Alameda Creek Bridge Replacement

Scoping Meeting
March 4, 2014

Scoping Meeting Process

Caltrans is asking public agencies, local governments, elected officials and the public what the scope of the environmental document should be.

“Scope” includes:

- **What analysis is appropriate?**
- **What alternatives should be considered?**
- **Potential mitigation strategies?**
- **What resources and potential impacts should be evaluated?**

State Route 84: Niles Canyon Projects

Niles Canyon – Short Term Projects
ALA – 84 From Mission Blvd. to I-680

Construction: Summer 2015 - Summer 2016

* Install sharrows
* Install delineators
* Install pavement markings

Alameda Creek Bridge Replacement Project
ALA – 84

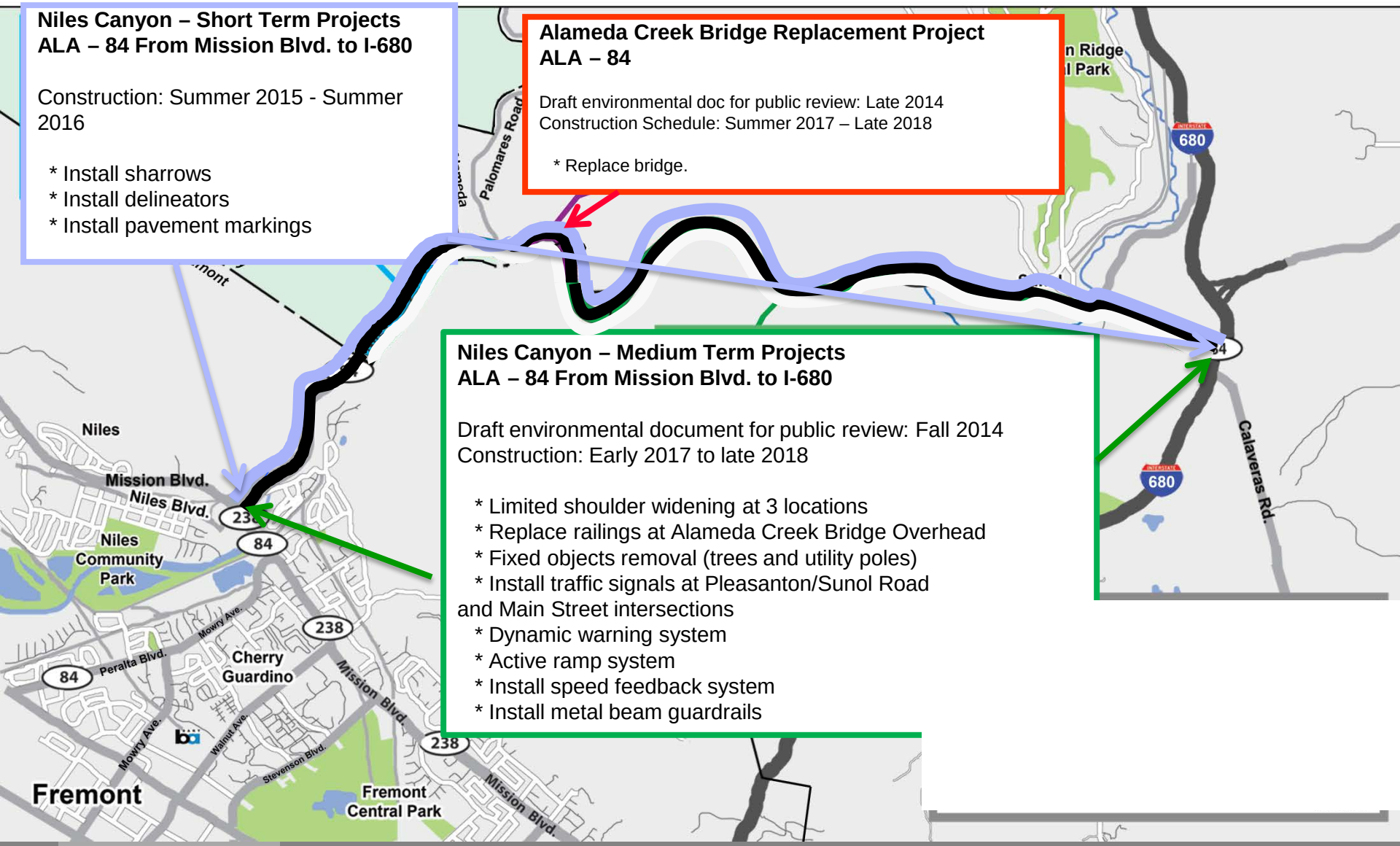
Draft environmental doc for public review: Late 2014
Construction Schedule: Summer 2017 – Late 2018

* Replace bridge.

Niles Canyon – Medium Term Projects
ALA – 84 From Mission Blvd. to I-680

Draft environmental document for public review: Fall 2014
Construction: Early 2017 to late 2018

* Limited shoulder widening at 3 locations
* Replace railings at Alameda Creek Bridge Overhead
* Fixed objects removal (trees and utility poles)
* Install traffic signals at Pleasanton/Sunol Road and Main Street intersections
* Dynamic warning system
* Active ramp system
* Install speed feedback system
* Install metal beam guardrails



Project Goal and Needs

- **Project Goal: provide a bridge structure that meets current design standards**

- **Project Needs: based on concerns over the out-of-date structural design of the bridge and the following factors:**
  - **85-year old bridge**
  - **Narrow bridge that lacks standard shoulders**

Project Goal and Needs

Project Needs (continued)…

- **Bridge railing does not meet current design standards**
- **Roadway approaches are too sharp for current design speed**
- **Roadway alignment does not provide sufficient sight distance**

Proposed Improvements

- New bridge meets seismic standards with an expected 100+ year service life
- Standard shoulders allow room for disabled vehicles and provide safer access for bicyclists
- Updated bridge railings provide safety improvements for both motorists and bicyclists alike
- Realigned roadway provides safer approach curves.
- Removes obstructions in Alameda Creek

Design Considerations

- Service Life of Replacement Bridge: 100+ years
- Project will not increase capacity
- New bridge will provide a 12-foot lane and an 8-foot shoulder in each direction
- Design speed standard for this type of facility is typically 50mph
  - The posted speed limit in the corridor however, is 45mph.
  - Alternatives proposed for the project will be designed to 45mph.

Funding & Schedule

- **Funding:**
  - **By the State Highway Operations and Protection Program (SHOPP)**
  - **Construction cost is estimated at $30 Million**

- **Schedule:**
  - **Draft Environmental Document available for public review: Late 2014**
  - **Final Environmental Document Completion: Fall 2015**
  - **Design Completion: Late 2016**
  - **Construction Begin: Mid 2017**
  - **Construction End: Late 2018**

Alternatives Background

- Alternative 1
  - Developed during planning phase
  - Includes embankment fill and two retaining walls, one with rock slope protection

- Alternative 2
  - Developed during value analysis (VA) study that reviewed 8 different alternatives
  - Includes three retaining walls, one with rock slope protection

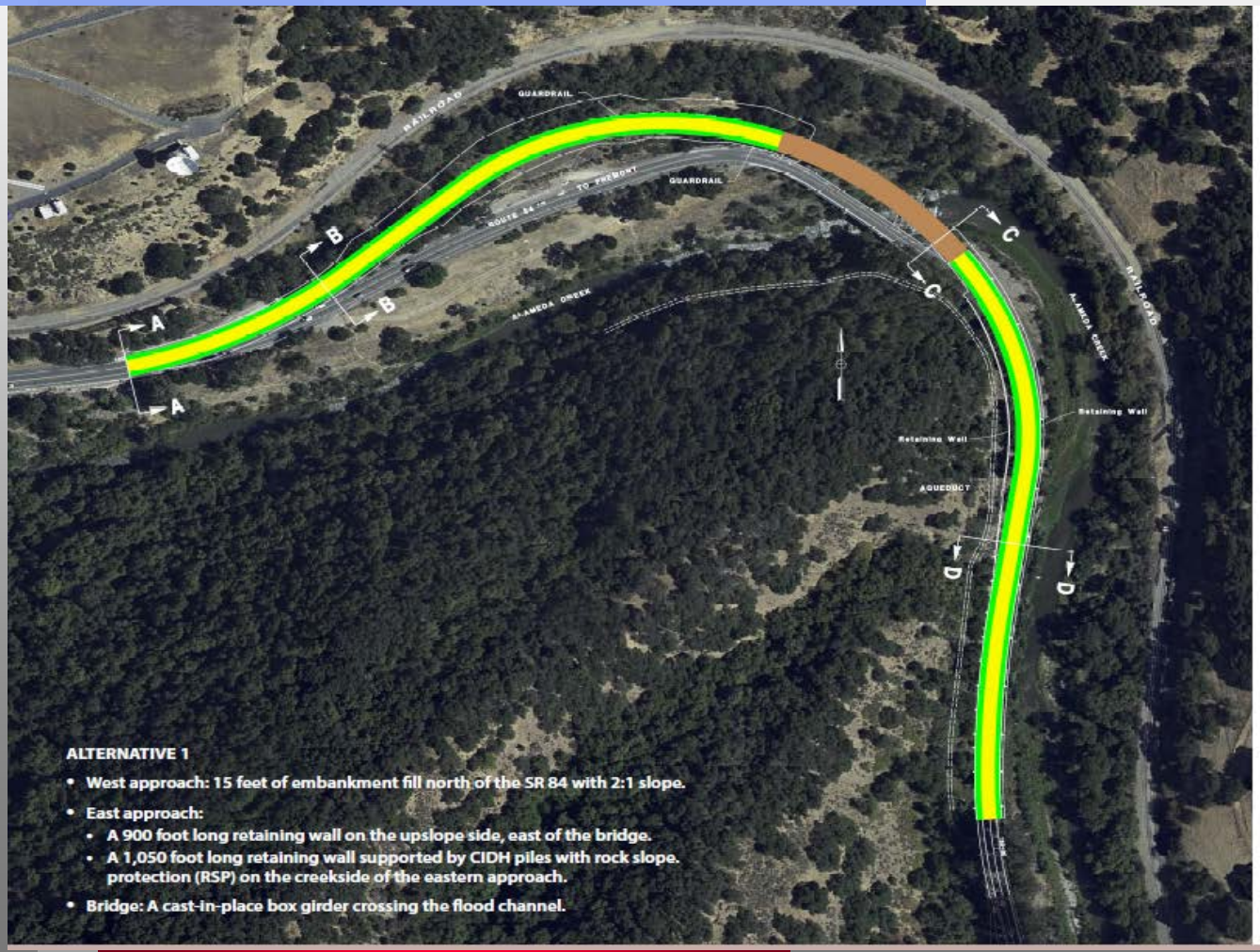
Alternatives Background

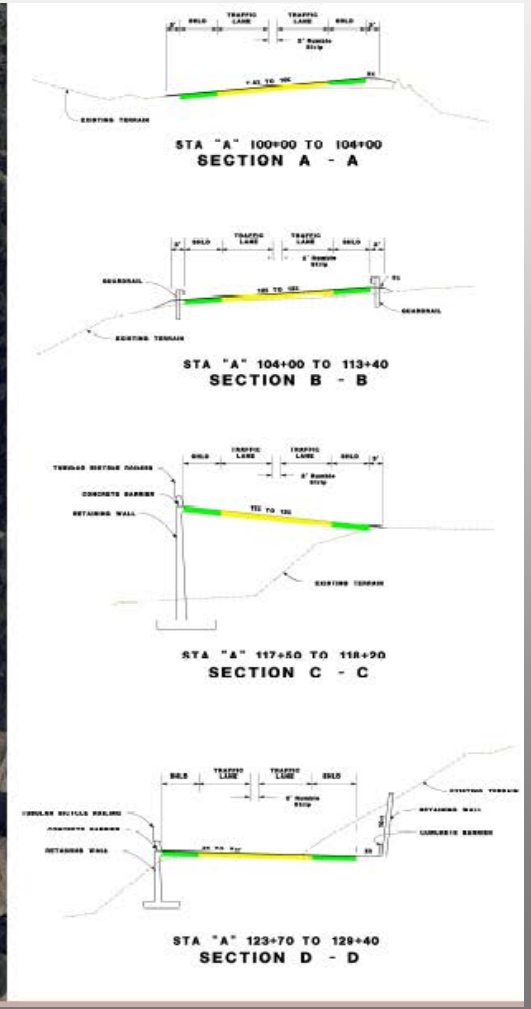
Alternatives Background (continued)

- **Alternative 3A**
  - **Developed during FHWA-led Roadway Safety Assessment (RSA)**
  - **Includes an embankment, one retaining wall and a 1,100-foot long viaduct**

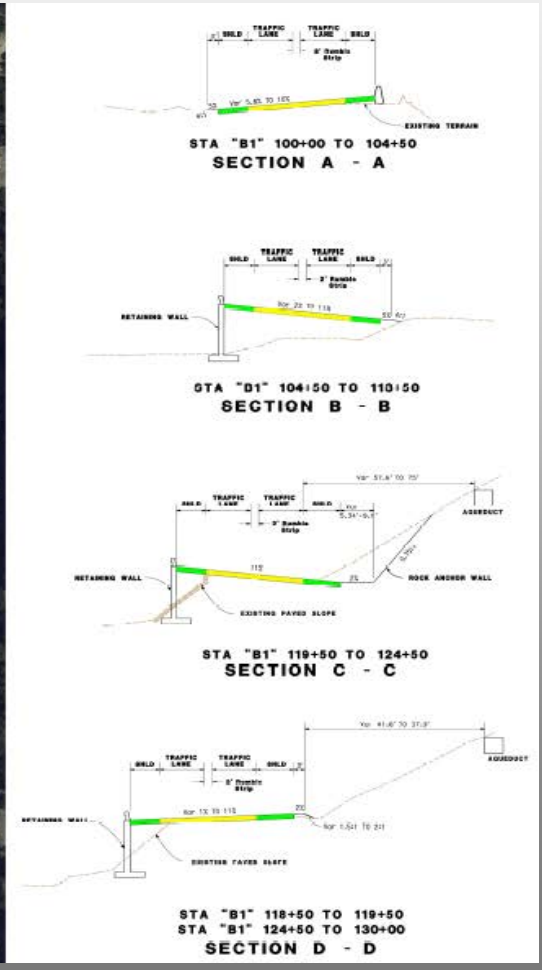
- **Alternative 3B**
  - **Developed after reviewing stakeholders recommendations from the stakeholders meeting in 2013**
  - **Includes an embankment, one retaining wall and a 400-long viaduct**

Alternative 1

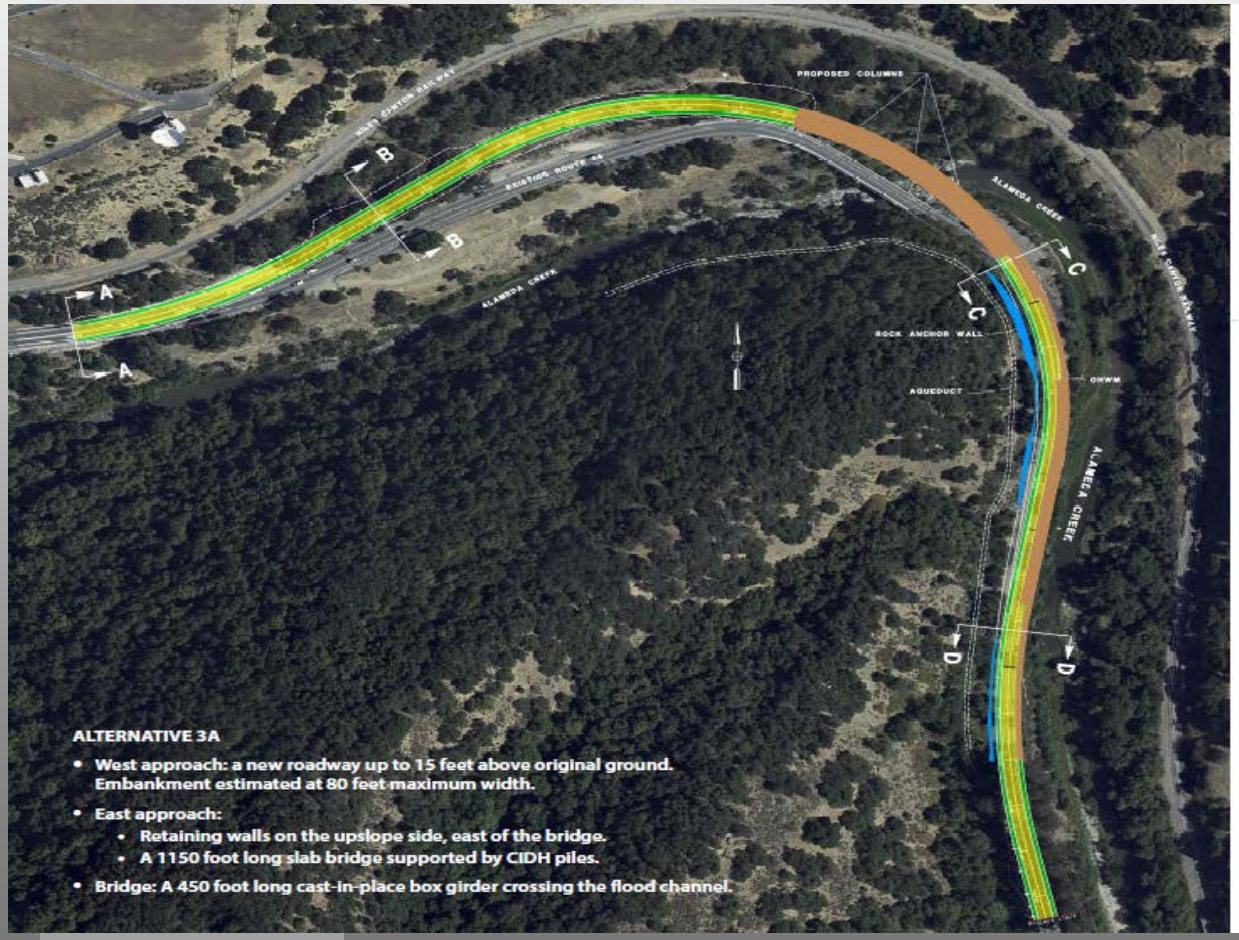




Alternative 2

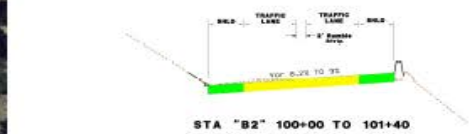


Alternate 3A



ALTERNATIVE 3A

- West approach: a new roadway up to 15 feet above original ground. Embankment estimated at 80 feet maximum width.
- East approach:
  - Retaining walls on the upslope side, east of the bridge.
  - A 1150 foot long slab bridge supported by CIDH piles.
- Bridge: A 450 foot long cast-in-place box girder crossing the flood channel.



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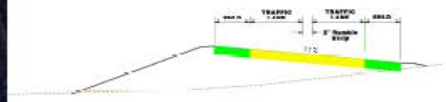
SECTION A - A



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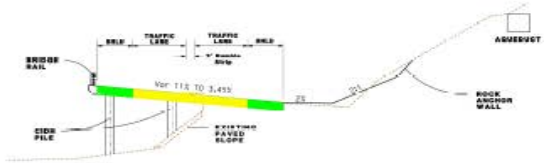

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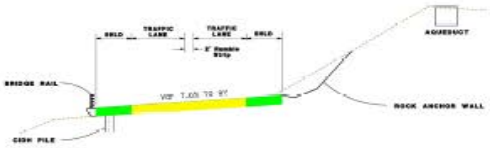
SECTION C - C



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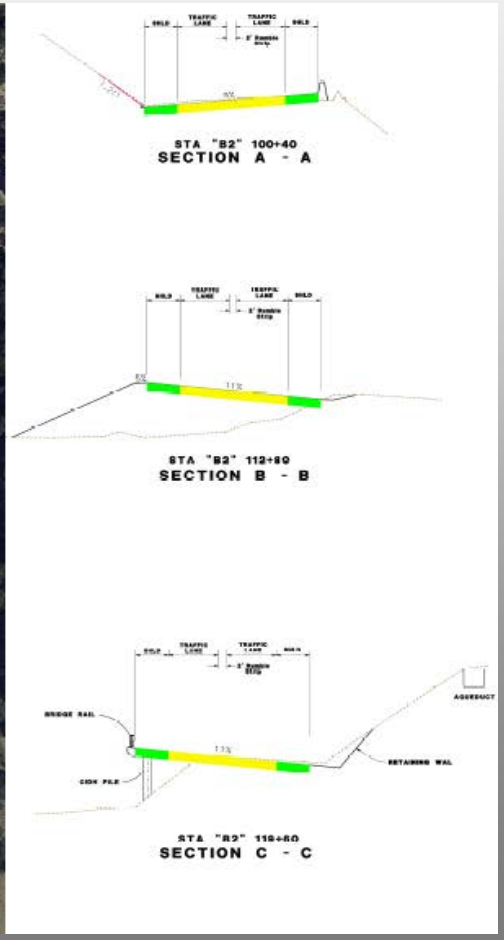
SECTION D - D

Alternative 3B



West Approach - Existing Condition

Conceptual Rendering – Concrete Texas Rail

Conceptual Rendering – Steel Rail

Questions & Comments