

**Project-Level Conformity Determination Documentation
for**

Traffic Signal at Jensen Avenue and Indianola Avenue

Fresno County

May 2024

Fresno Council of Governments (FCOG), on behalf of the City of Sanger, is providing the final documentation for PM2.5 and PM10 Hot-spot Conformity Assessment for the Traffic Signal Project at Jensen Avenue and Indianola Avenue located in the City of Sanger, Fresno County.

The proposed project consists of installing a new traffic signal at the intersection of Jensen Avenue and Indianola Avenue in the City of Sanger, Fresno County. The draft conformity material was posted on FCOG's website (<https://www.fresnocog.org/project-level-conformity/>) and was available for the public comment period from May 7th through May 21th, 2024. No comments were received during this public comment period. An interagency consultation (IAC) meeting was scheduled for May 22, from 1:00 - 2:00 pm (PT).

The NEPA document for this project is CE (23 USC 326), and Caltrans and EPA provided concurrence that the project is not of air quality concern (non-POAQC) on May 22, 2024.

The final documentation package consists of the (1) San Joaquin Valley PM hot-spot checklist, (2) slides presented at the IAC meeting, and (3) IAC meeting minutes.

San Joaquin Valley (SJV) Hot Spot Checklist for Interagency Consultation

The purpose of this form is to provide sufficient information to allow the IAC group to determine the evaluation if a project is exempt, non-exempt, and not POAQC, or non-exempt projects and POAQC (requires a quantitative project-level PM hot spot analysis).

It is the responsibility of the project sponsor to ensure that the form is filled out completely and provides a sufficient level of detail for the interagency consultation (IAC) to make an informed decision on whether or not a project requires further analysis. For example, the IAC group needs to consider the traffic impacts of the project, and thus part of the required information includes no build/build traffic data.

STEP 1: PROJECT IDENTIFICATION

A. Project Name and Number:

B. FTIP/CTIPS #Identification No¹:

C. City/County:

D. Project Description:

E. Type of Project:

- New state highway
- Change to existing state highway
- New regionally significant street
- Change to existing regionally significant street
- New interchange
- Reconfigure existing interchange
- Intersection channelization
- Intersection signalization
- Roadway realignment
- Bus, rail, or inter-modal facility/terminal/transfer point
- Truck weight/inspection station
- At or affects location identified in the SIP as a site of actual or possible violation of NAAQS
- Others, specify:

E. Hot-Spot Pollutant of Concern (*check both*): PM_{2.5} PM₁₀

F. Lead Agency:

- a. Contact Person:
- b. Phone #:
- c. Email:

¹ FTIP: Federal Transportation Improvement Program; CTIPS: California Transportation Improvement Program System.

G. Federal Action for which Project-Level PM Conformity is Needed
*(check appropriate box)*²

	Categorical Exclusion (NEPA)		EA or Draft EIS		FONSI or Final EIS		PS&E or Construction		Other
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a. Include the scheduled date of Federal Action (if available):

H. NEPA Assignment – Project Type *(check appropriate box)*

	Exempt		Section 326 –Categorical Exclusion		Section 327 – Non-Categorical Exclusion
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I. Is this project in a conforming Plan and Transportation Improvement Program (TIP)?

Yes No

a. If yes, indicate the federal approval date for the latest regional conformity analysis:

J. Current Programming Dates *(as appropriate)*³

	<i>PE/ Env</i>	ENG	ROW	CON
Start				
End				

K. Project Description (Summary, Use Additional Sheets as Needed):

Information should include, but is not limited to:

- a. Purpose and need of the project.*
- b. Route name, route number, project length, and mile point locations*
- c. Number of current and future lanes (clearly indicate if any lanes are “turn lane only”)*
- d. Identify as “Capacity Adding” or “Non-Capacity Adding” project*
- e. Identify intersecting roads that will be impacted.*
- f. Project impact on surrounding land use/ traffic generators (discuss especially effect on diesel traffic)*



² EA: Environmental Assessment; EIA: Environmental Impact Assessment; FONSI: Finding of No Significant Impact; PS&E: Planning, Specification and Estimate.

³ PE: Preliminary Engineering; ENG: Engineering; ROW: Right-of-Way; CON: Construction

STEP 2: EXEMPT PROJECTS

EXEMPT PROJECT

*No PM project-level conformity is required, and no further documentation is needed. **Go to STEP 6.***

Describe Type of Exempt Project:

NOT AN EXEMPT PROJECT. Go to STEP 3.

STEP 3: TRAFFIC INFORMATION

Fill out only relevant traffic information B through G. For example, fill out D and E if the project is an intersection, and fill out F and G if the project is a bus, rail, or intermodal facility/terminal/transfer point. Include additional tables, maps, and other graphical representations of the projects in separate sheets.

A. Year(s) Selected for the Proposed Facility:

a. Year(s) selected

	Years Selected
Existing Year	
Opening Year	
Analysis Year(s) ⁴	

b. Justification for Selection of Analysis Year(s):

B. Opening Year Traffic Information for No Build and Build Scenarios of the Proposed Facility

	No Build	Build
Annual Average Daily Traffic (AADT) ⁵		
Truck AADT		
% Trucks ⁶		

⁴ Section 93.116(a) of the conformity rule requires that PM hot-spot analyses consider either the full-time frame of an area's transportation plan or, in an isolated rural nonattainment or maintenance area, the 20-year regional emissions analysis. The project sponsor will need to choose an analysis year within the time frame of the transportation plan during which peak emissions from the project are expected, and new or worsened violations would most likely occur due to cumulative impacts of the project and background concentrations. In some cases, selecting only one analysis year, such as the last year of the transportation plan or the year of project completion, may not be sufficient to satisfy conformity requirements.

⁵ Combine directional traffic (southbound and northbound).

⁶ FHWA categorizes vehicles as Light Duty (Class 1-2) with Gross Vehicle Weight Rating (GVWR) < 10,000 lbs, Medium Duty (Class 3-6) with GVWR between 10,001 – 26,000 lbs, and Heavy Duty (Class 7-8) with GVWR > 26,001 lbs.

C. Analysis Year Traffic Information for No Build and Build Scenarios of the Proposed Facility

	No Build	Build
Annual Average Daily Traffic		
Truck AADT		
% Trucks		

D. Opening Year Traffic Information for No Build and Build Scenarios of the Proposed Facility *(If the facility is an intersection or interchange)*

	No Build	Build
Cross Street AADT		
Truck AADT		
% Trucks		
Level-of-Service (LOS)		
Control Delay (seconds)		

E. Analysis Year Traffic Information for No Build and Build Scenarios of the Proposed Facility *(If the facility is an intersection or interchange)*

	No Build	Build
Cross Street AADT		
Truck AADT		
% Trucks		
Level-of-Service (LOS)		
Control Delay (seconds)		

F. Opening Year Traffic Information for No Build and Build Scenarios of the Proposed Facility *(If the facility is a bus, rail, or intermodal facility/terminal/transfer point)*

	No Build	Build
Number of bus arrivals		
Number of bus arrivals that will be diesel buses		
Fraction (%) of bus arrivals that will be diesel buses		

G. Analysis Year Traffic Information for No Build and Build Scenarios of the Proposed Facility *(If the facility is a bus, rail, or intermodal facility/terminal/transfer point)*

	No Build	Build
Number of bus arrivals		
Number of bus arrivals that will be diesel buses		
Fraction (%) of bus arrivals that will be diesel buses		

H. Describe Traffic Impacts *(if appropriate)*⁷

I. Describe potential traffic redistribution effects of congestion relief *(impact on other facilities)*

J. Is additional traffic information (tables, maps, and other graphical representations of the project (location, project details on additional lanes or ramps) presented in additional sheets at the end of the checklist?:

Yes No

⁷ Provide any justification if build % traffic > no-build, large changes in AADT and trucks % even if it is below EPA's criteria, etc.

STEP 4: POAQC DETERMINATION

NOT PROJECT OF AIR QUALITY CONCERN⁸. *Quantitate analysis is NOT required. IAC review, public participation, and concurrence are required. Provide the filled-out checklist to your MPO for the next steps⁹. Use the space to provide a detailed narrative and rationale for this conclusion.*

Go to STEP 6.

PROJECT OF AIR QUALITY CONCERN. *Check the following options to see if your project is one of the following options. If yes, the project could be of local air quality concern and requires quantitative hot-spot analysis based on interagency review.*

Examples of POAQC that are covered by 40 CFR 93.123(b)(1)(i) and (ii)

- *New or expanded highway projects with a significant number of, or increase in, diesel vehicles (e.g., 125,000 AADT and 10,000 (8%) diesel truck traffic) Note: These metrics are examples and should not be considered as threshold levels.*
- *Project affecting intersections that are at LOS D, E, or F with a significant number of diesel vehicles, or those that will change to LOS D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project.*
- *New bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location.*
- *Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location.*
- *Projects in or affecting locations, areas, or categories of sites that are identified in the PM10 and PM2.5 applicable implementation plan or implementation plan submissions, as appropriate, as sites of violation or possible violation.*

Examples of POAQC that are covered by 40 CFR 93.123(b)(1)(iii) and (iv)

- *A major new bus or intermodal terminal that is considered to be a “regionally significant project” under 40 CFR 93.101.*
- *An existing bus or intermodal terminal that has a large vehicle fleet where the number of diesel buses increases by 50% or more, as measured by bus arrivals.*

⁸ Refer to EPA’s 2021 guidance, EPA-420-B-21-037, and FHWA’s FAQ document, for complete details.

⁹ Listed in Pg. 1 under “Instructions”

STEP 5: ANALYSIS AND DOCUMENTATION (for POAQC)

The following is a summary of documentation to be included for a quantitative PM hot-spot analysis. Please refer to the EPA Quantitative Hot-Spot Guidance for more information.¹⁰ IAC review and concurrence are required on the modeling protocol before the modeling begins. Contact your MPO representative and Air Quality Coordinator for additional guidance.

Documentation to Be Included for the Quantitative PM Hot-spot Analysis:

- Description of project
- Description of type of emissions considered in the analysis.
- Contributing Factors
 - Air Quality
 - Transportation and traffic conditions
 - Built and natural environment
 - Meteorology, climate and seasonal data
 - Adopted emissions control measures
- Consider the full-time frame of the area's LRTP
- Description of existing conditions
- Description of changes resulting from the project
- Description of models, methods, and assumptions
- Description of analysis years
- Types of emissions included in the analysis and the details of emissions modeling.
- Results of air dispersion modeling.
- Background concentration estimation methods and results.
- Design value calculation.
- Discussion of why the project will not cause a violation of either the annual or 24-hour standard.
- Discussion of any mitigation measures
- Conclusion on how the project meets conformity requirements.
- Documentation of any IAC decisions on the latest planning assumptions used in the analysis.
- Documentation of any public comment on the latest planning assumptions used in the analysis.

¹⁰ See EPA Quantitative PM Hotspot Analysis Guidance, EPA-420-B-21-037, October 2021; Accessed at <https://www.epa.gov/state-and-local-transportation/project-level-conformity-and-hot-spot-analyses#pmguidance>

Additional Information on Traffic Data

Attach traffic data tables, maps, and other graphical representations of the project to supplement information in Step 3.

Traffic Signal at Jensen and Indianola

City of Sanger

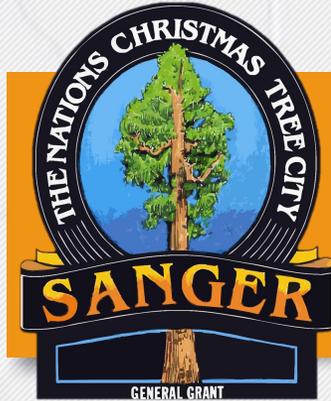
Federal Project Number: CML-5197(044)

FTIP: LSTMP805

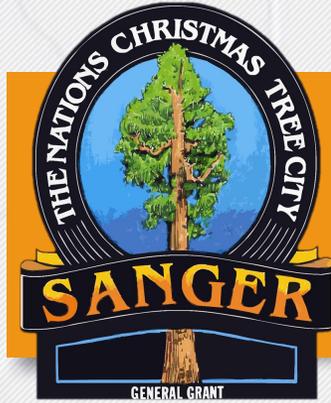


Overview

- Project Description
- Project Location
- Purpose and Need
- Project Listing in the FTIP/CTIPS
- Traffic Data
- Project Schedule
- Project-level Conformity Summary

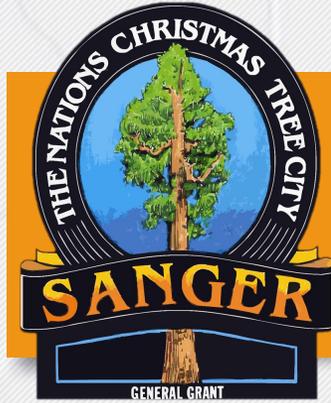


Project Description

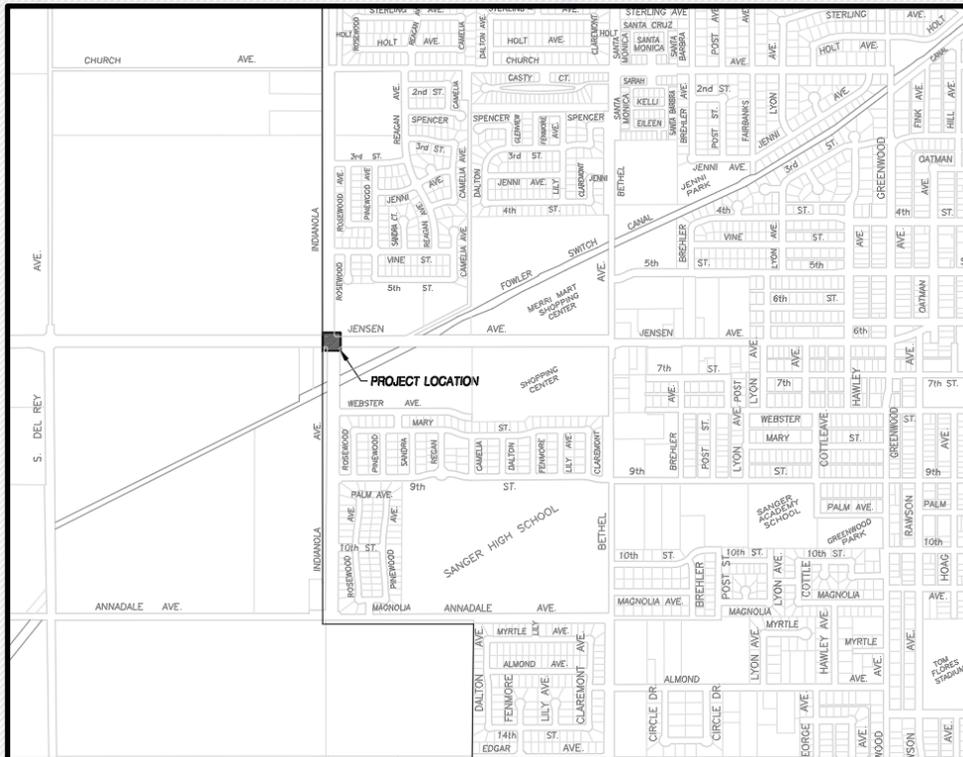


- At the intersection of Jensen Ave and Indianola Ave; Install a new three-phase traffic signal system.
- Currently, there are high traffic volumes on Jensen Avenue at Indianola Avenue, resulting in long queue times for southbound Indianola turning movements.
- Installing a new traffic signal at the intersection improves the level of service, reduces queues and idling time at the intersection, and provides safety improvements with protected left turns for all approaches.
- Project consists of a No-Build (no signal improvements) and One Build Scenario (with signal improvements)
- Project does not meet the criteria for an exempt project under 40 CFR 93.126 or 93.128.

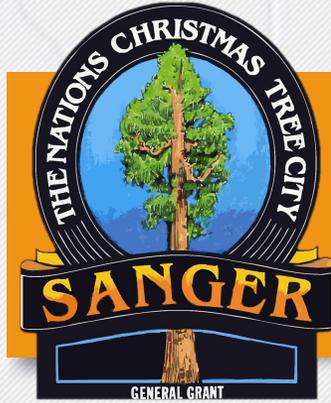
Location



- City of Sanger: Intersection - Jensen Avenue and Indianola Avenue



Purpose and Need



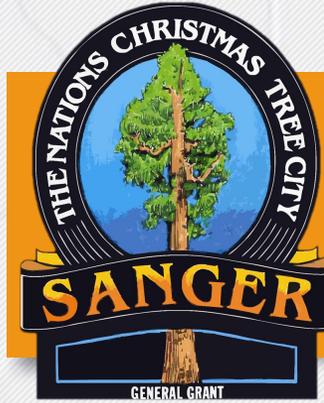
Purpose

- Installation of a new traffic signal at the intersection of Jensen Avenue and Indianola Avenue
- Installing the traffic signal system will not only significantly reduce delay and increase the level of service but also bring about much-needed safety improvements with protected left turns for all approaches.
- New Level of Service based on existing AADT(with signal improvements) - LOS A during the AM peak hour and LOS A in the PM peak hour and new delay (with signal improvements) - 8.9 seconds and 7.6 second during AM and PM peak hours

Need

- Currently there are high traffic volumes on Jensen Avenue at Indianola Avenue, due to its location at the County of Fresno/City of Sanger boundary, resulting in long queue times for southbound Indianola turning movements.
- Currently, left turn right-of-way conflict collisions have been documented at this intersection. Four collisions were documented via Statewide Integrated Traffic Records System (SWITRS) between 2019 and 2021. All four were broadside collisions from motorists trying to make left turns.
- Existing Level of Service - LOS F during AM Peak Hour and LOS D during the PM Peak Hour and existing Delay - 71.8 seconds and 27.4 seconds during AM and PM peak hours.

Project Listing in the TIP



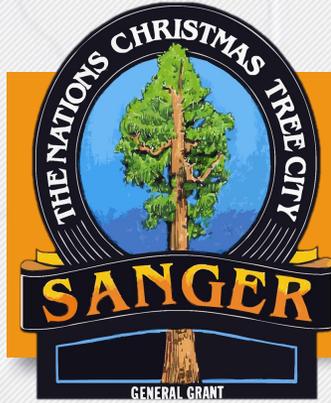
- The proposed project (FTIP ID: LSTMP805) is listed in the 2023 Fresno Transportation Improvement Program*.
- The scope of the proposed project is consistent with the project description in the 2023 FTIP.

2023 FTIP- GROUPED PROJECT LISTING
2023 FTIP Amendment No. 16 (04-19-2024)
(DOLLARS IN \$1,000)

AGENCY	FTIP	GROUPED LIST PROJECT #	PROJECT ID #	PROJECT TITLE	PROJECT DESCRIPTION	FUND	PRIOR	FY22/23	FY23/24	FY24/25	FY25/26	FUTURE	FUND TOTAL	TOTAL COST
Sanger, City of	'23-00	FRE190006	LSTMP805	Jensen and Indianola Traffic Signal	At the intersection of Jensen Ave and Indianola Ave; Install new three-phase traffic signal system	CMAQ Local	\$0 \$0	\$39 \$5	\$36 \$5	\$441 \$57	\$0 \$0	\$0 \$0	\$516 \$67	\$583
Sanger, City of	'23-00	FRE190006	LSTMP839	Bethel and Almond Traffic Signal	Bethel Ave at Almond Ave; install new three-phase traffic signal system	CMAQ Local	\$39 \$5	\$0 \$0	\$0 \$0	\$233 \$267	\$0 \$0	\$0 \$0	\$274 \$272	\$546
Fresno County	'23-15	FRE190006	LSTMP891	Central Ave & Chestnut Ave Left-Turn Phasing and Intersection Improvements	Central Ave and Chestnut Ave Intersection Improvements - Install left-turn signals in all four directions; add right turn lanes on the west, south and east legs of the intersection; replace ADA curbs ramps and curb & gutter.	CRP Local	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$149 \$19	\$0 \$1,135	\$149 \$1,154	\$1,303
Selma, City of	'23-00	FRE190006	LSTMP735	McCall & Dinuba Traffic Signal	At the intersection of McCall and Dinuba; Install traffic signal (TC)	CMAQ	\$105	\$93	\$749	\$0	\$0	\$0	\$947	\$947

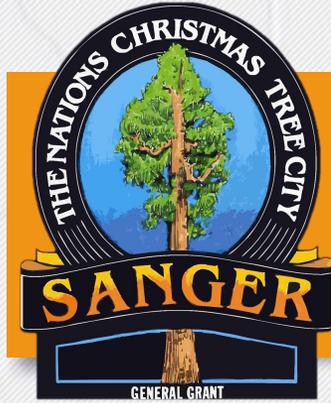
* <https://fresnocog.wpenginepowered.com/wp-content/uploads/2024/04/Website-Back-up-project-List-Formal-Amendment-No.-16.pdf>

Traffic Data



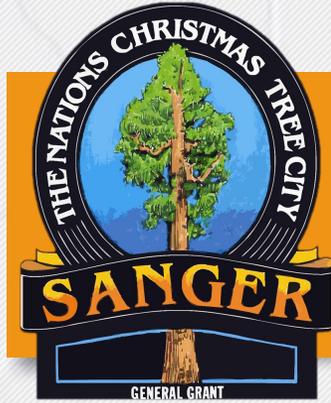
	2019 Existing (No Build)	2019 Existing (Build)	2035 Existing (No Build)	2035 Existing (No Build)
AADT	14,818	14,818	19,406	19,406
% Trucks	1.9%	1.9%	1.9%	1.9%
Truck AADT	285	285	373	373
LOS	AM Peak - F PM Peak - D	AM Peak - A PM Peak - A	AM Peak - F PM Peak - F	AM Peak - A PM Peak - A
Delay (sec)	AM Peak - 71.8 PM Peak - 27.4	AM Peak - 8.9 PM Peak - 7.6	AM Peak - 204.6 PM Peak - 70.8	AM Peak - 6.5 PM Peak - 5.3

Traffic Summary



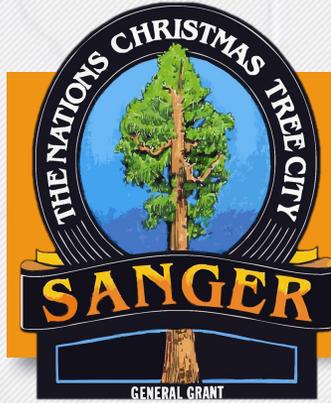
- The existing traffic was developed using traffic counts collected, and a growth rate of 1.7% is assumed per the City of Sanger General Plan for developing future year traffic.
- AADT for both existing and future years are the same for no-build and build.
- There is a significant improvement in the level-of-service and reduction in delay between the no-build and build case scenarios
- Coordinated with Fresno COG on the regional travel model. Ultimately did not feel the COG regional model was representative of the likely future traffic distribution and volumes in this area of the City and at this specific intersection and could not use the data.

Project Schedule



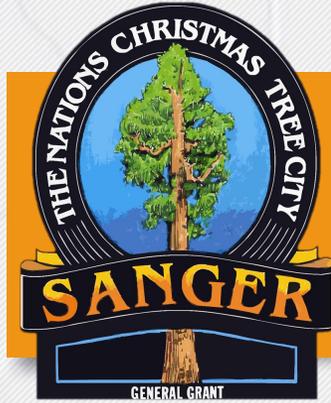
	Preliminary Engineering	Engineering	Right-of-Way	Construction
Start	2022	2022	2023	2024
End	2023	2023	2024	2025

Project-level Conformity Conclusion



- Project does not meet the criteria for a POAQC as defined in the final rule by 40 CFR 93.123(b)(1). The project is listed as one of the non-exempt project examples that are not a local air quality concern under 40 CFR 93.123(b)(1)(i) and (ii) stated as
 - “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”
- Additional reasons why the project is not a POAQC are:
 - Project will significantly improve the LOS of the intersection
 - Queues and idling times will be significantly reduced and in turn will reduce emissions
 - Signalization will help reduce left turn right-of-way conflict collisions that have been documented at this intersection

Questions?



Contact Information

Josh Rogers
City of Sanger
559-244-3123

San Joaquin Valley Project-Level Conformity Working Group

Project-Level Conformity Determination for Traffic Signal Project at the Intersection of Jensen Avenue and Indianola Avenue, City of Sanger, Fresno County

Meeting Minutes

May 22, 2024, 1:00 pm – 2:00 pm

The meeting was held via Zoom teleconference.

Attendees

- SJV AQ Coordinator (Trinity Consultants): Alex Marcucci, Suriya Vallamsundar
- City of Sanger Consultant (Yamabe & Horn Engineering, Inc): Josh Rogers, Aaron Martinez
- FCOG: Matthew Shimizu, Kai Han
- Caltrans HQ: Rodney Tavitas, Erika Espinosa Araiza, Karishma Becha
- EPA: Lindsay Wickersham, Karina O'Connor
- FTA: Celine Chen
- Others: Nick St Cook

Meeting Summary

1. Introductions

Commencing the meeting, AQ Coordinator provided opening remarks and conducted a roll call to establish the attendance of all participants.

2. Review of Non-Exempt Projects for the Project-level Particulate Matter (PM) Conformity

- Introductions and Project Overview: AQ Coordinator introduced the project in Fresno County that requires a conformity determination - *Traffic Signal at Jensen Avenue and Indianola Avenue in the City of Sanger*. This project is being funded through the CMAQ program.
- Project Presentation: Josh Rogers, representing the City of Sanger, presented the project details and the reasoning behind the proposed project-level conformity determination. Since this is an intersection signalization project that improves the level of service of the intersection and no traffic increase is expected, the City of Sanger concluded that this project is not a POAQC.
- Public Comment Period: FCOG informed the group that all project-level materials were available for public review on the COG website from May 14 - May 20, 2024. No comments were received during the designated public comment period. No comments were received from IAC partners during the draft conformity review.

3. Discussion

EPA asked to provide the rationale behind analysis year selection for traffic analysis. Project sponsor replied that future traffic estimates were provided consistent with the design year in the City of Sanger General Plan. To ensure consistency in future project analyses, EPA noted that project sponsors should utilize an analysis year consistent with the Regional Transportation Plan (RTP) horizon year. Caltrans emphasized adhering to the requirements outlined in 40 CFR 93.116 when selecting an analysis year.

4. Determination

EPA and Caltrans concurred that the project is not a POAQC.

5. Closing Remarks and Adjournment

AQ Coordinator informed the group that the final hot spot materials and meeting minutes will be posted to the FCOG website. FCOG will then send a final email to IAC documenting the concurrences received. The next project-level conformity meeting is scheduled for June 5, 2024.