# Project Assessment Form for $PM_{2.5}$ Interagency Consultation

**Project Title: I-880 SB HOV Lanes – Marina Blvd to Hegenberger**

**Project Summary for Air Quality Conformity Task Force Meeting: (February 23, 2012)**

## Description

This project proposes to add one High Occupancy Vehicle (HOV) in the southbound direction of I-880 between Marina Blvd (PM 22.5) and Hegenberger Road (PM 25.5) in the Cities of San Leandro and Oakland in Alameda County. Other improvements will include reconstruction of Davis Street and Marina Blvd interchanges to provide standard vertical clearance, reconstruction of on and off-ramps at 98th Avenue and Hegenbereger Road, replacement of sound walls at some locations and replacement of ramp metering at some locations.

## Background

- NEPA process for Initial Study/Environmental Assessment (IS/EA) was completed in March 2010.
- Seeking air quality conformity determination on or before April 2012.
- Schedule based on deadline for RIP TE funding allocation

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

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

- No significant change in truck percentages
- For year 2016 the highest truck percent is 8.7%
- For year 2035 the highest truck percent is 8.6%
- Increase in traffic volume but no significant change in truck percentages
-

*(ii) Affects intersections at LOS D, E, or F with a significant number of diesel vehicles?*

- Diesel vehicles represent on an average 1.0% of intersection traffic volume at the ramps
- Ramp LOS's don't show any measureable improvement but vehicle-hours of delay show improvements for the entire corridor for build scenario for both 2016 and 2035.
- 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 $PM_{2.5}$ implementation plan as site of violation?*

- No state implementation plan for $PM_{2.5}$ (due by December 2012)
- Therefore, not identified in plan as an area of potential violation

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**RTIP ID#** *(required)* 22670

**TIP ID#** *(required)* ALA070042

**Air Quality Conformity Task Force Consideration Date**
Feb 23, 2012

**Project Description** *(clearly describe project)*
This project proposes to construct one HOV lane for southbound I-880 from Hegenberger Road to Marina Boulevard. Other major improvements include:
Reconstruction of Davis Street and Marina Boulevard interchanges to provide standard vertical clearance
Modifications of on and off-ramps at 98th Avenue and Hegenberger Road to conform to the widened highway
Replacement of soundwalls at some locations
Replacement of ramp metering at some locations.

**Type of Project:** Change to existing State highway

| **County** | **Narrative Location/Route & Postmiles ALA-880 PM 22.5/25.5** |
|---|---|
| Alameda | **Caltrans Projects – EA#** 3A920 |

**Lead Agency:** Alameda County Transportation Commission

| **Contact Person** | **Phone#** | **Fax#** | **Email** |
|---|---|---|---|
| Stewart Ng | 510-208-7437 | 510-836-2185 | Stewartng@alamedactc.org |

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

| **Categorical Exclusion (NEPA)** | **EA or Draft EIS** | **FONSI or Final EIS** | X **PS&E or Construction** | **Other** |
|---|---|---|---|---|

**Scheduled Date of Federal Action:**

**NEPA Delegation – Project Type** *(check appropriate box)*

| **Exempt** | **Section 6004 – Categorical Exemption** | X **Section 6005 – Non-Categorical Exemption** |
|---|---|---|

**Current Programming Dates** *(as appropriate)*

| | **PE/Environmental** | **ENG** | **ROW** | **CON** |
|---|---|---|---|---|
| **Start** | 11/1/2007 | 11/1/2008 | 11/1/2009 | 9/1/2012 |
| **End** | 3/11/2010 | 4/30/2012 | 4/30/2012 | 1/1/2016 |

**Project Purpose and Need (Summary):**
This project will reduce travel time and encourage additional High Occupancy Vehicle (HOV) usage in the I-880 corridor by extending the existing HOV lane south of Marina Boulevard.

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**Surrounding Land Use/Traffic Generators** *(especially effect on diesel traffic)*
I-880 is a major route for Bay Area commuters and trucks. With truck restrictions on I-580, the I-880 corridor is the primary north-south freight route to and from the port of Oakland. I-880 is also a major commuter route providing connections between centers in Alameda, Santa Clara, San Francisco, Contra Costa and San Mateo Counties. I-880 has been identified as the most critical goods movement corridor in the region. Land use along I-880 Corridor within the project limits predominately includes retail, residential, commercial and urban open land.

**Brief summary of assumptions and methodology used for conducting analysis:** The Alameda Countywide Travel Demand Model developed by the Alameda County Congestion Management Agency was used as the tool to develop the future traffic volume forecasts. The land use and socio-demographic data were taken from Association of Bay Area Governments (ABAG) projections. ABAG land use forecasts show no change in land use for the area of this corridor. So, truck percentages are expected to stay almost the same.

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

**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**
See attached

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

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

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

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

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

As a result of the southbound HOV lane extension, mainline congestion and freeway travel time would be reduced. These travel time improvements are forecasted to be more prominent during the 2035 PM peak, when the average individual freeway travel time for the HOV lane users would be reduced by 68 percent, from 22.5 minutes in the 2035 No-Build condition to 7.1 minutes in the 2035 Build condition. The average individual travel time for mixed-flow users would also improve by 63 percent during the 2035 PM peak, from 30.2 minutes in the 2035 No-Build condition to 11.2 minutes in the 2035 Build condition.

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**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 EPA does not require hotspot analyses, qualitative or quantitative, for projects that are not listed in 40 CFR Section 93.123(b)(1) as a project of air quality concern (POAQC). Five types of projects qualify as a POAQC. The following discussion evaluates whether the proposed project falls into any of these five POAQC categories.

The project should not be considered a POAQC for the following reasons:

1. It 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 project would not add capacity for diesel vehicles during peak periods where congestion is at its worst. The addition of HOV lane will help to improve traffic flow and reduce congestion on the freeway and ramp connections. Therefore, the proposed project would help to reduce future PM2.5 levels in the project vicinity.
- The on and off-ramp reconfigurations provide better geometry and capacity thus resulting in better traffic flow. This will also help reduce future PM2.5 levels.

2. The project does not affect any intersections (40 CFR Section 93.123 (b)(1)(ii)).

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)).

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)).

5. The project is not in or affecting locations, areas or categories of sites that are identified in the PM2.5 applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation (40 CFR Section 93.123 (b)(1)(v)).

Therefore, the project meets the Clean Air Act requirements without any explicit hot-spot analysis. The project will not create a new or worsen an existing PM2.5 violation.

**Attachments:**

Annual Average Daily Traffic Data

Level of Service Data

Location Map

Project Layout

Land Use Map

## LOS for Year of Opening (2016)

| | 2016 No Build | | 2016 Build | |
|---|---|---|---|---|
| Southbound I-880 | AM | PM | AM | PM |
| Hegenberger Rd. to 98th Ave. | C | D | B | D |
| Davis St. to Marina Blvd. | D | E | D | E |
| Washington Ave. to Lowelling Blvd. (HOV Lane included) | C | D | C | D |
| Washington Ave. to Lowelling Blvd. (HOV Lane excluded) | D | E | D | E |

## LOS for Horizon Year (2035)

| | 2036 No Build | | 2036 Build | |
|---|---|---|---|---|
| Southbound I-880 | AM | PM | AM | PM |
| Hegenberger Rd. to 98th Ave. | D | E | D | E |
| Davis St. to Marina Blvd. | F | F | F | F |
| Washington Ave. to Lowelling Blvd. (HOV Lane included) | E | F | E | F |
| Washington Ave. to Lowelling Blvd. (HOV Lane excluded) | F | E | F | F |

## Year of Open to Traffic (2016)

### Southbound I-880 No-Build

| Interchange | Total AADT | % Total Truck Traffic | AADT Total Truck Traffic |
|---|---|---|---|
| Marina Boulevard | 124,200 | 8.7 | 10,800 |
| State Route 112 (Davis Street) | 122,800 | 8.7 | 10,680 |
| 98Th Avenue | 122,800 | 8.7 | 10,680 |
| Hegenberger Road | 117,200 | 8.7 | 10,200 |

### Southbound I-880 Build

| Interchange | Total AADT | % Total Truck Traffic | AADT Total Truck Traffic |
|---|---|---|---|
| Marina Boulevard | 124,200 | 8.7 | 10,800 |
| State Route 112 (Davis Street) | 122,800 | 8.7 | 10,680 |
| 98th Avenue | 122,800 | 8.7 | 10,680 |
| Hegenberger Road | 117,200 | 8.7 | 10,200 |

Note: Annual growth factor of 1.5% used in calculating future projections.

## Horizon Year (2035)

### Southbound I-880 No-Build

| Interchange | Total AADDT | % Total Truck Traffic | AADT Total Truck Traffic |
|---|---|---|---|
| Marina Boulevard | 137,000 | 8.6 | 11,780 |
| State Route 112 (Davis Street) | 135,500 | 8.6 | 11,650 |
| 98th Avenue | 136,000 | 8.6 | 11,700 |
| Hegenberger Road | 133,000 | 8.6 | 11,400 |

### Southbound I-880 Build

| Interchange | Total AADDT | % Total Truck Traffic | AADT Total Truck Traffic |
|---|---|---|---|
| Marina Boulevard | 137,200 | 8.6 | 11,800 |
| State Route 112 (Davis Street) | 135,500 | 8.6 | 11,650 |
| 98th Avenue | 137,000 | 8.6 | 11,780 |
| Hegenberger Road | 133,000 | 8.6 | 11,400 |

Alameda County
Project Location
Project Limits
N
Brookfield Recreation Center
San Leandro St
Hegenberger
Doolittle Dr
88th Ave
880
580
Chabot Park
Lake Chabot Rd
San Leandro
Estudillo Ave
Nimitz Fwy
Davis St
Metropolitan Golf Links
San Leandro Blvd
Marina Blvd
Bancroft Ave
E 14th St
MacArthur Fwy
Washington Ave
Mulford Gardens
Merced St
Halcyon Dr
Hesperian Blvd
Bayfair Center
Ashland
Marina Park
Faraday Dr
Monarch Bay Golf Club
Manor Blvd
Fansworth St
Lorenzo Station
238
Fargo Ave
E Lewellin
Wicks Blvd
Lewelling Blvd
San Lorenzo
Robert
Grant Ave
Via Alamitos

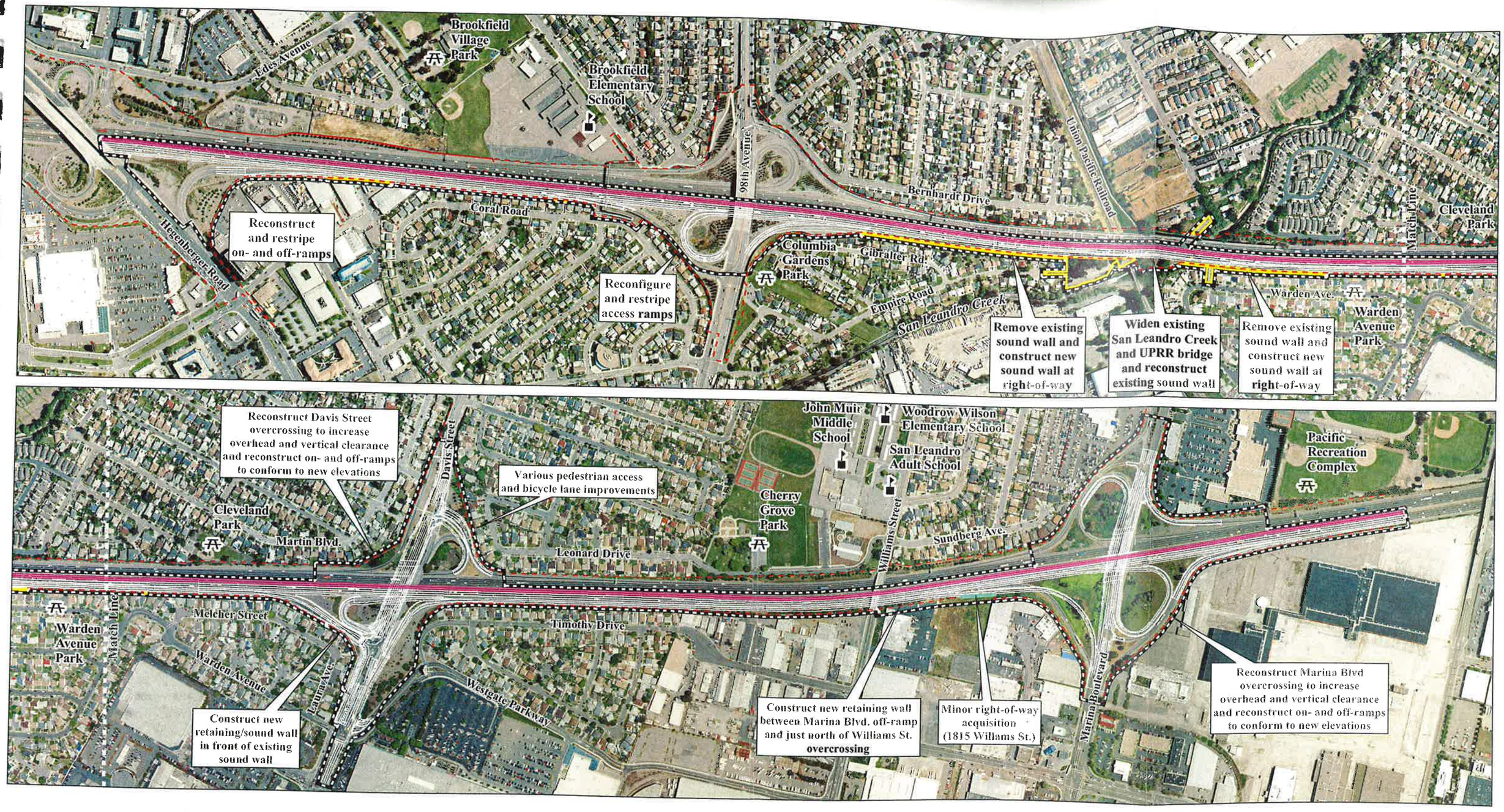


FIGURE 1.4.1-1

0 275 550
FEET

Source: Rajappan and Meyer Consulting Engineers, Inc. (Jan 2009); WMH Corporation (April 2009); DigitalGlobe Inc., Aerial Photographs (April 2007)

| | | |
|---|---|---|
| Project Area | Right-of-Way | School |
| Project Footprint | Proposed Right-of-Way | Park |
| Temporary Construction Easement | Extension of Existing HOV Lane* | Match Line |

* Freeway widening will occur to the outside of southbound I-880 to accomodate the HOV lane.

*I-880 Southbound HOV Lane Extension*

Proposed Project Improvements

**Legend**

Project Limits

**Landuse**

Infrastructure

Residential

Employment Areas

Urban Open

Rangeland

Forest Land

Sparsely Vegetated Land

Wetlands

Source: ABAG 2000 Land Use Data