# Air Quality Conformity Task Force Meeting 

Metropolitan Transportation Commission

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## April 25, 2024 <br> 9:30 a.m. - 11:00 a.m.

AGENDA

1. Welcome and Introductions
2. Projects with Regional Air Quality Conformity Concerns
a. Consultation to Determine Project of Air Quality Concern Status
i. Valley Link Rail Project
ii. I-580 Westbound High Occupancy Vehicle Lane Conversion Project
3. Approach to the Conformity Analysis for the 2025 Transportation Improvement Program (TIP)
4. Consent Calendar
a. March 28, 2024 Air Quality Conformity Task Force Meeting Summary
5. Other Items

Next Meeting: May 23, 2024

MTC Staff Liaison: Harold Brazil hbrazil@bayareametro.gov

Harold Brazil is inviting you to a scheduled Zoom meeting.
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- 213.244.140.110 (Germany)
- 103.122.166.55 (Australia Sydney)
- 103.122.167.55 (Australia Melbourne)
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## Memorandum

TO: Air Quality Conformity Task Force
DATE: April 17, 2024
FR: Harold Brazil
W.I.

RE: PM $_{2.5}$ Project Conformity Interagency Consultation
A project sponsors representing two 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 | Federal Transit Administration | Valley Link Rail Project |
| 2 | Metropolitan Transportation Commission | I-580 Westbound High Occupancy Vehicle Lane <br> Conversion Project |

2ai_Valley_Link_Rail_Project_Assessment_Form.pdf (for the Valley Link Rail project)

2aii_I-580_WB_High_Occupancy_Vehicle_Lane_Conversion_Project_Assessment_Form.pdf (for the I-580 Westbound High Occupancy Vehicle Lane Conversion project)

## Application of Criteria for a Project of Air Quality Concern <br> Project Title: Valley Link Rail Project

Project Summary for Air Quality Conformity Task Force Meeting: April 25, 2024

## Description

- The purpose of the Proposed Project is to:
- Provide a frequent and reliable transit option in the l-580 corridor while connecting housing, people, and jobs.
- Connect the Tri-Valley Hub to the state rail system to support megaregional mobility, furthering the vision of the California State Rail Plan, the Metropolitan Transportation Commission's (MTC) Plan Bay Area 2050, and the SJCOG Regional Transportation Plan and Sustainable Communities Strategy.
- Enhance mobility and accessibility options for all communities within the Northern California Megaregion.
- Support local, state (California Climate Initiative), and federal goals to promote sustainability, reduce greenhouse gas (GHG) emissions, and enhance environmental quality.
- Project would establish a new passenger rail service along 22-mile corridor between the existing Dublin/Pleasanton BART Station and the proposed Mountain House Community Station in San Joaquin County.
- Alignment would be constructed within combination of existing I-580 median, existing transportation corridor owned by Alameda County, existing Caltrans right-of-way, and new right-of-way to be acquired for the project.
- Four new stations and three support facilities would be constructed.
- I-580 would be shifted to accommodate the project while maintaining existing freeway lanes and interchange ramp configurations, including existing express lane facilities.
- The Proposed Project includes the use of zero-emission multiple unit vehicles (ZEMUs). The use of hydrogen vehicles is assumed for environmental documentation given recent State procurement activities and consistency with the State Rail Plan.


## Background

- The Federal Transit Administration is the NEPA Lead Agency and the Tri-Valley - San Joaquin Valley Regional Rail Authority is the CEQA Lead Agency
- Technical studies are being prepared to support the CEQA Subsequent EIR and NEPA Environmental Assessment.
- CEQA Public Scoping Meetings were held in December 2022.
- Public review for the EA is scheduled for June 2024.
- No comments received on air quality thus far
- Seeking air quality conformity determination on or before April 25, 2024.

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.
- Project is expected to result in a transportation mode shift (i.e., shitting from passenger vehicle use to rail transit) which would reduce travel by passenger vehicles.
(ii) Affects intersections at LOS D, E, or F with a significant number of diesel vehicles?
- Reduced vehicle travel resulting from the transportation mode shift would not introduce a significant number of diesel vehicles at intersections.
(iii) New bus and rail terminals and transfer points with significant increase in diesel vehicles at single location?
- Stations and maintenance facilities along project alignment would primarily attract light-duty passenger vehicles.
- Maintenance facilities would include minimal use of off-road equipment for maintenance activities.
- One truck daily would provide delivery of hydrogen fuel for train operations.
(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?
- The project is not in or affecting areas identified in PM implementation plan as a site of violation.


## RTIP ID\# 21-T11-114

TIP ID\# ALA230204

## Air Quality Conformity Task Force Consideration Date

April 25, 2024

## Project Description

The Proposed Project would establish a new passenger rail service along a 22-mile corridor in Northern California between the existing Dublin/Pleasanton Bay Area Rapid Transit (BART) Station in Alameda County and the proposed Mountain House Community Station in San Joaquin County. The Proposed Project would provide an all-day bidirectional passenger rail service at frequent intervals using zeroemission multiple unit (ZEMU) vehicles. The alignment would be constructed within a combination of the existing Interstate 580 (I-580) freeway median, the existing transportation corridor owned by Alameda County (formerly Southern Pacific Transcontinental Railroad alignment), existing Caltrans right-of-way (ROW) adjacent to westbound I-580, and new ROW to be acquired for the Proposed Project. The Proposed Project includes four new stations and three support facilities. Where the project would be constructed in the I-580 median, the freeway would be realigned to accommodate the rail in the I-580 median. The capacity and number of lanes would not be changed.

## Type of Project:

New Passenger Rail Service


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

- Provide a frequent and reliable transit option in the l-580 corridor while connecting housing, people, and jobs.
- Connect the Tri-Valley Hub to the state rail system to support megaregional mobility, furthering the vision of the California State Rail Plan, the Metropolitan Transportation Commission's (MTC) Plan Bay Area 2050, and the SJCOG Regional Transportation Plan and Sustainable Communities Strategy.
- Enhance mobility and accessibility options for all communities within the Northern California Megaregion.
- Support local, state (California Climate Initiative), and federal goals to promote sustainability, reduce greenhouse gas (GHG) emissions, and enhance environmental quality.

The existing transportation has inadequate capacity to support current and future transportation conditions, in addition to inadequate mode choice which limits regional connectivity. Disadvantaged populations are overburdened by a lack of reliable access to jobs, education, and healthcare in and from the Tri-Valley area. Additionally, zero emissions transportation alternatives are needed to reduce greenhouse gas emissions to meet regional, state, and federal requirements and initiatives to decarbonize.

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

Surrounding land uses include agricultural, commercial, educational facilities, industrial, mixed use, office, open space, parks, public facilities, residential (low- to high-density), and transportation. A portion of the proposed project would be constructed in the I-580 freeway median. The proposed project is expected to result in a transportation mode shift which would reduce travel by highway vehicles through the Altamont Pass and along the l-580 corridor.

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

The project would provide a hydrogen-powered ZEMU rail transit service and associated support and maintenance facilities and operations. The project will result in reduced highway vehicle miles traveled due to the commuter mode shift from passenger vehicles to rail transit. The project would primarily utilize electric-powered maintenance equipment and electric fleet vehicles for operations. Daily operational diesel sources would be limited to a single haul truck to transport hydrogen fuel for the project, approximately seven pieces of offroad equipment utilized for one to two hours daily along the 22-mile alignment, and a forklift and emergency generator at each of the three support facilities. Therefore, the project would not cause an increase in diesel vehicles on highways or in intersections.

Criteria pollutant and mobile source air toxic (MSAT) emissions associated with the operation of the project were estimated using appropriate off-road equipment and exhaust emission factors from statewide databases and models (i.e., CaIEEMod, EMFAC, and CT-EMFAC). Construction of the proposed project is anticipated to last 3 years and temporary emissions from off-road and on-road equipment and fugitive dust sources were quantitatively evaluated.

Opening Year: If facility is a highway or street, Build and No Build LOS, AADT, \% and \# trucks,
truck AADT of proposed facility
2028. The proposed project is a hydrogen-powered passenger rail service and is not a project type mentioned (i.e., highway or street). A portion of the proposed project would occur in the Caltrans ROW. Where the project would be constructed in the existing I-580 median, the freeway would be realigned to accommodate the rail in the I-580 median. The capacity and number of lanes would not be changed. Therefore, the Build and No Build AADT and number of trucks is unchanged as a result of the project. For Opening Year 2028 the average daily traffic (ADT) is $3,679,736$ and the percentage of trucks is 0.12 percent. These values represent the traffic volume on I-580 extending from the I-580/I-680 interchange west to the Northfront Road (westbound travel) and Southfront Road (eastbound travel) offramps. This location was chosen because it represents the extent of I-580 where the project would be constructed in the median of I-580.
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
2050. Similar to the opening year, the Build and No Build condition have the same traffic volumes because the project would not change the capacity and number of lanes on I-580. For the RTP Horizon Year (2050): the ADT is $3,981,291$ and the percentage of trucks is 0.10 percent. The values represent traffic volumes in the same location as the Opening Year.

Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, \% and \# trucks, truck AADT
Not applicable

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
Not applicable

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
2028. Within Alameda County, the project alignment would be composed of 3 stations and maintenance related activities at the Altamont Maintenance-of-Way (MOW) facility. Within San Joaquin County, the project alignment would be composed of 1 station and maintenance related activities at the Mountain House Layover Facility and Tracy Operations and Maintenance Facility/Operations Support Site (OMF/OSS). As discussed previously, the rail operation would utilize hydrogen-powered ZEMU vehicles and vehicles traveling to the stations would be primarily electric and gasoline passenger vehicles. The station parking lots would include spaces for bus loading and unloading; however, there are no planned bus routes to or from the station as part of this project and passengers are anticipated to arrive at the station by passenger vehicle. There would be no buses associated with the stations under the Build condition in the opening year (2028). The stations would not be constructed under the No Build condition.

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
2050. Similar to the opening year, there would be no buses associated with the stations under the Build condition in the horizon year (2050). The stations would not be constructed under the No Build condition.

Describe potential traffic redistribution effects of congestion relief (impact on other facilities) Because of the trip and VMT reductions resulting from the commuter mode shift to rail, there would be no direct impact to other facilities. A potential benefit of the project would be congestion relief due to the commuter mode shift and fewer vehicles that would have commuted by highway.

Where the project would be constructed in the existing I-580 median, the freeway would be realigned to accommodate the rail in the I-580 median. The capacity and number of lanes would not be changed. Realigning I-580 would move the freeway closer to receptor locations along the freeway. Mass emissions from vehicle travel on I-580 would not change due to realigning the freeway. Potential impacts associated with the freeway being closer to receptor locations was evaluated through a health risk assessment. The results indicate that health risks would be below air-district thresholds.

Comments/Explanation/Details (please be brief)

## Valley Link Rail Project

Connecting People, Housing, and Jobs

Air Quality Conformity Task Force April 28, 2024



ACES


PLEASANTO
PLEASANTON

## Project Location

- Located in Alameda and San Joaquin Counties
- Considering one Build Alternative and a No Build Alternative
- Build Alternative would construct passenger rail service along 22-mile corridor, providing all-day bidirectional service using zeroemissions multiple unit (ZEMU) vehicles



## Valley Link Project Alignment

- 22-miles of new track
- At-grade, Retained, and Aerial
- Single- and Double-track
- 4 Stations
- 1 Aerial and 3 At-grade
- 12 miles of I-580 Realignment in Alameda County
- 15-min peak period service
- 30-min + off-peak period service
- Layover and Operations, Maintenance Facilities
- ZEMU Vehicle Technology



## Project Alignment: I-580 Section (Slide 1 of 4)

The Proposed Project would operate in the median of I-580 from east of the existing Dublin/ Pleasanton BART Station to Greenville Road in Livermore.


## Project Alignment: I-580 Section (View 1)

- Location: I-580 north of the existing BART station and the proposed Dublin/ Pleasanton Station.
- The view is looking east towards the proposed Valley Link rail flyover, where the Proposed Project transitions from south of I580 to the median



## Project Alignment: I-580 Section (View 2)

- Location: Hacienda Drive overpass over l-580 looking west toward the western terminus of the Proposed Project.
- Views primarily include transportation corridors and commercial development in the fore- and middle ground; the Dublin-Pleasanton ridge looking west and the Black Hills and Mt. Diablo in the background, looking north. The Sunol Grade is off in the distance to the south.



## Project Alignment: I-580 Section (Slide 2 of 4)

I-580 would be realigned as necessary to accommodate rail in the l-580 median for construction of the Proposed Project, while maintaining existing freeway lanes and interchange ramp configurations, including existing express lane facilities.


## Project Alignment: I-580 Section (Slide 3 of 4)

The majority of the project alignment would be singletrack to minimize impacts on the existing freeway configuration.
To facilitate the passing of opposing trains, sidings would be constructed at the proposed stations.


## Project Alignment: I-580 Section (Slide 4 of 4)

East of Greenville Road, the alignment would transition from the median of I-580 to the Alameda County Transportation Corridor via an elevated viaduct.


## Project Alignment: I-580 Section (View 3)

- Location: I-580 westbound at the exit ramp to Greenville Road in Livermore (Figure 410).
- The view looks west towards the proposed overpass carrying the rail line from the I580 median north into the Alameda County
Transportation Corridor. I-580 westbound is on structure over Greenville Road, and I580 westbound is also on structure over Greenville Road, but at a higher elevation than the westbound overpass.



## Project Alignment: Altamont Section (Slide 1 of 4)

Across the Altamont Pass, the Proposed Project would operate within the Alameda County Transportation Corridor ROW from just east of Greenville Road in Livermore, to a point north of the existing railroad tunnel under l-580.


## Project Alignment: Altamont Section (View 4)

- Location: Altamont Pass Road in the vicinity of the proposed Dyer Road Grade Separation.
- The view looks north towards the Dyer Road intersection and the existing UPRR rail overpass, which is a smaller structure with minimal clearance over the roadway. Several utility poles, transmission lines, and windmills are visible throughout the view.



## Project Alignment: Altamont Section (View 5)

- Location: Altamont Pass Road in the vicinity of the proposed MOW site.
- The existing site is relatively flat and serves as a storage location with an old barn and dilapidated vehicles. Several utility lines and poles are visible throughout the area.



## Project Alignment: Altamont Section (View 6)

- Location: Altamont Pass Road in the vicinity of the proposed grade separation of Altamont Road just west of the existing UPRR bridge, which is a visual resource.
- The proposed overpass would include retaining walls in areas where grassed slopes are not feasible. Several utility poles and transmission lines are visible throughout the view



## Project Alignment: Altamont Section (Slide 2 of 4)

The alignment would transition out of the Alameda County Transportation Corridor ROW, and extend southeast toward the westbound lanes of I-580.


## Project Alignment: Altamont Section (View 7)

- Location: Altamont Pass Road, approximately 1.3 miles east of the UPRR bridge that crosses Altamont Pass Road near the entrance to the Waste Management Altamont Landfill.
- Views of the rolling hills and wind turbines are prevalent throughout the view, with little intrusion.



## Project Alignment: Altamont Section (Slide 3 of 4)

The alignment would continue east, staying generally within the existing Caltrans ROW.


## Project Alignment: Altamont Section (View 8)

- Location: I-580 at the Grant Line Road interchange.
- The view faces west toward the proposed transition of the Proposed Project from Altamont Hills to within the ROW, north of I-580. Views at this location are predominately of the surrounding Altamont Hills and I-580. There is scattered residential development east of the view.



## Project Alignment: Altamont Section (Slide 4 of 4)

The alignment would extend east to the Mountain House Community Station just west of Mountain House Parkway and north of the I205 westbound lanes. It would then cross under Mountain House Parkway into the proposed Mountain House Layover Facility (LF) site.


## Dublin/ Pleasanton Station

- Constructed south of eastbound I-580 lanes
- In proximity to existing Dublin/Pleasanton BART
- A 640-foot-long by 30-foot-wide, doubletrack Valley Link aerial station platform
- Stairs, escalators, and elevators for vertical circulation within the station



## Dublin/ Pleasanton Station (Visual Simulation)

- Location: Owens Drive near Willow Road in front of the Galloway Apartment Building.
- The view looks north toward the western terminus of the Proposed Project at the proposed overpass and the Dublin/ Pleasanton Station platform



## Isabel Station

- Constructed within I-580 median
- Adjacent surface parking on 24-acre site along East Airway Boulevard south of I580 and east of the Isabel Avenue I-580 overcrossing in Livermore
- A 640-foot-long by 30 -foot-wide, doubletrack, at-grade Valley Link station platform in the median of a shifted shifted I-580
- Pedestrian overcrossings including elevators and stairs



## Isabel Station (Visual Simulation)

- Location: l-580, east of the proposed Isabel Station platform. The view looks east toward the station.
- Views primarily include I-580, associated ramps, and the Isabel Road overpass.



## Southfront Road Station

- Constructed within I-580 median
- Adjacent surface parking on 7-acre site along Southfront Road between McGraw Avenue and Franklin Lane
- Realignment of Southfront Road
- A 660-foot-long by 25 -foot-wide, doubletrack, at-grade Valley Link station platform in the median of a shifted l-580
- Pedestrian overcrossing including elevators and stairs to the station platform and at both ends of the bridge



## M ountain House Community Station

- Constructed north of I-205 near I205/ Mountain House Parkway interchange
- Adjacent surface parking lot north of the tracks
- A 660-foot-long by 25 -foot-wide, at-grade, double-track Valley Link station platform
- A future parking structure to meet 2040 parking demand for a total of up to approximately 5,980 parking spaces
- Two grade-separated pedestrian crossings from the parking lot to the platform, including stairs, ramps, and elevators



## M ountain House Community Station (Visual Simulation

- Location: Mountain House Parkway north of I-205.
- The view faces west toward the proposed station platform and parking lot. The Mountain House Community Station is proposed in the northwest quadrant at Mountain House Parkway and I-205. The land is currently naturalized grasslands and borders residential development to the west.



## Altamont Maintenance of Way (M OW)

- Constructed on a 10-acre portion of the Alameda County Transportation Corridor ROW, approximately 2,250 feet east of Dyer Road
- May be used as a contractor staging area during construction
- Designed to support the shortterm storage of vehicle rolling stock, non-revenue vehicles and material laydown areas for maintenance of rail systems infrastructure during operations




## Mountain House Layover Facility (LF)

- Constructed on an approximately 75acre site east of Mountain House Parkway and north of I-205
- Support train layovers, storage, and light maintenance
- Includes an administrative building with administrative, management, operations and security offices, and an operations building



## Mountain House Layover Facility (LF) - (Visual Simulation

- Location: Mountain House Parkway east of the roadway and north of l-205.
- The view faces northeast toward the facility. The land is currently undeveloped, contains agricultural orchards, and borders residential developments. The terrain is flat, with minimal views in the background. Existing colors include seasonal tans and greens from the grasses, wildflowers, and agricultural row crops.



## Tracy Operations M aintenance Facility/ Operations Support Site (OM F/ OSS)

- Constructed on part of an approximately 200-acre property along West Schulte Road just west of the Owens-Brockway Glass Container Plant west of Tracy
- Accommodate heavy maintenance vehicle and component rebuilds, nonrevenue vehicle maintenance, buildings and stations maintenance, warehouse storage, as well as a Backup Control Center (BCC)



## Vehicles - Zero Emission Multiple Units



- Available zero-emission vehicle technology
- Supports both environmental and economic sustainability goals
- Leverages existing state and regional investments


## MODULAR VEHICLE CONFIGURATIONS



```
4 CAR EXAMPLE
```

4 CAR EXAMPLE
CONFIGURATION:
CONFIGURATION:
SINGLE TRACTION

```
SINGLE TRACTION
```


ADA Accessible Area
General Use Area
Restroom
Bicycle Rack
Ski/Luggage Rack
A.

4 CAR EXAMPLE CONFIGURATION: DOUBLE TRACTION

| SEATING CAPACITY |  | VEHICLE DIMENSIONS |  |
| :--- | :--- | :--- | :--- |
| FIXEDSEATS | 388 | LENGTH | $532^{\prime}$ |
| FLIPUP <br> SEATS | 56 | HEIGHT | $14^{\prime} 0.68^{\prime \prime}$ |
| TOTALSEATS | 444 | WIDTH | $10^{\prime} 2.36^{\prime \prime}$ |

- Resiliency of operations
- Meets Buy America for federal funding eligibility



## Project Purpose

## The purpose of the Proposed Project is to:

- Access: Inadequate mode choice limits regional connectivity and access to employment, housing, education, healthcare, and recreational opportunities.
- Equity: Disadvantaged populations are overburdened by a lack of reliable access to jobs, education, and healthcare in/ from the Tri-Valley and the negative effects of GHG emissions.
- Mobility: The existing transportation system is not adequate to serve current and future transportation conditions, including congestion on I-580 and the nearly 100,000 daily commuters through the Tri-Valley.
- Safety: Increased safety is needed for freight movements and through reductions in vehicle miles traveled.
- Sustainability: Regional, state (California Climate Initiative), and federal requirements to decarbonize and reduce GHG emissions.


## Project Need

## The Proposed Project would respond to the following needs:

Provide a frequent and reliable transit option in the l-580 corridor while connecting housing, people, and jobs.

- Connect the Tri-Valley Hub to the state rail system to support megaregional mobility, furthering the vision of the California State Rail Plan, the Metropolitan Transportation Commission's (MTC) Plan Bay Area 2050, and the SJCOG Regional Transportation Plan and Sustainable Communities Strategy.
- Enhance mobility and accessibility options for all communities within the Northern California Megaregion.
- Support local, state (California Climate Initiative), and federal goals to promote sustainability, reduce GHG emissions, and enhance environmental quality.


## Surrounding Land Use/ Traffic Generators

Surrounding land uses include:

- agricultural, commercial, educational facilities, industrial, mixed use, office, open space, parks, public facilities, residential (low- to high-density), and transportation.
- A portion of the proposed project would be constructed in the existing I-580 freeway median.
- The proposed project is expected to result in a transportation mode shift which would reduce travel by highway vehicles through the Altamont Pass and along the I-580 corridor.


## Regional Traffic Data

## Opening Year (2028) Summary on I-580

| Measure | No-Build Alternative |  | Build Alternative |  | \% Change |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Total | \% Trucks | Total | \% Trucks |  |
| ADT | $3,659,031$ | $2.40 \%$ | $3,659,031$ |  | $2.40 \%$ |
| VMT | $2,157,019$ |  | $2,157,019$ |  | 0 |

Source: MTC Loaded Network Data for 2015 and 2035, interpolated for 2028

1. Includes east- and west-bound traffic, includingthe I-580 Express Lane, between I-580/I-680 interchange west to Northfront Road and Southfront Road offramp.

## Regional Traffic Data, cont.

## Horizon Year (2050) Summary on I-580

| Measure | No-Build Alternative |  | Build Alternative |  | \% Change |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Total | \% Trucks | Total | \% Trucks |  |
| ADT | $3,981,291$ | $1.28 \%$ | $3,981,291$ |  | $1.28 \%$ |
| VMT | $2,368,250$ |  | $2,368,250$ |  | 0 |

Source: MTC Loaded Network Data for 2050

1. 2. Includes east- and west-bound traffic, including the I-580 Express Lane, between I-580/I-680 interchange west to Northfront Road and Southfront Road offramp.

## Summary

## Not a Project of Air Quality Concern

- (i) New or expanded highway projects with significant number/ increase in diesel vehicles?
$\checkmark$ Not a new or expanded highway project.
$\checkmark$ Project is expected to result in a transportation mode shift (i.e., shifting from passenger vehicle use to rail transit) which would reduce travel by passenger vehicles.
- (ii) Affects intersections at LOS D, E, or F with a significant number of diesel vehicles?
$\checkmark$ Reduced vehicle travel resulting from the transportation mode shift would not introduce a significant number of diesel vehicles at intersections.
- (iii) New bus and rail terminals and transfer points with significant increase in diesel vehicles at single location?
$\checkmark$ Stations and maintenance facilities along project alignment would primarily attract light-duty passenger vehicles.
$\checkmark$ Maintenance facilities would include minimal use of off-road equipment or electric-powered equipment for maintenance activities.
$\checkmark$ One truck daily would provide delivery of hydrogen fuel for train operations.
- (iv) Expanded bus and rail terminals and transfer points?
$\checkmark$ Not Applicable
- (v) Affects areas identified in PM10 or PM2.5 implementation plan as site of violation?
$\checkmark$ The project is not in or affecting areas identified in PM implementation plan as a site of violation.


## Schedule



## Questions?

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

Project Title: I-580 Westbound High Occupancy Vehicle Lane Conversion Project Project Summary for Air Quality Conformity Task Force Meeting: April 25, 2024

## Description

- Project converts 2.3 miles of an existing general purpose (GP) lane to a HOV 3+ lane.
- The proposed HOV lane would extend from the beginning of the existing HOV lane on I-580 WB at the Interstate 80 (I-80) WB connector (I-580 Post Mile 46.7) to immediately west (I-580 Post Mile 44.7) of the Broadway-Richmond Boulevard Undercrossing (l-580 Post Mile 44.5).
- Project limit extends further along I-580 WB from the Broadway-Richmond Boulevard Undercrossing (I-580 Post Mile 44.5) to the Lakeshore Park Undercrossing (I-580 PM 43.2) for the installation of HOV lane signs only.
- GP Lane conversion to a HOV lane would entail the removal of current striping, application of new striping, and installation of signs.
- The HOV lane would be separated from the remaining GP lanes by a combination of dashed white striping (continuous access), a single solid white stripe (access discouraged), and solid, double, white striping (restricted access).
- Signs indicating the beginning of the HOV lane, HOV lane restrictions, and HOV lane operating hours would be installed starting west of the Lakeshore Park Undercrossing (l-580 Post Mile 43.5), approximately 1 mile in advance of the beginning of the proposed HOV lane (I-580 Post Mile 44.5).
- The project would increase person throughput during peak hours, improve travel time reliability, and encourage mode shift.


## Background

- Particulate Matter Hot Spot Analysis Project Summary Form currently being prepared
- Draft Air Quality Assessment Report currently being prepared
- Final Air Quality Assessment Report Approval April 2023
- Draft Environmental Document Approval May 2023
- Air Quality Conformity Report Approval June 2023
- Final Environmental Document July 2023


## 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
- No increase in the number of lanes or capacity improvements
- No increase in traffic volume or significant change to truck percentages on I-580
(ii) Affects intersections at LOS D, E, or F with a significant number of diesel vehicles?
- The project does not include interchanges or intersection LOS's.
- The project would not result in substantial redistribution of traffic or changes in the percentage of truck trips through the site.
- The project would not create any new connections to other roadways or areas, and the project would not open any new areas to development.
- 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 PM 10 or $P M_{2.5}$ implementation plan as site of violation?
- The project is consistent with MTC RTP (ID 04-ALA-580; 21-T06-049) and is intended to meet the transportation needs in the area based on local land use plans.
- No increase in traffic volume or significant change in truck percentages on l-580.
- The purpose of the project is to promote mode shift by providing travel time savings for carpooling and transit riders, reduce VMT and corresponding emissions, improve safety, and improve operational efficiency.


## Project Assessment Form for PM2.5 Interagency Consultation

RTIP ID\# 04-ALA-580; 21-T06-049
TIP ID\# ALA190018

Air Quality Conformity Task Force Consideration Date
April 25, 2024
Project Description (clearly describe project)
The Bay Bridge Forward (BBF) Interstate 580 (I-580) Westbound (WB) High Occupancy Vehicle (HOV) Lane Extension Project (Project) is located in the City of Oakland within Alameda County, California. The Metropolitan Transportation Commission (MTC) is the Project sponsor, implementing agency, and lead agency. Project partners include the California Department of Transportation (Caltrans) and the Alameda County Transportation Commission (CTC).

The project site extends from I-580 Post Mile 43.2 to I-580 Post Mile 46.9. The Project proposes to convert 2.3 miles of an existing general-purpose (GP) lane to an HOV lane. Signing and striping work would occur along the existing HOV lane between I-580 Post Mile 46.7 and I-580 Post Mile 46.9. The proposed HOV lane would extend from the beginning of the existing HOV lane for the San Francisco-Oakland Bay Bridge (SFOBB) Toll Plaza approach at the WB I-580/Interstate $80(1-80)$ connector touch-down area (I-580 Post Mile 46.7) to just east of the Broadway-Richmond Boulevard Undercrossing (I-580 Post Mile 44.5). The Project limit extends further along I-580 WB from the Broadway-Richmond Boulevard Undercrossing (I-580 Post Mile 44.5) to I-580 Post Mile 43.2 at the Lake Park Ave Overcrossing for the installation of advanced HOV lane signs and restriping. No HOV lane extension is proposed for this portion of the project site.

GP Lane conversion to an HOV lane would entail the removal of current striping, application of new striping, and installation of signs. The proposed HOV lane would be an HOV 3+. The HOV lane would be separated from the remaining GP lanes by a combination of dashed white striping (continuous access) and single solid white stripe (access discouraged). The proposed HOV lane would operate during the same hours as the existing facility between 5 A.M. and 10 A.M. and 3 P.M. and 7 P.M. Monday through Friday. All Project work would occur within the current freeway roadway width and right-of-way.

Approximately four roadside signs indicating the HOV lane restrictions and HOV lane operating hours would be installed on existing overhead sign poles and concrete barriers up to 1 mile in advance of the beginning of the proposed HOV lane. Three new overhead sign structures to support signs would be installed, two east of the Lakeshore Park Undercrossing (I-580 Post Mile 43.5) and one near the Broadway-Richmond Boulevard Undercrossing (l-580 Post Mile 44.5). Approximately ten additional roadside signs would be installed along the HOV lane on existing overhead sign poles and lighting poles, replaced concrete barriers, and new wood posts.

Type of Project:
High Occupancy Vehicle (HOV) Lane Extension

County
Alameda

## Narrative Location/ Route \& Postmiles

The Project is located in Alameda County from the beginning of the existing HOV lane on I-580 WB at the Interstate $80(1-80)$ WB connector (I-580 Post Mile 46.7) to immediately west (I-580 Post Mile 44.7) of the Broadway-Richmond Boulevard Undercrossing (I-580 Post Mile 44.5) in the Cities of Oakland and Emeryville.

Caltrans 04-ALA-580-PM 43.2/46.9
EA 04-1W160
Project ID: 0420000336


Surrounding Land Use/ Traffic Generators (especially effect on diesel traffic)
The project will be constructed entirely within the existing right-of-way designated for transportation use. Within the area, l-580 serves activity areas in the cities of Oakland and Emeryville. The proposed Project is surrounded by high-density and single-family residential, and commercial land uses. Diesel heavy truck traffic accounts for approximately 3 percent of the total traffic volumes along I-580 within the Project limits. The Project would not affect the diesel traffic volume between No Build and Build scenarios.

Brief summary of assumptions and methodology used for conducting analysis
The traffic data collected and the 2050 projected volumes assume a gradual annual increase in traffic volumes not related to the Project. Traffic data shows truck percentages generally consistent between Build and No Build scenarios. The data in the No Build and Build scenarios determined the Project would not increase traffic congestion in the westbound direction on I-580 approaching the Broadway-Richmond Boulevard Undercrossing from the I-80 Connector when compared to a no build scenario.

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 (2025) No Build AADT below highlights the No Build Annual Average Daily Traffic (AADT) of three l-580 segments in the westbound direction: Before the l-980/Highway 24 interchange (from the Harrison on-ramp to the San Pablo off-ramp), After the interchange (from the I-980 on-ramp to the I-80 offramp), and the connector from I-580 to the Bay Bridge. On I-580 before the interchange, trucks are approximately 3.76 percent of total AADT or 2,993 trucks in the westbound direction. I-580 after the interchange would have approximately 2.4 percent of trucks in 2025 or approximately 1,163 trucks. The I-580 Connector would have approximately 3.62 percent of AADT as trucks or approximately 2,361 trucks in the westbound. The Project would not increase the total number of lanes or create additional capacity. The intent of the Project is to reduce congestion along the Project alignment by increasing person throughput during peak hours, improving travel time reliability to support buses and HOV vehicles, and encouraging mode shift by providing travel time savings. The conversion of one GP lane to an HOV lane would not result in increases in AADT in the corridor.

Table 1: Opening Year (2025) No Build AADT

| Segment | Total AADT |  |  |
| :--- | :---: | :---: | :---: |
|  | Truck AADT | Truck |  |
| I-580 WB east of the Highway 24 and I-980 Interchange |  |  |  |
| I-580 West Bound | 79,510 | 2,993 | $3.76 \%$ |
| Harrison On | 9,150 | 1,489 | $16.27 \%$ |
| I-980 Off | 11,380 | 1,582 | $13.91 \%$ |
| SR-24 Off | 17,830 | 1,065 | $5.98 \%$ |
| San Pablo Off | 10,991 | 669 | $6.09 \%$ |
| I-580 (Park) | 85,043 | - | - |
| Park Blvd On | 14,694 | - | - |
| I-580 WB (Park \& Lakeshore) | 99,737 | - | - |
| Lakeshore Off | 10,502 | - | - |
| I-580 WB (Lakeshore \& Grand) | 89,234 | - | - |
| Grand Off | 6,359 | - | - |
| I-580 WB (Grand) | 82,876 | 4,671 | $32.60 \%$ |
| Grand On | 14,327 | 4,671 | $4.81 \%$ |
| I-580 WB (Grand \& Oakland) | 97,203 | 1,163 |  |
| I-580 WB from the Highway 24/I-980 Interchange to I-580 WB Connector |  |  |  |
| I-580 West Bound | 48,460 | 1,163 | $2.40 \%$ |
| I-980 On | 31,196 | 2,757 | $3.73 \%$ |
| SR-24 On | 12,274 | 6,186 | $22.46 \%$ |
| I-80 Off | 49,514 | $12.49 \%$ |  |


| I-580 WB Connector to I-80 WB | 65,178 | 2,361 | $3.62 \%$ |
| :--- | :---: | :---: | :---: |
| I-580 to Bay Bridge |  |  |  |
| ${ }^{1}$ Traffic data provided by Elite Transportation Group, January 2024 |  |  |  |

Table 2- Opening Year (2025) With Project AADT below highlights the AADT of three I-580 segments in the westbound direction: Before the I-980/Highway 24 interchange (from the Harrison on-ramp to the San Pablo off-ramp), After the interchange (from the I-980 on-ramp to the I-80 off-ramp), and the connector from I-580 to the Bay Bridge. On l-580 before the interchange, trucks are approximately 3.76 percent of total AADT or, 2,990 trucks in the westbound direction. l-580 after the interchange would have approximately 2.38 percent of trucks in 2025 or approximately 1,136 trucks. The l-580 Connector would have approximately 3.59 percent of AADT as trucks or approximately 2,272 trucks in the westbound. It should be noted that with the mode shift assumptions, the mainline segments of I-580 would experience a reduced AADT volume. The segments will also see a generally reduced percentage of trucks in the build scenario (except for the Harrison on-ramp and the SR24 off-ramp which have a $0.1 \%$ increase in the truck AADT and the SR-24 on-ramp which has an approximate increase in truck ADT of $0.3 \%)$. The Project would not increase the total number of lanes or create additional capacity. The intent of the Project is to reduce congestion along the Project alignment by increasing person throughput during peak hours, improving travel time reliability to support buses and HOV vehicles, and encouraging mode shift by providing travel time savings. The conversion of one GP lane to an HOV lane would not result in increases in traffic volumes.

Table 2: Opening Year (2025) With Project AADT

| Segment | Total AADT |  |  |
| :--- | :---: | :---: | :---: |
|  | Truck AADT | Truck |  |
| I-580 WB east of the Highway 24 and I-980 Interchange |  |  |  |
| I-580 West Bound | 79,422 | 2,990 |  |
| Harrison On | 9,047 | 1,481 | $3.76 \%$ |
| I-980 Off | 11,518 | 1,595 | $16.37 \%$ |
| SR-24 Off | 17,855 | 1,076 | $6.85 \%$ |
| San Pablo Off | 10,869 | 664 | $6.02 \%$ |
| I-580 (Park) | 85,119 | - | $-10 \%$ |
| Park Blvd On | 14,599 | - | - |
| I-580 WB (Park \& Lakeshore) | 99,719 | - | - |
| Lakeshore Off | 10,523 | - | - |
| I-580 WB (Lakeshore \& Grand) | 89,195 | - | - |
| Grand Off | 6,369 | - | - |
| I-580 WB (Grand) | 82,826 | - | - |
| Grand On | 14,451 | 4,684 | - |
| I-580 WB (Grand \& Oakland) | 97,277 | 4,684 | $32.41 \%$ |
| Oakland Off | 17,855 | 1,694 | $4.82 \%$ |
| I |  |  | $9.49 \%$ |

I-580 WB from the Highway 24/I-980 Interchange to I-580 WB Connector

| I-580 West Bound | 47,777 | 1,136 | $2.38 \%$ |
| :--- | :---: | :---: | :---: |
| I-980 On | 30,692 | 1,112 | $3.62 \%$ |
| SR-24 On | 11,844 | 2,699 | $22.79 \%$ |
| I-80 Off | 49,614 | 6,124 | $12.34 \%$ |
| I-580 WB Connector to I-80 WB |  |  |  |
| I-580 to Bay Bridge | 63,288 | 2,272 | $3.59 \%$ |
| ${ }^{1}$ Traffic data provided by Elite Transportation Group, January 2024 |  |  |  |

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, Future (2050) No Build AADT below highlights the No Build scenario of three I-580 segments in the westbound direction: Before the I-980/Highway 24 interchange (from the Harrison on-ramp to the San Pablo off-ramp), after the interchange (from the I-980 on-ramp to the I-80 off-ramp), and the connector from I-580 to the Bay Bridge. On l-580 before the interchange, trucks are approximately 3.88 percent of total AADT or 3,820 trucks in the westbound direction. I-580 after the interchange would have approximately 2.9 percent of trucks in 2050 or approximately 1,704 trucks. The l-580 Connector would have approximately 4.9 percent of AADT as trucks or approximately 4,414 trucks in the westbound. The Project would not increase the total number of lanes or create additional capacity. The intent of the Project is to reduce congestion along the Project alignment by increasing person throughput during peak hours, improving travel time reliability to support buses and HOV vehicles, and encouraging mode shift by providing travel time savings. The conversion of one GP lane to an HOV lane would not result in increases in traffic volumes.

Table 3: Future (2050) No Build AADT

| Segment | Total AADT ${ }^{1}$ | Truck AADT | Truck |
| :---: | :---: | :---: | :---: |
| I-580 WB east of the Highway 24 and I-980 Interchange |  |  |  |
| I-580 West Bound | 98,372 | 3,820 | 3.88\% |
| Harrison On | 11,502 | 1,894 | 16.47\% |
| I-980 Off | 17,764 | 2,102 | 11.83\% |
| SR-24 Off | 21,730 | 1,231 | 5.66\% |
| San Pablo Off | 11,621 | 677 | 5.83\% |
| I-580 (Park) | 112,280 | - | - |
| Park Blvd On | 17,926 | - | - |
| I-580 WB (Park \& Lakeshore) | 130,205 | - | - |
| Lakeshore Off | 12,674 | - | - |
| I-580 WB (Lakeshore \& Grand) | 117,532 | - | - |
| Grand Off | 12,829 | - | - |
| I-580 WB (Grand) | 104,703 | - | - |
| Grand On | 16,809 | 6,253 | 37.20\% |
| I-580 WB (Grand \& Oakland) | 121,512 | 6,253 | 5.15\% |
| Oakland Off | 23,140 | 2,431 | 10.51\% |
| I-580 WB from the Highway 24/I-980 Interchange to I-580 WB Connector |  |  |  |
| I-580 West Bound | 58,759 | 1,704 | 2.90\% |
| I-980 On | 41,794 | 1,893 | 4.53\% |
| SR-24 On | 23,698 | 4,314 | 18.20\% |
| I-80 Off | 62,959 | 7,995 | 12.70\% |
| I-580 WB Connector to I-80 WB |  |  |  |
| I-580 to Bay Bridge | 90,035 | 4,414 | 4.90\% |
| ${ }^{1}$ Traffic data provided by Elite Transportation Group, January 2024 |  |  |  |

Table 4 - Future (2050) With Project AADT below highlights three l-580 segments in the westbound direction: (Before the I-980/Highway 24 interchange from the Harrison on-ramp to the San Pablo off-ramp, After the interchange from the I-980 on-ramp to the I-80 off-ramp, and the connector from I-580 to the Bay Bridge). On I580 before the interchange, trucks are approximately 3.89 percent of total AADT or 3,808 trucks in the westbound direction. I-580 after the interchange would have approximately 2.84 percent of trucks or approximately 1,579 trucks. The I-580 Connector would have approximately 4.92 percent of AADT as trucks or approximately 4,007 trucks in the westbound. It should be noted that the Harrison on ramp results in a $0.4 \%$ increase in truck AADT. However, most segments result in a reduced total AADT and truck AADT in the build scenario (with the exception of the Harrison on-ramp, SR-24 off-ramp, and SR-24 on-ramp which have an approximate $0.4 \%, 0.2 \%$, and $0.4 \%$ increase in the truck AADT, respectively). The Project would not increase the
total number of lanes or create additional capacity. The intent of the Project is to reduce congestion along the Project alignment by increasing person throughput during peak hours, improving travel time reliability to support buses and HOV vehicles, and encouraging mode shift by providing travel time savings. The conversion of one GP lane to an HOV lane would not result in increases in traffic volumes.

Table 4: Future (2050) With Project AADT

| Segment | Total AADT ${ }^{\mathbf{1}}$ | Truck AADT | Truck |
| :--- | :---: | :---: | :---: |
| I-580 WB east of the Highway 24 and I-980 Interchange |  |  |  |
| I-580 West Bound | 97,970 | 3,808 |  |
| Harrison On | 11,032 | 1,858 | $3.89 \%$ |
| I-980 Off | 18,396 | 2,158 | $16.84 \%$ |
| SR-24 Off | 21,842 | 1,278 | $11.73 \%$ |
| San Pablo Off | 11,064 | 651 | $5.85 \%$ |
| I-580 (Park) | 112,626 | - | $5.88 \%$ |
| Park Blvd On | 17,494 | - | - |
| I-580 WB (Park \& Lakeshore) | 130,121 | - | - |
| Lakeshore Off | 12,771 | - | - |
| I-580 WB (Lakeshore \& Grand) | 117,350 | - | - |
| Grand Off | 12,874 | - | - |
| I-580 WB (Grand) | 104,476 | - | - |
| Grand On | 17,376 | 6,314 | - |
| I-580 WB (Grand \& Oakland) | 121,852 | 6,314 | $36.34 \%$ |
| Oakland Off | 23,882 | 2,506 | $5.18 \%$ |

I-580 WB from the Highway 24/I-980 Interchange to I-580 WB Connector

| I-580 West Bound | 55,637 | 1,579 | $2.84 \%$ |
| :--- | :--- | :--- | :--- |
| I-980 On | 39,489 | 1,663 | $4.21 \%$ |
| SR-24 On | 23,698 | 4,314 | $18.20 \%$ |
| I-80 Off | 63,414 | 7,714 | $12.16 \%$ |
| I-580 WB Connector to I-80 WB |  |  |  |
|  | 81,395 | 4,007 | $4.92 \%$ |
|  |  |  |  |

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

Not Applicable. The Project does not involve interchanges or intersections.

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

Not Applicable. The Project does not involve interchanges or intersections.

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

Not applicable. The Project is not a bus, rail, or intermodal facility, it is a highway improvement.

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

Not applicable. The Project is not a bus, rail, or intermodal facility, it is a highway improvement.

Describe potential traffic redistribution effects of congestion relief (impact on other facilities)
The Project is located within an urbanized area of the Cities of Oakland and Emeryville and its construction would result in minimal or no traffic redistribution in the project area because of the limited parallel routes and the congested network in the project area that lead to the Bay Bridge. The proposed conversion of a GP lane to a HOV on $\mathrm{I}-580$ is anticipated to improve overall traffic operations. The Project would not create any new connections to other roadways or areas, and the project would not open any new areas to development. Similarly, the overall capacity of I-580 in the Project site would not substantially change because the Project would not add any new through lanes to those roadways. The anticipated mode shift from SOVs to HOVs, and the associated increase in person throughput would contribute to a reduction in delay and improved level of service operation during peak hours in the immediate Project area.

Comments/Explanation/Details (please be brief)

The proposed project is in a nonattainment area for federal PM2.5 standards. Therefore, according to 40 CFR Part 93, a hotspot analysis is required for conformity purposes. However, the Environmental Protection Agency (EPA) does not require a quantitative hotspot analysis for projects that are not a project of air quality concern (POAQC). Five types of projects listed in 40 CFR Section 93.123(b)(1) qualify as a POAQC. The following discussion evaluates whether the proposed project falls into any of these POAQC categories.

1. The project is not a new or expanded highway project that would have a significant number of or increase in the number of diesel vehicles (40 CFR Section 93.123 (b)(1)(i)).

The traffic analysis for this Project to date shows that the percentage of trucks will generally remain the same with and without the Project and the AADT will not substantially change with the Project. The Project does not increase capacity, therefore AADT would not increase in the Build scenario. As discussed above, the Project does not involve interchanges or intersections and would not affect LOS.
2. The project is not likely to affect any intersections (40 CFR Section 93.123 (b)(1)(ii)).

As described above under "Describe potential traffic redistribution effects of congestion relief," the Project would improve person throughput during peak hours and travel time reliability to support buses and high-occupancy vehicles and encourage mode shift by converting a GP lane to a HOV lane. The Project would improve safety and level of service operation in the immediate Project area.

The Project would not affect any intersections and would provide an extension of the l-580 HOV lane. This change would improve the level of service operation in the immediate area and would relieve congestion along the highway.
3. The project does not include the construction of a new bus or rail terminal with a significant number of diesel vehicles congregating at a single location (40 CFR Section 93.123 (b)(1)(iii)).

Not applicable - No bus or rail terminals are affected by the Project.
4. The project does not expand an existing bus or rail terminal with significant increases in the number of diesel vehicles congregating at a single location (40 CFR Section 93.123 (b)(1)(iv)).

Not applicable - No bus or rail terminals are affected by the Project.
5. The project is not in or affecting locations, areas or categories of sites that are identified in the $\mathrm{PM}_{2.5}$ applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation (40 CFR Section 93.123 (b)(1)(v)).

The proposed Project is consistent with MTC RTP (IDs 04-ALA-580; 21-T06-049) and is intended to meet the transportation needs in the area based on local land use plans. EPA's March 2006 guidance document, Transportation Guidance for Qualitative Hot-spot Analysis in PM2.5 and PM ${ }_{10}$ Nonattainment and Maintenance Areas, references two-step criteria to identify "a significant volume of diesel truck traffic." The first criterion is facilities with greater than 125,000 ADT volumes. If the first criterion is met, the second criterion is that 8 percent or more of said traffic volumes (i.e., 10,000 vehicles or more) are diesel truck traffic volumes. As discussed above, ADT volumes are not greater than 125,000 on the specified road segments. Furthermore, the truck volumes along the segments do not exceed 10,000 vehicles.
The purpose of the Project will alter an existing lane along the highway and, as stated previously, will not include an increase in the total number of lanes or create additional capacity. Therefore, the project would not result in increases traffic volumes. The Project does not affect locations identified in an applicable implementation plan or implementation plan submission. On January 9, 2013, the U.S. EPA issued a final rule that determined the San Francisco Bay Area air basin has attained the 24-hour PM2.5 National Ambient Air Quality Standards (NAAQS). As a result, new state implementation plan (SIP) provisions are not necessary to demonstrate how the air basin will attain the standard.

Based on the evaluation above, the Project should not be considered a POAQC and does not require a quantitative hot-spot analysis to demonstrate that it will not cause or worsen an existing PM ${ }_{2.5}$ violation.

Figure 1: Project Vicinity


Figure 2: Project Location




## Agenda

- Project Review
- Traffic Data
- Summary
- Questions



## Project Review

- The Project was submitted and presented to the Air Quality Conformity Task Force for review at the January 2023 Meeting.
- Project Purpose:
- Increase person throughput during peak hours
- Improve travel time reliability to support buses and high-occupancy vehicles
- Encourage mode shift by providing travel time savings for HOV and transit users
- Proposed Project:
- Conversion of the existing left lane into an HOV 3+ lane on WB I-580
- Installation of two overhead sign structures
- Installation of barrier-mounted and bridge rail-mounted signs
- Pavement delineation for the proposed HOV lane
- The project is constructed entirely within the existing State ROW
- No pavement widening is anticipated for the project
- Categorical Exemptions for CEQA and Categorical Exclusion for NEPA environmental clearance
- Additional roadway segments were included for analysis and ADT on previously analyzed roadways were updated.


## Project Location



## TIP Project Listing

| Status Active | CTIPS 20600006624 |  |  | Version 5 |
| :---: | :---: | :---: | :---: | :---: |
| County Alameda Sponsor MTC Implementing Agency MTC | System State Highway |  |  | Updated 12/16/22 |
| Description | Mode |  |  | Created 2/15/22 |
| Alameda County: On I-580 westbound approach to the San Francisco-Oakland Bay Bridge toll plaza from the SR 24/I-980 interchange to I-80: convert one general purpose lane to an HOV lane. This is part of Bay Bridge Forward 2020. | - $51 \%$ Auto <br> - $49 \%$ Bus |  |  | TIP Revision 2023-00 Type Amendment |
| Jurisdiction |  |  |  | Type Amendment |
|  | Submode |  |  | CostS 12,500,000 |
| - Alameda County |  |  |  | Approvals |
| Location On I-580 westbound approach to the San Francisco-Oakland Bay Bridge toll plaza from the SR 24/l-980 interchange to I-80 | - $51 \%$ Auto |  |  |  |
|  | - $49 \%$ Shuttle Bus |  |  | Regional 9/28/22 |
| State HWY 580 Post Mile From 42.6 to 46.9 | Investment Type |  |  | State 11/16/22 |
| Activities | - 100\% System Management |  |  | Federal 12/16/22 (Final) |
| Convert one general purpose lane to an HOV lane. |  |  |  | Description of Change |
| Regional Transportation Plan | Legislative District |  |  | 2023 TIP Update - Update the funding plan |
| RTP 21-T06-049 RTP CostS | CA Assembly | CA Senate | US Congressional | Extended Change Description |
|  |  |  |  | 2023 TIP Update - Update the funding plan |
|  | 25 |  |  | AirQuality |
| Cycle PLANBAYAREA2050 | 18 | 10 | 17 |  |
|  | 15 | 7 | 13 | Air Quality Status Non-Exempt |
| RTP Title | 16 | 9 | 15 | Category N/A |
| Contacts | 20 |  |  | Project Type N/A |
|  |  |  |  |  | Air Basin San Francisco Bay Area |
| Project Contact |  |  |  | Air District BAAQMD |

## Traffic Data

## Opening Year (2025) AADT No Build

| Segment | Total AADT | Truck AADT | \% Trucks |
| :---: | :---: | :---: | :---: |
| I-580 WB east of the Highway 24 and 1-980 Interchange |  |  |  |
| I-580 West Bound | 79,510 | 2,993 | 3.76\% |
| Harrison On | 9,150 | 1,489 | 16.27\% |
| I-980 Off | 11,380 | 1,582 | 13.91\% |
| SR-24 Off | 17,830 | 1,065 | 5.98\% |
| San Pablo Off | 10,991 | 669 | 6.09\% |
| I-580 (Park) | 85,043 | - | - |
| Park Blvd On | 14,694 | - | - |
| I-580 WB (Park \& Lakeshore) | 99,737 | - | - |
| Lakeshore Off | 10,502 | - | - |
| I-580 WB (Lakeshore \& Grand) | 89,234 | - | - |
| Grand Off | 6,359 | - | - |
| I-580 WB (Grand) | 82,876 | - | - |
| Grand On | 14,327 | 4,671 | 32.60\% |
| I-580 WB (Grand \& Oakland) | 97,203 | 4,671 | 4.81\% |
| Oakland Off | 17,692 | 1,678 | 9.48\% |
| I-580 WB from the Highway 24/I-980 Interchange to I-580 WB Connector |  |  |  |
| I-580 West Bound | 48,460 | 1,163 | 2.40\% |
| I-980 On | 31,196 | 1,163 | 3.73\% |
| SR-24 On | 12,274 | 2,757 | 22.46\% |
| 1-80 Off | 49,514 | 6,186 | 12.49\% |
| 1-580 WB Connector to l-80 WB |  |  |  |
| I-580 to Bay Bridge | 65,178 | 2,361 | 3.62\% |
| Source: Traffic data provided by Elite Transportation Group, January 2024 |  |  |  |

Future (2050) AADT No Build

| Segment | Total AADT | Truck AADT | \% Trucks |
| :---: | :---: | :---: | :---: |
| I-580 WB east of the Highway 24 and I-980 Interchange |  |  |  |
| I-580 West Bound | 98,372 | 3,820 | 3.88\% |
| Harrison On | 11,502 | 1,894 | 16.47\% |
| I-980 Off | 17,764 | 2,102 | 11.83\% |
| SR-24 Off | 21,730 | 1,231 | 5.66\% |
| San Pablo Off | 11,621 | 677 | 5.83\% |
| I-580 (Park) | 112,280 | - | - |
| Park Blvd On | 17,926 | - | - |
| I-580 WB (Park \& Lakeshore) | 130,205 | - | - |
| Lakeshore Off | 12,674 | - | - |
| I-580 WB (Lakeshore \& Grand) | 117,532 | - | - |
| Grand Off | 12,829 | - | - |
| 1-580 WB (Grand) | 104,703 | - | - |
| Grand On | 16,809 | 6,253 | 37.20\% |
| I-580 WB (Grand \& Oakland) | 121,512 | 6,253 | 5.15\% |
| Oakland Off | 23,140 | 2,431 | 10.51\% |
| I-580 WB from the Highway 24/l-980 Interchange to l-580 WB Connector |  |  |  |
| 1-580 West Bound | 58,759 | 1,704 | 2.90\% |
| I-980 On | 41,794 | 1,893 | 4.53\% |
| SR-24 On | 23,698 | 4,314 | 18.20\% |
| 1-80 Off | 62,959 | 7,995 | 12.70\% |
| I-580 WB Connector to I-80 WB |  |  |  |
| I-580 to Bay Bridge | 90,035 | 4,414 | 4.90\% |
| Source: Traffic data provided by Elite Transportation Group, January 2024 |  |  |  |

## Traffic Data

## Opening Year (2025) AADT With Project

| Segment | Total AADT | Truck AADT | \% Trucks |
| :---: | :---: | :---: | :---: |
| I-580 WB east of the Highway 24 and I-980 Interchange |  |  |  |
| 1-580 West Bound | 79,422 | 2,990 | 3.76\% |
| Harrison On | 9,047 | 1,481 | 16.37\% |
| I-980 Off | 11,518 | 1,595 | 13.85\% |
| SR-24 Off | 17,855 | 1,076 | 6.02\% |
| San Pablo Off | 10,869 | 664 | 6.10\% |
| I-580 (Park) | 85,119 | - | - |
| Park Blvd On | 14,599 | - | - |
| I-580 WB (Park \& Lakeshore) | 99,719 | - | - |
| Lakeshore Off | 10,523 | - | - |
| I-580 WB (Lakeshore \& Grand) | 89,195 | - | - |
| Grand Off | 6,369 | - | - |
| I-580 WB (Grand) | 82,826 | - | - |
| Grand On | 14,451 | 4,684 | 32.41\% |
| I-580 WB (Grand \& Oakland) | 97,277 | 4,684 | 4.82\% |
| Oakland Off | 17,855 | 1,694 | 9.49\% |
| I-580 WB from the Highway 24/l-980 Interchange to l-580 WB Connector |  |  |  |
| 1-580 West Bound | 47,777 | 1,136 | 2.38\% |
| I-980 On | 30,692 | 1,112 | 3.62\% |
| SR-24 On | 11,844 | 2,699 | 22.79\% |
| 1-80 Off | 49,614 | 6,124 | 12.34\% |
| 1-580 WB Connector to I-80 WB |  |  |  |
| I-580 to Bay Bridge | 63,288 | 2,272 | 3.59\% |
| Source: Traffic data provided by Elite Transportation Group, January 2024 |  |  |  |

Future (2050) AADT With Project

\left.| Segment |  | Total AADT | Truck AADT |
| :--- | :---: | :---: | :---: |$\right)$ \% Trucks

## Summary of Air Quality Conformity Analysis

## Why the I-580 Westbound HOV Lane Extension Project is not of Air Quality Concern -

- The additional traffic segments and updated ADT did not result in a change in conclusions.
- Not a new or expanded highway project.
- No significant change in traffic volume or truck percentages on I-580.
- The Project does not include capacity improvements.
- No project changes to land use that would affect diesel traffic percentage.
- No substantial traffic redistribution effects


## Questions



## Installation of Signs



## 2025 No Build ADT Comparison

| Segment | Previous Total AADT | Updated Total AADT | Change in AADT | Previous Truck AADT | Updated Truck AADT | Change in Truck AADT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| I-580 WB east of the Highway 24 and I-980 Interchange |  |  |  |  |  |  |
| I-580 West Bound | 80,543 | 79,510 | -1,033 | 3,131 | 2,993 | -138 |
| Harrison On | 9,419 | 9,150 | -269 | 1,562 | 1,489 | -73 |
| I-980 Off | 10,555 | 11,380 | 825 | 1,547 | 1,582 | 35 |
| SR-24 Off | 17,103 | 17,830 | 727 | 1,046 | 1,065 | 19 |
| San Pablo Off | 10,746 | 10,991 | 245 | 765 | 669 | -96 |
| 1-580 (Park) | - | 85,043 | - | - | - | - |
| Park Blvd On | - | 14,694 | - | - | - | - |
| I-580 WB (Park \& Lakeshore) | - | 99,737 | - | - | - | - |
| Lakeshore Off | - | 10,502 | - | - | - | - |
| I-580 WB (Lakeshore \& Grand) | - | 89,234 | - | - | - | - |
| Grand Off | - | 6,359 | - | - | - | - |
| I-580 WB (Grand) | - | 82,876 | - | - | - |  |
| Grand On | - | 14,327 | - | - | 4,671 | - |
| I-580 WB (Grand \& Oakland) | - | 97,203 | - | - | 4,671 | - |
| Oakland Off | - | 17,692 | - | - | 1,678 | - |
| I-580 WB from the Highway 24/1-980 Interchange to l-580 WB Connector |  |  |  |  |  |  |
| I-580 West Bound | 51,560 | 48,460 | -3,100 | 1,334 | 1,163 | -171 |
| l-980 On | 31,712 | 31,196 | -516 | 1,180 | 1,163 | -17 |
| SR-24 On | 13,726 | 12,274 | -1,452 | 3,167 | 2,757 | -410 |
| 1-80 Off | 47,099 | 49,514 | 2,415 | 5,576 | 6,186 | 610 |
| I-580 WB Connector to I-80 WB |  |  |  |  |  |  |
| l-580 to Bay Bridge | 64,276 | 65,178 | 902 | 2,270 | 2,361 | 91 |
| Source: Traffic data provided by Elite Transportation Group, January 2024 |  |  |  |  |  |  |

## 2025 With Project ADT Comparison

| Segment | Previous Total AADT | Updated Total AADT | Change in AADT | Previous Truck AADT | Updated Truck AADT | Change in Truck AADT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| I-580 WB east of the Highway 24 and l-980 Interchange |  |  |  |  |  |  |
| I-580 West Bound | 80,424 | 79,422 | -1,002 | 3,103 | 2,990 | -113 |
| Harrison On | 9,245 | 9,047 | -198 | 1,541 | 1,481 | -60 |
| I-980 Off | 11,253 | 11,518 | 265 | 1,580 | 1,595 | 15 |
| SR-24 Off | 17,310 | 17,855 | 545 | 1,065 | 1,076 | 11 |
| San Pablo Off | 10,852 | 10,869 | 17 | 776 | 664 | -113 |
| I-580 (Park) | - | 85,119 | - | - | - | - |
| Park Blvd On | - | 14,599 | - | - | - | - |
| I-580 WB (Park \& Lakeshore) | - | 99,719 | - | - | - | - |
| Lakeshore Off | - | 10,523 | - | - | - | - |
| I-580 WB (Lakeshore \& Grand) | - | 89,195 | - | - | - | - |
| Grand Off | - | 6,369 | - | - | - | - |
| I-580 WB (Grand) | - | 82,826 | - | - | - |  |
| Grand On | - | 14,451 | - | - | 4,684 | - |
| 1-580 WB (Grand \& Oakland) | - | 97,277 | - | - | 4,684 | - |
| Oakland Off | - | 17,855 | - | - | 1,694 | - |
| I-580 WB from the Highway 24/1-980 Interchange to l-580 WB Connector |  |  |  |  |  |  |
| 1-580 West Bound | 50,255 | 47,777 | -2,478 | 1,224 | 1,136 | -88 |
| I-980 On | 31,267 | 30,692 | -575 | 1,148 | 1,112 | -36 |
| SR-24 On | 14,061 | 11,844 | -2,217 | 3,071 | 2,699 | -372 |
| 1-80 Off | 47,373 | 49,614 | 2,241 | 5,494 | 6,124 | 630 |
| I-580 WB Connector to I-80 WB |  |  |  |  |  |  |
| I-580 to Bay Bridge | 62,587 | 63,288 | 701 | 2,113 | 2,272 | 159 |
| Source: Traffic data provided by Elite Transportation Group, January 2024 |  |  |  |  |  |  |

## 2050 No Build ADT Comparison

| Segment | Previous Total AADT | Updated Total AADT | Change in AADT | Previous Truck AADT | Updated Truck AADT | Change in Truck AADT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| I-580 WB east of the Highway 24 and I-980 Interchange |  |  |  |  |  |  |
| 1-580 West Bound | 103,094 | 98,372 | -4,722 | 4,451 | 3,820 | -631 |
| Harrison On | 12,734 | 11,502 | -1,232 | 2,229 | 1,894 | -335 |
| I-980 Off | 13,992 | 17,764 | 3,772 | 1,940 | 2,102 | 162 |
| SR-24 Off | 18,408 | 21,730 | 3,322 | 1,141 | 1,231 | 90 |
| San Pablo Off | 10,498 | 11,621 | 1,123 | 1,115 | 677 | -438 |
| I-580 (Park) | - | 112,280 | - | - | - | - |
| Park Blvd On | - | 17,926 | - | - | - | - |
| I-580 WB (Park \& Lakeshore) | - | 130,205 | - | - | - | - |
| Lakeshore Off | - | 12,674 | - | - | - | - |
| I-580 WB (Lakeshore \& Grand) | - | 117,532 | - | - | - | - |
| Grand Off | - | 12,829 | - | - | - | - |
| I-580 WB (Grand) | - | 104,703 | - | - | - |  |
| Grand On | - | 16,809 | - | - | 6,253 | - |
| I-580 WB (Grand \& Oakland) | - | 121,512 | - | - | 6,253 | - |
| Oakland Off | - | 23,140 | - | - | 2,431 | - |
| I-580 WB from the Highway 24/1-980 Interchange to l-580 WB Connector |  |  |  |  |  |  |
| 1-580 West Bound | 72,932 | 58,759 | -14,173 | 2,484 | 1,704 | -780 |
| l-980 On | 44,153 | 41,794 | -2,359 | 1,973 | 1,893 | -80 |
| SR-24 On | 30,335 | 23,698 | -6,637 | 6,190 | 4,314 | -1,876 |
| 1-80 Off | 51,919 | 62,959 | 11,040 | 5,206 | 7,995 | 2,789 |
| I-580 WB Connector to I-80 WB |  |  |  |  |  |  |
| l-580 to Bay Bridge | 85,916 | 90,035 | 4,119 | 3,998 | 4,414 | 416 |
| Source: Traffic data provided by Elite Transportation Group, January 2024 |  |  |  |  |  |  |

## 2050 With Project ADT Comparison

| Segment | Previous Total AADT | Updated Total AADT | Change in AADT | Previous Truck AADT | Updated Truck AADT | Change in Truck AADT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| I-580 WB east of the Highway 24 and I-980 Interchange |  |  |  |  |  |  |
| I-580 West Bound | 102,550 | 97,970 | -4,580 | 4,325 | 3,808 | -517 |
| Harrison On | 11,938 | 11,032 | -906 | 2,134 | 1,858 | -276 |
| I-980 Off | 17,185 | 18,396 | 1,211 | 2,089 | 2,158 | 69 |
| SR-24 Off | 19,353 | 21,842 | 2,489 | 1,227 | 1,278 | 51 |
| San Pablo Off | 10,984 | 11,064 | 80 | 1,163 | 651 | -512 |
| 1-580 (Park) | - | 112,626 | - | - | - | - |
| Park Blvd On | - | 17,494 | - | - | - | - |
| I-580 WB (Park \& Lakeshore) | - | 130,121 | - | - | - | - |
| Lakeshore Off | - | 12,771 | - | - | - | - |
| I-580 WB (Lakeshore \& Grand) | - | 117,350 | - | - | - | - |
| Grand Off | - | 12,874 | - | - | - | - |
| I-580 WB (Grand) | - | 104,476 | - | - | - |  |
| Grand On | - | 17,376 | - | - | 6,314 | - |
| l-580 WB (Grand \& Oakland) | - | 121,852 | - | - | 6,314 | - |
| Oakland Off | - | 23,882 | - | - | 2,506 | - |
| I-580 WB from the Highway 24/I-980 Interchange to I-580 WB Connector |  |  |  |  |  |  |
| I-580 West Bound | 66,965 | 55,637 | -11,328 | 1,979 | 1,579 | -400 |
| I-980 On | 42,116 | 39,489 | -2,627 | 1,826 | 1,663 | -163 |
| SR-24 On | 31,868 | 23,698 | -8,170 | 5,749 | 4,314 | -1,435 |
| 1-80 Off | 53,168 | 63,414 | 10,246 | 4,832 | 7,714 | 2,882 |
| I-580 WB Connector to I-80 WB |  |  |  |  |  |  |
| I-580 to Bay Bridge | 78,195 | 81,395 | 3,200 | 3,281 | 4,007 | 726 |
| Source: Traffic data provided by Elite Transportation Group, January 2024 |  |  |  |  |  |  |

METROPOLITAN
TRANSPORTATION
COMMISSION

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## Memorandum

TO: Air Quality Conformity Task Force
FR: Harold Brazil

DATE: May 2, 2022
W.I.

RE: Approach to Draft Conformity Analysis for the 2025 Transportation Improvement Program (TIP)
The federally required Transportation Improvement Program or TIP is a comprehensive listing of all Bay Area surface transportation projects that are to receive federal funding, are subject to a federally required action, or are considered regionally significant for air quality conformity purposes over a fouryear period. In alignment with Federal Statewide TIP development efforts, MTC has begun the process of developing the 2025 TIP, which will cover the four-year period from FY 2024-25 through FY 2027-28. Like the 2023 TIP, the 2025 TIP must be consistent with the existing Regional Transportation Plan, Plan Bay Area 2050. MTC is scheduled to release the Draft Conformity Analysis for the 2025 TIP on June 18, 2024. Attachment A includes a full schedule for review and approval of the conformity analysis for the 2025 TIP.

## Background

Transportation conformity is required under CAA section 176(c) (42 U.S.C. 7506(c)) to ensure that federally funded or approved highway and transit activities are consistent with ("conform to") the purpose of the state air quality implementation plan (SIP). Conformity to the purpose of the SIP means that transportation activities will not cause or contribute to new air quality violations, worsen existing violations, or delay timely attainment of the relevant NAAQS or any interim milestones. EPA's transportation conformity rule (40 CFR Parts 51 and 93) establishes the criteria and procedures for determining whether metropolitan transportation plans, TIPs, and federally supported highway and transit projects conform to the SIP. Transportation conformity applies to designated nonattainment and maintenance areas ${ }^{1}$ for transportation-related criteria pollutants: ozone, $\mathrm{PM}_{2.5}, \mathrm{PM}_{10}$, carbon monoxide, and nitrogen dioxide. ${ }^{2}$

## Ozone Requirements

On February 13, 2015, the U.S. Environmental Protection Agency (EPA) issued a final rule that addresses a range of implementation requirements for the 2008 National Ambient Air Quality Standards (NAAQS) for ground-level ozone. The EPA set the final primary and secondary standards at 0.075 ppm on March 12, 2008.

This final rule addresses a range of nonattainment area state implementation plan (SIP) requirements for the 2008 ozone NAAQS, including requirements pertaining to attainment demonstrations, reasonable further progress (RFP), reasonably available control technology (RACT), reasonably available

[^0]control measures (RACM), major new source review (NSR), emission inventories, and the timing of SIP submissions and of compliance with emission control measures in the SIP

On Oct. 1, 2015, the U.S. Environmental Protection Agency (EPA) strengthened the National Ambient Air Quality Standards (NAAQS) for ground-level ozone to 70 parts per billion (ppb), based on extensive scientific evidence about ozone's effects on public health and welfare. On June 28, 2017, EPA announced that it is using its authority under the Clean Air Act (CAA) to extend by 1 year the deadline for promulgating initial area designations for the ozone national ambient air quality standards (NAAQS) that were promulgated in October 2015. The deadline was October 1, 2018 and based monitoring data ${ }^{3}$, the San Francisco Bay Area nonattainment area was designated to be in nonattainment by EPA.

The San Francisco Bay Area region, being in nonattainment for the 2015 ozone NAAQS, must show compliance with these requirements by completing the transportation conformity process, which conforms the most recent Regional Transportation Plan (RTP) - currently the Plan Bay Area 2050 - and Transportation Improvement Program (TIP) - currently the MTC's 2021 TIP to the State Implementation Plan (SIP).

## Carbon Monoxide (CO) Requirements

The approved 1998 maintenance plan for the San Francisco-Oakland-San Jose Carbon Monoxide nonattainment area did not extend the maintenance plan period beyond 20 years from re-designation. Consequently, transportation conformity requirements for CO ceased to apply after June 1, 2018 (i.e., 20 years after the effective date of the EPA's approval of the first 10-year maintenance plan and redesignation of the area to attainment for CO NAAQS). As a result, as of June 1, 2018 - transportation conformity requirements no longer applies for the CO NAAQS in the San Francisco-Oakland-San Jose CO nonattainment area for Federal Highway Administration/Federal Transit Association projects as defined in 40 CFR 93.101.

## PM ${ }_{2.5}$ Requirements

The Bay Area's designation as nonattainment was published in the Federal Register on November 13, 2009 and the designation became effective on December 14, 2009. Nonattainment areas were required to meet the standard by 2014 and transportation conformity requirements began to apply to the Bay Area on December 14, 2010.

On February 8, 2013, EPA took final action and determined that the San Francisco Bay Area nonattainment area attained the 2006 24-hour PM 2.5 National Ambient Air Quality Standard (NAAQS). This determination was based upon complete, quality-assured, and certified ambient air monitoring data showing that this area has monitored attainment of the 2006 24-hour PM 2.5 NAAQS based on the 2009-2011 monitoring period. Based on the above determination, the requirements for the San Francisco Bay Area nonattainment area to submit an attainment demonstration (including transportation conformity emission budgets), together with reasonably available control measures (RACM), a reasonable further progress (RFP) plan, and contingency measures for failure to meet RFP and attainment deadlines were suspended for as long as the Bay Area continues to attain the 2006 24-hour $\mathrm{PM}_{2.5}$ NAAQS.

On February 7, 2024, EPA strengthened the standards for the PM NAAQS to protect millions of Americans from harmful and costly health impacts, such as heart attacks and premature death. EPA set the level of the primary (health-based) annual $\mathrm{PM}_{2.5}$ standard at $9.0 \mu \mathrm{~g} / \mathrm{m}^{3}$ meter to provide increased public health protection, consistent with the available health science.
EPA did not changing the current:

[^1]- primary and secondary (welfare-based) 24-hour PM2.5 standards,
- secondary annual PM2.5 standard, and
- primary and secondary PM10 standards. (as shown in the table below)


## Proposed 2024 PM NAAQS (Primary)

| Indicator | Averaging Time | Previous Level | Existing Bay Area <br> Status | EPA Proposal |
| :--- | :---: | :---: | :---: | :---: |
| $\mathrm{PM}_{2.5}$ | Annual | $12.0 \mu \mathrm{~g} / \mathrm{m}^{3}$ | Unclassifiable/ <br> Attainment | $9.0 \mu \mathrm{~g} / \mathrm{m}^{3}$ |
| $\mathrm{PM}_{2.5}$ | 24 -Hours | $35 \mu \mathrm{~g} / \mathrm{m}^{3}$ | Nonattainment | No change/Retain |

Source: BAAQMD
Next steps for the implementation of the new PM NAAQS will include:

- Review the final NAAQS and forthcoming designations guidance
- Initial Area Designations

Since approved motor vehicle emissions budgets for $\mathrm{PM}_{2.5}$ are not available for use in this conformity analysis, MTC must complete one of the two interim emissions tests:

1. "Baseline Year Test". Emissions for each analysis year for the "Action" are less than or equal to the level of emissions in the year 20084; or
2. "Build/No-Build Test". Emissions for each analysis year in the "Action" scenario are less than or equal to emissions from the "Baseline" scenario.

## Analysis Approach

MTC will review the proposed conformity approach at this April 25, 2024 Conformity Task Force meeting. MTC will review the approach with the Conformity Task Force again when the draft conformity analysis at the May 2024 meeting. Key aspects of the conformity analysis are as follows:

1. Regional Emissions Analysis: MTC will conduct a new regional emissions analysis to conform the 2025 TIP.
2. Latest Planning Assumptions: MTC will use the latest planning assumptions, including:

- UrbanSim; regional land use forecasting model - UrbanSim relies on regional control totals of jobs, housing, and population, developed and adopted by ABAG, to analyze the effects of land use and transportation strategies on the forecasted regional development pattern. UrbanSim simulates the interactions of households, businesses, developers, and governments within the urban market. UrbanSim produces land use outputs, including the forecasted location of new jobs and housing for a forecasted scenario. MTC and ABAG staff have evaluated the model outputs through an extensive planning process which involved input by local jurisdictions.
- Travel Model One; Updated travel demand forecasts using MTC's Travel ModeI One (version 1.5.2), released March 2019, was developed for the Horizon initiative, so it added representation for:
i. ride-hailing (or Transportation Network Company - TNC) and taxi modes
ii. autonomous vehicles
with the most up to date highway and transit networks.

[^2]- EMFAC2021; VMT estimates used in the federally approved EMFAC2021 emission model will be consistent with the California Air Resources Board's (CARB) recommended adjustment methods. CARB official released an updated version of the EMFAC2021 software to the public on Monday, May 2, 2022. This version replaced the v1.0.1 version that was previously released on April 30, 2021. The newer version addresses a bug related to NOx idling exhaust emissions from newer heavy-duty trucks that are affected by the Heavy-Duty Omnibus regulation and reflects the revocation of the Safer Affordable Fuel-Efficient or SAFE Vehicles Rule. In addition, an air conditioning correction factor for plug-in-electric vehicle CO running exhaust emissions has also been updated. EMFAC2021 is the latest emission inventory model that CARB uses to assess emissions from on-road motor vehicles including cars, trucks, and buses in California, and to support CARB's planning and policy development. This newest model reflects CARB's current understanding of statewide and regional vehicle activities, emissions, and recently adopted regulations such as Advanced Clean Trucks (ACT) and Heavy Duty Omnibus regulations. It represents the next step forward in the ongoing improvement for EMFAC. EPA's approval of the EMFAC2021 emissions model (and EMFAC2017 adjustment factors) for SIP, conformity purposes, and applicable CAA purposes effective November 15, 2022.

3. Latest Emissions Model: As mentioned above, MTC will apply EMFAC2021 model system to produce emission estimates.
4. Emissions Budget/Interim Emissions:

- Ozone: MTC will use the 1-hour motor vehicle emissions budget from the 2001 Ozone Attainment Plan as the 8 -hour motor vehicle emissions budget to demonstrate conformity with the 8 -hour ozone standard. The ozone budget for ROG and NOx was compared to quantified emissions for analysis years 2025, 2030, 2040 and 2050.
- $\mathbf{P M}_{2.5}$ : MTC will use the "Baseline Year Test" interim emission test to demonstrate conformity with the 24-hour PM 2.5 standard. Consistent with EPA's Transportation Conformity Rule $\mathrm{PM}_{2.5}$ and $\mathrm{PM}_{10}$ Amendments; Final Rule published in the federal register in March 2010. MTC will quantify emissions for both directly emitted $\mathrm{PM}_{2.5}$ and NOX (as the precursor to $\mathrm{PM}_{2.5}$ emissions) and for the baseline year test, emissions from the planned transportation system are compared to emissions that occurred in the baseline year for analysis years 2025, 2030, 2040 and 2050. The analysis will be carried out using inputs for the winter season, during which the Bay Area experiences its highest levels of $\mathrm{PM}_{2.5}$ concentrations.

5. Transportation Control Measure (TCM) Implementation: The motor vehicle emission estimates for ROG and NOx will include the effects of TCMs A-E in the 2001 Ozone Attainment Plan. These TCMs are now fully implemented.
6. Financial Constraint: The 2025 TIP must be financially constrained, meaning that the amount of funding programmed must not exceed the amount of funding estimated to be reasonably available. Financial constraint must be demonstrated by program and by year for the four active years of the 2025 TIP.

As an air quality non-attainment area, MTC may only program projects with committed funds in the first two years of the 2025 TIP. Reasonably available revenues (funds that are not yet
committed to the project but are estimated to be available during the four years of the 2025 TIP) may be programmed to projects in the third and fourth years of the 2025 TIP.
7. Interagency and Public Consultation: MTC will conduct the appropriate agency and public consultation for the Draft Transportation Air Quality Conformity Analysis for the 2025 TIP.

Attachment A: Draft Schedule for the Transportation Air Quality Conformity Analysis for the 2025 Transportation Improvement Program (TIP)

| Activity | Timeline |
| :--- | :--- |
| Conformity Task Force Reviews Proposed Conformity Approach | April 25, 2024 |
| MTC Staff Conducts Technical Analysis \& Report Preparation | May 2024 |
| Release Draft Conformity Analysis for Public Review and Begin Public <br> Comment Period | June 18, 2024 |
| Discuss Draft Conformity Analysis with AQCTF | June 27, 2024 |
| End of Public Comment Period | July 18, 2024 |
| AQCTF Briefing on Responses to Comments | September 11, 2024 |
| Committee Approval | September 25, 2024 |
| Commission Approval | Later Fall 2024 |
| Expected FHWA/FTA Final Approval of 2025 TIP and AQ Conformity <br> Analysis |  |

Air Quality Conformity Task Force<br>Summary Meeting Notes<br>March 28, 2024

## Participants:

Eden Winniford - Yolo-Solano Air Quality
Management District
Peter Kang - Caltrans
Jasmine Amanin - FHWA
Michael Baldini - MTC Policy Advisory Council
Michael Dorantes - EPA
Erika Vaca - Caltrans
Kevin Krewson - Caltrans
Erika Espinosa Araiza - Caltrans
Shilpa Mareddy - Caltrans
Mary Nguyen - FTA

Emma Maggioncalda - Caltrans
Karishma Becha - Caltrans
John Saelee - MTC
Cid Chiu - Caltrans
Libby Nachman - MTC
Mallory Atkinson - MTC
Chris Barney - SCTA/RCPA
Rodney Tavitas - Caltrans
David Ripperda - SCTA/RCPA
Adam Crenshaw - MTC
Harold Brazil - MTC

1. Welcome, Introductions, and Attendance: Harold Brazil (MTC) called the meeting to order at 9:35 am.

## 2. Projects with Regional Air Quality Conformity Concerns

a. Confirm Projects Exempt from $\mathrm{PM}_{2.5}$ Conformity
i. Exempt Under 40 CFR 93.126 - Not of Air Quality Concern

Michael Dorantes (EPA) and Jasmine Amanin (FHWA) suggested that the "Project Type under 40 CFR 93.126" description code for the Walnut Creek Safe Routes to School Infrastructure project (TIP ID \#CC230206) be changed to "Air Quality - Bicycle and pedestrian facilities" and John Salee (MTC) concurred. The Task Force also tabled the exemption determination for the Ygnacio Valley Road Fiber Infrastructure project (TIP ID \# CC-230221) until a more appropriate description code could be found for the project. (i.e., the current description code for the project "Other - Transportation enhancement activities (except rehabilitation and operation of historic transportation buildings, structures, or facilities)" - will not be used.

Final Determination: With input from FTA, FHWA, EPA, Caltrans and MTC, the Task Force agreed that the projects on the exempt list 2ai_POAQC_Exempt_List_032024.pdf (with the edits referred to above) are exempt from $\mathrm{PM}_{2.5}$ project level analysis.
b. Consultation to Determine Project of Air Quality Concern Status
i. SON 12/Verano Avenue Safety Improvements Project

Shilpa Mareddy (Caltrans) began her discussion of the SON 12/Verano Avenue Safety Improvements project by describing the project's location as being on State Route 12 (SR12) in the Cities of Sonoma and El Verano in Sonoma County from post mile (PM) 34.93 to PM 36.10.

Ms. Mareddy indicated that the SON 12/Verano Avenue Safety Improvements project proposes to enhance safety on SR 12 and Verano Avenue intersection in the Cities of Sonoma and El Verano in Sonoma County and added the project proposes to enhance safety at the SR-12/Verano Avenue Intersection by providing an
exclusive left-turn lane on WB Verano Ave, replacing existing traffic signals, refreshing existing striping, and installing audible accessible pedestrian signals (APS), traffic cameras, and speed feedback signs.

Project Location


Ms. Mareddy identified the following two alternatives which are under considerations:

## Alternative 1A: Programmable Project Alternative

- Restripe to install an exclusive left-turn lane for westbound (WB) Verano Avenue to SR 12.
- Refresh existing striping at all approaches of Verano Avenue and remove two right turn pavement markers on eastbound (EB) Verano Avenue.
- Replace WB and EB traffic signals on Verano Avenue and install separate left-turn signal phases to SR 12 .
- Install right-turn movement control signals on islands for vehicles coming from EB /WB Verano Avenue.
- Replace lighting and Accessible Pedestrian Signal (APS) at SR 12 and Verano Avenue intersection.
- Install traffic cameras and speed feedback signs at all approaches of the SR 12 and Verano Avenue intersection.
- Extend the existing pedestrian railing and add additional signage along the pedestrian railing and construct Americans with Disabilities Act (ADA) curb ramp at the sidewalk of the Sonoma Bike Path.
- Close Lomita Avenue from SR 12 with MGS.
- Install RRFBs for each end of crosswalks at Central Avenue, Waterman Avenue, and Sierra Drive.
- Close sidewalk gap and construct curb ramps between Harley Street to Agua Caliente Creek Bridge on SR 12 and construct retaining wall between Harley Street to Donald Street.
- Remove and replace drainage system along SB SR 12.


## Alternative A2: Minimum Project Alternative

Alternative A2 is similar to Alternative A1 except removal of the two (2) pork chop islands at the intersection of Verano Avenue and SR 12 and not installing right turn signals at the free right movements.

Proposed Improvements


Ms. Mareddy also presented 5 -year accident data (from 8/1/17 to $7 / 30 / 22$ ) for the SON 12/Verano Avenue Safety Improvements project area which included the following observations:

- Based on the 5-year traffic accident data provided by the Office of Traffic Safety, there were 21 collisions at the intersection of SR 12 and Verano Avenue, with a total rate of fatality and injury related collisions and total rate of collision are above the average for similar facilities statewide.
- The primary Collison factor failed to yield. There were 8 crashes where Verano Avenue left-turn traffic failed to yield to through traffic from opposite direction.
- There were 4 pedestrian related crashes, where in 2 crashes the pedestrian jay walked without using pedestrian crossing and the other 2 crashes the EB left-turn traffic from Verano Avenue failed to yield to WB pedestrian within the crosswalk.

Ms. Mareddy concluded her presentation of the SON 12/Verano Avenue Safety Improvements project by stating the following conclusions:

- The project proposes to enhance safety at the SR-12/Verano Avenue Intersection by providing an exclusive left-turn lane on WB Verano Ave.
- The project would resolve conflicting traffic movements and reduce the potential for collisions from both directions of Verano Avenue.
- Therefore, this project should be considered as a safety project, and it is an exempt project.

Michael Dorantes (EPA) asked how the SON 12/Verano Avenue Safety Improvements project increases safety for pedestrians - questioning wasn't there an existing crosswalk for pedestrians (at the project location)? And if traffic fails to yield for pedestrians - how does the project help with that? Ms. Mareddy answered saying, when the lights are on, travelers would go left at the yield sign and go, and this is the reason that by adding the lefthand signal and so there would be a green light for left for people to take a left.

David Ripperda (SCTA/RCPA) via Zoom chat added that the left turn movements from Verano Avenue to SR 12 are unprotected and the pedestrian that was hit in the crosswalk was crossing SR 12 by a vehicle making a left turn movement.

Final Determination: With input from Caltrans, EPA, FTA and FHWA (deferring their determination to Caltrans), the Task Force concurred that the SON 12/Verano Avenue Safety Improvements project is exempt under 40 CFR 93.126.

## 3. 40 CFR 93.126 Exemption for Electric Charging Station Project (Discussion Continuation)

Michael Dorantes (EPA) and John Salee (MTC) spoke about how two paths could be identified to categorize unique project types:

1. Transportation, enhancements, activity enhancements and
2. Construction of innovation, of power, signal, and communication systems

Rodney Tavitas (Caltrans) recommended applying statewide consistency to this issue by discussing possible exemption categories at the upcoming statewide conformity group meeting where all stateholders will be in attendance. The Task Force agreed with Mr. Tavitas' suggestion and will wait until the statewide conformity meeting reaches concurrence on how to categorize these types of projects.

## 4. Projects with Regional Air Quality Conformity Concerns

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

- The SR-237 Adaptive Ramp Metering Implementation project (TIP ID \#SCL230242) - Michael Dorantes (EPA) asked if the "Other - Transportation enhancement activities (except rehabilitation and operation of historic transportation buildings, structures, or facilities)" exemption code was appropriate to apply for this project since there wasn't statewide consistency when using this code (yet). Rodney Tavitas indicated the project could be considered exempt as a ramp metering project under the project-level conformity clarification guidance by eliminating a hazardous location or feature. Mr. Dorantes agreed.
- The Churchill Avenue Grade Separation project (TIP ID \# SCL230241) - Mr. Dorantes suggested the "Safety - Railroad/highway crossing" to get a project-level exemption and John Salee (MTC) agreed.

Mr. Dorantes also suggested, generally, EPA is advising agencies to hold off on using the transportation enhancements activities exemption code until a more applicable alternative can be found.

## 5. Consent Calendar

b. February 22, 2024 Air Quality Conformity Task Force Meeting Summary

The Task Force members had no additional comment.

Final Determination; With input from all members, the Task Force concluded that the consent calendar was approved.

## 6. Other Items

Michael Dorantes (EPA) wanted to remind MTC to post the past and current monthly Task Force meeting agenda packages on its website to make sure if a member of the public was interested in making a comment at this Task Force meeting and interacting with the work group, that they have sufficient time to evaluate the project. In addition, to increase Task Force activity transparency, Mr. Dorantes and Rodney Tavitas (Caltrans) recommended MTC stop conducting project-level conformity determination concurrence communications via email. Mr. Tavitas noted current transportation project litigation occurring around the state related to public participation and email communications (within the Task Force) doesn't assist in including public involvement.


[^0]:    1 "Maintenance areas" are those areas that were initially designated nonattainment for a criteria pollutant and subsequently redesignated to attainment after 1990. Maintenance areas have SIPs developed under CAA section 175A.
    ${ }^{2}$ See "Current Law, Regulations and Guidance for State and Local Transportation"; https://www.epa.gov/state-and-local-transportation/current-law-regulations-and-guidance-state-and-local-transportation

[^1]:    ${ }^{3}$ See "Final 2017 Clean Air Plan. Spare the Air and Cool the Climate"; https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a -proposed-final-cap-vol-1-pdf.pdf?la=en

[^2]:    ${ }^{4}$ See 40 CFR 93.119; http://www.epa.gov/otaq/stateresources/transconf/baseline.htm

