeTREC
for the express benefit of California Local Agencies.



U. S. Department of Transportation
Federal Highway Administration

Safe Transportation
Research & Education Center

SafeTREC

Document History

Version 1.0: 4/20/2012

The California Department of Transportation - Division of Local Assistance developed the first version of the Local Roadway Safety Manual (Version 1.0) in 2012 to support the Cycle 5 HSIP call-for-projects.

Version 1.1: 4/26/2013

Based on feedback and lessons learned from Cycle 5, Caltrans updated Appendix B: “Table of Countermeasures and Crash Reduction Factors” to better clarify text in “Where to use”, “Why it works”, and “General Qualities” for several of the countermeasures included in the original manual.

No other changes were made to the Local Roadway Safety Manual as part of Version 1.1

Version 1.2: 03/10/2015

Based on feedback and lessons learned from Cycle 6, Caltrans made minor updates to the text of the document as needed for achieving consistency with overall Caltrans local HSIP guidance documents. The following sections were updated: 1.2, 4.2, 5.1, 6.2, and Appendix B, E, F & G.

Version 1.3: 04/29/2016

Caltrans made updates to the text of the document as needed in the following sections: 4.2, 5.1 and Appendix B.

Version 1.4: 06/08/2018

3/30/18 - Caltrans made updates to the crash costs in Appendix D, some of the website links in Appendix G, and some other texts of the document.

6/8/18 - Countermeasure S22 (“Modify signal phasing to implement a Leading Pedestrian Interval (LPI)”) is added.

Version 1.5: April 2020

Caltrans added a few more countermeasures (e.g. Pedestrian Scramble, Install Separated Bike Lanes, Reduced Left-Turn Conflict Intersections, and Curve Shoulder widening), renumbered the countermeasures and updated the crash costs in Appendix D.

Version 1.6: April 2022

For Cycle 11 Call-for-projects, Countermeasure S04 (Provide Advanced Dilemma Zone Detection for high-speed approaches) was deleted and Countermeasure NS05mr (Convert intersection to mini-roundabout) added. The HSIP Funding Eligibility was changed to 90% except for S03, of which the HSIP Funding Eligibility stays at 50%. The crash costs in Appendix D were updated.

Future Updates:

In the future, Caltrans anticipates that additional changes will be needed to keep the Local Roadway Safety Manual consistent with future Calls-for-Projects’ Guidelines and Application Instructions. In addition, new local HSIP programs, improvements to California data on local roadways, data analysis tools, and the latest safety research and methodologies may give rise to the need to make more significant changes to this manual.

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Foreword

Why was this manual developed?

The California Department of Transportation - Division of Local Assistance's goal in developing this manual is to maximize the safety benefits for local roadways by encouraging all local agencies to proactively identify and analyze their safety issues and to position themselves to compete effectively in Caltrans' statewide, data-driven call-for-projects.

This goal is complicated by California's wide variety of local agencies, roadway types, and project types, including: rural vs. urban, low-volume vs. high-volume, and intersection vs. roadway segment vs. network-wide. This variety makes it difficult to administer a single program and provide one set of guidelines that meets the needs of all California's local roadway owners and users. Many of California's local agencies are also challenged by the lack of a basic safety analysis framework and analysis tools specifically designed for local roadway managers with widely varying responsibilities and safety training. Currently, there is a vast range of safety documents, program guidance, and analysis tools with a wide variety of complexity and applications. Without clear and simple safety guidance for locals, many agencies take a 'reactive' approach to safety, even when research has shown 'proactive' safety analysis of roadways is more effective in making system-wide safety improvements.

The Federal Highway Administration (FHWA) Office of Safety provides national leadership in identifying, developing, and delivering safety programs and products to local governments to improve highway safety on local and rural roads.¹ In 2010, FHWA published a set of three manuals designed specifically for rural road owners; Roadway Departure Safety, Intersection Safety, and Road Safety Information Analysis.² These manuals present a simple, data driven safety analysis framework for rural agencies across the nation. These manuals, in conjunction with Caltrans' ongoing short-term research and development contract with the Safe Transportation Research and Education Center (SafeTREC) at the University of California, Berkeley, provided a unique opportunity for Caltrans to pursue development of this document as a mirror of FHWA's new Manuals for Local Rural Road Owners. Much of the wording, formatting and references from these FHWA manuals have been directly incorporated into this manual for California's local road owners. Individual references to the FHWA manuals have not been included; instead these documents are intended to be referenced on a wholesale basis.

With FHWA's and SafeTREC's support and expertise, Caltrans was able to expedite the completion of this manual and can now offer California's local agencies a new tool intended to provide focused roadway safety information in one manual.

1. Introduction and Purpose

The information in this document is geared towards local road managers and other practitioners with responsibility for operating and maintaining local roads, regardless of safety-specific highway training. The primary goal of this document is to provide an easy-to-use and comprehensive framework of the steps and analysis tools needed to identify locations with roadway safety issues and the appropriate countermeasures. For novice practitioners, the concepts and framework will be new, while experienced safety practitioners may find this manual to be mostly review. In both cases, the manual will provide the practitioners with a good understanding of how to complete a proactive safety analysis and ensure they have the best opportunity to secure HSIP safety funding during Caltrans calls-for-projects.

It's expected that novice and experienced practitioners will utilize this manual to help position their local agency to better compete in future Caltrans' calls-for-projects for safety programs. Inexperienced local roadway practitioners are also a target audience for this manual to gain exposure to the basic concepts that make up a proactive safety analysis of a local agency's roadway network.

The intent of this manual is to focus on key safety activities that every local agency should conduct on an annual basis (or as established by the agency) with the objective of reducing the number and severity of crashes within their jurisdiction. This manual defines this overall process as a "proactive safety analysis" approach to roadway safety. The Highway Safety Manual (HSM), documents a very similar process and refers to it as the "Roadway Safety Management Process." While the process in this document is similar and suggests the same primary elements, the HSM goes into significantly more detail, focuses more on scientific and mathematical equations behind the process, and intends to provide a comprehensive understanding of the overall processes to be applied by individual agencies across the nation. In contrast, this manual attempts to streamline the discussion; and make accommodations for the more novice safety practitioners, provide an adequate understanding of the process to complete an initial safety analysis of their roadway network, and instruct them on how to prepare applications that will compete well in Caltrans' statewide calls-for-projects. In general, this manual is intended to follow the research and methodologies presented in the HSM; however, to support Caltrans' statewide calls-for-projects process, it is important to note this manual deviates from the HSM in areas related to countermeasure selection and benefit / cost calculations. The logic behind these deviations is explained at the specific topic sections.

This manual is not intended to cover many of the day-to-day basics of traffic engineering including: maintain standard signage per the Manual on Uniform Traffic Control Devices; maintain sight distance (cut vegetation, remove parking); maintain a recovery zone; work with local traffic law enforcement; monitor collisions; address complaints; and manage litigation. These activities are understood to be critical elements of a local agency's traffic engineering responsibilities, but are not within the intended scope of this document.

1.1 California Local Roadway Safety Challenges and Opportunities

California's local roads are managed by more than 600 local agencies, including: cities, counties, and tribal governments. These local roads vary from flat multi-lane urban arterials to rural gravel roads in mountainous areas. California local agencies invest extensive resources on roadway safety every year, yet many roadways operate with outdated or insufficient safety features. A portion of these roadways even lack basic signing, pavement markings, alignment, and traffic control devices. Limited funding often prevents agencies from constructing safety projects, which can be expected. At the same time, the lack of safety data, design challenges, and lack of adequate training also hinder local agencies' accurate evaluation of their roadway network safety issues, which is more preventable.

Many small California local agencies are challenged by a lack of crash data. Without data, they have no way to identify High Crash Concentration Locations (HCCLs) or high risk roadway features, which can leave them "flying blind" with respect to the safety of their overall roadway network. Without data and analysis results, local officials may overreact when a tragic crash occurs, resulting in resources being spent in areas that will not maximize the overall application of safety funds. In conjunction with the collision mapping and analysis tools developed by UC Berkeley's SafeTREC, this document helps ensure all California local agencies have direct access to data on fatal and injury crashes within their jurisdictions and the analysis tools to effectively assess and prioritize future safety projects.

1.2 Safe System Approach

The Infrastructure Investment and Jobs Act (IIJA), aka Bipartisan Infrastructure Law (BIL), was signed into law on November 15, 2021. Under IIJA, the Highway Safety Improvement Program (HSIP), codified as Section 148 of Title 23, United States Code (23 U.S.C §148), is a core federal-aid program to States for the purpose of achieving a significant reduction in fatalities and serious injuries on all public roads. The IIJA emphasizes the "safe system approach":

Safe system approach means a roadway design that emphasizes minimizing the risk of injury or fatality to road users; and that (i) takes into consideration the possibility and likelihood of human error; (ii) accommodates human injury tolerance by taking into consideration likely accident types, resulting impact forces, and the ability of the human body to withstand impact forces; and (iii) takes into consideration vulnerable road users. (23 U.S.C. 148(a)(9)).

FHWA recognizes that the funding available through HSIP alone will not achieve the goal of zero fatalities on the Nation's roads. The Safe System approach addresses the safety of all road users, including those who walk, bike, drive, ride transit, and travel by other modes. It involves a paradigm shift to improve safety culture, increase collaboration across all safety stakeholders, and refocus transportation system design and operation on anticipating human mistakes and lessening impact forces

to reduce crash severity and save lives. FHWA encourages States to prioritize safety in all Federal-aid investments and in all appropriate projects, using not only HSIP funding but also other Federal-aid funding.

The IIJA emphasizes the importance of vulnerable road user (non-motorized road user) safety in the HSIP by adding a definition for vulnerable road users, creating a vulnerable road user special rule, and requiring States to develop and update a vulnerable road user safety assessment. All of these provisions address the increasing number of fatalities involving vulnerable road users on U.S. roads. It is imperative that States consider the needs of all road users as part of the HSIP. Investment in highway safety improvement projects that promote and improve safety for all road users, particularly vulnerable road users, aligns with the IIJA and will help Build a Better America. States and other funding recipients should prioritize projects that maximize the existing right-of-way for accommodation of non-motorized modes and transit options that increase safety, equity, accessibility, and connectivity. Projects that separate users in time and space, match vehicle speeds to the built environment, and increase visibility (e.g., lighting) advance implementation of a Safe System approach and improve safety for vulnerable road users.

1.3 The State's Role in Local Roadway Safety

The California Department of Transportation (Caltrans)—Division of Local Assistance is responsible for administering California's HSIP safety funding intended for local roadway safety improvements. This funding primarily comes to the state through two federal programs: Highway Safety Improvement Program (HSIP)—a federal-aid program focused on reducing fatalities and serious injuries on all public roads; and the Active Transportation Program (ATP)—a federal aid and state funded program focused on improving safety and the overall use of non-motorized, active transportation modes of travel. Under SAFETEA-LU, High Risk Rural Roads Program (HR3) was established to focus on addressing rural road safety needs but in MAP-21 and FAST, it is now a 'special rule' under HSIP that if triggered, directs that a certain amount of HSIP funds will need to be allocated for those rural roads that meet the definition.

Caltrans' administration of these programs encompasses many responsibilities, including: establishing program guidance; reviewing applications for improvements on local roadways; ranking applications/projects on a statewide basis; selecting projects for funding based on the greatest potential for reducing fatalities and injuries; programming the selected projects in the Federal Statewide Transportation Improvement Program (FSTIP); and assisting with programming and delivery issues throughout the delivery of the local agency projects. One goal for developing this document is to improve Caltrans' overall data-driven approach to statewide project selection of safety projects and to maximize the long-term safety improvements across California. To show the relationship between Caltrans' project selection process and this manual, a diagram showing the HSIP Call-for-Projects Process is provided in Appendix A.

Many State Departments are also actively engaged in California's Strategic Highway Safety Plan (SHSP). Caltrans developed the SHSP in a cooperative process with local, State, federal, and private sector safety stakeholders. The SHSP is a data-driven, comprehensive plan that established statewide goals, objectives, integrated the five E's of traffic safety— engineering, enforcement, education, emergency response, and emerging technologies. This manual directly supports many of the emphasis areas of the California SHSP. Local agencies are encouraged to participate in ongoing SHSP update efforts and can find more information on the SHSP at the following website: <https://dot.ca.gov/programs/safety-programs/shsp>.

Local Roadway Safety Plan (LRSP) and Systemic Safety Analysis Report Program (SSARP)

The state-funded Systemic Safety Analysis Report Program (SSARP) was established in 2016. The intent of the SSARP was to assist local agencies in performing a collision analysis, identifying safety issues on their roadway networks, and developing a list of systemic low-cost countermeasures that can be used to prepare future HSIP and other safety program applications. Late 2019, the program was evolved to Local Roadway Safety Plan (LRSP) so that the focus is not just engineering solutions but also include safety improvements in other areas such as enforcement, Education and emergency response.

The state funding for the LRSP/SSARP program is made available by exchanging the local Highway Safety Improvement Program (HSIP) federal funds for State Highway Account (SHA) funds.

For more information, please visit the LRSP/SSARP webpage at <https://dot.ca.gov/programs/local-assistance/fed-and-state-programs/highway-safety-improvement-program/local-roadway-safety-plans>.

1.4 The Local Roadway Crash Problem

Approximately 3,000 people die in California traffic crashes every year, representing nearly 10% of all traffic fatalities in the United States. Fifty-seven percent of these fatalities occur on local roadways, while only forty-three percent occur on the California State Highway System. A comparison of rural and urban roadways shows that local rural roadways have fatality rates 2 to 3 times higher than urban roadways per vehicle miles traveled. Based on these statistics, the total annual cost of local roadway fatal crashes to California is over \$6 billion, while only \$100 million is available annually in HSIP safety funds.

These statistics demonstrate the large and complex safety issues facing California. Through the development of this document, Caltrans is striving to help local agencies proactively identify high risk roadway features, roadway network locations/corridors with the highest safety needs, and encourage them to select effective low-cost improvements, whenever appropriate.

1.5 Reactive vs. Proactive Safety Issue Identification

Safety issues are identified on local roadways through a wide range of approaches. Although no single approach works best for all local agencies, some are far more effective at improving long-term roadway safety. Many agencies, often larger ones, have staff whose full-time job is dedicated to roadway safety; allowing them to focus on safety initiatives, be trained in the latest safety research, and have access to safety analysis data, tools and procedures. These agencies often utilize a 'proactive' approach to analyze their roadway network and identify safety issues.

At the same time many agencies, often the smaller ones, lack the financial ability to dedicate large portions of their staff resources to analyze safety issues and their staff has limited access to roadway safety training, safety expertise, and the latest safety analysis tools and procedures. Unfortunately, this can often result in identifying their safety issues in 'reaction' to tragic events.

The following is a basic outline of the differences in proactive vs. reactive identification approaches used by local agencies:

Reactive Approach

For this document, an agency is considered to be utilizing a reactive approach to roadway safety if they primarily identify safety improvements in reaction to:

- Recent crashes triggering safety investigations
- Specific crash concentrations triggering safety investigations
- Stakeholder identification of locations with safety issues and requests for improvements
- New funding becoming available

Crash concentrations and crash trends may be missed if local agencies rely exclusively on these identifiers for their roadway safety effort. They may also miss many opportunities to effectively utilize low-cost, systemic type improvements. This document encourages local agencies to adopt a more proactive approach to their roadway safety.

Proactive Approach

An agency is considered to be using a proactive approach to roadway safety if they go beyond the elements of a reactive approach and identify safety improvements by analyzing the safety of their entire roadway network, in one of the following ways:

- One-time, network-wide safety analysis of their roadways driven by new source of funding.
- Routine safety analyses of the roadway network (Preferred Approach!)

Agencies with a proactive approach utilize both systemic and spot location improvements (as defined in section 1.5 below). Applying improvements systemically across an entire corridor or network allows an agency to proactively address locations that have not had crash concentrations in the past, but have

similar features as those currently experiencing high levels of crashes. In addition, even though a spot location improvement may be based on 'past' crashes, agencies making improvements based on countermeasures with proven crash reduction factors at their highest crash locations often have the best chance of proactively reducing future crashes.

This document encourages safety practitioners to pursue a proactive approach and routinely analyze the safety of their roadway networks to yield the best overall safety results.

1.6 Implementation Approaches

When an agency proactively identifies their safety issues throughout their roadway network, it is likely they will find high crash concentrations at intersections, roadway segments, and corridors. The safety practitioner should consider which implementation approach to utilize. Typical approaches include:

- Systemic Approach
- Spot Location Approach
- Comprehensive Approach incorporating human behavior issues

Each of these approaches has benefits and drawbacks. As Local agency practitioners identify their safety issues and analyze the data for crash patterns, they should be open to implementing a combination of these approaches, as documented in Sections 2 and 3 of this manual.

Systemic Approach

The Systemic Approach is primarily based on application of proven safety countermeasures at multiple crash locations, corridors, or geographic areas. Implementation of the Systemic Approach is generally based on 'system-wide' crash data with the estimates of the impacts being made in terms of benefits measured in traffic crash reduction and deployment cost. Identified locations experiencing high levels of crashes and locations with similar geometric features can be treated systemically with low-cost, proven safety countermeasures. *Note: The term "Systemic" used throughout in this manual is often exchanged with the term "Systematic" in many national safety documents and research studies. In general, safety practitioners will find these terms interchangeable. This manual uses "Systemic" to match the new HSM and the FHWA CMF Clearinghouse.*

Benefits of the Systemic Approach may include:

- Widespread effect. The Systemic Approach addresses safety issues at a large number of locations or on an entire local roadway network. It can also generate projects that combine HCCLs and locations with the potential for crashes and still have high Benefit to Cost (B/C) ratios. An example of this type of project could be upgrading pavement delineation and warning signs along a rural corridor: crashes may not have occurred on every curve or segment along the corridor, but all of the corridor's pavement delineation and warning signs can be upgraded at one time. For urban applications, an example could be protecting the left-turn phase of signalized intersections with

existing left-turn pockets: severe crashes may not have occurred at each of the left-turn movements, but with minor changes to the signal hardware and signing, all or many of a city's unprotected left-turn phases can be protected with one safety project.

- Crash type prevention. By focusing on a predominant crash type, an agency can address locations that have not experienced significant numbers of these types of crashes, but have similar characteristics or conditions as existing HCCLs. The resulting B/C ratios for these types of projects will be less than if only HCCLs are included; but by using low-cost countermeasures and including as many high crash locations as possible, the resulting B/C ratios should still be high enough to allow agencies to proactively address locations that have not experienced high numbers of these types of crashes. For urban areas, projects improving pedestrian crossings can be good examples of the Systemic Approach. By applying the countermeasures systemically, the agency can often justify these projects based on relatively high B/C ratios, even though some of the improvement locations have not experienced enough crashes to yield moderate-to-high B/C ratios on their own.
- Cost-effectiveness. Implementing low-cost solutions across an entire system or corridor can be a more cost-effective approach to addressing system-wide safety issues. Even though this approach does not address all (or total) safety issues for a given location, the deployment of low-cost countermeasures often result in the highest overall safety benefit for an agency with limited safety funding. An example of this would be an agency choosing to install rumble stripes along an entire corridor for equal or less money than realigning a small portion the roadway to fix a single curve.
- Reduced data needs. The Systemic Approach can be used without a detailed crash history for specific locations, thereby reducing data needs. For example, consider a long rural corridor, which includes a section that passes through an Indian Reservation: Even if there is no documented crash data for the portion of the corridor that passes through the reservation, the entire limits can be treated with the same low-cost improvements. As long as there are sufficient past crashes documented for the entire corridor, the project will still have a reasonably high B/C ratio.

Drawbacks of the Systemic Approach may include:

- Justifying improvements can be difficult. Because this approach does not always address locations with a history of crashes and active stakeholders, it can be difficult to justify the improvements. The Systemic Approach will rarely include a recommendation for a large-scale safety improvement at a single location. Since large-scale projects usually garner attention from decision makers, the media, elected officials, and the general public, safety practitioners often need to make additional efforts to explain the Systemic Approach and its benefits to those groups. Safety practitioners can utilize the high B/C ratios of these systemic projects to convey their benefits compared to high-profile, single location projects with lower B/C ratios.

Spot Location Approach

The Spot Location Approach is typically based on an analysis of crash history to identify locations that have significantly higher crashes and treat them accordingly. It is important to practitioners to

understand that for many locations, safety issues can be complicated and sometimes the most appropriate fixes are not quick, easy or cheap.

Benefits of the Spot Location Approach may include:

- Focus on demonstrated needs. The Spot Location Approach focuses directly on locations with a history of crashes and specifically addresses those crashes. Intersection improvements are some of the most common spot location projects. Intersections tend to have higher concentrations of crashes resulting from opposing traffic movements. These high crash concentrations often require stand-alone improvements to adequately resolve the safety issues.
- Justifying improvements can be easy. Because this approach addresses locations with a history of crashes, it is usually easy to justify improvements. For urban areas, reconfiguring/ reconstructing an entire intersection can be a good example of an effective Spot Location Approach. Large urban intersections can have extremely high crash concentrations, making major changes to the intersection the only way to significantly reduce future crashes. With these types of scenarios, even the highest cost countermeasures can be cost effective.
- If low-cost countermeasures are used, this approach can prove very cost effective. The Spot Location Approach does not always have to include moderate or high cost improvements. It is often appropriate for local agencies to make low-cost improvements at one location at a time. Ongoing maintenance and development projects offer great opportunities for these low-cost improvements to be constructed with no additional expense to local agencies.

Drawbacks of the Spot Location Approach may include:

- Assumption that the past equals the future. This approach assumes locations with a history of crashes will continue to experience the same number and type of crashes in the future. When agencies do not account for the random nature of roadway crashes (i.e., Regression to the Mean), moderate to high cost projects can be erroneously justified. Practitioners can mitigate this by using 5 years of crash data when analyzing their roadways. In addition, significant changes to land use or roadway characteristics in or around proposed projects can either increase or decrease the expected number of future crashes.
- Minimal overall benefit to the roadway network. Some local agencies use this approach with medium and high cost improvements at locations which do not represent their worst high crash concentration locations. The result can be projects with low B/C ratios and overall safety benefits that are not as high as if they utilized a Systemic Approach. This drawback can be minimized by safety practitioners who analyze their entire roadway network, propose spot location fixes only at their highest crash locations, and utilize lower cost countermeasures wherever appropriate.

The Spot Location Approach to traffic safety is ideally implemented along with the Systemic Approach to provide the best combination of safety treatments. For instance, the Spot Location Approach can be applied at locations where low-cost countermeasures are not expected to be effective in significantly

reducing future crashes or at those locations that have had low-cost countermeasures previously installed systemically but, after an assessment, continue to show a higher-than-average crash rate.

Comprehensive Approach

The Comprehensive Approach introduces the concept of the “5 E’s of Safety”: Education, Enforcement, Engineering, Emergency Response and Emerging Technologies. This approach recognizes that not all locations can be addressed solely by infrastructure improvements. Incorporating the “5 E’s of Safety” is often required to achieve marked improvement in roadway safety. For instance, some roadway segments will be identified for which targeted enforcement is an appropriate countermeasure. Some of the most common violations are speeding, failure-to-yield, red light running, aggressive driving, failure to wear safety belts, distracted driving, and driving while impaired. When locations are identified as having these types of violations, coordination with the appropriate law enforcement agencies is needed to deploy visible targeted enforcement to reduce the potential for future driving violations and related crashes. To improve safety, education and outreach efforts can also be used to supplement enforcement efforts. Enforcement and/or education can also be effectively utilized as short-term ways to address high crash locations, until the recommended infrastructure project can be implemented.

1.7 Our “Safety Challenge” for Local Agencies

Caltrans, FHWA and Safe Transportation Research and Education Center (SafeTREC) “challenge” local agencies to initially commit one or more days to understanding and applying the concepts and tools outlined in this manual. Experienced safety practitioners working in agencies currently using a proactive approach can quickly review the topics in the manual and consider/test some of the new tools (e.g., TIMS) identified within it. In contrast, novice safety practitioners may need several days to better understand the underlying concepts in this manual to be able to complete the basic elements of a proactive safety analysis of their roadway network. In these situations, the room for knowledge growth, internal process improvements, and expected safety benefits will be even greater, which should more than offset the additional time invested.

By utilizing this simple framework for identifying, analyzing and implementing a proactive approach for improving safety on their roadways, practitioners will have a better understanding of their agencies’ unique safety issues, the proven low-cost countermeasures that can reduce crashes, and the existing and future funding to implement the projects. This small investment of time will help local agencies achieve significant reductions in future fatalities, injuries and overall crashes. We believe these local agencies may also gain the added unexpected benefit of improved job satisfaction of those involved, as there are few more rewarding tasks than knowing that your efforts will result in future roadway users arriving safely at their destination instead of becoming statistics.

1.8 Summary of information in this Document

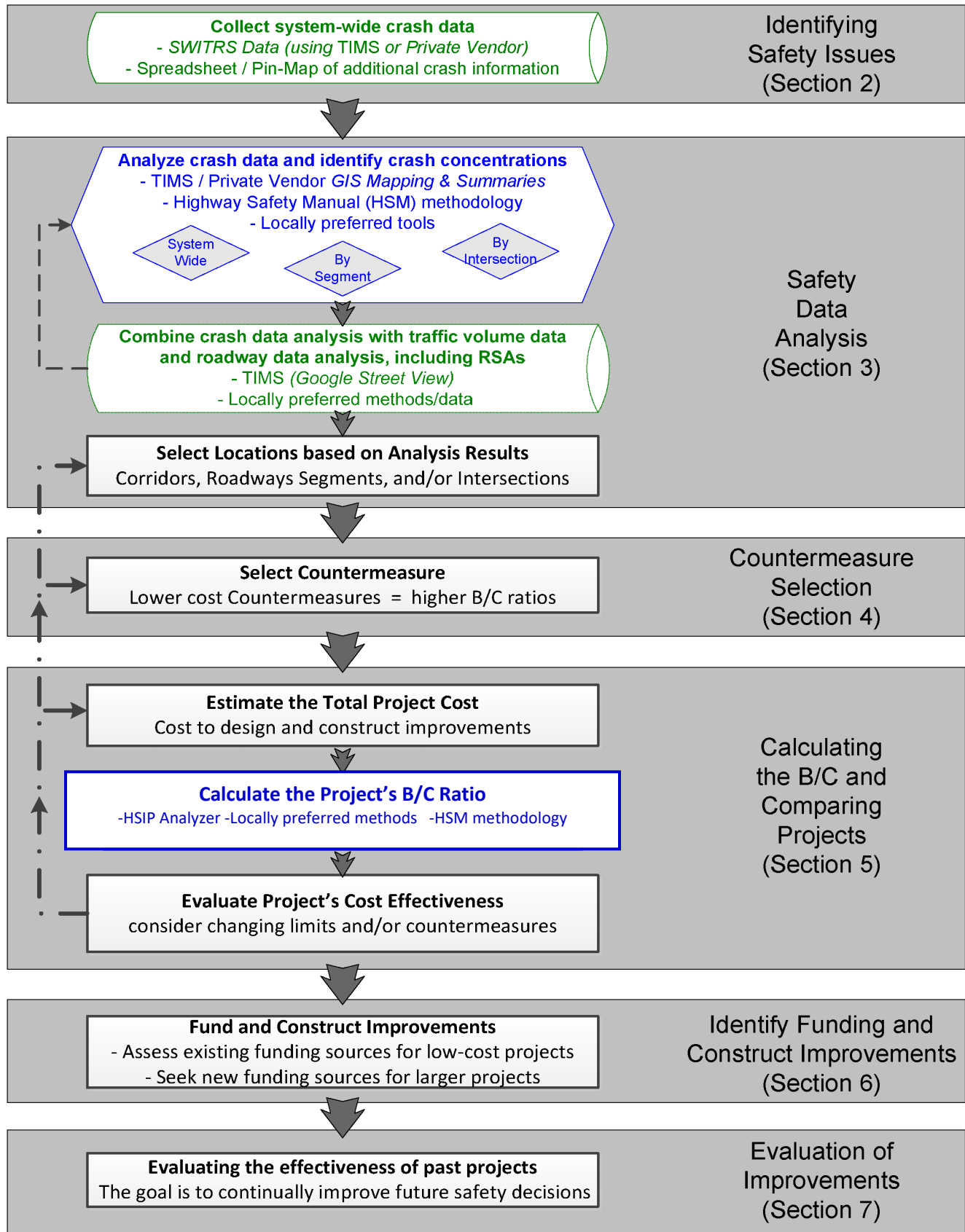
This document provides information on effectively identifying California's local roadway safety issues and the countermeasures that address them, ultimately leading to the effective implementation of safety projects that improve safety on local roadways. The document is not intended to be a comprehensive guide for roadway design and improvement or the only guide local agencies utilize for their safety analysis of their roadways.

Caltrans also expects this document will directly support its efforts in selecting local agency safety projects. The expectation is that as local agencies throughout the state utilize the proactive safety analysis approach outlined in this document, their applications for HSIP, and ATP projects will include lower cost improvements at locations with the highest safety needs. This will improve Caltrans' data-driven approach to statewide project selection of safety projects and maximize the safety benefits across California.

The proactive safety analysis framework incorporated in this document is summarized in Figure 1.

Figure 1

Local Roadway Safety: Proactive Safety Analysis Approach



The above flowchart illustrates how each of the individual sections of this document work together to make up a proactive safety analysis approach. These sections are briefly outlined below:

Section 2 of this manual provides an overview of the types of data to collect for the identification of roadway safety issues. It discusses sources of crash data and how they can be used.

Section 3 summarizes the types of analyses that can be conducted to determine what roadway countermeasures should be implemented. This section is the link between the data (Section 2) and the selection of appropriate countermeasures (Section 4). It provides definitions and examples of the qualitative and quantitative factors that should be considered when evaluating roadway safety issues.

Section 4 provides a description of selected countermeasures that have been shown to improve safety on local roads. It includes a basic set of strategies to implement at locations experiencing a history of crashes and their corresponding crash modification factors (CMF). The interrelationship between CMFs and Crash Reduction Factors (CRFs) are defined and used interchangeably throughout this document.

Section 5 defines a methodology for calculating a B/C ratio for a potential safety project. It includes sources for estimating projected costs and benefits and the specific values/formulas Caltrans uses for its statewide evaluations of HSIP projects. This section also discusses the potential value in reevaluating projects' overall cost effectiveness at this point in the safety analysis, including: refining the project's costs and/or changing the mix of countermeasures and locations.

Section 6 identifies existing and new funding opportunities for safety projects that local agencies should be considering. This section also briefly discusses some unique project development issues and strategies for safety projects as they proceed through design and construction.

Section 7 presents the process to complete an evaluation of installed treatments. After the countermeasures are installed, assessing their effectiveness will provide valuable information and can help determine which countermeasures should continue to be installed on other roadways to make them safer as well as those that should be limited or discontinued.

Appendix A presents a flowchart of the HSIP call-for-projects process. This flowchart demonstrates how this document interacts with these Caltrans calls-for-projects.

Appendix B contains Detailed Tables of countermeasures discussed in Section 4. This table includes detailed information about each countermeasure, including: where to use, why it works, general qualities (time, cost and effectiveness), crash type(s) addressed, crash reduction factor, and specific values for use in Caltrans HSIP calls-for-projects.

Appendix C includes a summary of "recommended actions" involved in a proactive safety analysis.

Appendix D contains the formulas used to calculate the B/C ratio of safety projects.

Appendix E presents TIMS tutorials that are available to assist local agencies in completing Caltrans call-for-projects application requirements and attachments. The tutorials include examples for Spot Location projects and systemic projects.

Appendix F presents a list of the abbreviations used in this document.

Appendix G presents a list of references.

2. Identifying Safety Issues

This document encourages local agency safety practitioners to proactively analyze their roadway networks with the intention of yielding the best overall safety benefits. When utilizing a proactive safety analysis approach, practitioners need to consider a wide range of data sources to get an overall picture of the safety needs.

There are a number of information sources that can be accessed to get a clearer picture of the roadway safety issues on the roadway network. These can be formal or informal sources, including:

Formal sources:

- State and local crash databases
- SafeTREC's TIMS website (or locally preferred mapping software)
- Law enforcement crash reports and citations
- Field assessments

Informal sources:

- Observational information from road maintenance crews, law enforcement, and first responders
- Citizen notification of safety concerns

Examining crash history will help practitioners identify locations with an existing roadway safety problem, and also identify locations that are susceptible to future roadway crashes. In addition to location identification, this data can provide information regarding crash causation that ultimately provides insight into identifying potentially effective countermeasures.

Emphasis on data-driven decisions is indicative of reliability and efficiency. The more reliable the data, the more likely the decisions regarding safety improvements will be effective. However, detailed, reliable crash data are not available in all areas. Under this circumstance, the practitioner should use the best available information and engineering judgment to make the best decisions. In an effort to mitigate these situations, UC Berkeley SafeTREC has developed the TIMS website, which includes GIS mapping tools to access fatal and injury crashes statewide. This site is now available to all California local agencies. See Section 2.2 for more details on TIMS.

It is generally accepted that at least 3 years, or preferably 5 years, of crash data be used for an analysis; additional years of crash data can provide better information. For low volume roadways and/or when only severe crashes are analyzed, more years of crash data may be necessary for an effective evaluation. Due to the randomness of crashes in a given year, a multi-year average of safety data will smooth outlier years of relatively high or low roadway crash rates. This concept is commonly referred to as "regression to the mean" and is critical in helping safety practitioners avoid making wrong inferences as they analyze their roadway network data. An example of this is an agency making a high-cost improvement at

a location in response to one or two tragic crashes. The Highway Safety Manual (HSM) includes more details on regression to the mean and methods to reduce the random nature of crashes.

There are some circumstances where additional years of crash data may not always be advantageous. First, it's important for practitioners to recognize that as more years of crash data are used, they need to consider changes in traffic patterns, physical infrastructure, land use, and demographics that may affect their projection of future crashes. Second, if practitioners only focus on many years of past crash data, they could miss emerging safety issues and crash trends. For these reasons, if practitioners sense one or more factors affecting crashes have changed or may be changing, they should consider looking at the crash data for the specific area on a yearly or 3-year moving average to expose any changes and crash trends that are occurring.

2.1 State and Local Crash Databases

California has a central repository for storing crash data called SWITRS, which stands for Statewide Integrated Traffic Records System. SWITRS is a comprehensive data source for doing roadway safety analysis that includes almost all public roads in the database except tribal roads which are currently not included. SWITRS information is available to California's local agencies, although many agencies have had difficulty identifying, extracting and utilizing their crash records from SWITRS. All California local agencies, especially those that currently have difficulty accessing and mapping crash data, are encouraged to utilize the SafeTREC TIMS website to access and map SWITRS data.

This document focuses on the SafeTREC TIMS website as a tool to access and map SWITRS data because TIMS is free to local agencies and the general public. At the same time, this document also acknowledges that TIMS currently does not offer some of the features currently available in some of the commercially available crash analysis software packages. For this reason, local agencies are encouraged to try TIMS, but they should not feel obligated to make a switch if they prefer using their vendor supplied crash analysis software. See section 2.2 for more details on TIMS.

Many agencies utilize one of several crash analysis software packages (e.g., Crossroads) to manage and access their crash records. Their use can be costly, but allows local road practitioners to identify locations with multiple roadway crashes, conduct an analysis that can produce predominant crash types, and identify associated roadway features that may have contributed. One drawback to agencies managing and updating their own individual databases is that the statewide database may become outdated and may not include the updated crash details like geo-coded locations. Agencies that manage and update their own individual databases are encouraged to share all updates, including any geo-coding information, with the SWITRS data managers at the California Highway Patrol. This will allow updated geo-coding and other crash features to be available on a statewide basis.

Recommended Action: Obtain at least 5 years of network-wide crash data to identify local roads that have a history of roadway crashes. This data will be used to identify predominant roadway crash locations, crash types and other common characteristics.

As practitioners gather formal and informal information relating to the safety of their roadway network, they are encouraged to develop one or more separate spreadsheets and/or pin-maps to help track and manage this data. (These spreadsheets/pin-maps should capture much of the data gathered in each of Sections 2.1 through 2.8). A spreadsheet and/or pin-map can serve as a database to help an agency identify locations and crash characteristics representing their greatest safety issues and guide them in identifying appropriate countermeasures.

The following spreadsheet is offered as an example, but each agency's spreadsheet should be reformatted to include data to meet their needs. Agencies should consider printing their spreadsheets on 'legal' or '11 x 17' paper for easy review of their data.

	General Information		Crash Information			Evaluation / Action		
Location & Date	Source/Type of information	Safety Issue/Problem	Nature of Crashes	Time of Day	Weather/Traffic Conditions	Staff Evaluation	Recommend Action	Resolution
1) Intersection "X"								
1) Feb 7, 2010	Input from law enforcement	Clearance Intervals need adjustment	V1-WB V2-SB Side-swipe	21:30	Dry, Night, Free-flowing	R. Jones 2/26/10	Increase all-red interval	Completed 2/26/10
1) Mar 9, 2010	Citizen Complaint	Ped Crossing unsafe due to RT turns	N/A	N/A	N/A	R. Jones 3/12/10	No RT on Red (Need study)	
2) Intersection "Y"								
2)								
3) Roadway Segment (PM 5.3 to PM 7.8)								
PM 6.4 to 6.8 Sep 29, 2011	Maintenance data	Extensive skid marks. Speed of Travel?	General WB: ROR	N/A	Dry Free-flowing	J. Smith 10/1/11	High Friction Overlay	Preparing HSIP App.
PM 7.1 Jan 5, 2011	Input from law enforcement	Stop Sign missing	N/A	N/A	N/A	J. Smith 1/5/11	Informed Maintenance	New sign 1/5/11

An example of a pin-map, which could be modified to capture much of the data gathered in Section 2, is shown in the following section as part of the TIMS output.

2.2 Transportation Injury Mapping System (TIMS)

The Safe Transportation Research and Education Center (SafeTREC) at the University of California, Berkeley, has developed a powerful website with tools for California's local agencies to gather data for their safety analyses. Their Transportation Injury Mapping System (TIMS) website provides safety practitioners with California crash data (SWITRS, i.e. Statewide Integrated Traffic Records System) and collision mapping and analysis tools. California local agencies are encouraged to utilize TIMS at: <https://tims.berkeley.edu/>

Site Features:

- Applications to query map and download geo-referenced SWITRS data.
- Summary tables based on data included in SWITRS individual crash reports. These summary tables can be generated based on specified data fields or spatial limits.
- Virtual field review by connecting the crash location to Google maps and Google Street View, allowing the examination of the existing roadway infrastructure and dimensions.
- A 'Help Tab' that provides step-by-step instructions.

Please note that SafeTREC is not able to incorporate all SWITRS crashes into TIMS due to poor crash location descriptions in the crash reports. Currently, TIMS includes the majority of California fatal and injury crashes but does not include Property Damage Only collisions.

Recommended Action: Consider augmenting your local agency's data collection approach with information available using the suite of TIMS tools. The TIMS tools (and/or purchased software applications) can help the safety practitioner complete or assist with each of the actions in Sections 2.1 through 2.8. This website includes several tutorials specifically designed to support the individual sections of this document. Local practitioners may find the TIMS output files as a great starting point to build their tracking spreadsheet discussed in the recommendation of Section 2.1.

2.3 Law Enforcement Crash Reports

Both State and local law enforcement officials can be an important source of roadway crash data. The actual law enforcement crash reports can be valuable in identifying the location and contributing circumstances to roadway crashes (e.g., did the highway hardware and features operate as intended: end treatment worked, no barrier in the passenger compartment, pavement not slippery when wet, signs visible, signal timing, etc.). The following variables can and should be extracted and compiled from the crash reports:

- Location
- Date and time
- Crash type
- Crash severity
- Weather conditions
- Lighting conditions
- Sequence of events and most harmful events
- Contributing circumstances
- Driver Variables: age of driver, DUIs, use of seat belt, etc.

Similar to the crash database, the information in the crash reports can be used to assist in the identification of potential infrastructure and non-infrastructure safety treatments and the deployment approach.

Recommended Action: Develop a working relationship with law enforcement officials responsible for enforcement and crash investigations. This could foster a partnership where sharing crash reports and safety information on problem roadway segments becomes an everyday occurrence. Practitioners with limited access to crash data are encouraged to use TIMS to assess the local crash report data.

2.4 Observational Information

Law enforcement officers, local agency maintenance crews, and Emergency Medical Services personnel can serve as valuable resources to identify problem areas. Since they travel extensively on local roads, they can continuously monitor roads for actual or potential problems (e.g., poor delineation, fixed objects near the roadway, missing signs, signs of vehicles leaving the road). Law enforcement observations of driver behavior and roadway elements can provide valuable information to the local road agency. Additionally, law enforcement officers are sometimes aware of problem areas based on citations written, even if crashes related to the violations have not yet occurred. Road maintenance crews may keep logs of their work, including sign and guardrail replacements, debris removal, and edge drop-off repairs. These logs can provide supplemental information about crashes and HCCLs that may not have been reported to law enforcement. Finally, Emergency Medical Service Crash Reports can provide an entirely different perspectives and set of observations relating to crash occurrences.

Information obtained from road maintenance crews, law enforcement officers, and Emergency Medical Services personnel can help support all three methods of implementation approaches: Spot Location treatments, systemic deployments, and the Comprehensive Approach. Often, traffic violations such as speeding and impaired driving lend themselves to education and enforcement solutions to address these behaviors and supplement the intended infrastructure countermeasures.

Recommended Action: Add information received from law enforcement, road maintenance crew, and Emergency Medical Service observations to the agency's tracking spreadsheet and/or pin-maps. Develop a system for maintenance crews to report and record observed roadway safety issues and a mechanism to address them.

2.5 Public Notifications

Occasionally, when unsafe situations are observed, local citizens may notify the local government by email, letter, telephone, or at a public meeting. Information identifying safety issues on local roads may also come from community or regional newspapers, newsletters, correspondence, and from local homeowner and neighborhood associations. These sources can serve as indicators that a safety issue may exist and may warrant further review and analysis to determine the extent of the issues. Citizen reports can be tracked along with official crash data; however, safety practitioners should not regard these reports as factual, unless proven by other methods. Local safety databases should only contain objective and verifiable data.

Recommended Action: Review and summarize information received from these sources, identifying segments or corridors with multiple notifications and record the locations, dates, and nature of the problem that are cited. Add information received from public notifications to tracking spreadsheets and/or pin-maps once confirmed.

2.6 Roadway Data and Devices

It is also valuable to obtain information about the existing roadway infrastructure. Currently, many local agencies have few of their roadway characteristics in a database. For these agencies, the establishment of a roadway database could be a long-term goal. The following roadway characteristics are often used to assist practitioners in safety analyses of roadway segments:

- Roadway surface (dirt, aggregate, asphalt, concrete)
- Roadway geometry (horizontal, vertical, flat)
- Lane information (number, width)
- Shoulder information (width, type)
- Median (type, width)
- Traffic control devices present (signs, pavement marking, signals, rumble stripes etc.)

- Roadside safety hardware (e.g., guardrail, crash cushions, drainage structures)

The TIMS site, described in Section 2.2, can provide safety practitioners with much of this roadway data virtually by using Google Maps and Google Street View. By utilizing TIMS (and/or private for-profit vendors), safety practitioners can save hours and even days of driving during the initial steps in the safety analysis of their network. Once agencies start to define individual safety projects for funding and future construction, actual field reviews are needed to ensure a complete understanding of the project location and context.

As local practitioners gather information about their existing roadway infrastructure, they need to determine whether it complies with the minimum standards for signs, breakaway supports, signals, pavement markings, protective barriers, etc. Practitioners should use the most current *California - Manual on Uniform Traffic Control Devices* (CA-MUTCD), which provides the minimum standard requirements for traffic control devices on all public streets, highways, bikeways, and private roads open to public travel.⁶ In addition to ensuring compliance with the MUTCD, geometric standards for sight distance, curve radius, and intersection skew angle and roadway standards for lane width, shoulder width, clear recovery zone, and super-elevation should also be evaluated.

Roadway information can be combined with crash data to help local practitioners identify appropriate locations and treatments to improve safety. For example, if a local rural segment is experiencing a high number of horizontal curve-related crashes, analysis of the inventory of roadway elements could reveal that the roadway does not have sufficient signage installed in advance of many of those curves to give motorists warning of the pending change in roadway geometry.

Recommended Action: Identify and track roadway characteristics for the intersections, roadway segments, and corridors, including compliance with the minimum standards. At a minimum, this should be done for locations being considered for safety improvements, but ideally agencies would establish an extensive database of roadway data to help them proactively identify high risk roadway features.

2.7 Exposure Data

The number of crashes can sometimes provide misleading information about the most appropriate locations for treatment. Introducing exposure data helps to create a more effective comparison of locations. Exposure data provides a common metric to the crash data so roadway segments and intersections can be compared more appropriately, helping local agencies prioritize their potential safety improvements.

The most common type of exposure data used on roadway segments is traffic volume. Ideally, volume would be broken down by pedestrians, bicycles, cars, motorcycles, and large trucks. A count of the number of vehicles and non-motorized users can provide information for comparison. For example, if

two roadway segments have the same number of crashes but different traffic volumes, the segment with fewer vehicles (i.e., less exposure) will have a higher crash rate, meaning that vehicles were more likely to experience a crash along that roadway segment. In situations where traffic volume is not available, segment length or population can serve as an effective exposure element for comparison.

Recommended Action: Consider the availability of exposure data and track it along with the other crash data to help prioritize potential locations for safety improvements.

2.8 Field Assessments and Road Safety Audits

Local road practitioners should always consider conducting field assessments in conjunction with their collection of crash data to help identify problem locations. An assessment can be as informal as driving, walking or virtually viewing the road network looking for evidence of roadway crashes. Ideally, informal field assessments are to be performed by multidisciplinary teams that include a traffic safety expert, law enforcement personnel, and others. The team can visit several sites and document evidence of crashes or deficiencies on the roadway or roadside, including: damaged trees or fences, skid marks, ruts on the shoulder, car parts on the shoulder, and/or pavement drop-offs. This information, along with observations of actual driver-behavior, can be used to develop recommendations for improvement.

Field reviews can also be more formalized such as in conducting a Road Safety Audit (RSA). A RSA is a formal safety performance examination of an existing or future road by an independent, multidisciplinary team. The team examines and reports on existing or potential road safety issues and identifies opportunities for safety improvements for all road users. Agencies considering RSAs for the first time are encouraged to consider requesting support from FHWA. For more information on FHWA's free RSA support, go to their website at: <http://safety.fhwa.dot.gov/rsa/>.

Informal field assessments and more formal RSAs provide an opportunity for local safety practitioners to gather and summarize all of the information sources discussed in Section 2. They can also be used to identify potential project delivery obstacles. The field assessments/RSAs should identify major environmental, right-of-way, infrastructure, and operational issues that need to be considered when applying countermeasures.

Recommended Action: Consider completing formal or informal field assessments and RSAs at certain locations to help ensure all relevant information is collected and available for the safety practitioners to complete their safety analysis and identify the most appropriate countermeasures. It's recommended that local agencies develop simple straightforward criteria on when one of these will be undertaken. The information gathered during the assessments should be added to the agency's tracking spreadsheet, as discussed in section 2.

3. Safety Data Analysis

Proactive safety analysis will assist in making informed decisions on the type, deployment levels, and locations for safety countermeasures. This builds on the previous discussions on information sources that identify safety issues. 'Safety Data Analysis' is one of the most critical steps in an agency's overall proactive safety analysis approach. Ideally, agencies regularly analyze the safety data for their entire roadway networks to identify and prioritize the locations with the most severe safety issues. This step is often skipped by agencies reacting to a recent tragic crash and the corresponding public outcry, which may leave their most critical safety locations undetected.

As agencies analyze their safety data, they will need to select the implementation approach that most effectively address the safety issues identified; Systemic Approach, Spot Location Approach, Comprehensive Approach, or a combination of these approaches. For example, if a high number of crashes are occurring at a particular curve or along a short segment of roadway, a spot treatment may be appropriate. However, systemic treatment of multiple locations experiencing similar crash types may be necessary and most beneficial for reducing overall fatalities and injuries. These implementation approaches were described in Section 1.5. With all of the approaches, safety practitioners should be looking for patterns in the crash data and not just the total number of crashes. These patterns include: types of crashes, severity of crashes, mode of travel, pavement conditions, time of day, etc. Identifying and analyzing the patterns in the crash data will help ensure the most appropriate countermeasure is selected and the safety problems are effectively addressed.

3.1 Quantitative Analysis

Crash data analysis is used to determine the extent of the roadway safety issues, the priority for application of scarce resources, and the selection of appropriate countermeasures. The two main quantitative analysis methods for roadway crashes are crash frequency and crash rate.

Crash Frequency

Crash frequency is defined as the number of crashes occurring within a determined study area. A practitioner can determine crash volumes using methods discussed in Section 2, including: State crash database (SWITRS), TIMS, local agency crash databases, law enforcement crash reports, pin-maps, etc. The practitioner should analyze the data to identify locations and crash characteristics with the highest frequency. There are numerous methods to assist practitioners in this process. Each agency will have their own preferred methods for initially selecting their top priority locations. The following are a few examples of the methods used to determine Crash Frequency:

- Summarize the crashes by attributes such as type, severity and location to identify patterns in the crash data and the most significant problem locations.
 - Top 10 (or 20) lists of intersections and roadway segments. It is common to weight more severe crashes higher in this process.

- Spatially display the sites on a pin-map or a GIS software package.
 - For small or rural agencies with lower volume roadways, network-wide pin-maps may be all that is needed to identify the highest priority locations.
- Develop collision diagrams showing the direction of movement of vehicles, types of crashes, and pedestrians involved in the crashes.

As stated earlier, this manual acknowledges many local agency safety practitioners may have their preferred methods for completing these analyses. For those agencies that do not and for those willing to try something new, Caltrans recommends using the TIMS website along with the processes outlined in this document to complete these analyses.

Once the crash frequency information is collected and displayed, the practitioner can complete a methodical analysis by geographic area, route, or a cluster analysis to determine which locations have experienced a high or moderate level of crashes. The resulting crash information can be further analyzed for recurring patterns or events. As agencies consider their locations with high levels of crashes, they should understand the overall random nature of crashes and the concept of “regression to the mean”, as discussed in Section 2. Otherwise, if the natural variations in crash occurrence are not accounted for, a site might be selected for study when the number of crashes is randomly high, or overlooked when the number of crashes is randomly low.

Crash Rate

Crash rate analysis can be a useful tool to determine how a specific roadway or segment compares with similar roadway types on the network. A simple count of the number of crashes can be inadequate when comparing multiple roadways of varying lengths and/or traffic volume. Local agencies are also encouraged to compare their crashes with those occurring in similar areas around the state; doing so will help in determining just how severe the number and types of crashes are in the local area. When working with limited budgets, Crash Rates are often used to prioritize locations for safety improvements that will achieve the greatest safety benefits with limited resources. Where traffic volume data is unavailable, other information can be used to provide exposure information. One often-used factor is the length of the roadway segment on each route studied. Comparing the number of roadway crashes per mile or per intersection can help an agency identify potential opportunities to improve safety. The FHWA Roadway Departure Safety and Intersection Safety manuals include the following formulas for calculating crash rates on roadway segments and intersections:

The crash rate for crashes on a roadway is calculated as:

$$R = (C \times 100,000,000) / (V \times 365 \times N \times L)$$

Where:

R = Crash rate for the road segment expressed as crashes per 100 million vehicle-miles of travel,

C = Total number of crashes in the study period

V = Traffic volumes using Average Annual Daily Traffic (AADT) volumes

N = Number of years of data

L = Length of the roadway segment in miles

The crash rate for crashes at an intersection is calculated as:

$$R = (1,000,000 \times C) / (365 \times N \times V)$$

Where:

R = Crash rate for the intersection expressed as crashes per million entering vehicles (MEV)

C = Total number of intersection-related crashes in the study period

N = Number of years of data

V = Traffic volumes entering the intersection daily

Similar to Crash Frequency, there are numerous methods for local safety practitioners to utilize Crash Rate in their safety data analysis and each will have their own preferred methods for initially selecting their top priority locations. The following are a few examples:

- Top 10 (or 20) lists of roadway segments with the highest crashes in relationship to roadway length, traffic volumes, and/or population density.
- Top 10 (or 20) lists of intersections, sorted by crash rate.
- Top 10 (or 20) lists of the highest volume intersections, sorted by crash frequency or rate.

Even though crash frequency and crash rate are helpful for local agency safety practitioners to effectively rank their most critical locations for improvements, the lack of reliable statewide traffic volumes for all roadway types precludes Caltrans from using the crash rate methodology in their statewide project scoring and ranking processes for the HSIP (discussed in more detail in Section 5).

Recommended Action: Complete a quantitative analysis of the roadway data using both Crash Frequency and Crash Rate methodologies. Safety practitioners should look for patterns in the crash data, including: types of crashes, severity of crashes, mode of travel, pavement conditions, roadway characteristics, time of day, intersection control, etc.

3.2 Qualitative Analysis

Qualitative analysis considers the physical characteristics of the roadway network, through the examination of maps, photographs, and field assessments. Certain roadway infrastructure characteristics relate to design standard and compliance issues and should continually be identified and upgraded on a network-wide basis (e.g., signing and pavement delineation characteristics relating to CA-MUTCD compliance as discussed in more detail below). Other roadway characteristics are more important as they relate to locations with high crash frequencies and rates (e.g., well defined pedestrian

paths crossing the roadway or a high number of utility poles/fixed objects adjacent to the edge of travel way). All of these characteristics should be accounted for in an agency's proactive safety analysis.

Ensuring Compliance with CA-MUTCD and Design Standards

It is important for local agencies to continually evaluate their roadways for compliance with the minimum safety standards. The CA-MUTCD provides the minimum standard requirements for traffic control devices on all public streets, highways, bikeways, and private roads open to public travel. In addition to ensuring compliance with the CA-MUTCD, geometric standards should be evaluated as they relate to sight distance, curve radius, and intersection skew angle and roadway standards for lane width, shoulder width, clear recovery zone, and super-elevation. Many local agencies have their own specific roadway design standards, while others rely on Caltrans' Highway Design Manual⁷, FHWA's "Green Book" policy manual⁸ and PEDSAFE guide⁹, and AASHTO's Roadside Design Guide¹⁰. If the traffic control devices or roadway geometry are not in compliance, appropriate devices/countermeasures should be installed. Non-compliance is an important consideration that can affect road safety and may have liability implications for a jurisdiction. Using CA-MUTCD compliant devices results in uniformity among California roadways and serves to meet road user expectations.

Field Assessments

While the qualitative analysis of compliance issues should continually occur on a network-wide basis, a qualitative analysis should also occur for each of the locations and corridors identified as a result of a 'Quantitative Analysis'. The consideration of roadway infrastructure characteristics in conjunction with crash frequency or crash rate gives a more complete picture of overall safety and should be used in an agency's identification and prioritization process for locations needing safety improvements. The qualitative assessment of HCCLs can be completed through the examination of maps and photographs, but the importance of in-field assessments by multi-disciplinary teams should not be underestimated. In some cases, field reviews of all potential project locations may not be practical, so safety practitioners are encouraged to utilize internet-mapping tools to view maps and photographs and virtually visit these sites from their offices.

Actual field visits or RSAs can be done at the highest priority locations before or during the countermeasure selection process. In many cases, field assessments are often the only way for practitioners to identify potential countermeasure implementation and project delivery obstacles. Without in-field assessments, right-of-way, infrastructure, and operational constraints can be overlooked, including: sensitive environmental resources (widening may not be feasible next to wetlands), roadway users (rumble strips may not be feasible on roadways with high bicycle volumes and narrow shoulders), or nearby roadway stakeholders (flashing beacons may be problematic for adjacent residents.) Assessments can provide critical information for local practitioners as they prioritize their crash locations and select countermeasures with the greatest potential for cost effective deployment.

Recommended Action: Incorporate qualitative analysis elements into agency's proactive analysis approach. Consider completing field assessments and RSAs to identify locations with roadway

infrastructure characteristics that relate to both compliance issues and high crash frequencies/rates. As part of field assessments, common roadway and crash characteristics should be identified for the potential systemic deployment of countermeasures. Rather than reviewing all crash sites individually, agencies may find the use of Internet mapping tools offers significant time savings. For agencies without a preferred virtual field review method, the SafeTREC TIMS website automatically links the SWITRS crash locations to Google Maps and Google Street View.

Caltrans recommends all agencies complete both quantitative and qualitative analyses before starting their applications for HSIP program funding. The findings from these analyses should be documented in spreadsheets and/or pin-maps similar to the ones discussed in Section 2.

4. Countermeasure Selection

Once locations and crash problems are identified as illustrated in Sections 2 and 3, the safety practitioners will need to select the set of proposed safety improvements to reduce the likelihood of future crashes. Individual elements of standard safety improvements are referred to as countermeasures and most countermeasures have corresponding Crash Modification Factors (CMFs).

When applied correctly, CMFs can help agencies identify the expected safety impacts of installing various countermeasures to reduce crashes. CMFs are multiplicative factors used to estimate the expected number of crashes after implementing a given countermeasure at a specific site (the lower the CMF, the greater the expected reduction in crashes). Crash Reduction Factors (CRFs) are directly connected to the CMFs and are another indication of the effectiveness of a particular treatment, measured by the percentage of crashes the countermeasure is expected to reduce. The CRF for a countermeasure is defined mathematically as $(1 - \text{CMF})$ (the higher the CRF, the greater the expected reduction in crashes). NOTE: Given that CRF values can be more intuitive when analyzing roadways for potential “reductions” in crashes; this document shows CRF values in the countermeasure tables. The terms CMFs and CRFs are used interchangeably throughout the text of this section and in other sections of this document.

In an effort to stretch the limited highway safety funding, local transportation agencies are encouraged to identify and implement the optimal combination of countermeasures to achieve the greatest benefits. Combined with crash cost data and project cost information, CRFs can help safety practitioners compare the B/C ratio of multiple countermeasures and then choose the most appropriate application for their proposed safety improvement projects.

As agencies consider the overall scope/cost of their projects, they also need to consider the number of locations to which each countermeasure may be applied in order to maximize the B/C ratio and the overall effectiveness of their limited safety funding. For HCCLs with varying causes, the Spot Location Approach may be the most appropriate. In contrast, the Systemic Approach should be considered where a high proportion of similar crash types tend to occur at locations that share common geometric or operational elements. In these situations, installing the same low-cost safety countermeasure at multiple locations can increase the cost effectiveness of the safety improvement, allowing an increased number of treatments to be applied.

It is important to note that there are many safety issues and corresponding countermeasures that are more “maintenance” in nature (e.g., visibility issues relating to the need for brush clearing and roadway departure issues relating to the need to replace shoulder backing). As these issues are identified when investigating crash locations, it’s expected that the local safety practitioners would take the necessary steps to remedy the situation in the short-term. For this reason, most of the common maintenance-type safety countermeasures are not included in this document.

4.1 Selecting Countermeasures and Crash Modification Factors / Crash Reduction Factors

Selecting an appropriate countermeasure and corresponding CMF is similar to choosing the right tool for a job. In some cases, a countermeasure and CMF may not be perfect, but will still work well enough to get the job done by providing a reasonable estimation of the countermeasure's effect. In other cases, using an improper countermeasure or CMF may do more harm than good. Applying a CMF that does not fit a specific situation may give a false sense of the countermeasure's safety effectiveness and may result in an increased safety problem.

The Federal Highway Administration (FHWA) is leading a concerted effort to develop information on CMFs and makes it available to State and local agencies to assist with highway safety planning. The CMF Clearinghouse, a free online database introduced in 2009 and accessible at <http://www.cmfclearinghouse.org/>, details the varying quality and reliability of CMFs available to transportation professionals.

FHWA has identified three main considerations to assure appropriate selection of CMFs for a given countermeasure: the **availability** of relevant CMFs, the **applicability** of available CMFs, and the **quality** of applicable CMFs. The following sections detail these considerations and describe how Caltrans recommended CRF and service life values meet these criteria.

Availability: The availability of a CMF that applies to a specific situation depends on whether research has been conducted to determine the safety effects of a particular countermeasure or combination of countermeasures, and whether researchers have documented it. The CMF Clearinghouse contains more than 2,900 CMFs and receives quarterly updates to include the latest research.

At this point, Caltrans has established a small subset of 82 countermeasures and a single CRF for each of these countermeasures that must be used when submitting applications for Caltrans statewide calls-for-projects. This methodology allows for a statewide data-driven process that facilitates a fair and accurate comparison of project applications. (The reason for limiting the number of countermeasures is further explained below under “applicability”).

Applicability: In general, once a local safety practitioner determines that one or more CMFs exist for a specific countermeasure, the next step is to determine which CMF is the most applicable. Applicability depends on how closely the CMF represents the situation to which it will be applied. Safety practitioners should evaluate the potentially applicable CMFs, eliminating any that are not appropriate for the situation. Practitioners should only choose the most appropriate CMFs for their specific project based on factors including but not limited to: urban areas vs. rural areas; low vs. high traffic volumes; 2-lane vs. 6-lane roadways; individual vs. combination treatments; signalized vs. non-signalized intersections; and minor crashes vs. fatal crashes. If practitioners choose to use a CMF outside the range of applicability, the safety effect will likely be over or underestimated.

The mix of countermeasures and CRFs included in this document is intended to meet Caltrans' goal for a data-driven award process for local agencies to follow that allows for a fair and accurate comparison of project applications. Where possible and appropriate, the CRF value intended for use in statewide calls-for-projects is based on research studies that specifically established the CRF to be used for 'all' project areas, roadway types, and traffic volumes. Where not all applicability factors have already been established by prior research, Caltrans worked closely with FHWA to approximate CRFs for countermeasures often utilized by local agencies.

Quality: Often a search of the CMF Clearing House results in multiple CMFs for the same countermeasure. A practitioner needs to examine the quality of each CMF. The quality of a CMF can vary greatly depending on several factors associated with the process of developing the CMF. The primary factors that determine the quality of a CMF are the study design, sample size, standard error, potential bias, and data source. The CMF Clearinghouse provides a star rating for each based on a scale of 1 to 5, where 5 indicates the highest quality. The most reliable CMFs in the HSM are indicated with a bold font.

Wherever possible, the CRFs included in this document are based on research that has a CMF Clearinghouse star rating of 3 or more. For countermeasures that do not have corresponding research of a star rating of 3 or more but were deemed important to provide flexibility to local practitioners, Caltrans worked closely with FHWA to establish CRFs based on the best available research.

4.2 List of Countermeasures

The list of countermeasures discussed in this section is not an all-inclusive list, and only includes those available in the Caltrans' HSIP Cycle 11 Call-for-projects. Only thoroughly researched countermeasures with a readiness to be applied by local agencies on a statewide basis are utilized. In addition, the California Local HSIP program places further restrictions on the eligibility of some countermeasures to meet the most critical needs on California local roadways. Practitioners are encouraged to utilize the FHWA CMF Clearinghouse for a more comprehensive list as they establish their local agency specific set of proposed improvements and prioritize their projects.

The countermeasures listed in the following three tables have been sorted into 3 categories: Signalized Intersection, Non-Signalized Intersection, and Roadway Segment. Pedestrian and bicycle related countermeasures have been included in each of these categories, as the consideration of non-motorized travel is important for all roadway classifications and locations. The countermeasures included in these tables are also used in the HSIP Analyzer. When selecting countermeasures and CMFs to apply to their specific safety needs, local agency safety practitioners should consider the **availability, applicability, and quality** of CMFs, as discussed in section 4.1.

Only Crash Types, CRFs, Expected Lives, and HSIP Funding Eligibility of the countermeasures for use in Caltrans local HSIP program are provided in this section. Fields in the countermeasure tables are:

- **Crash Types** - “All”, “P & B” (Pedestrian and Bicycle), “Night”, “Emergency Vehicle”, or “Animal”.
- **CRF** - Crash Reduction Factor used for HSIP calls-for-projects.
- **Expected Life** - 10 years or 20 years.
- **Funding Eligibility** – the maximum HSIP reimbursement ratio for HSIP Cycle 11 Call-for-projects.
 - Eighty-one (81) countermeasures: 90%
 - One (1) countermeasure: 50% (CM No. S03: Improve signal timing, as this CM will improve the signal operation rather than merely the safety.)
- **Systemic Approach Opportunity** - Opportunity to Implement Using a Systemic Approach: “Very High”, “High”, “Medium” or “Low”.

The list of countermeasures presented in this section is intended to be a quick-reference summary. Appendix B of this manual provides more details on each of these countermeasures including Where to use, Why it works, General Qualities (Time, Cost and Effectiveness), and information from FHWA CMF Clearinghouse (Crash Types Addressed and range of Crash Reduction Factor).

Recommended Action: At this point, agencies should use all information and results obtained by completing the actions in Sections 2, 3 and 4 to select the appropriate countermeasures for their HCCLs and systemic improvements. As novice safety practitioners select countermeasures, they must realize that a reasonable level of traffic ‘engineering judgment’ is required and that this manual should not be used as a simple cheat-sheet for preparing and submitting applications for funding.

Table 2. Countermeasures for Non-Signalized Intersections

No.	Type	Countermeasure Name	Crash Type	CRF	Expected Life (Years)	HSIP Funding Eligibility	Systemic Approach Opportunity?
NS01	Lighting	Add intersection lighting (NS.I.)	Night	40%	20	90%	Medium
NS02	Control	Convert to all-way STOP control (from 2-way or Yield control)	All	50%	10	90%	High
NS03	Control	Install signals	All	30%	20	90%	Low
NS04	Control	Convert intersection to roundabout (from all way stop)	All	Varies	20	90%	Low
NS05	Control	Convert intersection to roundabout (from stop or yield control on minor road)	All	Varies	20	90%	Low
NS05mr*	Control	Convert intersection to mini-roundabout	All	30%	20	90%	Medium
NS06	Operation/ Warning	Install/upgrade larger or additional stop signs or other intersection warning/regulatory signs	All	15%	10	90%	Very High
NS07	Operation/ Warning	Upgrade intersection pavement markings (NS.I.)	All	25%	10	90%	Very High
NS08	Operation/ Warning	Install Flashing Beacons at Stop-Controlled Intersections	All	15%	10	90%	High
NS09	Operation/ Warning	Install flashing beacons as advance warning (NS.I.)	All	30%	10	90%	High
NS10	Operation/ Warning	Install transverse rumble strips on approaches	All	20%	10	90%	High
NS11	Operation/ Warning	Improve sight distance to intersection (Clear Sight Triangles)	All	20%	10	90%	High
NS12	Operation/ Warning	Improve pavement friction (High Friction Surface Treatments)	All	55%	10	90%	Medium
NS13	Geometric Mod.	Install splitter-islands on the minor road approaches	All	40%	20	90%	Medium
NS14	Geometric Mod.	Install raised median on approaches (NS.I.)	All	25%	20	90%	Medium
NS15	Geometric Mod.	Create directional median openings to allow (and restrict) left-turns and u-turns (NS.I.)	All	50%	20	90%	Medium
NS16	Geometric Mod.	Reduced Left-Turn Conflict Intersections (NS.I.)	All	50%	20	90%	Medium
NS17	Geometric Mod.	Install right-turn lane (NS.I.)	All	20%	20	90%	Low
NS18	Geometric Mod.	Install left-turn lane (where no left-turn lane exists)	All	35%	20	90%	Low
NS19PB	Ped and Bike	Install raised medians / refuge islands (NS.I.)	P & B	45%	20	90%	Medium
NS20PB	Ped and Bike	Install pedestrian crossing at uncontrolled locations (new signs and markings only)	P & B	25%	10	90%	High
NS21PB	Ped and Bike	Install/upgrade pedestrian crossing at uncontrolled locations (with enhanced safety features)	P & B	35%	20	90%	Medium
NS22PB	Ped and Bike	Install Rectangular Rapid Flashing Beacon (RRFB)	P & B	35%	20	90%	Medium
NS23PB	Ped and Bike	Install Pedestrian Signal (including Pedestrian Hybrid Beacon (HAWK))	P & B	55%	20	90%	Low

*CM NS05mr is a new countermeasure added for HSIP Cycle 11 Call-for-projects.

Table 1. Countermeasures for Signalized Intersections

No.	Type	Countermeasure Name	Crash Type	CRF	Expected Life (Years)	HSIP Funding Eligibility	Systemic Approach Opportunity?
S01	Lighting	Add intersection lighting (S.I.)	Night	40%	20	90%	Medium
S02	Signal Mod.	Improve signal hardware: lenses, back-plates with retroreflective borders, mounting, size, and number	All	15%	10	90%	Very High
S03	Signal Mod.	Improve signal timing (coordination, phases, red, yellow, or operation)	All	15%	10	50%	Very High
S04*	Signal Mod.	Provide Advanced Dilemma Zone Detection for high speed approaches	All	40%	10	90%	High
S05	Signal Mod.	Install emergency vehicle pre-emption systems	Emergency Vehicle	70%	10	90%	High
S06	Signal Mod.	Install left-turn lane and add turn phase (signal has no left-turn lane or phase before)	All	55%	20	90%	Low
S07	Signal Mod.	Provide protected left turn phase (left turn lane already exists)	All	30%	20	90%	High
S08	Signal Mod.	Convert signal to mast arm (from pedestal-mounted)	All	30%	20	90%	Medium
S09	Operation/ Warning	Install raised pavement markers and striping (Through Intersection)	All	10%	10	90%	Very High
S10	Operation/ Warning	Install flashing beacons as advance warning (S.I.)	All	30%	10	90%	Medium
S11	Operation/ Warning	Improve pavement friction (High Friction Surface Treatments)	All	55%	10	90%	Medium
S12	Geometric Mod.	Install raised median on approaches (S.I.)	All	25%	20	90%	Medium
S13PB	Geometric Mod.	Install pedestrian median fencing on approaches	P & B	35%	20	90%	Low
S14	Geometric Mod.	Create directional median openings to allow (and restrict) left-turns and u-turns (S.I.)	All	50%	20	90%	Medium
S15	Geometric Mod.	Reduced Left-Turn Conflict Intersections (S.I.)	All	50%	20	90%	Medium
S16	Geometric Mod.	Convert intersection to roundabout (from signal)	All	Varies	20	90%	Low
S17PB	Ped and Bike	Install pedestrian countdown signal heads	P & B	25%	20	90%	Very High
S18PB	Ped and Bike	Install pedestrian crossing (S.I.)	P & B	25%	20	90%	High
S19PB	Ped and Bike	Pedestrian Scramble	P & B	40%	20	90%	High
S20PB	Ped and Bike	Install advance stop bar before crosswalk (Bicycle Box)	P & B	15%	10	90%	Very High
S21PB	Ped and Bike	Modify signal phasing to implement a Leading Pedestrian Interval (LPI)	P & B	60%	10	90%	Very High

*CM S04 has been deleted in HSIP Cycle 11 Call-for-projects.

Table 3. Countermeasures for Roadways

No.	Type	Countermeasure Name	Crash Type	CRF	Expected Life (Years)	HSIP Funding Eligibility	Systemic Approach Opportunity?
R01	Lighting	Add segment lighting	Night	35%	20	90%	Medium
R02	Remove/ Shield Obstacles	Remove or relocate fixed objects outside of Clear Recovery Zone	All	35%	20	90%	High
R03	Remove/ Shield Obstacles	Install Median Barrier	All	25%	20	90%	Medium
R04	Remove/ Shield Obstacles	Install Guardrail	All	25%	20	90%	High
R05	Remove/ Shield Obstacles	Install impact attenuators	All	25%	10	90%	High
R06	Remove/ Shield Obstacles	Flatten side slopes	All	30%	20	90%	Medium
R07	Remove/ Shield Obstacles	Flatten side slopes and remove guardrail	All	40%	20	90%	Medium
R08	Geometric Mod.	Install raised median	All	25%	20	90%	Medium
R09	Geometric Mod.	Install median (flush)	All	15%	20	90%	Medium
R10PB	Geometric Mod.	Install pedestrian median fencing on approaches	P & B	35%	20	90%	Low
R11	Geometric Mod.	Install acceleration/ deceleration lanes	All	25%	20	90%	Low
R12	Geometric Mod.	Widen lane (initially less than 10 ft)	All	25%	20	90%	Medium
R13	Geometric Mod.	Add two-way left-turn lane	All	30%	20	90%	Medium
R14	Geometric Mod.	Road Diet (Reduce travel lanes and add a two way left-turn and bike lanes)	All	35%	20	90%	Medium
R15	Geometric Mod.	Widen shoulder	All	30%	20	90%	Medium
R16	Geometric Mod.	Curve Shoulder widening (Outside Only)	All	45%	20	90%	Medium
R17	Geometric Mod.	Improve horizontal alignment (flatten curves)	All	50%	20	90%	Low
R18	Geometric Mod.	Flatten crest vertical curve	All	25%	20	90%	Low
R19	Geometric Mod.	Improve curve superelevation	All	45%	20	90%	Medium
R20	Geometric Mod.	Convert from two-way to one-way traffic	All	35%	20	90%	Medium
R21	Geometric Mod.	Improve pavement friction (High Friction Surface Treatments)	All	55%	10	90%	High

Table 3. Countermeasures for Roadways (Continued)

No.	Type	Countermeasure Name	Crash Type	CRF	Expected Life (Years)	HSIP Funding Eligibility	Systemic Approach Opportunity?
R22	Operation/ Warning	Install/Upgrade signs with new fluorescent sheeting (regulatory or warning)	All	15%	10	90%	Very High
R23	Operation/ Warning	Install chevron signs on horizontal curves	All	40%	10	90%	Very High
R24	Operation/ Warning	Install curve advance warning signs	All	25%	10	90%	Very High
R25	Operation/ Warning	Install curve advance warning signs (flashing beacon)	All	30%	10	90%	High
R26	Operation/ Warning	Install dynamic/variable speed warning signs	All	30%	10	90%	High
R27	Operation/ Warning	Install delineators, reflectors and/or object markers	All	15%	10	90%	Very High
R28	Operation/ Warning	Install edge-lines and centerlines	All	25%	10	90%	Very High
R29	Operation/ Warning	Install no-passing line	All	45%	10	90%	Very High
R30	Operation/ Warning	Install centerline rumble strips/stripes	All	20%	10	90%	High
R31	Operation/ Warning	Install edgeline rumble strips/stripes	All	15%	10	90%	High
R32PB	Ped and Bike	Install bike lanes	P & B	35%	20	90%	High
R33PB	Ped and Bike	Install Separated Bike Lanes	P & B	45%	20	90%	High
R34PB	Ped and Bike	Install sidewalk/pathway (to avoid walking along roadway)	P & B	80%	20	90%	Medium
R35PB	Ped and Bike	Install/upgrade pedestrian crossing (with enhanced safety features)	P & B	35%	20	90%	Medium
R36PB	Ped and Bike	Install raised pedestrian crossing	P & B	35%	20	90%	Medium
R37PB	Ped and Bike	Install Rectangular Rapid Flashing Beacon (RRFB)	P & B	35%	20	90%	Medium
R38	Animal	Install animal fencing	Animal	80%	20	90%	Medium

5. Calculating the B/C Ratio and Comparing Projects

Practitioners need to consider the expected B/C ratio of their proposed projects. This is an important step in a proactive safety analysis process because it provides two key pieces of information: First, it defines the cost effectiveness of the proposed projects; and second, it gives the safety practitioner a means to help prioritize their safety projects both inside the agency's traffic safety section and against other proposed operational and maintenance projects competing for funding.

5.1 Estimate the Benefit of Implementing Proposed Improvements

Sections 2 through 4 provide the practitioner all the information needed to calculate the expected 'Benefit' of the proposed safety projects. The resulting expected benefit value is derived by applying the proposed countermeasures and corresponding CMFs to the expected crashes. It is of critical importance for the practitioner to understand that misapplication of a CMF will lead to misinformed decisions. Four main factors need to be considered when applying countermeasures and CMFs to calculate the expected benefit value: (1) how to estimate the number of expected crashes without treatment, (2) how to apply CMFs by type and severity, (3) how to apply multiple CMFs if multiple treatments are to be included in the same project, and (4) how to apply a benefit value by crash severity. The following text explains how these factors affect the expected benefit value in more detail.

Estimating expected crashes without treatment: Before applying CMFs, local safety practitioners first need to select countermeasures and CMFs. The CMF is applied to the expected safety performance (expected crashes) without any treatment in order to estimate the expected crashes with the treatment. The reduction in expected crashes multiplied by the expected costs per each crash gives the practitioner the expected benefit.

As mentioned earlier in this manual, the random nature of roadway crashes suggests that over time the number of crashes at any particular locations will change. This concept is known as "regression to the mean" and it gives rise to the concern that a site might be selected for study when the crashes are at a randomly high fluctuation, or overlooked from study when the site is at a randomly low fluctuation. The HSM presents several methods for estimating the expected safety performance of a roadway or intersection including the Empirical Bayes method, which combines observed information from the site of interest with information from similar sites to estimate the expected crashes without treatment. Another common way to minimize the impact of regression to the mean is to increase the number of years of crash data being analyzed.

For statewide calls-for-projects, Caltrans strives to ensure that all projects are fairly ranked based on a consistent statewide approach. Given this, Caltrans has avoided using methodology requiring agencies to mathematically adjust their crash data (e.g., Empirical Bayes) and instead has opted to use 5 years of "observed crashes" in estimating "expected crashes."

Applying CMFs by type and severity: Section 4.1 of this manual discusses the application of CMFs and the need for them to represent the situation to which they will be applied. It also stresses the need for

practitioners to choose the most appropriate CMFs for their specific project. In many circumstances, estimating the change in crashes by type and severity is useful; however, local safety practitioners only can use this approach when CMFs exist for the specific crash types and severities in question. If practitioners choose to use a CMF outside the range of applicability, the safety effect may be over- or underestimated. (For example: past research relating to installing a channelized left turn lane, has estimated CMFs as high as 68% for Right-Angle crashes of all severities and as low as 11% for Rear-End crashes with severities of only fatal and injury).

Applying multiple CMFs: In real-world scenarios, transportation agencies commonly install more than one countermeasure per project as part of their safety improvement program. This leads to the question, "What is the safety effect of the combined countermeasures?" The calculation methods that Transportation agencies use include: applying the CMF for the single countermeasure expected to achieve the greatest reduction, applying CMFs separately by crash type and summing them to get a project-level effect, and applying CMFs based on a review of crash patterns, etc. Regardless of the specific method employed, "engineering judgment" is required when combining multiple CMFs and it is important for local agencies to apply their method consistently throughout their analysis to ensure a fair comparison of projects.

One common practice is to assume that CMFs are multiplicative when they are applied to the same set of crash data. In other words, each successive countermeasure will achieve an additional benefit when implemented in combination with other countermeasures. The multiplicative method is a common, generally accepted method and is presented in the HSM and in the CMF Clearinghouse. This method is also used in the HSIP calls-for-projects.

To allow agencies maximum flexibility in combining countermeasures and locations into a single project while ensuring all projects can be consistently ranked on a statewide basis, Caltrans only allows up to three (3) individual countermeasures can be utilized in the B/C ratio for a project location site. The CMFs are multiplicative if there are multiple countermeasures, i.e. each successive countermeasure will achieve an additional benefit based on the remainder of the crashes after the effect of the prior countermeasures, not the original number of the crashes.

More information on these requirements and procedures are provided in the documents (Application Form Instructions, etc.) for each call-for-projects.

Applying benefit value by crash severity: The last step in estimating the overall benefit of a proposed improvement project is to multiply the expected reduction in crashes by a generally accepted value for the "cost" of crashes. In other words, the expected "benefit" value for a project is actually the expected "reduction in costs" value from reducing future crashes. There are many sources for the costs of crashes (e.g., HSM, FHWA & National Safety Council) and some of the sources vary widely depending on how they account for the economic value of a life and when the numbers were last updated.

When calculating the “benefit” to be used in calculating an improvement’s B/C ratio, it is important for the practitioner to consider whether a total benefit value for the “life” of the improvement is needed or if the benefit value should be annualized (i.e., benefit per year). Whichever method is used to calculate the overall cost of the improvements must also be used for calculating the benefit.

Caltrans has currently chosen to use published Cost-of-Crash values from the first edition of the HSM and increase the values by 4% annually. These values may be updated in the future, when updated cost-of-crash values are published by FHWA or another national source. The specific values for each of the crash severities and the formulas used to calculate the total benefit are shown in Appendix D.

Recommended Action: Prepare Total Benefit estimates for the proposed projects being evaluated in the proactive safety analysis.

5.2 Estimate the Cost of Implementing Proposed Improvements

After calculating the expected benefit of the proposed safety projects, the next step for the practitioner is to develop an estimate of the Total Project Costs. These costs need to include both the construction costs and the project development and administration costs. The most common approach to estimating construction costs is through an “Engineer’s Cost Estimate.” A Template for Detailed Engineer’s Estimate and Cost Breakdown by Countermeasures is included in the HSIP funding application website. When calculating the administration costs for a project, the complexity of the improvements must be accounted for: Low-cost countermeasures, typically used in the Systemic Approach, often have minimal environmental and right-of-way impacts and require minimal design effort. In contrast, many medium to high cost improvements tend to have greater impacts to the environment and right-of-way and require significant design efforts. It’s crucial to account for these differences to accurately determine the true B/C ratio of the projects and prioritize them correctly.

When an agency is initially evaluating several potential locations and countermeasures as part of their proactive safety analysis or in preparing for Caltrans call-for-projects, they should consider first using rough ‘ballpark’ cost estimates using previous projects that had similar scope, if possible. Ballpark cost estimates can allow the practitioner to quickly establish B/C ratios for all of their potential projects and identify the projects with high cost effectiveness and with a reasonable chance of receiving HSIP funding in a Caltrans call-for-projects.

Recommended Action: Prepare ‘Total Project Cost’ estimates for the proposed projects being evaluated in the proactive safety analysis.

5.3 Calculate the B/C Ratio

In general, the B/C ratio is calculated by taking a project’s overall benefit (as calculated in Section 5.1) and dividing it by the project’s overall cost (as calculated in Section 5.2). There are, however, several

methods and input-factors available for calculating a project's B/C ratio and practitioners may want to consider other methods as defined in the HSM.

Based on Caltrans' need for a fair, data-driven, statewide project selection process for HSIP call-for-projects, Caltrans requires the B/C ratio for all applications to be completed using the same process. Applicants must utilize the HSIP Analyzer to calculate the B/C ratio of the project. Additional details and formulas included in the calculation are included in this document as Appendix D.

Recommended Action: Calculate the B/C ratio for each of the proposed projects being evaluated in the proactive safety analysis.

5.4 Compare B/C Ratios and Consider the Need to Reevaluate Project Elements

By implementing a comprehensive proactive safety analysis approach, agencies will likely identify more potential safety projects than they can fund and deliver. It will be important for an agency to prioritize their projects internally before funding is sought. It is not uncommon for projects to have a B/C ratio as low as 0.1 or as high as 100. Once the relative cost effectiveness of an agency's potential projects has been established, the projects with low to mid-ranged B/C ratios should be reassessed. Projects with very low initial B/C ratios may be dropped while projects with low to mid ranged B/C ratios may be redefined by changing the limits of the proposed improvements to focus on higher crash locations or incorporating lower-cost countermeasures. This reiterative process is illustrated in Figure 1 in Section 1 of this document.

At the conclusion of this step, the local agency should have several potential safety projects ready to move into the project development and construction phases. Ideally, there will be a variety of low cost safety projects and potentially a few higher cost roadway reconstruction projects. How each local agency prioritizes their list of safety improvements will vary, but projects with the highest B/C ratios should generally have a high overall priority. It should be understood that available funding will play a key role in local agency prioritization (e.g., higher-cost projects may have to wait for funding to become available while low-cost improvements with lower B/C ratios can be constructed with in-house maintenance crews), but in the goal of maximizing overall safety benefits, the role of politics and public influence should be minimized.

Recommended Action: Compare, reevaluate, and prioritize the potential safety projects. Consider changing the project limits to maximize the number of fatal and injury crashes addressed within the limits. Consider lower cost countermeasures in areas where high and medium cost countermeasures resulted in low B/C ratios.

6. Identifying Funding and Construct Improvements

Funding strategies for implementing safety projects need to vary as widely as local agency's roadway types, project costs, and proposed improvements. At this point in the proactive safety analysis process, local agencies should have several potential safety projects ready to move into the project development and construction phases. There are likely a wide range of 'approaches' to fund each of these projects. This section of the document discusses some of the most common approaches.

6.1 Existing Funding for Low-cost Countermeasures

For projects utilizing low-cost countermeasures, the total project cost may be low enough that the agency can construct the project using its existing roadway funding by utilizing the ongoing activities of their roadway maintenance staff and equipment. Other low-cost projects (e.g., overlays, sealcoats, drainage, signing, and striping projects) may be more important to incorporate into larger maintenance projects. It is common for agencies to have 1-, 5-, and 10-year plans for making these standard maintenance improvements. With upfront planning and coordination between agency staff, the low-cost safety projects identified through the proactive safety analysis can be incorporated with minimal costs to an agency's maintenance program. Maximizing the cost effectiveness of the program may even allow the transportation managers to justify increasing the funding for their overall roadway maintenance program.

In addition to their maintenance program, transportation managers should also strategically seek out planned capital improvement and development projects that can incorporate low and medium cost countermeasures identified in their safety analysis. Local agencies may also find opportunities to partner with private enterprises and insurance companies to fund special safety projects that further both organizations' strategic goals.

Recommended Action: Survey planned maintenance, developer and capital projects to determine whether they overlap any of the proposed safety projects. Where projects overlap, leverage the existing funding sources to include safety countermeasures.

6.2 HSIP and Other Funding Sources

In addition to the HSIP Program, the Division of Local Assistance's web site includes several other Caltrans administered funding programs:

<https://dot.ca.gov/programs/local-assistance>

Recommended Action: Consider all potential funding opportunities to incorporate the identified safety countermeasures.

6.3 Project Development and Construction Considerations

In general, roadway safety projects don't garner the same level of attention from decision makers, media, elected officials, and the general public, that large operational and development-driven projects do. As a result, local safety practitioners and project sponsors often find their projects have difficulty in competing for the agencies' limited project delivery resources. Establishing and implementing a comprehensive safety analysis process can assist safety practitioners in delivering their safety programs in many ways, including:

- Credibility and awareness to individual projects and delivery schedules.
- Increased stakeholders tracking and delivery of a project when low-cost improvements are incorporated into ongoing maintenance and capital projects.
- An increased focus on low-cost countermeasures typically corresponds to projects with less environmental, right-of-way and other impacts; resulting in projects that have streamlined project delivery processes and short construction schedules.

Recommended Action: Safety practitioners should follow their safety projects all the way through the project delivery and construction process. In addition, they should establish a safety program delivery plan that brings awareness and support to the expedited delivery of safety projects. Where possible, safety practitioners should involve the media and even consider having their own program intended to "toot their own safety-horn."

7. Evaluation of Improvements

Evaluation of the effectiveness of roadway treatments following installation should be used to guide future decisions regarding roadway countermeasures. Field reviews should also be conducted shortly after the project is completed to insure the project is operating as intended.

A record of crash history and countermeasure installation forms the foundation for assessing how well the implemented strategies have performed. An important database to maintain is a current list of installed countermeasures with documented “when/where/why” information. Periodic assessments will provide the necessary information to make informed decisions on whether each countermeasure contributed to an increase in safety, whether the countermeasure could or should be installed at other locations, and which factors may have contributed to each countermeasure’s success.

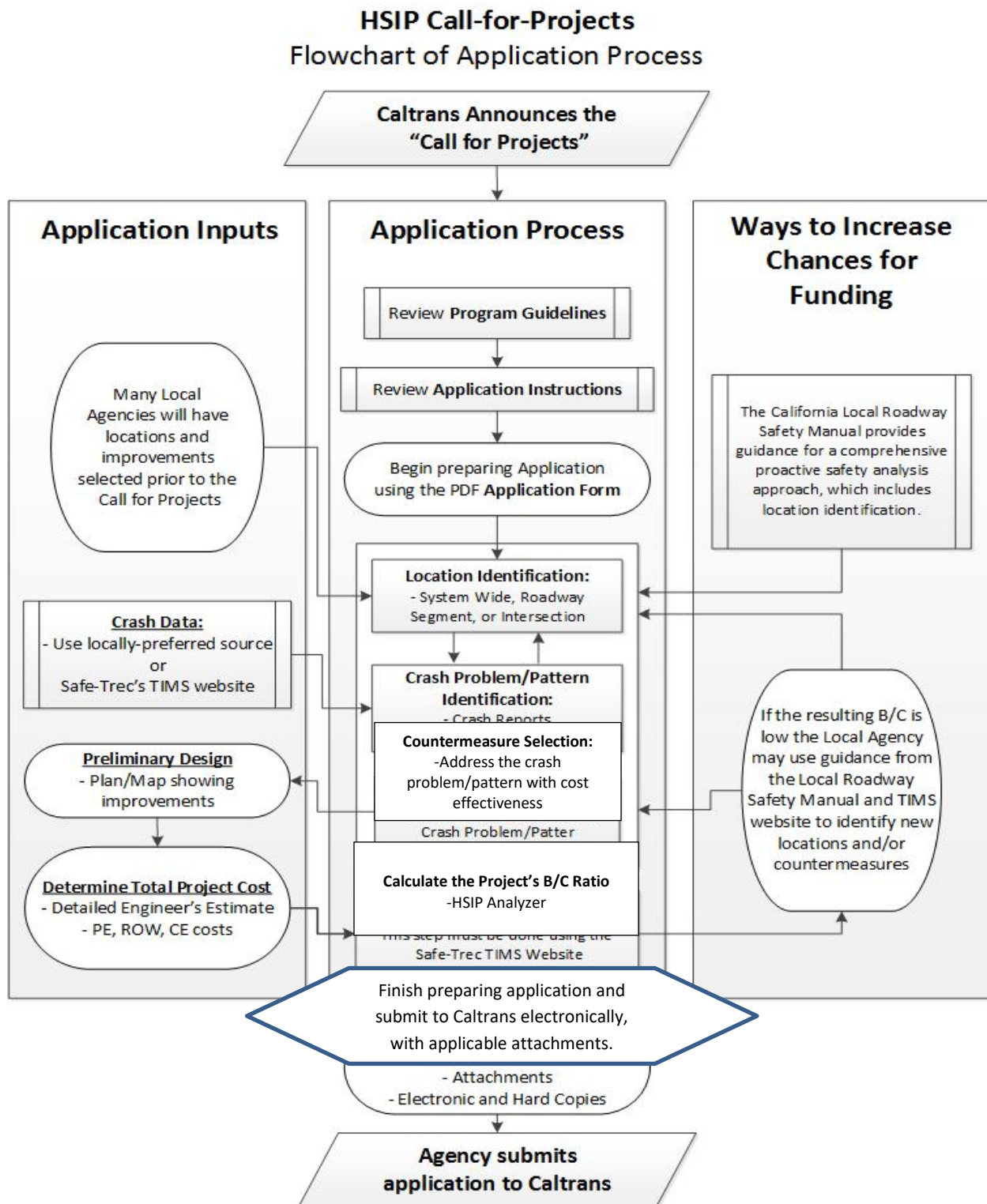
In order to perform the assessment, it is necessary to collect the required information for a certain period after strategies have been deployed at the locations. The time period varies, but whenever possible, 3 to 5 years is recommended to reduce the effects of the random nature of roadway crashes (i.e., Regression to the Mean). The information required may consist of public input and complaints, police reports, observations from maintenance crews, and local and State crash data.

It is important to keep the list of safety installations up-to-date since it will serve as a record of countermeasure deployment history (see table below for an example). By using this type of system, assessment dates can be scheduled to review the crashes and other pertinent information on segments where roadway countermeasures have been installed. Making “after” assessments will inform the practitioner on the effectiveness of past improvements and can provide data to help justify the value of continuing and expanding the local agency’s safety program in the future.

Location	Type of Countermeasure Installed	Date Installed	Crashes Before (Duration and Severity)	Crashes After (Duration and Severity)	Comments

Recommended Action: Develop a spreadsheet or database to track future safety project installations and record 3 or more years of “before” and “after” crash information at those locations. Once safety countermeasures are constructed, schedule and track assessment dates to ensure they happen.

Appendix A: HSIP Call-for-Projects Process



Appendix B: Detailed Tables of Countermeasures

The intent of the information contained in this appendix is to provide local agency safety practitioners with a list of effective countermeasures that are appropriate remedies to many common safety issues. The tables in Section 4.2 present a quick summary of the specific values that the Caltrans Division of Local Assistance uses to assess and select projects for its calls-for-projects. In addition to the same information as in Section 4.2, this appendix also includes notes for Caltrans HSIP calls-for-projects and “General information” regarding where the countermeasure should be used, why it works, the general qualities that can be used to suggest the potential complexity of installation, and information from FHWA CMF Clearinghouse on the type of crashes where the countermeasure is best used and a range of their expected overall effectiveness.

The countermeasures have been sorted into 3 categories: Signalized Intersection, Non-Signalized Intersection, and Roadway Segment. Pedestrian and bicycle related countermeasures have been included in each of these categories.

Caltrans gives careful consideration to the fair application of its calls-for-projects process. Starting in 2012, the award of safety funding has been solely based on a determined benefit-to-cost ratio for each project. The fixed set of countermeasures and CRFs included in these tables are intended to allow for all projects to be evaluated consistently and fairly throughout the project selection process. However, at this time, there are no CRFs/CMFs available for several safety improvements, such as: "dynamic/variable speed regulatory signs", "non-motorized signs and markings (regulatory and warning)", "Square-up (reduce curve radius) turn lanes" and non-infrastructure elements. These safety improvement items can be included in project applications, but they will not be included into the B/C ratio calculations, unless the safety improvements meet the intent of other separate countermeasures included in the attached lists. Caltrans is interested in adding these countermeasures (and many others) to these tables once CRFs/CMFs have been established. Caltrans will continue to periodically update this list of allowable countermeasures and CRFs as new safety research data becomes available. With this in mind, Caltrans is interested in feedback and suggestions from local agency safety practitioners on the overall countermeasure list as well as specific details of individual countermeasures, including locally developed safety effectiveness information.

Caltrans used the following references to assist its team in developing the information shown in the following tables. Safety Practitioners are encouraged to utilize these references for a more expansive list of countermeasures and CRFs / CMFs.

The Crash Modification Factors Clearinghouse

<https://www.cmfclearinghouse.org/>

NCHRP Report 500 Series: Volumes 4, 5, 6, 7, 10, 12, 13, and others

<https://www.trb.org/Main/Blurbs/152868.aspx>

Highway Safety Manual (HSM)

<http://www.highwaysafetymanual.org>

Pedestrian and Bicycle - Tools to Diagnose and Solve the Problem

https://safety.fhwa.dot.gov/ped_bike/tools_solve/

FHWA Local and Rural Road / Training, Tools, Guidance and Countermeasures for Locals

https://safety.fhwa.dot.gov/local_rural/training/

For each countermeasure (CM):

(Title) CM No., CM Name

- CM No. is
 - S01 through S21PB for Intersection Countermeasures – Signalized,
 - NS01 through NS23PB for Intersection Countermeasures – Unsignalized, or
 - R01 through R38 for Roadway Countermeasures.

For HSIP Calls-for-projects:

- **Funding Eligibility** - 90% or 50%.
- **Crash Types Addressed** - “All”, “Pedestrian and Bicycle”, “Night”, “Emergency Vehicle”, or “Animal”.
- **CRF** - Crash Reduction Factor used for HSIP calls-for-projects.
- **Expected Life** - 10 years or 20 years.
- **Notes** - Specific requirements are provided for utilizing the countermeasure on applications for Caltrans statewide calls-for-projects.
-

General Information:

- **Where to use** – Roadway segments and intersections with specific common characteristics can be addressed with similar countermeasures that are most effective.
- **Why it works** – A discussion of the benefit of a countermeasure is important to determine its appropriateness in addressing certain roadway crash types at areas with specific issues as determined by the data and roadway features.
- **General Qualities (Time, Cost and Effectiveness)** – This category is more subjective and can vary substantially. ‘Time’ refers to the approximate relative time it can take to implement the countermeasure. Costs can vary considerably due to local conditions, so ‘cost’ represents the relative cost of applying a countermeasure. A relative overall ‘effectiveness’ is also provided for some countermeasures. All of this subjective information may not be applicable to the unique circumstances for the agency and should not be utilized without verification by the safety practitioner.

- **FHWA CMF Clearinghouse**

- **Crash Types Addressed** – In order to effectively reduce the number and severity of roadway crashes, it is necessary to match countermeasures to the crash types they are intended to address. Depending on the type of problem, one or more of a range of countermeasures could be the most effective way to reduce the number and severity of future crashes.
- **Crash Reduction Factor** – The crash reduction factor (CRF) is an indication of the effectiveness of a particular treatment, measured by the percentage of crashes it is expected to reduce. Note: As mentioned earlier in this section, the effectiveness of a countermeasure can also be expressed as a Crash Modification Factor (CMF), which is defined mathematically as $1 - \text{CRF}$. However, this document uses CRFs as they can be more insightful when analyzing roadways for potential “reductions” in crashes. There is a range of CRF values that exist for each of the countermeasures (or similar countermeasures). The range of CRFs is provided to give local safety practitioners a clear understanding that they may need to go to the FHWA CMF Clearinghouse to find the most appropriate countermeasure and CRF for their specific projects and local prioritization.

B.1 Intersection Countermeasures – Signalized

S01, Add intersection lighting (Signalized Intersection => S.I.)

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		"night" crashes		40%	20 years
Notes:	This CM only applies to "night" crashes (all types) occurring within limits of the proposed roadway lighting 'engineered' area.				
General information					
Where to use:					
Signalized intersections that have a disproportionate number of night-time crashes and do not currently provide lighting at the intersection or at its approaches. Crash data should be studied to ensure that safety at the intersection could be improved by providing lighting (this strategy would be supported by a significant number of crashes that occur at night).					
Why it works:					
Providing lighting at the intersection itself, or both at the intersection and on its approaches, improves the safety of an intersection during nighttime conditions by (1) making drivers more aware of the surroundings at an intersection, which improves drivers' perception-reaction times, (2) enhancing drivers' available sight distances, and (3) improving the visibility of non-motorists. Intersection lighting is of particular benefit to non-motorized users. Lighting not only helps them navigate the intersection, but also helps drivers see them better.					
General Qualities (Time, Cost and Effectiveness):					
A lighting project can usually be completed relatively quickly, but generally requires at least 1 year to implement because the lighting system must be designed and the provision of electrical power must be arranged. The provision of lighting involves both a fixed cost for lighting installation and an ongoing maintenance and power cost which results in a moderate to high cost. Some locations can result in high B/C ratios, but due to higher costs, these projects often result in medium to low B/C ratios.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Night, All	CRF: 20-74%

S02, Improve signal hardware: lenses, back-plates with retroreflective borders, mounting, size, and number

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		All		15%	10 years
Notes:	This CM only applies to crashes occurring on the approaches / influence area of the upgraded signals. This CM does not apply to improvements like "battery backup systems", which do not provide better intersection/signal visibility or help drivers negotiate the intersection (unless applying past crashes that occurred when the signal lost power). If new signal mast arms are part of the proposed project, CM "S2" should not be used and the signal improvements would be included under CM "S7".				
General information					
Where to use:					
Signalized intersections with a high frequency of right-angle and rear-end crashes occurring because drivers are unable to see traffic signals sufficiently in advance to safely negotiate the intersection being approached. Signal intersection improvements include new LED lighting, signal back plates, retro-reflective tape outlining the back plates, or visors to increase signal visibility, larger signal heads, relocation of the signal heads, or additional signal heads.					
Why it works:					
Providing better visibility of intersection signals aids the drivers' advance perception of the upcoming intersection. Visibility and clarity of the signal should be improved without creating additional confusion for drivers.					
General Qualities (Time, Cost and Effectiveness):					
Installation costs and time should be minimal as these type strategies are classified as low cost and implementation does not typically require the approval process normally associated with more complex projects. When considered at a single location, these low cost improvements are usually funded through local funding by local maintenance crews. However, This CM can be effectively and efficiently implemented using a systematic approach with numerous locations, resulting in low to moderate cost projects that are more appropriate to seek state or federal funding.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Rear-End, Angle	CRF: 0-46%

S03, Improve signal timing (coordination, phases, red, yellow, or operation)

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
50%		All		15%	10 years
Notes:	This CM only applies to crashes occurring on the approaches / influence area of the new signal timing. For projects coordination signals along a corridor, the crashes related to side-street movements should not be applied. This CM does not apply to projects that only 'study' the signal network and do not make physical timing changes, including corridor operational studies and improvements to Traffic Operation Centers (TOCs). In Caltrans calls for projects, this CM has a HSIP reimbursement ratio of 50%, considering that it will improve the signal operation rather than merely the safety.				
General information					
Where to use:					
Locations that have a crash history at multiple signalized intersections. Signalization improvements may include adding phases, lengthening clearance intervals, eliminating or restricting higher-risk movements, and coordinating signals at multiple locations. Understanding the corridor or roadway's crash history can provide insight into the most appropriate strategy for improving safety.					
Why it works:					
Certain timing, phasing, and control strategies can produce multiple safety benefits. Sometimes capacity improvements come along with the safety improvements and other times adverse effects on delay or capacity occur. Corridor improvements often have the highest benefit but may take longer to implement. Projects focused on capacity improvements (without a separate focus on signal timing safety needs) may not result in a reduction in future crashes.					
General Qualities (Time, Cost and Effectiveness):					
In general, these low-cost improvements to multiple signalized intersections can be implemented in a short time. Typically these low cost improvements are funded through local funding by local maintenance crews. However, some projects requiring new interconnect infrastructure can have moderate to high costs making them more appropriate to seek state or federal funding. The expected effectiveness of this CM must be assessed for each individual project.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		All	CRF: 0 - 41%

S04, Provide Advanced Dilemma-Zone Detection for high-speed approaches

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		All		40%	10 years
Notes:	This CM only applies to crashes occurring on the approaches / influence area of the new detection and signal timing.				
General information					
Where to use:					
More rural/remote areas that have a high frequency of right-angle and rear-end crashes. The Advanced Dilemma-Zone Detection system enhances safety at signalized intersections by modifying traffic control signal timing to reduce the number of drivers that may have difficulty deciding whether to stop or proceed during a yellow phase. This may reduce rear-end crashes associated with unsafe stopping and angle crashes due to illegally continuing into the intersection during the red phase.					
Why it works:					
Clearance times provide safe, orderly transitions in ROW assignment between conflicting streams of traffic. An Advanced Dilemma-Zone Detection system has several benefits relative to traditional multiple detector systems, which have upstream detection for vehicles in the dilemma zone but do not take the speed or size of individual vehicles into account. These benefits include: Reducing the frequency of red-light violations; Reducing the frequency of crashes associated with the traffic signal phase change (for example, rear-end and angle crashes); Reducing delay and stop frequency on the major road and a reduction in overall intersection delay.					
General Qualities (Time, Cost and Effectiveness):					
Installation costs should be low and the time to implement short. Additional modifications to the traffic signal controller may also necessary. In general, This CM can be very effective and can be considered on a systematic approach. Video detection equipment is now available for this purpose, making installation and maintenance more efficient.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		All	CRF: 39%

S05, Install emergency vehicle pre-emption systems

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		Emergency Vehicle - only		70%	10 years
Notes:	This CM only applies to "E.V." crashes occurring on the approaches / influence area of the new pre-emption system.				
General information					
Where to use:					
Corridors that have a history of crashes involving emergency response vehicles. The target of this strategy is signalized intersections where normal traffic operations impede emergency vehicles and where traffic conditions create a potential for conflicts between emergency and nonemergency vehicles. These conflicts could lead to almost any type of crash, due to the potential for erratic maneuvers of vehicles moving out of the paths of emergency vehicles					
Why it works:					
Providing emergency vehicle preemption capability at a signal or along a corridor can be a highly effective strategy in two ways; any type of crash could occur as emergency vehicles try to navigate through intersections and as other vehicles try to maneuver out of the path of the emergency vehicles. In addition, a signal preemption system can decrease emergency vehicle response times therefore decreasing the time in receiving emergency medical attention, which is critical in the outcome of any crash. When data is not available for past crashes with emergency vehicles, an agency may consider combining the E.V. pre-emption improvements into a comprehensive project that also makes significant signal hardware and/or signal timing improvements.					
General Qualities (Time, Cost and Effectiveness):					
Costs for installation of a signal preemption system will vary from medium to high, based upon the number of signalized intersections at which preemption will be installed and the number of emergency vehicles to be outfitted with the technology. The number of detectors, a requirement for new signal controllers, and the intricacy of the preemption system could increase costs. This CM is considered systemic as it is usually implemented on a corridor-basis.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Emergency Vehicle - only	CRF: 70%

S06, Install left-turn lane and add turn phase (signal has no left-turn lane or phase before)

For HSIP Cycle 11 Call-for-projects				
Funding Eligibility		Crash Types Addressed	CRF	Expected Life
90%		All	55%	20 years
Notes:	This CM only applies to crashes occurring on the approaches / influence area of the new left turn lanes. This CM does NOT apply to converting a single-left into double-left turn.			
General information				
Where to use:				
Intersections that do not currently have a left turn lane or a related left-turn phase that are experiencing a large number of crashes. Many intersection safety problems can be traced to difficulties in accommodating left-turning vehicles, in particular where there is currently no accommodation for left turning traffic. A key strategy for minimizing collisions related to left-turning vehicles (angle, rear-end, sideswipe) is to provide exclusive left-turn lanes and the appropriate signal phasing, particularly on high-volume and high-speed major-road approaches. Agencies need to document their consideration of the MUTCD, Section 4D.19 guidelines; the section on implementing protected left-turn phases.				
Why it works:				
Left-turn lanes allow separation of left-turn and through-traffic streams, thus reducing the potential for rear-end collisions. Left-turn phasing also provides a safer opportunity for drivers to make a left-turn. The combination of left-turn storage and a left turn signal has the potential to reduce many collisions between left-turning vehicles and through vehicles and/or non-motorized road users.				
General Qualities (Time, Cost and Effectiveness):				
Implementation time may vary from months to years. At some locations, left-turn lanes can be quickly installed simply by restriping the roadway. At other locations, widening of the roadway, acquisition of additional right-of-way, and extensive environmental processes may be needed. Such projects require a substantial time for development and construction. Costs are highly variable and range from very low to high. Installing a protected left turn lane and phase where none exists results in a high Crash Reduction Factor and is often highly effective.				
FHWA CMF Clearinghouse:	Crash Types Addressed:	All	CRF:	17 - 58 %

S07, Provide protected left turn phase (left turn lane already exists)

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		All		30%	20 years
Notes:	This CM only applies to crashes occurring on the approaches / influence area of the new left turn phases. This CM does NOT apply to converting a single-left into double-left turn (unless the single left is unprotected and the proposed double left will be protected).				
General information					
Where to use:					
Signalized intersections (with existing left turns pockets) that currently have a permissive left-turn or no left-turn protection that have a high frequency of angle crashes involving left turning, opposing through vehicles, and non-motorized road users. A properly timed protected left-turn phase can also help reduce rear-end and sideswipe crashes between left-turning vehicles and the through vehicles as well as vehicles behind them. Protected left-turn phases are warranted based on such factors as turning volumes, delay, visibility, opposing vehicle speed, distance to travel through the intersection, presence of non-motorized road users, and safety experience of the intersections. Agencies need to document their consideration of the MUTCD, Section 4D.19 guidelines; the section on implementing protected left-turn phases.					
Why it works:					
Left turns are widely recognized as the highest-risk movements at signalized intersections. Providing Protected left-turn phases (i.e., the provision for a specific phase for a turning movement) for signalized intersections with existing left turn pockets significantly improve the safety for left-turn maneuvers by removing the need for the drivers to navigate through gaps in oncoming/opposing through vehicles. Where left turn pockets are not protected, the pedestrian and bicyclist crossing phase often conflicts with these left turn maneuvers. Drivers focused on navigating the gaps of oncoming cars may not anticipate and/or perceive the non-motorized road users.					
General Qualities (Time, Cost and Effectiveness):					
If the existing traffic signal only requires a minor modification to allow for a protected left-turn phase, then the cost would also be low. The time to implement this countermeasure is short because there is no actual construction that has to take place. In-house signal maintainers can perform this operation once the proper signal phasing is determined so the cost is low. In addition, the countermeasure is tried and proven to be effective. Has the potential of being applied on a systemic/systematic approach.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Rear-End, Sideswipe, Broadside	CRF: 16 - 99%

S08, Convert signal to mast arm (from pedestal-mounted)

For HSIP Cycle 11 Call-for-projects				
Funding Eligibility		Crash Types Addressed	CRF	Expected Life
90%		All	30%	20 years
Notes:	This CM only applies to crashes occurring on the approaches / influence area of the converted signal heads that are relocated from median and/or outside shoulder pedestals to signal heads on master arms over the travel-lanes. Projects using CM "S7" should not also apply "S2" in the B/C calc.			
General information				
Where to use:				
Intersections currently controlled by pedestal mounted traffic signals (in medians and/or on outside shoulder) that have a high frequency of right-angle and rear-end crashes occurring because drivers are unable to see traffic signals in advance to safely negotiate the intersection. Intersections that have pedestal-mounted signals may have poor visibility and can result in vehicles not being able to stop in time for a signal change. Care should be taken to place the new signal heads (with back plates) as close to directly over the center of the travel lanes as possible.				
Why it works:				
Providing better visibility of intersection signs and signals aids the drivers' advance perception of the upcoming intersection. Visibility and clarity of the signal should be improved without creating additional confusion or distraction for drivers.				
General Qualities (Time, Cost and Effectiveness):				
Dependent on the scope of the project. Costs are generally moderate for this type of project. There is usually no right-of-way costs, minimal roadway reconstruction costs, and a shorter project development timeline. At the same time, new mast arms can be expensive. Some locations can result in high B/C ratios, but due to moderate costs, some locations may result in medium to low B/C ratios.				
FHWA CMF Clearinghouse:		Crash Types Addressed:	Rear-End, Angle	CRF: 12 - 74%

S09, Install raised pavement markers and striping (Through Intersection)

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		All		10%	10 years
Notes:	This CM only applies to crashes occurring in the intersection and influence areas of the new pavement markers and/or markings.				
General information					
Where to use:					
Intersections where the lane designations are not clearly visible to approaching motorists and/or intersections noted as being complex and experiencing crashes that could be attributed to a driver's unsuccessful attempt to navigate the intersection. Driver confusion can exist in regard to choosing the proper turn path or where through-lanes do not line up. This is especially relevant at intersections where the overall pavement area of the intersection is large, and multiple turning lanes are involved or other unfamiliar elements are presented to the driver.					
Why it works:					
Adding clear pavement markings can guide motorists through complex intersections. When drivers approach and traverse through complex intersections, drivers may be required to perform unusual or unexpected maneuvers. Providing more effective guidance through an intersection will minimize the likelihood of a vehicle leaving its appropriate lane and encroaching upon an adjacent lane.					
General Qualities (Time, Cost and Effectiveness):					
Costs of implementing this strategy will vary based on the scope and number of applications. Applying raised pavement markers is relatively low cost but can be variable and determined largely by the material used for pavement markings (paint, thermoplastic, epoxy, RPMs etc.). When using this type delineators, an issue of concern is the cost-to-service-life of the material. (Note: When HSIP safety funding is used for these installations in high-wear-locations, the local agency is expected to maintain the improvement for a minimum of 10 years.) When considered at a single location, these low cost improvements are usually funded through local funding by local maintenance crews. However, This CM can be effectively and efficiently implemented using a systematic approach with numerous locations, resulting in moderate cost projects that are more appropriate to seek state or federal funding.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Wet, Night, All	CRF: 10 - 33%

S10, Install flashing beacons as advance warning (S.I.)

For HSIP Cycle 11 Call-for-projects				
Funding Eligibility		Crash Types Addressed	CRF	Expected Life
90%		All	30%	10 years
Notes:	This CM only applies to crashes occurring on the approaches / influence area of the new flashing beacons.			
General information				
Where to use:				
At signalized intersections with crashes that are a result of drivers being unaware of the intersection or are unable to see the traffic control device in time to comply.				
Why it works:				
Increased driver awareness of an approaching signalized intersection and an increase in the driver's time to react. Driver awareness of both downstream intersections and traffic control devices is critical to intersection safety. Crashes often occur when the driver is unable to perceive an intersection, signal head or the back of a stopped queue in time to react. Advance flashing beacons can be used to supplement and call driver attention to intersection control signs. Most advance warning flashing beacons can be powered by solar, thus reducing the issues relating to power source.				
General Qualities (Time, Cost and Effectiveness):				
Before choosing this CM, the agency needs to confirm the ability to provide power to the site (solar may be an option). Flashing beacons can be constructed with minimal design, environmental and right-of-way issues and have relatively low costs. This combined with a relatively high CRF, can result in high B/Cs for locations with a history of crashes and lead to a high effectiveness.				
FHWA CMF Clearinghouse:	Crash Types Addressed:	Rear End, Angle	CRF:	36 - 62%

S11, Improve pavement friction (High Friction Surface Treatments)

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		All		55%	10 years
Notes:	This CM only applies to crashes occurring within the limits of the improved friction overlay. This CM is not intended to apply to standard chip-seal or open-graded maintenance projects for long segments of corridors or structure repaving projects intended to fix failed pavement.				
General information					
Where to use:					
Nationally, this countermeasure is referred to as "High Friction Surface Treatments" or HFST. Signalized Intersections noted as having crashes on wet pavements or under dry conditions when the pavement friction available is significantly less than needed for the actual roadway approach speeds. This treatment is intended to target locations where skidding and failure to stop is determined to be a problem in wet or dry conditions and the target vehicle is unable to stop due to insufficient skid resistance.					
Why it works:					
Improving the skid resistance at locations with high frequencies of wet-road crashes and/or failure to stop crashes can result in reductions of 50 percent for wet-road crashes and 20 percent for total crashes. Applying HFST can double friction numbers, e.g. low 40s to high 80s. This CM represents a special focus area for both FHWA and Caltrans, which means there are extra resources available for agencies interested in more details on High Friction Surface Treatment projects.					
General Qualities (Time, Cost and Effectiveness):					
This strategy can be relatively inexpensive and implemented in a short timeframe. The installation would be done by either agency personnel or contractors and can be done by hand or machine. In general, This CM can be very effective and can be considered on a systematic approach.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Wet, Night, ALL	CRF: 10 - 62 %

S12, Install raised median on approaches (S.I.)

For HSIP Cycle 11 Call-for-projects				
Funding Eligibility		Crash Types Addressed	CRF	Expected Life
90%		All	25%	20 years
Notes:	This CM only applies to crashes occurring on the approaches / influence area of the new raised median. All new raised medians funded with HSIP funding should not include the removal of the existing roadway structural section and should be doveled into the existing roadway surface. This requirement is being implemented to maximize the safety-effectiveness of the limited HSIP funding and to minimize project impacts. Landscaping, if included in the project, is considered non-participating.			
General information				
Where to use:				
Intersections noted as having turning movement crashes near the intersection as a result of insufficient access control. Application of this CM should be based on current crash data and a clearly defined need to restrict or accommodate the movement.				
Why it works:				
Raised medians next to left-turn lanes at intersections offer a cost-effective means for reducing crashes and improving operations at higher volume intersections. The raised medians prohibit left turns into and out of driveways that may be located too close to the functional area of the intersection.				
General Qualities (Time, Cost and Effectiveness):				
Raised medians at intersections may be most effective in retrofit situations where high volumes of turning vehicles have degraded operations and safety, and where more extensive CMs would be too expensive because of limited right-of-way and the constraints of the built environment. The result is This CM can be very effective and can be considered on a systematic approach. Raised medians can often be installed directly over the existing pavement. When agencies opt to install landscaping in conjunction with new raised medians, the portion of the cost for landscaping and other non-safety related items that exceeds 10% of the project total cost is not federally participated and must be funded by the applicant.				
FHWA CMF Clearinghouse:	Crash Types Addressed:	Angle	CRF:	21 -55 %

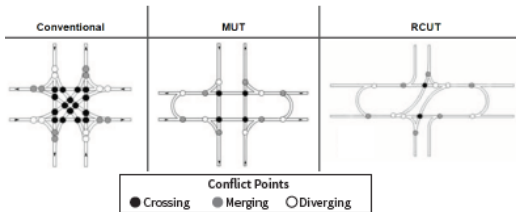
S13PB, Install pedestrian median fencing on approaches

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		Pedestrian and Bicycle		35%	20 years
Notes:	This CM only applies to "Ped & Bike" crashes occurring on the approaches/influence area of the new pedestrian median fencing.				
General information					
Where to use:					
Signalized Intersections with high pedestrian-generators nearby (e.g. transit stops) may experience a high volumes of pedestrians J-walking across the travel lanes at mid-block locations instead of walking to the intersection and waiting to cross during the walk-phase. When this safety issue cannot be mitigated with signal timing and shoulder/sidewalk treatments, then installing a continuous pedestrian barrier in the median may be a viable solution.					
Why it works:					
Adding pedestrian median fencing has the opportunity to enhance pedestrian safety at locations noted as being problematic involving pedestrians running/darting across the roadway outside the intersection crossings. Pedestrian median fencing can significantly reduce this safety issue by creating a positive barrier, forcing pedestrians to the designated pedestrian crossing.					
General Qualities (Time, Cost and Effectiveness):					
Costs associated with this strategy will vary widely depending on the type and placement of the median fencing. Impacts to transit and other land uses may need to be considered and controversy can delay the implementation. In general, this CM can be effective as a spot-location approach.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Pedestrian, Bicycle	CRF: 25- 40%

S14, Create directional median openings to allow (and restrict) left-turns and U-turns (S.I.)

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		All		50%	20 years
Notes:	This CM only applies to crashes occurring in the intersection / influence area of the new directional openings.				
General information					
Where to use:					
Crashes related to turning maneuvers include angle, rear-end, pedestrian, and sideswipe (involving opposing left turns) type crashes. If any of these crash types are an issue at an intersection, restriction or elimination of the turning maneuver may be the best way to improve the safety of the intersection.					
Why it works:					
Restricting turning movement into and out of an intersection can help reduce conflicts between through and turning traffic. The number of access points, coupled with the speed differential between vehicles traveling along the roadway, contributes to crashes. Affecting turning movements by either allowing them or restricting them, based on the application, can ensure safe movement of traffic.					
General Qualities (Time, Cost and Effectiveness):					
Turn prohibitions that are implemented by closing a median opening can be implemented quickly. The cost of this strategy will depend on the treatment. Impacts to businesses and other land uses must be considered and controversy can delay the implementation. In general, This CM can be very effective and can be considered on a systematic approach.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		All	CRF: 51%

S15, Reduced Left-Turn Conflict Intersections (S.I.)

For HSIP Cycle 11 Call-for-projects				
Funding Eligibility		Crash Types Addressed	CRF	Expected Life
90%		All	50%	20 years
Notes:	This CM only applies to crashes occurring in the intersection / influence area of the new Reduced Left-Turn Conflict.			
General information				
Where to use and Why it works:				
Reduced left-turn conflict intersections are geometric designs that alter how left-turn movements occur in order to simplify decisions and minimize the potential for related crashes. Two highly effective designs that rely on U-turns to complete certain left-turn movements are known as the restricted crossing U-turn (RCUT) and the median U-turn (MUT). Restricted Crossing U-turn (RCUT): The RCUT intersection modifies the direct left-turn and through movements from cross-street approaches. Minor road traffic makes a right turn followed by a U-turn at a designated location (either signalized or unsignalized) to continue in the desired direction. The RCUT is suitable for a variety of circumstances, including along rural, high-speed, four-lane, divided highways or signalized routes. It also can be used as an alternative to signalization or constructing an interchange. RCUTs work well when consistently used along a corridor, but also can be used effectively at individual intersections. Median U-turn (MUT) The MUT intersection modifies direct left turns from the major approaches. Vehicles proceed through the main intersection, make a U-turn a short distance downstream, followed by a right turn at the main intersection. The U-turns can also be used for modifying the cross-street left turns. The MUT is an excellent choice for heavily traveled intersections with moderate left-turn volumes. When implemented at multiple intersections along a corridor, the efficient two-phase signal operation of the MUT can reduce delay, improve travel times, and create more crossing opportunities for pedestrians and bicyclists.				
MUT and RCUT Can Reduce Conflict Points by 50% 				
General Qualities (Time, Cost and Effectiveness):				
Implementing this strategy may take from months to years, depending on whether additional R/W is required. Such projects require a substantial time for development and construction. Costs are highly variable and range from very low to high. The expected effectiveness of this CM must be assessed for each individual location.				
FHWA CMF Clearinghouse:	Crash Types Addressed:	Angle/Left-turn/Rear-End/All	CRF:	34.8-100%

S16, Convert intersection to roundabout (from signal)

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		All		Varies	20 years
Notes:	This CM only applies to crashes occurring in influence area of the new roundabout. This CM is not intended for mini-roundabouts. The benefit of this CM is calculated using Caltrans procedure. The CRF is dependent on the ADT, project location (Rural/Urban) and the roundabout type (1 lane or 2 lanes). The benefit comes from both the reduction in the number and the severity of the crashes.				
General information					
Where to use:					
Signalized intersections that have a significant crash problem and the only alternative is to change the nature of the intersection itself. Roundabouts can also be very effective at intersections with complex geometry and intersections with frequent left-turn movements.					
Why it works:					
The types of conflicts that occur at roundabouts are different from those occurring at conventional intersections; namely, conflicts from crossing and left-turn movements are not present in a roundabout. The geometry of a roundabout forces drivers to reduce speeds as they proceed through the intersection. This helps keep the range of vehicle speed narrow, which helps reduce the severity of crashes when they do occur. Pedestrians only have to cross one direction of traffic at a time at roundabouts, thus reducing their potential for conflicts.					
General Qualities (Time, Cost and Effectiveness):					
Provision of a roundabout requires substantial project development. The need to acquire right-of-way is likely and will vary from site to site and depends upon the geometric design. These activities may require up to 4 years or longer to implement. Costs are variable, but construction of a roundabout to replace an existing signalized intersection are relatively high. The result is this CM may have reduced relative-effectiveness compared to other CMs.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		All	CRF: 35 - 67%

S17PB, Install pedestrian countdown signal heads

For HSIP Cycle 11 Call-for-projects				
Funding Eligibility		Crash Types Addressed	CRF	Expected Life
90%		Pedestrian and Bicycle	25%	20 years
Notes:	This CM only applies to "Ped & Bike" crashes occurring in the intersection/crossing with the new countdown heads.			
General information				
Where to use:				
Signals that have signalized pedestrian crossing with walk/don't walk indicators and where there have been pedestrian vs. vehicle crashes.				
Why it works:				
A pedestrian countdown signal contains a timer display and counts down the number of seconds left to finish crossing the street. Countdown signals can reassure pedestrians who are in the crosswalk when the flashing "DON'T WALK" interval appears that they still have time to finish crossing. Countdown signals begin counting down either when the "WALK" or when the flashing "DON'T WALK" interval appears and stop at the beginning of the steady "DON'T WALK" interval. These signals also have been shown to encourage more pedestrians to use the pushbutton rather than jaywalk.				
General Qualities (Time, Cost and Effectiveness):				
Costs and time of installation will vary based on the number of intersections included in this strategy and if it requires new signal controllers capable of accommodating the enhancement. When considered at a single location, these low cost improvements are usually funded through local funding by local crews. However, This CM can be effectively and efficiently implemented using a systematic approach with numerous locations, resulting in moderate cost projects that are more appropriate to seek state or federal funding.				
FHWA CMF Clearinghouse:	Crash Types Addressed:	Pedestrian, Bicycle	CRF:	25%

S18PB, Install pedestrian crossing (S.I.)

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		Pedestrian and Bicycle		25%	20 years
Notes:	This CM only applies to "Ped & Bike" crashes occurring in the intersection/crossing with the new crossing. This CM is not intended to be used for high-cost aesthetic enhancements to intersection crosswalks (i.e. stamped concrete or stamped asphalt).				
General information					
Where to use:					
Signalized Intersections with no marked crossing and pedestrian signal heads, where pedestrians are known to be crossing intersections that involve significant turning movements. They are especially important at intersections with (1) multiphase traffic signals, such as left-turn arrows and split phases, (2) school crossings, and (3) double-right or double-left turns. At signalized intersections, pedestrian crossings are often safer when the left turns have protected phases that do not overlap the pedestrian walk phase.					
Why it works:					
Adding pedestrian crossings has the opportunity to enhance pedestrian safety at locations noted as being problematic. Nearly one-third of all pedestrian-related crashes occur at or within 50 feet of an intersection. Of these, 30 percent may involve a turning vehicle. Another 22 percent of pedestrian crashes involve a pedestrian either running across the intersection or darting out in front of a vehicle whose view was blocked just prior to the impact. Finally, 16 percent of these intersection-related crashes occur because of a driver violation (e.g., failure to yield right-of-way). When agencies opt to install aesthetic enhancement to intersection crosswalks like stamped concrete/asphalt, the project design and construction costs can significantly increase. For HSIP applications, these costs must be accounted for in the B/C calculation, but these costs (over standard crosswalk markings) must be tracked separately and are not federally reimbursable and will increase the agency's local-funding share for the project costs.					
General Qualities (Time, Cost and Effectiveness):					
Costs associated with this strategy will vary widely, depending if curb ramps and sidewalk modifications are required with the crossing. When considered at a single location, these low cost improvements may be funded through local funding by local crews. However, This CM can be effectively and efficiently implemented using a systematic approach with numerous locations, resulting in moderate to high cost projects that are appropriate to seek state or federal funding.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Pedestrian, Bicycle	CRF: 25%

S19PB, Pedestrian Scramble

For HSIP Cycle 11 Call-for-projects				
Funding Eligibility		Crash Types Addressed	CRF	Expected Life
90%		Pedestrian and Bicycle	40%	20 years
Notes:	This CM only applies to "Ped & Bike" crashes occurring in the intersection with the new pedestrian crossing.			
General information				
Where to use:				
Pedestrian Scramble is a form of pedestrian "WALK" phase at a signalized intersection in which all vehicular traffic is required to stop, allowing pedestrians/bicyclists to safely cross through the intersection in any direction, including diagonally. Pedestrian Scramble may be considered at signalized intersections with very high pedestrian/bicycle volumes, e.g. in an urban business district.				
Why it works:				
Pedestrian Scramble has been shown to reduce injury risk and increase bicycle ridership due to its perceived safety and comfort.				
General Qualities (Time, Cost and Effectiveness):				
Not involving any additional R/W, Pedestrian Scramble should not require a long development process and should be implemented reasonably soon. A systemic approach may be used in implementing this CM, resulting in cost efficiency with low to moderate cost.				
FHWA CMF Clearinghouse:	Crash Types Addressed:	Pedestrian, Bicycle	CRF:	-10% to 51%

S20PB, Install advance stop bar before crosswalk (Bicycle Box)

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		Pedestrian and Bicycle		15%	10 years
Notes:	This CM only applies to "Ped & Bike" crashes occurring in the intersection-crossing with the new advanced stop bars.				
General information					
Where to use:					
Signalized Intersections with a marked crossing, where significant bicycle and/or pedestrians volumes are known to occur.					
Why it works:					
Adding advance stop bar before the striped crosswalk has the opportunity to enhance both pedestrian and bicycle safety. Stopping cars well before the crosswalk provides a buffer between the vehicles and the crossing pedestrians. It also allows for a dedicated space for cyclists, making them more visible to drivers (This dedicated space is often referred to as a bike-box.)					
General Qualities (Time, Cost and Effectiveness):					
Costs and time of installation will vary based on the number of intersections included in this strategy and if it requires new signal controllers capable of accommodating the enhancement. When considered at a single location, these low cost improvements are usually funded through local funding by local crews. However, This CM can be effectively and efficiently implemented using a systematic approach with numerous locations, resulting in moderate cost projects that are more appropriate to seek state or federal funding.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Pedestrian, Bicycle	CRF: 35%

S21PB, Modify signal phasing to implement a Leading Pedestrian Interval (LPI)

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		Pedestrian and Bicycle		60%	10 years
Notes:	This CM only applies to "Ped & Bike" crashes occurring in the intersections with signalized pedestrian crossing with the newly implemented Leading Pedestrian Interval (LPI).				
General information					
Where to use:					
Intersections with signalized pedestrian crossing that have high turning vehicles volumes and have had pedestrian vs. vehicle crashes.					
Why it works:					
A leading pedestrian interval (LPI) gives pedestrians the opportunity to enter an intersection 3-7 seconds before vehicles are given a green indication. With this head start, pedestrians can better establish their presence in the crosswalk before vehicles have priority to turn left. LPIs provide (1) increased visibility of crossing pedestrians; (2) reduced conflicts between pedestrians and vehicles; (3) Increased likelihood of motorists yielding to pedestrians; and (4) enhanced safety for pedestrians who may be slower to start into the intersection.					
General Qualities (Time, Cost and Effectiveness):					
Costs for implementing LPIs are very low, since only minor signal timing alteration is required. This makes it an easy and inexpensive countermeasure that can be incorporated into pedestrian safety action plans or policies and can become routine agency practice. When considered at a single location, the LPI is usually local-funded. However, This CM can be effectively and efficiently implemented using a systematic approach with numerous locations, resulting in moderate cost projects that are more appropriate to seek state or federal funding.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Pedestrian, Bicycle	CRF: 59%

B.2 Intersection Countermeasures – Non-signalized

NS01, Add intersection lighting (NS.I.)

For HSIP Cycle 11 Call-for-projects				
Funding Eligibility		Crash Types Addressed	CRF	Expected Life
90%		Night	40%	20 years
Notes:	This CM only applies to "night" crashes (all types) occurring within limits of the proposed roadway lighting 'engineered' area.			
General information				
Where to use:				
Non-signalized intersections that have a disproportionate number of night-time crashes and do not currently provide lighting at the intersection or at its approaches. Crash data should be studied to ensure that safety at the intersection could be improved by providing lighting (this strategy would be supported by a significant number of crashes that occur at night).				
Why it works:				
Providing lighting at the intersection itself, or both at the intersection and on its approaches, improves the safety of an intersection during nighttime conditions by (1) making drivers more aware of the surroundings at an intersection, which improves drivers' perception-reaction times, (2) enhancing drivers' available sight distances, and (3) improving the visibility of non-motorists. Intersection lighting is of particular benefit to non-motorized users as lighting not only helps them navigate the intersection, but also helps drivers see them better.				
General Qualities (Time, Cost and Effectiveness):				
A lighting project can usually be completed relatively quickly, but generally requires at least 1 year to implement because the lighting system must be designed and the provision of electrical power must be arranged. The provision of lighting involves both a fixed cost for lighting installation and an ongoing maintenance and power cost. For rural intersections, studies have shown the installation of streetlights reduced nighttime crashes at unlit intersections and can be more effective in reducing nighttime crashes than either rumble strips or overhead flashing beacons. Some locations can result in high B/C ratios, but due to higher costs, these projects often result in medium to low B/C ratios.				
FHWA CMF Clearinghouse:		Crash Types Addressed:	Night, All	CRF: 25- 50%

NS02, Convert to all-way STOP control (from 2-way or Yield control)

For HSIP Cycle 11 Call-for-projects				
Funding Eligibility		Crash Types Addressed	CRF	Expected Life
90%		All	50%	10 years
Notes:	This CM only applies to crashes occurring in the intersection and/or influence area of the new control. CA-MUTCD warrant must be met.			
General information				
Where to use:				
Unsignalized intersection locations that have a crash history and have no controls on the major roadway approaches. However, all-way stop control is suitable only at intersections with moderate and relatively balanced volume levels on the intersection approaches. Under other conditions, the use of all-way stop control may create unnecessary delays and aggressive driver behavior. MUTCD warrants should always be followed.				
Why it works:				
All-way stop control can reduce right-angle and turning collisions at unsignalized intersections by providing more orderly movement at an intersection, reducing through and turning speeds, and minimizing the safety effect of any sight distance restrictions that may be present. Advance public notification of the change is critical in assuring compliance and reducing crashes.				
General Qualities (Time, Cost and Effectiveness):				
The costs involved in converting to all-way stop control are relatively low. All-way stop control can normally be implemented at multiple intersections with just a change in signing on intersection approaches, and typically are very quick to implement. When considered at a single location, these low cost improvements are usually funded through local funding by local maintenance crews. However, This CM can be effectively and efficiently implemented using a systematic approach with numerous locations, resulting in moderate cost projects that are more appropriate to seek state or federal funding.				
FHWA CMF Clearinghouse:	Crash Types Addressed:	Left-turn, Angle	CRF:	6 - 80%

NS03, Install signals

For HSIP Cycle 11 Call-for-projects				
Funding Eligibility		Crash Types Addressed	CRF	Expected Life
90%		All	30%	20 years
Notes:	This CM only applies to crashes occurring in the intersection and/or influence area of the new signals. All new signals must meet MUTCD "safety" warrants: 4, 5 or 7. Given the over-arching operational changes that occur when an intersection is signalized, no other intersection CMs can be applied to the intersection crashes in conjunction with this CM.			
General information				
Where to use:				
Traffic signals can be used to prevent the most severe type crashes (right-angle, left-turn). Consideration to signalize an unsignalized intersection should only be given after (1) less restrictive forms of traffic control have been utilized as the installation of a traffic signal often leads to an increased frequency of crashes (rear-end) on major roadways and introduces congestion and (2) signal warrants have been met. Refer to the CA MUTCD, Section 4C.01, Studies and Factors for Justifying Traffic Control Signals.				
Why it works:				
Traffic signals have the potential to reduce the most severe type crashes but will likely cause an increase in rear-end collisions. A reduction in overall injury severity is likely the largest benefit of traffic signal installation.				
General Qualities (Time, Cost and Effectiveness):				
Typical traffic signal costs fall in the medium to high category and are affected by application, type of signal and right-of-away considerations. Projects of this magnitude should only be considered after alternate and lesser means of correction have been evaluated. Some locations can result in high B/C ratios, but due to higher costs, these projects often result in medium to low B/C ratios.				
FHWA CMF Clearinghouse:	Crash Types Addressed:	All	CRF:	0 - 74%

NS04, Convert intersection to roundabout (from all way stop)

For HSIP Cycle 11 Call-for-projects				
Funding Eligibility		Crash Types Addressed	CRF	Expected Life
90%		All	Varies	20 years
Notes:	This CM only applies to crashes occurring in the intersection and/or influence area of the new control. The benefit of this CM is calculated using Caltrans procedure. The CRF is dependent on the ADT, project location (Rural/Urban) and the roundabout type (1 lane or 2 lanes). The benefit comes from both the reduction in the number and the severity of the crashes.			
General information				
Where to use:				
Intersections that have a high frequency of right-angle and left-turn type crashes. Whether such intersections have existing crash patterns or not, a roundabout provides an alternative to signalization. The primary target locations for roundabouts should be moderate-volume unsignalized intersections. Roundabouts may not be a viable alternative in many suburban and urban settings where right-of-way is limited.				
Why it works:				
Roundabouts provide an important alternative to signalized and all-way stop-controlled intersections. Modern roundabouts differ from traditional traffic circles in that they operate in such a manner that traffic entering the roundabout must yield the right-of-way to traffic already in it. Roundabouts can serve moderate traffic volumes with less delay than all-way stop-controlled intersections and provide fewer conflict points. Crashes at roundabouts tend to be less severe because of the speed constraints and elimination of left-turn and right-angle movements.				
General Qualities (Time, Cost and Effectiveness):				
Construction of roundabouts are usually relatively costly and major projects, requiring the environmental process, right-of-way acquisition, and implementation under an agency's long-term capital improvement program. (For this reason, roundabouts may not be appropriate for California's Federal Safety Programs that have relatively short delivery requirements.) Even with roundabouts higher costs, they still can have a relatively high effectiveness.				
FHWA CMF Clearinghouse:	Crash Types Addressed:	Left-turn, Angle	CRF:	12 - 78 %

NS05, Convert intersection to roundabout (from 2-way stop or Yield control)

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		All		Varies	20 years
Notes:	This CM only applies to crashes occurring in the intersection and/or influence area of the new control. The benefit of this CM is calculated using Caltrans procedure. The CRF is dependent on the ADT, project location (Rural/Urban) and the roundabout type (1 lane or 2 lanes). The benefit comes from both the reduction in the number and the severity of the crashes.				
General information					
Where to use:					
Intersections that have a high frequency of right-angle and left-turn type crashes. Whether such intersections have existing crash patterns or not, a roundabout provides an alternative to signalization. The primary target locations for roundabouts should be moderate-volume unsignalized intersections. Roundabouts may not be a viable alternative in many suburban and urban settings where right-of-way is limited.					
Why it works:					
Roundabouts provide an important alternative to signalized and all-way stop-controlled intersections. Modern roundabouts differ from traditional traffic circles in that they operate in such a manner that traffic entering the roundabout must yield the right-of-way to traffic already in it. Roundabouts can serve moderate traffic volumes with less delay than all-way stop-controlled intersections and provide fewer conflict points. Crashes at roundabouts tend to be less severe because of the speed constraints and elimination of left-turn and right-angle movements.					
General Qualities (Time, Cost and Effectiveness):					
Construction of roundabouts are usually relatively costly and major projects, requiring the environmental process, right-of-way acquisition, and implementation under an agency's long-term capital improvement program. (For this reason, roundabouts may not be appropriate for California's Federal Safety Programs that have relatively short delivery requirements.) Even with roundabouts higher costs, they still can have a relatively high effectiveness.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Left-turn, Angle	CRF: 12 - 78 %

NS05mr, Convert intersection to mini-roundabout

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed	CRF	Expected Life	
90%		All	30%	20 years	
Notes:	This CM only applies to crashes occurring in the intersection and/or influence area of the new control.				
General information					
Where to use:					
Mini-roundabouts are characterized by a small diameter (45-90 ft) and traversable islands (central island and splitter islands). Mini-roundabouts offer most of the benefits of regular roundabouts with the added benefit of a smaller footprint. They are best suited to environments where speeds are already low and environmental constraints would preclude the use of a larger roundabout. Mini-roundabouts are most effective in lower speed environments in which all approaching roadways have posted speed of 30 mph or less and an 85th-percentile speed of less than 35 mph near the proposed yield and/or entrance line. For any location with an 85th-percentile speed above 35 mph, the mini-roundabout can be included as part of a broader system of traffic calming measures to achieve an appropriate speed environment.					
Why it works:					
Mini-roundabouts may be an optimal solution for a safety or operational issue at an existing intersection where there is insufficient right-of-way for a standard roundabout installation. The benefits of mini-roundabouts are the Compact size, operational efficiency, traffic safety improvement and traffic Calming.					
General Qualities (Time, Cost and Effectiveness):					
Construction costs for mini-roundabouts vary widely depending upon the extent of sidewalk modifications or other geometric improvements and the types of materials used. In most cases, mini-roundabouts have been installed with little or no pavement widening and with only minor changes to curbs and sidewalks. Construction costs can be minimum for an installation consisting entirely of pavement markings and signage or moderate for mini-roundabouts that include raised islands and pedestrian improvements.					
FHWA CMF Clearinghouse:		Crash Types Addressed:	NA	CRF:	NA

NS06, Install/upgrade larger or additional stop signs or other intersection warning/regulatory signs

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		All		15%	10 years
Notes:	This CM only applies to crashes occurring in the influence area of the new signs. The influence area must be determined on a location by location basis.				
General information					
Where to use:					
The target for this strategy should be approaches to unsignalized intersections with patterns of rear-end, right-angle, or turning collisions related to lack of driver awareness of the presence of the intersection.					
Why it works:					
The visibility of intersections and, thus, the ability of approaching drivers to perceive them can be enhanced by installing larger regulatory and warning signs at or prior to intersections. A key to success in applying this strategy is to select a combination of regulatory and warning sign techniques appropriate for the conditions on a particular unsignalized intersection approach.					
General Qualities (Time, Cost and Effectiveness):					
Signing improvements do not require a long development process and can typically be implemented quickly. Costs for implementing this strategy are nominal and depend on the number of signs. When considered at a single location, these low cost improvements are usually funded through local funding by local maintenance crews. However, This CM can be effectively and efficiently implemented using a systematic approach with numerous locations, resulting in moderate cost projects that are more appropriate to seek state or federal funding.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		All	CRF: 11 - 55%

NS07, Upgrade intersection pavement markings (NS.I.)

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		All		25%	10 years
Notes:	This CM only applies to crashes occurring on the approaches / influence area of the new pavement markings. This CM is not intended to be used for general maintenance activities (i.e. the replacement of existing pavement markings in-kind) and must include upgraded safety features over the existing pavement markings and striping.				
General information					
Where to use:					
Unsignalized intersections that are not clearly visible to approaching motorists, particularly approaching motorists on the major road. The strategy is particularly appropriate for intersections with patterns of rear-end, right-angle, or turning crashes related to lack of driver awareness of the presence of the intersection. Also at minor road approaches where conditions allow the stop bar to be seen by an approaching driver at a significant distance from the intersection. Typical improvements include "Stop Ahead" markings and the addition of Centerlines and Stop Bars.					
Why it works:					
The visibility of intersections and, thus, the ability of approaching drivers to perceive them can be enhanced by installing appropriate pavement delineation in advance of and at intersections will provide approaching motorists with additional information at these locations. Providing visible stop bars on minor road approaches to unsignalized intersections can help direct the attention of drivers to the presence of the intersection. Drivers should be more aware that the intersection is coming up, and therefore make safer decisions as they approach the intersection.					
General Qualities (Time, Cost and Effectiveness):					
Pavement marking improvements do not require a long development process and can typically be implemented quickly. Costs for implementing this strategy are nominal and depend on the number of markings. When considered at a single location, these low cost improvements are usually funded through local funding by local maintenance crews. However, This CM can be effectively and efficiently implemented using a systematic approach with numerous locations, resulting in moderate cost projects that are more appropriate to seek state or federal funding. Note: When federal safety funding is used for these installations in high-wear-locations, the local agency is expected to maintain the improvement for a minimum of 10 years.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		All	CRF: 13 - 60%

NS08, Install Flashing Beacons at Stop-Controlled Intersections

For HSIP Cycle 11 Call-for-projects				
Funding Eligibility		Crash Types Addressed	CRF	Expected Life
90%		All	15%	10 years
Notes:	This CM only applies to crashes occurring on the stop-controlled approaches / influence area of the new beacons.			
General information				
Where to use:				
Flashing beacons can reinforce driver awareness of the Non-Signalized intersection control and can help mitigate patterns of right-angle crashes related to stop sign violations. Post-mounted advanced flashing beacons or overhead flashing beacons can be used at stop-controlled intersections to supplement and call driver attention to stop signs.				
Why it works:				
Flashing beacons provide a visible signal to the presence of an intersection and can be very effective in rural areas where there may be long stretches between intersections as well as locations where night-time visibility of intersections is an issue.				
General Qualities (Time, Cost and Effectiveness):				
Flashing beacons can be constructed with minimal design, environmental and right-of-way issues and have relatively low costs. Before choosing this CM, the agency needs to confirm the ability to provide power to the site (solar may be an option). In general, This CM can be very effective and can be considered on a systematic approach.				
FHWA CMF Clearinghouse:	Crash Types Addressed:	Angle, Rear-End	CRF:	5-34%

NS09, Install flashing beacons as advance warning (NS.I.)

For HSIP Cycle 11 Call-for-projects			
Funding Eligibility	Crash Types Addressed	CRF	Expected Life
90%	All	30%	10 years
Notes:	This CM only applies to crashes occurring on the approaches / influence area of the new beacons placed in advance of the intersection.		
General information			
Where to use:			
Non-Signalized Intersections with patterns of crashes that could be related to lack of a driver's awareness of approaching intersection or controls at a downstream intersection.			
Why it works:			
Advance flashing beacons can be used to supplement and call driver attention to intersection control signs. Flashing beacons are intended to reinforce driver awareness of the stop or yield signs and to help mitigate patterns of crashes related to intersection regulatory sign violations. Most advance warning flashing beacons can be powered by solar, thus reducing the issues relating to power source.			
General Qualities (Time, Cost and Effectiveness):			
Use of flashing beacons requires minimal development process, allowing flashing beacons to be installed within a short time period. Before choosing this CM, the agency needs to confirm the ability to provide power to the site (solar may be an option). In general, This CM can be very effective and can be considered on a systematic approach.			
FHWA CMF Clearinghouse:	Crash Types Addressed:	Angle, Rear-End	CRF: 36 - 62%

NS10, Install transverse rumble strips on approaches

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		All		20%	10 years
Notes:	This CM only applies to crashes occurring on the approaches / influence area of the new rumble strips.				
General information					
Where to use:					
Transverse rumble strips are installed in the travel lane for the purposes of providing an auditory and tactile sensation for each motorist approaching the intersection. They can be used at any stop or yield approach intersection, often in combination with advance signing to warn of the intersection ahead. Due to the noise generated by vehicles driving over the rumble strips, care must be taken to minimize disruption to nearby residences and businesses.					
Why it works:					
When motorists are traveling along the roadway, they are sometimes unaware they are approaching an intersection. This is especially true on rural roads, as there may be fewer clues indicating an intersection ahead. Transverse rumble strips warn motorists that something unexpected is ahead that they need to pay attention to.					
General Qualities (Time, Cost and Effectiveness):					
Use of transverse rumble strips requires minimal development process, allowing transverse rumble strips to be installed within a short time period. In general, This CM can be very effective and can be considered on a systematic approach, although care should be taken to not over-use this CM. Note: When federal safety funding is used for these installations in high-wear-locations, the local agency is expected to maintain the improvement for a minimum of 10 years.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		CRF:	0 - 35%
		All			

NS11, Improve sight distance to intersection (Clear Sight Triangles)

For HSIP Cycle 11 Call-for-projects				
Funding Eligibility		Crash Types Addressed	CRF	Expected Life
90%		All	20%	10 years
Notes:	This CM only applies to crashes occurring on the approaches / influence area of the significantly improved new sight distance. Minor/incidental improvements to sight distance would not likely result in the CRF shown below.			
General information				
Where to use:				
Unsignalized intersections with restricted sight distance and patterns of crashes related to lack of sight distance where sight distance can be improved by clearing roadside obstructions without major reconstruction of the roadway.				
Why it works:				
Adequate sight distance for drivers at stop or yield-controlled approaches to intersections has long been recognized as among the most important factors contributing to overall safety at unsignalized intersections. By removing sight distance restrictions (e.g., vegetation, parked vehicles, signs, buildings) from the sight triangles at stop or yield-controlled intersection approaches, drivers will be able see approaching vehicles on the main line, without obstruction and therefore make better decisions about entering the intersection safely.				
General Qualities (Time, Cost and Effectiveness):				
Projects involving clearing sight obstructions on the highway right-of-way can typically be accomplished quickly, assuming the objects are readily moveable. Clearing sight obstructions on private property requires more time for discussions with the property owner. Costs will generally be low, assuming that in most cases the objects to be removed are within the right-of-way. In general, this CMs can be very effective and can be implemented by agencies' maintenance staff and/or implemented on a systematic approach. Usually only high-cost removals would be good candidates for Caltrans Federal Safety Funding. Note: When federal safety funding is used to remove vegetation that has the potential to grow back, the local agency is expected to maintain the improvement for a minimum of 10 years.				
FHWA CMF Clearinghouse:	Crash Types Addressed:	All	CRF:	11 - 56%

NS12, Improve pavement friction (High Friction Surface Treatments)

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		All		55%	10 years
Notes:	This CM only applies to crashes occurring within the limits of the improved friction overlay. This CM is not intended to apply to standard chip-seal or open-graded maintenance projects for long segments of corridors or structure repaving projects intended to fix failed pavement.				
General information					
Where to use:					
Nationally, this countermeasure is referred to as "High Friction Surface Treatments" or HFST. Non-signalized Intersections noted as having crashes on wet pavements or under dry conditions when the pavement friction available is significantly less than needed for the actual roadway approach speeds. This treatment is intended to target locations where skidding and failure to stop is determined to be a problem in wet or dry conditions and the target vehicle is unable to stop due to insufficient skid resistance.					
Why it works:					
Improving the skid resistance at locations with high frequencies of wet-road crashes and/or failure to stop crashes can result in reductions of 50 percent for wet-road crashes and 20 percent for total crashes. Applying HFST can double friction numbers, e.g. low 40s to high 80s. This CM represents a special focus area for both FHWA and Caltrans, which means there are extra resources available for agencies interested in more details on High Friction Surface Treatment projects.					
General Qualities (Time, Cost and Effectiveness):					
This strategy can be relatively inexpensive and implemented in a short timeframe. The installation would be done by either agency personnel or contractors and can be done by hand or machine. In general, This CM can be very effective and can be considered on a systematic approach.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Wet, Night, ALL	CRF: 10 - 62 %

NS13, Install splitter-islands on the minor road approaches

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		All		40%	20 years
Notes:	This CM only applies to crashes occurring on the approaches / influence area of <u>the new splitter island on the minor road approaches.</u>				
General information					
Where to use:					
Minor road approaches to unsignalized intersections where the presence of the intersection or the stop sign is not readily visible to approaching motorists. The strategy is particularly appropriate for intersections where the speeds on the minor road are high. In creation of a splitter island allows for an additional stop sign to be placed in the median for the minor approach.					
Why it works:					
The installation of splitter islands allows for the addition of a stop sign in the median to make the intersection more conspicuous. Additionally, the splitter island on the minor-road provides for a positive separation between turning vehicles on the through road and vehicles stopped on the minor road approach.					
General Qualities (Time, Cost and Effectiveness):					
Splitter islands at non-signalized intersections can usually be installed with minimal roadway reconstruction and relatively quickly. In general, This CM can be very effective and can be considered on a systematic approach.					
FHWA CMF Clearinghouse:	Crash Types Addressed:	Angle, Rear-End	CRF:	35 - 100 %	

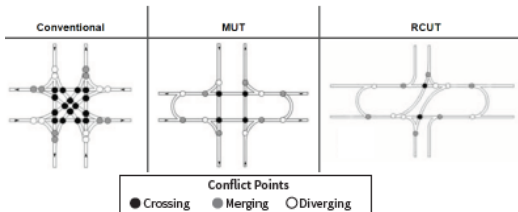
NS14, Install raised median on approaches (NS.I.)

For HSIP Cycle 11 Call-for-projects				
Funding Eligibility		Crash Types Addressed	CRF	Expected Life
90%		All	25%	20 years
Notes:	This CM only applies to crashes occurring on the approaches / influence area of the new raised median. All new raised medians funded with federal HSIP funding should not include the removal of the existing roadway structural section and should be doweled into the existing roadway surface. This requirement is being implemented to maximize the safety-effectiveness of the limited HSIP funding and to minimize project impacts. Landscaping, if included in the project, is considered non-participating.			
General information				
Where to use:				
Where related or nearby turning movements affect the safety and operation of an intersection. Effective access management is key to improving safety at, and adjacent to, intersections. The number of intersection access points coupled with the speed differential between vehicles traveling along the roadway often contributes to crashes. Any access points within 250 feet upstream and downstream of an intersection are generally undesirable.				
Why it works:				
Raised medians with left-turn lanes at intersections offer a cost-effective means for reducing crashes and improving operations at higher volume intersections. The raised medians also prohibit left turns into and out of driveways that may be located too close to the functional area of the intersection.				
General Qualities (Time, Cost and Effectiveness):				
Raised medians at intersections may be most effective in retrofit situations where high volumes of turning vehicles have degraded operations and safety, and where more extensive approaches would be too expensive because of limited right-of-way and the constraints of the built environment. Because raised medians limit property access to right turns only, the need for providing alternative access ways should be considered. In general, This CM can be very effective and can be considered on a systematic approach. When agencies opt to install landscaping in conjunction with new raised medians, the portion of the cost for landscaping and other non-safety related items that exceeds 10% of the project total cost is not federally participated and must be funded by the applicant.				
FHWA CMF Clearinghouse:	Crash Types Addressed:	All	CRF:	20 - 39 %

NS15, Create directional median openings to allow (and restrict) left-turns and u-turns (NS.I.)

For HSIP Cycle 11 Call-for-projects				
Funding Eligibility		Crash Types Addressed	CRF	Expected Life
90%		All	50%	20 years
Notes:	This CM only applies to crashes occurring in the intersection / influence area of the new directional openings.			
General information				
Where to use:				
Crashes related to turning maneuvers include angle, rear-end, pedestrian, and sideswipe (involving opposing left turns) type crashes. If any of these crash types are an issue at an intersection, restriction or elimination of the turning maneuver may be the best way to improve the safety of the intersection. Because raised medians limit property access to right turns only, they should be used in conjunction with efforts to provide alternative access ways and promote driveway spacing objectives.				
Why it works:				
Agencies are increasingly using access management techniques on urban and suburban arterials to manage the number of conflicts experienced at an intersection. A key element of access management is to restrict certain movements, create directional median openings, or close median openings that are deemed too close to an intersection.				
General Qualities (Time, Cost and Effectiveness):				
Turn prohibitions that are implemented by closing a median opening can usually be implemented quickly. Costs are highly variable but in many cases could be considered low. In some cases this strategy may involve acquiring access or constructing replacement access; those actions will significantly increase the cost of the project. Impacts to businesses and other land uses must be considered and controversy can delay the implementation. In general, This CM can be very effective and can be considered on a systematic approach.				
FHWA CMF Clearinghouse:		Crash Types Addressed:		All
		CRF:		51%

NS16, Reduced Left-Turn Conflict Intersections (NS.I.)

For HSIP Cycle 11 Call-for-projects				
Funding Eligibility		Crash Types Addressed	CRF	Expected Life
90%		All	50%	20 years
Notes:	This CM only applies to crashes occurring in the intersection / influence area of the new Reduced Left-Turn Conflict.			
General information				
Where to use and Why it works:				
Reduced left-turn conflict intersections are geometric designs that alter how left-turn movements occur in order to simplify decisions and minimize the potential for related crashes. Two highly effective designs that rely on U-turns to complete certain left-turn movements are known as the restricted crossing U-turn (RCUT) and the median U-turn (MUT). Restricted Crossing U-turn (RCUT): The RCUT intersection modifies the direct left-turn and through movements from cross-street approaches. Minor road traffic makes a right turn followed by a U-turn at a designated location (either signalized or unsignalized) to continue in the desired direction. The RCUT is suitable for a variety of circumstances, including along rural, high-speed, four-lane, divided highways or signalized routes. It also can be used as an alternative to signalization or constructing an interchange. RCUTs work well when consistently used along a corridor, but also can be used effectively at individual intersections. Median U-turn (MUT) The MUT intersection modifies direct left turns from the major approaches. Vehicles proceed through the main intersection, make a U-turn a short distance downstream, followed by a right turn at the main intersection. The U-turns can also be used for modifying the cross-street left turns. The MUT is an excellent choice for heavily traveled intersections with moderate left-turn volumes. When implemented at multiple intersections along a corridor, the efficient two-phase signal operation of the MUT can reduce delay, improve travel times, and create more crossing opportunities for pedestrians and bicyclists.				
<i>MUT and RCUT Can Reduce Conflict Points by 50%</i> 				
General Qualities (Time, Cost and Effectiveness):				
Implementing this strategy may take from months to years, depending on whether additional R/W is required. Such projects require a substantial time for development and construction. Costs are highly variable and range from very low to high. The expected effectiveness of this CM must be assessed for each individual location.				
FHWA CMF Clearinghouse:	Crash Types Addressed:	Angle/Left-turn/Rear-End/All	CRF:	34.8-100%

NS17, Install right-turn lane (NS.I.)

For HSIP Cycle 11 Call-for-projects				
Funding Eligibility		Crash Types Addressed	CRF	Expected Life
90%		All	20%	20 years
Notes:	This CM only applies to crashes occurring on the approaches / influence area of the new right-turn lanes. This CM is not eligible for use at existing all-way stop intersections.			
General information				
Where to use:				
Many collisions at unsignalized intersections are related to right-turn maneuvers. A key strategy for minimizing such collisions is to provide exclusive right-turn lanes, particularly on high-volume and high-speed major-road approaches. When considering new right-turn lanes, potential impacts to non-motorized users should be considered and mitigated as appropriate. When considering new right-turn lanes, potential impacts to non-motorized users should be considered and mitigated as appropriate.				
Why it works:				
The strategy is targeted to reduce the frequency of rear-end collisions resulting from conflicts between vehicles turning right and following vehicles and vehicles turning right and through vehicles coming from the left on the cross street. Right-turn lanes also remove slow vehicles that are decelerating to turn right from the through-traffic stream, thus reducing the potential for rear-end collisions. Right-turn lanes can increase the length of the intersection crossing and create an additional potential conflict point for non-motorized users.				
General Qualities (Time, Cost and Effectiveness):				
Implementing this strategy may take from months to years. At some locations, right-turn lanes can be quickly and simply installed by restriping the roadway. At other locations, widening of the roadway, acquisition of additional right-of-way, and extensive environmental processes may be needed. Such projects require a substantial time for development and construction. Costs are highly variable and range from very low to high. The expected effectiveness of this CM must be assessed for each individual location.				
FHWA CMF Clearinghouse:	Crash Types Addressed:	All	CRF:	14 - 26 %

NS18, Install left-turn lane (where no left-turn lane exists)

For HSIP Cycle 11 Call-for-projects				
Funding Eligibility		Crash Types Addressed	CRF	Expected Life
90%		All	35%	20 years
Notes:	This CM only applies to crashes occurring on the approaches / influence area of the new left-turn lanes. This CM does NOT apply to converting a single-left into double-left turn. This CM is not eligible for use at existing all-way stop intersections.			
General information				
Where to use:				
Many collisions at unsignalized intersections are related to left-turn maneuvers. A key strategy for minimizing such collisions is to provide exclusive left-turn lanes, particularly on high-volume and high-speed major-road approaches. When considering new left-turn lanes, potential impacts to non-motorized users should be considered and mitigated as appropriate.				
Why it works:				
Adding left-turn lanes remove vehicles waiting to turn left from the through-traffic stream, thus reducing the potential for rear-end collisions. Because they provide a sheltered location for drivers to wait for a gap in opposing traffic, left-turn lanes may encourage drivers to be more selective in choosing a gap to complete the left-turn maneuver. This strategy may reduce the potential for collisions between left-turn and opposing through vehicles.				
General Qualities (Time, Cost and Effectiveness):				
Implementing this strategy may take from months to years. At some locations, left-turn lanes can be quickly and simply installed by restriping the roadway. At other locations, widening of the roadway, acquisition of additional right-of-way, and extensive environmental processes may be needed. Such projects require a substantial time for development and construction. Costs are highly variable and range from very low to high. The expected effectiveness of this CM must be assessed for each individual location.				
FHWA CMF Clearinghouse:		Crash Types Addressed:	All	CRF: 9 -55 %

NS19PB, Install raised medians (refuge islands)

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		Pedestrian and Bicycle		45%	20 years
Notes:	This CM only applies to "Ped & Bike" crashes occurring in the crossing with the new islands. All new raised medians funded with federal HSIP funding should not include the removal of the existing roadway structural section and should be doweled into the existing roadway surface. This requirement is being implemented to maximize the safety-effectiveness of the limited HSIP funding and to minimize project impacts. Landscaping, if included in the project, is considered non-participating.				
General information					
Where to use:					
Intersections that have a long pedestrian crossing distance, a higher number of pedestrians, or a crash history. Raised medians decrease the level of exposure for pedestrians and allow pedestrians to concentrate on (or cross) only one direction of traffic at a time.					
Why it works:					
Raised pedestrian refuge islands, or medians at crossing locations along roadways, are another strategy to reduce exposure between pedestrians and motor vehicles. Refuge islands and medians that are raised (i.e., not just painted) provide pedestrians more secure places of refuge during the street crossing. They can stop partway across the street and wait for an adequate gap in traffic before completing their crossing.					
General Qualities (Time, Cost and Effectiveness):					
Median and pedestrian refuge areas are a low-cost countermeasure to implement. This cost can be applied to retrofit improvements or if it is a new construction project, implementing this countermeasure is even more cost-effective. In general, This CM can be very effective and can be considered on a systematic approach. When agencies opt to install landscaping in conjunction with new raised medians, the portion of the cost for landscaping and other non-safety related items that exceeds 10% of the project total cost is not federally participated and must be funded by the applicant.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Pedestrian and Bicycle	CRF: 30 - 56 %

NS20PB, Install pedestrian crossing at uncontrolled locations (signs and markings only)

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		Pedestrian and Bicycle		25%	10 years
Notes:	This CM only applies to "Ped & Bike" crashes occurring in the intersection/crossing with the new crossing. This CM is not intended to be used for high-cost aesthetic enhancements to intersection crosswalks (i.e. stamped concrete or stamped asphalt).				
General information					
Where to use:					
Non-signalized intersections without a marked crossing, where pedestrians are known to be crossing intersections that involve significant vehicular traffic. They are especially important at school crossings and intersections with right and/or left turns pockets. See Zegeer study (Safety Effects of Marked vs. Unmarked Crosswalks at Uncontrolled Locations) for additional guidance regarding when to install a marked crosswalk.					
Why it works:					
Adding pedestrian crossings has the opportunity to enhance pedestrian safety at locations noted as being problematic. Pavement markings delineate a portion of the roadway that is designated for pedestrian crossing. These markings will often be different for controlled verses uncontrolled locations. The use of "ladder", "zebra" or other enhanced markings at uncontrolled crossings can increase both pedestrian and driver awareness to the increased exposure at the crossing. Incorporating advanced "stop" or "yield" markings provides an extra safety buffer and can be effective in reducing the 'multiple-threat' danger to pedestrians. Nearly one-third of all pedestrian-related crashes occur at or within 50 feet of an intersection. Of these, 30 percent may involve a turning vehicle. There are several types of pedestrian crosswalks, including: continental, ladder, zebra, and standard. When agencies opt to install aesthetic enhancement to intersection crosswalks like stamped concrete/asphalt, the project design and construction costs can significantly increase. For HSIP applications, these costs must be accounted for in the B/C calculation, but these costs (over standard crosswalk markings) must be tracked separately and are not federally reimbursable and will increase the agency's local-funding share for the project costs.					
General Qualities (Time, Cost and Effectiveness):					
Costs associated with this strategy will vary widely, depending upon if curb ramps and sidewalk modifications are required with the crossing. When considered at a single location, these low cost improvements are usually funded through local funding by local crews. However, This CM can be effectively and efficiently implemented using a systematic approach with numerous locations, resulting in moderate cost projects that are more appropriate to seek state or federal funding.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Pedestrian and Bicycle	CRF: 25 %

NS21PB, Install/upgrade pedestrian crossing at uncontrolled locations (with enhanced safety features)

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		Pedestrian and Bicycle		35%	20 years
Notes:	This CM only applies to "Ped & Bike" crashes occurring in the new crossing (influence area) with enhanced safety features. This CM is not intended to be used for high-cost aesthetic enhancements to intersection crosswalks (i.e. stamped concrete or stamped asphalt).				
General information					
Where to use:					
Non-signalized intersections where pedestrians are known to be crossing intersections that involve significant vehicular traffic. They are especially important at school crossings and intersections with turn pockets. Based on the Zegeer study (Safety Effects of Marked vs. Unmarked Crosswalks at Uncontrolled Locations) at many locations, a marked crosswalk alone may not be sufficient to adequately protect non-motorized users. In these cases, flashing beacons, curb extensions, advanced "stop" or "yield" markings, and other safety features should be added to complement the standard crossing elements.					
Why it works:					
Adding pedestrian crossings that include enhances safety features has the opportunity to enhance pedestrian safety at locations noted as being especially problematic. The enhanced safety elements help delineate a portion of the roadway that is designated for pedestrian crossing. Incorporating advanced "yield" markings provide an extra safety buffer and can be effective in reducing the 'multiple-threat' danger to pedestrians. Nearly one-third of all pedestrian-related crashes occur at or within 50 feet of an intersection. When agencies opt to install aesthetic enhancement to intersection crosswalks like stamped concrete/asphalt, the project design and construction costs can significantly increase. For HSIP applications, these costs must be accounted for in the B/C calculation, but these costs (over standard crosswalk markings) must be tracked separately and are not federally reimbursable and will increase the agency's local-funding share for the project costs.					
General Qualities (Time, Cost and Effectiveness):					
Costs associated with this strategy will vary widely, depending upon the types of enhanced features that will be combined with the standard crossing improvements. The need for new curb ramps and sidewalk modifications will also be a factor. This CM may be effectively and efficiently implemented using a systematic approach with more than one location and can have relatively high B/C ratios based on past non-motorized crash history.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Pedestrian and Bicycle	CRF: 37%

NS22PB, Install Rectangular Rapid Flashing Beacon (RRFB)

For HSIP Cycle 11 Call-for-projects				
Funding Eligibility		Crash Types Addressed	CRF	Expected Life
90%		Pedestrian and Bicycle	35%	20 years
Notes:	This CM only applies to "Ped & Bike" crashes occurring in the influence area (expected to be a maximum of within 250') of the crossing which includes the RRFB.			
General information				
Where to use:				
Rectangular Rapid Flashing Beacon (RRFB) includes pedestrian-activated flashing lights and additional signage that enhance the visibility of marked crosswalks and alert motorists to pedestrian crossings. It uses an irregular flash pattern that is similar to emergency flashers on police vehicles. RRFBs are installed at unsignalized intersections and mid-block pedestrian crossings.				
Why it works:				
RRFBs can enhance safety by increasing driver awareness of potential pedestrian conflicts and reducing crashes between vehicles and pedestrians at unsignalized intersections and mid-block pedestrian crossings. The addition of RRFB may also increase the safety effectiveness of other treatments, such as crossing warning signs and markings.				
General Qualities (Time, Cost and Effectiveness):				
RRFBs are a lower cost alternative to traffic signals and hybrid signals. This CM can often be effectively and efficiently implemented using a systematic approach with numerous locations.				
FHWA CMF Clearinghouse:	Crash Types Addressed:	Pedestrian, Bicycle	CRF:	7 – 47.4%

NS23PB, Install Pedestrian Signal (including Pedestrian Hybrid Beacon (HAWK))

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		Pedestrian and Bicycle		55%	20 years
Notes:	This CM only applies to "Ped & Bike" crashes occurring in the intersection/crossing with the new signal. For HAWK or other pedestrian signals, the justification may be Warrant 4, 5 and/or 7, or passing the test in Figure 4F-1/4F-2 in Chapter 4F of CA MUTCD. Please refer to Chapter 4F of CA MUTCD for more details				
General information					
Where to use:					
Intersections noted as having a history of pedestrian vs. vehicle crashes and in areas where the likelihood of the pedestrian presence is high. Corridors should also be assessed to determine if there are adequate safe opportunities for non-motorists to cross and if a pedestrian signal, or a Pedestrian Hybrid Beacon (PHB) (also called High-Intensity Activated crossWalk beacon (HAWK)) are needed to provide an active warning to motorists when a pedestrian is in the crosswalk.					
Why it works:					
Adding a pedestrian signal has the opportunity to greatly enhance pedestrian safety at locations noted as being problematic. Nearly one-third of all pedestrian-related crashes occur at or within 50 feet of an intersection. In combination with this CM, better guidance signs and markings for non-motorized and motorized roadway users should be considered, including: sign and markings directing pedestrians and cyclists on appropriate/legal travel paths and signs and markings warning motorists of non-motorized uses of the roadway that should be expected.					
General Qualities (Time, Cost and Effectiveness):					
The cost of improvements are generally high, but can vary dependent on the type of signal and overall scope of the project. In most cases the project duration can be short. The expected effectiveness of this CM must be assessed for each individual location.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Pedestrian and Bicycle	CRF: 15 - 69%

B.3 Roadway Countermeasures

R01, Add Segment Lighting

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		Night		35%	20 years
Notes:	This CM only applies to "night" crashes (all types) occurring within limits of the proposed roadway lighting 'engineered' area.				
General information					
Where to use:					
Where to use: Noted substantial patterns of nighttime crashes. In particular, patterns of rear-end, right-angle, turning or roadway departure collisions on the roadways may indicate that night-time drivers can be unaware of the roadway characteristics.					
Why it works:					
Providing roadway lighting improves the safety during nighttime conditions by (1) making drivers more aware of the surroundings, which improves drivers' perception-reaction times, (2) enhancing drivers' available sight distances to perceive roadway characteristic in advance of the change, and (3) improving non-motorist's visibility and navigation.					
General Qualities (Time, Cost and Effectiveness):					
It expected that projects of this type may be constructed in a year or two and are relatively costly. There are several types of costs associated with providing lighting, including the cost of providing a permanent source of power to the location, the cost for the luminaire supports (i.e., poles), and the cost for routinely replacing the bulbs and maintenance of the luminaire supports. Some locations can result in high B/C ratios, but due to higher costs, these projects often result in medium to low B/C ratios.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Night, All	CRF: 18 - 69 %

R02, Remove or relocate fixed objects outside of Clear Recovery Zone

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		All		35%	20 years
Notes:	This CM only applies to crashes occurring within the limits of the new clear recovery zone (per Caltrans' HDM).				
General information					
Where to use:					
Known locations or roadway segments prone to collisions with fixed objects such as utility poles, drainage structures, trees, and other fixed objects, such as the outside of a curve, end of lane drops, and in traffic islands. A clear recovery zone should be developed on every roadway, as space is available. In situations where public right-of-way is limited, steps should be taken to request assistance from property owners, as appropriate.					
Why it works:					
While this strategy does not prevent the vehicle leaving the roadway, it does provide a mechanism to reduce the severity of a resulting crash. A clear zone is an unobstructed, traversable roadside area that allows a driver to stop safely or regain control of a vehicle that has left the roadway. Removing or moving fixed objects, flattening slopes, or providing recovery areas reduces the likelihood of a crash.					
General Qualities (Time, Cost and Effectiveness):					
Projects involving removing fixed objects from highway right-of-way can typically be accomplished quickly, assuming the objects are readily moveable. Clearing objects on private property requires more time for discussions with the property owner. Costs will generally be low, assuming that in most cases the objects to be removed are within the right-of-way. This CMs can be very effective and can be implemented by agencies' maintenance staff and/or implemented on a systematic approach. High-cost removals or removals implemented using a systematic approach would be good candidates for Caltrans Federal Safety Funding.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Fixed Object	CRF: 17 - 100 %

R03, Install Median Barrier

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		All		25%	20 years
Notes:	Note: For Caltrans' statewide Calls-for-Projects, this CM only applies to crashes occurring within the limits of the new barrier.				
General information					
Where to use:					
Areas where crash history indicates drivers are unintentionally crossing the median and the cross-overs are resulting in high severity crashes. The installation of median barriers can increase the number of PDO and non-severe injuries. The net result in safety from this countermeasure is connected more to reducing the severity of crashes not the number of crashes. It is recommended to review the warrants as outlined in Chapter 7 of the Caltrans Traffic Manual when considering whether to install median barriers.					
Why it works:					
This strategy is designed to prevent head-on collisions by providing a barrier between opposing lanes of traffic. The variety of median barriers available makes it easier to choose a site-specific solution. The main advantage is the reduction of the severity of the crashes. The key to success would be in selecting an appropriate barrier based on the site, previous crash history, maintenance needs, and median width.					
General Qualities (Time, Cost and Effectiveness):					
This strategy would in many cases be possible to implement within a short period after site selection. Costs will vary depending on the type of median barrier selected and whether the strategy is implemented as a stand-alone project or incorporated as part of a reconstruction or resurfacing effort. Maintenance costs and worker exposure will also vary depending on the type of barrier selected. The expected effectiveness of this CM must be assessed for each individual location.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Head-on	CRF: 0 - 94 %

R04, Install Guardrail

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		All		25%	20 years
Notes:	This CM only applies to crashes occurring within the limits of the new guardrail. This CM is not intended to be used for general maintenance activities (i.e. the replacement of existing damaged rail). For projects proposing to upgrade existing guardrail to current standards, this CM and corresponding CRF should only be applied to locations where past crash data or engineering judgment applied to the existing rail conditions suggests the upgraded guardrail may result in fewer or less severe crashes (justifying the use of the 25% CRF for this CM).				
General information					
Where to use:					
Guardrail is installed to reduce the severity of lane departure crashes. However, guardrail can reduce crash severity only for those conditions where striking the guardrail is less severe than going down an embankment or striking a fixed object. Guardrail should only be installed where it is clear that crash severity will be reduced, or there is a history of run-off-the-road crashes at a given location that have resulted in severe crashes. New and upgraded guardrail and end-treatments must meet current safety standards; see Method for Assessing Safety Hardware (MASH) for more information. Caltrans (or other national accepted guidance) slope/height criteria need to be considered and documented.					
Why it works:					
Guardrail redirects a vehicle away from embankment slopes or fixed objects and dissipates the energy of an errant vehicle.					
General Qualities (Time, Cost and Effectiveness):					
Strategies range from relatively inexpensive too costly. Costly projects may include those that upgrade existing guardrail applications to more semi-rigid and rigid barrier systems over extended distances. In general, this CMs can be effective and can be implemented by agencies' maintenance staff and/or implemented on a systematic approach.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Fixed Object, Run-off Road	CRF: 11 - 78 %

R05, Install impact attenuators

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		All		25%	10 years
Notes:	This CM only applies to crashes occurring within the limits of the new attenuators. This CM is not intended to be used for general maintenance activities (i.e. the replacement of existing damaged attenuators). For projects proposing to upgrade existing attenuators to current standards, this CM and corresponding CRF should only be applied to locations where past crash data or engineering judgment applied to the existing attenuator conditions suggests the upgraded attenuators may result in fewer or less severe crashes (justifying the use of the 25% CRF for this CM).				
General information					
Where to use:					
Impact attenuators are typically used to shield rigid roadside objects such as concrete barrier ends, steel guardrail ends and bridge pillars from oncoming automobiles. Attenuators should only be installed where it is impractical for the objects to be removed. New and upgraded barrier end-treatments must meet current safety standards; see MASH for more information.					
Why it works:					
Attenuators bring an errant vehicle to a more-controlled stop or redirect the vehicle away from a rigid object. Attenuators are effective at absorbing impact energy and increasing occupant safety. They also tend to draw attention to the fixed object, which helps drivers steer clear of the fixed objects.					
General Qualities (Time, Cost and Effectiveness):					
Costs depending on the scope of the project, type(s) used, and associated ongoing maintenance costs. Time to install is fairly quick once site is identified.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Fixed Object, Run-off Road	CRF: 5 - 50 %

R06, Flatten side slopes

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		All		30%	20 years
Notes:	This CM only applies to crashes occurring within the limits of the new side slopes. Minor/incidental flattening of side slopes would not likely result in the CRF shown below and may not be appropriate for use in Caltrans B/C calculations.				
General information					
Where to use:					
Roadways experiencing frequent lane departure crashes that result in roll-over type crashes as a result of the roadway slope being so severe as to not accommodate a reasonable degree of driver correction. When there is a need to reduce the severity of lane departure crashes without installing a barrier system that could result in increased numbers of crashes.					
Why it works:					
Flattened slopes provide a greater area for a driver to regain control of a vehicle. Steep slopes, ditches or unprotected hazardous drops-offs adjacent to a travel lane offer little opportunities to correct an inappropriate action by a driver and can result in sever crashes.					
General Qualities (Time, Cost and Effectiveness):					
Roadside modifications range from relatively inexpensive to very costly. Strategies that include creating safer side slopes where none exists can be moderately expensive based on the scope of the project and the associated clearing, grading, etc. The potential for high environmental and right-of-way impacts is high which can take several years to clear. In other cases This CM can be effective and can be implemented by agencies' maintenance staff and/or implemented on a systematic approach.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Fixed Object, Run-off Road	CRF: 5 - 62 %

R07, Flatten side slopes and remove guardrail

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		All		40%	20 years
Notes:	This CM only applies to crashes occurring within the limits of both the removed guardrail and the new side slopes.				
General information					
Where to use:					
Locations where high number of crashes originate as a lane departure and result in collision with guardrail or a fixed object located on the side slope shielded by guardrail. The guardrail may or may not meet current standards. Even though guardrails are generally installed to reduce the severity of departure crashes, they still can result in severe crashes in some locations.					
Why it works:					
Flattened side slopes and an unobstructed clear zone provide a greater area for a driver to regain control of a vehicle. The existing guardrail may help protect the steep slopes, fixed objects, or unprotected hazardous drops-offs adjacent to a travel lane, but removing all of these obstacles generally improves safety.					
General Qualities (Time, Cost and Effectiveness):					
Roadside modifications range from relatively inexpensive to very costly. Strategies that include creating safer side slopes where none exists can be moderately expensive based on the scope of the project and the associated clearing, grading, etc. The potential for high environmental and right-of-way impacts is high which can take several years to clear.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Roll Over, Fixed Object	CRF: 42%

R08, Install raised median

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		All		25%	20 years
Notes:	This CM only applies to crashes occurring within the limits of the new raised median. All new raised medians funded with federal HSIP funding should not include the removal of the existing roadway structural section and should be doweled into the existing roadway surface. This requirement is being implemented to maximize the safety-effectiveness of the limited HSIP funding and to minimize project impacts. Landscaping, if included in the project, is considered non-participating.				
General information					
Where to use:					
Areas experiencing head-on collisions that may be affected by both the number of vehicles that cross the centerline and by the speed of oncoming vehicles. Installing a raised median is a more restrictive approach in that it represents a more rigid barrier between opposing traffic. Application of raised medians on roadways with higher speeds is not advised - instead a median barrier should be considered. Including landscaping in new raised medians can be counterproductive to the HSIP safety goals and should only be done in ways that do not increase drivers' exposure to fixed objects and that will maintain driver's sight distance needs throughout the life of the proposed landscaping. <u>Agencies need to consider and document impacts of additional turning movements at nearby intersections.</u>					
Why it works:					
Adding raised medians is a particularly effective strategy as it adds to or reallocates the existing cross section to incorporate a buffer between the opposing travel lanes and reinforces the limits of the travel lane. Raised median may also be used to limit unsafe turning movements along a roadway.					
General Qualities (Time, Cost and Effectiveness):					
In some cases this strategy may be a retrofit into the existing roadway by utilizing a portion of the existing paved shoulder. These raised medians can be installed directly over the existing pavement. Cost and time to implement could significantly increase if the paved area is not sufficient to include a median. The surface treatment of the raised median also significantly affects their cost-effectiveness: standard concrete or other hardscape surfaces are usually more cost effective than landscaped medians. When agencies opt to install landscaping in conjunction with new raised medians, the project design and construction costs can significantly increase due to excavation, backfill/top-soil, water-connection, irrigation, planting, maintenance needed for the landscaping. When agencies opt to install landscaping in conjunction with new raised medians, the portion of the cost for landscaping and other non-safety related items that exceeds 10% of the project total cost is not federally participated and must be funded by the applicant.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Head-on	CRF: 20 - 75 %

R09, Install median (flush)

For HSIP Cycle 11 Call-for-projects				
Funding Eligibility		Crash Types Addressed	CRF	Expected Life
90%		All	15%	20 years
Notes:	This CM only applies to crashes occurring within the limits of the new flush median. The new median must be a minimum of 4 feet wide (or "wider" if a narrow median exists before the proposed project).			
General information				
Where to use:				
Areas experiencing head-on collisions that may be affected by both the number of vehicles that cross the centerline and by the speed of oncoming vehicles. Roadways with oversized lanes offer an opportunity to restripe the roadway to reduce the lanes to standard widths and use the extra width for the median.				
Why it works:				
Adding medians is a particularly effective strategy as it adds to or reallocates the existing cross section to incorporate a narrow buffer median between opposing flows, thereby providing a greater opportunity to correct an errant maneuver and further reinforce the limits of the travel lane. Application widths can vary based on the available cross section and intended application. Additional safety can be provided by combining this CM with rumble strips.				
General Qualities (Time, Cost and Effectiveness):				
In some cases this strategy may be retrofitted into the existing roadway by utilizing a portion of the existing paved shoulder and can ultimately be as simple as restriping the roadway. Costs and time to implement could significantly increase if the paved area is not sufficient to include a median.				
FHWA CMF Clearinghouse:	Crash Types Addressed:	All	CRF:	15 - 78 %

R10PB, Install pedestrian median fencing

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		Pedestrian and Bicycle		35%	20 years
Notes:	This CM only applies to "Ped & Bike" crashes occurring on the approaches/influence area of the new pedestrian median fencing.				
General information					
Where to use:					
Roadway segments with high pedestrian-generators and pedestrian-destinations nearby (e.g. transit stops) may experience a high volume of pedestrians J-walking across the travel lanes at mid-block locations instead of walking to the nearest intersection or designated mid-block crossing. When this safety issue cannot be mitigated with shoulder, sidewalk and/or crossing treatments, then installing a continuous pedestrian barrier in the median may be a viable solution.					
Why it works:					
Adding pedestrian median fencing has the opportunity to enhance pedestrian safety at locations noted as being problematic involving pedestrians running/darting across the roadway outside designated pedestrian crossings. Pedestrian median fencing can significantly reduce this safety issue by creating a positive barrier, forcing pedestrians to the designated pedestrian crossing.					
General Qualities (Time, Cost and Effectiveness):					
Costs associated with this strategy will vary widely depending on the type and placement of the median fencing. Impacts to transit and other land uses may need to be considered and controversy can delay the implementation. In general, this CM can be effective as a spot-location approach.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Pedestrian, Bicycle	CRF: 25 - 40%

R11, Install acceleration/ deceleration lanes

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		All		25%	20 years
Notes:	This CM only applies to crashes occurring within the limits of the new accel/decel lanes on high speed roadways. Significant improvements to the merge length for lane-drop locations is also an acceptable use of this CM.				
General information					
Where to use:					
Areas proven to have crashes that are the result of drivers not being able to turn onto a high speed roadway to accelerate until the desired roadway speed is reached and areas that do not provide the opportunity to safely decelerate to negotiate a turning movement. This CM can also be used to improve the safety of merging vehicles at a lane-drop location.					
Why it works:					
A lane that does not provide enough deceleration length and storage space for turning traffic may cause the turn queue to back up into the adjacent through lane. This can contribute to rear-end and sideswipe crashes. An acceleration lane is an auxiliary or speed-change lane that allows vehicles to accelerate to highway speeds (high speed roadways) before entering the through-traffic lanes of a highway. Additionally, if acceleration by entering traffic takes place directly on the traveled way, it may disrupt the flow of through-traffic and cause rear-end and sideswipe collisions.					
General Qualities (Time, Cost and Effectiveness):					
Costs are highly variable. Where sufficient median or shoulder space exists it may be possible to provide acceleration/deceleration lanes at a moderate cost. Where the roadway must be widened and additional right-of-way must be acquired, higher costs and a lengthy time-to-construct are likely. The expected effectiveness of this CM must be assessed for each individual location.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Sideswipe, Rear-End	CRF: 10 - 75 %

R12, Widen lane (initially less than 10 ft)

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		All		25%	20 years
Notes:	Note: For Caltrans' statewide Calls-for-Projects, this CM only applies to crashes occurring within the limits of the widened lanes. Widening must a minimum of 1 foot.				
General information					
Where to use:					
Horizontal curves or tangents and low speed or high speed roadways identified as having lane departure crashes, sideswipe or head-on crashes that can be attributed to an existing pavement width less than 10 feet.					
Why it works:					
Increasing pavement width can affect almost all crash types. A common practice is to widen the traveled way on horizontal curves to make operating conditions on curves comparable to those on tangents. Speed is a primary consideration when evaluating potential adverse impacts of lane width on safety. On high-speed, rural two-lane highways, an increased risk of cross-centerline head-on or cross-centerline sideswipe crashes is a concern because drivers may have more difficulty staying within the travel lane.					
General Qualities (Time, Cost and Effectiveness):					
Costs will depend on the amount of reconstruction necessary and on whether additional right-of-way is required. In general, this is one of the higher-cost strategies recommended, but it can also be very beneficial. Since this is a relatively expensive treatment, one of the keys to creating a cost effective project with at least a medium B/C ratio is targeting higher-hazard roadways.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		All	CRF: 5 - 70 %

R13, Add two-way left-turn lane

For HSIP Cycle 11 Call-for-projects				
Funding Eligibility		Crash Types Addressed	CRF	Expected Life
90%		All	30%	20 years
Notes:	This CM only applies to crashes occurring within the limits of the new lane, where an existing median did not already exist.			
General information				
Where to use:				
Roadways having a high frequency of drivers being rear-ended while attempting to make a left turn across oncoming traffic. Also can be effective for drivers crossing the centerline of an undivided multilane roadway inadvertently.				
Why it works:				
Two-way left-turn lanes provide a buffer between opposing directions of travel and separate left turning traffic from through traffic. They can also help to allow vehicles to begin to accelerate before entering the through-traffic lanes. They reduce the disruption of flow of through-traffic and reducing rear-end and sideswipe collisions. For some roadways the option of converting a four-lane undivided arterials to two-vehicle-lane roadways with a center left-turn lane and bike lanes should be considered (see "Road Diet" CM.)				
General Qualities (Time, Cost and Effectiveness):				
In some cases this strategy may be retrofitted into the existing roadway by utilizing a portion of the existing paved shoulder and can ultimately be as simple as restriping the roadway. Costs and time to implement could significantly increase if the paved area is not sufficient to include a median, requiring new right-of-way, and having significant environmental impacts. The expected effectiveness of this CM must be assessed for each individual location as the B/C ratios will vary from low to high.				
FHWA CMF Clearinghouse:	Crash Types Addressed:	All	CRF:	8 - 50 %

R14, Road Diet (Reduce travel lanes and add a two way left-turn and bike lanes)

For HSIP Cycle 11 Call-for-projects				
Funding Eligibility		Crash Types Addressed	CRF	Expected Life
90%		All	35%	20 years
Notes:	This CM only applies to crashes occurring within the limits of the new lane striping. "Intersection" crashes can only be applied when they resulted from turning movements that had no designated turn lanes/phases in the existing condition and the Road Diet will provide turn lanes/phases for these movements. This CM does not apply to roadway sections that already included left turn lanes or two way left turn lanes before the lane reductions. New bike lanes are also expected to be part of these projects. if any pavement is planned to be removed for the purpose of adding landscaping, planter-boxes, or other non-roadway user features, the cost should be non-participating.			
General information				
Where to use:				
Areas noted as having a higher frequency of head-on, left-turn, and rear-end crashes with traffic volumes that can be handled by only 2 free flowing lanes. Using this strategy in locations with traffic volumes that are too high could result in diversion of traffic to routes less safe than the original four-lane design. It may also result in congestion levels that contribute to other crashes.				
Why it works:				
The application of this strategy usually reduces the roadway segment speeds and serious head-on crashes. In many cases the extra pavement width can be used for the installation of bike lanes. In addition to increasing bicycle safety, these bike lanes can improve the safety of on-street parking.				
General Qualities (Time, Cost and Effectiveness):				
Implementation would require more time than in other low-cost treatments to complete environmental analyses, traffic studies and public input. Projects that only require new lane markings and minor signalization modifications will have relatively low cost and can be very effective and can be considered on a systematic approach. These striping and signal modification costs should be considered part of this CM and not an additional CM. (If additional signal hardware improvements are being made, over what is needed for the road diet, then the Improve Signal Hardware CM may also be used.) Often road diet projects need a seal-coat placed on the roadway to fully remove the old striping. These seal coats are considered part of the proper installation of this CM. In contrast, structural-overlays should not be considered part of this CM and are not considered eligible for funding in the California Local HSIP.				
FHWA CMF Clearinghouse:	Crash Types Addressed:	All	CRF:	26 - 43 %

R15, Widen shoulder

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		All		30%	20 years
Notes:	This CM only applies to crashes occurring within the limits of the new paved shoulder. A minimum of 2 feet width must be added and the new/resulting shoulders must be a minimum of 4 feet wide. This CM is not eligible unless it is done as the last step of an "incremental approach", for which the agency documents that: 1) they have already pursued and installed lower cost and lower impact CMs (i.e. signing/stripping upgrades to MUTCD standards/recommendations, rumble strips, etc.), 2) they have already monitored the crash occurrences after these improvements were installed, and 3) the 'after' crash rate is still unacceptably high. This 'incremental approach' (or a special exception from the HSIP program manager) must be documented in the Narrative Questions in the application and a summary of the 'before' and 'after' crash analysis must be attached to the application.				
General information					
Where to use:					
Roadways that have a frequent incidence of vehicles leaving the travel lane resulting in an unsuccessful attempt to reenter the roadway. The probability of a safe recovery is increased if an errant vehicle is provided with an increased paved area in which to initiate such a recovery.					
Why it works:					
Based on the best available research, adding shoulder or widening an existing shoulder provides a greater area to regain control of a vehicle, as well as lateral clearance to roadside objects such as guardrail, signs and poles. They may also provide space for disabled vehicles to stop or drive slowly, provide increased sight distance for through vehicles and for vehicles entering the roadway, and in some cases reduce passing conflicts between motor vehicles and bicyclists and pedestrians. The likely safety benefits for adding or widening an existing shoulder generally increase as the widening width increases - practitioners should refer to NCHRP Report 500 Series, the CMF Clearinghouse or other references for more details.					
General Qualities (Time, Cost and Effectiveness):					
Shoulder widening costs would depend on whether new right-of-way is required and whether extensive roadside modification is needed. Since shoulder widening can be a relatively expensive treatment, one of the keys to creating a cost effective project with at least a medium B/C ratio is targeting higher-hazard roadways.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Fixed Object, Run-off Road, Sideswipe	CRF: 15 - 75 %

R16, Curve Shoulder widening (Outside Only)

For HSIP Cycle 11 Call-for-projects				
Funding Eligibility		Crash Types Addressed	CRF	Expected Life
90%		All	45%	20 years
Notes:	This CM only applies to crashes occurring within the limits (or influence area) of the new shoulder widening at curves. A minimum of 2-4 feet width must be added to the outside of horizontal curves and the new traversable shoulder must be a minimum of 4 feet wide.			
General information				
Where to use:				
Roadway curves noted as having frequent lane departure crashes due to inadequate or no shoulders, resulting in an unsuccessful attempt to reenter the roadway.				
Why it works:				
Adding shoulders (outside only) creates a recovery area in which a driver can regain control of a vehicle, as well as lateral clearance to roadside objects.				
General Qualities (Time, Cost and Effectiveness):				
To minimize the R/W needs and the cost, only outside shoulder at curves is to be widened. This CM can be implemented in a relatively short timeframe.				
FHWA CMF Clearinghouse:	NA			

R17, Improve horizontal alignment (flatten curves)

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		All		50%	20 years
Notes:	This CM only applies to crashes occurring within the limits (or influence area) of the improved alignment. <u>This CM is not eligible unless</u> it is done as the last step of an "incremental approach", including: the agency documents that: 1) they have already pursued and installed lower cost and lower impact CMs (i.e. signing/stripping upgrades to MUTCD standards/recommendations, rumble strips, etc.), 2) they have already monitored the crash occurrences after these improvements were installed, and 3) the 'after' crash rate is still unacceptably high. This 'incremental approach' (or a special exception from the HSIP program manager) must be documented in the Narrative Questions in the application and a summary of the agency's 'before' and 'after' crash analysis must be attached to the application.				
General information					
Where to use:					
Roadways with horizontal curves that have experienced lane departure crashes as a result of a roadway segment having compound curves or a severe radius. This strategy should generally be considered only when less expensive strategies involving clearing of specific sight obstructions or modifying traffic control devices have been tried and have failed to ameliorate the crash patterns.					
Why it works:					
Increasing the radius of a horizontal curve can be very effective in improving the safety performance of the curve. Curve modification reduces the likelihood of a vehicle leaving its lane, crossing the roadway centerline, or leaving the roadway at a horizontal curve; and minimizes the adverse consequences of leaving the roadway. Horizontal alignment improvement projects are expected to include standard/improved superelevation elements, which should be considered part of this CM and not an additional CM.					
General Qualities (Time, Cost and Effectiveness):					
This strategy is a long-term, higher-cost alternative for improving the safety of a horizontal curve because it usually involves total reconstruction of the roadway. It may also require acquisition of additional right-of-way and an environmental review. This strategy, albeit costly, has shown that increasing the radius of curvature can significantly reduce total curve-related crashes by up to 80 percent. The expected effectiveness of this CM must be assessed for each individual location.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		All	CRF: 24 - 90%

R18, Flatten crest vertical curve

For HSIP Cycle 11 Call-for-projects				
Funding Eligibility		Crash Types Addressed	CRF	Expected Life
90%		All	25%	20 years
Notes:	This CM only applies to crashes occurring within the limits (or influence area) of the improved alignment. This CM is not eligible unless it is done as the last step of an "incremental approach", including: the agency documents that: 1) they have already pursued and installed lower cost and lower impact CMs (i.e. signing/stripping upgrades to MUTCD standards/recommendations, rumble strips, etc.), 2) they have already monitored the crash occurrences after these improvements were installed, and 3) the 'after' crash rate is still unacceptably high. This 'incremental approach' (or a special exception from the HSIP program manager) must be documented in the Narrative Questions in the application and a summary of the agency's 'before' and 'after' crash analysis must be attached to the application.			
General information				
Where to use:				
The target for this strategy is usually unsignalized intersections with restricted sight distance due to vertical geometry and with patterns of crashes related to that lack of sight distance that cannot be ameliorated by less expensive methods. This strategy should generally be considered only when less expensive strategies involving clearing of specific sight obstructions or modifying traffic control devices have been tried and have failed to ameliorate the crash patterns.				
Why it works:				
Adequate sight distance for drivers at stopped approaches to intersections has long been recognized as among the most important factors contributing to overall intersection safety. Vertical alignment improvement projects are expected to include standard/improved superelevation elements, which should be considered part of this CM and not an additional CM.				
General Qualities (Time, Cost and Effectiveness):				
Projects involving changing the horizontal and/or vertical alignment to provide more sight distance are quite extensive and usually take several years to accomplish. If additional right-of-way is required or environmental impacts are expected, these projects will require a substantial period of time. Since this is usually an expensive treatment, one of the keys to creating a cost effective project with at least a medium B/C ratio is targeting higher-hazard locations.				
FHWA CMF Clearinghouse:	Crash Types Addressed:	All	CRF:	20 - 51 %

R19, Improve curve superelevation

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		All		45%	20 years
Notes:	This CM only applies to crashes occurring within the limits (or influence area) of the improved superelevation. This CM does not apply to sections of roadways where the horizontal or vertical alignments are changing via another CM.				
General information					
Where to use:					
Roadways noted as having frequent lane departure crashes and inadequate or no superelevation. Safety can be enhanced when the superelevation is improved or restored along curves where the actual superelevation is less than the optimal.					
Why it works:					
Superelevation works with friction between the tires and pavement to counteract the forces on the vehicle associated with cornering. Many curves may have inadequate superelevation because of vehicles traveling at higher speeds than were originally designed for, because of loss of effective superelevation after resurfacing, or because of changes in design policy after the curve was originally constructed.					
General Qualities (Time, Cost and Effectiveness):					
This strategy can be a higher-cost alternative for improving the safety of a curve because it involves reconstruction to some degree. Other projects may be able to be constructed by simple overlays and minimal reconstruction of roadway features. When simple overlay fixes are pursued, a systematic installation approach may be appropriate. The expected effectiveness of this CM must be assessed for each individual location.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Run-off Road, All	CRF: 40 - 50 %

R20, Convert from two-way to one-way traffic

For HSIP Cycle 11 Call-for-projects				
Funding Eligibility		Crash Types Addressed	CRF	Expected Life
90%		All	35%	20 years
Notes:	This CM only applies to crashes occurring within the limits of the new one-way sections.			
General information				
Where to use:				
One-way streets can offer improved signal timing and accommodate odd-spaced signals. One-way streets can simplify crossings for pedestrians, who must look for traffic in only one direction. While studies have shown that conversion of two-way streets to one-way generally reduces pedestrian crashes and the number of conflict points, one-way streets tend to have higher speeds which creates new problems. Care must be taken not to create conditions that cause driver confusion and erratic maneuvers.				
Why it works:				
Studies have shown a 10 to 50-percent reduction in total crashes after conversion of a two-way street to one-way operation. While studies have shown that con-version of two-way streets to one-way generally reduces pedestrian crashes, one-way streets tend to have higher speeds which creates new problems. At the same time, this strategy (1) increases capacity significantly and (2) can have safety-related drawbacks including pedestrian confusion and minor sideswipe crashes.				
General Qualities (Time, Cost and Effectiveness):				
The costs will vary depending on length of treatment and if the conversion requires modification to signals. Conversion costs can be high to build "crossovers" where the one-way streets convert back to two-way streets and to rebuild traffic signals. It's also likely that these types of modifications will require public involvement and could significantly add to the time it takes to complete the project. The expected effectiveness of this CM must be assessed for each individual location.				
FHWA CMF Clearinghouse:	Crash Types Addressed:	All	CRF:	26 - 43 %

R21, Improve pavement friction (High Friction Surface Treatments)

For HSIP Cycle 11 Call-for-projects				
Funding Eligibility		Crash Types Addressed	CRF	Expected Life
90%		All	55%	10 years
Notes:	This CM only applies to crashes occurring within the limits of the improved friction overlay. This CM is not intended to apply to standard chip-seal or open-graded maintenance projects for long segments of corridors or structure repaving projects intended to fix failed pavement.			
General information				
Where to use:				
Nationally, this countermeasure is referred to as "High Friction Surface Treatments" or HFST. Areas as noted having crashes on wet pavements or under dry conditions when the pavement friction available is significantly less than actual roadway speeds; including but not limited to curves, loop ramps, intersections, and areas with short stopping or weaving distances. This treatment is intended to target locations where skidding is determined to be a problem, in wet or dry conditions and the target vehicle is one that runs (skids) off the road or is unable to stop due to insufficient skid resistance.				
Why it works:				
Improving the skid resistance at locations with high frequencies of wet-road crashes and/or failure to stop crashes can result in a reduction of 50 percent for wet-road crashes and 20 percent for total crashes. Applying HFST can double friction numbers, e.g. low 40s to high 80s. This CM represents a special focus area for both FHWA and Caltrans, which means there are extra resources available for agencies interested in more details on High Friction Surface Treatment projects.				
General Qualities (Time, Cost and Effectiveness):				
This strategy can be relatively inexpensive and implemented in a short timeframe. The installation would be done by either agency personnel or contractors and can be done by hand or machine. In general, This CM can be very effective and can be considered on a systematic approach.				
FHWA CMF Clearinghouse:	Crash Types Addressed:	Wet, Rear-End, All	CRF:	17 - 68 %

R22, Install/Upgrade signs with new fluorescent sheeting (regulatory or warning)

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		All		15%	10 years
Notes:	This CM only applies to crashes occurring within the influence area of the new/upgraded signs. This CM is not intended for maintenance upgrades of street-name, parking, guide, or any other signs without a primary focus on roadway safety. <u>This CM is not eligible unless</u> it is done as part of a larger sign audit project, including the study of: 1) the existing signs' locations, sizes and information per MUTCD standards, 2) missing signs per MUTCD standards, and 3) sign retroreflectivity. The overall sign audit scope (or a special exception from the HSIP program manager) must be documented in the Narrative Questions in the application. Based on the scope of the project/audit, it may be appropriate to combine other CMs in the B/C calculation.				
General information					
Where to use:					
The target for this strategy should be on roadway segments with patterns of head on, nighttime, non-intersection, run-off road, and sideswipe crashes related to lack of driver awareness of the presence of a specific roadway feature or regulatory requirement. Ideally this type of safety CM would be combined with other sign evaluations and upgrades (install chevrons, warning signs, delineators, markers, beacons, and relocation of existing signs per MUTCD standards.)					
Why it works:					
This strategy primarily addresses crashes caused by lack of driver awareness (or compliance) roadway signing. It is intended to get the drivers attention and give them a visual warning by using fluorescent yellow sheeting (or other retroreflective material).					
General Qualities (Time, Cost and Effectiveness):					
Signing improvements do not require a long development process and can typically be implemented quickly. Costs for implementing this strategy are nominal and depend on the number of signs. When considered at a single location, these low cost improvements are usually funded through local funding by local maintenance crews. However, This CM can be effectively and efficiently implemented using a systematic approach with numerous locations, resulting in moderate cost projects that are more appropriate to seek state or federal funding. When considering any type of federally funded sign upgrade project, California local agencies are encouraged to consider "Roadway Safety Signing Audit (RSSA) and Upgrade Projects". Including RSSAs in the development phase of sign projects are expected to identify non-standard (per MUTCD) sign features and missing signs that may otherwise go unnoticed. More information on RSSA is available on the Local Assistance HSIP webpage.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Head on, Run-off road, Sideswipe, Night	CRF: 18 - 35%

R23, Install chevron signs on horizontal curves

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		All		40%	10 years
Notes:	This CM only applies to crashes occurring within the influence area of the new signs. (i.e. only through the curve).				
General information					
Where to use:					
Roadways that have an unacceptable level of crashes on relatively sharp curves during periods of light and darkness. Ideally this type of safety CM would be combined with other sign evaluations and upgrades (install warning signs, delineators, markers, beacons, and relocation of existing signs per MUTCD standards.)					
Why it works:					
Post-mounted chevrons are intended to warn drivers of an approaching curve and provide tracking information and guidance to the drivers. While they are intended to act as a warning, it should also be remembered that the posts, placed along the roadside, represent a possible object with which an errant vehicle can crash into. Design of posts to minimize damage and injury is an important part of the considerations to be made when selecting these treatments.					
General Qualities (Time, Cost and Effectiveness):					
Signing improvements do not require a long development process and can typically be implemented quickly. Costs for implementing this strategy are nominal and depend on the number of signs. When considered at a single location, these low cost improvements are usually funded through local funding by local maintenance crews. However, This CM can be effectively and efficiently implemented using a systematic approach with numerous locations, resulting in moderate cost projects that are more appropriate to seek state or federal funding. When considering any type of federally funded sign upgrade project, California local agencies are encouraged to consider "Roadway Safety Signing Audit (RSSA) and Upgrade Projects". Including RSSAs in the development phase of sign projects are expected to identify non-standard (per MUTCD) sign features and missing signs that may otherwise go unnoticed. More information on RSSA is available on the Local Assistance HSIP webpage.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Run-off Road, All	CRF: 6 - 64 %

R24, Install curve advance warning signs

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		All		25%	10 years
Notes:	This CM only applies to crashes occurring within the influence area of the new signs. (i.e. only through the curve)				
General information					
Where to use:					
Roadways that have an unacceptable level of crashes on relatively sharp curves during periods of light and darkness. This countermeasure may also include horizontal alignment and/or advisory speed warning signs. Ideally this type of safety CM would be combined with other sign evaluations and upgrades (install warning signs, chevrons, delineators, markers, beacons, and relocation of existing signs per MUTCD standards.)					
Why it works:					
This strategy primarily addresses problem curves, and serves as an advance warning of an unexpected or sharp curve. It provides advance information and gives drivers a visual warning that their added attention is needed.					
General Qualities (Time, Cost and Effectiveness):					
Signing improvements do not require a long development process and can typically be implemented quickly. Costs for implementing this strategy are nominal and depend on the number of signs. When considered at a single location, these low cost improvements are usually funded through local funding by local maintenance crews. However, This CM can be effectively and efficiently implemented using a systematic approach with numerous locations, resulting in moderate cost projects that are more appropriate to seek state or federal funding. When considering any type of federally funded sign upgrade project, California local agencies are encouraged to consider "Roadway Safety Signing Audit (RSSA) and Upgrade Projects". Including RSSAs in the development phase of sign projects are expected to identify non-standard (per MUTCD) sign features and missing signs that may otherwise go unnoticed. More information on RSSA is available on the Local Assistance HSIP webpage.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Run-off Road, All	CRF: 20 - 30 %

R25, Install curve advance warning signs (flashing beacon)

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		All		30%	10 years
Notes:	This CM only applies to crashes occurring within the influence area of the new signs. (i.e. only through the curve)				
General information					
Where to use:					
Roadways that have an unacceptable level of crashes on relatively sharp curves. Flashing beacons in conjunction with warning signs should only be used on horizontal curves that have an established severe crash history to help maintain their effectiveness.					
Why it works:					
This strategy primarily addresses problem curves, and serves as an enhanced advance warning of an unexpected or sharp curve. It provides advance information and gives drivers a visual warning that their added attention is needed. Flashing beacons are an added indication that a curve may be particularly challenging.					
General Qualities (Time, Cost and Effectiveness):					
Use of flashing beacons requires minimal development process, allowing flashing beacons to be installed within a short time period. Before choosing this CM, the agency needs to confirm the ability to provide power to the site (solar may be an option). In general, This CM can be very effective and can be considered on a systematic approach.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		All	CRF: 30 %

R26, Install dynamic/variable speed warning signs

For HSIP Cycle 11 Call-for-projects			
Funding Eligibility	Crash Types Addressed	CRF	Expected Life
90%	All	30%	10 years
Notes:	This CM only applies to crashes occurring within the influence area of the new signs. (i.e. through the curve) {This CM does not apply to dynamic regulatory speed warning signs. There are currently no nationally accepted CRFs for dynamic regulatory signs (also known as Radar Speed Feedback Signs). CRFs are being developed and Caltrans hopes to include these CMs and CRFs in future calls for projects.}		
General information			
Where to use:			
Curvilinear roadways that have an unacceptable level of crashes due to excessive speeds on relatively sharp curves.			
Why it works:			
This strategy primarily addresses crashes caused by motorists traveling too fast around sharp curves. It is intended to get the drivers attention and give them a visual warning that they may be traveling over the recommended speed for the approaching curve. Care should be taken to limit the placement of these signs to help maintain their effectiveness.			
General Qualities (Time, Cost and Effectiveness):			
Use of dynamic speed warning signs requires minimal development process, allowing them to be installed within a short time period. Before choosing this CM, the agency needs to confirm the ability to provide power to the site (solar may be an option). In general, This CM can be very effective and can be considered on a systematic approach.			
FHWA CMF Clearinghouse:	Crash Types Addressed:	All	CRF: 0 - 41 %

R27, Install delineators, reflectors and/or object markers

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		All		15%	10 years
Notes:	This CM only applies to crashes occurring within the limits / influence area of the new features. {This is not a striping-related CM}				
General information					
Where to use:					
Roadways that have an unacceptable level of crashes on curves (relatively flat to sharp) during periods of light and darkness. Any road with a history of fixed object crashes is a candidate for this treatment, as are roadways with similar fixed objects along the roadside that have yet to experience crashes. If a fixed object cannot be relocated or made break-away, placing an object marker can provide additional information to motorists. Ideally this type of safety CM would be combined with other sign evaluations and upgrades (install warning signs, chevrons, beacons, and relocation of existing signs per MUTCD standards.)					
Why it works:					
Delineators, reflectors and/or object markers are intended to warn drivers of an approaching curve or fixed object that cannot easily be removed. They are intended to provide tracking information and guidance to the drivers. They are generally less costly than Chevron Signs as they don't require posts to place along the roadside, avoiding an additional object with which an errant vehicle can crash into.					
General Qualities (Time, Cost and Effectiveness):					
These improvements do not require a long development process and can typically be implemented quickly. Costs for implementing this strategy are nominal and depend on the number of locations. When considered at a single location, these low cost improvements are usually funded through local funding by local maintenance crews. However, This CM can be effectively and efficiently implemented using a systematic approach with numerous locations, resulting in low to moderate cost projects that are more appropriate to seek state or federal funding. When considering any type of federally funded sign upgrade project, California local agencies are encouraged to consider "Roadway Safety Signing Audit (RSSA) and Upgrade Projects". Including RSSAs in the development phase of sign projects are expected to identify non-standard (per MUTCD) sign features and missing signs that may otherwise go unnoticed. More information on RSSA is available on the Local Assistance HSIP webpage.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		All	CRF: 0 - 30 %

R28, Install edge-lines and centerlines

For HSIP Cycle 11 Call-for-projects				
Funding Eligibility		Crash Types Addressed	CRF	Expected Life
90%		All	25%	10 years
Notes:	This CM only applies to crashes occurring within the limits of the new centerlines and/or edge-lines. This CM is not intended to be used for general maintenance activities (i.e. the replacement of existing striping and RPMs in-kind) and must include upgraded safety features over the existing striping. For two lane roadways allowing passing, a striping audit must be done to ensure the passing limits meeting the MUTCD standards. Both the centerline and edge-lines are expected to be upgraded, unless prior approval is granted by Caltrans staff in writing and attached to application.			
General information				
Where to use:				
Any road with a history of run-off-road right, head-on, opposite-direction-sideswipe, or run-off-road-left crashes is a candidate for this treatment - install where the existing lane delineation is not sufficient to assist the motorist in understanding the existing limits of the roadway. Depending on the width of the roadway, various combinations of edge line and/or center line pavement markings may be the most appropriate. Incorporating raised/reflective pavement markers (RPMs) into centerlines (and edge-lines) should be considered as it has been shown to improve safety.				
Why it works:				
Installing edge-lines and centerlines where none exists or making significant upgrades to existing lines (paint to thermoplastic, adding audible disks/bumps in the thermoplastic stripes, or adding RPMs) are intended/designed to help drivers who might leave the roadway because of their inability to see the edge of the roadway along the horizontal edge of the pavement or cross-over the centerline of the roadway into oncoming traffic. New pavement marking products tend to be more durable, are all-weather, more visible, and have a higher retroreflectivity than traditional pavement markings.				
General Qualities (Time, Cost and Effectiveness):				
These improvements do not require a long development process and can typically be implemented quickly. Costs for implementing this strategy are nominal and depend on the number and length of locations. This CM can be effectively and efficiently implemented using a systematic approach with numerous and long locations, resulting in low to moderate cost projects that are more appropriate to seek state or federal funding. When considering any type of federally funded striping upgrade project, California local agencies are encouraged to consider "Roadway Safety Striping Audit and Upgrade Projects". Including wide-scale striping audits in the development phase of striping projects are expected to identify non-standard (per MUTCD) striping/markings features, no-passing zone limits needing adjustment, and missing striping/markings that may otherwise go unnoticed. More information on this concepts is available on the Local Assistance HSIP webpage under an RSSA example document. Note: When federal safety funding is used for these installations in high-wear-locations, the local agency is expected to maintain the improvement for a minimum of 10 years.				
FHWA CMF Clearinghouse:	Crash Types Addressed:	Head-on, Run-off Road, All	CRF:	0 - 44 %

R29, Install no-passing line

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		All		45%	10 years
Notes:	This CM only applies to crashes occurring within the limits of the new or extended no-passing zones.				
General information					
Where to use:					
Roadways that have a high percentage of head-on crashes suggesting that many head-on crashes may relate to failed passing maneuvers. No-passing lines should be installed where drivers "passing sight distance" is not available due to horizontal or vertical obstructions. General restriping projects can be good opportunities to reevaluate and incorporate new no-passing zones limits. The incorporation 'No Passing Zone' pennants should also be considered when reevaluating the limits of no-passing zones. Installing no-passing limits in areas that are not warranted may reduce the overall safety of the corridor as drivers may become frustrated and attempt passing maneuvers at other locations without the necessary sight distance.					
Why it works:					
When the centerline markings do not differentiate between passing and no-passing areas, drivers may have difficulty determining where passing maneuvers can be completed safely. Providing clear and engineered passing and no-passing areas can encourage drivers to wait patiently for safe passing areas and avoid aggressively looking for passing opportunities.					
General Qualities (Time, Cost and Effectiveness):					
These improvements do not require a long development process and can typically be implemented quickly. Costs for implementing this strategy are nominal and depend on the number and length of locations. When considered at a single location, these low cost improvements are usually funded through local funding by local maintenance crews. However, This CM can be effectively and efficiently implemented using a systematic approach with numerous and long locations, resulting in low to moderate cost projects that are more appropriate to seek state or federal funding.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Head-on, Side-swipe	CRF: 40 - 53%

R30, Install centerline rumble strips/stripes

For HSIP Cycle 11 Call-for-projects			
Funding Eligibility	Crash Types Addressed	CRF	Expected Life
90%	All	20%	10 years
Notes:	This CM only applies to crashes occurring within the limits of the new rumble strips/stripes.		
General information			
Where to use:			
Center Line rumble strips/stripes can be used on virtually any roadway – especially those with a history of head-on crashes. It is recommended that rumble strips/stripes be applied systematically along an entire route instead of only at spot locations. For all rumble strips/stripes, pavement condition should be sufficient to accept milled rumble strips. Care should be taken when considering installing rumble strips in locations with residential land uses or in areas with high bicycle volumes.			
Why it works:			
Rumble strips provide an auditory indication and tactile rumble when driven on, alerting drivers that they are drifting out of their travel lane, giving them time to recover before they depart the roadway or cross the center line. Additionally, rumble stripes (pavement marking in the rumble itself) provide an enhanced marking, especially in wet dark conditions.			
General Qualities (Time, Cost and Effectiveness):			
These improvements do not require a long development process and can typically be implemented quickly. Costs for implementing this strategy are nominal and depend on the number and length of locations. This CM can be effectively and efficiently implemented using a systematic approach with numerous and long locations, resulting in moderate cost projects that are more appropriate to seek state or federal funding.			
FHWA CMF Clearinghouse:	Crash Types Addressed:	Head-on, Side-swipe, All	CRF: 15 - 68%

R31, Install edgeline rumble strips/strips

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		All		15%	10 years
Notes:	This CM only applies to crashes occurring within the limits of the new rumble strips/stripes.				
General information					
Where to use:					
Shoulder and edge line milled rumble strips/stripes should be used on roads with a history of roadway departure crashes. It is recommended that rumble strips/stripes be applied systematically along an entire route instead of only at spot locations. For all rumble strips/stripes, pavement condition should be sufficient to accept milled rumble strips. Special requirements may apply and care should be taken when considering installing rumble strips in locations with residential land uses or in areas with high bicycle volumes.					
Why it works:					
Rumble strips provide an auditory indication and tactile rumble when driven on, alerting drivers that they are drifting out of their travel lane, giving them time to recover before they depart the roadway or cross the center line. Additionally, rumble stripes (pavement marking in the rumble itself) provide an enhanced marking, especially in wet dark conditions.					
General Qualities (Time, Cost and Effectiveness):					
These improvements do not require a long development process and can typically be implemented quickly. Costs for implementing this strategy are nominal and depend on the number and length of locations. This CM can be effectively and efficiently implemented using a systematic approach with numerous and long locations, resulting in moderate cost projects that are more appropriate to seek state or federal funding.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Run-off Road	CRF: 10 - 41%

R32PB, Install bike lanes

For HSIP Cycle 11 Call-for-projects				
Funding Eligibility		Crash Types Addressed	CRF	Expected Life
90%		Pedestrian and Bicycle	35%	20 years
Notes:	This CM only applies to "Ped & Bike" crashes occurring within the limits of the Class II (not Class III) bike lanes. When an off-street bike-path is proposed that is not adjacent to the roadway, the applicant must document the engineering judgment used to determine which "Ped & Bike" crashes to apply.			
General information				
Where to use:				
Roadway segments noted as having crashes between bicycles and vehicles or crashes that may be preventable with a buffer/shoulder. Most studies suggest that bicycle lanes may provide protection against bicycle/motor vehicle collisions. Striped bike lanes can be incorporated into a roadway when is desirable to delineate which available road space is for exclusive or preferential use by bicyclists.				
Why it works:				
Most studies present evidence that bicycle lanes provide protection against bicycle/motor vehicle collisions. Bicycle lanes provide marked areas for bicyclist to travel along the roadway and provide for more predictable movements for both bicyclist and motorist. Evidence also shows that riding with the flow of vehicular traffic reduces bicyclists’ chances of collision with a motor vehicle. Locations with bicycle lanes have lower rates of wrong-way riding. In combination with this CM, better guidance signs and markings for non-motorized and motorized roadway users should be considered, including: sign and markings directing cyclists on appropriate/legal travel paths and signs and markings warning motorists of non-motorized uses of the roadway that should be expected.				
General Qualities (Time, Cost and Effectiveness):				
Adding striped bicycle lanes can range from the simply restriping the roadway and minor signing to projects that require roadway widening, right-of-way, and environmental impacts. It is most cost efficient to create bike lanes during street reconstruction, street resurfacing, or at the time of original construction. The expected effectiveness of this CM must be assessed for each individual location. For simple installation scenarios, This CM can be very effective and can be considered on a systematic approach.				
FHWA CMF Clearinghouse:	Crash Types Addressed:	Pedestrian, Bicycle	CRF:	0 - 53 %

R33PB, Install Separated Bike Lanes

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		Pedestrian and Bicycle		45%	20 years
Notes:	This CM only applies to "Ped & Bike" crashes occurring within the limits of the separated bike lanes. When an off-street bike-path is proposed that is not adjacent to the roadway, the applicant must document the engineering judgment used to determine which "Ped & Bike" crashes to apply.				
General information					
Where to use:					
Separated bikeways are most appropriate on streets with high volumes of bike traffic and/or high bike-vehicle collisions, presumably in an urban or suburban area. Separation types range from simple, painted buffers and flexible delineators, to more substantial separation measures including raised curbs, grade separation, bollards, planters, and parking lanes. These options range in feasibility due to roadway characteristics, available space, and cost. In some cases, it may be possible to provide additional space in areas where pedestrian and bicyclists may interact, such as the parking buffer, or loading zones, or extra bike lane width for cyclists to pass one another.					
Why it works:					
Separated bike lanes provide increased safety and comfort for bicyclists beyond conventional bicycle lanes. By separating bicyclists from motor traffic, “protected” or physically separated bike lanes can offer a higher level of comfort and are attractive to a wider spectrum of the public. Intersections and approaches must be carefully designed to promote safety and facilitate left-turns for bicyclists from the primary corridor to cross street. In combination with this CM, better guidance signs and markings for non-motorized and motorized roadway users should be considered, including: sign and markings directing cyclists on appropriate/legal travel paths and signs and markings warning motorists of non-motorized uses of the roadway that should be expected.					
General Qualities (Time, Cost and Effectiveness):					
The cost of Installing separated bike lanes can be low to medium or high, depending on whether roadway widening, right-of-way and environmental impacts are involved. It is most cost efficient to create bike lanes during street reconstruction, street resurfacing, or at the time of original construction. The expected effectiveness of this CM must be assessed for each individual location.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Pedestrian, Bicycle	CRF: 3.7 - 100 %

R34PB, Install sidewalk/pathway (to avoid walking along roadway)

For HSIP Cycle 11 Call-for-projects				
Funding Eligibility		Crash Types Addressed	CRF	Expected Life
90%		Pedestrian and Bicycle	80%	20 years
Notes:	This CM only applies to "Ped & Bike" crashes occurring within the limits of the new walkway. This CM is not intended to be used where an existing sidewalk is being replaced with a wider one, unless prior Caltrans approval is included in the application. When an off-street multi-use path is proposed that is not adjacent to the roadway, the applicant must document the engineering judgment used to determine which "Ped & Bike" crashes to apply.			
General information				
Where to use:				
Areas noted as not having adequate or no sidewalks and a history of walking along roadway pedestrian crashes. In rural areas asphalt curbs and/or separated walkways may be appropriate.				
Why it works:				
Sidewalks and walkways provide people with space to travel within the public right-of-way that is separated from roadway vehicles. The presence of sidewalks on both sides of the street has been found to be related to significant reductions in the “walking along roadway” pedestrian crash risk compared to locations where no sidewalks or walkways exist. Reductions of 50 to 90 percent of these types of pedestrian crashes. In combination with this CM, better guidance signs and markings for non-motorized and motorized roadway users should be considered, including: sign and markings directing pedestrians and cyclists on appropriate/legal travel paths and signs and markings warning motorists of non-motorized uses of the roadway that should be expected.				
General Qualities (Time, Cost and Effectiveness):				

Costs for sidewalks will vary, depending upon factors such as width, materials, and existing of curb, gutter and drainage. Asphalt curbs and walkways are less expensive, but require more maintenance. The expected effectiveness of this CM must be assessed for each individual location. These projects can be very effective in areas of high-pedestrian volumes with a past history of crashes involving pedestrians.

FHWA CMF Clearinghouse:	Crash Types Addressed:	Pedestrian, Bicycle	CRF:	65 - 89 %
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R35PB, Install/upgrade pedestrian crossing (with enhanced safety features)

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		Pedestrian and Bicycle		35%	20 years
Notes:	This CM only applies to "Ped & Bike" crashes occurring in the influence area (expected to be a maximum of within 250') of the new crossing which includes new enhanced safety features. Note: This CM is not intended to be combined with the "Install raised pedestrian crossing" when calculating the improvement's B/C ratio. This CM is not intended to be used for high-cost aesthetic enhancements (i.e. stamped concrete or stamped asphalt).				
General information					
Where to use:					
Roadway segments with no controlled crossing for a significant distance in high-use midblock crossing areas and/or multilane roads locations. Based on the Zegeer study (Safety Effects of Marked vs. Unmarked Crosswalks at Uncontrolled Locations) at many locations, a marked crosswalk alone may not be sufficient to adequately protect non-motorized users. In these cases, flashing beacons, curb extensions, medians and pedestrian crossing islands and/or other safety features should be added to complement the standard crossing elements. For multi-lane roadways, advance "yield" markings can be effective in reducing the 'multiple-threat' danger to pedestrians.					
Why it works:					
Adding pedestrian crossings has the opportunity to greatly enhance pedestrian safety at locations noted as being problematic. The enhanced safety elements, which may include curb extensions, medians and pedestrian crossing islands, beacons, and lighting, combined with pavement markings delineating a portion of the roadway that is designated for pedestrian crossing. Care must be taken to warn drivers of the potential for pedestrians crossing the roadway and enhanced improvements added to the crossing increase the likelihood of pedestrians crossing in a safe manner. In combination with this CM, better guidance signs and markings for non-motorized and motorized roadway users should be considered, including: sign and markings directing pedestrians and cyclists on appropriate/legal travel paths and signs. When agencies opt to install aesthetic enhancement to crossing like stamped concrete/asphalt, the project design and construction costs can significantly increase. For HSIP applications, these costs must be accounted for in the B/C calculation, but these costs (over standard crosswalk markings) must be tracked separately and are not federally reimbursable and will increase the agency's local-funding share for the project costs.					
General Qualities (Time, Cost and Effectiveness):					
Costs associated with this strategy will vary widely, depending on the extent of the curb extensions, raised medians, flashing beacons, and other pedestrian safety elements that are needed with the crossing. When considered at a single location, these improvements can sometimes be low cost and funded through local funding by local crews. This CM can often be effectively and efficiently implemented using a systematic approach with numerous locations, resulting in moderate to high cost projects that are appropriate to seek state or federal funding.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Pedestrian, Bicycle	CRF: 8 - 56%

R36PB, Install raised pedestrian crossing

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		Pedestrian and Bicycle		35%	20 years
Notes:	This CM only applies to "Ped & Bike" crashes occurring in the area with the new raised crossing. Note: This CM is not intended to be combined with the "Install pedestrian crossing (with enhanced safety features)" when calculating the improvement's B/C ratio.				
General information					
Where to use:					
On lower-speed roadways, where pedestrians are known to be crossing roadways that involve significant vehicular traffic. Based on the Zegeer study (Safety Effects of Marked vs. Unmarked Crosswalks at Uncontrolled Locations) at many locations, a marked crosswalk alone, may not be sufficient to adequately protect non-motorized users. In these cases, raised crossings can be added to complement the standard crossing elements. Special requirements may apply and extra care should be taken when considering installing raised crossings to ensure unintended safety issues are not created, such as: emergency vehicle access or truck route issues.					
Why it works:					
Adding a raised pedestrian crossing has the opportunity to enhance pedestrian safety at locations noted as being especially problematic. The raised crossing encourages motorists to reduce their speed and provides improved delineation for the portion of the roadway that is designated for pedestrian crossing. In combination with this CM, better guidance signs and markings for non-motorized and motorized roadway users should be considered, including: sign and markings directing pedestrians and cyclists on appropriate/legal travel paths.					
General Qualities (Time, Cost and Effectiveness):					
Costs associated with this strategy will vary widely, depending upon the elements of the raised crossing and the need for new curb ramps and sidewalk modifications. This CM may be effectively and efficiently implemented using a systematic approach with more than one location and can have medium to high B/C ratios based on past non-motorized crash history.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Pedestrian, Bicycle	CRF: 30 - 46%

R37PB, Install Rectangular Rapid Flashing Beacon (RRFB)

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		Pedestrian and Bicycle		35%	20 years
Notes:	This CM only applies to "Ped & Bike" crashes occurring in the influence area (expected to be a maximum of within 250') of the crossing which includes the RRFB.				
General information					
Where to use:					
Rectangular Rapid Flashing Beacon (RRFB) includes pedestrian-activated flashing lights and additional signage that enhance the visibility of marked crosswalks and alert motorists to pedestrian crossings. It uses an irregular flash pattern that is similar to emergency flashers on police vehicles. RRFBs are installed at unsignalized intersections and mid-block pedestrian crossings.					
Why it works:					
RRFBs can enhance safety by increasing driver awareness of potential pedestrian conflicts and reducing crashes between vehicles and pedestrians at unsignalized intersections and mid-block pedestrian crossings. The addition of RRFB may also increase the safety effectiveness of other treatments, such as crossing warning signs and markings.					
General Qualities (Time, Cost and Effectiveness):					
RRFBs are a lower cost alternative to traffic signals and hybrid signals. This CM can often be effectively and efficiently implemented using a systematic approach with numerous locations.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Pedestrian, Bicycle	CRF: 7 – 47.4%

R38, Install Animal Fencing

For HSIP Cycle 11 Call-for-projects					
Funding Eligibility		Crash Types Addressed		CRF	Expected Life
90%		Animal		80%	20 years
Notes:	This CM only applies to "animal" crashes occurring within the limits of the new fencing.				
General information					
Where to use:					
At locations with high percent of vehicular/animal crashes (reactive) or where there is a known high percent of animals crossing due to migratory patterns (proactive).					
Why it works:					
Animal fencing helps to channelize the identified animals to a natural or man-made crossing, eliminating the conflict between vehicles and animals on the same place. Animal fencing is typically installed at a bridge location with its "run of need" dependent on the surrounding terrain.					
General Qualities (Time, Cost and Effectiveness):					
Time to install fencing can be moderate to lengthy depending on the environmental commitments and agreed upon solution to mitigating project impacts. Costs will be fairly low and depend on the "run of need" length. There will be minimal reoccurring maintenance costs on keeping the fence intact. The expected effectiveness of this CM must be assessed for each individual location.					
FHWA CMF Clearinghouse:		Crash Types Addressed:		Animal	CRF: 70 - 90 %

Appendix C: Summary of “Recommended Actions”

The information contained here represent a brief summary of each section of this manual as well as the Summary of “Recommended Actions” from Sections 2 through 7. This is intended to be a quick-reference for local agency practitioners working on a “proactive safety analysis” of their roadway network.

Introduction and Purpose

As safety practitioners consider implementing a ‘proactive safety analysis approach’ they should consider the overall context of the safety issues facing California local agencies and Caltrans primary goals for preparing this Safety manual for California’s local roadway owners. Figure 1 provides a flowchart of the process and Appendices E and F provide examples and lessons learned from recent statewide calls-for-projects.

Identifying Safety Issues

This section provides an overview of the types of data to collect for the identification of roadway safety issues. It discusses sources of crash data and how they can be used. As practitioners gather information they are encouraged to develop one or more separate spreadsheets and/or pin-maps to help track and manage this data. The following spreadsheet is offered as an example, but each agency’s spreadsheet should include data and be formatted as necessary to meet their needs.

Location & Date	General Information		Crash Information			Evaluation / Action		
	Source/Type of information	Safety Issue/Problem	Nature of Crashes	Time of Day	Weather/Traffic Conditions	Staff Evaluation	Recommend Action	Resolution
1) Intersection “X”								
2) Roadway Segment (PM 5.3 to PM 7.8)								

State and Local Crash Databases

Recommended Action: Obtain at least 3 years of network-wide crash data to identify local roads that have a history of roadway crashes. This will be used to identify predominant roadway crash locations, crash types and other common characteristics.

Transportation Injury Mapping System (TIMS)

Recommended Action: Consider augmenting your local agency’s data collection approach with information available using the suite of TIMS tools. The TIMS tools (and/or tools from private for-profit vendors) can help the safety practitioner access and manage their crash data.

Law Enforcement Crash Reports

Recommended Action: Develop a working relationship with law enforcement officials responsible for enforcement and crash investigations. This could foster a partnership where sharing crash reports and

safety information on problem roadway segments becomes an everyday occurrence. Practitioners with limited access to crash data are encouraged to use TIMS to assess the local crash report data.

Observational Information

Recommended Action: Gather information received from law enforcement and road maintenance crew observations. Develop a system for maintenance crews to report and record observed roadway safety issues and a mechanism to address them.

Public Notifications

Recommended Action: Review and summarize information received from these sources, identifying segments or corridors with multiple notifications and record the locations, dates, and nature of the problem that are cited.

Roadway Data and Devices

Recommended Action: Identify and track roadway characteristics for the intersections, roadway segments, and corridors, including compliance with the minimum standards. At a minimum, this should be done for locations being considered for safety improvements, but ideally agencies would establish an extensive database of roadway data to help them proactively identify high risk roadway features.

Exposure Data

Recommended Action: Consider the availability of exposure data and track it along with the other crash data to help prioritize potential locations for safety improvements.

Field Assessments and Road Safety Audits

Recommended Action: Consider completing formal or informal field assessments and RSAs at certain locations to help ensure all relevant information is collected and available for the safety practitioners to complete their safety analysis and identification of the most appropriate countermeasures. Develop simple straightforward criteria on when one of these will be undertaken.

Safety Data Analysis

This section summarizes the types of analyses that can be conducted to determine what roadway countermeasures should be implemented. This section is the link between the data (Section 2) and the selection of appropriate countermeasures (Section 4). It provides definitions and examples of the qualitative and quantitative factors that should be considered when evaluating roadway safety issues.

Quantitative Analysis

Recommended Action: Complete a quantitative analysis of their roadway data using both Crash Frequency and Crash Rate methodologies, including:

Crash Frequency

Top 10 (or 20) lists of intersections and roadway segments.

For lower volume roadways, network wide pin-maps may be more effective.

Develop collision diagrams showing the direction of movement of vehicles and pedestrians.

Crash Rate

Top 10 (or 20) lists of roadway segments in relationship to length, volumes, and/or density.

Top 10 (or 20) lists of intersections, sorted by crash rate.

Top 10 (or 20) lists of the highest volume intersections, sorted by crash frequency or rate.

Qualitative Analysis

Recommended Action: Consider completing field assessments and RSAs to identify roadway infrastructure characteristics relating to both locations with compliance issues and locations with high crash frequencies/rates. As part the field assessments, common roadway and crash characteristics should be identified for the potential systemic deployment of countermeasures.

Caltrans recommends all agencies complete both quantitative and qualitative analyses before starting their applications for HSIP program funding. The findings from these analyses should be documented in spreadsheets and/or pin-maps similar to the ones discussed in Section 2.

Countermeasures

This Section provides a description of selected countermeasures that have been shown in this manual. It includes a basic set of strategies to implement at locations experiencing a history of crashes and their corresponding crash modification factors (CMF). NOTE: Crash Reduction Factors (CRFs) are directly connected to the CMFs and are another indication of the effectiveness of a particular treatment. The CRF for a countermeasure is defined mathematically as $1 - \text{CMF}$. The terms CMFs and CRFs are used interchangeably throughout this document.

Selecting Countermeasures and Crash Modification Factors / Crash Reduction Factors

Countermeasure Details and Characteristics

Recommended Action: Agencies should use all information and results obtained through completing the actions in Sections 2, 3 and 4 to select the appropriate countermeasures for their HCCLs and systemic improvements. As novice safety practitioners select countermeasures, they must realize that a reasonable level of traffic ‘engineering judgment’ is required and that this manual and should not be used as a simple cheat-sheet for preparing and submitting applications for funding.

Calculating the B/C ratio and Comparing Projects

This section defines a methodology for calculating a benefit to cost (B/C) ratio for a potential safety project. It includes sources for estimating projected costs and benefits and the specific values/formulas Caltrans uses for its statewide evaluations of HSIP projects. This section also discusses the potential value in reevaluating projects’ overall cost effectiveness.

Estimating the Benefit of Implementing Proposed Improvements

Recommended Action: Prepare ‘Total Benefit’ estimates for the proposed projects being evaluated in the proactive safety analysis.

Estimating the Cost of Implementing Proposed Improvements

Recommended Action: Prepare ‘Total Project Cost’ estimates for the proposed projects being evaluated in the proactive safety analysis.

Calculating the B/C Ratio

Recommended Action: Calculate the B/C ratio for each of the proposed projects being evaluated in the proactive safety analysis.

Compare B/C Ratios and Consider the Need to Reevaluate Project Elements

Recommended Action: Compare, reevaluate, and prioritize the potential safety projects. Consider changing the project limits or utilizing lower cost countermeasures for projects with low initial B/C ratios.

Identifying Funding and Construct Improvements

This section identifies existing and new funding opportunities for safety projects that local agencies should be considering. This section also briefly discusses some unique project development issues and strategies for safety projects as they proceed through design and construction.

Existing Funding for Low-cost Countermeasures

Recommended Action: Survey planned maintenance, developer and capital projects to determine whether they overlap any of the proposed safety projects. Where projects overlap, leverage the existing funding sources to include safety countermeasures.

Other Funding Sources

Recommended Action: Consider all potential funding opportunities to incorporate the identified safety countermeasures including the HSIP and ATP Programs.

Project Development and Construction Considerations

Recommended Action: Safety practitioners should follow their safety projects all the way through the project delivery and construction process. In addition, they should establish a safety program delivery plan that brings awareness and support to the expedited delivery of safety projects. Where possible, safety practitioners should involve the media and even consider having their own program intended to “toot their own safety-horn.”

Evaluation Improvements

This section presents the process to complete an evaluation of installed treatments. After the countermeasures are installed, assessing their effectiveness will provide valuable information and can help determine which countermeasures should continue to be installed on other roadways to make them safer as well.

Recommended Action: Develop a spreadsheet to track future safety project installations and record 3+ years of “before” and “after” crash information at those locations. Once safety countermeasures are constructed, schedule and track assessment dates to ensure they happen.

Appendix D: Benefit Cost Ratio (BCR) Calculations

This appendix includes the Benefit Cost methodology used in the Caltrans calls-for-projects in the HSIP programs. The HSM, Part B - Chapter 7, includes more details on conducting Economic Appraisal for roadway safety projects. Local agencies will be required to utilize the HSIP Analyzer to calculate the Benefit Cost Ratio (BCR) as part of their application for HSIP funding. Starting in Cycle 7 call for projects, the fatality and severe injury costs have been combined for calculating the benefit. Because fatality figures are small and are a matter of randomness, this change is being made to reduce the possibility of selecting an improvement project on the basis of randomness.

$$1) \text{ Benefit (Annual)} = \sum_{s=0}^3 \frac{CRF \times N \times CC_{ave}}{Y}$$

- CRF : Crash reduction factor in each countermeasure.
- S : Severity (0: PDO, 1: Minor Injury, 2: Injury, 3: Severe Injury/Fatal). See the below table.
- N : Number of Crashes, in severity levels, related to selected countermeasure.
- Y : Crash data time period (Year).
- CC_{ave} : Crash costs in severity levels.

Severity (S)	Crash Severity *	Location Type	Crash Cost ***
3	**Fatality and Severe Injury Combined (KA)	Signalized Intersection	\$1,787,000
3		Non Signalized Intersection	\$2,843,000
3		Roadway	\$2,461,000
2	Evident Injury – Other Visible (B)		\$159,900
1	Possible Injury–Complaint of Pain (C)		\$90,900
0	Property Damage Only (O)		\$14,900

* The letters in parenthesis (K, A, B, C and O) refer to the KABCO scale; it is commonly used by law enforcement agencies in their crash reporting efforts and is further documented in the HSM.

** Figures were calculated based on an average Fatality (K) / Severe Injury (A) ratio for each area type, a crash cost for a Fatality (K) of \$8,112,200, and a crash cost of a Severe/Disabling Injury (A) of \$437,100. These costs are used in the HSIP Analyzer.

*** Based on Table 7-1, Highway Safety Manual (HSM), First Edition, 2010. Adjusted to 2022 Dollars.

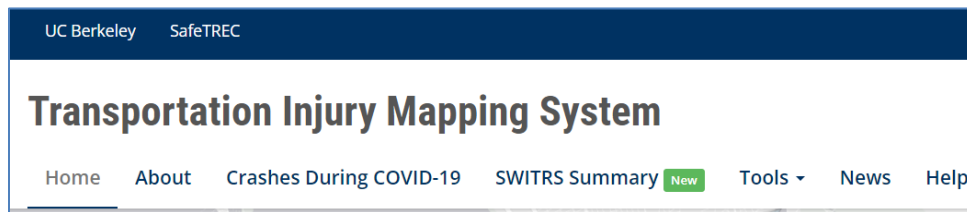
$$2) \text{ Benefit (Life)} = \text{Benefit (annual)} \times \text{Years of service life}$$

$$3) \text{ BCR (each countermeasure): } \text{Benefit Cost Ratio}_{(CM)} = \frac{\text{Benefit (Life)}_{(CM)}}{\text{Total Project Cost}_{(CM)}}$$

$$4) \text{ BCR (project): } \text{BCR (Project)} = \frac{\sum_{CM=1}^n \text{Benefit (Life)}_{(CM)}}{\text{Total Project Cost}}$$

Appendix E: Examples of Crash Data Collection and Analysis Techniques using TIMS

As demonstrated throughout the manual, SafeTREC's TIMS website <http://tims.berkeley.edu/> can be used to assist local agencies in completing a proactive safety analysis of their roadway network. *(Note: This manual focuses on TIMS as a tool to access and map SWITRS data because TIMS is free to local agencies and the general public. Local agencies are encouraged to try TIMS, but they should not feel obligated to make a switch if they prefer using their vendor-supplied crash analysis software to complete their data collection and analysis process).*



SWITRS Query & Map:

The SWITRS Query & Map application is a tool for accessing and mapping fatal and injury collision data from the California Statewide Integrated Traffic Records System (SWITRS).

SWITRS GIS Map:

The SWITRS GIS Map offers an interactive map-centric approach to viewing and querying SWITRS collision data, with the capability of multiple tasks including Rank by Intersection, Collision Diagram, etc.

Collision Diagram Tool:

The Collision Diagram tool allows users to generate an interactive collision diagram. The Collision Diagram is accessible through SWITRS GIS Map after a set of collisions is selected.

ATP Maps & Summary Data:

The ATP Maps & Summary Data tool utilizes interactive collision maps to find pedestrian and bicycle collisions hot spot and generate data summaries within specified project and/or community limits. Though it is designed to support the California Active Transportation Program (ATP), this tool may be useful in developing an HSIP project targeting pedestrian and bicycle safety issues.

Appendix F: List of Abbreviations

AASHTO	American Association of State Highway and Transportation Officials
ATP	Active Transportation Program
B/C; BCR	Benefit Cost Ratio
Caltrans	California Department of Transportation (Division of Local Assistance)
CA-MUTCD	California - Manual on Uniform Traffic Control Devices
CM	Countermeasure
CMF	Crash Modification Factor
CRF	Crash Reduction Factor
“5 E’s of Safety”	Education, Enforcement, Engineering, Emergency Response and Emerging Technologies
EMS	Emergency Medical Services
FHWA	Federal Highway Administration
HCCL	High Crash Concentration Location
HR3	High Risk Rural Roads Program
HSIP	Highway Safety Improvement Program
HSM	Highway Safety Manual
RSA	Roadway Safety Audit
SafeTREC	Safe Transportation Research and Education Center (SafeTREC) at the University of California, Berkeley
SHSP	Strategic Highway Safety Plan
SWITRS	Statewide Integrated Traffic Records System
TIMS	Transportation Injury Mapping System (a product of SafeTREC)

Appendix G: References

1. FHWA, Office of Safety website: Local and Rural Road Safety Program
 - https://safety.fhwa.dot.gov/local_rural/
2. Highway Safety Manual (HSM). Product of the American Association of State Highway and Transportation Officials.
 - <http://www.highwaysafetymanual.org/Pages/default.aspx>
3. National Highway Traffic Safety Administration (NHTSA): National Center for Statistics and Analysis (NCSA) Motor Vehicle Traffic Crash Data Resource
 - <https://crashstats.nhtsa.dot.gov/>
4. California - Manual on Uniform Traffic Control Devices (CA-MUTCD)
 - <https://dot.ca.gov/programs/safety-programs/camutcd>
5. Caltrans' website on the Highway Design Manual
 - <https://dot.ca.gov/programs/design/manual-highway-design-manual-hdm>
6. FHWA, Research and Development website for Bikesafe and Pedsafe
 - https://safety.fhwa.dot.gov/ped_bike/tools_solve/
7. AASHTO - A Policy on Geometric Design of Highways and Streets ("Green Book")

AASHTO - the Roadside Design Guide
 - <https://store.transportation.org/>
8. FHWA – Public Roads Magazine:
 - <https://highways.dot.gov/public-roads/home>



APPENDIX D

SAFETY PROJECTS

Location		COUNTERMEASURES								PROJECT COSTS								CRASHES (2015 - 2019)																		
		CM 1	CM 2	CM 3	CM 1 CRF	CM 2 CRF	CM 3 CRF	CM 1 Life (Years)	CM 2 Life (Years)	CM 3 Life (Years)	Cost	10% Contingency Cost	5% Environmental Cost	10% PS&E Cost	0% R/W & Utilities Cost*	15% Const. Mgmt. Cost	Total Cost per Location	Total Costs All Locations (Costs 2023)	Total Crashes	Pedestrian & Bicycle Crashes			Fatal	Severe Injury	Other Visible Injury	Complaint of Pain	PDO									
Project 1 - Signalized Intersection Safety Improvement Upgrades																																				
11th Avenue & Lacey Boulevard		S02	S03	S21PB	0.15	0.15	0.6	10	10	10	\$38,640	\$3,864	\$1,932	\$3,864		\$5,796	\$54,096	\$1,097,474	29	3	Fatal	0	0	1	9	8	11									
																			Severe Injury	0																
																			Other Visible Injury	2																
																			Complaint of Pain	1																
																			PDO	0																
11th Avenue & Florinda Street/Rodgers Road		S02	S03	S21PB	0.15	0.15	0.6	10	10	10	\$37,916	\$3,792	\$1,896	\$3,792		\$5,687	\$53,082		27	2	Fatal	0	0	0	6	5	16									
																			Severe Injury	0																
																			Other Visible Injury	1																
																			Complaint of Pain	1																
																			PDO	0																
12th Avenue & Lacey Boulevard		S02	S03	S21PB	0.15	0.15	0.6	10	10	10	\$40,572	\$4,057	\$2,029	\$4,057		\$6,086	\$56,801		23	1	Fatal	0	0	1	4	12	6									
																			Severe Injury	0																
																			Other Visible Injury	1																
																			Complaint of Pain	0																
																			PDO	0																
11th Avenue & Hanford-Armona Road		S02	S03		0.15	0.15		10	10		\$38,640	\$3,864	\$1,932	\$3,864		\$5,796	\$54,096		20	0	Fatal	0	0	0	4	11	5									
																			Severe Injury	0																
																			Other Visible Injury	1																
																			Complaint of Pain	0																
																			PDO	0																
11th Avenue & Grangeville Boulevard		S02	S03	S21PB	0.15	0.15	0.6	10	10	10	\$38,640	\$3,864	\$1,932	\$3,864		\$5,796	\$54,096		20	1	Fatal	0	0	0	2	7	11									
																			Severe Injury	0																
																			Other Visible Injury	1																
																			Complaint of Pain	0																
																			PDO	0																
10th Avenue & Grangeville Boulevard		S02	S03	S21PB	0.15	0.15	0.6	10	10	10	\$38,640	\$3,864	\$1,932	\$3,864		\$5,796	\$54,096		17	1	Fatal	0	1	1	2	10	3									
																		Severe Injury	0																	
																		Other Visible Injury	1																	
																		Complaint of Pain	0																	
																		PDO	0																	
12th Avenue & Centennial Drive/Mall Drive		S02	S03		0.15	0.15		10	10		\$33,810	\$3,381	\$1,691	\$3,381		\$5,072	\$47,334	17	0			0	0	1	4	12										
11th Avenue & Fargo Avenue		S02	S03		0.15	0.15		10	10		\$38,640	\$3,864	\$1,932	\$3,864		\$5,796	\$54,096	16	0								0	1	1	6	8					
																		Fatal	0																	
																		Severe Injury	0																	
																		Other Visible Injury	1																	
Grangeville Boulevard & Redington Street		S02	S03	S21PB	0.15	0.15	0.6	10	10	10	\$36,708	\$3,671	\$1,835	\$3,671		\$5,506	\$51,391	15	1	Fatal	0	0	0	2	7	6										
																		Complaint of Pain	4																	
																		PDO	0																	
																		Fatal	0																	
																		Severe Injury	0																	
11th Avenue & Elm Street		S02	S03	S21PB	0.15	0.15	0.6	10	10	10	\$29,946	\$2,995	\$1,497	\$2,995		\$4,492	\$41,924	12	1	Fatal	0	0	0	1	7	4										
																		Other Visible Injury	0																	
																		Complaint of Pain	4																	
																		PDO	0																	
																		Fatal	0																	
Lacey Boulevard & Mall Drive		S02	S03	S21PB	0.15	0.15	0.6	10	10	10	\$38,640	\$3,864	\$1,932	\$3,864		\$5,796	\$54,096	12	1	Fatal	0	0	0	0	4	8										
																		Severe Injury	0																	
																		Other Visible Injury	0																	
																		Complaint of Pain	4																	
																		PDO	0																	
11th Avenue & Davis Street		S02	S03	S21PB	0.15	0.15	0.6	10	10	10	\$36,708	\$3,671	\$1,835	\$3,671		\$5,506	\$51,391	11	2	Fatal	0	0	0	4	4	3										
																		Severe Injury	0																	
																		Other Visible Injury	2																	
																		Complaint of Pain	0																	
																		PDO	0																	
Grangeville Boulevard & Rodgers Road		S02	S03	S21PB	0.15	0.15	0.6	10	10	10	\$36,708	\$3,671	\$1,835	\$3,671		\$5,506	\$51,391	11	1	Fatal	0	0	1	2	4	4										
																		Severe Injury	0																	
																		Other Visible Injury	1																	
																		Complaint of Pain	0																	
																		PDO	0																	
Grangeville Boulevard & University Avenue		S02	S03		0.15	0.15		10	10		\$38,640	\$3,864	\$1,932	\$3,864		\$5,796	\$54,096	11	0			0	0	4	2	5										
Douty Street & Florinda Street		S02	S03		0.15	0.15		10	10		\$34,776	\$3,478	\$1,739	\$3,478		\$5,216	\$48,686	11	0								0	0	1	5	5					
Douty Street & Fargo Avenue		S02	S03		0.15	0.15		10	10		\$33,810	\$3,381	\$1,691	\$3,381		\$5,072	\$47,334	9	0													0	0	0	2	7
																		Fatal	0																	
																		Severe Injury	0																	
11th Avenue & Seventh Avenue		S02	S03	S21PB	0.15	0.15	0.6	10	10	10	\$39,606	\$3,961	\$1,980	\$3,961		\$5,941	\$55,448	8	1	Fatal	0	0	0	3	3	2										
																		Other Visible Injury	1																	
																		Complaint of Pain	0																	
																		PDO	0																	
																		Fatal	0																	
11th Avenue & Cortner Street		S02	S03		0.15	0.15		10	10		\$36,708	\$3,671	\$1,835	\$3,671		\$5,506	\$51,391	8	0			0	0	1	5	2										
																		Severe Injury	0																	
																		Other Visible Injury	0																	
																		Complaint of Pain	1																	
																		PDO	0																	
10th Avenue & Lacey Boulevard/Seventh Street		S02	S03	S21PB	0.15	0.15	0.6	10	10	10	\$38,640	\$3,864	\$1,932	\$3,864		\$5,796	\$54,096	7	1	Fatal	0	0	0	2	2	3										
																		Severe Injury	0																	
																		Other Visible Injury	0																	
																		Complaint of Pain	1																	
																		PDO	0																	
Douty Street & Grangeville Boulevard		S02	S03		0.15	0.15		10	10		\$38,882	\$3,888	\$1,944	\$3,888		\$5,832	\$54,435	5	0			0	0	1	1	3										
10th Avenue & Fargo Avenue		S02	S03		0.15	0.15		10	10		\$38,640	\$3,864	\$1,932	\$3,864		\$5,796	\$54,096	5	0								0	0	1	0	4					
																		Fatal	0																	
																		Severe Injury	0																	
																		Other Visible Injury	0																	
																		Complaint of Pain	0																	
																		PDO	1																	
																		Fatal	0																	
																		Severe Injury	0																	
																		Other Visible Injury	0																	
																		Complaint of Pain	0																	
																		PDO	1																	
																		Fatal	0																	
																		Severe Injury	0																	
																		Other Visible Injury	0																	
																		Complaint of Pain	0																	
																		PDO	1																	
																		Fatal	0																	
																		Severe Injury	0																	
																		Other Visible Injury	0																	
																		Complaint of Pain	0																	
																		PDO	1																	
																		Fatal	0																	
																		Severe Injury	0																	
							</																													

	CRASH COSTS						CM ANNUAL BENEFIT			CM LIFE BENEFIT			TOTAL BENEFIT			
Location	Fatal	Severe Injury	Other Visible Injury	Complaint of Pain	PDO	Total Crash Costs per Location	Total Crash Costs All Locations	CM 1 Annual Benefit	CM 2 Annual Benefit	CM 3 Annual Benefit	CM 1 Life Benefit	CM 2 Life Benefit	CM 3 Life Benefit	Life Benefit Per Location	Life Total Benefit	B/C
Project 1 - Signalized Intersection Safety Improvement Upgrades																
11th Avenue & Lacey Boulevard	\$0	\$1,787,000	\$1,439,100	\$727,200	\$163,900	\$4,117,200	\$30,692,200	\$123,516	\$123,516	\$49,284	\$1,235,160	\$1,235,160	\$492,840	\$2,963,160	\$21,970,320	20.02
11th Avenue & Florinda Street/Rodgers Road	\$0	\$0	\$959,400	\$454,500	\$238,400	\$1,652,300		\$49,569	\$49,569	\$30,096	\$495,690	\$495,690	\$300,960	\$1,292,340		
12th Avenue & Lacey Boulevard	\$0	\$1,787,000	\$639,600	\$1,090,800	\$89,400	\$3,606,800		\$108,204	\$108,204	\$19,188	\$1,082,040	\$1,082,040	\$191,880	\$2,355,960		
11th Avenue & Hanford-Armona Road	\$0	\$0	\$639,600	\$999,900	\$74,500	\$1,714,000		\$51,420	\$51,420	\$0	\$514,200	\$514,200	\$0	\$1,028,400		
11th Avenue & Grangeville Boulevard	\$0	\$0	\$319,800	\$636,300	\$163,900	\$1,120,000		\$33,600	\$33,600	\$19,188	\$336,000	\$336,000	\$191,880	\$863,880		
10th Avenue & Grangeville Boulevard	\$1,787,000	\$1,787,000	\$319,800	\$909,000	\$44,700	\$4,847,500		\$145,425	\$145,425	\$19,188	\$1,454,250	\$1,454,250	\$191,880	\$3,100,380		
12th Avenue & Centennial Drive/Mall Drive	\$0	\$0	\$159,900	\$363,600	\$178,800	\$702,300		\$21,069	\$21,069	\$0	\$210,690	\$210,690	\$0	\$421,380		
11th Avenue & Fargo Avenue	\$0	\$1,787,000	\$159,900	\$545,400	\$119,200	\$2,611,500		\$78,345	\$78,345	\$0	\$783,450	\$783,450	\$0	\$1,566,900		
Grangeville Boulevard & Redington Street	\$0	\$0	\$319,800	\$636,300	\$89,400	\$1,045,500		\$31,365	\$31,365	\$43,632	\$313,650	\$313,650	\$436,320	\$1,063,620		
11th Avenue & Elm Street	\$0	\$0	\$159,900	\$636,300	\$59,600	\$855,800		\$25,674	\$25,674	\$43,632	\$256,740	\$256,740	\$436,320	\$949,800		
Lacey Boulevard & Mall Drive	\$0	\$0	\$0	\$363,600	\$119,200	\$482,800		\$14,484	\$14,484	\$43,632	\$144,840	\$144,840	\$436,320	\$726,000		
11th Avenue & Davis Street	\$0	\$0	\$639,600	\$363,600	\$44,700	\$1,047,900		\$31,437	\$31,437	\$38,376	\$314,370	\$314,370	\$383,760	\$1,012,500		
Grangeville Boulevard & Rodgers Road	\$0	\$1,787,000	\$319,800	\$363,600	\$59,600	\$2,530,000		\$75,900	\$75,900	\$19,188	\$759,000	\$759,000	\$191,880	\$1,709,880		
Grangeville Boulevard & University Avenue	\$0	\$0	\$639,600	\$181,800	\$74,500	\$895,900		\$26,877	\$26,877	\$0	\$268,770	\$268,770	\$0	\$537,540		
Douty Street & Florinda Street	\$0	\$0	\$159,900	\$454,500	\$74,500	\$688,900		\$20,667	\$20,667	\$0	\$206,670	\$206,670	\$0	\$413,340		
Douty Street & Fargo Avenue	\$0	\$0	\$0	\$181,800	\$104,300	\$286,100		\$8,583	\$8,583	\$0	\$85,830	\$85,830	\$0	\$171,660		
11th Avenue & Seventh Avenue	\$0	\$0	\$479,700	\$272,700	\$29,800	\$782,200		\$23,466	\$23,466	\$19,188	\$234,660	\$234,660	\$191,880	\$661,200		
11th Avenue & Cortner Street	\$0	\$0	\$159,900	\$454,500	\$29,800	\$644,200		\$19,326	\$19,326	\$0	\$193,260	\$193,260	\$0	\$386,520		
10th Avenue & Lacey Boulevard/Seventh Street	\$0	\$0	\$319,800	\$181,800	\$44,700	\$546,300		\$16,389	\$16,389	\$10,908	\$163,890	\$163,890	\$109,080	\$436,860		
Douty Street & Grangeville Boulevard	\$0	\$0	\$159,900	\$90,900	\$44,700	\$295,500		\$8,865	\$8,865	\$0	\$88,650	\$88,650	\$0	\$177,300		
10th Avenue & Fargo Avenue	\$0	\$0	\$159,900	\$0	\$59,600	\$219,500		\$6,585	\$6,585	\$0	\$65,850	\$65,850	\$0	\$131,700		
Location	Fatal	Severe Injury	Other Visible Injury	Complaint of Pain	PDO	Total Crash Costs per Location	Total Crash Costs All Locations	CM 1 Annual Benefit	CM 2 Annual Benefit	CM 3 Annual Benefit	CM 1 Life Benefit	CM 3 Life Benefit	CM 3 Life Benefit	Life Benefit per Location	Life Total Benefit	B/C
Project 2 - Unsignalized Intersection Safety Improvement Upgrades																
12th Avenue & Glendale Avenue	\$0	\$0	\$0	\$454,500	\$89,400	\$543,900	\$3,869,500	\$0	\$16,317	\$27,195	\$0	\$163,170	\$271,950	\$435,120	\$3,505,680	18.77
Sixth Street & Phillips Street	\$0	\$0	\$319,800	\$363,600	\$59,600	\$743,000		\$8,464	\$22,290	\$37,150	\$169,280	\$222,900	\$371,500	\$763,680		
Douty Street & Third Street	\$0	\$0	\$319,800	\$181,800	\$89,400	\$591,000		\$0	\$17,730	\$29,550	\$0	\$177,300	\$295,500	\$472,800		
11th Avenue & Sixth Street	\$0	\$0	\$159,900	\$181,800	\$89,400	\$431,100		\$8,464	\$12,933	\$21,555	\$169,280	\$129,330	\$215,550	\$514,160		
Douty Street & Center Street	\$0	\$0	\$159,900	\$90,900	\$104,300	\$355,100		\$1,192	\$10,653	\$17,755	\$23,840	\$106,530	\$177,550	\$307,920		
Park Avenue & Ivy Street	\$0	\$0	\$0	\$272,700	\$44,700	\$317,400		\$1,192	\$9,522	\$15,870	\$23,840	\$95,220	\$158,700	\$277,760		
Fargo Avenue & Glacier Way	\$0	\$0	\$159,900	\$181,800	\$29,800	\$371,500		\$0	\$11,145	\$18,575	\$0	\$111,450	\$185,750	\$297,200		
11th Avenue & Pepper Drive	\$0	\$0	\$319,800	\$90,900	\$0	\$410,700		\$0	\$12,321	\$20,535	\$0	\$123,210	\$205,350	\$328,560		
10th Avenue & Second Street	\$0	\$0	\$0	\$90,900	\$14,900	\$105,800		\$1,192	\$3,174	\$5,290	\$23,840	\$31,740	\$52,900	\$108,480		
Project 3 - Redington Street and Seventh Street																
Replace pedestal mounted traffic signal	\$0	\$0	\$479,700	\$272,700	\$59,600	\$812,000	\$812,000	\$48,720			\$974,400			\$974,400	\$974,400	1.45

CM = Countermeasure
CRF = Crash Reduction Factor
B/C = Benefit-to-Cost Ratio
Location's chosen by Stakeholder's Working

Countermeasure Name
S02 - Improve signal hardware: lenses,
S03 - Improve signal timing (coordination,
S08 - Convert signal to mast arm (from
S21PB - Modify signal phasing to implement
NS01 - Add intersection lighting (NS.I.)
NS06 - Install/upgrade larger or additional
NS07 - Upgrade intersection pavement



**Parking and Traffic Commission Regular Meeting
Minutes**

**March 23, 2023 5:30 PM
Council Chambers
400 N. Douty St.**

CALL TO ORDER:

WELCOME AND INTRODUCTION OF NEW COMMISSIONERS:

- A. Public Works:
Scott Goddard, appointed February 21, 2023 for full term ending December 31, 2026
Bert Parolini, appointed February 21, 2023 to fill unexpired term ending December 31, 2023
Orie Rubalcava, reappointed January 17, 2023, for full term ending December 31, 2026
Alex Dwiggins, current term ending December 31, 2023
Jeffery Medlin, current term ending December 31, 2023

ROLL CALL:

Attendee Name:	Status:
Alex Dwiggins	Present
Scott Goddard	Present
Jeffery Mdelin	Present
Bert Parolini	Present
Orie Rubalcava	Present

FLAG SALUTE:

Chairman DWIGGINS lead the flag salute.

MINUTES APPROVAL:

- A. Public Works: Approve minutes from August 4, 2022 Parking & Traffic Commission Meeting
Motion was made to accept the minutes from August 4, 2022 Parking & Traffic Commission Meeting.

RESULT:	APPROVED (UNANIMOUS)
MOVER:	Orie Rubalcava
SECONDER:	Jeffery Medlin

AYES: Dwiggins, Rubalcava, Medlin
ABSTAIN: Goddard, Parolini

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 speaker. Please begin your comments by stating your name and providing your city of residence.

Vice Mayor Mark Kairis introduced himself and welcomed new Commssioners and thanked all Commissioners for their service to the community. Vice Mayer Kairis spoke to Commissioners regarding City Council's recent Goals and Objectives Retreat.

STAFF REPORTS:

A. Public Works: Recommendation for Approval of the Draft Local Roadway Safety Plan (LRSP)

Staff presented the DRAFT Local Roadway Safety Plan to Commissioners with staffs recommendation to pass the DRAFT on to City Council. Staff reviewed and answered questions from Commissioners. Motion was made to approve the DRAFT Local Roadway Safety Plan to be circulated to the public and then on to the City Council.

RESULT: **APPROVED (UNANIMOUS)**
MOVER: Scott Goddard
SECONDER: Orie Rubalcava
AYES: Dwiggins, Goddard, Medlin, Parolini, Rubalcava

STAFF COMMUNICATIONS:

A. Public Works: City Council Actions

Staff spoke briefly regarding City Council Actions.

COMMISSIONERS ITEMS OF INTEREST:

Commissioner Rubacalva asked staff what impact the current wet weather is having on the roadways and what mitigation strategies are being utilized by the City. Staff informed Commissioners that the City uses a vac truck to keep storm drains clear of debris. This is done to keep water from backing up and sitting on the roadways. Also, the City utilizes crack sealing on an annual basis and keeps track of street conditions using the Street Saver program. Commissioner Dwiggins asked staff if the Downtown Traffic and Safety Project will be reviewed by Parking & Traffic Commission. Staff informed Commissioners that the project will not be going to the Parking & Traffic Commission for review.

ADJOURNMENT:

Chairman DWIGGINS adjourned the meeting at 6:44 PM.

Respectfully submitted,

Shawn Dailey, Secretary
Engineering Technician II



AGENDA STAFF REPORT

MEETING DATE: 5/16/2023

AGENDA SECTION: GENERAL BUSINESS

SUBJECT:

Adoption of Resolution 23-11-R identifying a “Project List” for Road Maintenance and Rehabilitation Account (RMRA) gas tax funding for Fiscal Year 2023/24

RECOMMENDATION:

That the City Council, by motion, approve the attached resolution 23-11-R identifying a “Project List” for RMRA gas tax funding for Fiscal Year 2023/24.

BACKGROUND:

The Road Repair and Accountability Act of 2017 (SB1 Bill) established a Road Maintenance and Rehabilitation Account (RMRA) to provide additional funding for maintenance of state highways and roadways, including a portion for local streets and roads. One of the provisions of the new law required that agencies submit documentation to the California Transportation Commission (CTC), regarding the description and location of a proposed project; the estimated useful life of the improvement; and the estimated project start and completion date. The project list must be approved by the adopting agency by resolution at a regular public meeting.

The attached projects are submitted for council consideration for RMRA funding for FY 2023/24. Hanford’s estimated RMRA funding amount for FY 23/24 is approximately \$1,441,165. See attached local streets and roads revenue projection.

Proposed project list for FY 2023/24 (see Exhibit “A”)

FISCAL IMPACT:

Projected RMRA gas tax revenues for FY 2023/24 are estimated to be approximately \$1,441,165. If approved, the projects identified in this report will be forwarded to CTC by July 1, 2023 as required by state statute for acceptance. The projects are also incorporated into our FY 2023/24 Capital Improvement Program.

ATTACHMENTS:

1. Resolution 23-11-R
2. Exhibit 'A' Project List 23-24
3. FY23-24 Funding Summary - Hanford

RESOLUTION NO. 23-11-R

CITY OF HANFORD

**RESOLUTION ADOPTING A LIST OF PROJECTS FOR FISCAL YEAR 2023-24 FUNDED BY
SB 1: THE ROAD REPAIR AND ACCOUNTABILITY ACT OF 2017**

WHEREAS, Senate Bill 1 (SB 1), the Road Repair and Accountability Act of 2017 (Chapter 5, Statutes of 2017) was passed by the Legislature and Signed into law by the Governor in April 2017 to address the significant multi-modal transportation funding shortfalls statewide; and

WHEREAS, SB 1 includes accountability and transparency provisions that will ensure the residents of our City are aware of the projects proposed for funding in our community and which projects have been completed each fiscal year; and

WHEREAS, the City must adopt by resolution a list of projects proposed to receive fiscal year funding from the Road Maintenance and Rehabilitation Account (RMRA), created by SB 1, which must include a description and the location of each proposed project, a proposed schedule for the project's completion, and the estimated useful life of the improvement; and

WHEREAS, the City, will receive an estimated \$1,441,165 in RMRA funding in Fiscal Year 2023-24 from SB 1; and

WHEREAS, this is the sixth year in which the City is receiving SB 1 funding and will enable the City to continue essential road maintenance and rehabilitation projects, safety improvements, repairing and replacing aging bridges, and increasing access and mobility options for the traveling public that would not have otherwise been possible without SB 1; and

WHEREAS, the City has undergone a robust public process to ensure public input into our community's transportation priorities/the project list; and

WHEREAS, the City used a Pavement Management System to develop the SB 1 project list to ensure revenues are being used on the most high-priority and cost-effective projects that also meet the community's priorities for transportation investment; and

WHEREAS, the funding from SB 1 will help the City resurface over 1.5 miles of arterial City streets; and

WHEREAS, the 2020 California Statewide Local Streets and Roads Needs Assessment found that the City's streets and roads are in an "at-risk" condition and this revenue will help us increase the overall quality of our road system and over the next decade will bring our streets and roads into a "good" condition; and

WHEREAS, the SB 1 project list and overall investment in our local streets and roads infrastructure with a focus on basic maintenance and safety, investing in complete streets infrastructure, and using cutting-edge technology, materials and practices, will have significant positive co-benefits statewide.

NOW, THEREFORE IT IS HEREBY RESOLVED, ORDERED AND FOUND by the City Council of Hanford, State of California, as follows:

1. The foregoing recitals are true and correct.
2. The following list of proposed projects will be funded in-part or solely with fiscal year 2023-24 Road Maintenance and Rehabilitation Account revenues:
See Attached – Exhibit “A”

PASSED AND ADOPTED by the City Council of the Hanford, State of California this _____ day of _____, 2023, by the following vote:

EXHIBIT "A" PROPOSED PROJECTS FOR FISCAL YEAR 2023-24 FUNDED BY SB 1

FUNDING FY	TITLE	DESCRIPTION	LOCATION	EST USEFUL LIFE (YEARS)	EST START	EST COMPLETION	EST TOTAL PROJECT COST
23/24	E. Lacey Blvd. Widening / Reconstruction Phase 1: SJVRR/UPRR – Sierra Dr.	This project will involve the widening and reconstruction of East Lacey Boulevard from the west right of way of SJVRR/UPRR to approximately 150' east of Sierra Drive, to facilitate two lanes in each direction of travel plus turn lanes. Improvements will include the reconstruction of existing pavement section, installation of a new drainage collection/disposal system, installation of curbs, gutters, sidewalks, drive approaches, ADA ramps and a storm water basin construction.	East Lacey Boulevard from 10th Avenue to Sierra Drive	15-20	3/1/2025	5/31/2025	\$7,475,000.00
23/24	E. Lacey Blvd. Widening / Reconstruction Phase 2: 10th Ave. – SJVRR/UPRR	This project will involve the widening and reconstruction of East Lacey Boulevard from 10th Avenue to the west right of way of SJVRR/UPRR, to facilitate two lanes in each direction of travel plus turn lanes. Improvements will include the reconstruction of existing pavement section, installation of a new drainage collection/disposal system, basin construction, installation of curbs, gutters, sidewalks, drive approaches, ADA ramps, and a storm water basin construction.	East Lacey Boulevard from 10th Avenue to the west right of way of SJVRR/UPRR	15-20	7/1/2025	9/30/2025	\$3,426,000.00
23/24	Traffic Signal Installation at Lacey Boulevard and 9th Avenue	This project will involve installation signal poles and equipment and installation of ADA ramps and landings.	Lacey Boulevard and 9th Avenue	15-20	4/1/2025	5/31/2025	\$566,000.00

Local Streets and Roads - Projected Revenues



Estimated January 2023

	2022-23		
	Hwy Users Tax	Road Mntnc	TOTAL
	Account	Rehab Acct	
KERN COUNTY			
ARVIN	489,379	428,321	917,700
BAKERSFIELD	9,943,550	8,867,562	18,811,111
CALIFORNIA CITY	372,395	325,627	698,022
DELANO	1,264,780	1,118,614	2,383,394
MARICOPA	30,691	22,230	52,921
MCFARLAND	352,094	307,496	659,590
RIDGECREST	692,225	608,594	1,300,818
SHAFTER	507,276	444,305	951,581
TAFT	217,995	188,623	406,618
TEHACHAPI	324,994	283,292	608,285
WASCO	669,276	588,098	1,257,375
County of Kern	24,732,810	21,542,367	46,275,177
Total Cities & County: Kern	39,597,463	34,725,129	74,322,593
KINGS COUNTY			
AVENAL	342,818	297,107	639,926
CORCORAN	547,365	478,161	1,025,526
HANFORD	1,433,786	1,264,403	2,698,189
LEMOORE	670,547	586,840	1,257,387
County of Kings	4,473,448	4,454,076	8,927,524
Total Cities & County: Kings	7,467,964	7,080,587	14,548,551
LAKE COUNTY			
CLEARLAKE	421,894	365,989	787,883
LAKEPORT	128,174	108,420	236,593
County of Lake	3,363,987	3,103,507	6,467,494
Total Cities & County: Lake	3,914,055	3,577,916	7,491,970
LASSEN COUNTY			
SUSANVILLE	487,770	349,398	837,168
County of Lassen	3,006,675	2,991,488	5,998,163
Total City & County: Lassen	3,494,445	3,340,886	6,835,331

2023-24		
Hwy Users Tax	Road Mntnc	TOTAL
Account	Rehab Acct	
543,190	488,200	1,031,390
11,057,605	10,107,240	21,164,845
413,305	371,150	784,454
1,405,314	1,274,996	2,680,310
33,484	25,338	58,822
390,726	350,484	741,209
768,684	693,675	1,462,358
563,095	506,419	1,069,514
241,692	214,992	456,684
360,584	322,896	683,480
743,161	670,314	1,413,475
27,484,318	24,553,974	52,038,292
44,005,157	39,579,676	83,584,833
380,266	338,643	718,908
607,632	545,007	1,152,639
1,593,151	1,441,165	3,034,316
744,512	668,880	1,413,392
4,983,770	5,076,753	10,060,523
8,309,331	8,070,448	16,379,779
468,169	417,154	885,323
141,882	123,576	265,459
3,744,744	3,537,375	7,282,119
4,354,795	4,078,105	8,432,901
532,127	398,243	930,370
3,277,579	3,409,696	6,687,275
3,809,706	3,807,939	7,617,645

Council Future Agenda Items				
Originated Date	Item	Originator	Staff Lead	Date Estimate
12/20/2022	Presentation to City Council regarding Youth Sports Activities and related field usage and level of services provided after the formation of the Field Sports Advisory Committee	Council Consensus	Brad Albert	6/6/2023
3/21/2023	Discussion regarding the feasibility of implementing a permitting system to allow for portable basketball hoops within the City's Right of Way	Council Consensus	Various Staff	6/20/2023