

Madera County Transportation Commission

2018

Regional Transportation Improvement Program



Fiscal Years 2018/19 through 2022/23

APPROVED

November 22, 2017



Madera County Transportation Commission
2001 Howard Road, Suite 201
Madera, CA 93637

www.maderactc.org



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November 22, 2017

Susan Bransen, Executive Director
California Transportation Commission
1120 N Street, Room 2233 (MS-52)
Sacramento, CA 95814

RE: Submittal of MCTC's 2018 Regional Transportation Improvement Program

Dear Ms. Bransen:

The Madera County Transportation Commission (MCTC) is the Metropolitan Planning Organization (MPO), and Regional Transportation Planning Agency (RTPA) for Madera County. The development of the MCTC 2018 Regional Transportation Improvement Program (RTIP) incorporates input from stakeholders, partner agencies, and the public. The list of projects identified in this RTIP represents some of the Madera region's priority projects.

MCTC has worked closely with Caltrans District 6 Staff to develop the project list in the 2018 RTIP. Caltrans and MCTC staffs meet on a quarterly basis to discuss the status of STIP projects and other regional projects for which Caltrans is either the lead agency or provides direct oversight. MCTC is requesting the restoration of the SR 99 Avenue 7-12 highway widening project that was previously deleted from the 2016 STIP.

Please feel free to contact myself, Troy McNeil or Jeff Findley of my staff at (559) 675-0721 if you have any questions or require additional information regarding the MCTC 2018 RTIP.

Sincerely,

Patricia Taylor, Executive Director
Madera County Transportation Commission

Member Agencies: County of Madera, City of Madera, City of Chowchilla

**2018 REGIONAL TRANSPORTATION IMPROVEMENT
PROGRAM (2018 RTIP)
MADERA COUNTY TRANSPORTATION COMMISSION**

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A. Overview and Schedule

Section 1. Executive Summary

The 2018 Regional Transportation Improvement Program (RTIP) for Madera County is prepared by the Madera County Transportation Commission (MCTC) and proposes how regional discretionary transportation dollars should be programmed from Fiscal Year (FY) 2019-2023. The deadline for regions to submit programming requests for the 2018 STIP is December 15, 2017. The California Transportation Commission (CTC) will adopt the 2018 STIP in March 2018. For purposes of this 2018 RTIP, the 2018 STIP Guidelines and Revised Fund Estimate are the basis of current funding assumptions. The RTIP is updated every two years and submitted to the CTC. This RTIP covers a five-year period from July 1, 2018 through June 30, 2023 (State fiscal years 2018/19 – 2022/23).

Section 2. General Information

- **Regional Agency Name**
Madera County Transportation Commission (MCTC)

- **Agency website links for Regional Transportation Improvement Program (RTIP) and Regional Transportation Plan (RTP).**

Regional Agency Website Link: www.maderactc.org

RTIP document link: <http://www.maderactc.org/projects/regional-transportation-improvement-program-rtip/>

RTP link: <http://www.maderactc.org/rtpscs/>

- **Regional Agency Executive Director/Chief Executive Officer Contact Information**

Name Patricia Taylor
Title Executive Director
Email patricia@maderactc.org
Telephone (559) 675-0721 ext. 13

- **RTIP Manager Staff Contact Information**

Name	Jeff Findley	Title	Senior Regional Planner
Address	2001 Howard Road, Suite 201		
City/State	Madera, CA		
Zip Code	93637		
Email	Jeff@maderactc.org		
Telephone	(559) 675-0721 ext. 16	Fax	(559) 675-9328

- **California Transportation Commission (CTC) Staff Contact Information**

Name	Mitch Weiss	Title	Deputy Director
Address	1120 N Street		

City/State Sacramento, CA
Zip Code 95814
Email mitchell.weiss@dot.ca.gov
Telephone 916-653-2072 Fax 916-653-2134

Section 3. Background of Regional Transportation Improvement Program (RTIP)

A. What is the Regional Transportation Improvement Program?

The RTIP is a program of highway, local road, transit and active transportation projects that a region plans to fund with State and Federal revenue programmed by the CTC in the State Transportation Improvement Program (STIP). The RTIP is developed biennially by the regions and is due to the CTC by December 15 of every odd numbered year. The program of projects in the RTIP is a subset of projects in the Regional Transportation Plan (RTP), a federally mandated master transportation plan which guides a region's transportation investments over a 20 to 25 year period. The RTP is based on all reasonably anticipated funding, including federal, state and local sources. Updated every 4 to 5 years, the RTP is developed through an extensive public participation process in the region and reflects the unique mobility, sustainability, and air quality needs of each region.

B. Regional Agency's Historical and Current Approach to developing the RTIP

As the Regional Transportation Planning Agency, MCTC is responsible for developing the Madera County Transportation Improvement Program. The RTIP serves two functions:

1. Proposes projects and funding reserves for programming in the STIP
2. Conveys the transportation needs of Madera County

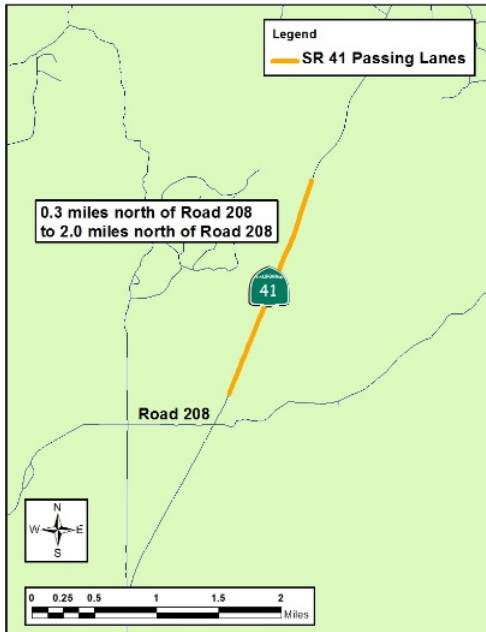
The RTIP is one part of the planning, programming and monitoring process that occurs in cooperation with local, state and federal agencies to achieve the ultimate goal of implementing or constructing transportation projects that reflect a well-based and long-term plan.

The cycle begins with the preparation of the RTP. The RTP is the long-term twenty-year plan for transportation in Madera County. Based on the findings of the RTP, MCTC prepares the RTIP, which proposes transportation projects to the CTC and covers a period of five years. Simultaneously, Caltrans prepares the Interregional Transportation Improvement Program (ITIP), which nominates highway, rail and other projects that are important to the state. The CTC combines all the regional RTIPs and the ITIP, creating a single programming document, the STIP. Funds are allocated only to projects that are included in the STIP. After the STIP is adopted, MCTC will prepare the three-year Federal Transportation Improvement Plan (FTIP), which contains only funded projects.

In the RTIP, Madera County nominates projects under the Regional Improvement Program (RIP). In the ITIP, Caltrans nominates highway construction projects under the Interregional Improvement Program (IIP). In the past, projects from the regional and interregional programs in a county competed for the same pool of funding, then known as the county minimum. Now this pool is called the county share, and it is allocated only to the region. The interregional program is now separate, with funds allocated on a statewide basis, and no requirement that any minimum amount be spent in each county.

Section 4. Completion of Prior RTIP Projects (Required per Section 68)

The following STIP project was completed since the adoption of the 2016 STIP. Caltrans completed construction in 2016, and the project is currently in the Closeout Phase.

Project Name and Location	Description	Summary of Improvements/Benefits
<p>State Route 41 Passing Lanes PPNO: 6606</p>	<p>The SR 41 Passing Lanes are located between SR 145 and Road 200 in Madera County at the location of the initial climb from the San Joaquin Valley floor to the Sierra Nevada Mountain Range.</p>  <p>The map shows a section of State Route 41 highlighted in orange, representing the passing lanes. The project area is bounded by a box labeled '0.3 miles north of Road 208 to 2.0 miles north of Road 208'. A road labeled 'Road 208' is shown intersecting SR 41. A legend in the top right corner identifies the orange line as 'SR 41 Passing Lanes'. A green shield with the number '41' is placed on the route. A north arrow and a scale bar (0 to 2 miles) are located in the bottom left corner.</p>	<p>The addition of passing lanes will improve safety and overall traffic operations by breaking up traffic platoons and reducing traffic delays caused by inadequate passing opportunities. Passing lanes are needed to help achieve the desired Level of Service 'D' from the current LOS 'E'.</p>

Section 5. RTIP Outreach and Participation

A. RTIP Development and Approval Schedule

Action	Date
CTC adopts Fund Estimate and Guidelines	August 16, 2017
Caltrans identifies State Highway Needs	September 15, 2017
Caltrans submits draft ITIP	October 13, 2017
MCTC adopts 2018 RTIP	November 22, 2017
CTC ITIP Hearing, North	October 19, 2017
CTC ITIP Hearing, South	October 24, 2017
Regions submit RTIP to CTC	December 15, 2017
Caltrans submits ITIP to CTC	December 15, 2017
CTC STIP Hearing, South	January 25, 2018
CTC STIP Hearing, North	February 1, 2018
CTC publishes staff recommendations	February 28, 2018
CTC Adopts 2018 STIP	March 21-22, 2018

B. Public Participation/Project Selection Process

MCTC has an adopted Public Participation process. MCTC consults with State and local agencies during the project selection process. The RTIP is one part of the planning, programming and monitoring process that occurs in cooperation with local, state and federal agencies to achieve the ultimate goal of implementing or constructing transportation projects that reflect a well-based and long-term plan. The MCTC 2018 RTIP cycle begins with the preparation of the RTP. In the RTIP, Madera County nominates projects under the RIP. In the ITIP, Caltrans nominates highway construction projects under the IIP. In the past, projects from the regional and interregional programs in a county competed for the same pool of funding, then known as the county minimum. Now this pool is called the county share, and it is allocated only to the region. The interregional program is now separate, with funds allocated on a statewide basis, and no requirement that any minimum amount be spent in each county.

C. Consultation with Caltrans District (Required per Section 17)

Caltrans District: 6

Per Section 17 of the STIP Guidelines, MCTC has consulted with Caltrans District 6 staff in regards to the projects in the RTIP. Caltrans and MCTC staffs meet on a quarterly basis to discuss the status of STIP projects and other regional projects for which Caltrans is either the lead agency or provides direct oversight. It should be noted that Caltrans is the lead agency for all current projects in the Madera 2018 RTIP.

B. 2018 STIP Regional Funding Request

Section 6. 2018 STIP Regional Share and Request for Programming

A. 2018 Regional Fund Share Per 2018 STIP Fund Estimate

(\$13,688,000)

B. Summary of Requested Programming

Project Name and Location	Project Description	Requested RIP Amount
State Route 99 – Avenue 12 to Avenue 17 Widen to 6 Lanes PPNO: 5335	Widening of this section of SR 99 within the city limits of the City of Madera is needed to improve safety, reduce congestion, increase connectivity of the highway system, and preserve acceptable facility operation. The proposed 6-lane freeway would accommodate the traffic demand at or above LOS 'D' by 2025.	\$1,545,000
Planning, Programming and Monitoring (PPM) – Madera County Transportation Commission	Planning, Programming and Monitoring	\$270,000

Section 7. Overview of Other Funding Included With Delivery of Regional Improvement Program (RIP) Projects

MCTC has allocated Regional Improvement Program (RIP) funds towards one project that was included in the 2016 RTIP. There currently remains a significant unfunded need for this project.

Proposed 2018 RTIP	Total RTIP	IIP	RSTP/ CMAQ	Other Funding			Total Project Cost
				RIP	Local Measure	Unfunded Need	
State Route 99 – Avenue 12 to Avenue 17 Widen to 6 Lanes PPNO: 5335	\$1,545,000			\$1,545,000	\$4,850,000	\$75,000,000	\$81,395,000
Totals	\$1,545,000			\$1,545,000	\$4,854,000	\$75,000,000	\$81,395,000

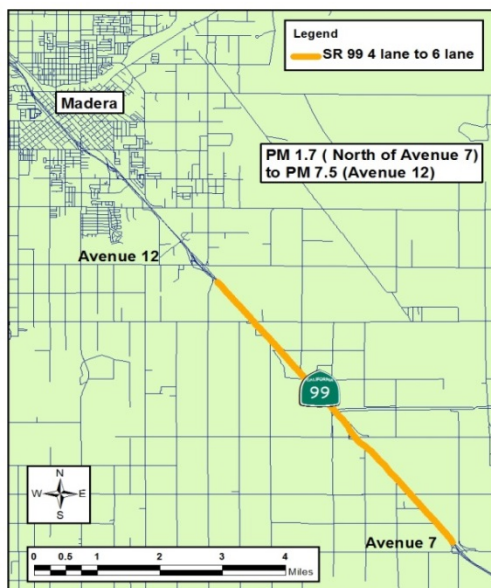
Notes: MCTC is attempting to secure additional State and Federal funding for this project.

Section 8. Interregional Transportation Improvement Program (ITIP) Funding

The ITIP is to improve interregional mobility for people and goods in the State of California. As an interregional program, the ITIP is focused on increasing the throughput for highway and rail corridors of strategic importance outside the urbanized areas of the state. A sound transportation network between and connecting urbanized areas ports and borders is vital to the state's economic vitality. The ITIP is prepared in accordance with Government Code Section 14526, Streets and Highways Code Section 164 and the STIP Guidelines. The ITIP is a five-year program managed by Caltrans and funded with 25% of new STIP revenues in each cycle. Developed in cooperation with regional transportation planning agencies to ensure an integrated transportation program, the ITIP promotes the goal of improving interregional mobility and connectivity across California.

ITIP funding is being requested for the following project that was included in the 2014 RTIP, but was removed from the 2016 RTIP due to the absence of STIP capacity. This project is currently proposed as a New Advanced Project Development Element (APDE) Project in the amount of \$3,000,000 in FY 18-19 for the PA&ED Phase in the Draft 2018 ITIP.

State Route 99 – Avenue 7 to Avenue 12 – Widen to 6 Lanes



Widening of this section of SR 99 is needed to improve safety, reduce congestion, increase connectivity of the highway system, and preserve acceptable facility operation. The purpose of this project would be to increase capacity to reduce congestion, increase connectivity of the highway system, and preserve acceptable facility operation of Route 99. The proposed 6-lane freeway would accommodate the traffic demand at or above LOS D by 2025. \$3,000,000 in new IIP funding is proposed to be programmed for this project in the Draft 2018 ITIP. The PPR is located in the RTIP Appendix, Section 15.

Section 9. Projects Planned Within the Corridor (Required per Section 20e)

The following projects previously programmed in the 2014 and 2016 RTIP will have an impact within the corridor.

State Route 99 – Avenue 12 to Avenue 17 Widen to 6 Lanes

Widening of this section of SR 99 within the city limits of the City of Madera is needed to improve safety, reduce congestion, increase connectivity of the highway system, and preserve acceptable

facility operation. The proposed 6-lane freeway would accommodate the traffic demand at or above LOS 'D' by 2025.

State Route 99 – Avenue 7 to Avenue 12 Widen to 6 Lanes (restored project)

Widening of this section of SR 99 is needed to improve safety, reduce congestion and increase connectivity of the highway system, and preserve acceptable facility operation of Route 99. The proposed 6-lane freeway would accommodate the traffic demand at or above LOS 'D' by 2025.

C. Relationship of RTIP to RTP/SCS/APS and Benefits of RTIP

Section 10. Regional Level Performance Evaluation (per Section 19A of the guidelines)

The 2018 RTIP furthers the goals of MCTC’s adopted 2014 RTP and Sustainable Communities Strategy. These goals include:

- To promote Intermodal Transportation Systems that are Fully Accessible, Encourage Quality Growth and Development, Support the Region’s Environmental Resource Management Strategies, and are Responsive to the Needs of Current and Future Travelers.
- To Promote and Develop Transportation Systems that Stimulate, Support, and Enhance the Movement of People and Goods to Foster Economic Competitiveness of the Madera Region.
- To Enhance Transportation System Coordination, Efficiency, and Intermodal Connectivity to Keep People and Goods Moving and Meet Regional Transportation Goals.
- To Maintain the Efficiency, Safety, and Security of the Region’s Transportation System.
- To Improve the Quality of the Natural and Human Built Environment through Regional Cooperation of Transportation Systems Planning Activities.
- To Maximize Funding to Maintain and Improve the Transportation Network.
- To Identify Reliable Transportation Choices that Support a Diverse Population.
- To protect the environment and health of our residents by improving air quality and encouraging active transportation (non-motorized transportation, such as bicycling and walking).

A. Regional Level Performance Indicators and Measures (per Appendix B of the STIP Guidelines).

Table B1		
Evaluation – Regional Level Performance Indicators and Measures		
MCTC 2018 RTIP	2040 RTP Without RTIP	2040 RTP with RTIP
Daily Vehicle Miles Traveled Per Capita	19.81	19.79
Percent of VMT at Less than 35 MPH	19.20	19.00
Commute Mode Share Drive	96.90	96.90
Commute Mode Share Transit	0.31	0.31

Commute Mode Share Walk/Bike	2.79	2.79
Daily Transit Mode Share	0.31	0.31
Important Farm Land (prime, unique and statewide importance) Consumed	136	136
CP2 Emissions Reduction Per Capita (compared to 2005 baseline) (in 1000's)	-0.85	-0.84
Total Lane Miles	1914	1941

As shown in Table B1, by the horizon year of 2040 in the 2014 RTP, the 2018 RTIP assists in the reduction of daily vehicle miles traveled (VMT) and CO2 emissions per capita.

MCTC's 2018 RTIP will assist the Madera region's ability to reach its goals for the expansion of increased mobility, transportation options, facilitation of the movement of goods and residents, and development of key economic centers. The projects contained in this RTIP are consistent with and help implement the region's transportation projects contained in MCTC's 2014 Regional Transportation Plan and Sustainable Communities Strategy. Furthermore, the programming of MCTC's 2018 RTIP is consistent with the policies, procedures, and funding capacity established in the 2018 STIP Guidelines and STIP Fund Estimate. The restoration of SR 99 – Avenue 7-12 highway widening will assist the region's ability improve safety, reduce congestion and increase connectivity of the highway system, and preserve acceptable facility operation of State Route 99.

Section 11. Regional and Statewide Benefits of RTIP

The existing and proposed projects programmed in the RTIP is intended toward advancing the region and state by widening segments of SR 99.

SR 99 is one of the most important north-south highways on the National Highway System and on the National Highway Freight Network. Route 99 is crucial to the economic vitality of the State of California and the Central Valley and is heavily used by international shippers, commuters and recreational travelers. Approximately half of the State's goods movement passes through the Valley with destinations at ports, major urban centers in California, other states, and other countries.

The project is located near the geographic center of both California and the San Joaquin Valley, the breadbasket of the nation and the source of much of the nation's agricultural export income. The projects represent a major lynchpin for goods movement and passenger travel along SR 99 to and through the City of Madera.

Widening of this section of SR 99 within and adjacent to the City of Madera is needed to improve safety, reduce congestion, increase connectivity for goods movement and general traffic on the national highway system, and to preserve acceptable facility operation.

D. Performance and Effectiveness of RTIP

Section 12. Evaluation of Cost Effectiveness of RTIP (Required per Section 19)

Caltrans Generated Benefit/Cost Estimate

SR 99 Avenue 7-12 Widen to 6 Lanes

INVESTMENT ANALYSIS		SUMMARY RESULTS					
Life-Cycle Costs (mil. \$)	\$72.4	ITEMIZED BENEFITS (mil. \$)	Passenger Benefits	Freight Benefits	Total Over 20 Years	Average Annual	
Life-Cycle Benefits (mil. \$)	\$431.4		Travel Time Savings	\$132.5	\$70.4	\$202.9	\$10.1
Net Present Value (mil. \$)	\$359.0		Veh. Op. Cost Savings	-\$3.7	\$4.6	\$0.8	\$0.0
Benefit / Cost Ratio:	6.0	Accident Cost Savings	\$178.7	\$47.5	\$226.2	\$11.3	
Rate of Return on Investment:	32.8%	Emission Cost Savings	-\$0.2	\$1.6	\$1.4	\$0.1	
Payback Period:	4 years	TOTAL BENEFITS	\$307.4	\$124.1	\$431.4	\$21.6	
Person-Hours of Time Saved					33,031,730	1,651,587	
CO ₂ Emissions Saved (tons)					33,839	1,692	
CO ₂ Emissions Saved (mil. \$)					\$0.1	\$0.0	

Should benefit-cost results include:

1) Induced Travel? (y/n) Y
Default = Y

2) Vehicle Operating Costs? (y/n) Y
Default = Y

3) Accident Costs? (y/n) Y
Default = Y

4) Vehicle Emissions? (y/n) Y
includes value for CO₂e
Default = Y

SR 99 Avenue 12-17 Widen to 6 Lanes

INVESTMENT ANALYSIS		SUMMARY RESULTS					
Life-Cycle Costs (mil. \$)	\$81.4	ITEMIZED BENEFITS (mil. \$)	Passenger Benefits	Freight Benefits	Total Over 20 Years	Average Annual	
Life-Cycle Benefits (mil. \$)	\$501.4		Travel Time Savings	\$219.6	\$116.8	\$336.3	\$16.8
Net Present Value (mil. \$)	\$420.0		Veh. Op. Cost Savings	\$2.3	\$7.4	\$9.7	\$0.5
Benefit / Cost Ratio:	6.2		Accident Cost Savings	\$120.7	\$32.1	\$152.8	\$7.6
Rate of Return on Investment:	27.8%		Emission Cost Savings	\$0.2	\$2.4	\$2.6	\$0.1
Payback Period:	6 years	TOTAL BENEFITS	\$342.7	\$158.7	\$501.4	\$25.1	
Person-Hours of Time Saved					56,038,870	2,801,944	
CO ₂ Emissions Saved (tons)					119,676	5,984	
CO ₂ Emissions Saved (mil. \$)					\$0.5	\$0.0	

Should benefit-cost results include:

1) Induced Travel? (y/n) Y
Default = Y

2) Vehicle Operating Costs? (y/n) Y
Default = Y

3) Accident Costs? (y/n) Y
Default = Y

4) Vehicle Emissions? (y/n) Y
includes value for CO₂e
Default = Y

Table B2			
Cost-Effective Indicators and Measures			
	MCTC 2018 RTIP	2040 RTP Without RTIP	2040 RTP with RTIP
Congestion Reduction	Daily Vehicle Miles Traveled Per Capita	19.81	19.79
	Percent of VMT at Less than 35 MPH	19.20	19.00
	Commute Mode Share Drive	96.90	96.90
	Commute Mode Share Transit	0.31	0.31
	Commute Mode Share Walk/Bike	2.79	2.79
	Daily Transit Mode Share	0.31	0.31
	Environmental Sustainability	Important Farm Land (prime, unique and statewide importance) Consumed	136
CP2 Emissions Reduction Per Capita (compared to 2005 baseline) (in 1000's)		-0.85	-0.84
	Total Lane Miles	1914	1941

Section 13. Project Specific Evaluation (Required per Section 19D)

Each RTIP shall include a project specific benefit evaluation for each new project proposed that estimates its benefits to the regional system from changes to the built environment, including, but limited to the items listed on page 10 of the STIP Guidelines. A project level evaluation shall be submitted for projects for which construction is proposed if:

- The total amount of existing and proposed STIP for right-of-way and/or construction of the project is \$15 million or greater, or
- The total project cost is \$50 million or greater.

The project level benefit evaluation shall include a Caltrans generated benefit/cost estimate, including life cycle costs for projects proposed in the ITIP. For the RTIP, the regions may choose between the Caltrans estimate and their own estimate (explain why the Caltrans estimate was not used). The project level benefit evaluation must explain how the project is consistent with Executive Order B-30-15 (Climate Change).

State Route 99 Existing and Forecasted Traffic Within the Project Limits

Year	Segment	Level of Service (Peak Hour)		Number of Vehicles (Peak Hour)		% Trucks	
		AM	PM	AM	PM	Peak Hour	ADT
2010 Existing Facility	Northbound	B-C	B-C	1,820-2,310	2,030-2,610	12%	24%
	Southbound	B-C	C-D	1,670-2,650	2,320-2,890		
2020 Project Alternative	Northbound	B-C	B-C	2,610-3,485	2,840-3,840		
	Southbound	B-C	B-C	2,465-3,930	3,000-4,090		
2040 Project Alternative	Northbound	C-E	D-F	3,935-5,830	4,460-6,300		
	Southbound	C-F	D-F	4,050-6,005	4,350-6,480		

Collision Rates

Freeway Segment	Actual			Average		
	Fatal	F+I	Total	Fatal	F+I	Total
Route 99 – Northbound	0.004	0.19	0.48	0.006	0.21	0.63
Route 99 – Southbound	0.000	0.23	0.67	0.006	0.21	0.63

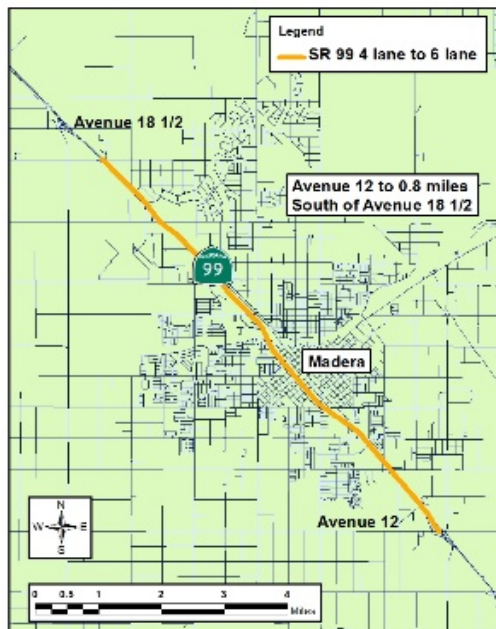
The evaluation (PPR) is located in the RTIP Appendix, Section 15.

E. Detailed Project Information

Section 14. Overview of Projects Programmed with RIP Funding

There is currently one STIP project in the Madera region that has programmed RIP funding.

State Route 99 – Avenue 12 to Avenue 17 Widen to 6 Lanes



Widening of this section of SR 99 within the city limits of the City of Madera is needed to improve safety, reduce congestion, increase connectivity of the highway system, and preserve acceptable facility operation. The purpose of this project would be to increase capacity to reduce congestion, increase connectivity of the highway system, and preserve acceptable facility operation of Route 99. The proposed 6-lane freeway would accommodate the traffic demand at or above LOS D by 2025. \$1,545,000 of RIP funding is programmed for this project. The PPR is located in the RTIP Appendix, Section 15.

F. Appendices

Section 15. Projects Programming Request Forms

Section 16. Board Resolution or Documentation of 2018 RTIP Approval

Section 17. Documentation on Coordination with Caltrans District (Optional)

Section 18. Detailed Project Programming Summary Table (Optional)

Section 19. Alternative Delivery Methods (Optional)

Section 20. Caltrans B/C Calculations

APPENDICES

SECTION 15

PROJECTS PROGRAMMING REQUEST FORMS

STATE ROUTE 99 – AVENUE 12 TO AVENUE 17

WIDEN TO 6 LANES

PPR

Amendment (Existing Project) Yes					Date:	09/06/17
District	EA	Project ID	PPNO	MPO ID	Alt Proj. ID	
06	47090	0600000973	5335			
County	Route/Corridor	PM Bk	PM Ahd	Project Sponsor/Lead Agency		
MAD	99	R7.5	15.1	Caltrans		
				MPO	Element	
				Madera	CO	
Project Manager/Contact		Phone		E-mail Address		
Anand Kapoor		(559)243-3588		anand.kapoor@dot.ca.gov		
Project Title						
Madera 99 Widening						
Location (Project Limits), Description (Scope of Work)						
In Madera County in and near Madera from Avenue 12 Overcrossing to 1.2 miles south of Avenue 18 1/2 Overcrossing. Widen from 4 to 6 lanes.						
Component						
		Implementing Agency				
PA&ED	Caltrans					
PS&E	Caltrans					
Right of Way	Caltrans					
Construction	Caltrans					
Legislative Districts						
Assembly:	29	Senate:	12	Congressional:	19	
Project Benefits						
The improvement would reduce traffic congestion and improve traffic safety.						
Purpose and Need						
Currently this section of SR 99 is operating at a level of service (LOS) "D". This section of SR 99 has had an increase in development resulting in deteriorating the traffic operation. With further traffic growth due to this ongoing development along this corridor it is anticipated that the freeway will operate at capacity of LOS "E" between the years 2017 and 2022. The 4-lane freeway will continue to fail beyond the year 2022. The purpose of this project is to increase the capacity of the facility. □						
Category		Outputs/Outcomes			Unit	Total
State Highway Road Construction		Mixed Flow lane-miles constructed			Miles	11.2
State Highway Road Construction		Sound wall miles constructed			SY	2515
ADA Improvements No		Bike/Ped Improvements No			Reversible Lane analysis	No
Includes Sustainable Communities Strategy Goals Y/N			Reduces Greenhouse Gas Emissions Y/N			
Project Milestone					Existing	Proposed
Project Study Report Approved					11/28/11	
Begin Environmental (PA&ED) Phase					01/07/2013	01/07/13
Circulate Draft Environmental Document			Document Type	ND/FONSI	05/14/2015	05/14/15
Draft Project Report					05/14/2015	05/14/15
End Environmental Phase (PA&ED Milestone)					08/14/2015	08/14/15
Begin Design (PS&E) Phase					10/01/2015	09/01/15
End Design Phase (Ready to List for Advertisement Milestone)					12/01/2017	03/01/18
Begin Right of Way Phase					10/01/2015	09/01/15
End Right of Way Phase (Right of Way Certification Milestone)					11/01/2017	12/01/17
Begin Construction Phase (Contract Award Milestone)					05/01/2018	08/15/18
End Construction Phase (Construction Contract Acceptance Milestone)					07/01/2020	08/15/20
Begin Closeout Phase					07/01/2020	08/15/20
End Closeout Phase (Closeout Report)					07/01/2022	08/15/24

ADA Notice

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PROJECT PROGRAMMING REQUEST

DTP-0001 (Revised July 2017)

Date: 09/06/17

Additional Information

[Empty box for Additional Information]

PROJECT PROGRAMMING REQUEST

DTP-0001 (Revised July 2017)

Date: 09/06/17

District	County	Route	EA	Project ID	PPNO	TCRP No.
06	MAD, ,	99	47090	0600000973	5335	
Project Title: Madera 99 Widening						

Existing Total Project Cost (\$1,000s)									Implementing Agency
Component	Prior	18/19	19/20	20/21	21/22	22/23	23/24+	Total	
E&P (PA&ED)	2,250							2,250	Caltrans
PS&E	1,350		1,545					2,895	Caltrans
R/W SUP (CT)	650							650	Caltrans
CON SUP (CT)					5,200			5,200	Caltrans
R/W	600							600	Caltrans
CON					53,000			53,000	Caltrans
TOTAL	4,850		1,545		58,200			64,595	
Proposed Total Project Cost (\$1,000s)									Notes
E&P (PA&ED)	2,250							2,250	
PS&E	3,650		1,545					5,195	
R/W SUP (CT)	400							400	
CON SUP (CT)		7,500						7,500	
R/W	50							50	
CON		66,000						66,000	
TOTAL	6,350	73,500	1,545					81,395	

Fund No. 1:	Local Funds - Local Measure (MEA)								Program Code
	Existing Funding (\$1,000s)								20.10.400.100
Component	Prior	18/19	19/20	20/21	21/22	22/23	23/24+	Total	Funding Agency
E&P (PA&ED)	2,250							2,250	Madera County Transportation Con
PS&E	1,350							1,350	
R/W SUP (CT)	650							650	
CON SUP (CT)									
R/W	600							600	
CON									
TOTAL	4,850							4,850	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)	2,250							2,250	
PS&E	2,150							2,150	
R/W SUP (CT)	400							400	
CON SUP (CT)									
R/W	50							50	
CON									
TOTAL	4,850							4,850	

Fund No. 2:	RIP - National Hwy System (NH)								Program Code
	Existing Funding (\$1,000s)								20.XX.075.600
Component	Prior	18/19	19/20	20/21	21/22	22/23	23/24+	Total	Funding Agency
E&P (PA&ED)									Madera County Transportation Con
PS&E			1,545					1,545	
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL			1,545					1,545	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E			1,545					1,545	
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL			1,545					1,545	

PROJECT PROGRAMMING REQUEST

DTP-0001 (Revised July 2017)

Complete this page for amendments only

Date: 09/06/17

District	County	Route	EA	Project ID	PPNO	TCRP No.
06	MAD	99	47090	0600000973	5335	

SECTION 1 - All Projects**Project Background****Programming Change Requested**

Showing changes in Local Measure funds for RW and PS&E; Showing increase in construction capital and support cost

Reason for Proposed Change

Along the lines of Asset Management, team decided to add rehabilitation of all lanes to this median widening project. Rehabilitation cost to be shared by SHOPP

If proposed change will delay one or more components, clearly explain 1) reason the delay, 2) cost increase related to the delay, and 3) how cost increase will be funded**Other Significant Information****SECTION 2 - For TCRP Projects Only**

Alternative Project Request (Please follow Instructions at <http://www.dot.ca.gov/tcrp/LETTERguidelines>)
Letter of No Prejudice (LONP) (Please follow Guidelines at <http://www.dot.ca.gov/tcrp/docs/042706.pdf>)

SECTION 3 - All Projects**Approvals**

I hereby certify that the above information is complete and accurate and all approvals have been obtained for the processing of this amendment request.*

Name (Print or Type)	Signature	Title	Date

Attachments

- 1) Concurrence from Implementing Agency and/or Regional Transportation Planning Agency
- 2) Project Location Map

STATE ROUTE 99 – AVENUE 7 TO AVENUE 12

WIDEN TO 6 LANES

PPR

Amendment (Existing Project) Yes					Date:	09/06/17	
District	EA	Project ID	PPNO	MPO ID	Alt Proj. ID		
06	0H220	0612000158	6297				
County	Route/Corridor	PM Bk	PM Ahd	Project Sponsor/Lead Agency			
MAD	99	1.7	R7.5	Caltrans			
				MPO	Element		
				Madera	CO		
Project Manager/Contact		Phone		E-mail Address			
Anand Kapoor		(559)243-3588		anand.kapoor@dot.ca.gov			
Project Title							
South Madera 6 Lane							
Location (Project Limits), Description (Scope of Work)							
Near the city of Madera, from 0.7 mile north of Avenue 7 to Avenue 12. Widen from 4 to 6 lanes.							
Component							
		Implementing Agency					
PA&ED	Caltrans						
PS&E	Caltrans						
Right of Way	Caltrans						
Construction	Caltrans						
Legislative Districts							
Assembly:	5	Senate:	12	Congressional:	16		
Project Benefits							
The improvement would reduce traffic congestion and improve traffic safety.							
Purpose and Need							
Widening of this section of SR 99 is needed to improve safety, reduce congestion, increase connectivity of the highway system, and preserve acceptable facility operation. The purpose of this project would be to increase capacity to reduce congestion, increase connectivity of the highway system, and preserve acceptable facility operation of Route 99.							
Category		Outputs/Outcomes			Unit	Total	
State Highway Road Construction		Mixed Flow lane-miles constructed			Miles	11.6	
ADA Improvements No		Bike/Ped Improvements No			Reversible Lane analysis	No	
Includes Sustainable Communities Strategy Goals No				Reduces Greenhouse Gas Emissions Yes			
Project Milestone					Existing	Proposed	
Project Study Report Approved					03/11/08		
Begin Environmental (PA&ED) Phase					07/01/2015	10/01/18	
Circulate Draft Environmental Document			Document Type	ND/FONSI	07/01/2017	10/01/20	
Draft Project Report					07/01/2017	10/01/20	
End Environmental Phase (PA&ED Milestone)					01/03/2018	01/03/21	
Begin Design (PS&E) Phase					01/03/2018	10/01/21	
End Design Phase (Ready to List for Advertisement Milestone)					01/01/2020	10/01/23	
Begin Right of Way Phase					01/03/2018	10/01/21	
End Right of Way Phase (Right of Way Certification Milestone)					07/01/2019	09/01/23	
Begin Construction Phase (Contract Award Milestone)					01/03/2021	05/01/24	
End Construction Phase (Construction Contract Acceptance Milestone)					02/01/2024	07/01/26	
Begin Closeout Phase					02/01/2024	07/01/26	
End Closeout Phase (Closeout Report)					07/01/2026	07/01/29	

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PROJECT PROGRAMMING REQUEST

DTP-0001 (Revised July 2017)

Date: 09/06/17

Additional Information

[Empty box for Additional Information]

PROJECT PROGRAMMING REQUEST

DTP-0001 (Revised July 2017)

Date: 09/06/17

District	County	Route	EA	Project ID	PPNO	TCRP No.
06	MAD	99, ,	0H220	0612000158	6297	
Project Title: South Madera 6 Lane						

Existing Total Project Cost (\$1,000s)									Implementing Agency
Component	Prior	18/19	19/20	20/21	21/22	22/23	23/24+	Total	
E&P (PA&ED)	413							413	Caltrans
PS&E					5,000			5,000	Caltrans
R/W SUP (CT)									Caltrans
CON SUP (CT)					7,000			7,000	Caltrans
R/W									Caltrans
CON					60,000			60,000	Caltrans
TOTAL	413				72,000			72,413	
Proposed Total Project Cost (\$1,000s)									Notes
E&P (PA&ED)	413	3,000						3,413	
PS&E					9,000			9,000	
R/W SUP (CT)							4,000	4,000	
CON SUP (CT)							12,500	12,500	
R/W							12,000	12,000	
CON							147,000	147,000	
TOTAL	413	3,000			9,000		175,500	187,913	

Fund No. 1:	IIP - National Hwy System (NH)								Program Code
Existing Funding (\$1,000s)									20.XX.025.700
Component	Prior	18/19	19/20	20/21	21/22	22/23	23/24+	Total	Funding Agency
E&P (PA&ED)	413							413	Caltrans
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL	413							413	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)	413	3,000						3,413	
PS&E					9,000			9,000	
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL	413	3,000			9,000			12,413	

Fund No. 2:	Future Need - Future Funds (NO-FUND)								Program Code
Existing Funding (\$1,000s)									FUTURE
Component	Prior	18/19	19/20	20/21	21/22	22/23	23/24+	Total	Funding Agency
E&P (PA&ED)									
PS&E					5,000			5,000	
R/W SUP (CT)									
CON SUP (CT)					7,000			7,000	
R/W									
CON					60,000			60,000	
TOTAL					72,000			72,000	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)							4,000	4,000	
CON SUP (CT)							12,500	12,500	
R/W							12,000	12,000	
CON							147,000	147,000	
TOTAL							175,500	175,500	

PROJECT PROGRAMMING REQUEST

DTP-0001 (Revised July 2017)

Complete this page for amendments only

Date: 09/06/17

District	County	Route	EA	Project ID	PPNO	TCRP No.
06	MAD	99	0H220	0612000158	6297	

SECTION 1 - All Projects

Project Background
Programming Change Requested
Reason for Proposed Change
If proposed change will delay one or more components, clearly explain 1) reason the delay, 2) cost increase related to the delay, and 3) how cost increase will be funded
Other Significant Information

SECTION 2 - For TCRP Projects Only

Alternative Project Request (Please follow Instructions at <http://www.dot.ca.gov/tcrp/LETTERguidelines>)
 Letter of No Prejudice (LONP) (Please follow Guidelines at <http://www.dot.ca.gov/tcrp/docs/042706.pdf>)

SECTION 3 - All Projects

Approvals			
I hereby certify that the above information is complete and accurate and all approvals have been obtained for the processing of this amendment request.*			
Name (Print or Type)	Signature	Title	Date

Attachments

- 1) Concurrence from Implementing Agency and/or Regional Transportation Planning Agency
- 2) Project Location Map

APPENDICES

SECTION 16

**BOARD RESOLUTION OR BOARD DOCUMENTATION OF
APPROVAL OF THE 2018 RTIP**

1
2 **BEFORE**
3 **THE COMMISSIONERS OF THE MADERA COUNTY TRANSPORTATION COMMISSION**
4 **COUNTY OF MADERA, STATE OF CALIFORNIA**
5

6 In the matter of) Resolution No. 17-10
7)
8 **THE 2018 MADERA COUNTY REGIONAL**)
9 **TRANSPORTATION IMPROVEMENT**)
10 **PROGRAM**)

11
12 **WHEREAS,** the Madera County Transportation Commission (MCTC) is the Regional Transportation Planning
13 Agency for Madera County pursuant to state law; and
14

15 **WHEREAS,** pursuant to State law, every two years the MCTC is required to develop and submit to the
16 California Transportation Commission (CTC) a Regional Transportation Improvement Plan (RTIP) that identifies
17 projects to be included in the State Transportation Improvement Program (STIP); and
18

19 **WHEREAS,** MCTC prepared the 2018 RTIP in compliance with the CTC adopted 2018 Guidelines and STIP
20 Fund estimate; and
21

22 **WHEREAS,** the projects contained in the 2018 RTIP are consistent with the MCTC's adopted 2014 Regional
23 Transportation Plan (RTP), 2017 Federal Transportation Improvement Program (FTIP); and
24

25 **WHEREAS,** pursuant to adopted CTC, STIP Guidelines, the MCTC is authorized to develop and submit the
26 Regional Transportation Improvement Program by December 15, 2017; and
27

28 **WHEREAS,** the 2018 Madera County Regional Transportation Improvement Program has been prepared by the
29 Madera County Transportation Commission in cooperation with its member agencies and Caltrans in accordance
30 with CTC programming policies and guidelines; and
31

32 **WHEREAS,** the Madera County Transportation Commission Policy Board considered the 2018 RTIP at its
33 November 22, 2017 meeting; and
34

35 **NOW, THEREFORE, BE IT RESOLVED,** the Madera County Transportation Commission does hereby adopt
36 the 2018 Madera County Regional Transportation Improvement Program and directs staff to submit the program to
37 the Department of Transportation and CTC by December 15, 2017.
38

39 **BE IT FURTHER RESOLVED,** that the Madera County Transportation Commission Policy Board authorizes the
40 MCTC Executive Director to negotiate with the CTC and Caltrans and to submit any additional amendments or
41 revisions to the 2018 RTIP.
42

43 This Resolution is adopted this 22nd day of November, 2017, by the following vote:
44

45 Commissioner Frazier Voted Yes
46 Commissioner Rodriguez Voted Yes
47 Commissioner Wheeler Voted Yes
48 Commissioner Ahmed Voted Yes
49 Commissioner Oliver Voted Yes
50 Commissioner Medellin Voted Yes
51

52
53
54 _____
55 Chairman, Madera County Transportation Commission
56
57 _____
58 Executive Director, Madera County Transportation Commission

APPENDICES

SECTION 17

**DOCUMENTATION OF COORDINATION WITH CALTRANS
DISTRICT**

Not Applicable for the 2018 RTIP

APPENDICES

SECTION 18

DETAILED PROJECT PROGRAMMING SUMMARY TABLE

Madera 2018 RTIP

Madera 2018 RTIP														
County	Agency	Project	Total	Project Totals by Fiscal Year (\$1,000)					Project Totals by Component (\$1,000)					
				18/19	19/20	20/21	21/22	22/23	R/W	Const	E&P	PS&E	R/W Supp	Con Supp
Madera	Caltrans	SR 99 - Ave 12 to Ave 17 Widen to 6 Lanes	\$1,545		\$1,545							\$1,545		
	Caltrans	SR 99 - Ave 7 to Ave 12 Widen to 6 Lanes	\$3,000	\$3,000							\$3,000			
	MCTC	Planning, Programming and Monitoring	\$277			\$93	\$92	\$92		\$277				
Total			\$4,822	\$0	\$1,545	\$93	\$92	\$92	\$0	\$277	\$3,000	\$1,545	\$0	\$0

APPENDICES
SECTION 19
ALTERNATIVE DELIVERY METHODS

Not Applicable for the 2018 RTIP

APPENDICES
SECTION 20
CALTRANS B/C CALCULATIONS

STATE ROUTE 99 – AVENUE 7 TO AVENUE 12

WIDEN TO 6 LANES

Caltrans B/C Calculations

District: **D6-Technical Planning**

PROJECT: **MAD-99-1.7-R7.5**

EA:	0H220
PPNO:	612000158

3

INVESTMENT ANALYSIS SUMMARY RESULTS

Life-Cycle Costs (mil. \$)	\$72.4
Life-Cycle Benefits (mil. \$)	\$431.4
Net Present Value (mil. \$)	\$359.0
Benefit / Cost Ratio:	6.0
Rate of Return on Investment:	32.8%
Payback Period:	4 years

ITEMIZED BENEFITS (mil. \$)	Passenger Benefits	Freight Benefits	Total Over 20 Years	Average Annual
Travel Time Savings	\$132.5	\$70.4	\$202.9	\$10.1
Veh. Op. Cost Savings	-\$3.7	\$4.6	\$0.8	\$0.0
Accident Cost Savings	\$178.7	\$47.5	\$226.2	\$11.3
Emission Cost Savings	-\$0.2	\$1.6	\$1.4	\$0.1
TOTAL BENEFITS	\$307.4	\$124.1	\$431.4	\$21.6
Person-Hours of Time Saved			33,031,730	1,651,587
CO₂ Emissions Saved (tons)			33,839	1,692
CO₂ Emissions Saved (mil. \$)			\$0.1	\$0.0

Should benefit-cost results include:

1) Induced Travel? (y/n)
Default = Y

2) Vehicle Operating Costs? (y/n)
Default = Y

3) Accident Costs? (y/n)
Default = Y

4) Vehicle Emissions? (y/n)
includes value for CO₂e
Default = Y

District: **D6-Technical Planning**

PROJECT: **MAD-99-1.7-R7.5**

EA: 0H220
PPNO: 612000158

1A PROJECT DATA

Type of Project
Select project type from list:

Project Location (enter 1 for So. Cal., 2 for No. Cal., or 3 for rural):

Length of Construction Period: years
One- or Two-Way Data: enter 1 or 2

Length of Peak Period(s) (up to 24 hrs): hours

1C HIGHWAY ACCIDENT DATA

Actual 3-Year Accident Data (from Table B)

	Count (No.)	Rate
Total Accidents (Tot)	214	0.47
Fatal Accidents (Fat)	3	0.007
Injury Accidents (Inj)	77	0.17
Property Damage Only (PDO) Accidents	134	0.30

Statewide Basic Average Accident Rate

	No Build	Build
Rate Group	H63	H64
Accident Rate (per million vehicle-miles)	0.92	0.63
Percent Fatal Accidents (Pct Fat)	0.6%	0.5%
Percent Injury Accidents (Pct Inj)	31.9%	30.4%

1B HIGHWAY DESIGN AND TRAFFIC DATA

Highway Design

	No Build	Build
Roadway Type (Fwy, Exp, Conv Hwy)	F	F
Number of General Traffic Lanes	4	6
Number of HOV/HOT Lanes		
HOV Restriction (2 or 3)		
Exclusive ROW for Buses (y/n)	N	
Highway Free-Flow Speed	65	65
Ramp Design Speed (if aux. lane/off-ramp proj.)	35	35
Length (in miles) Highway Segment	5.8	5.8
Impacted Length	8.8	8.8

Average Daily Traffic

	No Build	Build
Current 2015	71,000	
Base (Year 1)	73,700	73,700
Forecast (Year 20)	125,000	125,000

Average Hourly HOV/HOT Lane Traffic
Percent of Induced Trips in HOV (if HOT or 2-to-3 conv.):

Percent Traffic in Weave:

Percent Trucks (include RVs, if applicable):

Truck Speed:

On-Ramp Volume

	Peak	Non-Peak
Hourly Ramp Volume (if aux. lane/on-ramp proj.)	0	0
Metering Strategy (1, 2, 3, or D, if on-ramp proj.)		

Queue Formation (if queuing or grade crossing project)

	Year 1	Year 20
Arrival Rate (in vehicles per hour)	0	0
Departure Rate (in vehicles per hour)	0	0

Pavement Condition (if pavement project)

	No Build	Build
IRI (inches/mile) Base (Year 1)		
Forecast (Year 20)		

Average Vehicle Occupancy (AVO)

	No Build	Build
General Traffic Non-Peak	1.30	1.30
Peak	1.15	1.15
High Occupancy Vehicle (if HOV/HOT lanes)	2.15	2.15

1D RAIL AND TRANSIT DATA

Annual Person-Trips

	No Build	Build
Base (Year 1)		
Forecast (Year 20)		

Percent Trips during Peak Period:

Percent New Trips from Parallel Highway:

Annual Vehicle-Miles

	No Build	Build
Base (Year 1)		
Forecast (Year 20)		

Average Vehicles/Train (if rail project):

Reduction in Transit Accidents
Percent Reduction (if safety project):

Average Transit Travel Time

	No Build	Build
In-Vehicle Non-Peak (in minutes)		0.0
Peak (in minutes)		0.0
Out-of-Vehicle Non-Peak (in minutes)	0.0	0.0
Peak (in minutes)	0.0	0.0

Highway Grade Crossing

	Current	Year 1	Year 20
Annual Number of Trains		0	
Avg. Gate Down Time (in min.)		0.0	

Transit Agency Costs (if TMS project)

	No Build	Build
Annual Capital Expenditure		\$0
Annual Ops. and Maintenance Expenditure		\$0

Model should be run for both roads for intersection or bypass highway projects, and may be run twice for connectors. Press button below to prepare model to enter data for second road. After data are entered, results reflect total project benefits.

Prepare Model for Second Road

Enter all project costs (in today's dollars) in columns 1 to 7. Costs during construction should be entered in the first eight rows.
 Project costs (including maintenance and operating costs) should be net of costs without project.

1E PROJECT COSTS (enter costs in thousands of dollars)									
Col. no.	(1)	(2)	(3)	(4)	(5)	(6)	(7)		
Year	DIRECT PROJECT COSTS			SUBSEQUENT COSTS		Mitigation	Transit Agency Cost Savings	TOTAL COSTS (in dollars)	
	Project Support	R / W	Construction	Maint./ Op.	Rehab.			Constant Dollars	Present Value
Construction Period									
1	\$5,413	\$67,000						\$72,413,000	\$72,413,000
2								0	0
3								0	0
4								0	0
5								0	0
6								0	0
7								0	0
8								0	0
Project Open									
1								\$0	\$0
2								0	0
3								0	0
4								0	0
5								0	0
6								0	0
7								0	0
8								0	0
9								0	0
10								0	0
11								0	0
12								0	0
13								0	0
14								0	0
15								0	0
16								0	0
17								0	0
18								0	0
19								0	0
20								0	0
Total	\$5,413	\$67,000	\$0	\$0	\$0	\$0	\$0	\$72,413,000	\$72,413,000

$$\text{Present Value} = \frac{\text{Future Value (in Constant Dollars)}}{(1 + \text{Real Discount Rate})^{\text{Year}}}$$

STATE ROUTE 99 – AVENUE 12 TO AVENUE 17

WIDEN TO 6 LANES

Caltrans B/C Calculations

District: **D6-Planning**
 PROJECT: **Tiger B/C Mad 99-Pm7.5-15.1**

EA:

47090

 PPNO:

6000000973

3

INVESTMENT ANALYSIS SUMMARY RESULTS

Life-Cycle Costs (mil. \$)	\$81.4
Life-Cycle Benefits (mil. \$)	\$501.4
Net Present Value (mil. \$)	\$420.0
Benefit / Cost Ratio:	6.2
Rate of Return on Investment:	27.8%
Payback Period:	6 years

ITEMIZED BENEFITS (mil. \$)	Passenger Benefits	Freight Benefits	Total Over 20 Years	Average Annual
Travel Time Savings	\$219.6	\$116.8	\$336.3	\$16.8
Veh. Op. Cost Savings	\$2.3	\$7.4	\$9.7	\$0.5
Accident Cost Savings	\$120.7	\$32.1	\$152.8	\$7.6
Emission Cost Savings	\$0.2	\$2.4	\$2.6	\$0.1
TOTAL BENEFITS	\$342.7	\$158.7	\$501.4	\$25.1
Person-Hours of Time Saved			56,038,870	2,801,944
CO₂ Emissions Saved (tons)			119,676	5,984
CO₂ Emissions Saved (mil. \$)			\$0.5	\$0.0

Should benefit-cost results include:

1) Induced Travel? (y/n)
Default = Y

2) Vehicle Operating Costs? (y/n)
Default = Y

3) Accident Costs? (y/n)
Default = Y

4) Vehicle Emissions? (y/n)
includes value for CO₂e
Default = Y

District: **D6-Planning**

PROJECT: **Tiger B/C Mad 99-Pm7.5-15.1**

EA: 47090
PPNO: 600000973

1A PROJECT DATA

Type of Project
Select project type from list:

Project Location (enter 1 for So. Cal., 2 for No. Cal., or 3 for rural):

Length of Construction Period: years
One- or Two-Way Data: enter 1 or 2

Length of Peak Period(s) (up to 24 hrs): hours

1C HIGHWAY ACCIDENT DATA

Actual 3-Year Accident Data (from Table B)

	Count (No.)	Rate
Total Accidents (Tot)	343	0.56
Fatal Accidents (Fat)	1	0.002
Injury Accidents (Inj)	119	0.19
Property Damage Only (PDO) Accidents	223	0.36

Statewide Basic Average Accident Rate

	No Build	Build
Rate Group	H63	H64
Accident Rate (per million vehicle-miles)	0.95	0.65
Percent Fatal Accidents (Pct Fat)	0.6%	0.5%
Percent Injury Accidents (Pct Inj)	31.9%	30.4%

1B HIGHWAY DESIGN AND TRAFFIC DATA

Highway Design

	No Build	Build
Roadway Type (Fwy, Exp, Conv Hwy)	F	F
Number of General Traffic Lanes	4	6
Number of HOV/HOT Lanes		
HOV Restriction (2 or 3)		
Exclusive ROW for Buses (y/n)	N	
Highway Free-Flow Speed	65	65
Ramp Design Speed (if aux. lane/off-ramp proj.)	35	35
Length (in miles) Highway Segment	7.6	7.6
Impacted Length	10.6	10.6

Average Daily Traffic

	No Build	Build
Current 2015	74,000	
Base (Year 1)	76,819	76,819
Forecast (Year 20)	130,380	130,380

Average Hourly HOV/HOT Lane Traffic
Percent of Induced Trips in HOV (if HOT or 2-to-3 conv.):

Percent Traffic in Weave:

Percent Trucks (include RVs, if applicable):

Truck Speed:

On-Ramp Volume

	Peak	Non-Peak
Hourly Ramp Volume (if aux. lane/on-ramp proj.)	0	0
Metering Strategy (1, 2, 3, or D, if on-ramp proj.)		

Queue Formation (if queuing or grade crossing project)

	Year 1	Year 20
Arrival Rate (in vehicles per hour)	0	0
Departure Rate (in vehicles per hour)	0	0

Pavement Condition (if pavement project)

	No Build	Build
IRI (inches/mile) Base (Year 1)		
Forecast (Year 20)		

Average Vehicle Occupancy (AVO)

	No Build	Build
General Traffic Non-Peak	1.30	1.30
Peak	1.15	1.15
High Occupancy Vehicle (if HOV/HOT lanes)	2.15	2.15

1D RAIL AND TRANSIT DATA

Annual Person-Trips

	No Build	Build
Base (Year 1)		
Forecast (Year 20)		

Percent Trips during Peak Period:

Percent New Trips from Parallel Highway:

Annual Vehicle-Miles

	No Build	Build
Base (Year 1)		
Forecast (Year 20)		

Average Vehicles/Train (if rail project):

Reduction in Transit Accidents
Percent Reduction (if safety project):

Average Transit Travel Time

	No Build	Build
In-Vehicle Non-Peak (in minutes)		0.0
Peak (in minutes)		0.0
Out-of-Vehicle Non-Peak (in minutes)	0.0	0.0
Peak (in minutes)	0.0	0.0

Highway Grade Crossing

	Current	Year 1	Year 20
Annual Number of Trains		0	
Avg. Gate Down Time (in min.)		0.0	

Transit Agency Costs (if TMS project)

	No Build	Build
Annual Capital Expenditure		\$0
Annual Ops. and Maintenance Expenditure		\$0

Model should be run for both roads for intersection or bypass highway projects, and may be run twice for connectors. Press button below to prepare model to enter data for second road. After data are entered, results reflect total project benefits.

Prepare Model for Second Road

Enter all project costs (in today's dollars) in columns 1 to 7. Costs during construction should be entered in the first eight rows. Project costs (including maintenance and operating costs) should be net of costs without project.

1E PROJECT COSTS (enter costs in thousands of dollars)									
Col. no.	(1)	(2)	(3)	(4)	(5)	(6)	(7)		
Year	DIRECT PROJECT COSTS			SUBSEQUENT COSTS		Mitigation	Transit Agency Cost Savings	TOTAL COSTS (in dollars)	
	Project Support	R / W	Construction	Maint./ Op.	Rehab.			Constant Dollars	Present Value
Construction Period									
1	\$7,445	\$450	\$73,500					\$81,395,000	\$81,395,000
2								0	0
3								0	0
4								0	0
5								0	0
6								0	0
7								0	0
8								0	0
Project Open									
1								\$0	\$0
2								0	0
3								0	0
4								0	0
5								0	0
6								0	0
7								0	0
8								0	0
9								0	0
10								0	0
11								0	0
12								0	0
13								0	0
14								0	0
15								0	0
16								0	0
17								0	0
18								0	0
19								0	0
20								0	0
Total	\$7,445	\$450	\$73,500	\$0	\$0	\$0	\$0	\$81,395,000	\$81,395,000

$$\text{Present Value} = \frac{\text{Future Value (in Constant Dollars)}}{(1 + \text{Real Discount Rate})^{\text{Year}}}$$