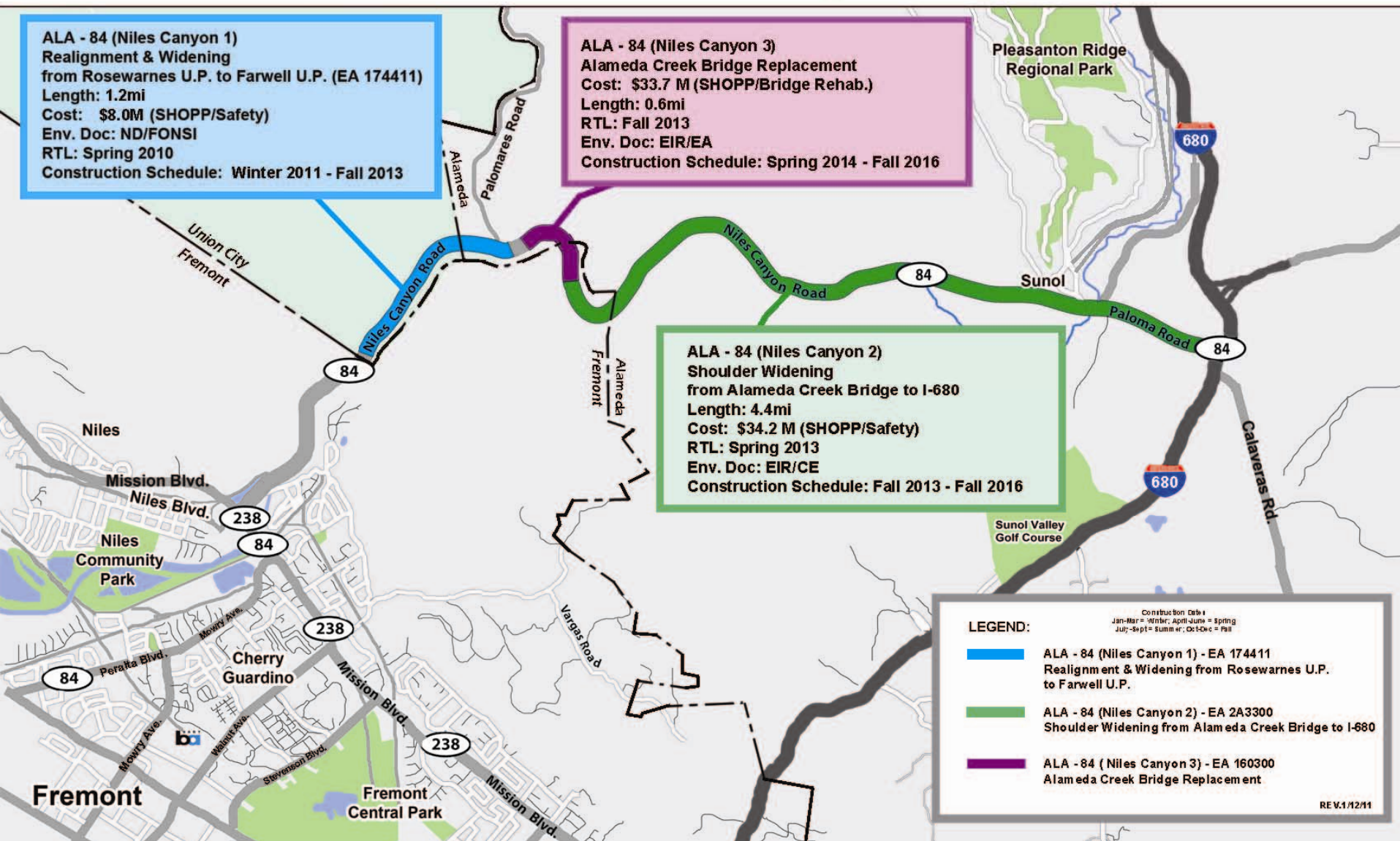


Route 84 Safety Improvements (Niles Canyon Corridor)



State of California
Department of Transportation - District 4
June 13, 2011

State Route 84: Niles Canyon Projects



Niles Canyon 1 – Rosewarnes Underpass



- Stained barrier
- Painted safety rail
- Concrete 'Catcher' structure to match existing structures

Route 84 looking westbound at the Rosewarnes Railroad Overcrossing.

Niles Canyon 1- Environmental Review

- Project Initiation document approved November 2001
- Programmed in the SHOPP in April 2002
- Start of public comment period July 12, 2005 to August 10, 2005
- Environmental process complete (ND/FONSI) June 30, 2006
- Project Approval June 30, 2006
- Route 84 became a State scenic highway in July 2007

Niles Canyon 2 – Near Post Mile 14.1

PPC Item 4F 06/13/11
HANDOUT



**View
looking
west, just
west of
where the
aqueduct
appears
adjacent
to the
roadway.**

- **Install upslope retaining walls 9 to 17 foot tall, and a 6 to 10 foot tall downslope wall**
- **Retain as much existing vegetation to the extent possible**
- **Stain concrete safety barrier to blend with wall**
- **Removing the trees increases safety, sight distance and visibility**

Niles Canyon 2- Environmental Review

- Project Initiation document approved December 2003
- Programmed in the SHOPP in April 2006
- Decision to prepare an EIR because of visual impacts in September 2009
- Public comment period July – Oct 2010
- Environmental process to be completed in Fall 2011

Niles Canyon 3 – Alameda Creek Bridge



- Bridge realigned northward
- Barrier color to match the bridge structure

"Simulation accurate as per current design information available as of 11/2009"

Replacement Bridge with standard shoulders.

Niles Canyon 3- Environmental Review

- Project Initiation document approved December 2003
- Programmed in the SHOPP in April 2008
- Draft EIR anticipated by Fall 2011

ROUTE 84 IN NILES CANYON

EXISTING CONDITIONS

- Two-lane conventional highway in a rural setting
- Narrow shoulders (2-8 feet in width)
- Typically curving horizontal alignment
- Generally bounded by a steep canyon wall, Alameda Creek, and railroad
- Regulatory speed is 45 MPH; curve warning speed signs to 30-35 MPH at spot locations
- 14,000 AATD with 2.5% truck traffic

EXISTING CONDITIONS



Sta 22+00

EXISTING CONDITIONS



Sta 146+80 Railroad & sack wall on left

ACCIDENT DATA

- Over the 10-year period from 1999-2008 on Route 84 in Niles Canyon there were:
 - 436 traffic collisions
 - 11 fatal collisions (13 people killed; 3 truck related collisions/fatalities)
 - 226 injury collisions (342 people injured; 49 truck related)
 - 199 non-injury collisions (property damage)
 - 10% were head-on collisions
 - 17% were run-off road collisions
 - 36% were hit obstacle collisions

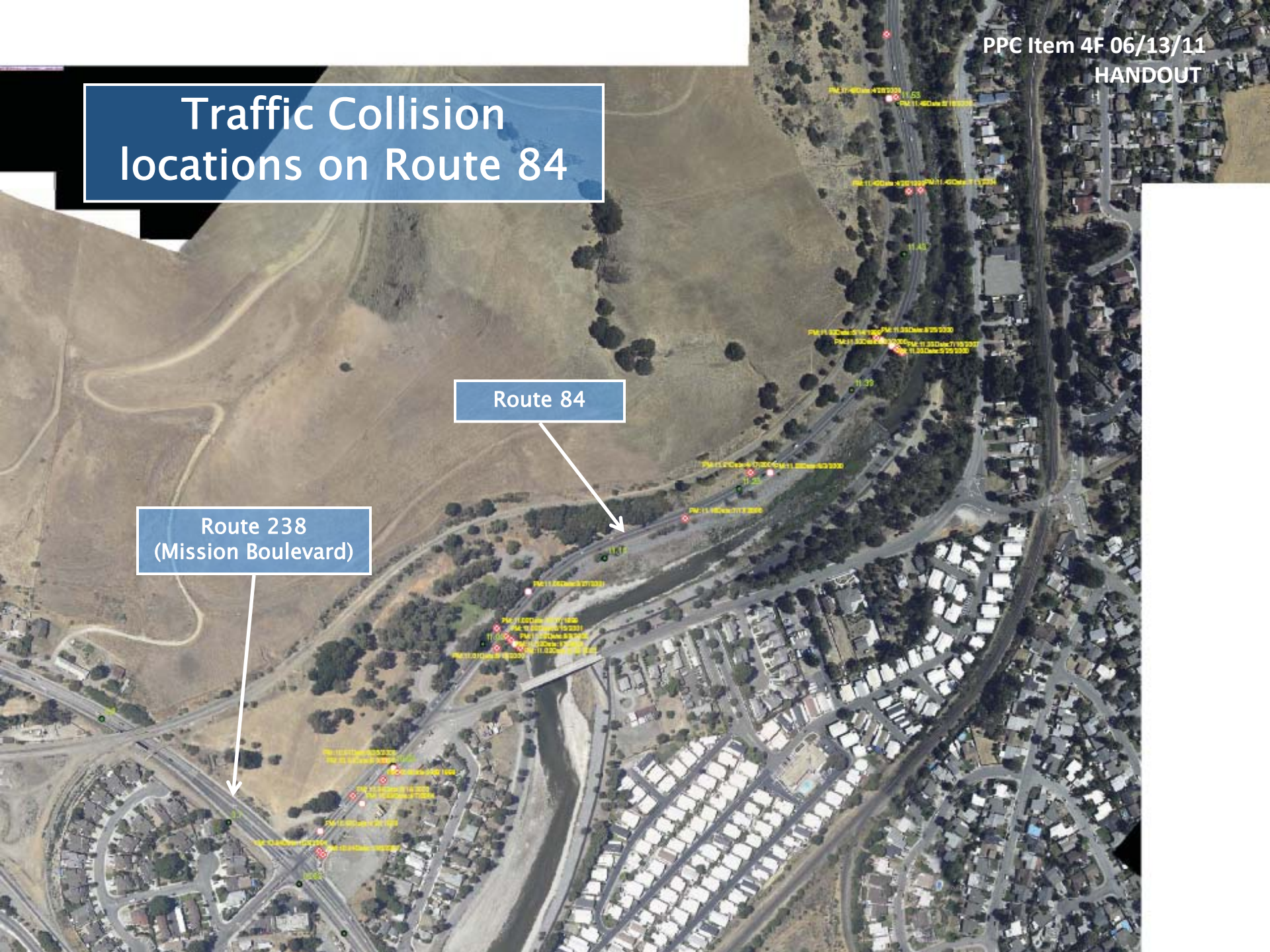
ACCIDENT DATA

- Over the 10-year period from 1999-2008 on Route 84 in Niles Canyon there were:
 - 13% DUI collisions
 - 167 truck related collisions
 - 32% of collisions involved pick up/panel trucks
 - 6% of collisions involved commercial trucks
 - 1% of collisions involved bicycles or pedestrians

locations on Route 84

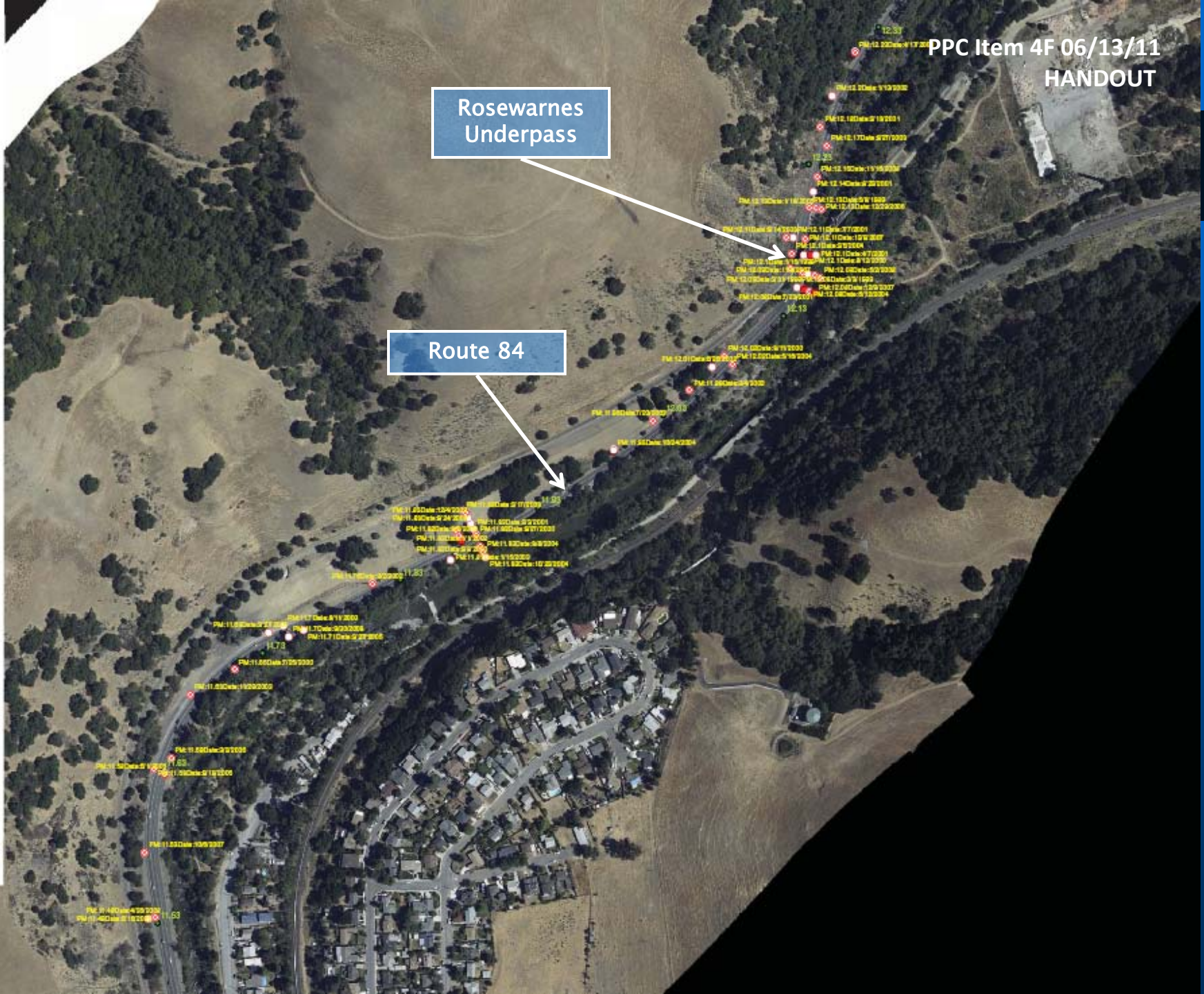
Route 84

Route 238 (Mission Boulevard)



Rosewarne Underpass

Route 84



**PPC Item 4F 06/13/11
HANDOUT**

Palomares Road

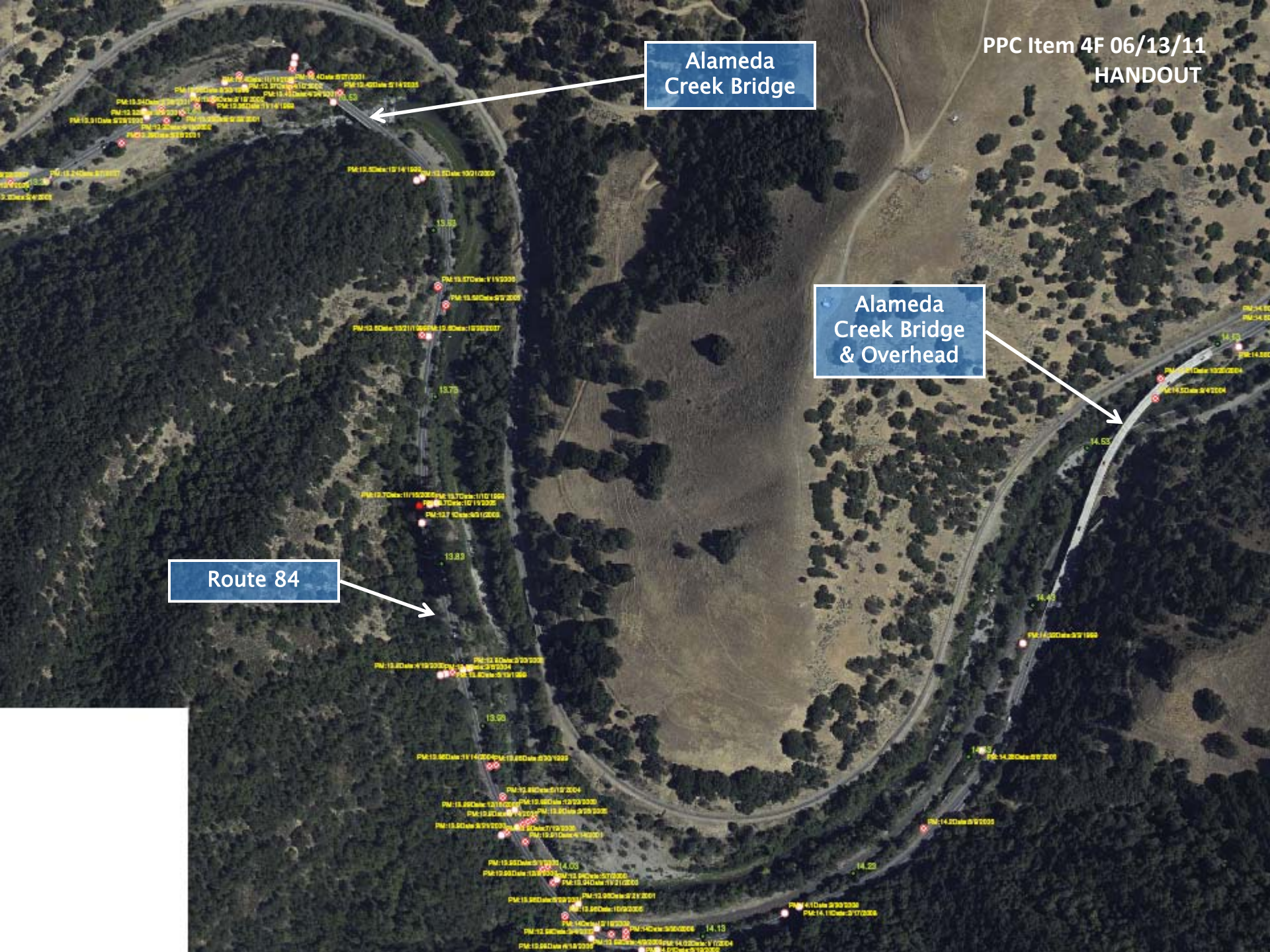
Farwell Underpass

Route 84

Alameda
Creek Bridge

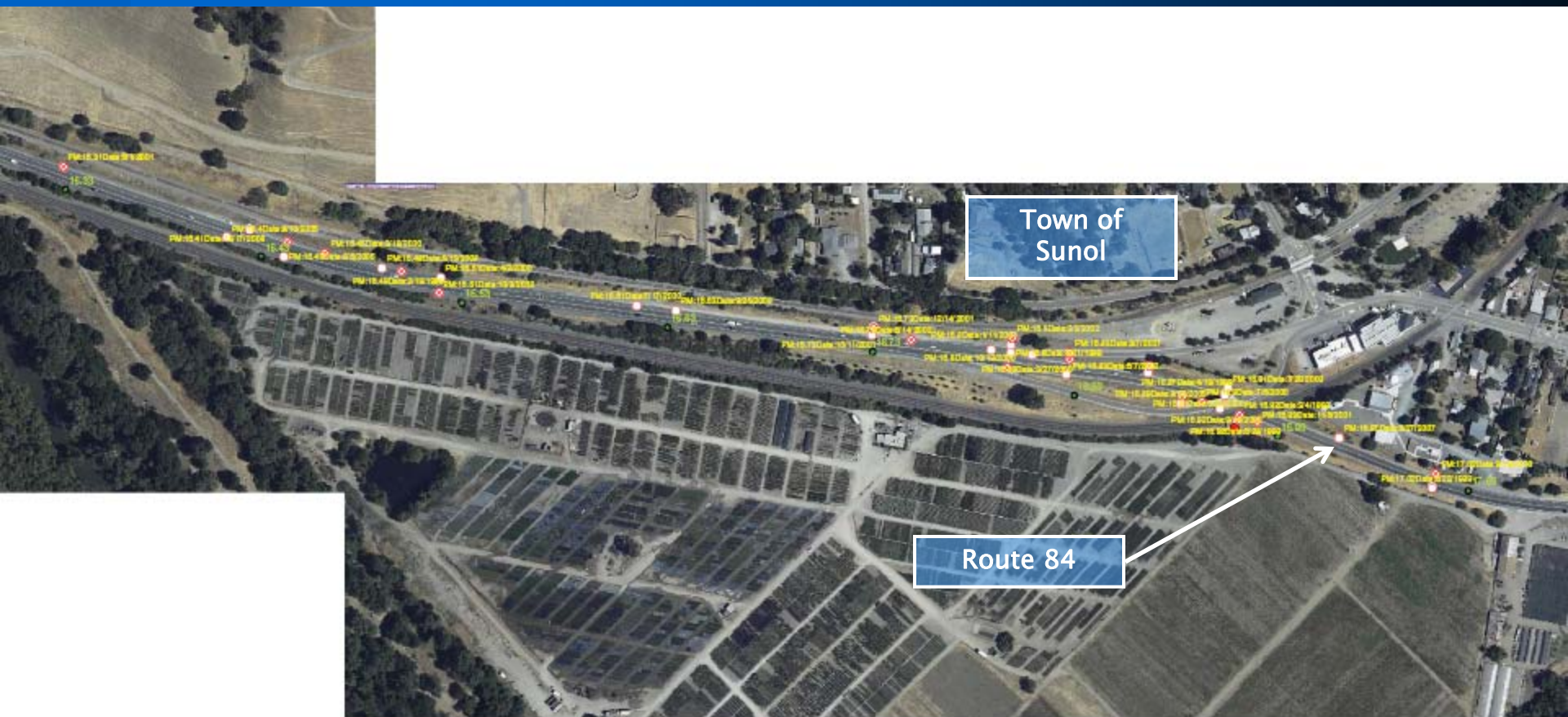
Alameda
Creek Bridge
& Overhead

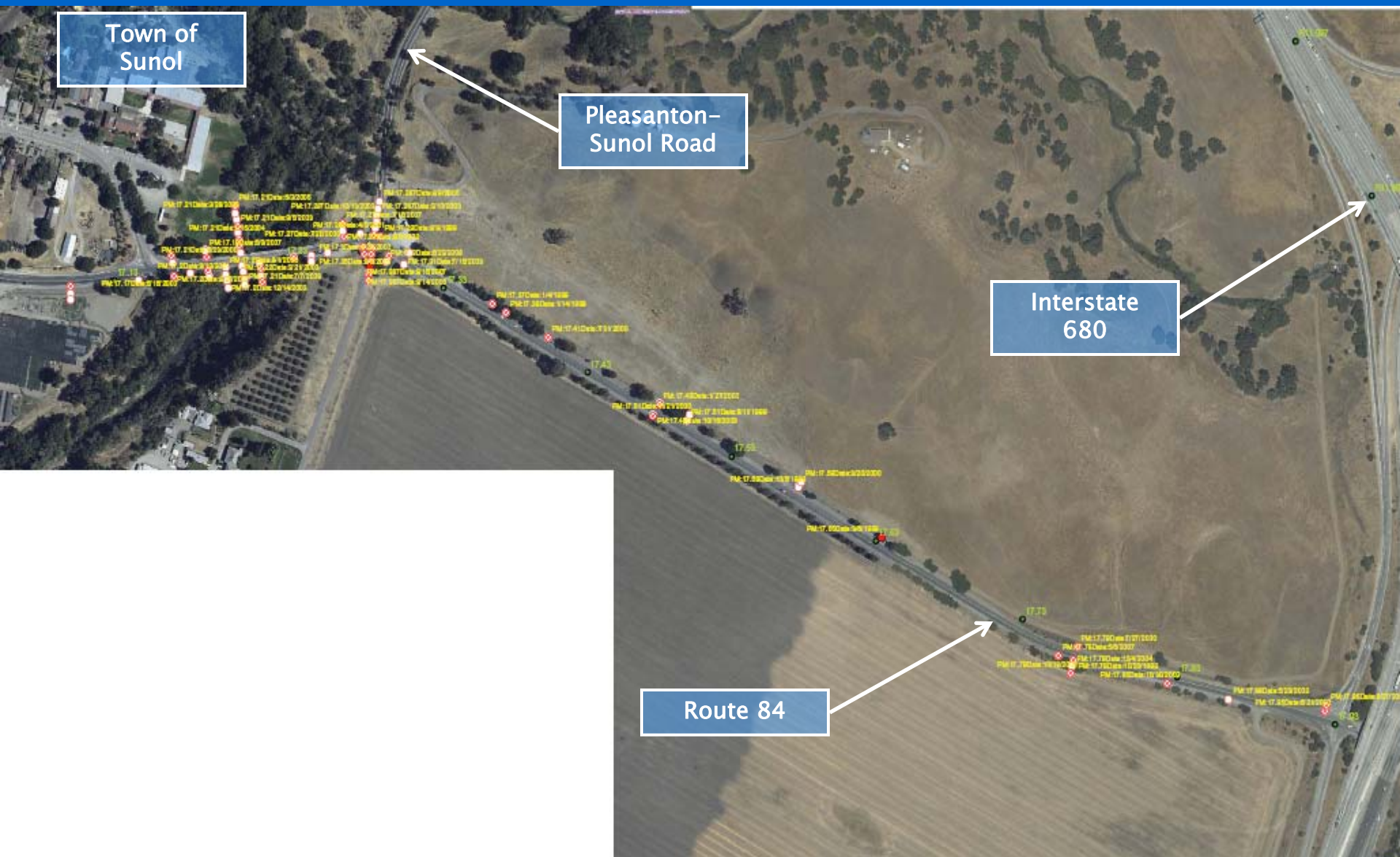
Route 84











Town of
Sunol

Pleasanton-
Sunol Road

Interstate
680

Route 84



NILES CANYON 2 PROJECT

- In 2003 Caltrans' safety monitoring program identified this location with a concentration of cross-centerline fatal collisions. Based on this accident history, Caltrans initiated the Niles Canyon 2 project to improve safety on Route 84 in Niles Canyon.
- Proposed safety improvements include the following:
 - Standard shoulders
 - Soft median barrier
 - Shoulder rumble strip

PROJECT BENEFITS

Standard shoulders provide the following safety improvements:

- Room for vehicles leaving the lane to safely recover, reducing run-off road and hit obstacle accidents
- Reduce head-on collisions due to driver overcorrection
- Room for emergency use by disabled vehicles
- Increased horizontal stopping sight distance on curves
- Improve safety for bicycle travel
- Room for CHP enforcement



PROJECT BENEFITS

- Soft median barrier acts a “buffer” that provides an audible and physical warning to motorists crossing over centerline towards oncoming traffic
- Shoulder rumble strip enhances bicycle safety as it acts as a “soft barrier” between vehicular and bicycle traffic and provides an effective means of locating the lane edge during inclement weather or poor/limited visibility

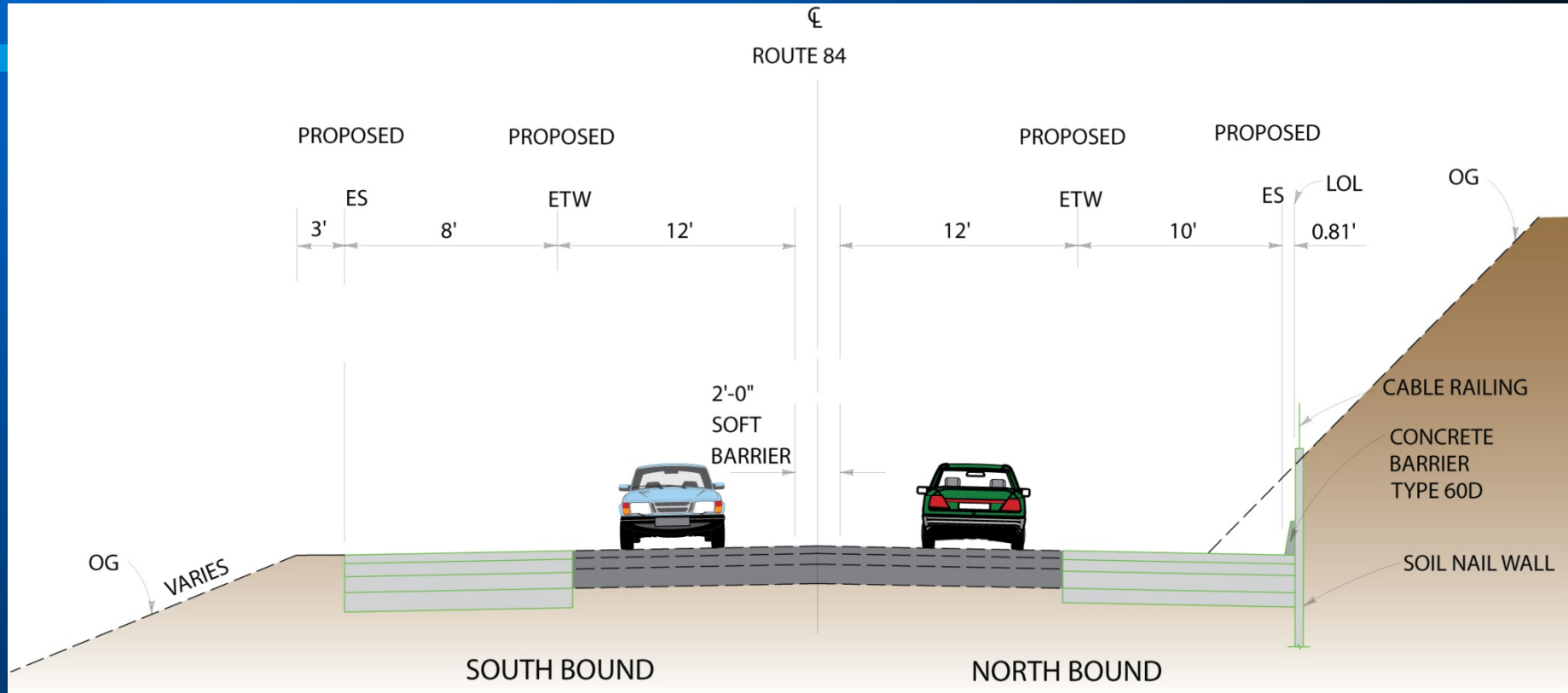
PROJECT GOALS

- Improve safety by reducing traffic accidents
- Enhance bicycle safety & conform with regional bicycle plans
- Minimize impacts to environmental, historic, and visual resources
- Minimize railroad impacts



PROJECT DESCRIPTION

TYPICAL CROSS SECTION (CUT SLOPE)

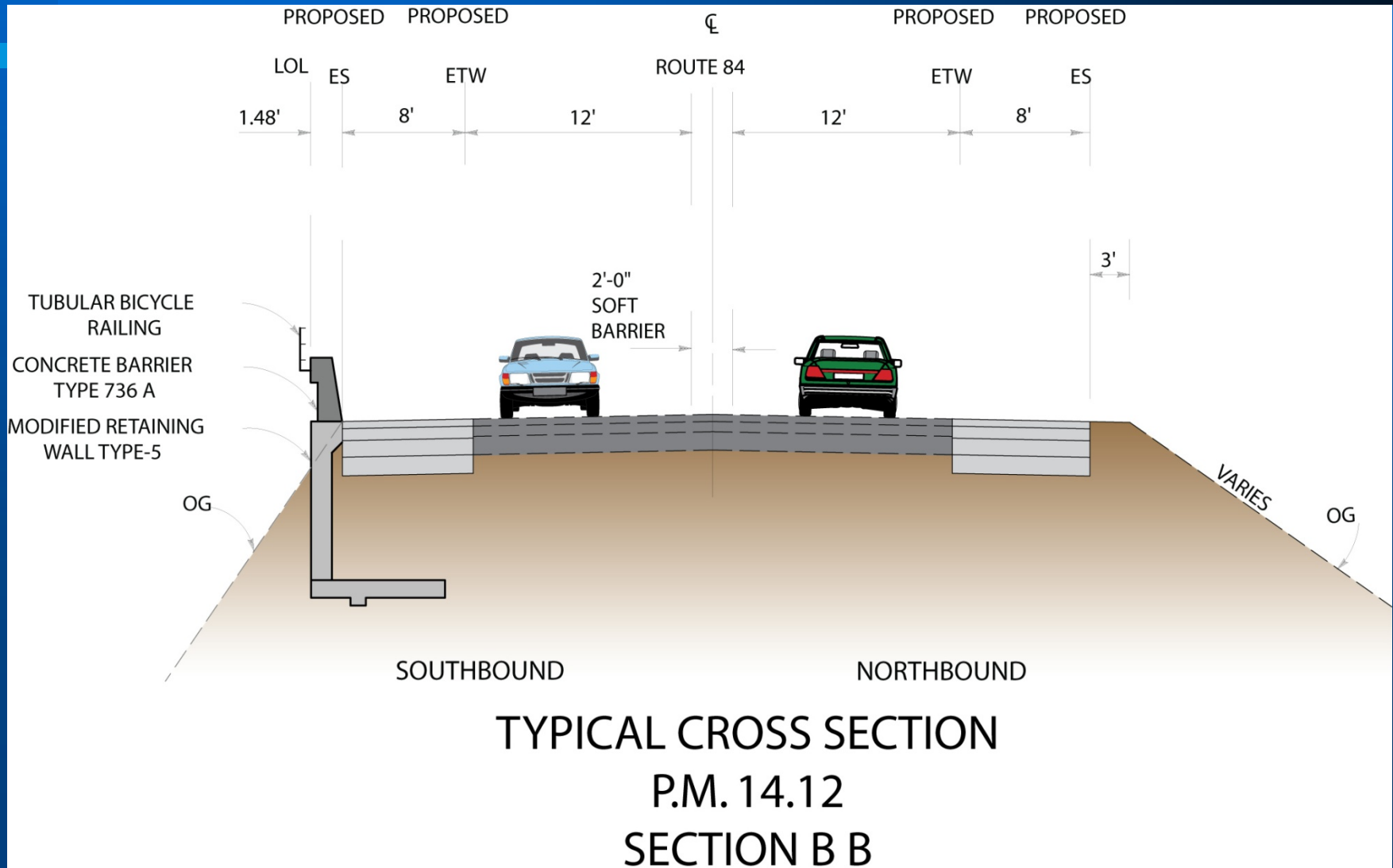


TYPICAL CROSS SECTION
P.M. 13.66
SECTION A A



PROJECT DESCRIPTION

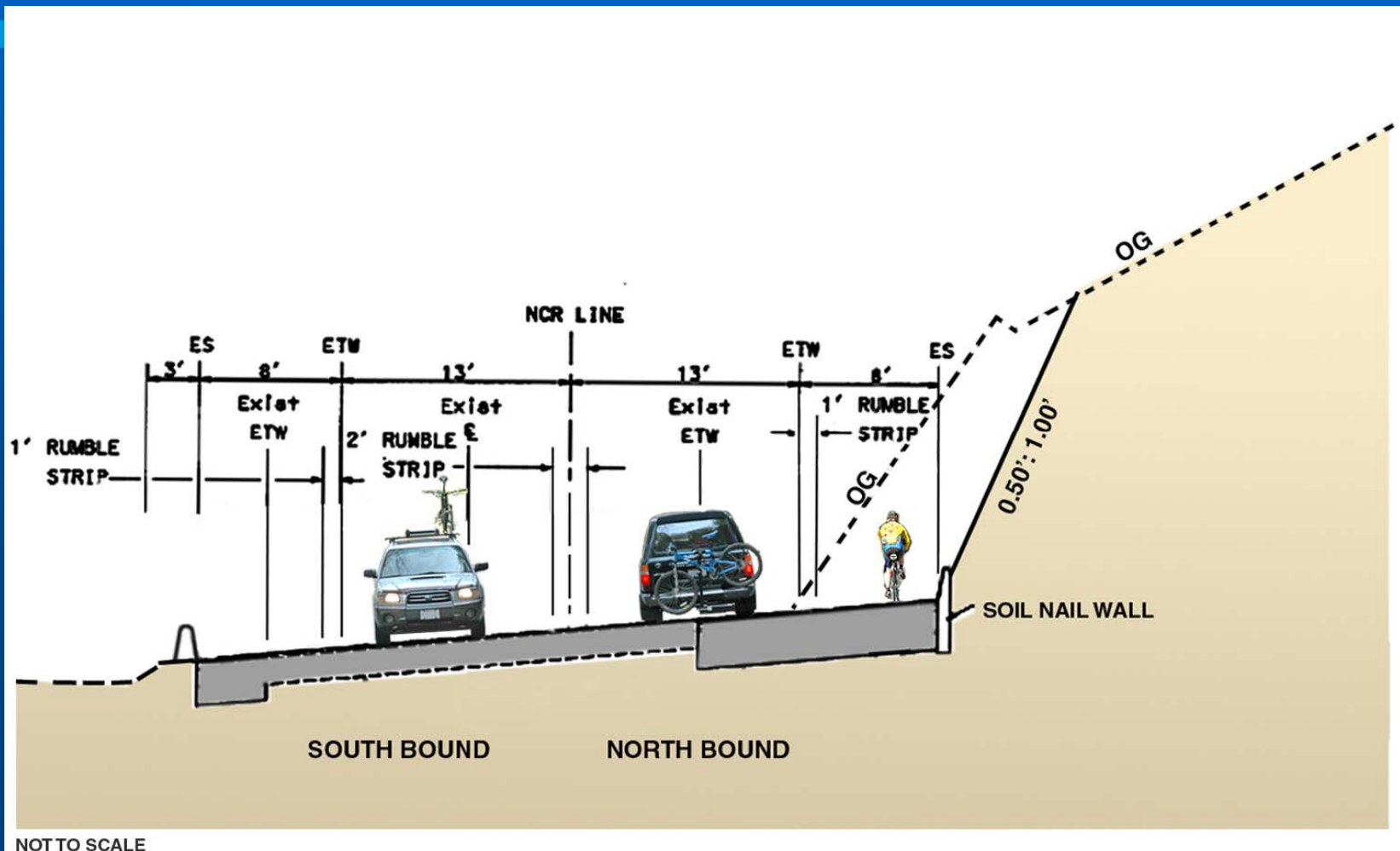
TYPICAL CROSS SECTION (FILL SLOPE)





PROJECT DESCRIPTION

TYPICAL CROSS SECTION (CUT SLOPE)





MITIGATION MEASURES & SIMULATIONS



MITIGATION MEASURES TO REDUCE VISUAL IMPACTS

- Provide replacement planting utilizing native plant species existing within the corridor (3:1 to 5:1 for native plant species).
- Retaining walls to be aesthetically treated with an appropriate, context-sensitive texture and color, in order to minimize contrast with the existing natural and/or historic setting
- Concrete safety barriers to be stained the overall color of the retaining walls to reduce glare and visual impacts.



KEY VIEWPOINT – NEAR POST MILE 14.1

PPC Item 4506/13/11
HANDOUT



View
looking
west
towards
Alameda
Creek
Bridge

Simulation accurate as per
April 2011 design information



KEY VIEWPOINT – NEAR POST MILE 15.7



View looking
west at a
location ± 0.5
mile east of
the Niles
Canyon
Railroad
maintenance
yard.

Simulation accurate as per
April 2011 design information

PROJECT COST

Niles Canyon 1	\$ 8.0 M
Niles Canyon 2	\$ 34.2 M
Niles Canyon 3	<u>\$ 33.7 M</u>
Total Capital cost	\$ 75.9 M

Funding	SHOPP *
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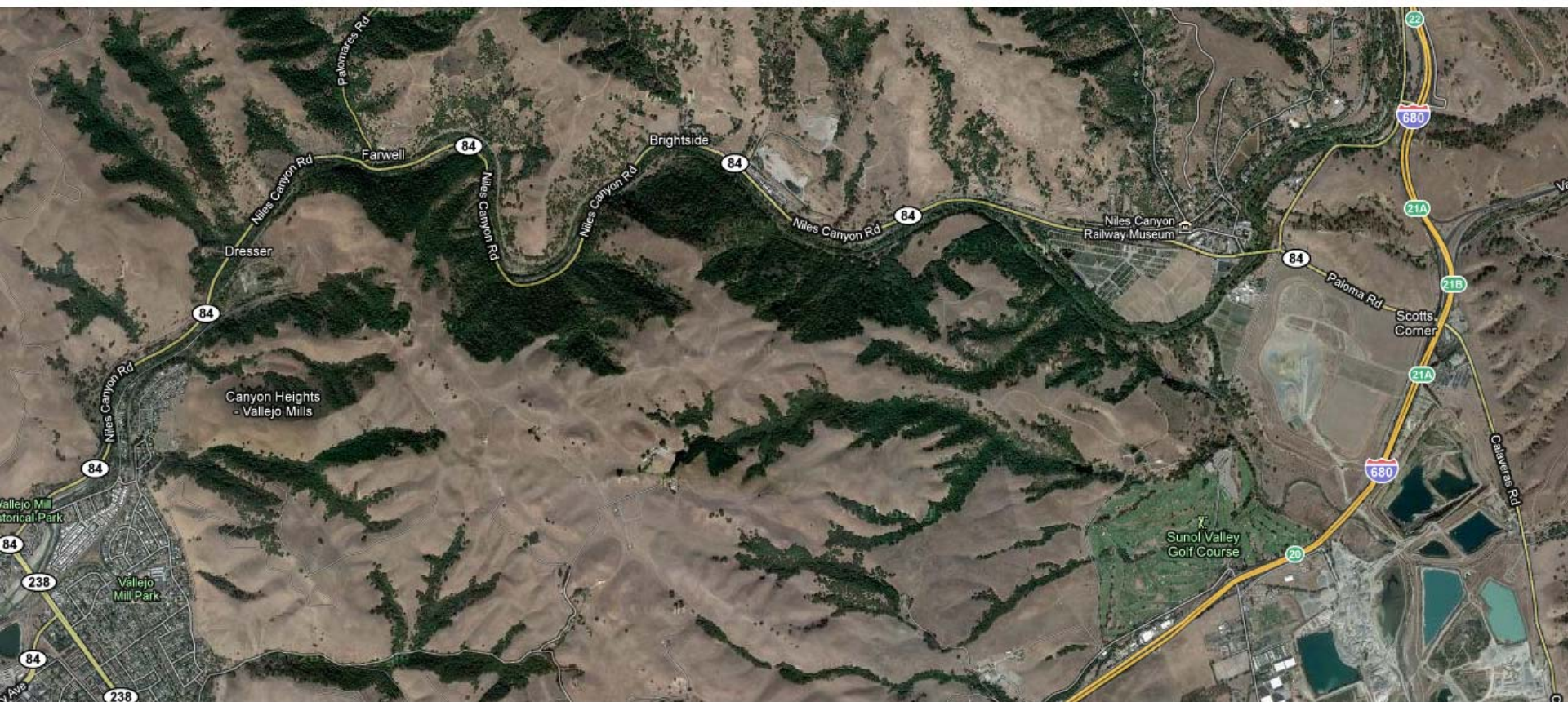
PROJECT SCHEDULES

- Niles Canyon 1
 - Begin Construction Jan 2011
 - End Construction Dec 2013

- Niles Canyon 2
 - Final Env. Doc (EIR/EA) Fall 2011
 - Begin Construction Fall 2013
 - End Construction Fall 2016

- Niles Canyon 3
 - Draft Environmental Document Fall 2011
 - Final Environmental Document Spring 2012
 - Begin Construction Spring 2014
 - End Construction Fall 2016

END



Additional information can be found at:
<http://www.dot.ca.gov/dist4/nilescanyon/>