

Downtown Madera CAPM

Madera County



Project Overview

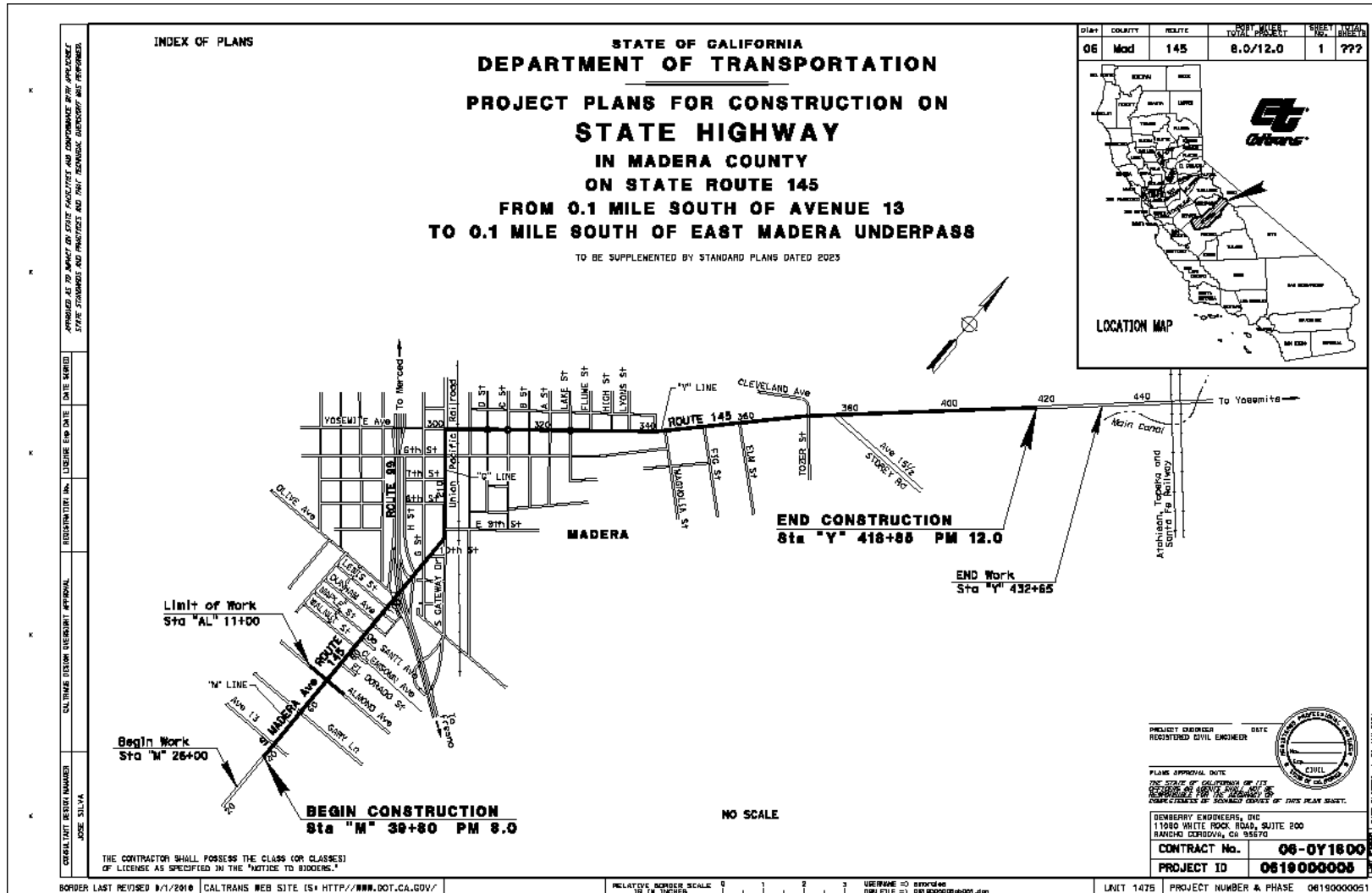
- Project Description
- Location and Other Background Information
- Purpose and Need
- Project Listing in the FTIP/CTIPS¹
- Project Build Scenario Features and Alternatives (*include if any*)
- Traffic Data and a Summary of Traffic Findings
- Project Schedule
- Project-level Conformity Summary

Project Description

Caltrans EA 06-0Y180, Madera County

- Capital Preventative Maintenance (CAPM) project on State Route 145 in the City of Madera.
- Work includes adding Intelligent Transportation Systems (ITS), restoring drainage systems and making improvements, conducting Transportation Management Systems (TMS) work, and incorporating Complete Street elements.
- Complete Street elements work will include:
 - Road Diet – reduce existing roadway from four lanes to two lanes (road diet) with a two-way left-turn lane or dedicated left-turn lane along SR 145 between E Street and Fig Street.
 - Installation of three roundabouts at the intersections of State Route 145 and C, D, and Lake Streets.

Project Location



Purpose and Need

- The project's purpose is to:
 - Preserve, repair, and extend the life of the existing pavement
 - Implement Complete Streets elements
 - Improve pedestrian and bicycle accessibility
 - Incorporate a variety of aesthetic and functional updates along SR 145 within the project limits
- The project is needed to address considerable distress and flooding issues along this stretch of SR 145, a major arterial roadway in Madera County.

Project Listing in the TIP

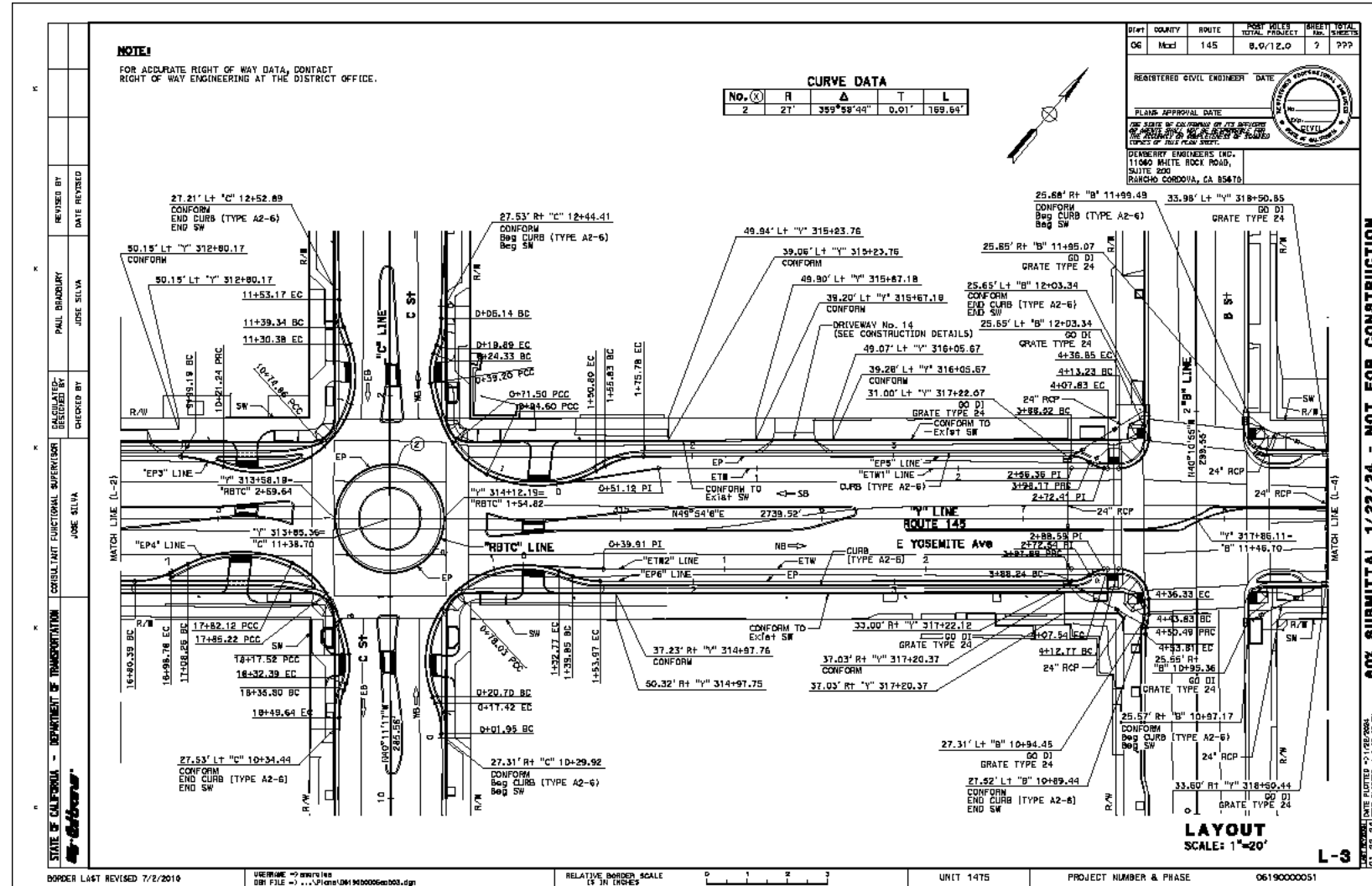
Madera County SHOPP Lump Sum by Category and Fund Type Dollars x \$1000

2022

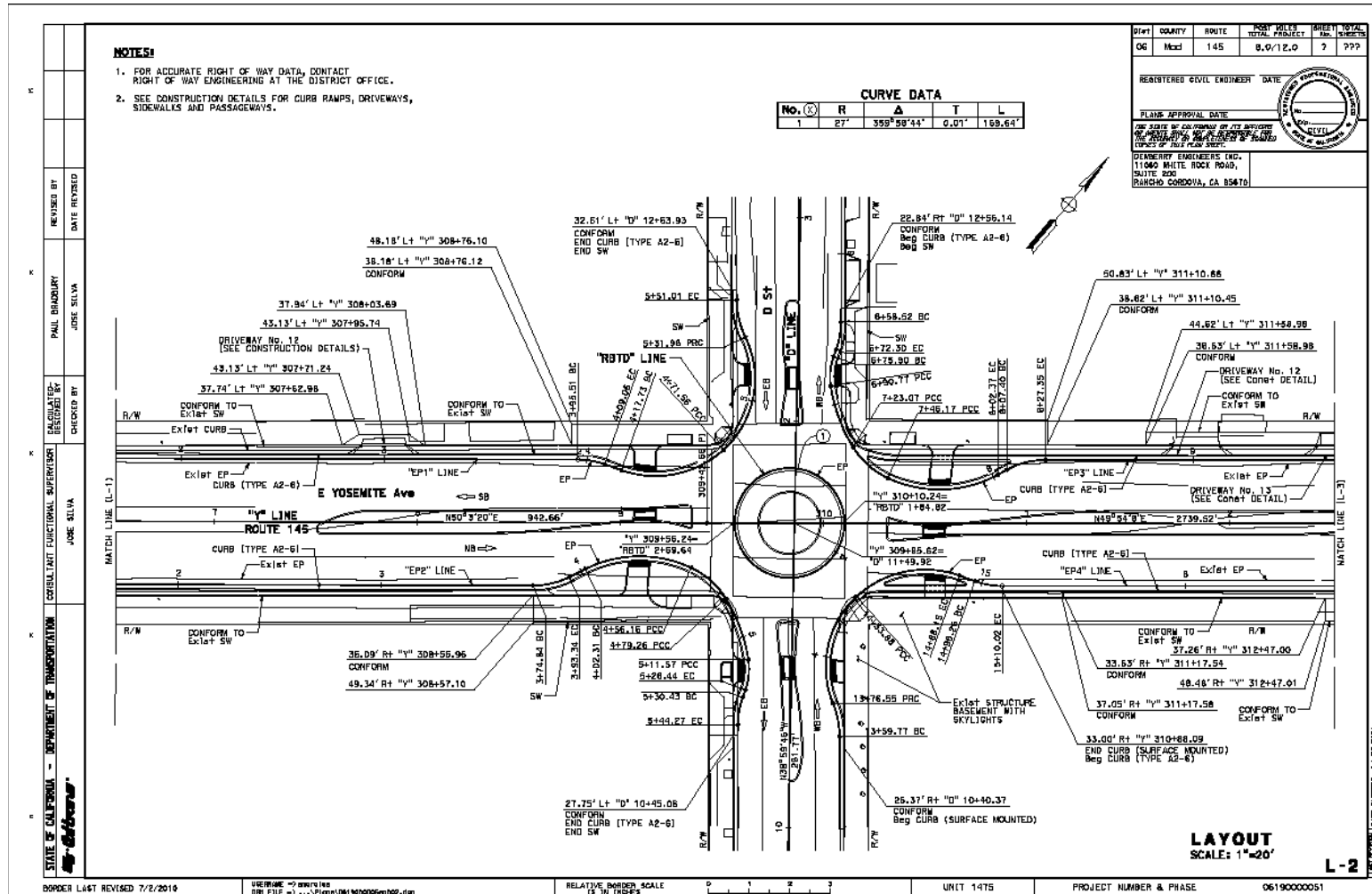
MPO_ID	CTIPS ID	CO	Dist	EA	Route	DESCRIPTION	PE	RW	CON
SHOPP - Roadway Preservation									
Madera County									
	12100000277	MAD 06	0W860	233		In Chowchilla, from Avenue 24 1/2 to Route 99. Rehabilitate pavement and upgrade Transportation Management System (TMS) elements, roadside signs, and guardrail.	1,640	170	6,190
	12100000276	MAD 06	1A740	99		In Bakersfield and cities of Madera and Fresno, on Routes 99, 41, 58 and 178 at various pump plant locations. Rehabilitate four pump plants.	1,680	260	7,110
	12100000281	MAD 06	0R211	41		Near Fresno, from north of Avenue 15 to south of Route 145. Environmental mitigation for pavement rehabilitation project EA 0R210.	0	1,708	0
	12100000271	MAD 06	0Y180	145		In and near the city of Madera, from south of Avenue 13 to 1.0 mile north of Tozer Street. Rehabilitate pavement, install Transportation Management System (TMS) elements, construct rumble strips, replace signs, rehabilitate	2,075	640	16,020
	12100000282	MAD 06	1E070	99		Near Madera, from 0.9 mile south of Avenue 7 to north of Avenue 12. Rehabilitate pavement.	0	0	54,700
						Additional contribution from non-SHOPP project EA 0H220/PPNO 06-6297.			
						County Total	5,395	2,778	84,020
MPO	SHOPP - Roadway Preservation Total:						5,395	2,778	84,020

Project Features

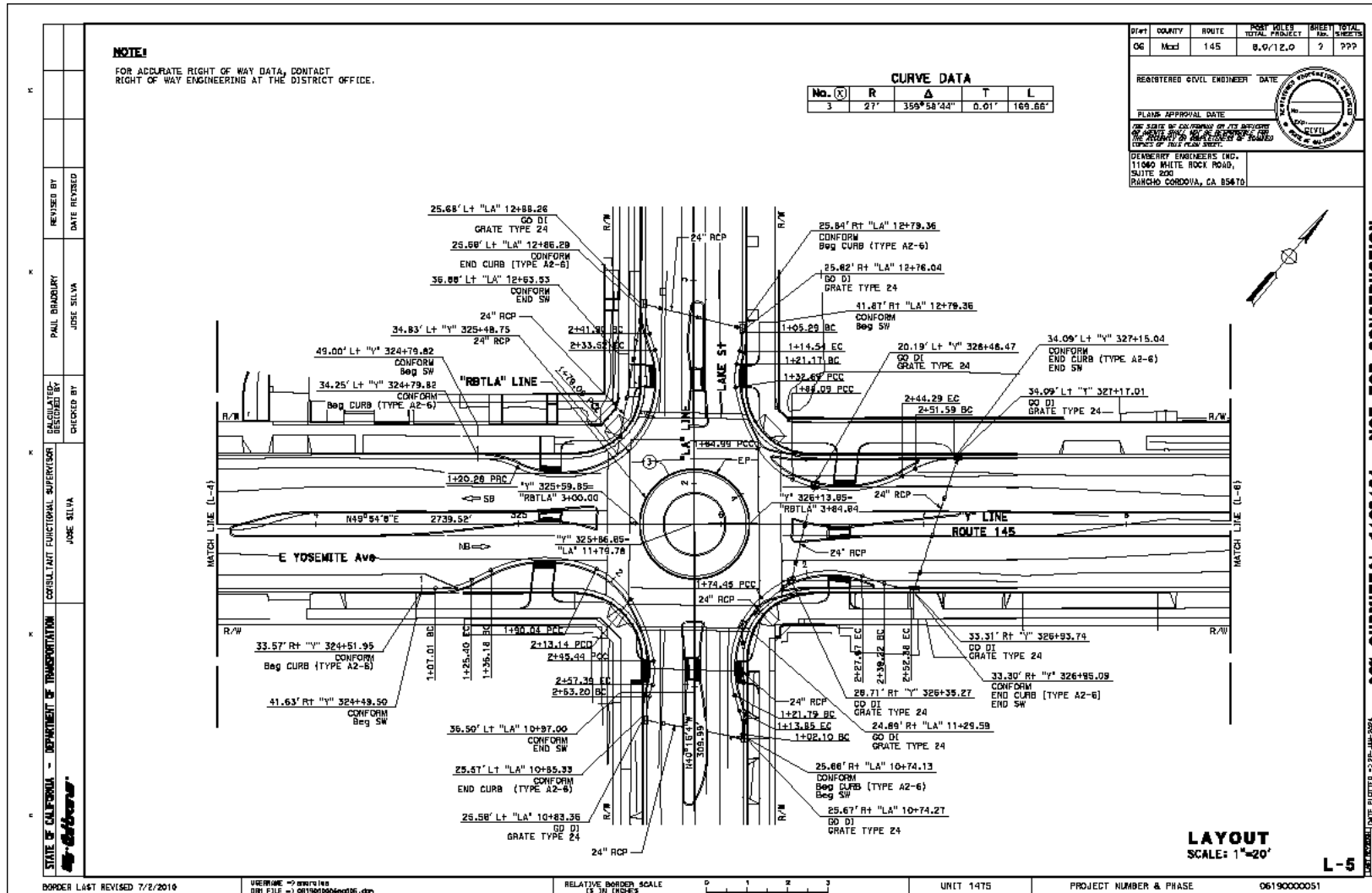
C Street/Yosemite Avenue (SR145) Intersection



D Street/Yosemite Avenue (SR145) Intersection



Lake Street/Yosemite Avenue (SR145) Intersection



Traffic Data

- The Caltrans Technical Planning Unit has provided estimated AADT (Annual Average Daily Traffic) for the 2019 Existing Year, 2027 Opening Year, a 10-year Design Year of 2037.
- Project length is 4.1 miles.
- Truck percentage for each segment is 5 percent.
- There are three proposed roundabouts at the intersections of Yosemite Avenue (SR 145)/C Street, Yosemite Avenue (SR 145)/D Street, and Yosemite Avenue (SR 145)/Lake Street.
- Each of the roundabouts has the same AADT when comparing the No-Build to Build alternatives.

All traffic data was provided by the District 6 Caltrans Forecasting and Traffic Operations Departments.

Traffic Methodology

- Sidra Version 9.0 and HCS Version 7.0 were used for intersection analyses.
- Traffic forecast for the AM and PM peak hours were prepared by Caltrans Technical Planning Office.
- Heavy Vehicle percentage is based on traffic counts.

Summary of Traffic Findings

AM and PM Delay Times and LOS Comparison

Alternative	Year	Location	AM Delay Time (s)	PM Delay Time (s)	AM LOS	PM LOS
No Build	2027	C Street	n/c*	n/c	D	D
		D Street	n/c	n/c	D	D
		Lake Street	n/c	n/c	F	F
Open To Traffic Build	2027	C Street	5	4	A	A
		D Street	5	6	A	A
		Lake Street	6	7	A	A
10-yr Design Build	2037	C Street	5	5	A	A
		D Street	5	9	A	A
		Lake Street	7	9	A	A
20-yr Design Build	2047 *n/c = not calculated					

AADT, Truck AADT, and Truck Percentage

Alternative	Year	Location	AADT	Truck AADT (5%)
Existing	2019	C Street	16,500	825
		D Street		
		Lake Street		
Open to Traffic	2027	C Street	19,000	950
		D Street		
		Lake Street		
10-Year Design (Build and No-Build)	2037	C Street	22,700	1,135
		D Street		
		Lake Street		
20-Year Design (Build and No-Build)	2047	C Street	27,000	1,350
		D Street		
		Lake Street		

Traffic Analysis

- Comparison of AADT and Truck AADT of the No-Build Alternative/Build Alternative shows that the AADT and Truck AADT remain the same for the Existing, Open to Traffic, and Design Years.
- The increase in AADT and Truck AADT between the Existing Year and the Open to Traffic Year and between the Open to Traffic Year and the Design Year is due to projected population growth in Madera County. The increase is not due to traffic induced in the area by the construction of the project.
- The comparison of the LOS of the 2027 No-Build Alternative and the 2027 and 2037 Build Alternatives shows considerable improvement with the addition of the roundabout alternative.
- In 2027, the No-Build Alternative AM and PM LOS for C and D Streets will be D, and the No-Build Alternative AM and PM LOS for Lake Street will be F.
- By the 2027 Open to Traffic Year, all three roundabout intersections will have achieved a LOS A, which will remain in effect into the 2037 Design Year and beyond.

Project Schedule

Milestone	Date
Ready to List	12/1/2024
Contract Award	5/1/2025
Contract Approve	7/15/2025
Contract Accepted	7/30/2025

Project-level Conformity Conclusion

The Downtown Madera CAPM Project does not meet the criteria for a POAQC as defined in the final rule by 40 CFR 93.123(b)(1).

- The downtown Madera CAPM is a non-exempt project that is not a local air quality concern under 40 CFR 93.123(b)(1)(i) and (ii), which states that “Intersection channelization projects, traffic circles or roundabouts, intersection signalization projects at individual intersections, and interchange reconfiguration projects that are designed to improve traffic flow and vehicle speeds, and do not involve any increases in idling. Thus, they would be expected to have a neutral or positive influence on PM emissions”.

Project-level Conformity Conclusion

- A lack of change in AADT between the No-Build and Build Alternative, together with the increase in year-to-year traffic due to projected population growth indicates that the project's construction will not induce new traffic to the area.
- Construction of roundabouts at all three intersections will substantially improve delay times and LOS, with maximum results realized by the Open to Traffic Year 2027 (10-Year Design).
- No-Build Alternatives delay times were not calculated. However, the improvements in LOS indicate that congestion will be almost nonexistent because the roundabouts will promote free-flowing traffic.
- Emissions from idling vehicles and acceleration from completely stopped vehicles will be eliminated; furthermore, the roundabouts will calm traffic and reduce vehicle conflict points by removing stop-and-go traffic.

Project-level Conformity Conclusion (Cont.)

- The reduction of lanes via the road diet will reduce the number of pedestrian, bicycle, and vehicle conflict points.
- The increase in AADT from 2037 to 2047 would be an additional 4,085 vehicles, with 215 trucks.
 - The increase is due to projected population growth, not traffic induced to the area by the project's construction. This increase would have minimal impacts upon delay times and LOS.
- The 2047 Design Year will maintain LOS above D with the replacement of roundabouts at the intersections of State Route 145 of C Street, D Street, and Lake Street.

Questions?

Caltrans

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