# Air Quality Conformity Task Force <br> Metropolitan Transportation Commission Bay Area Metro Center <br> Mount Hamilton Conference Room 

375 Beale Street, Suite 800
(Note: Visitors must check in with the receptionist on the 7th floor)
San Francisco, CA
Conference Call Number: 888-273-3658 (Access Code: 9427202)
Thursday, July 27, 2017
9:30 a.m. -11:00 a.m.

## AGENDA

1. Welcome and Introductions
2. $\mathrm{PM}_{2.5}$ Project Conformity Interagency Consultations
a. Consultation to Determine Project of Air Quality Concern Status
i. Mathilda Avenue at Indio Way Traffic Signal Modification Project
ii. US 101 Managed Lanes Project
iii. $\quad 37^{\text {th }}$ Street Bicycle \& Pedestrian Improvement Project
iv. Fremont Boulevard Intersections Improvement Project
b. Confirm Projects Are Exempt from $\mathrm{PM}_{2.5}$ Conformity
i. Projects Exempt Under 40 CFR 93.126 - Not of Air Quality Concern
3. Projects with Regional Air Quality Conformity Concerns
a. Review of the Regional Conformity Status for New and Revised Projects

3a_Regional_AQ_Conformity_Review_Updated_072717.pdf
3a_Attachment-A_List_of_Proposed_New_Projects_072717.pdf
4. Release of Final Transportation Conformity Analysis for the Amended 2017 Transportation Improvement Program (TIP) and Plan Bay Area 2040 (Update)
5. Consent Calendar
a. June 22, 2017 Air Quality Conformity Task Force Meeting Summary
6. Other Items

Next Meeting: August 24, 2017
MTC Staff Liaison: Harold Brazil hbrazil@mtc.ca.gov

METROPOLITAN
TRANSPORTATION
COMMISSION

## Memorandum

TO: Air Quality Conformity Task Force
FR: Harold Brazil

DATE: July 14, 2016
W. I.

RE: PM2.5 Project Conformity Interagency Consultation
Project sponsors representing four projects, seek interagency consultation from the Air Quality Conformity Task Force (AQCTF) at today's meeting and the projects are as follows:

| No. | Project Sponsor | Project Title |
| :--- | :--- | :--- |
| 1 | City of Richmond | $37^{\text {th }}$ Street Bicycle \& Pedestrian Improvement <br> Project |
| 2 | City of Sunnyvale | Mathilda Avenue at Indio Way Traffic Signal <br> Modification Project |
| 3 | City/County Association of Governments of <br> San Mateo County | US 101 Managed Lanes Project |
| 4 | City of Fremont | Fremont Boulevard Intersections Improvement <br> Project |

## 2ai_37th_Street_Bicycle_\&_Pedestrian_Improvement_Project_Assessment_Form.pdf

 (for the $37^{\text {th }}$ Street Bicycle \& Pedestrian Improvement project)2aii_Mathilda_Avenue_at_Indio_Way_Traffic_Signal_Modification_Project_Assessment _Form.pdf (for the Mathilda Avenue at Indio Way Traffic Signal Modification project)

2aiii_US_101_Managed_Lanes_Project_Assessment_Form.pdf (for the US 101 Managed Lanes project)

2aiv_Fremont_Boulevard_Intersections_Improvement_Project_Assessment
_Form.pdf (for the Fremont Boulevard Intersections Improvement project)
MTC also requests the review and concurrence from the Task Force on projects which project sponsors have identified as exempt and likely not to be a POAQC. 2b_Exempt List 071417.pdf lists exempt projects under 40 CFR 93.126

# Application of Criteria for a Project of Air Quality Concern 

Project Title: $37^{\text {th }}$ Street Bicycle \& Pedestrian Improvement Project
Project Summary for Air Quality Conformity Task Force Meeting: (July 27, 2017)

## Description

- Project will implement "road diet" and "complete streets" concept to $37^{\text {th }}$ Street in the City of Richmond.
- Project limits on $37^{\text {th }}$ Street from Center Avenue to Cerrito Avenue
- Convert 4-lane roadway to 2-lanes, plus a single center left-turn lane
- Install a Class II dedicated bike lane for the entire project
- Upgrade existing curb ramps or install new curb ramps at multiple intersections
- Upgrade multiple pedestrian crossings


## Background

- NEPA process in progress for Construction phase
- Seeking air quality conformity determination on or before (June 22, 2017)
- Schedule based on deadline for HSIP funding allocation

Not a Project of Air Quality Concern (40 CFR 93.123(b)(1))
(i) New or expanded highway projects with significant number/increase in diesel vehicles?

- Not a new or expanded highway project
- Roadway lane reduction project with no addition of lanes or widening of existing right-of-way
- No change in traffic volume or truck percentages on Carlson Boulevard
(ii) Affects intersections at LOS D, E, or F with a significant number of diesel vehicles?
- LOS change at Barrett/37th St from LOS C to LOS E for the year 2040 scenario, as well as other locations of LOS D/E/F operations
- Project only proposes striping improvements at Barrett/37 ${ }^{\text {th }}$ (where the LOS C to LOS E condition occurs)
- City would be able to make further striping modifications for operational improvements if future conditions warrant
(iii) New bus and rail terminals and transfer points?-Not Applicable
(iv) Expanded bus and rail terminals and transfer points?—Not Applicable
(v) Affects areas identified in $P M_{10}$ or $P M_{2.5}$ implementation plan as site of violation?
- No state implementation plan for $\mathrm{PM}_{2.5}$
- Therefore, not identified in plan as an area of potential violation

```
RTIP ID# (required)
240746
TIP ID# (required)
CC-130047
Air Quality Conformity Task Force Consideration Date
July }201
Project Description (clearly describe project)
Install bicycle and pedestrian improvements on 37 th Street from Center Avenue to Cerrito Avenue.
Convert 4-lane roadway to }1\mathrm{ lane in each direction with center turn lane and bike lanes from Center
Avenue to Barrett Avenue, add bike lanes from Barrett Avenue to Cerrito Avenue. Install ADA-compliant
curb ramps at all intersections, where needed. Install pedestrian countdown signal heads at Barrett
Avenue and at Macdonald Avenue.
```

```
Type of Project:
This is a bicycle and pedestrian improvement project.
```

| County <br> Contra Costa | Narrative Location/Route \& Postmiles <br> The project is on $37^{\text {th }}$ Street in the City of Richmond, a local road, from Center Avenue to Cerrito Avenue. <br> Caltrans Projects - EA\# N/A - This is a City of Richmond project and not a Caltrans project. |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lead Agency: City of Richmond |  |  |  |  |  |  |  |
| Contact Person Tawfic Halaby |  | Phone\#(510) 621-1612 |  | $\begin{aligned} & \text { Fax\# } \\ & \text { (510) 307-8116 } \end{aligned}$ | Email: tawfic_halaby@ ci.richmond.ca.us. |  |  |
| Federal Action for which Project-Level PM Conformity is Needed (check appropriate box) |  |  |  |  |  |  |  |
| Categorical Exclusion (NEPA) |  | EA Draf | FONSI or Final EIS |  | PS\&E or Construction |  | Other |
| Scheduled Date of Federal Action: |  |  |  |  |  |  |  |
| NEPA Delegation - Project Type (check appropriate box) |  |  |  |  |  |  |  |
|  | X |  | Section 326 Categorical Exclusion |  | Section 327 - NonCategorical Exclusion |  |  |
| Current Programming Dates (as appropriate) |  |  |  |  |  |  |  |
|  | PE/Environmental |  | ENG | ROW |  |  | CON |
| Start | August 2016 |  | August 2016 | August 2016 |  |  | ber 2017 |
| End | July 2017 |  | August 2017 | August 2017 |  |  | mber 2018 |

Project Purpose and Need (Summary): (please be brief)
The City's Engineering Department hired a consultant to complete a Traffic Safety Study. A survey was sent to Richmond residents and the Study indicated $37^{\text {th }}$ Street ranked high on the list.
This project addresses bicycle and pedestrian safety concerts by installing bicycle facilities, enhanced pedestrian crossings, and ADA accessible curb ramps.
Twenty one collisions were reported at the intersection of $37^{\text {th }}$ Street and Barrett Avenue between 2002 and 2011. This project addresses vehicular traffic safety concerts by implementing a road diet to calm traffic.
This project embraces the complete street model to encourage bicycle, pedestrian, and transit use in the City of Richmond by creating safer facilities.

## Surrounding Land Use/Traffic Generators (especially effect on diesel traffic)

The project connects two residential neighborhoods and includes a BART undercrossing. The project crosses two Arterial Streets: Barrett Avenue, which contains one on-ramp and one off-ramp for highway 80 and connects Civic Center to Highway 80/San Pablo Avenue; and Macdonald Avenue, which contains one off-ramp for highway 80 and connects Civic Center to Highway 80/San Pablo Avenue. Macdonald Avenue is also a Bus Route and connects to the Richmond BART station and downtown Richmond. There are a few commercial properties at the intersection with Macdonald.

## Brief summary of assumptions and methodology used for conducting analysis

$37^{\text {th }}$ Street is highlighted as a Key Corridor in the City's Pedestrian Plan. The project will not affect the amount of diesel traffic as this project is not a trip generator; rather it is a striping modification and ADA project.

Opening Year: If facility is a highway or street, Build and No Build LOS, AADT, \% and \# trucks, truck AADT of proposed facility

Table 1. Opening Year (2017) intersection levels of service (LOS)

| TABLE 1: OPENING YEAR (YEAR 2017) PEAK HOUR INTERSECTION OPERATIONS |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Intersection |  | Intersection Control | Peak Hour ${ }^{1}$ | Opening Year No Build Conditions |  | Opening Year Build Conditions |  |
|  |  | Delay ${ }^{2}$ |  | LOS $^{3}$ | Delay ${ }^{2}$ | LOS $^{3}$ |
| 1 | Barrett Avenue/ <br> 37 ${ }^{\text {th }}$ Street |  | Signalized | $\begin{aligned} & \text { AM } \\ & \text { PM } \end{aligned}$ | $\begin{aligned} & 11.9 \\ & 14.9 \end{aligned}$ | $\begin{aligned} & \mathrm{B} \\ & \mathrm{~B} \end{aligned}$ | $\begin{aligned} & 19.7 \\ & 23.8 \end{aligned}$ | $\begin{aligned} & \mathrm{B} \\ & \mathrm{C} \end{aligned}$ |
| 2 | Nevin Avenue/ <br> 37 ${ }^{\text {th }}$ Street | Side-Street Stop-Controlled | $\begin{aligned} & \text { AM } \\ & \text { PM } \end{aligned}$ | $\begin{aligned} & 1.6(15.3) \\ & 1.3(15.4) \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{A}(\mathrm{C}) \\ & \mathrm{A}(\mathrm{C}) \end{aligned}$ | $\begin{aligned} & 1.9 \text { (19.6) } \\ & 1.4 \text { (18.2) } \end{aligned}$ | $\begin{aligned} & \mathrm{A}(\mathrm{C}) \\ & \mathrm{A}(\mathrm{C}) \end{aligned}$ |
| 3 | MacDonald Avenue/ 37th Street | Signalized | $\begin{aligned} & \text { AM } \\ & \text { PM } \end{aligned}$ | $\begin{aligned} & 12.8 \\ & 13.0 \end{aligned}$ | $\begin{aligned} & \text { B } \\ & \text { B } \end{aligned}$ | $\begin{aligned} & 16.0 \\ & 18.0 \end{aligned}$ | $\begin{aligned} & \mathrm{B} \\ & \mathrm{~B} \end{aligned}$ |
| 4 | Bissell Avenue/ <br> 37th Street | Side-Street Stop-Controlled | $\begin{aligned} & \mathrm{AM} \\ & \mathrm{PM} \end{aligned}$ | $\begin{aligned} & \hline 2.6 \text { (35.0) } \\ & 5.7 \text { (50.4) } \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { A (E) } \\ & \text { A (F) } \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 3.1 \text { (47.2) } \\ & 8.6 \text { (77.6) } \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \mathrm{A}(\mathrm{E}) \\ & \mathrm{A}(\mathrm{~F}) \\ & \hline \end{aligned}$ |
| 5 | Chanslor Avenue/ <br> 37th Street | Side-Street Stop-Controlled | $\begin{aligned} & \text { AM } \\ & \text { PM } \end{aligned}$ | $\begin{aligned} & \hline 0.5(15.7) \\ & 0.3(16.2) \end{aligned}$ | $\begin{aligned} & \text { A (C) } \\ & \text { A (C) } \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 0.5 \text { (16.6) } \\ & 0.3 \text { (14.9) } \end{aligned}$ | $\begin{aligned} & \hline \text { A (C) } \\ & \text { A (B) } \\ & \hline \end{aligned}$ |
| 6 | Center Avenue/ $37^{\text {th }}$ Street | Side-Street Stop-Controlled | $\begin{aligned} & \mathrm{AM} \\ & \mathrm{PM} \end{aligned}$ | $\begin{aligned} & \hline 4.2 \text { (47.0) } \\ & 2.8 \text { (38.9) } \end{aligned}$ | $\begin{aligned} & \text { A (E) } \\ & \text { A (E) } \end{aligned}$ | $\begin{aligned} & \hline 4.2 \text { (47.0) } \\ & 2.8 \text { (38.9) } \end{aligned}$ | $\begin{aligned} & \hline \mathrm{A}(\mathrm{E}) \\ & \mathrm{A}(\mathrm{E}) \\ & \hline \end{aligned}$ |

Notes:

1. $\mathrm{AM}=$ morning peak hour, $\mathrm{PM}=$ evening peak hour
2. Whole intersection average delay in seconds presented for signalized intersections. Whole intersection delay in seconds (worst approach delay in seconds) reported for side-street stop-controlled intersections. Delays calculated per 2010 Highway Capacity Manual methodologies.
3. LOS per 2010 Highway Capacity Manual definitions.

Bold indicates unacceptable operations (below LOS D standard)
Source: Fehr \& Peers, June 2017
Table 2. Opening Year (2017) ADT, \% Trucks and Truck ADT.

| Segment | ADT |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | No Build |  | Build |  | Truck increase: <br> Build over <br> No Build |
|  | Total | Trucks <br> $\mathbf{( 2 . 4 9 \% )}$ | Total | Trucks <br> $\mathbf{( 2 . 4 9 \% )}$ | No Change |
| 37th Street between Center Street and Chanslor Avenue <br> (BART undercrossing segment) | 12,220 | 310 | 12,220 | 310 | N |

Source: Fehr \& Peers, June 2017

RTP Horizon Year / Design Year: If facility is a highway or street, Build and No Build LOS, AADT, \% and \# trucks, truck AADT of proposed facility

Table 3. RTP horizon year (2040) intersection levels of service (LOS).
TABLE 3: RTP HORIZON YEAR (YEAR 2040) PEAK HOUR INTERSECTIONS OPERATIONS

| Intersection |  | Intersection Control | Peak <br> Hour ${ }^{1}$ | Horizon Year <br> No Build Conditions |  | Horizon Year Build Conditions |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Delay ${ }^{2}$ |  | LOS $^{3}$ | Delay ${ }^{2}$ | LOS $^{3}$ |
| 1 | Barrett Avenue/ 37 ${ }^{\text {th }}$ Street |  | Signalized | AM <br> PM | $\begin{aligned} & 22.1 \\ & 31.7 \end{aligned}$ | $\begin{aligned} & \mathrm{C} \\ & \mathrm{C} \end{aligned}$ | $\begin{aligned} & 69.9 \\ & 66.9 \end{aligned}$ | $\begin{aligned} & \mathrm{E} \\ & \mathrm{E} \end{aligned}$ |
| 2 | Nevin Avenue/ 37 th Street | Side-Street Stop-Controlled | AM <br> PM | $\begin{aligned} & 2.6 \text { (23.1) } \\ & 2.4 \text { (26.4) } \end{aligned}$ | $\begin{aligned} & \text { A (C) } \\ & \text { A (D) } \end{aligned}$ | $\begin{aligned} & 3.3 \text { (34.1) } \\ & 2.9 \text { (34.7) } \end{aligned}$ | $\begin{aligned} & \text { A (D) } \\ & \text { A (D) } \end{aligned}$ |
| 3 | MacDonald Avenue/ 37th Street | Signalized | AM <br> PM | $\begin{aligned} & 15.5 \\ & 19.2 \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{B} \\ & \mathrm{~B} \\ & \hline \end{aligned}$ | $\begin{aligned} & 18.5 \\ & 28.7 \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{B} \\ & \mathrm{C} \end{aligned}$ |
| 4 | Bissell Avenue/ <br> 37 th Street | Side-Street Stop-Controlled | $\begin{aligned} & \mathrm{AM} \\ & \mathrm{PM} \\ & \hline \end{aligned}$ | $\begin{gathered} \hline 6.8 \text { (94.9) } \\ 32.5(>\mathbf{1 2 0}) \\ \hline \end{gathered}$ | $\begin{aligned} & \hline \mathrm{A}(\mathbf{F}) \\ & \mathrm{D}(\mathbf{F}) \\ & \hline \end{aligned}$ | $\begin{aligned} & 12.7(>\mathbf{1 2 0}) \\ & \mathbf{5 0 . 3}(>\mathbf{1 2 0}) \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{A}(\mathbf{F}) \\ & \mathrm{E}(\mathrm{~F}) \\ & \hline \end{aligned}$ |
| 5 | Chanslor Avenue/ 37th Street | Side-Street Stop-Controlled | $\begin{aligned} & \mathrm{AM} \\ & \mathrm{PM} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 0.9(21.2) \\ & 0.4(17.2) \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{A}(\mathrm{C}) \\ & \mathrm{A}(\mathrm{C}) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 0.8(19.8) \\ & 0.4(17.1) \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{A}(\mathrm{C}) \\ & \mathrm{A}(\mathrm{C}) \\ & \hline \end{aligned}$ |
| 6 | Center Avenue/ 37th Street | Side-Street Stop-Controlled | AM <br> PM | $\begin{array}{ll} \hline 13.2 & (>\mathbf{1 2 0}) \\ 11.0 & (>\mathbf{1 2 0}) \\ \hline \end{array}$ | $\begin{aligned} & \mathrm{B}(\mathbf{F}) \\ & \mathrm{B}(\mathbf{F}) \\ & \hline \end{aligned}$ | $\begin{array}{ll} \hline 13.2 & (>\mathbf{1 2 0}) \\ 11.0 & (>\mathbf{1 2 0}) \\ \hline \end{array}$ | $\begin{aligned} & \mathrm{B}(\mathbf{F}) \\ & \mathrm{B}(\mathrm{~F}) \\ & \hline \end{aligned}$ |

## Notes:

1. $\mathrm{AM}=$ morning peak hour, $\mathrm{PM}=$ evening peak hour
2. Whole intersection average delay in seconds presented for signalized intersections. Whole intersection delay in seconds (worst approach delay in seconds) reported for side-street stop-controlled intersections. Delays calculated per 2010 Highway Capacity
Manual methodologies.
3. LOS per 2010 Highway Capacity Manual definitions.

Bold indicates unacceptable operations (below LOS D standard)
Source: Fehr \& Peers, June 2017
Table 4. RTP Horizon Year (2040) ADT, \% Trucks and Truck ADT.

| Segment | ADT |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | No Build |  | Build |  | Truck increase: <br> Build over <br> No Build |
|  | Total | Trucks <br> $\mathbf{( 2 . 4 9 \% )}$ | Total | Trucks <br> $(\mathbf{2 . 4 9 \%})$ | No Change |

Source: Fehr \& Peers, June 2017

Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, \% and \# trucks, truck AADT
N/A

RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, \% and \# trucks, truck AADT
N/A

Opening Year: If facility is a bus, rail or intermodal facility/terminal/transfer point, \# of bus arrivals for Build and No Build, \% and \# of bus arrivals will be diesel buses
N/A

RTP Horizon Year I Design Year: If facility is a bus, rail or intermodal facility/terminal/transfer point, \# of bus arrivals for Build and No Build, \% and \# of bus arrivals will be diesel buses N/A

Describe potential traffic redistribution effects of congestion relief (impact on other facilities) The new bike lanes and pedestrian facilities will encourage alternate modes of transportation. Macdonald Avenue is a bus route; Lovonya DeJean Middle School is located at $35^{\text {th }}$ Street and Macdonald Avenue; A Target store and other commercial facilities are located at $42^{\text {nd }}$ Street and Macdonald Avenue.

Comments/Explanation/Details (please be brief)

## Project Location



## City of Richmond Diesel Truck Route Map



Map 4.4
Existing Truck Routes


Note: This map is provided for informational purposes only. It may be periodically updated by the the
Richmond Engineering Services Department.

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# 37 ${ }^{\text {th }}$ Street Bicycle \& Pedestrian Improvements Project 

Tawfic N. Halaby, P.E., Senior Civil Engineer
Engineering \& Capital Improvement Projects Department
City of Richmond

Air Quality Conformity Task Force Meeting
July 27, 2017

## Project Location



# View of $37^{\text {th }}$ Street Facing North From MacDonald Avenue 



# View of $37^{\text {th }}$ Street Facing South Just North of Nevin Avenue 



## View of $37^{\text {th }}$ Street Facing South From Barrett Avenue



## Project Purpose

- Complete Streets
- Safety improvements for bicyclists, pedestrians, and vehicles along the $37^{\text {th }}$ Street corridor
- Install bicycle facilities in accordance with the City's Bicycle Master Plan
- Facilitate increased bicycling, walking, and transit use to schools, work, BART stations in accordance with City's Health in All Policies paradigm


## Project Description

- $37^{\text {th }}$ Street in Richmond, between Center Street and Cerrito Avenue
- Length is about 0.7 miles
- ADA compliant curb ramps
- Improved crosswalks
- Bicycle Facilities
- Pedestrian safety modifications at traffic signals


## Project Need

- Residential areas
- John F. Kennedy High School, Lovonya DeJean Middle School , King Elementary School
- Target Store and commercial area
- Richmond Civic Center
- Richmond Multimodal Station (BART, Amtrak, AC transit, other transit operators)
- Existing bicycle network
- AC Transit lines


## Road Diet

- From Center Avenue to Barrett Avenue (5 blocks)
- About 0.44 miles of road diet
- Reduce four lane road with two travel lanes in each direction into a three lane road with one travel lane in each direction, one center turn lane, and one Class II bike lane in each direction


# Opening Year (2017) Intersection Levels of Service 

TABLE 1: OPENING YEAR (YEAR 2017) PEAK HOUR INTERSECTION OPERATIONS

| Intersection |  | Intersection Control | Peak <br> Hour ${ }^{1}$ | Opening Year No Build Conditions |  | Opening Year Build Conditions |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Delay ${ }^{2}$ |  | LOS $^{3}$ | Delay ${ }^{2}$ | LOS $^{3}$ |
| 1 | Barrett Avenue/ <br> 37 ${ }^{\text {th }}$ Street |  | Signalized | $\begin{aligned} & \text { AM } \\ & \text { PM } \end{aligned}$ | $\begin{aligned} & 11.9 \\ & 14.9 \end{aligned}$ | $\begin{aligned} & B \\ & B \end{aligned}$ | $\begin{aligned} & 19.7 \\ & 23.8 \end{aligned}$ | $\begin{aligned} & \mathrm{B} \\ & \mathrm{C} \end{aligned}$ |
| 2 | Nevin Avenue/ <br> $37^{\text {th }}$ Street | Side-Street StopControlled | AM PM | $\begin{aligned} & 1.6(15.3) \\ & 1.3(15.4) \end{aligned}$ | $\begin{aligned} & \text { A (C) } \\ & \text { A (C) } \end{aligned}$ | $\begin{aligned} & 1.9 \text { (19.6) } \\ & 1.4(18.2) \end{aligned}$ | $\begin{aligned} & \text { A (C) } \\ & \text { A (C) } \end{aligned}$ |
| 3 | MacDonald Avenue/ 37 ${ }^{\text {th }}$ Street | Signalized | $\begin{aligned} & \text { AM } \\ & \text { PM } \end{aligned}$ | $\begin{aligned} & 12.8 \\ & 13.0 \end{aligned}$ | $\begin{aligned} & \text { B } \\ & \text { B } \end{aligned}$ | $\begin{aligned} & 16.0 \\ & 18.0 \end{aligned}$ | $\begin{aligned} & \mathrm{B} \\ & \mathrm{~B} \end{aligned}$ |
| 4 | Bissell Avenue/ <br> 37 ${ }^{\text {th }}$ Street | Side-Street StopControlled | $\begin{aligned} & \text { AM } \\ & \text { PM } \end{aligned}$ | $\begin{aligned} & 2.6 \text { (35.0) } \\ & 5.7 \text { (50.4) } \end{aligned}$ | $\begin{aligned} & A(E) \\ & A(F) \end{aligned}$ | $\begin{aligned} & 3.1(47.2) \\ & 8.6(77.6) \end{aligned}$ | $\begin{aligned} & A(E) \\ & A(F) \end{aligned}$ |
| 5 | Chanslor Avenue/ 37 ${ }^{\text {th }}$ Street | Side-Street StopControlled | AM PM | $\begin{aligned} & 0.5(15.7) \\ & 0.3(16.2) \end{aligned}$ | $\begin{aligned} & \text { A (C) } \\ & \text { A (C) } \end{aligned}$ | $\begin{aligned} & 0.5(16.6) \\ & 0.3(14.9) \end{aligned}$ | $\begin{aligned} & \text { A (C) } \\ & \text { A (B) } \end{aligned}$ |
| 6 | Center Avenue/ <br> $37^{\text {th }}$ Street | Side-Street StopControlled | $\begin{aligned} & \text { AM } \\ & \text { PM } \end{aligned}$ | $\begin{aligned} & 4.2 \text { (47.0) } \\ & 2.8 \text { (38.9) } \end{aligned}$ | $\begin{aligned} & A(E) \\ & A(E) \end{aligned}$ | $\begin{aligned} & 4.2 \text { (47.0) } \\ & 2.8 \text { (38.9) } \end{aligned}$ | $\begin{aligned} & A(E) \\ & A(E) \end{aligned}$ |

## Notes:

1. $\mathrm{AM}=$ morning peak hour, $\mathrm{PM}=$ evening peak hour
2. Whole intersection average delay in seconds presented for signalized intersections. Whole intersection delay in seconds (worst approach delay in seconds) reported for side-street stop-controlled intersections. Delays calculated per 2010 Highway Capacity Manual methodologies.
3. LOS per 2010 Highway Capacity Manual definitions.

Bold indicates unacceptable operations (below LOS D standard)
Source: Fehr \& Peers, June 2017

# RTP Horizon Year (2040) Peak Hour Intersections Operations 

## TABLE 3: RTP HORIZON YEAR (YEAR 2040) PEAK HOUR INTERSECTIONS OPERATIONS

| Intersection |  | Intersection Control | Peak Hour ${ }^{1}$ | Horizon Year No Build Conditions |  | Horizon Year Build Conditions |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Delay ${ }^{2}$ |  | $L^{\text {LOS }}$ | Delay ${ }^{2}$ | LOS $^{3}$ |
| 1 | Barrett Avenue/ 37 ${ }^{\text {th }}$ Street |  | Signalized | $\begin{aligned} & \text { AM } \\ & \text { PM } \end{aligned}$ | $\begin{aligned} & 22.1 \\ & 31.7 \end{aligned}$ | $\begin{aligned} & \text { C } \\ & \text { C } \end{aligned}$ | $\begin{aligned} & 69.9 \\ & 66.9 \end{aligned}$ | $E$ |
| 2 | Nevin Avenue/ 37 ${ }^{\text {th }}$ Street | Side-Street StopControlled | $\begin{aligned} & \text { AM } \\ & \text { PM } \end{aligned}$ | $\begin{aligned} & 2.6(23.1) \\ & 2.4(26.4) \end{aligned}$ | $\begin{aligned} & \text { A (C) } \\ & \text { A (D) } \end{aligned}$ | $\begin{aligned} & 3.3 \text { (34.1) } \\ & 2.9(34.7) \end{aligned}$ | $\begin{aligned} & \text { A (D) } \\ & \text { A (D) } \end{aligned}$ |
| 3 | MacDonald Avenue/ 37 ${ }^{\text {th }}$ Street | Signalized | $\begin{aligned} & \text { AM } \\ & \text { PM } \end{aligned}$ | $\begin{aligned} & 15.5 \\ & 19.2 \end{aligned}$ | $\begin{aligned} & B \\ & B \end{aligned}$ | $\begin{aligned} & 18.5 \\ & 28.7 \end{aligned}$ | $\begin{aligned} & \mathrm{B} \\ & \mathrm{C} \end{aligned}$ |
| 4 | Bissell Avenue/ 37 ${ }^{\text {th }}$ Street | Side-Street StopControlled | $\begin{aligned} & \text { AM } \\ & \text { PM } \end{aligned}$ | $\begin{gathered} 6.8 \text { (94.9) } \\ 32.5 \text { (>120) } \end{gathered}$ | $\begin{aligned} & \mathrm{A}(\mathbf{F}) \\ & \mathrm{D}(\mathrm{~F}) \end{aligned}$ | $\begin{aligned} & 12.7 \text { (>120) } \\ & 50.3 \text { (>120) } \end{aligned}$ | $\begin{aligned} & A(F) \\ & E(F) \end{aligned}$ |
| 5 | Chanslor Avenue/ 37 ${ }^{\text {th }}$ Street | Side-Street StopControlled | $\begin{aligned} & \text { AM } \\ & \text { PM } \end{aligned}$ | $\begin{aligned} & 0.9(21.2) \\ & 0.4(17.2) \end{aligned}$ | $\begin{aligned} & \text { A (C) } \\ & \text { A (C) } \end{aligned}$ | $\begin{aligned} & 0.8(19.8) \\ & 0.4(17.1) \end{aligned}$ | $\begin{aligned} & \mathrm{A}(\mathrm{C}) \\ & \mathrm{A}(\mathrm{C}) \end{aligned}$ |
| 6 | Center Avenue/ $37^{\text {th }}$ Street | Side-Street StopControlled | $\begin{aligned} & \text { AM } \\ & \text { PM } \end{aligned}$ | $\begin{aligned} & 13.2(>120) \\ & 11.0(>120) \end{aligned}$ | $\begin{aligned} & \mathrm{B}(F) \\ & \mathrm{B}(\mathrm{~F}) \end{aligned}$ | $\begin{aligned} & 13.2(>120) \\ & 11.0(>120) \end{aligned}$ | $\begin{aligned} & \mathrm{B}(F) \\ & \mathrm{B}(\mathrm{~F}) \end{aligned}$ |

Notes:

1. $\mathrm{AM}=$ morning peak hour, $\mathrm{PM}=$ evening peak hour
2. Whole intersection average delay in seconds presented for signalized intersections. Whole intersection delay in seconds (worst approach delay in seconds) reported for side-street stop-controlled intersections. Delays calculated per 2010 Highway Capacity Manual methodologies.
3. LOS per 2010 Highway Capacity Manual definitions.

Bold indicates unacceptable operations (below LOS D standard)
Source: Fehr \& Peers, June 2017

# City of Richmond Diesel Truck Route Map 



Map 4.4
Existing Truck Routes

| (1) $22 n \mathrm{nd}$ St. | -16) Marina Bay Pkwy. |
| :---: | :---: |
| 2)- 23 rdSt . | -(17) Marina Way So. |
| 3) Atlas Rd. | (18) Meeker Ave. |
| - Blume Dr. | -(19)- Ohio Ave. |
| - Canal Blvd. | (20)- Parr Blvd. |
| - Central Ave. | -21) Regatta Blvd. |
| -7)- Dornan Dr. | -(22) Richmond Pkwy. |
| (8)- Garrard Blvd. | (23)- San Pablo Ave. |
| -9)- Giant Hwy. | -24-- San Pablo Dam Rd |
| (10)- Hall Ave. | -(25) So. 4th St. |
| (11)- Harbour Wy. So. | (26) W. Cutting Blvd. |
| (12)- Hilltop Dr. | -27)- Wright Ave. |
| (13) 1-580 |  |
| (14) 1-80 |  |
| -15)- Macdonald Ave. |  |

Note: This map is provided for informational purposes only. It may be periodically updated by the the City
Richmond Engineering Services Department.
$100^{50}$ acres
(1)


## Opening Year ADT, \% Trucks and Truck ADT

| Segment | ADT |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No Build |  | Build |  | Truck increase: Build over No Build |
|  | Total | $\begin{aligned} & \text { Trucks } \\ & \text { (2.49\%) } \end{aligned}$ | Total | $\begin{aligned} & \text { Trucks } \\ & \text { (2.49\%) } \end{aligned}$ |  |
| 37 ${ }^{\text {th }}$ Street between Center Street and Chanslor Avenue (BART undercrossing segment) | 12,220 | 310 | 12,220 | 310 | No Change |

Source: Fehr \& Peers, June 2017

## RTP Horizon Year (2040) ADT, \% Trucks, and Truck ADT



Source: Fehr \& Peers, June 2017

## Not a Project of Air Quality Concern

- Project will encourage active modes of travel and will improve safety
- $2.5 \%$ truck vehicle use
- Project has no direct impact on volumes of truck traffic
- Traffic Study by Fehr \& Peers concludes the corridor is anticipated to operate at an acceptable level of service


# Project Assessment Form for $\mathrm{PM}_{2.5}$ Interagency Consultation 

 Application of Criteria for a Project of Air Quality ConcernProject Title: Mathilda Avenue at Indio Way Traffic Signal Modification, Sunnyvale CA Project Summary for Air Quality Conformity Task Force Meeting: (July 27, 2017)

## Description

- Existing signalized intersection. Replace existing signal poles with longer mast arms on all four corners.
- Install Type 1-A signal poles and Type 15 TS poles to supplement signal indications to be provided with the longer mast arm signal poles
- Install new vehicle detection cameras on all approaches
- Install new pedestrian detection cameras at all crosswalks
- Install new Type 333 controller cabinet
- Install new countdown pedestrian signal heads
- Install new 12" vehicular signal heads on all approaches
- Install new LED safety lighting at the intersection
- Install new APS push buttons


## Background

- NEPA process for the project is a Categorical Exemption with the preparation of technical memos for Caltrans processing
- Seeking air quality conformity determination on or before July 2017
- Schedule based on deadline for HSIP funding allocation


## Not a Project of Air Quality Concern (40 CFR 93.123(b)(1))

(i) New or expanded highway projects with significant number/increase in diesel vehicles?

- Not a new or expanded highway project
- Intersection traffic signal modification project
- Signal modification will not increase traffic volume or truck percentages on the roadway
(ii) Affects intersections at LOS D, E, or F with a significant number of diesel vehicles?
- Diesel vehicles represent 2\% of traffic volume on Indio Way and ten (10) percent of traffic volume on Mathilda Avenue. Mathilda Avenue is identified on the City of Sunnyvale's designated truck routes system. Truck volumes on Mathilda Avenue are expected to increase to 10 percent of the ADT while truck volumes on Indio Way would remain at two percent in the 2040 horizon year.
- This project does not change land use and will not lead to an increase in traffic volumes or an increase in diesel vehicle number or percentage of daily traffic volumes inside or outside of the project area as a result of the safety project.
(iii) New bus and rail terminals and transfer points?-Not Applicable
(iv) Expanded bus and rail terminals and transfer points?—Not Applicable
(v) Affects areas identified in $P M_{10}$ or $P M_{2.5}$ implementation plan as site of violation?
- No state implementation plan for $\mathrm{PM}_{2.5}$
- Therefore, not identified in plan as an area of potential violation


```
Project Purpose and Need (Summary): (please be brief)
The project is intended to improve safety at the intersection by reducing the frequency of collisions and
conflicts between vehicles and pedestrians or bicycles. The project improvements include modification of
the existing traffic signalized intersection by replacing the existing traffic signal poles with longer mast arm
poles, adding protected left turn phasing on the side streets, installing countdown pedestrian signal
heads, LED safety lighting at the intersection, vehicular and bicycle video detection cameras, pedestrian
detection camera system, and an upgraded traffic signal controller cabinet.
Surrounding Land Use/Traffic Generators (especially effect on diesel traffic)
The surrounding land uses at the intersection are office and residential.
```

```
Brief summary of assumptions and methodology used for conducting analysis
```

Brief summary of assumptions and methodology used for conducting analysis
Traffic counts were taken June, 2015. The percentage of trucks using the roadway was determined to be
Traffic counts were taken June, 2015. The percentage of trucks using the roadway was determined to be
ten percent (10%) for Mathilda Avenue and two percent (2%) for Indio Way. Intersection operations are
ten percent (10%) for Mathilda Avenue and two percent (2%) for Indio Way. Intersection operations are
defined by the average control delay per vehicle (measured in seconds) for each movement that must
defined by the average control delay per vehicle (measured in seconds) for each movement that must
yield the right of way. At side street controlled intersections, the control delay (and LOS) is calculated for
yield the right of way. At side street controlled intersections, the control delay (and LOS) is calculated for
each controlled movement, as well as the left turn movement from the major street, and the entire
each controlled movement, as well as the left turn movement from the major street, and the entire
intersection. The delays for the entire intersection and for the movement or approach with the highest
intersection. The delays for the entire intersection and for the movement or approach with the highest
delay are reported.
delay are reported.
The project will modify the existing traffic signal by replacing the existing signal poles with poles with
The project will modify the existing traffic signal by replacing the existing signal poles with poles with
longer mast arms, replacing the push buttons and pedestrian signal heads and signal cabinet, and would
longer mast arms, replacing the push buttons and pedestrian signal heads and signal cabinet, and would
not result in any change in traffic volumes or truck percentages at the intersection. As shown below, the
not result in any change in traffic volumes or truck percentages at the intersection. As shown below, the
project would not lead to any increases in the number of diesel vehicles at the intersection. As such, the
project would not lead to any increases in the number of diesel vehicles at the intersection. As such, the
criteria for a project of air quality concern should not apply to this project.
criteria for a project of air quality concern should not apply to this project.
Opening Year: If facility is a highway or street, Build and No Build LOS, AADT, % and \# trucks,
Opening Year: If facility is a highway or street, Build and No Build LOS, AADT, % and \# trucks,
truck AADT of proposed facility
truck AADT of proposed facility
n/a
n/a
RTP Horizon Year / Design Year: If facility is a highway or street, Build and No Build LOS, AADT,
RTP Horizon Year / Design Year: If facility is a highway or street, Build and No Build LOS, AADT,
% and \# trucks, truck AADT of proposed facility
% and \# trucks, truck AADT of proposed facility
n/a

```
n/a
```

Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, \% and \# trucks, truck AADT

| Street | Build (Year 2019) |  |  | No-Build |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total ADT | Trucks |  | Total ADT | Trucks |  |
|  |  | ADT \# | \%age |  | ADT \# | \%age |
|  |  |  |  |  |  |  |
| Mathilda Ave | 49,756 | 4,976 | 10 | 49,756 | 4,976 | 10 |
| Indio Way | 6,132 | 123 | 2 | 6,132 | 123 | 2 |

The ADT's on Mathilda Avenue and Indio Way are approximately 46,070 vehicles per day in 2015. The opening year is anticipated to be in 2019. A growth factor of $2 \%$ per year was added to this count for estimating the ADT in 2019. (This ADT is also representative of the AADT.)
Mathilda Avenue is on the City of Sunnyvale's designated truck route system. Truck traffic represents approximately $10 \%$ of the ADT on Mathilda Avenue or approximately 4,976 trucks (or heavy vehicles) per day and $2 \%$ of the ADT on Indio Way or approximately 123 trucks (or heavy vehicles) per day.

No change in the ADT, truck percentage, or truck ADT is expected on Mathilda Avenue or Indio Way as a result of the proposed project (Build scenario).

RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, \% and \# trucks, truck AADT
Year 2040 forecasts for LOS, ADT, Truck ADT and percentage of trucks are listed below. The percentage of trucks would remain unchanged on Indio Way but increase on Mathilda Avenue (a designated truck route) from current levels.

| Street | Build |  |  | No-Build |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total ADT | Trucks |  | Total ADT | Trucks |  |
|  |  | ADT \# | \%age |  | ADT \# | \%age |
| Mathilda Ave | 66,743 | 6,674 | 10 | 66,743 | 6,674 | 10 |
| Indio Way | 8,382 | 838 | 2 | 8,382 | 838 | 2 |

Although the 2040 ADT, Truck percentage, and truck ADT is expected to increase on Mathilda Avenue, none of these increases results from the project.

Describe potential traffic redistribution effects of congestion relief (impact on other facilities) No redistribution of vehicular traffic is anticipated due to implementation of the proposed project. No impact on other facilities, therefore, will result from the project.

## Comments/Explanation/Details (please be brief)

The proposed project includes developing environmental clearance documents and plans and specifications to allow for safety improvements at the intersection in accordance with Caltrans standards.

These improvements include modification of the existing traffic signalized intersection by replacing the existing traffic signal poles with longer mast arm poles, replacing the signal heads for all approaches with 12 " vehicular signal heads, adding protected left turn phasing on the side streets, installing countdown pedestrian signal heads, LED safety lighting at the intersection, vehicular and bicycle video detection cameras, pedestrian detection camera system, and an upgraded traffic signal controller cabinet.

The project is not expected to create more congestion or increase the volume of diesel-powered vehicles on the streets within the project limits or any other streets in the City of Sunnyvale. Therefore, no negative environmental or air quality impacts are anticipated as a result of this project. The project will significantly increase the safety of vehicles and multimodal users at this intersection.

Based on the project information provided in this report, we believe that is should not be considered a project of air quality concern and therefore, should not be required to complete PM 2.5 hot-spot analysis for project-level conformity determination.

Figure 1: Project Vicinity


Figure 2: Project Location


## 415 N Mathilda Ave



Sunnwale California

380 N Mathilda Ave $\odot:$
Sunnyvale, California
(3) - Street View - Apr 2017

## 







# Application of Criteria for a Project of Air Quality Concern 

Project Title: United States 101 Managed Lanes Project<br>Project Summary for Air Quality Conformity Task Force Meeting: July 27, 2017

## Description

- The project would convert existing High-Occupancy Vehicle (HOV) lanes on US Highway 101 (US 101) to express lanes, add an HOV lane in one portion of the project area, and/or add an express lane to another portion of the project area through the following alternatives (see Attachments for Project Location Maps 1-1 and 1-2):
- Alternative 1: No-Build - Under this alternative, the existing express lanes from San Antonio Road in Santa Clara County to Whipple Avenue in San Mateo County would continue with no other lane additions along US 101 from the Whipple Avenue interchange to the I-380 interchange. The No Build Alternative represents the baseline condition against which the Build Alternative will be compared. The No Build Alternative would include all currently planned and programmed projects on US 101 within the project limits through the year 2040, as identified in the US 101 Corridor System Management Plan.
- Alternative 2: HOV Lane Alternative - This alternative maintains the existing HOV lanes in the southern segment (PM SCL 50.6 to PM SM 6.3) and adds a new HOV lane in each direction from PM SM 6.3 to PM 21.8. This alternative would result in a continuous HOV lane in both directions from PM SCL 50.6 to SM PM 21.8. Depending on the location, these changes would be accommodated through a combination of restriping of existing pavement and additional pavement. Alternative 2 would have the same roadway lane layout along the entire corridor as Alternative 4, but would not include expressway signs and tolling equipment.
- Alternative 3: Express Lane Alternative - This alternative converts the existing HOV lanes (PM SCL 50.6 to PM SM 6.3) and a general purpose lane (PM SM 6.3 to PM SM 21.8) in each direction to express lanes, creating a continuous express lane in each direction from PM SCL 50.6 to PM SM 21.8. This alternative would not add any additional general purpose lanes to the project corridor and would not widen the freeway. No additional right-of-way acquisition would be required.
- Alternative 4: Express Lane Alternative - This alternative converts the existing HOV lanes (PM SCL 50.6 to PM SM 6.3) to express lanes, and adds an additional through lane (PM SM 6.3 to PM SM 21.8) to be used as an express lane. This alternative would create a continuous express lane in each direction from PM SCL 50.6 to PM SM 21.8. This alternative would have approximately the same lanes, layout, and right-of-way needs as the HOV lanes in Alternative 2.
- The purpose of the proposed project is to alleviate existing and projected traffic congestion as well as to maximize use of the HOV lane and incentivize public transportation.
- The project would also install new signage, striping, and various forms of intelligent transportation systems (ITS) such as static and dynamic overhead signs, electronic tolling system equipment, a toll collection system, and closed-caption television cameras (CCTV).


## Background

- Technical studies are in preparation to support the CEQA/NEPA process for an Environmental Impact Report/Environmental Assessment (EIR/EA)
- Public review for the EIR/EA is scheduled to take place in Fall 2017
- Seeking air quality conformity determination on or before July 31, 2017


## Not a Project of Air Quality Concern (40 CFR 93.123(b)(1))

(i) New or expanded highway projects with significant number/increase in diesel vehicles?

- The proposed project would not expand or increase capacity for diesel vehicles; large trucks would be restricted from using the proposed HOV and express lanes by California Vehicle Code Section 21655(b)
(ii) Affects intersections at LOS D, E, or F with a significant number of diesel vehicles? -Not Applicable. There are no proposed modifications to any local roads or intersections other than minor realignment of adjacent frontage roads in some locations (no change to number of lanes).
(iii) New bus and rail terminals and transfer points?-Not Applicable
(iv) Expanded bus and rail terminals and transfer points?-Not Applicable
(v) Affects areas identified in $P M_{10}$ or $P M_{2.5}$ implementation plan as site of violation?
- There is no state implementation plan for $\mathrm{PM}_{2.5}$.
- Therefore, the proposed project is not identified in any plan as an area of potential violation.
- The proposed project is not identified as impacted according to the Bay Area Air Quality Management District (BAAQMD) Community Air Risk Evaluation Program (BAAQMD 2017).

| $\begin{aligned} & \text { RTIP ID\# (required) } \\ & 240060 \end{aligned}$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \hline \text { TIP ID\# (required) } \\ & \text { SM150017 } \end{aligned}$ |  |  |  |  |  |  |
| Air Quality Conformity Task Force Consideration Date July 27, 2017 |  |  |  |  |  |  |
| Project Description (clearly describe project) <br> The San Mateo County Transportation Authority (SMCTA) and the City/County Association of Governments of San Mateo County (C/CAG), in cooperation with the California Department of Transportation (Caltrans) propose to provide continuous managed lanes in the northbound and southbound directions of US 101 in Santa Clara and San Mateo counties from the terminus of the Santa Clara County Express Lane at Matadero Creek (PM 51.4) to north of Interstate 380 (I-380) (PM 20.8), a total of approximately 22 miles of Managed Lanes. The project location is shown in Figure 1, and the proposed project changes are shown in Figure 2. <br> A High-Occupancy Vehicle (HOV) lane, also known as the carpool or diamond lane, is a traffic management strategy to promote and encourage ridesharing, thereby alleviating congestion and maximizing the people-carrying capacity of California highways. Express lanes are designated lanes that allow single occupancy vehicles (SOV) the use of available capacity in the HOV lane for a toll. The toll will change dynamically in response to existing congestion levels and available capacity in the HOV lane. The toll will be displayed to users via overhead variable toll message signs (VTMS). |  |  |  |  |  |  |
| Type of Project: Modification to existing State highway; lane addition and lane conversion to HOV/Express lanes |  |  |  |  |  |  |
| County <br> San Mateo <br> Santa <br> Clara | Narrative <br> On US 1 <br> Caltrans | Location/Ro 1 from SCL P Projects - E | \& Postmil <br> 51.4 to SM P <br> 04-1J560 |  |  |  |
| Lead Agency: California Department of Transportation (Caltrans) |  |  |  |  |  |  |
| Contact Person Yolanda Rivas |  | Phone\# <br> 510.286. |  |  | Email yolanda.rivas | t.ca.gov |
| Federal Action for which Project-Level PM Conformity is Needed (check appropriate box) |  |  |  |  |  |  |
| Categorical Exclusion (NEPA) |  | $\times \begin{aligned} & \text { EA or } \\ & \text { Draft EIS }\end{aligned}$ |  |  | PS\&E or Construction | Other |
| Scheduled Date of Federal Action: March 2018 (PA\&ED) |  |  |  |  |  |  |
| NEPA Delegation - Project Type (check appropriate box) |  |  |  |  |  |  |
|  | Not an exemp project |  | ction 326 Categorical clusion | X | Section 327 Categorica | Nonclusion |
| Current Programming Dates (as appropriate) |  |  |  |  |  |  |
|  | PE/Environmental |  | ENG | ROW |  | CON |
| Start | 12/2015 |  | 05/2018 | 04/2018 |  | 11/2018 |
| End | 04/2018 |  | 07/2018 | 10/2018 |  | 02/2024 |

## Project Purpose and Need (Summary): (please be brief)

## Purpose

The purpose of the project is to provide a continuous managed lane in each direction on US 101 from the terminus of the Santa Clara County express lanes to I-380 in northern San Mateo County to:

- Reduce congestion in the corridor;
- Encourage carpooling and transit use;
- Improve travel time reliability for all users;
- Minimize operational degradation of general purpose lanes;
- Increase person throughput (the number of people moved); and
- Apply technology and/or design features to help manage traffic.


## Need

US 101 on the San Francisco Peninsula is the main access route to San Francisco International Airport (SFO) from the north and south Bay Area regions. It also serves as a major gateway route between San Francisco and the "Silicon Valley," and links to the Dumbarton Bridge (State Route 84), the San Mateo Bridge (State Route 92), and (north of the project area) the San Francisco-Oakland Bay Bridge.

The proposed project is needed for the following reasons:

- Existing Congestion and Bottlenecks. US 101 on the San Francisco Peninsula experiences high transportation demand of the mixed-flow lanes, causing substantial congestion and reduced speeds primarily during peak periods. Congestion is most severe at various segments along the project corridor from 6 AM to 10 PM during the AM peak period, and 3 PM to 7 PM during the PM peak period. As a result, there are many segments of US 101 within the project limits that are highly congested with poor levels of service.
- Travel Time Reliability. Some segments in the project corridor experience unreliability in travel time, a performance measure of the variability of travel time from day to day. Travel time reliability relates to the unpredictability of traffic conditions, thus variability as compared to everyday delays and bottlenecks. The traffic forecast model estimated that total delay, as measured by vehicle hours of delay (VHD), would be approximately 75,693 hours daily with Alternatives $2 / 4$, and 86,890 hours daily with Alternative 3 (a difference between these alternatives of over 11,000 hours of delay per day).
- Transportation Demand. Growth in transportation demand along the US 101 corridor is expected to increase in the future, which will lead to an increase in traffic congestion in the project area's general purpose and HOV lanes. In the northbound direction, AM peak period vehicle hour delay is expected to increase six-fold between the San Mateo/Santa Clara county line and SR 92 by 2030 while the PM peak period vehicle hour delay is expected to increase by 262 percent (Caltrans 2010). In the southbound direction, the AM peak period vehicle hour delay is expected to decrease by 39 percent between San Mateo/Santa Clara county line and SR 92 due to upstream bottleneck constraints north of SR 92 by 2030 while the PM peak period vehicle hour delay is expected to increase by 115 percent (Caltrans 2010).


## Surrounding Land Use/Traffic Generators (especially effect on diesel traffic)

Existing land use types bordering the project area are residential, commercial, industrial development, and parks and open space throughout the majority of the project limits. There are also canals, streams, and sloughs connected to the San Francisco Bay that are in the vicinity of the project area.

The project would not result in changes to land use that would affect diesel truck traffic in the area. The proposed HOV and/or express lanes would not serve trucks.

Truck Routes. US 101 in the project area is a designated truck route. US 101 is part of the Surface Transportation Assistance ACT (STAA) National Network.

The following table shows each land use designations that are adjacent to the project corridor by jurisdiction.

| Jurisdiction | Land Use Designation |
| :---: | :---: |
| County of San Mateo | Airport, General Industry, High Density Residential |
| South San Francisco | Business Commercial, Open Space, Office, Downtown Commercial, Downtown Transit Core, Grand Avenue Core, Transportation Center, Transit Office/Research and Development Core, and Community Commercial |
| Millbrae | Park and Open Space, Industrial, and General Commercial |
| Burlingame | Medium Density Residential Uses, Waterfront Commercial, Shopping and Service, Community Parks, Commercial Recreation, and Industrial and Office Use |
| San Mateo | Parks/Open Space, Service Commercial, High Density MultiFamily, Medium Density Multi-Family, Single Family Residential, Neighborhood Commercial, Executive Office, Neighborhood Commercial/High Density Multi-Family, Utilities, Regional/Community Commercial, and Public Facility |
| Foster City | Town Center, Research/Office Park |
| Belmont | Open Space, Residential Low Density, Residential Medium Density, Service Commercial, Public/Community Facilities, Regional Commercial, and Harbor Industrial Area |
| San Carlos | Mixed Use Medium Density, Planned Industrial, Single Family, Mixed Use Low Density, Multiple Family Medium Density, and General Commercial/Industrial |
| Redwood City | Parks, Commercial-Regional, Mixed Use-Waterfront Neighborhood, Public Facility, Commercial-Office Professional/Technology, Industrial-Light, Industrial-Port Related, Mixed Use-Corridor, Light Industrial Incubator Overlay, Hospital, Residential-High, Residential-Medium, and Mixed Use-Live/Work |
| Menlo Park | Retail/Commercial, Limited Industry, Commercial Business Park, Low Density Residential, Medium Density Residential, and Public Facilities |
| East Palo Alto | Low/Medium Density Residential, General Commercial, Neighborhood Commercial, Medium/High Density Residential, and Resource Management |
| County of Santa Clara | Regional Parks, Existing |
| Palo Alto | Light Industrial, Major Institution/Special Facilities, Single Family Residential, Research/Office Park, Service Commercial, Neighborhood Commercial, Multiple Family Residential, Public Parks, Open Space/Controlled Development |
| Sources: City of South San Francisco n.d; City of Millbrae 2009; City of Burlingame 2000; City of San Mateo 2010; City of Foster City 2016; City of Belmont 2016; City of San Carlos 2009; City of Redwood City 2010; City of Menlo Park 2013; City of East Palo Alto 1999; City of Palo Alto 2010, County of San Mateo 1986; and County of Santa Clara 2016. |  |

## Brief summary of assumptions and methodology used for conducting analysis

The future AADT forecasts were computed using the City/County Association of Governments (C/CAG)Valley Transportation Authority (VTA) San Mateo Countywide Transportation Model. The C/CAG-VTA Model is a four-step travel demand model that uses the most recent land use and socioeconomic projections database of the Association of Bay Area Governments (ABAG) and incorporates projects from the latest Regional Transportation Plan (RTP). Figure 1-1 shows the project area for which the AADT was estimated (the US 101 mainline).

In addition, Measures of Effectiveness (MOEs) were also calculated for the entire San Mateo County. Tables 2 and 4 below summarize how traffic operations will change with the project, with respect to the 4 hour peak period vehicle-hours of delay (VHD) and average speeds.

## Assumptions

The 2015 Caltrans Annual Average Daily Truck Traffic on the California State Highway System document shows that trucks represented between 3.23 percent and 4.89 percent of total AADT from post mile (PM) 1.869 to PM 17.947 (Caltrans 2015). Since the proposed project would not expand or increase capacity for diesel vehicles, it is assumed that the proportion of truck volumes would remain relatively the same in the future year traffic forecasts. For the purposes of assessing the air quality impacts of the proposed project, the project team assumes a truck percentage of 4.5 percent to represent a conservative estimate of truck traffic. Based on Caltrans data, the following truck fleet mix is also assumed within this percentage, based on existing conditions:

- 2-axle: 61 percent
- 3-axle: 10 percent
- 4-axle: 4 percent
- 5+ axle: 25 percent

The traffic operations analysis for the proposed project is currently in progress. As a result, the Level of Service (LOS) has not been included in this study.

Opening Year: If facility is a highway or street, Build and No Build LOS, AADT, \% and \# trucks, truck AADT of proposed facility

Table 1. Opening Year (2020) AADT, \% Trucks, and Truck AADT, and LOS

| Alternative | Total <br> AADT | \% <br> Trucks | Truck <br> AADT | \% <br> Change |
| :--- | :---: | :---: | :---: | :---: |
| 2020 No-Build <br> Alternative | 242,519 | $4.5 \%$ | 10,913 | - |
| 2020 Alternative 2 | 266,208 | $4.5 \%$ | 11,979 | $9.8 \%$ |
| 2020 Alternative 3 | 247,194 | $4.5 \%$ | 11,124 | $1.9 \%$ |
| 2020 Alternative 4 | 266,208 | $4.5 \%$ | 11,979 | $9.8 \%$ |

Source: C/CAG-VTA Model, Kittelson \& Associates, Inc., 2017

Table 2. Opening Year (2020) Countywide Operational Peak 4-hour VHD and Average Speed

| Project <br> Alternatives | AM <br> Peak 4 <br> Hour <br> VHD | PM Peak <br> 4 Hour <br> VHD | AM <br> Peak 4 <br> Hour <br> Average <br> Speed | PM Peak 4 <br> Hour <br> Average <br> Speed |
| :--- | :---: | :---: | :---: | :---: |
| 2020 No-Build | 20,929 | 43,525 | 38.3 | 33.1 |
| 2020 Alternative 2 | 19,168 | 39,447 | 39.1 | 34.2 |
| 2020 Alternative 3 | 21,507 | 44,540 | 38.1 | 32.9 |
| 2020 Alternative 4 | 19,168 | 39,447 | 39.1 | 34.2 |

Source: C/CAG-VTA Model, Kittelson \& Associates Inc., 2017
RTP Horizon Year / Design Year: If facility is a highway or street, Build and No Build LOS, AADT, \% and \# trucks, truck AADT of proposed facility

Table 3. RPT Horizon Year/Design Year (2040) AADT, \% Trucks, and Truck AADT, and LOS

| Alternative | Total <br> AADT | \% <br> Trucks | Truck <br> AADT | \% <br> Change |
| :--- | :---: | :---: | :---: | :---: |
| 2040 No-Build <br> Alternative | 273,829 | $4.5 \%$ | 12,322 | - |
| 2040 Alternative 2 | 302,622 | $4.5 \%$ | 13,618 | $10.5 \%$ |
| 2040 Alternative 3 | 279,506 | $4.5 \%$ | 12,578 | $2.1 \%$ |
| 2040 Alternative 4 | 302,622 | $4.5 \%$ | 13,618 | $10.5 \%$ |

Source: C/CAG-VTA Model, Kittelson \& Associates Inc., 2017
Table 4. Design Year (2040) Countywide Operational Peak 4-hour VHD and Average Speed

| Project <br> Alternatives | AM <br> Peak 4 <br> Hour <br> VHD | PM Peak 4 <br> Hour VHD | AM Peak <br> 4 Hour <br> Average <br> Speed | PM Peak 4 <br> Hour <br> Average <br> Speed |
| :---: | :---: | :---: | :---: | :---: |
| 2040 No-Build | 39,648 | 84,581 | 34.6 | 28.2 |
| 2040 Alternative 2 | 36,363 | 76,689 | 35.5 | 29.5 |
| 2040 Alternative 3 | 39,440 | 84,792 | 34.6 | 28.1 |
| 2040 Alternatives 4 | 36,363 | 76,689 | 35.5 | 29.5 |

Source: C/CAG-VTA Model, Kittelson \& Associates Inc., 2017

# Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, \% and \# trucks, truck AADT 

N/A
RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, \% and \# trucks, truck AADT
N/A
Opening Year: If facility is a bus, rail or intermodal facility/terminal/transfer point, \# of bus arrivals for Build and No Build, \% and \# of bus arrivals will be diesel buses
N/A
RTP Horizon Year / Design Year: If facility is a bus, rail or intermodal facility/terminal/transfer point, \# of bus arrivals for Build and No Build, \% and \# of bus arrivals will be diesel buses N/A

## Describe potential traffic redistribution effects of congestion relief (impact on other facilities)

The proposed project would increase the available capacity for HOVs and would also allow SOV drivers to pay a toll to use the express lanes during AM and PM peak periods. The traffic analysis included a comparison of the effects of the build alternatives on traffic patterns in the Peninsula region. With Alternatives 2 and 4, either an HOV or express lane would be added to US 101 in each direction from Whipple Avenue in Redwood City to I-380 in San Bruno. The traffic forecast modeling showed that within that segment, these two alternatives would result in a shift of traffic from parallel routes (primarily I-280 and El Camino Real) onto US 101. This shift shows that traffic that cannot effectively access or use US 101 is using I-280 and El Camino Real as diversion routes, and when capacity is added to US 101, the diverted traffic shifts back to US 101 because it provides a more direct travel route within the region. Regional traffic delays reduce by as much as 9.4 percent by 2040 as measured by comparing total VHD between the No Build and Alternatives $2 / 4$. Average vehicle speeds also improve.
With Alternative 3, the existing general purpose left lane (adjacent to the center median) between Whipple Avenue and I-380 would be converted to an HOV/express lane. The traffic modeling showed that although it provides an opportunity to encourage carpool use, this alternative would result in a shift in traffic volumes from US 101 onto diversion routes (primarily I-280 and El Camino Real). Overall trips are slower, as measured by an increase in VHD and slower average speeds when comparing the No Build Alternative and Alternative 3.

## Comments/Explanation/Details (please be brief)

Under 40 CFR 93.123(b)(1), the Environmental Protection Agency (EPA) does not require hot spot analysis, qualitative or quantitative, for projects that are not of air quality concern. The following criteria evaluate whether the proposed project falls into any of the five POAQC categories:
(i) New highway projects that have a significant number of diesel vehicles, and expanded highway projects that have a significant increase in the number of diesel vehicles;

The proposed project would introduce HOV or express lanes that would not allow use by trucks. California Vehicle Code Section 21655(b) restricts the majority of diesel trucks from using either HOV or express lanes.

The proposed project would increase the efficiency of the roadway and maximize efficient utilization of the HOV or express lanes. Therefore, traffic congestion would improve and the
proposed project would reduce idling of vehicles and trucks, as shown by the reduced VHD and improved traveling speeds shown in Tables 2 and 4.

The future truck percentage in the project area is conservatively assumed at 4.5 percent. Of this percentage, the majority (approximately 61 percent) of trucks in the project area would be 2 -axle single-unit trucks, such as United Postal Service (UPS) and Federal Express (FedEx) trucks. These trucks tend to be gasoline fueled. In addition, low-emission 2-axle trucks as well as buses are becoming increasingly common. With full implementation of the California Statewide Truck and Bus Rule in 2023, no truck or bus more than 13 years old will be allowed to operate in California without PM and nitrogen oxide emissions controls, which is expected to reduce diesel PM emissions by 68 percent. Because the proposed project would not expand or increase capacity for diesel vehicles, the proportion of trucks would remain the same between the No Build and the Build alternatives in the opening year (2020) and the horizon year (2040).
(ii) Projects affecting intersections that are at Level-of-Service D, E, or F with a significant number of diesel vehicles, or those that will change to Level-of-Service D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project;

The proposed project would primarily affect US 101. With the alternatives that increase capacity by adding a lane (Alternatives 2 and 4), traffic will shift from local roads to US 101, reducing the vehicle miles traveled on local roads. These alternatives should provide some improvement to local intersections.
(iii) New bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location;
The proposed project would not implement a new bus or retail terminal or transfer point. Therefore, the proposed project would not be considered a Project of Air Quality Concern under this category (40 CFR Section 93.123(b)(1)(iii)).
(iv) Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location; and

The proposed project does not involve expansion of a bus or rail terminal or transfer point. Therefore, the proposed project would not be considered a Project of Air Quality Concern under this category (40 CFR Section 93.123(b)(1)(iv)).
(vi) Projects in or affecting locations, areas, or categories of sites which are identified in the PM10 or PM2.5 applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.

There is currently no state implementation plan for $\mathrm{PM}_{2.5}$ and the project area is therefore not identified in an implementation plan as an area of potential violation.

In addition, the project area does not fall within a community that is disproportionately impacted by emissions from existing transportation and stationary sources of the Bay Area Air Quality Management District's Community Air Risk Evaluation (CARE) program. Therefore, the project would not be considered a Project of Air Quality Concern under this category (40 CFR Section 93.123(b)(1)(v)).

Overall, the proposed project would meet the Clean Air Act requirements and 40 CFR 93.116 without an explicit hotspot analysis. The project would not create a new, or worsen an existing $\mathrm{PM}_{2.5}$ violation.

## References:

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https://www.sccgov.org/sites/dpd/DocsForms/Documents/landuse_plan_map_2015.pdf.

## Attachment A

## Project Location Maps





## United States 101 Managed Lanes Project

## Prepared for the Bay Area Air Quality Conformity Task Force

California Department of Transportation

San Mateo County Transportation Authority
City/County Assoc. of Governments of San Mateo County
AECOM


## Project Location



## Project Description

- From San Antonio Road in Santa Clara County to Whipple Avenue in San Mateo County:
- Existing: Generally 3 mixed flow lanes and one HOV in each direction
- No widening proposed along this section
- Either:
- Maintain existing HOV lanes,
- Or convert existing HOV lanes to express lanes
- From Whipple Avenue to just north of I-380:
- Existing: Generally 4 mixed flow lanes in each direction with auxiliary lanes at most of the interchanges.
- Either:
- Add an HOV lane and/or express lane in each direction (widen some sections of US 101 primarily within existing right-of-way),
- Or convert existing mixed flow lane to express lane


## Project Alternatives for Traffic and Environmental Technical Studies

Alternative 1: No-Build
Alternative 2: HOV Lane Alternative (lane addition*)
Alternative 3: Express Lane Alternative (lane conversion**)
Alternative 4: Express Lane Alternative (lane addition*)
*(Converts existing \#1 lane (in both directions) to HOV or express between Whipple Avenue and I380; adds additional through lane by converting existing auxiliary lanes. Restores most of the auxiliary lanes except at a few locations as shown in next slide.
**(converts existing mixed flow lane (\#1 lane to express lane) between Whipple Avenue and just north of I-380)

## Proposed Lane Changes



## Purpose and Need

## The purpose of the project is to:

- Reduce congestion in the corridor;
- Encourage carpooling and transit use;
- Improve travel time reliability for all users;
- Minimize operational degradation of general purpose lanes;
- Increase person throughput (number of people moved); and
- Apply technology and design features to help manage traffic.


## Purpose and Need (continued)

The project is needed to address:
-Existing congestion and bottlenecks;
-Existing unreliable travel times; and

- Increasing transportation demand.



## Primary Land Uses

The project location's predominant surrounding land uses are:

- Residential
- Commercial



## Truck Traffic Assumptions

Based on review of traffic data, a truck percentage of 4.5 percent represents a conservative estimate of trucks of all fuel types.

Of the 4.5\% percent of truck traffic, existing conditions indicate the following truck fleet mix:

- 2-axle: 61 percent
- 3-axle: 10 percent
- 4-axle: 4 percent
- 5+ axle: 25 percent



## Traffic Data

## Opening Year (2020) AADT Summary

(No Build Alternative and Alternatives 2 through 4)

| Alternative | Total AADT | Truck AADT <br> (all fuel types) | \% Change |
| :---: | :---: | :---: | :---: |
| No Build | 242,519 | 10,913 | - |
| Alternative 2 | 266,208 | 11,979 | 9.8 |
| Alternative 3 | 247,194 | 11,124 | 1.9 |
| Alternative 4 | 266,208 | 11,979 | 9.8 |
| Source: C/CAG-VTA Model, Kittelson \& Associates Inc., 2017 |  |  |  |

## Traffic Data (continued)

## Design Year Forecast (2040) AADT Summary (No Build Alternative and Alternatives 2 through 4)

| Alternative | Total AADT | Truck AADT <br> (all fuel types) | \% Change |
| :---: | :---: | :---: | :---: |
| No Build | 273,829 | 12,322 | - |
| Alternative 2 | 302,622 | 13,618 | 10.5 |
| Alternative 3 | 279,506 | 12,578 | 2.1 |
| Alternative 4 | 302,622 | 13,618 | 10.5 |
| Source: C/CAG-VTA Model, Kittelson \& Associates Inc., 2017 |  |  |  |

## Project Improvements (2020)

## Countywide Operational Peak Period VHD and Average Speed

| Project Alternatives | AM Peak <br> 4 Hour <br> VHD | PM Peak 4 <br> Hour VHD | AM Peak <br> 4 Hour <br> Average <br> Speed | PM Peak 4 <br> Hour <br> Average <br> Speed |
| :--- | :---: | :---: | :---: | :---: |
| 2020 No-Build | 20,929 | 43,525 | 38.3 | 33.1 |
| 2020 Alternative 2 | 19,168 | 39,447 | 39.1 | 34.2 |
| 2020 Alternative 3 | 21,507 | 44,540 | 38.1 | 32.9 |
| 2020 Alternative 4 | 19,168 | 39,447 | 39.1 | 34.2 |
| Source: ClCAG-VTA Model, kitelson \& Associates Inc, 2017 |  |  |  |  |

## Project Improvements (2040)

## Countywide Operational Peak 4-hour VHD and Average Speed

| Project <br> Alternatives | AM Peak <br> 4 Hour <br> VHD | PM Peak 4 Hour VHD | AM Peak 4 Hour Average Speed | PM Peak 4 <br> Hour <br> Average Speed |
| :---: | :---: | :---: | :---: | :---: |
| 2040 No-Build | 39,648 | 84,581 | 34.6 | 28.2 |
| 2040 Alternative 2 | 36,363 | 76,689 | 35.5 | 29.5 |
| 2040 Alternative 3 | 39,440 | 84,792 | 34.6 | 28.1 |
| 2040 Alternatives 4 | 36,363 | 76,689 | 35.5 | 29.5 |
| Source: clicac-VTA Model, Kitelson \& Associates Inc, 2017 |  |  |  |  |

## Summary

## Reasons Supporting Not a Project of Air Quality Concern:

- No increase in capacity for diesel vehicles; large trucks would be restricted from using the proposed HOV and express lanes
- Other than minor realignment of adjacent frontage roads in certain locations, there would be no change in the number of lanes in any local roads or intersections
- No land use changes that would attract more diesel vehicles


# Questions and Discussion 

# For additional information, please contact: 

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AECOM
510.874.3005

Jeff.zimmerman@aecom.com

## Application of Criteria for a Project of Air Quality Concern

Project Title: Fremont Boulevard Intersections Improvement Project Project Summary for Air Quality Conformity Task Force Meeting: July 27, 2017

## Description

- Project will implement "protected intersection" concept at the intersections of Fremont Boulevard at Mowry Avenue and Fremont Boulevard at Stevenson Boulevard in the City Fremont.
- Project limits at each intersection will extend approximately 200 feet in each direction.
- Removal of existing "pork chop" islands within each intersection and construction of eight bicycle and pedestrian refuge areas (4 at each intersection).
- Removal of 8 right turn slip lanes.
- No change to the number of through lanes on Fremont Boulevard.
- Relocate (or replace with new) existing traffic signals.
- Upgrade existing curb access ramps to remain and install new curb access ramps.
- Restriping of travelway and bike lanes to include buffered green bike lanes.


## Background

- NEPA process for a Categorical Exclusion is almost complete.
- Seeking air quality conformity determination on or before August 2017.


## Not a Project of Air Quality Concern (40 CFR 93.123(b)(1))

(i) New or expanded highway projects with significant number/increase in diesel vehicles?

- Not a new or expanded highway project.
- Intersection improvements to increase pedestrian/bicyclist safety and reduce traffic accidents.
- No change in traffic volume or truck percentages.
(ii) Affects intersections at LOS D, E, or F with a significant number of diesel vehicles?
- Diesel Trucks represent approximately $0.2 \%$ of traffic volume.
- Intersection of Fremont Blvd at Mowry Ave will decrease from LOS D to LOS E, and the delay is projected to increase by 7 seconds.
- Intersection of Fremont Blvd at Stevenson is anticipated to remain at LOS D.
- No project changes to land use that would affect diesel traffic percentage.
(iii) New bus and rail terminals and transfer points?-Not Applicable
(iv) Expanded bus and rail terminals and transfer points?-Not Applicable
(v) Affects areas identified in $P M_{10}$ or $P M_{2.5}$ implementation plan as site of violation?
- No state implementation plan for $\mathrm{PM}_{2.5}$
- Therefore, the project is not identified in plan as an area of potential violation.



## Project Purpose and Need (Summary): (please be brief)

The intersections of Fremont Boulevard at Mowry Avenue and Fremont Boulevard at Stevenson Boulevard have been the site of 11 pedestrian and bike collisions over the past five years, including one pedestrian fatality. As part of the City of Fremont's Vision Zero traffic safety initiative to eliminate traffic fatalities by 2020, Fremont Boulevard was identified as the primary corridor for safety improvements. The high collision rate at these intersections, in conjunction with the City's General Plan goal to provide sustainable and safe transportation alternatives, led to the identification of these two sites as safety priorities for the City. The proposed project is Phase I of a two phase plan to incorporate safety improvements designed to better protect pedestrians and bicyclists through the Fremont Boulevard corridor.
Surrounding Land Use/Traffic Generators (especially effect on diesel traffic)
The area around the project sites is primarily a mix of residential and commercial uses.

Brief summary of assumptions and methodology used for conducting analysis
The project proposes modifications to the intersections and is not anticipated to affect land uses nor generate additional traffic or change the percentage of heavy trucks passing through the intersection.

Opening Year: If facility is a highway or street, Build and No Build LOS, AADT, \% and \# trucks, truck AADT of proposed facility

RTP Horizon Year / Design Year: If facility is a highway or street, Build and No Build LOS, AADT, \% and \# trucks, truck AADT of proposed facility

Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, \% and \# trucks, truck AADT

OPENING YEAR (2020)

| Location |  | No Build ${ }^{1}$ |  |  | Build ${ }^{1}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total AADT | Light Trucks ${ }^{2}$ | Heavy <br> Trucks ${ }^{3}$ | Total AADT | Light Trucks ${ }^{2}$ | Heavy Trucks ${ }^{3}$ |
| 1. | Fremont Boulevard between Mowry Avenue and Stevenson Boulevard | 21,630 | $\begin{gathered} 820 \\ (3.9 \%) \end{gathered}$ | $\begin{gathered} 30 \\ (0.1 \%) \end{gathered}$ | 21,630 | $\begin{gathered} 820 \\ (3.9 \%) \end{gathered}$ | $\begin{gathered} 30 \\ (0.1 \%) \end{gathered}$ |
| 2. | Stevenson Boulevard west of Fremont Boulevard | 31,170 | $\begin{gathered} 1,360 \\ (4.4 \%) \end{gathered}$ | $\begin{gathered} 100 \\ (0.3 \%) \end{gathered}$ | 31,170 | $\begin{aligned} & 1,360 \\ & (4.4 \%) \end{aligned}$ | $\begin{gathered} 100 \\ (0.3 \%) \end{gathered}$ |
| 3. | Mowry Avenue west of Fremont Boulevard | 33,180 | $\begin{aligned} & 1,120 \\ & (3.6 \%) \end{aligned}$ | $\begin{gathered} 80 \\ (0.3 \%) \end{gathered}$ | 33,180 | $\begin{aligned} & 1,120 \\ & (3.6 \%) \end{aligned}$ | $\begin{gathered} 80 \\ (0.3 \%) \end{gathered}$ |

1. Based on an annual growth rate of $2 \%$, as directed by City of Fremont staff, which was used to increase the existing (2017) counts.
2. Light Trucks are defined as all vehicles within the FHWA vehicle classification four to seven. This includes light trucks and buses.
3. Heavy Trucks are defined as all vehicles within the FHWA vehicle classification eight to thirteen. Heavy Trucks are assumed to be diesel vehicles.
Source: Fehr \& Peers, 2017.

RTP Horizon Year I Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, \% and \# trucks, truck AADT

HORIZON YEAR (2030)

| Location |  | No Build ${ }^{1}$ |  |  | Build ${ }^{1}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total AADT | Light Trucks ${ }^{2}$ | Heavy Trucks ${ }^{3}$ | Total AADT | Light Trucks ${ }^{2}$ | Heavy Trucks ${ }^{3}$ |
| 1. | Fremont Boulevard between Mowry Avenue and Stevenson Boulevard | 25,720 | $\begin{gathered} 970 \\ (3.8 \%) \end{gathered}$ | $\begin{gathered} 40 \\ (0.1 \%) \end{gathered}$ | 25,720 | $\begin{gathered} 970 \\ (3.8 \%) \end{gathered}$ | $\begin{gathered} 40 \\ (0.1 \%) \end{gathered}$ |
| 2. | Stevenson Boulevard west of Fremont Boulevard | 37,060 | $\begin{aligned} & 1,610 \\ & (4.4 \%) \end{aligned}$ | $\begin{gathered} 110 \\ (0.3 \%) \end{gathered}$ | 37,060 | $\begin{aligned} & 1,610 \\ & (4.4 \%) \end{aligned}$ | $\begin{gathered} 110 \\ (0.3 \%) \end{gathered}$ |
|  | Mowry Avenue west of Fremont Boulevard | 39,440 | $\begin{aligned} & 1,340 \\ & (3.4 \%) \end{aligned}$ | $\begin{gathered} 100 \\ (0.3 \%) \end{gathered}$ | 39,440 | $\begin{aligned} & 1,340 \\ & (3.4 \%) \end{aligned}$ | $\begin{gathered} 100 \\ (0.3 \%) \end{gathered}$ |

1. Based on an annual growth rate of $2 \%$, as directed by City of Fremont staff, which was used to increase the existing (2017) counts.
2. Light Trucks are defined as all vehicles within the FHWA vehicle classification four to seven. This includes light trucks and buses.
3. Heavy Trucks are defined as all vehicles within the FHWA vehicle classification eight to thirteen. Heavy Trucks are assumed to be diesel vehicles.
Source: Fehr \& Peers 2017.

Opening Year: If facility is a bus, rail or intermodal facility/terminal/transfer point, \# of bus arrivals for Build and No Build, \% and \# of bus arrivals will be diesel buses

N/A

RTP Horizon Year I Design Year: If facility is a bus, rail or intermodal facility/terminal/transfer point, \# of bus arrivals for Build and No Build, \% and \# of bus arrivals will be diesel buses N/A

Describe potential traffic redistribution effects of congestion relief (impact on other facilities) The proposed improvements are not anticipated to cause traffic redistribution.

## Comments/Explanation/Details (please be brief)


FREMONT BOULEVARD PROJECT PHASING

cassesconamane


Fremont Boulevard Complete Streets Improvements, Mowry Avenue to Mission View Drive

## Fremont Boulevard Protected Intersections Improvement Project



MTC Air Quality Conformity Task Force Meeting July 27, 2017

## Project Location



Fremont

## Purpose and Need

- The intersections of Fremont Boulevard at Mowry Avenue and Fremont Boulevard at Stevenson Boulevard have been the site of 11 pedestrian and bicycle collisions over the past five years, including one pedestrian fatality.
- The high collision rate at these intersections, in conjunction with the City of Fremont's General Plan goal to provide sustainable and safe transportation alternatives, led to the identification of these two sites as safety priorities for the City.
- Improvements at these locations build toward Fremont's

Complete Streets resolution, which affirms the City's commitment to create safer conditions for all modes of transportation.

## Traffic Safety

Fremont Vision Zero 2020


Fremont

## Project Description

- Implementation of "protected intersection" concept at the intersections of Fremont Boulevard at Mowry Avenue and Fremont Boulevard at Stevenson Boulevard
- Removal of existing "pork chop" islands and construction of pedestrian and bicycle refuge areas (4 at each intersection).
- Removal of 8 right turn slip lanes
- Relocation (or replacement with new) of existing traffic signals to accommodate the refuge areas.
- Restriping of the travel lanes to include green buffered bike lanes.


## Project Description (cont'd)

FREMONT BOULEVARD PROJECT PHASING



## Project Description (cont’d)

PHASE I: Protected Intersection at Mowry Ave.


## Traffic Volumes

## OPENING YEAR (2020)

| Location | No Build ${ }^{1}$ |  |  | Build ${ }^{1}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total AADT | Light Trucks ${ }^{2}$ | Heavy Trucks ${ }^{3}$ | Total AADT | Light Trucks ${ }^{2}$ | Heavy <br> Trucks ${ }^{3}$ |
| 1. Fremont Boulevard between MowryAvenue and Stevenson Boulevard | 21,630 | $\begin{gathered} 820 \\ (3.9 \%) \end{gathered}$ | $\begin{gathered} 30 \\ (0.1 \%) \end{gathered}$ | 21,630 | $\begin{gathered} 820 \\ (3.9 \%) \end{gathered}$ | $\begin{gathered} 30 \\ (0.1 \%) \end{gathered}$ |
| Stevenson Boulevard west of Fremont Boulevard | 31,170 | $\begin{gathered} 1,360 \\ (4.4 \%) \end{gathered}$ | $\begin{gathered} 100 \\ (0.3 \%) \end{gathered}$ | 31,170 | $\begin{gathered} 1,360 \\ (4.4 \%) \end{gathered}$ | $\begin{gathered} 100 \\ (0.3 \%) \end{gathered}$ |
| 3. Mowry Avenue west of FremontBoulevard | 33,180 | $\begin{aligned} & 1,120 \\ & (3.6 \%) \end{aligned}$ | $\begin{gathered} 80 \\ (0.3 \%) \end{gathered}$ | 33,180 | $\begin{aligned} & 1,120 \\ & (3.6 \%) \end{aligned}$ | $\begin{gathered} 80 \\ (0.3 \%) \end{gathered}$ |

[^0]
## Traffic Volumes

## HORIZON YEAR (2030)

| Location | No Build ${ }^{1}$ |  |  | Build ${ }^{1}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total AADT | Light Trucks ${ }^{2}$ | Heavy Trucks ${ }^{3}$ | Total AADT | Light Trucks ${ }^{2}$ | Heavy <br> Trucks ${ }^{3}$ |
| 1. Fremont Boulevard between MowryAvenue and Stevenson Boulevard | 25,720 | $\begin{gathered} 970 \\ (3.8 \%) \end{gathered}$ | $\begin{gathered} 40 \\ (0.1 \%) \end{gathered}$ | 25,720 | $\begin{gathered} 970 \\ (3.8 \%) \end{gathered}$ | $\begin{gathered} 40 \\ (0.1 \%) \end{gathered}$ |
| Stevenson Boulevard west of Fremont Boulevard | 37,060 | $\begin{gathered} 1,610 \\ (4.4 \%) \end{gathered}$ | $\begin{gathered} 110 \\ (0.3 \%) \end{gathered}$ | 37,060 | $\begin{gathered} 1,610 \\ (4.4 \%) \end{gathered}$ | $\begin{gathered} 110 \\ (0.3 \%) \end{gathered}$ |
| 3. Mowry Avenue west of FremontBoulevard | 39,440 | $\begin{aligned} & 1,340 \\ & (3.4 \%) \end{aligned}$ | $\begin{gathered} 100 \\ (0.3 \%) \end{gathered}$ | 39,440 | $\begin{aligned} & 1,340 \\ & (3.4 \%) \end{aligned}$ | $\begin{gathered} 100 \\ (0.3 \%) \end{gathered}$ |

[^1]
## Level of Service (LOS) Analysis

## Existing and Existing PLUS Project Intersection LOS

| Intersection | Control ${ }^{1}$ | Peak <br> Hour | Existing |  | Existing Plus Project |  | Significant Impact? ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Delay ${ }^{2,3}$ | LOS | Delay ${ }^{2,3}$ | LOS |  |
| 1. Fremont Boulevard/ Mowry Avenue | Signal | PM | 49 | D | 56 | E | Yes |
| 2. Fremont Boulevard/ Mowry Avenue | Signal | PM | 43 | D | 46 | D | No |

## Notes:

1. Signal $=$ intersection is controlled by a traffic signal.
2. For signalized intersections, average intersection delay and LOS based on the 2010 HCM method is shown.
3. U-turns modeled as left turns to obtain 2010 HCM results.
4. A significant impact would occur when an intersection deteriorates from LOS D operations or better to LOS E or F operations.

Source: Fehr \& Peers, 2017.

## Level of Service (LOS) Analysis

Recommendation 1: The following should be considered as part of the final design for the project:

Provide signal split optimization while keeping the same cycle length to maintain the corridor coordination (adjusting the green time for each intersection approach and revising intersection coordination offset) at the Fremont Boulevard/Mowry Avenue intersection.

Existing and Existing PLUS Project Mitigated Intersection LOS Summary

| Intersection | Control ${ }^{1}$ | Peak <br> Hour | Existing |  | Existing Plus Project |  | Significant Impact? ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Delay ${ }^{2,3}$ | LOS | Delay ${ }^{2,3}$ | LOS |  |
| 1. Fremont Boulevard/ Mowry Avenue | Signal | PM | 49 | D | 54 | D | No |

Notes:

1. Signal = intersection is controlled by a traffic signal.
2. For signalized intersections, average intersection delay and LOS based on the 2010 HCM method is shown.
3. U-turns modeled as left turns to obtain 2010 HCM results.
4. A significant impact would occur when an intersection deteriorates from LOS D operations or better to LOS E or F operations.

Source: Fehr \& Peers, 2017.

## Conclusions

## Safer Streets

1. This project will provide the enhanced safety for pedestrians and bicyclists in hopes of eliminating traffic accidents at these locations.
2. This project will not generate additional traffic or change the percentage of heavy trucks passing through the intersection.

# Fremont Boulevard Intersections Improvement Project 

## Questions?

MTC Air Quality Conformity Task Force July 27, 2017

40 CFR 93.126 Exempt Projects List

| County | TIPID | Sponsor | Project Name | Project Description | Expanded Description | Project Type under 40 CFR 93.126 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| cc | CC-170005 | Pittsburg | $\left.\right\|_{\text {improvements }} ^{\text {H8-04. }}$ | H8-04-020: Install pedestrian HAWK signals, intersection striping /signage improvements, and two variable speed signs at approaches to Stoneman Ave/Meadowbrook Ave | In Pittsburg: At three intersections on Stoneman Avenue (at Meadowbrook Avenue, Meadowbrook Circle, and Briarcliff Drive); Systematic approach for proposed safety improvements on Stoneman Avenue. Countermeasures include NS19: Instal pedestrian signal or HAWK, R30: Install dynamic/variable speed warning signs, and NS6: Upgrade intersection pavement markings (NS.I.) | Safety - Safety improvement program |
| MRN | MRN170014 | Marin County | HSIPP-04-010 Upgrade existing guardrails | HSIP8-04-010 Project will upgrade existing guardrails on Marin County various rural arterial and collector roads. | Project will replace nonstandard guardrails that have nonstandard end treatments and lower than minimum required height. | Safety - Safety improvement program |
| MRN | MRN170015 | Marin County | HSIPP-04-011 Guardrail system installation | HSIP8-04-011 Project will install guardrail system on various Marin County rural arterial and collector roads. | This project will reduce the number of run-off-the road type of collision on Marin County roads. | Safety - Safety improvement program |
| Scl | SCL170016 | Mountain View | Intersection improvements to Shoreline and Villa | H8-04-012: Upgrade existing traffic signal; add protected left turn phase on minor street approaches; install new pedestrian crosswalk; remove existing channelized free right turn and "pork chop" island; construct curb, gutter, sidewalk. | Upgrade existing traffic signal; add protected left turn phase on minor street approaches; install new pedestrian crosswalk; remove existing channelized free right turn and "pork chop" island; construct curb, gutter, sidewalk. | Safety - Safety improvement program |
| SM | SM-170010 | Caltrain | Caltrain TVM Rehab and Clipper Functionality | Caltrain: 45 existing TVM machines: Refurbish and incorporate Clipper functionality. | This project would refurbish 45 existing TVM machines and incorporate Clipper functionality that both issue new cards and allow customers to add value in real time. This will provide a each station with a minimum of one dedicated clipper functional ticket vending machine on each station platform | Mass Transit - Purchase of operating equipment for vehicles (e.g. radios, fareboxes, lifts, etc.) |

METROPOLITAN
TRANSPORTATION
COMMISSION

## Memorandum

TO: Air Quality Conformity Task Force

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## FR: Adam Crenshaw

## RE: Review of the Regional Conformity Status for New and Revised Projects

Staff has prepared the following information in an effort to streamline the review of the regional air quality conformity implications of projects that staff proposes to revise or add into the 2017 TIP through current or future revisions. This item is for advisory purposes only. The inclusion of these projects and project changes in a proposed revision to the TIP is subject to Commission approval in the case of amendments and MTC's Executive Director or Deputy Executive Director in the case of administrative modifications. The final determination of the regional air quality conformity status of these projects will be made by the Federal Highway Administration, the Federal Transit Administration and the Environmental Protection Agency as part of their review of proposed final TIP amendments and by the Executive Director or Deputy Executive Director as part of their review for TIP administrative modifications.

## Projects Staff is Proposing to Include or Revise in the 2017 TIP

Staff has received requests from sponsors to revise one existing project and add one new individually listed projects and 10 new grouped listed projects to the 2017 TIP.

The revised project includes elements that may not be treated as exempt from regional-level conformity under 40 CFR 93.126 or 40 CFR 93.127. The Task Force has reviewed the existing scope of the project, but staff is now proposing to revise the scope of the project. However, staff believes that the revision of this project scope in the 2017 TIP would not require an update to the air quality conformity analysis for Plan Bay Area and the 2017 TIP or the air quality conformity analysis for Plan Bay Area 2040 and the 2017 TIP.

## Project with Proposed Revisions

> US 101 / Blossom Hill I/C Reconst \& Road Widening TIP ID: SCL030006
> Sponsor: San Jose
> Current Description: San Jose: US-101/Blossom Hill Rd interchange; widen Blossom Hill Road and reconstruct interchange to provide an additional lane in each direction, including the bridge structure over US-101 plus other improvements.
> Current Expanded Description: Reconstruct US 101 interchange with Blossom Hill Road in South San Jose to eliminate congestion caused by merge and weave problems. Project will (1) widen Blossom Hill from 4 to 7 lanes (3 WB, 4 EB) (2) widen N. Coyote Rd. from 3 to 4 lanes (3) widen US-101 SB off ramp from 1 to 2 lanes (4) widen US 101 NB off-ramp for dual right turns (5) install 2 traffic signals and one (1) ramp metering system.

Proposed Description: San Jose: At US101/Blossom Hill I/C: Reconstruct I/C including the widening of Blossom Hill Rd, signal upgrades and other modifications to eliminate to eliminate congestion caused by merge and weave problems and accommodate bicyclists and pedestrians
Proposed Expanded Description: San Jose: Reconstruct US 101/Blossom Hill Interchange in South San José to eliminate congestion caused by merge and weave problems and accommodate bicyclists and pedestrians. Project will: 1. Widen Blossom Hill Rd from 4 to 7 lanes (3 WB, 4 EB) 2. Widen US 101 NB and SB off ramps 3. Upgrade 2 signalized intersections 4. Reconfigure Monterey Rd to EB Blossom Hill Rd connector ramp to SB US 101 5. Construct a Class I grade-separated bicycle and pedestrian facility through the interchange.
Conformity Issue: Among other changes, the revision described above removes the widening of N . Coyote Rd. from the scope of the project. This element cannot be considered exempt from regional air quality conformity analysis under 40 CFR 93.126 or 40 CFR 93.127. However, this portion of N. Coyote Rd is classified as a major collector and, as such, the widening of this segment of roadway is not considered regionally significant.

Other revisions to the project scope only affect elements that may be considered exempt from regional conformity analysis. Staff is not proposing changes to other non-exempt scope elements.

Since the proposed scope changes only affect exempt and non-exempt, not regionally significant scope elements, staff is requesting the Task Force's concurrence that the addition of this scope to the 2017 TIP will not require an update to the air quality conformity analysis.

Attachment A includes a list of the remaining projects along with the regional air quality category that staff believes best describes the projects.

MTC staff is not seeking a determination on the status of these projects for project-level conformity purposes with this item.

| Item 3a-Attachment A |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| County | TIP ID/FMS ID | Sponsor | Project Name | Project Description | Project Expanded Description | Project Type |
| Proposed New Individually Listed Projects for Regional Air Quality Conformity Status Review |  |  |  |  |  |  |
| San Mateo | SM-170010 | Caltrain | Caltrain TVM Rehab and Clipper Functionality | Caltrain: 45 existing TVM machines: Refurbish and incorporate Clipper functionality. | This project would refurbish 45 existing TVM machines and incorporate Clipper functionality that both issue new cards and allow customers to add value in real time. This will provide a each station with a minimum of one dedicated clipper functional ticket vending machine on each station natform. | EXEMPT (40 CFR 93.126) - Purchase of office, shop, and operating equipment for existing facilities |
| Proposed New Group Listed Projects for Regional Air Quality Conformity Status Review |  |  |  |  |  |  |
| Solano | VAR170004 | Caltrans | GL: Pavement Resurfacing/ Rehab SHS Highway Maint | IN SOLANO COUNTV, IN VALLEJO, FROM 0.1 mile east of carquinez bridge toll plaza TO 0.4 MILE WEST OF REDWOOD STREET OVERCROSSING: Maintenance Asphalt Overlay | IN SOLANO COUNTY, IN VALLEJO, FROM 0.1 MILE EAST OF CARQUINEZ BRIDGE TOLL PLAZA TO 0.4 MILE WEST OF REDWOOD STREET OVERCROSSING: Maintenance Asphalt Overlay | EXEMPT (40 CFR 93.126) - Pavement resurfacing and/or rehabilitation |
| San Mateo | VAR170004 | Caltrans | GL: Pavement Resurfacing/ Rehab SHS Highway Maint | IN SAN MATEO COUNTY, ON ROUTE 92, NEAR SAN MATEO, FROM PILARCITOS CREEK ROAD TO ROUTE 280/92 SEPARATION: Maintenance Asphalt Overlay | IN SAN MATEO COUNTY, ON ROUTE 92, NEAR SAN MATEO, FROM PILARCITOS CREEK ROAD TO ROUTE 280/92 SEPARATION: Maintenance Asphalt Overlay | EXEMPT (40 CFR 93.126) - Pavement resurfacing and/or rehabilitation |
| San Mateo | VAR170004 | Caltrans | GL: Pavement Resurfacing/ Rehab SHS Highway Maint | IN SAN MATEO COUNTY NEAR SAN MATEO ON ROUTE 35 FROM 2 MILES SOUTH OF SOUTH JUNCTION ROUTE 92 TO ROUTE 92 AND IN MENLO PARK ON ROUTE 109 FROM NOTRE dAME AVENUE TO ROUTE 84: Maintenance Asphalt Overlay | IN SAN MATEO COUNTY NEAR SAN MATEO ON ROUTE 35 FROM 2 MILES SOUTH OF SOUTH JUNCTION ROUTE 92 TO ROUTE 92 AND in menlo park on route 109 from notre dame avenue to ROUTE 84: Maintenance Asphalt Overlay | EXEMPT (40 CFR 93.126) - Pavement resurfacing and/or rehabilitation |
| Santa Clara | VAR170007 | Caltrans | GL: Railroad-Highway Crossing | In the City of Santa Clara, in the County of Santa Clara at the intersection of Agnew Road and Union Pacific Railroad tracks: Eliminate hazards at railroad grade crossing | In the City of Santa Clara, in the County of Santa Clara at the intersection of Agnew Road and Union Pacific Railroad tracks: Eliminate hazards at railroad grade crossing | EXEMPT (40 CFR 93.126) - Railroad/Highway crossing warning devices |
| Alameda | VAR170015 | Caltrans | GL: Pavement Resurfacing/Rehabilitatio n State Highway System SHOPP Minor | In Alameda County, on Route 185. AC resurfacing and upgrade curb ramps. | In Alameda County, on Route 185. AC resurfacing and upgrade curb ramps. | EXEMPT (40 CFR 93.126) - Pavement resurfacing and/or rehabilitation |
| Alameda | VAR170015 | Caltrans | GL: Pavement Resurfacing/Rehabilitatio n State Highway System SHOPP Minor | In Alemada County, on Route 80. Replace concrete slabs under westbound University Avenue. | In Alemada County, on Route 80. Replace concrete slabs under westbound University Avenue. | EXEMPT (40 CFR 93.126) - Pavement resurfacing and/or rehabilitation |
| Marin | VAR170015 | Caltrans | GL: Pavement Resurfacing/Rehabilitatio n State Highway System SHOPP Minor | In Marin County, on Route 131. Pave shoulders and conform pavement to driveway and replace wooden walkway. | In Marin County, on Route 131. Pave shoulders and conform pavement to driveway and replace wooden walkway. | EXEMPT (40 CFR 93.126) - Shoulder improvements |
| San Mateo | VAR170015 | Caltrans | GL: Pavement Resurfacing/Rehabilitatio n State Highway System SHOPP Minor | In San Mateo County, on Junction Route 82. AC resurfacing and upgrade curb ramps. | In San Mateo County, on Junction Route 82. AC resurfacing and upgrade curb ramps. | EXEMPT (40 CFR 93.126) - Pavement resurfacing and/or rehabilitation |
| Contra Costa | VAR170015 | Caltrans | GL: Pavement Resurfacing/Rehabilitatio n State Highway System SHOPP Minor | In Contra Costa County, at Crow Canyon and Bollinger Canyon. Convert irrigation to recycled water. | In Contra Costa County, at Crow Canyon and Bollinger Canyon. Convert irrigation to recycled water. | EXEMPT (40 CFR 93.126) - Planting, landscaping, etc |
| San Mateo | VAR170015 | Caltrans | GL: Pavement Resurfacing/Rehabilitatio n State Highway System SHOPP Minor | In San Mateo County, in the City of Pacifica on Highway 1 at various locations. Install traffic management system elements. | In San Mateo County, in the City of Pacifica on Highway 1 at various locations. Install traffic management system elements. | EXEMPT (40 CFR 93.126) - Traffic control devices and operating assistance other than signalization projects |

# Air Quality Conformity Task Force <br> Summary Meeting Notes 

June 22, 2017

## Participants:

Andrea Gordon - BAAQMD Dominique Paukowits - FTA
Amir Fanai - BAAQMD
Tawfic Halaby - City of Richmond
Barbara Hawkins - City of San Pablo
Carol Huang - City of San Pablo
Michelle Cordis - Contra Costa County Public
Works Department
Dick Fahey - Caltrans
Ginger Vagenas - EPA
Marilee Mortenson - Caltrans
Shalanda Christian - Caltrans
Marcella Rensi - Santa Clara Valley
Transportation Authority
Adam Crenshaw - MTC
Harold Brazil - MTC

1. Welcome and Self Introductions: Harold Brazil (MTC) called the meeting to order at $9: 35 \mathrm{am}$.

## 2. PM2.5 Project Conformity Interagency Consultations

a. Consultation to Determine Project of Air Quality Concern Status
i. Danville Blvd/Orchard Ct Complete Streets Project

Michelle Cordis (Contra Costa County Public Works Department) started her presentation of the Danville Blvd/Orchard Ct Complete Streets project will construct a roundabout at the Danville Boulevard/Orchard Court intersection. Ms. Cordis also mentioned that the roundabout will include curb extensions, curb ramps, and entry medians at the roundabout to reduce vehicle speeds and improve pedestrian crossings.

Ms. Cordis went over the specific characteristics of the Danville Blvd/Orchard Ct Complete Streets project by indicating:

- The purpose of the project is to -
o Install a roundabout at the Danville Blvd and Orchard Ct Intersection
o Install complete streets improvements along Danville Blvd between Jackson Way and Stone Valley Rd
- The project is needed to -
o Improve safety through corridor for all users
o Improve sidewalks to meet ADA requirements
o Reduce conflicts at the intersection
o Encourage active modes of transportation and local business growth
Ms. Cordis listed background aspects of the Danville Blvd/Orchard Ct Complete Streets project:
- Located in downtown Alamo
- Shopping centers on both sides of Danville Blvd at project site
- Over 10 years of community support (through the Alamo Municipal Advisory Council)
- Numerous mature oak trees, "Boulevard of Trees," have made the sidewalks uneven
- Existing intersection is side street stop controlled
- Danville Blvd is one of the County's top 20 corridors with the highest number of bicycle and/or pedestrian collisions between 2010 and 2014

Tawfic Halaby (City of Richmond) noted that there was ten years in the planning of this project and Ms. Cordis agreed and stated the time length was due to securing funding. Dominique Paukowits (FTA) asked if there were any other roundabouts in Alamo/Danville and Ms. Cordis indicated there were none.

Final Determination: With input from FHWA (deferring their determination to Caltrans), EPA, Caltrans and FTA, the Task Force concluded that the Danville Blvd/Orchard Ct Complete Streets project was not of air quality concern.

## ii. San Pablo Complete Streets Project

Carol Huang and Barbara Hawkins (both from the City of San Pablo) began the presentation San Pablo Complete Streets project by saying the project will improve multimodal access, safety and connection along the San Pablo corridor from Rumrill Blvd to Hilltop Drive by constructing Class 2 bike lanes and adding sidewalks along the eastern and western sides of the corridor. Ms. Huang also mentioned the project would remove and replace a slip lane into Robert H. Miller Drive with a right turn pocket, and would add a new traffic signal at La Puerta Drive. Additionally, three existing traffic signals, located at Rivers Street, Robert H. Miller Drive and Hilltop Drive would be either modified or replaced.

Ms. Huang stated that the San Pablo Complete Streets project improves multimodal access, safety, and connection by:

- Adding Class II bike lanes
- Adding sidewalk Rivers Street to Hilltop Drive on west side and Rivers Street to Lancaster Drive on east side
- Adding medians and replacing landscaping
- Replacing a slip lane with a right turn pocket at Robert H. Miller Drive
- Adding a new traffic signal at La Puerta Drive
- Modifying/replacing 3 signals (Rivers Street, Robert H. Miller Drive, and Hilltop Drive)
- Adding roadway lighting and retaining walls

Ms. Huang discussed the need of the San Pablo Complete Streets project because it serves as a link to:

- Residential areas
- Contra Costa College
- Wanlass Park
- Hilltop Mall
- Bayview Elementary School

Ms. Huang concluded her discussion of the San Pablo Complete Streets project by stating:

- Project does not affect intersections that are at LOS D, E, or F and would not worsen existing LOS at the project intersections.
- Slight delay at one intersection where the slip lane is removed but LOS remains at B.
- Project has no direct impact on volumes of truck traffic.
- Project is not in nor does it effect sites identified in $\mathrm{PM}_{10}$ or $\mathrm{PM}_{2.5}$ implementation plan.
- Project will improve bicycle and pedestrian facilities without adding vehicles to roadway.

Barbara Hawkins went over the improvements and benefits of the San Pablo Complete Streets project by indicating:

- New Class II bike lanes will be constructed -
o Both directions for the entire project
o Will connect current gaps in bike lanes
o Increase bicyclist confidence and usage
- Pedestrian safety will be improved -
o New sidewalk Rivers Street to Hilltop Drive on west side and Rivers Street to Lancaster Drive on east side
o Replace slip lane with a right turn pocket at Robert H. Miller Drive
o New traffic signal at La Puerta Drive
o Roadway lighting
All members of the Task Force thanked Ms. Huang and Ms. Hawkins for their presentation and Tawfic Halaby (City of Richmond) also expressed his support of the San Pablo Complete Streets project on behalf of the City of Richmond.

Final Determination: With input from FHWA (deferring their determination to Caltrans), EPA, Caltrans and FTA, the Task Force concluded that the San Pablo Complete Streets project was not of air quality concern.

## iii. $37^{\text {th }}$ Street Bicycle \& Pedestrian Improvements Project

Tawfic Halaby (City of Richmond) described the purpose and need of the $37^{\text {th }}$ Street Bicycle \& Pedestrian Improvements project by stating the project's components:

- Complete Streets
- Safety improvements for bicyclists, pedestrians, and vehicles along the 37th Street corridor
- Install bicycle facilities in accordance with the City's Bicycle Master Plan
- Facilitate increased bicycling, walking, and transit use to schools, work, BART stations in accordance with City's Health in All Policies paradigm

Mr. Halaby also listed a specific description of the $37^{\text {th }}$ Street Bicycle \& Pedestrian Improvements project by stating:

- 37th Street in Richmond, between Center Street and Cerrito Avenue
- Length is about 0.7 miles
- ADA compliant curb ramps
- Improved crosswalks
- Bicycle Facilities
- Pedestrian safety modifications at traffic signals

Mr. Halaby also listed a specific description of the $37^{\text {th }}$ Street Bicycle \& Pedestrian Improvements project by stating:

- From Macdonald Avenue to Barrett Avenue only (2 blocks)
- About 0.2 miles of road diet
- Reduce four lane road with two travel lanes in each direction into a three lane road with one travel lane in each direction, one center turn lane, and one Class II bike lane in each direction

Amir Fanai (BAAQMD) asked if trucks used 37th Street and Mr. Halaby stated that the project was not on a truck route in the City of Richmond, but $2.5 \%$ of the vehicles counted on the facility were trucks. Mr. Halaby went on to say that the $2.5 \%$ truck count was mainly composed of smaller, delivery trucks. Ginger Vagenas (EPA) mentioned that EPA desires trucks smaller than 18 wheelers to be included in the total truck count for a facility and in the case of the $37^{\text {th }}$ Street Bicycle \& Pedestrian Improvements project, having smaller truck counts included would not be an issue. Shalanda Christian (Caltrans) had some local knowledge of the project area and followed up in the discussion by indicating that she was unaware of any commercial vehicle traffic traveling on $37^{\text {th }}$ Street in the project location. Ms. Christian indicated that the $37^{\text {th }}$ Street Bicycle \& Pedestrian Improvements project area is primarily residential with little industrial buildings located there.

Final Determination: With input from FHWA (deferring their determination to Caltrans), EPA, Caltrans and FTA, the Task Force concluded that the $37^{\text {th }}$ Street Bicycle \& Pedestrian Improvements project was not of air quality concern.

## b. Confirm Projects Are Exempt from PM2.5 Conformity

## i. Confirmation of the list of exempt projects from PM2.5 conformity (2b_Exempt List 060917.pdf)

The Task Force deferred on three projects on the 2b_Exempt List 060917.pdf list of exempt projects:

- For TIP ID number ALA170051, Marilee Mortenson (Caltrans) requested more information on the project. . MTC will gather the information and follow up.
- For TIP ID number SCL110139 - Ginger Vagenas (EPA), Shalanda Christian (Caltrans) and Marilee Mortenson (Caltrans) made a variety of comments on TIP ID number SCL110139 which including; 1. Is this project a channelization project? 2. Is this project in the wrong category? 3. How does this project address safety issues at the intersection? Marcella Rensi (Santa Clara Valley) also provided some background land use and travel demand information about the project area.

SCL110139 will go through project-level conformity consultation with the Task Force at a future meeting.

- For TIP ID number SF-170014, Ginger Vagenas (EPA) and Marilee Mortenson (Caltrans) both asked about the vehicle volume reduction component of the project and Dominique Paukowits (FTA) asked if the project was related to SFMTA's Vision Zero project. MTC will gather the information and follow up.

Final Determination: With input from FTA, EPA, Caltrans and FHWA, the Task Force deferred their exempt determination on TIP ID project numbers ALA170051 and SF170014 until receipt of additional information from the project sponsors, TIP ID number SCL110139 was removed from the exempt list (and will go thru consultation) and the Task Force agreed that the rest of projects on the exempt list (2b_Exempt List 060917.pdf) were exempt from $\mathrm{PM}_{2.5}$ project level analysis.

## 3. Projects with Regional Air Quality Conformity Concerns

a. Review of the Regional Conformity Status for New and Revised Projects

Projects Staff Proposing to Include in the 2017 TIP
Adam Crenshaw (MTC) stated that MTC staff had received requests from sponsors to revise one existing project and add three new individually listed projects and 65 new grouped listed projects to the 2017 TIP.

Mr. Crenshaw went on to say that one of the revised project (US $\mathbf{1 0 1}$ HOV/HOT from Santa Clara to I-380, TIP ID: SM-150017) includes elements that may not be treated as exempt from regional-level conformity under 40 CFR 93.126 or 40 CFR 93.127. Mr. Crenshaw mentioned that the Task Force has reviewed the existing scope of the project, but staff is now proposing to expand the project limits. Mr. Crenshaw added that staff believes that the expansion of this project's limits in the 2017 TIP would not require an update to the air quality conformity analysis for Plan Bay Area and the 2017 TIP.

Ginger Vagenas (EPA) asked if two projects were being combined into a single project with this revision and Mr. Crenshaw replied by indicating that the US 101 HOV/HOT from Santa Clara to I380 project is represented by multiple project listings in the RTP and a portion of the project is represented in the current TIP and the remaining portions of the project will be represented in a future TIP. Shalanda Christian (Caltrans) asked if the limits of the US 101 HOV/HOT from Santa Clara to I-380 project represented by two project listings in the RTP and Mr. Crenshaw said that was correct. Harold Brazil (MTC) summarized the discussion by stating that the revision to the scope of the US 101 HOV/HOT from Santa Clara to I-380 project has no effect on the modeling done for the current regional conformity analysis and Ms. Vagenas and the rest of the Task Force agreed.

Mr. Crenshaw continued his review of the regionally exempt list of projects to be included in the 2017 TIP and Ms. Vagenas, Shalanda Christian (Caltrans) and Dominique Paukowits (FTA) concurred with their air quality category assignments.

## 4. Consent Calendar

a. May 25, 2017 Air Quality Conformity Task Force Meeting Summary

Final Determination: With input from all members, the Task Force concluded that the consent calendar was approved.
5. Release of Draft Transportation Conformity Analysis for the Amended 2017 Transportation Improvement Program (TIP) and Plan Bay Area 2040 (Update)

Harold Brazil (MTC) discussed the revisions made to the Conformity Analysis for the Amended 2017 Transportation Improvement Program (TIP) and Plan Bay Area 2040 with assistance from Ginger Vagenas (EPA). The revisions were made to section II, "Bay Area Air Pollutant Designations" section of the conformity analysis and text language was updated. The Task Force members had no other questions or comments on this agenda item.

## 6. Other Items

Ginger Vagenas (EPA) notified the group that the EPA Administrator determined that there is insufficient information to complete area designations for the 2015 ozone standards and extended the deadline by one year, until October 1, 2018. More info can be found at:
https://www.epa.gov/ozone-designations/extension-deadline-area-designations-2015-ozonestandards


[^0]:    1. Based on an annual growth rate of $2 \%$, as directed by City of Fremont staff, which was used to increase the existing (2017) counts.
    2. Light Trucks are defined as all vehicles within the FHWA vehicle classification four to seven. This includes light trucks and buses.
    3. Heavy Trucks are defined as all vehicles within the FHWA vehicle classification eight to thirteen. Heavy Trucks are assumed to be diesel vehicles.

    Source: Fehr \& Peers, 2017.

[^1]:    1. Based on an annual growth rate of $2 \%$, as directed by City of Fremont staff, which was used to increase the existing (2017) counts.
    2. Light Trucks are defined as all vehicles within the FHWA vehicle classification four to seven. This includes light trucks and buses.
    3. Heavy Trucks are defined as all vehicles within the FHWA vehicle classification eight to thirteen. Heavy Trucks are assumed to be diesel vehicles.

    Source: Fehr \& Peers, 2017.

