Highway 17 Bicycle & Pedestrian Overcrossing Feasibility Study

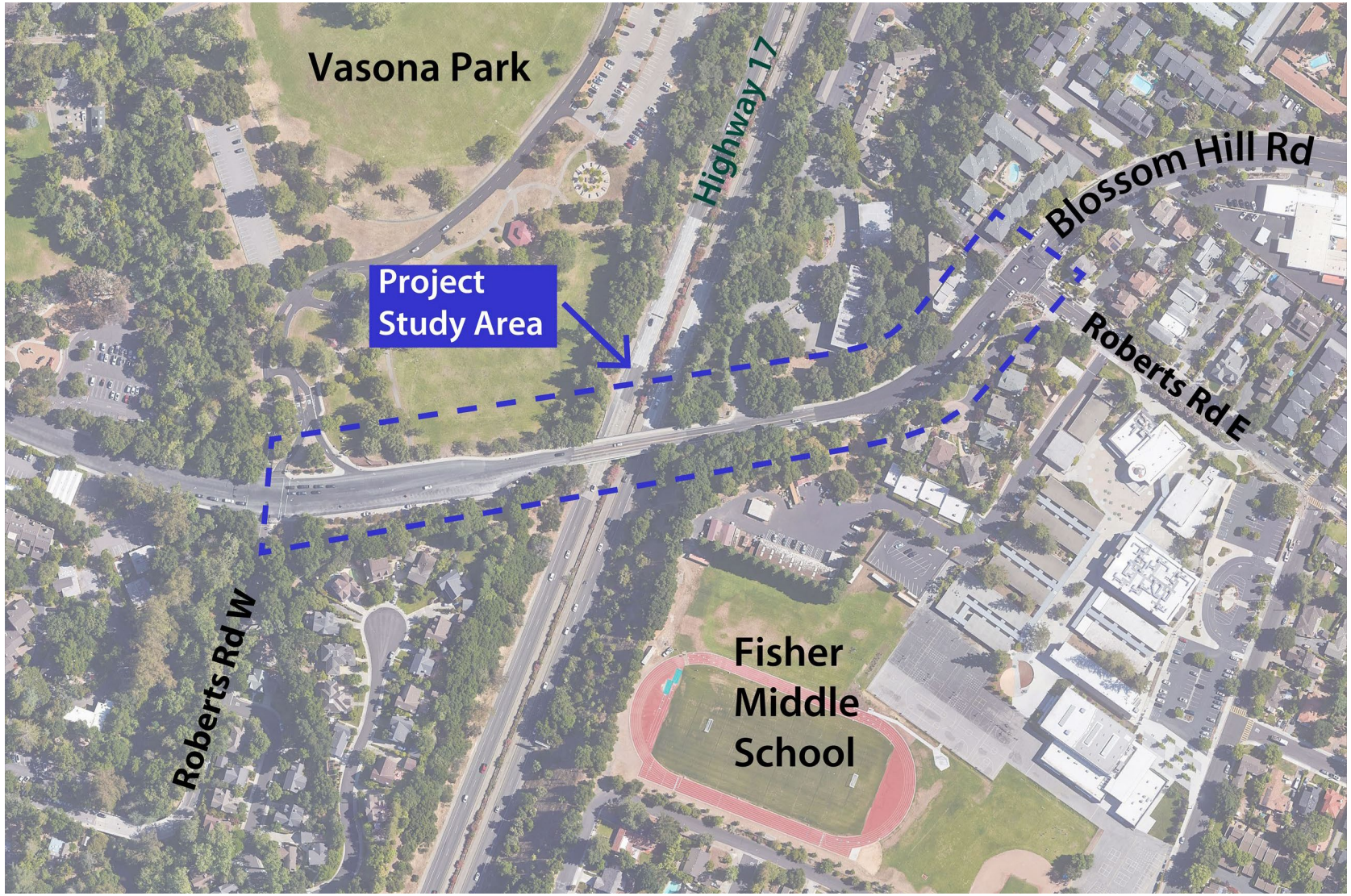
Town Council Meeting

September 1, 2020

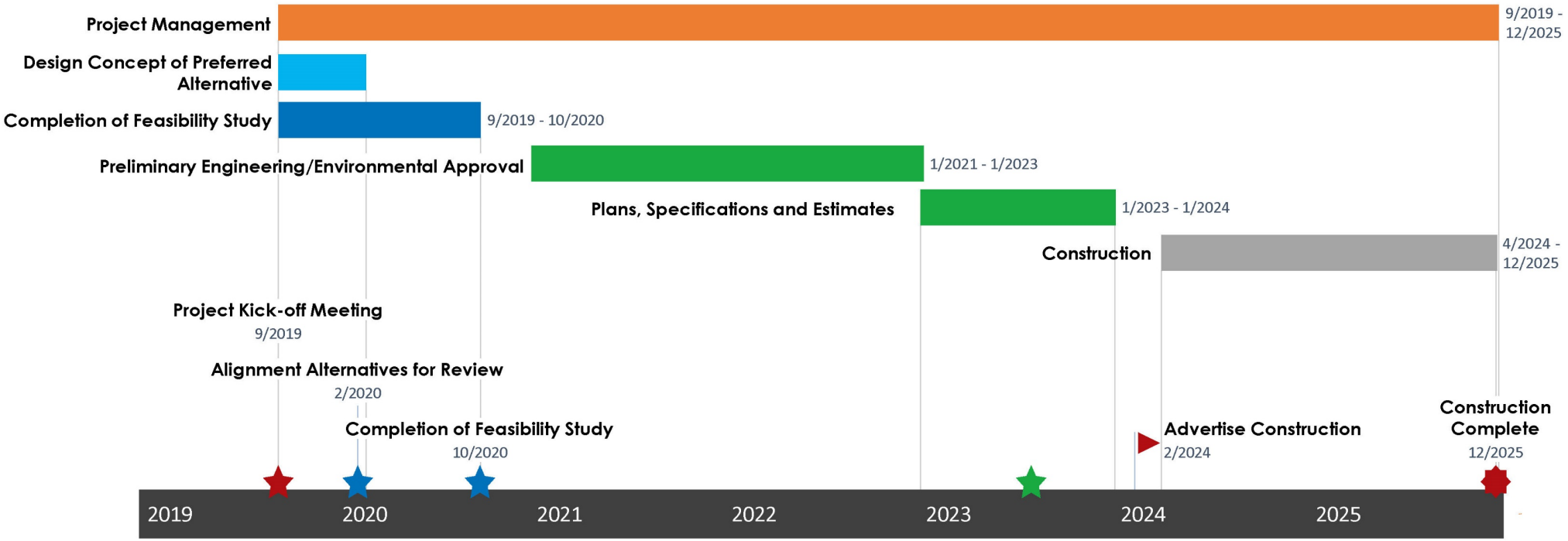
Presentation Outline

- Project Location, Background, and Milestones
- Alternatives Considered and Evaluation
- Preferred Alignment
- Design Considerations and Bridge Types
- Staff Recommendations

PROJECT LOCATION



Project Phases and Milestones



Feasibility Study

Final Design: Plans, Specifications and Estimates

Construction

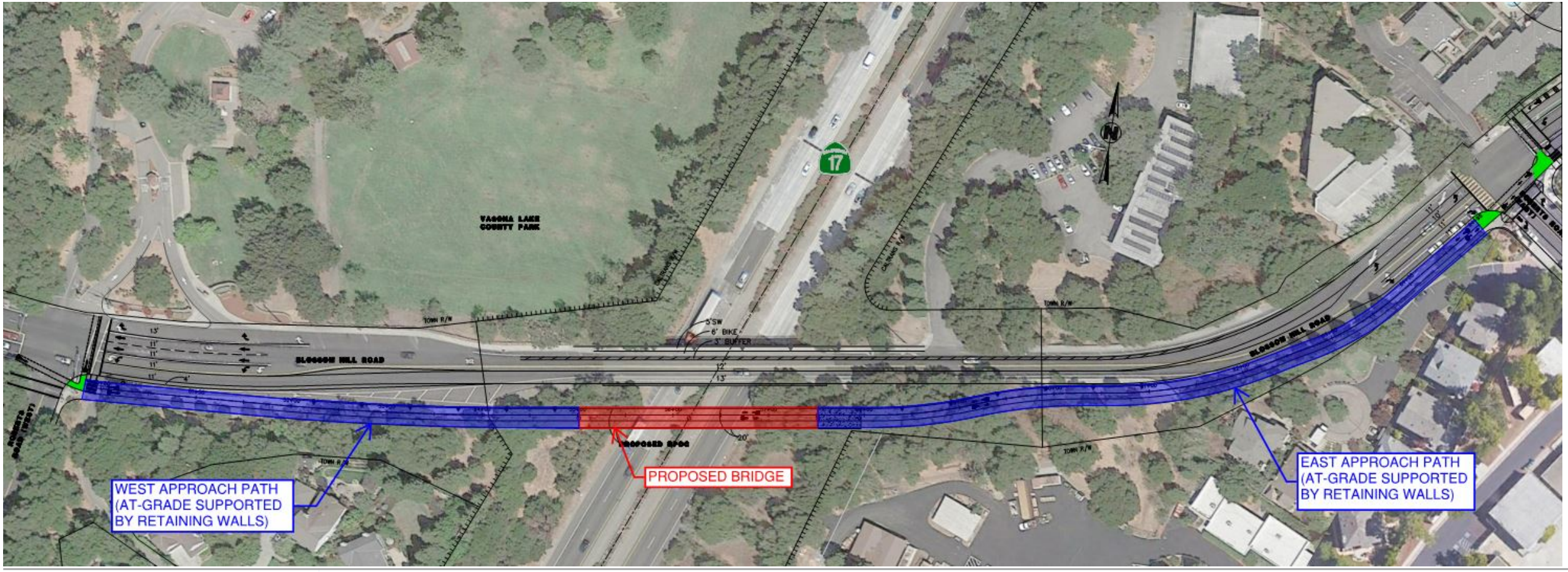
ORIGINAL ALTERNATIVES

- **Alternative 1** – A new bicycle and pedestrian bridge connecting to Nino Avenue
- **Alternative 2** – A separate bicycle and pedestrian bridge along Blossom Hill Road
- **Alternative 3** – Widening the existing Blossom Hill Road Bridge for bicyclists and pedestrians

EVALUATION CRITERIA

- Community Feedback
- Caltrans Coordination
- Travel Demand and Patterns
- User Experience
- Potential Environmental Impacts:
  - Utilities
  - Right of Way constraints
  - geotechnical considerations
  - Trees
  - Visual impacts
- Cost: construction and maintenance

PREFERRED ALIGNMENT
(Separate Bridge South of Blossom Hill Rd)



User Group/Direction	Options
Bicyclists: Eastbound	Use the Bicycle and Pedestrian Overcrossing
Bicyclists: Westbound	Ride on the Class IV Bike Lane on the existing BHR Bridge; or cross to the south side to use the Bike and Pedestrian Overcrossing
Pedestrians: both directions	Use Existing Sidewalk on the north side of BHR Bridge; or walk on the Bike and Pedestrian Overcrossing

DESIGN FEATURES AND USER EXPERIENCE

- Separate Structure
  - Sufficient separation from the existing Blossom Hill Road bridge
  - Bend in curve also helps slow down westbound bicyclists traveling downhill
- Recommended Width: 16’ to 20’ wide
  - Existing BPOC’s located in the Bay Area = 10’ to 12’ wide
  - Several BPOC’s in design = 18’ to 20’ wide.
  - High bicycle and pedestrian counts and mode splits warrant wider sections.
- Bridge Structure Types:
  - Concrete, steel truss, and steel arch
  - Decision on bridge type in the final design phase

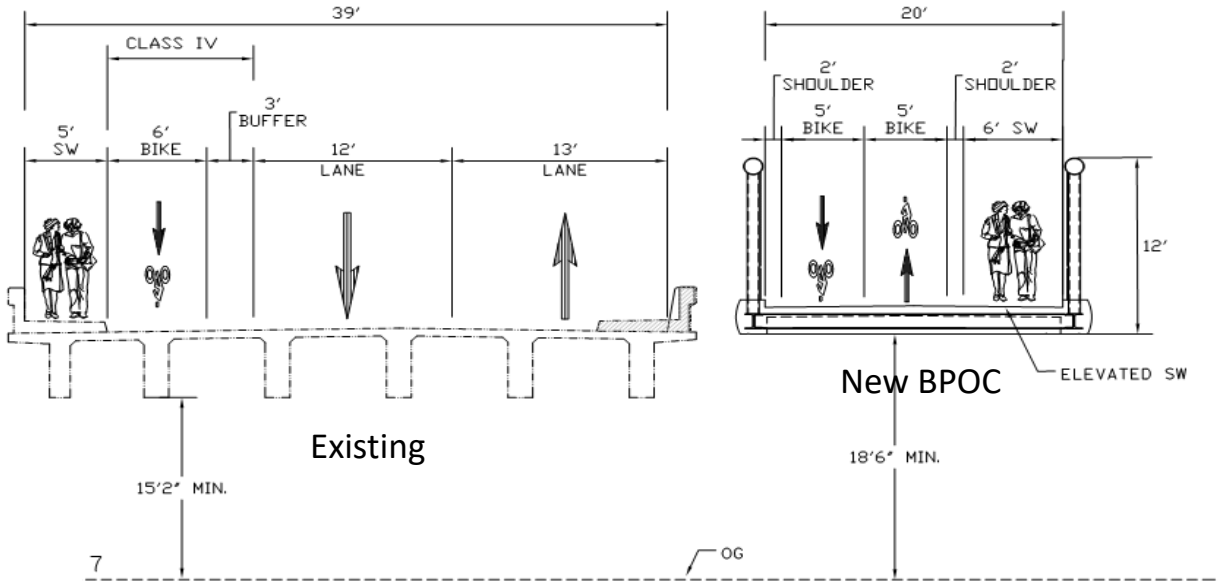
Important Considerations:

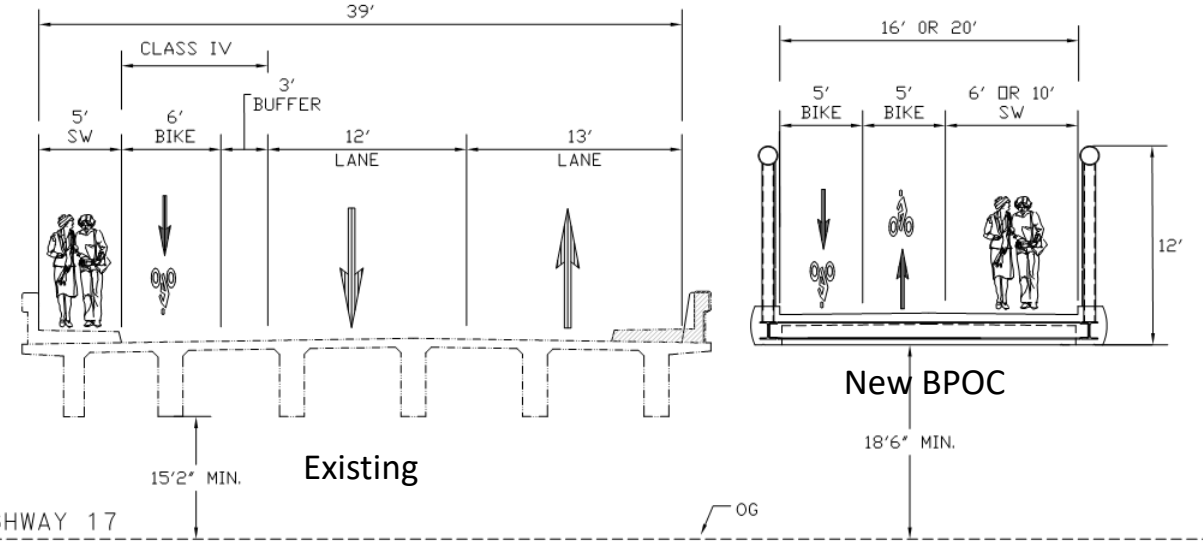
Bicycle and pedestrian counts
User demographic
User experience
Circulation patterns and connections to key destinations
Connectivity to existing facilities
Spatial separation from the existing bridge

CROSS SECTION ALTERNATIVES

Enhanced Cross-Section (16’ – 20’)

- Two-way cycle track with sidewalk.
- Provides redundant option for WB bicyclists.
- Potential shoulder separations for enhanced bicycle experience or wider sidewalk for enhanced pedestrian experience.





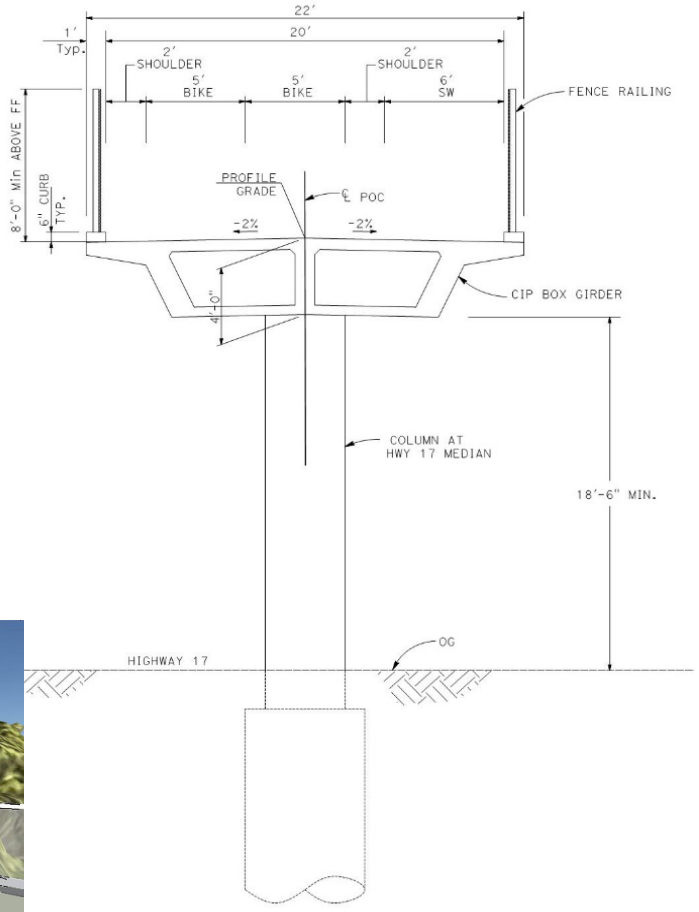
Exact width and striping to be determined in Final Design phase

BRIDGE STRUCTURE TYPES AND ARCHITECTURE

Concrete Bridge

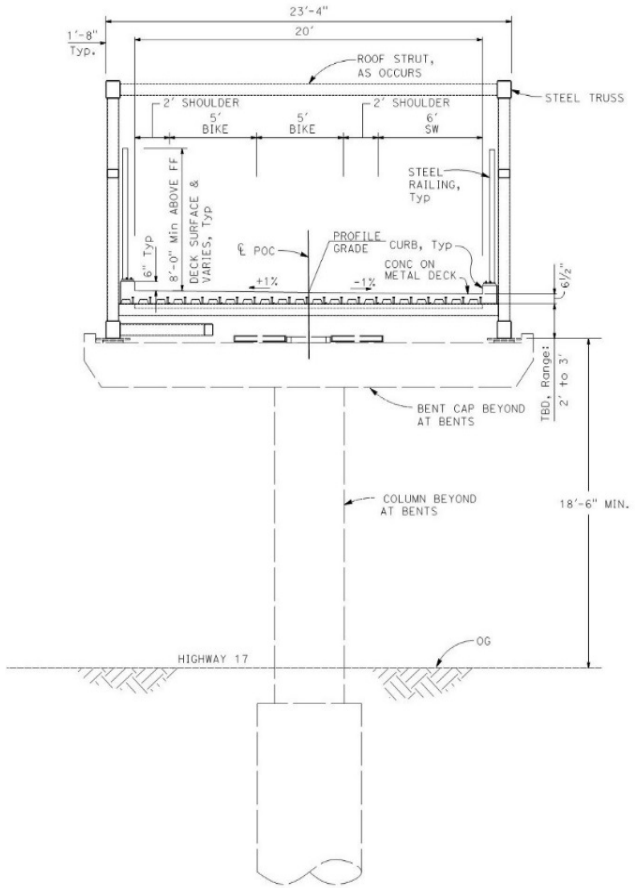
Highway 101 BPOC (Ralston Avenue Overcrossing)

Highway 17 POC (north of Highway 85)



BRIDGE STRUCTURE TYPES AND ARCHITECTURE

Steel Truss Bridge

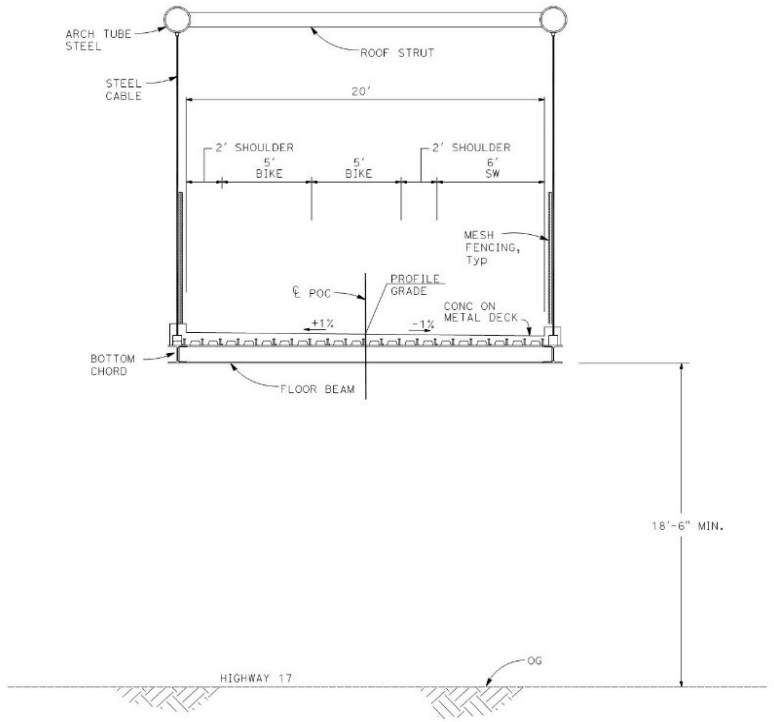


Mountain View Evelyn Avenue Bridge

Mountain View Stevens Creek Bridge

BRIDGE STRUCTURE TYPES AND ARCHITECTURE

Steel Arch Bridge



I-80 POC (Berkeley, CA)

FUNDING PURSUITS

- Preliminary Engineering and Final Design Phase
  - Awarded $2.75 million from VTA Measure B Program
  - $1.1 million from Town (cumulative from project start)
- Construction Phase
  - Seeking construction funding from the Active Transportation Program (ATP)
  - ATP Application deadline - September 15, 2020

Phase	Grant	Town	Total
Feasibility Study	$ 87,500	$ 147,000	$ 234,500
Final Design	$ 2,755,000	$ 946,200	$ 3,701,200
Construction	$ 21,168,000	$ 1,000,000	$ 24,932,000
Total	$ 26,774,500	$ 2,093,200	$ 28,867,700

STAFF RECOMMENDATIONS

a. Approve the Feasibility Study;

b. Proceed with the final design of a separate bridge structure between 16 and 20 feet wide located immediately south of the Blossom Hill Road Bridge

c. Proceed with analyzing three bridge type options: concrete, steel truss, and steel arch, and solicit community input in the final design phase;

d. Submit an Active Transportation Program grant application, seeking grant funds for project construction; and

e. Commit up to $1 million in future budget (FY 2023/24) as match funding for the ATP grant.