Northbound US 101 to Eastbound I-580 Direct Connector

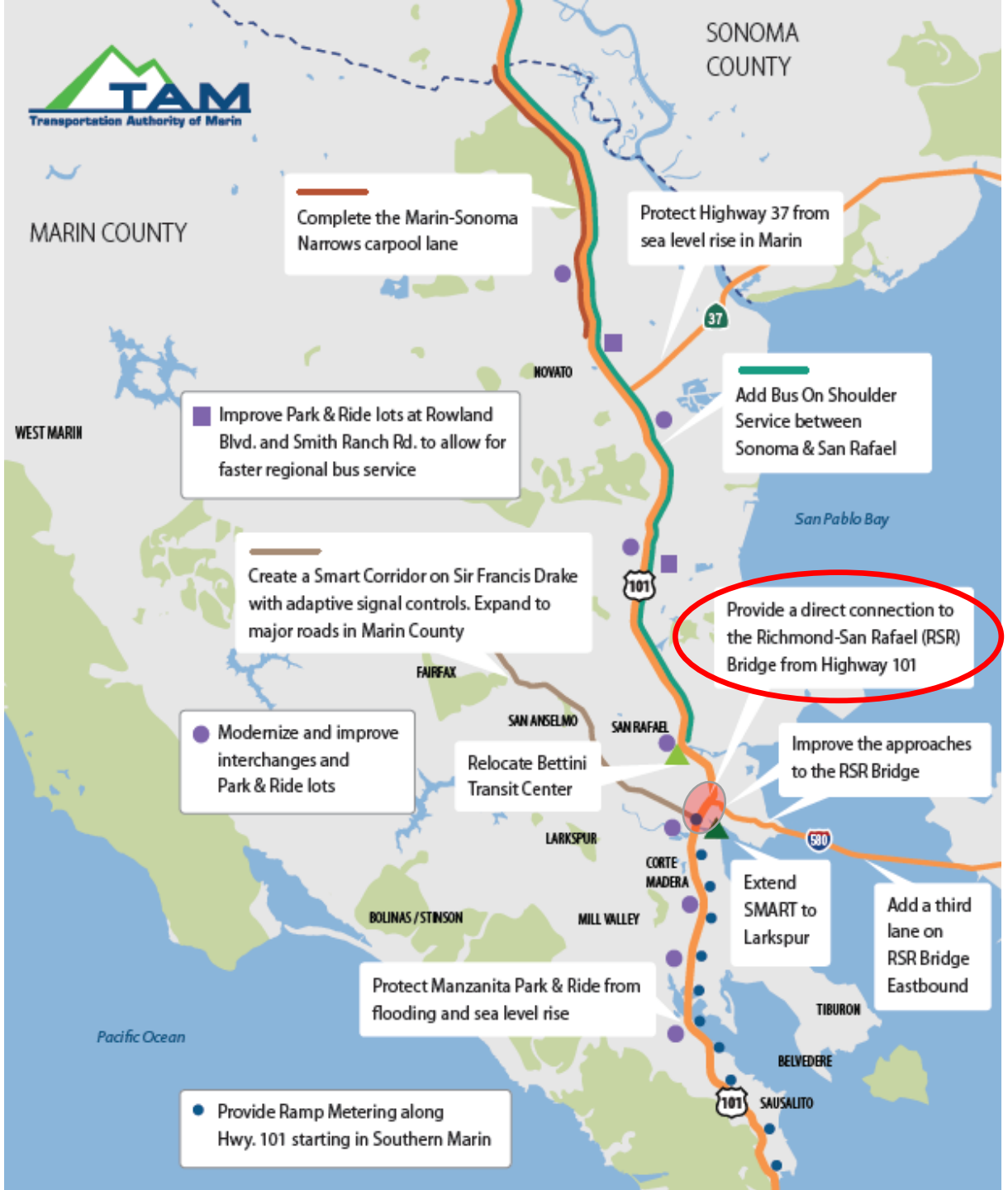
TAM Board of Commissioners
December 13, 2021

Introduction

- Introduction to the Issue:
  - There is no direct access between Northbound 101 and Eastbound 580 to the Richmond-San Rafael Bridge (one of only two toll bridges without direct access)
  - Building this connection has been identified as a priority for ~10 years and has received locally and regionally approved funding
    - TAM Vision Plan (2017)
    - Caltrans US 101 North Comprehensive Multimodal Corridor Plan (2020)
    - Plan Bay Area 2050 (2021)

Systems Approach to Improvements

- Build the northbound US 101 to eastbound I-580 Direct Connector
- Complete the Marin-Sonoma Narrows
- Improve Highway 37 and protect it from Sea Level Rise
- Modernize and improve interchanges
- Provide Ramp Metering along Hwy 101
- Add Bus on Shoulder on southbound Hwy 101
- Improve Park and Ride Lots for more convenient and faster regional bus service
- Relocate Bettini Transit Center



Purpose and Need

Regional Traffic

Existing and Future No Build Travel Times From Tamalpais Dr to RSR Bridge

Through Bellam Blvd

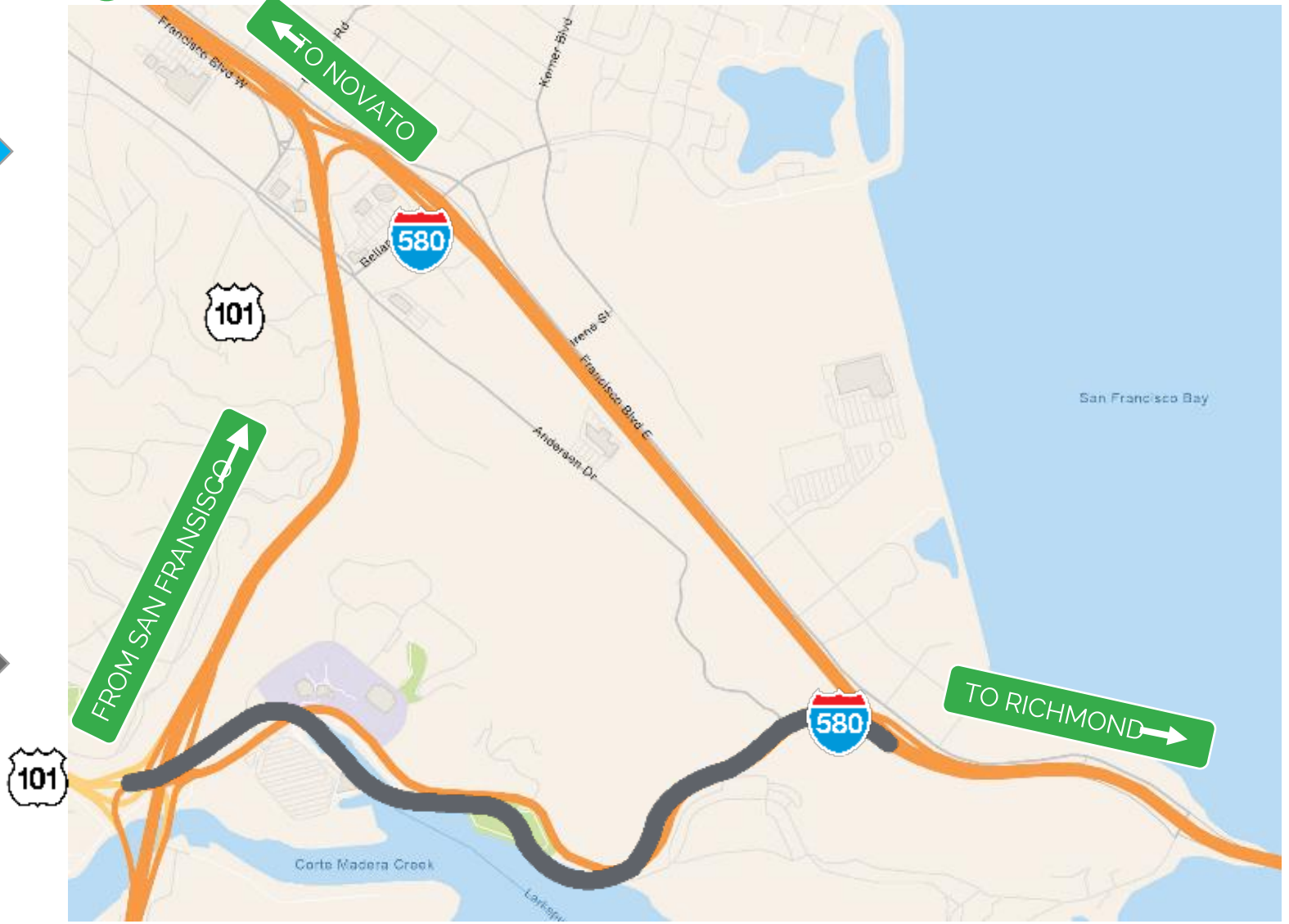
Existing: 7.6 to 16 min

2040 No-Build PM: 26.5 min

Through Sir Francis Drake

Existing: 7.0 to 14 min

2040 No-Build PM: 27.5 min



2040 Local Access Congestion – No Build

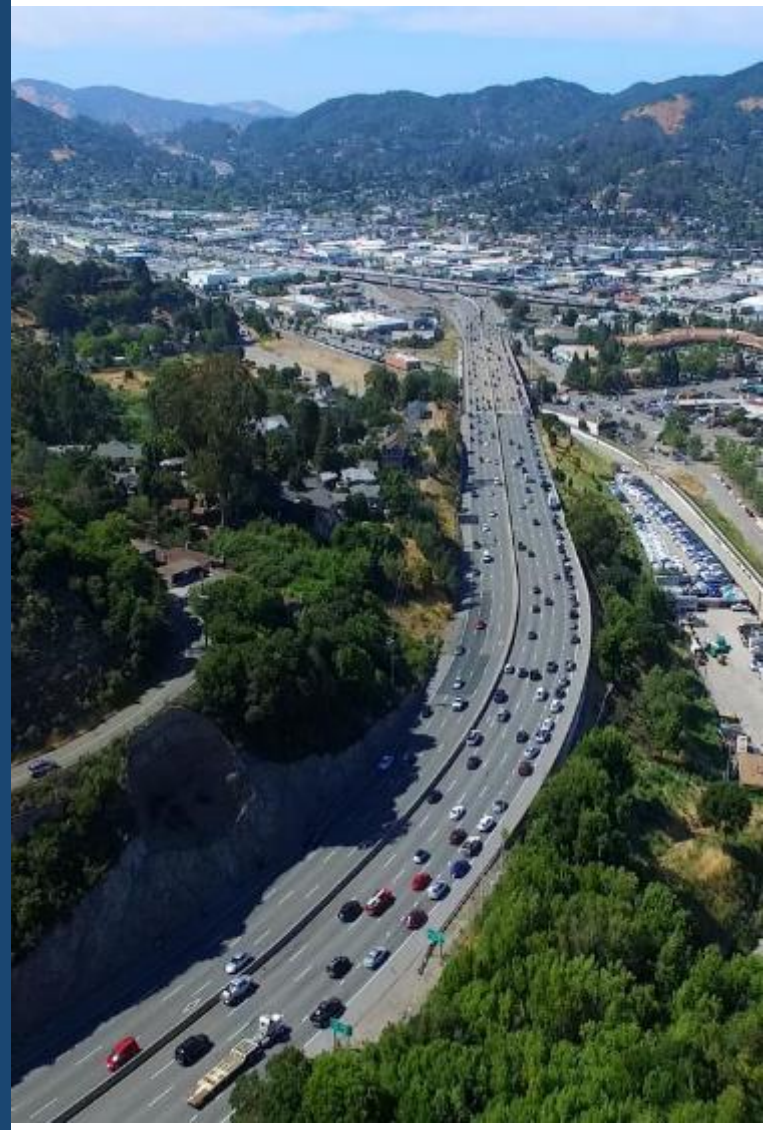
With no direct connector SFD will become more congested and traffic will utilize Bellam

Peak Hour Travel Time

Tamalpais On-Ramp to Bellam Off-Ramp

Existing Conditions – 13.3 minutes

Year 2040 No Build – 25.0 minutes



Project Goals and Objectives

- Build a new freeway-to-freeway connection between NB US 101 and EB I-580 to improve connectivity and traffic flow for local and regional traffic
- Separate regional pass-through traffic from local traffic and reduce local traffic congestion
- Enhance bicycle and pedestrian network and local access within the project area
- Promote equity for all users, particularly members of the under-represented communities within the project area
- Project should not preclude construction of future WB 580 to SB 101 Connector

Current Project Funding

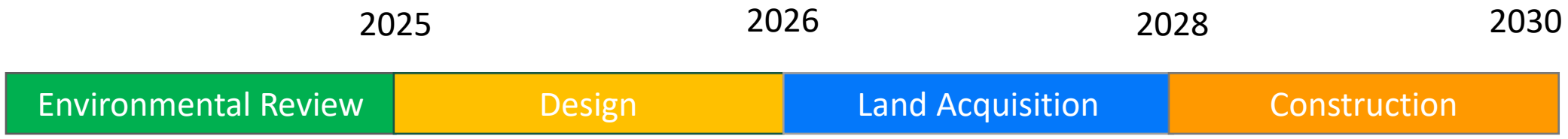
- Regional Measure 3 (bridge toll funding):
  - $135M for project planning and construction

- Local Funding (Marin County ½ cent transportation sales tax):
  - $16.5M to expedite project planning and to fund local improvements

Project Development Process

Project Timeline

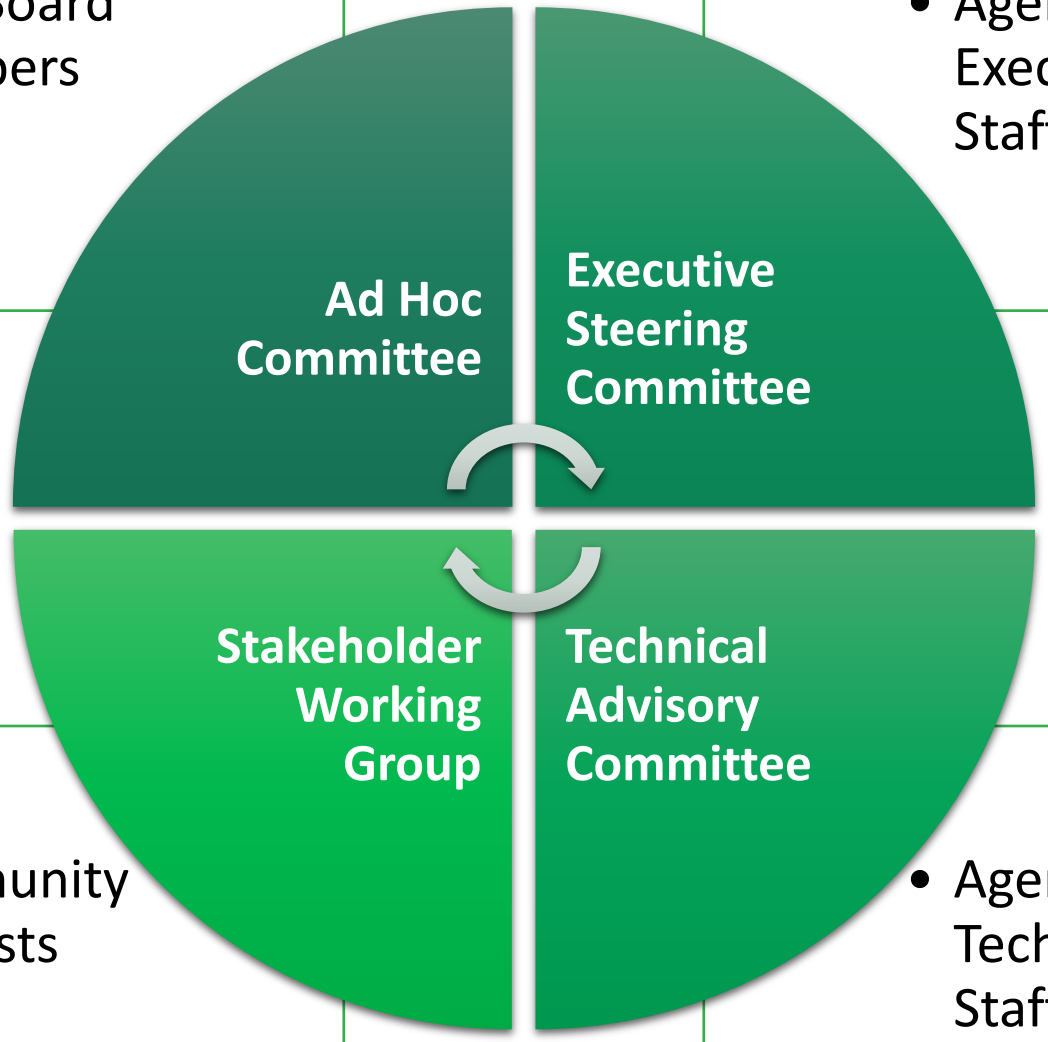
- Currently in planning phase, start of EIR expected in 2022



Project Development Committees

- TAM Board Members

- Agency Executive Staff



- Community Interests

- Agency Technical Staff

Agencies

- Caltrans
- MTC/BATA
- TAM
- Contra Costa Transportation Authority (CCTA)
- San Rafael
- Larkspur
- County of Marin

Stakeholder Working Group

Interest	Organization
Bike & Pedestrian	Marin County Bicycle Coalition
Bike & Pedestrian	San Rafael Bike/Ped Adv. Comm.
Business	Country Mart, Larkspur Landing
Business	East San Rafael Businesses
Business	Larkspur Chamber of Commerce
Business	San Rafael Chamber of Commerce
Community	San Rafael City Schools
Community	Multicultural Center of Marin
Community	College of Marin
Community	League of Women Voters
Community	Fed. of San Rafael Neighborhoods
Community	Canal Alliance
Community	Pt. San Quentin Village HOA
Community	Bret Harte Community Assoc
Commuter	East Bay to/from Larkspur
Commuter	East Bay to/from San Rafael
Environmental	Marin Conservation League
Environmental	Sustainable Marin
Environmental	Sustainable San Rafael

Coordination & Outreach

Project Committees

- Technical Advisory Committee, Executive Steering Committee, Ad Hoc Committee, Stakeholder Work Group

Cities and Agencies

- Caltrans, San Rafael City Council, City of San Rafael staff, San Rafael Bicycle & Pedestrian Advisory Committee, TAM Citizens' Oversight Committee, City of Larkspur, GGBHTD, and Marin Transit

Community Organizations

- Canal Alliance, League of Women Voters, Multicultural Center of Marin, Federation of San Rafael Neighborhoods, East San Rafael Working Group, Resilient Shores, Marin Conservation League, Pt. San Quentin Association, and Spinnaker Point & Baypoint neighbors

Property Owners

- Central Marin Sanitation Agency and Marin Sanitary Services

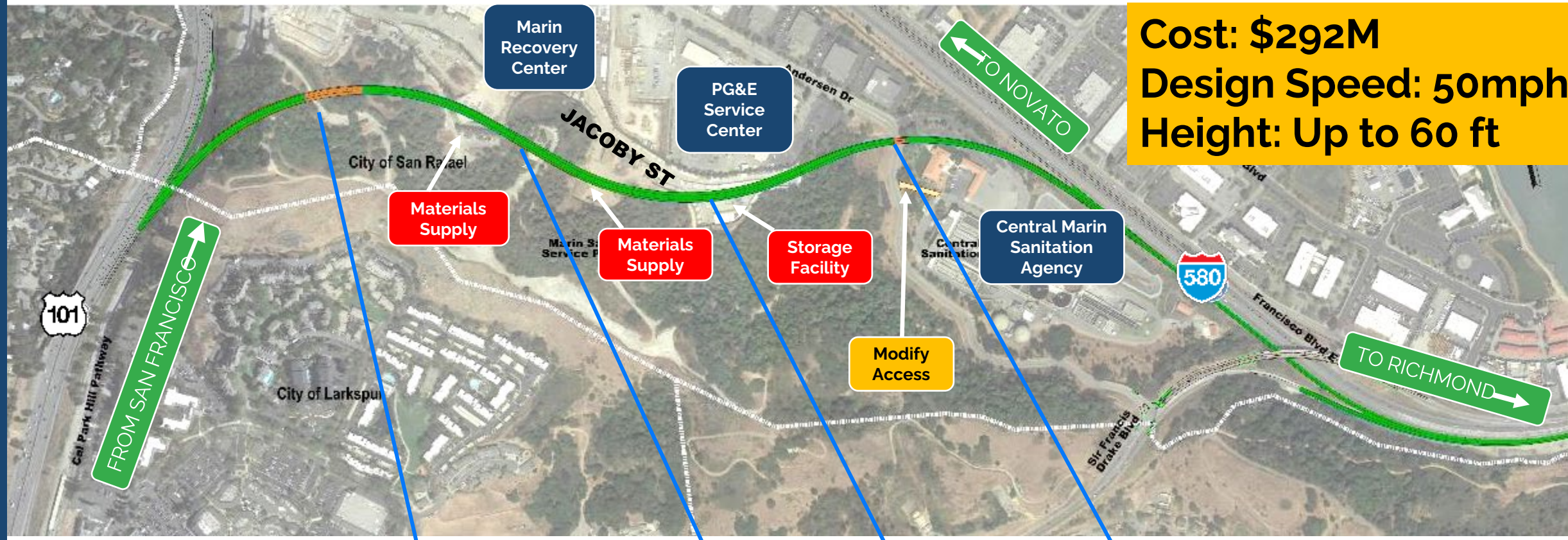
Project Alternatives

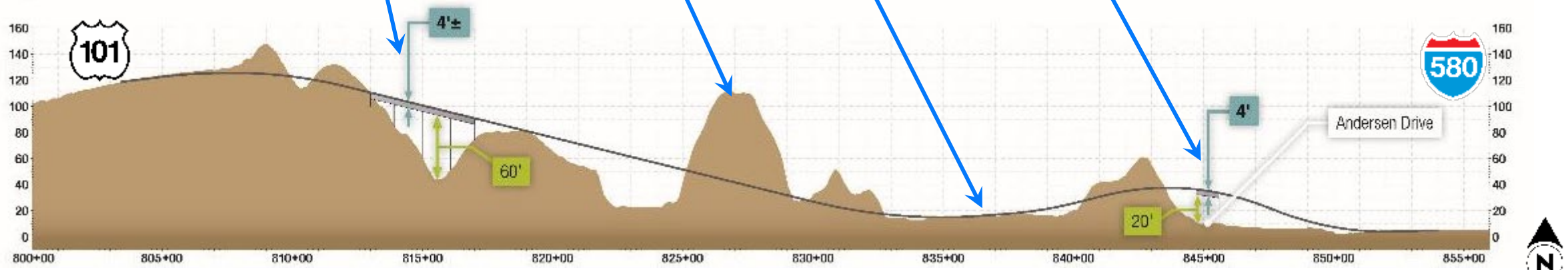
Alternatives Under Consideration

NB US 101 to EB I-580 Direct Connector Project

Alternative 1A – Hillside A

Cost: $292M
Design Speed: 50mph
Height: Up to 60 ft





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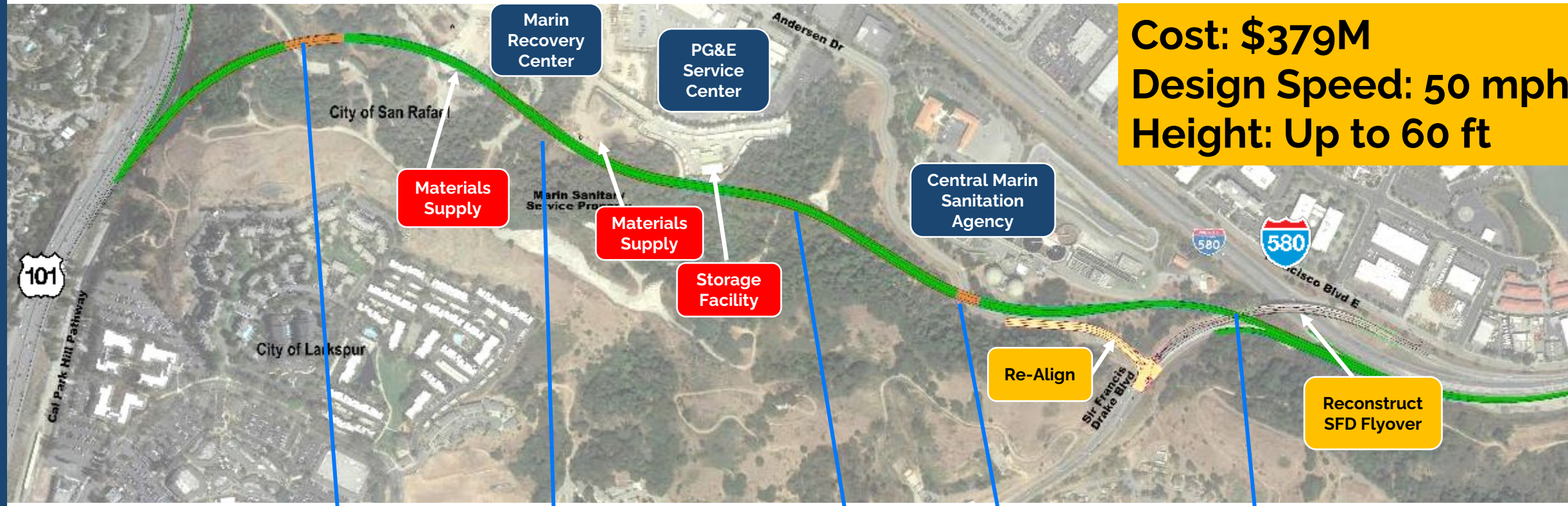
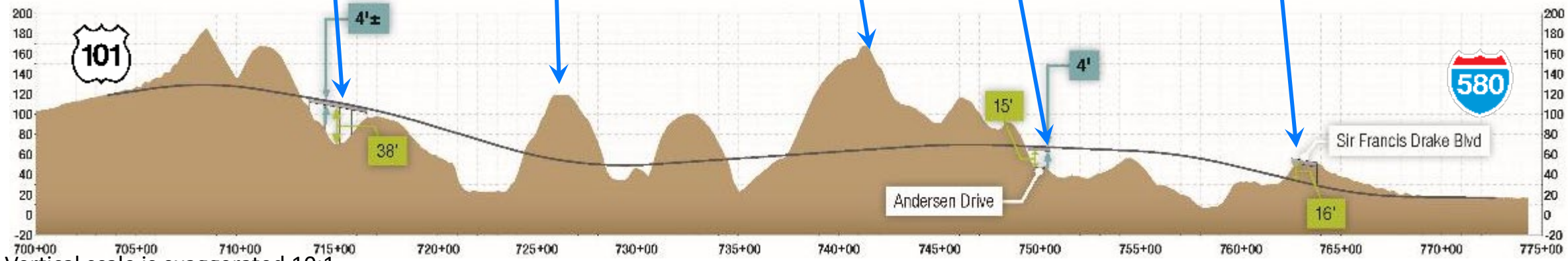
Alternative 1A: Bird's Eye View

NB US 101 to EB I-580 Direct Connector Project

Alternative 1B



Cost: $379M
Design Speed: 50 mph
Height: Up to 60 ft



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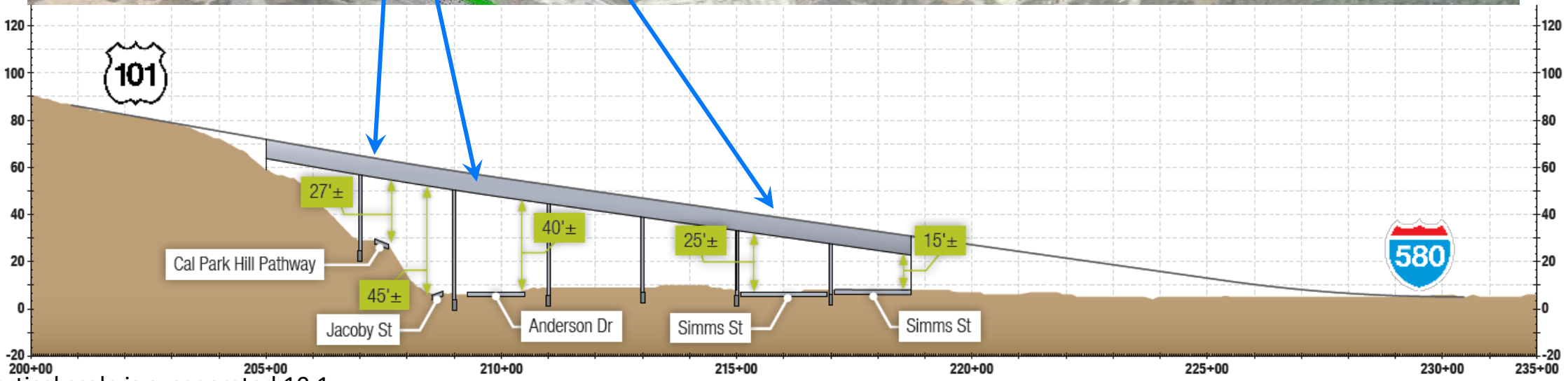
Alternative 1B Bird's Eye View

Alternative 1A/1B View at Exit from NB US 101

Alternative 2 – Simms St

Cost: $174M
Design Speed: 45 mph
Height: 25 to 45 Ft



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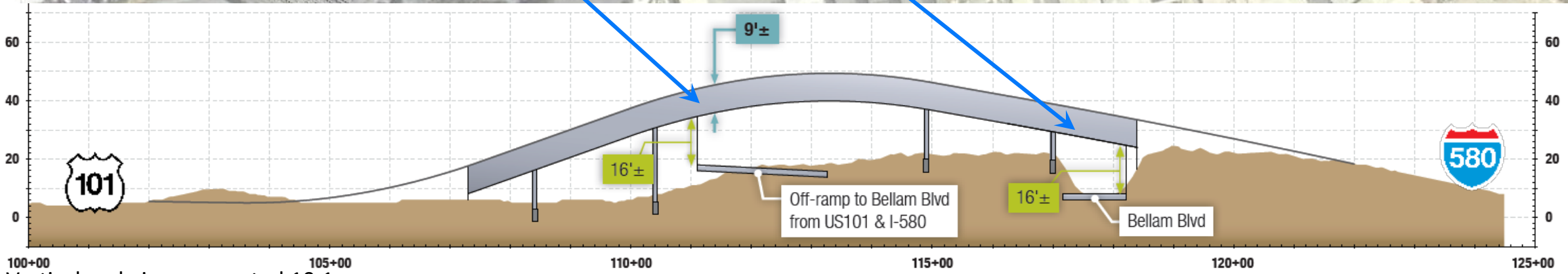
Alternative 2 View from Hill Side West/South of US 101

Alternative 2 View From Cal Park Path

Alternative 3A – "Low Speed A"

Cost: $138M
Design Speed: 35 mph
Height: Up to 25 ft



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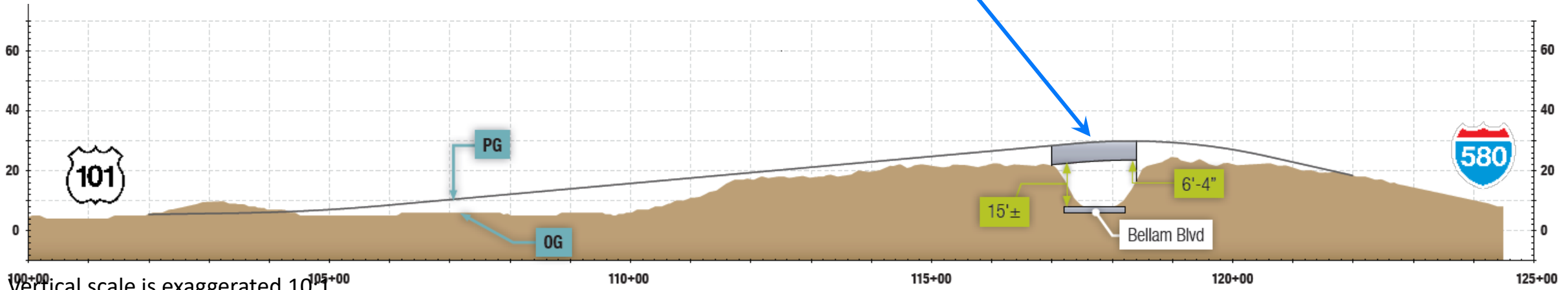
NB US 101 to EB I-580 Direct Connector Project

Alternative 3A Rendering

NB US 101 to EB I-580 Direct Connector Project

Alternative 3B – "Low Speed B"

Cost: $114M
Design Speed: 35 mph
Height: Up to 22 ft



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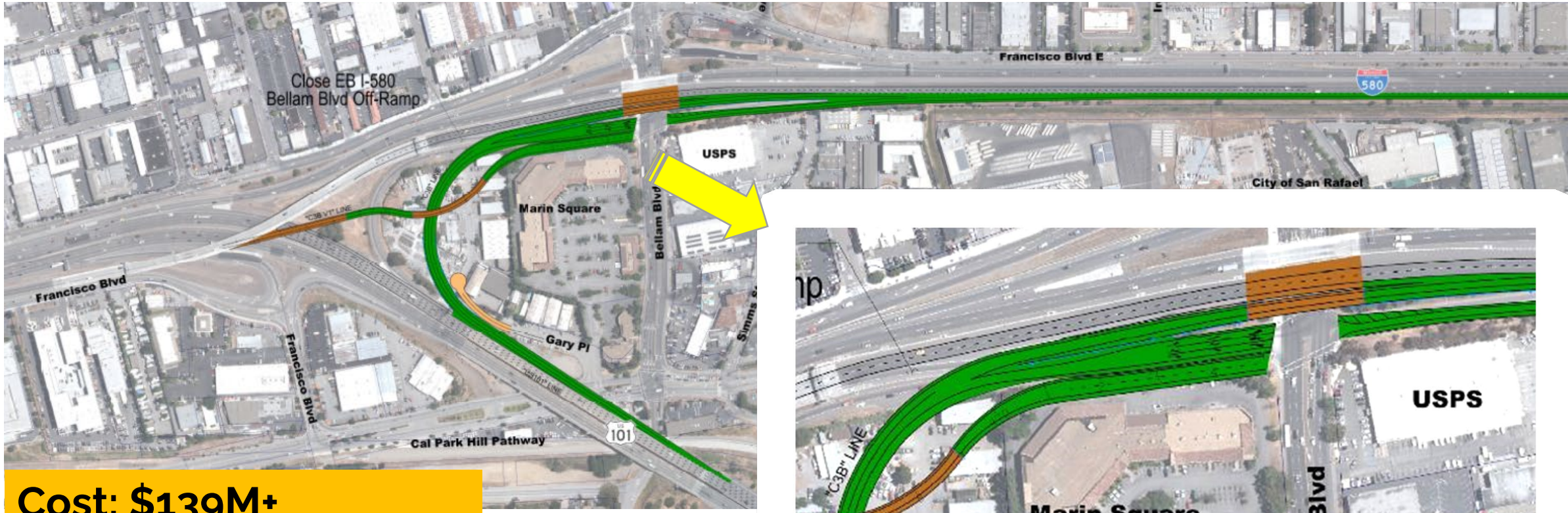
NB US 101 to EB I-580 Direct Connector Project

Alternative 3B Rendering

Modified Alternative 3B with New Bellam Exit



Cost: $139M+
Design Speed: 35 mph
Height: Up to 22 ft

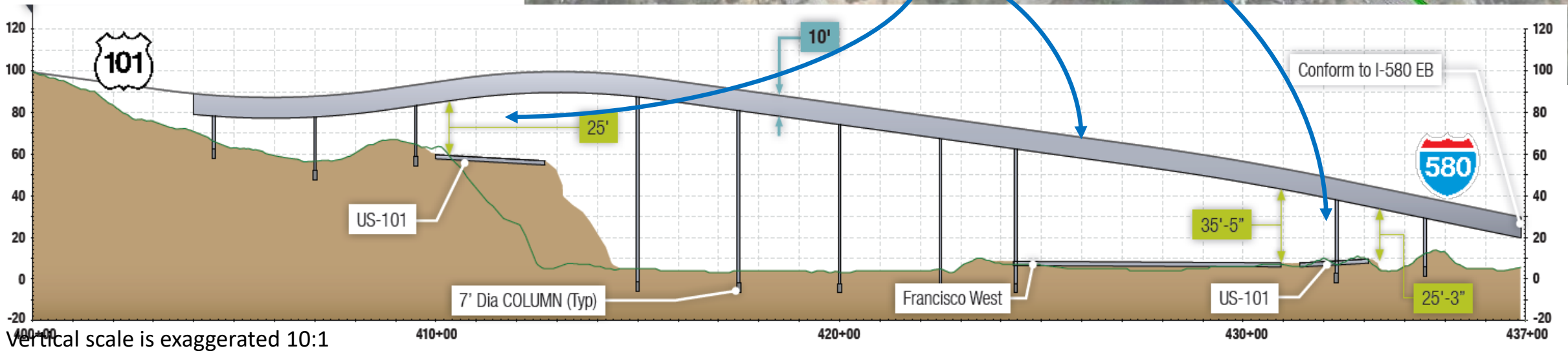
Modified Alternative 3B - Visual Sim

Alternative 4 – "Swing Out"

Close 580 off-ramp to Bellam

Maintain NB US 101 off-ramp to Bellam

Cost: $225M
Design Speed: 35 mph
Height: 90 to 100 ft



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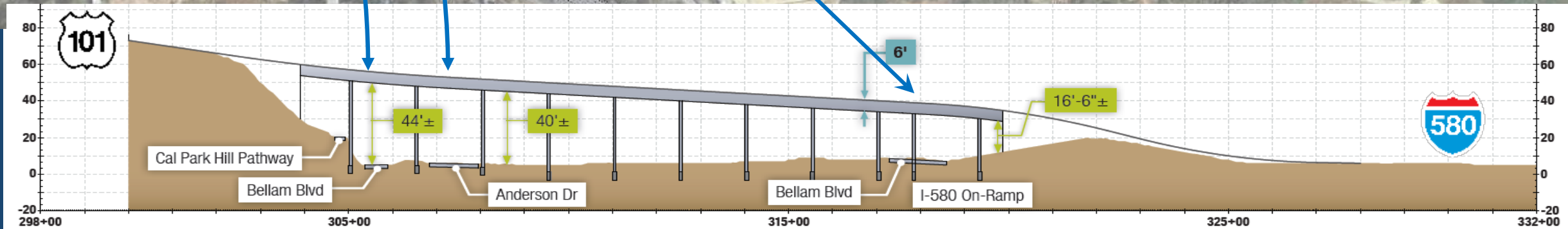
Alternative 5 – "Medium Speed"

Cost: $189M
Design Speed: 40 mph
Height: up to 45 ft



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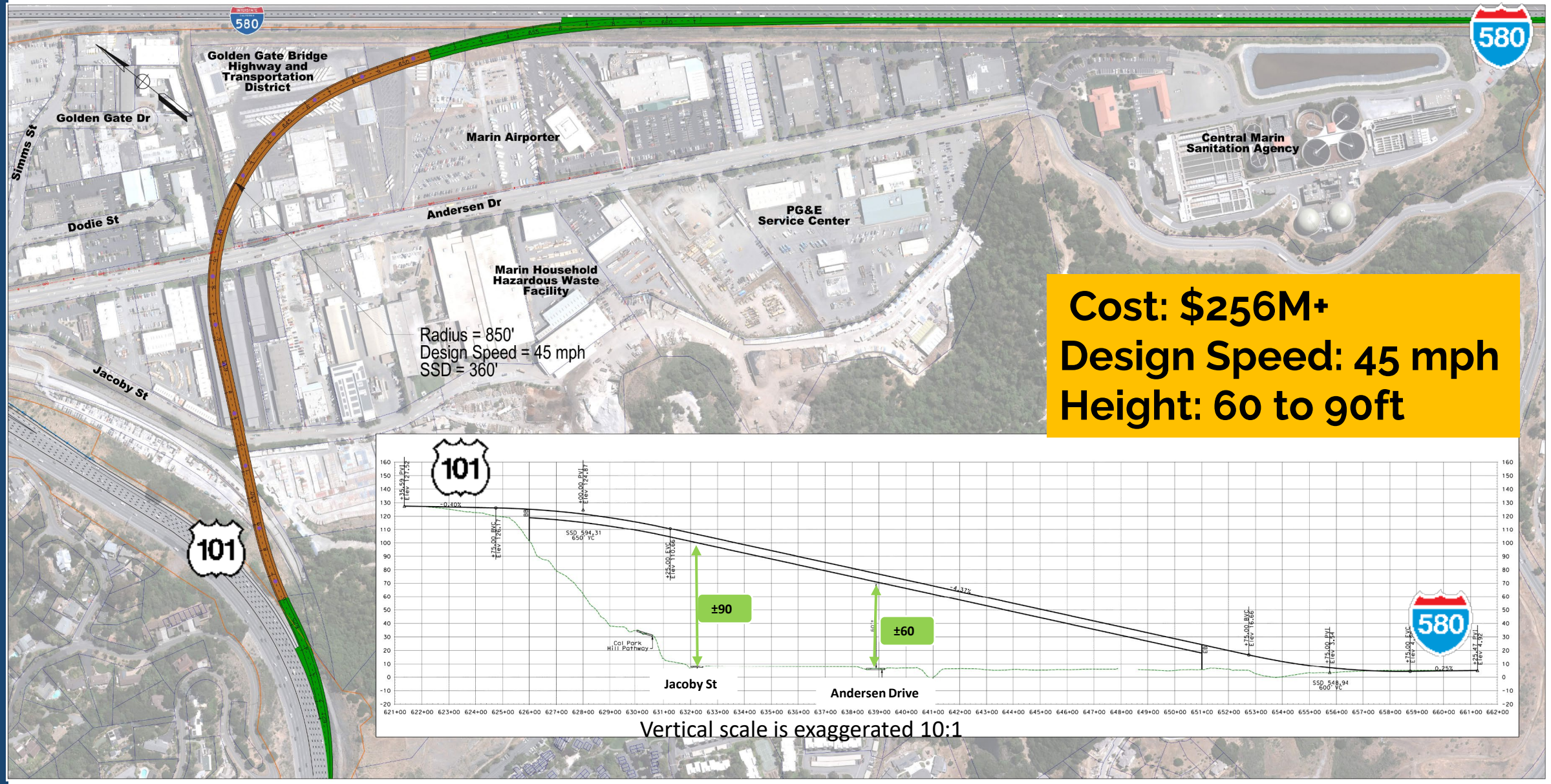
NB US 101 to EB I-580 Direct Connector Project

Alternative 5 – "Medium Speed"

Alternative 6 - Andersen Dr Mid-Way

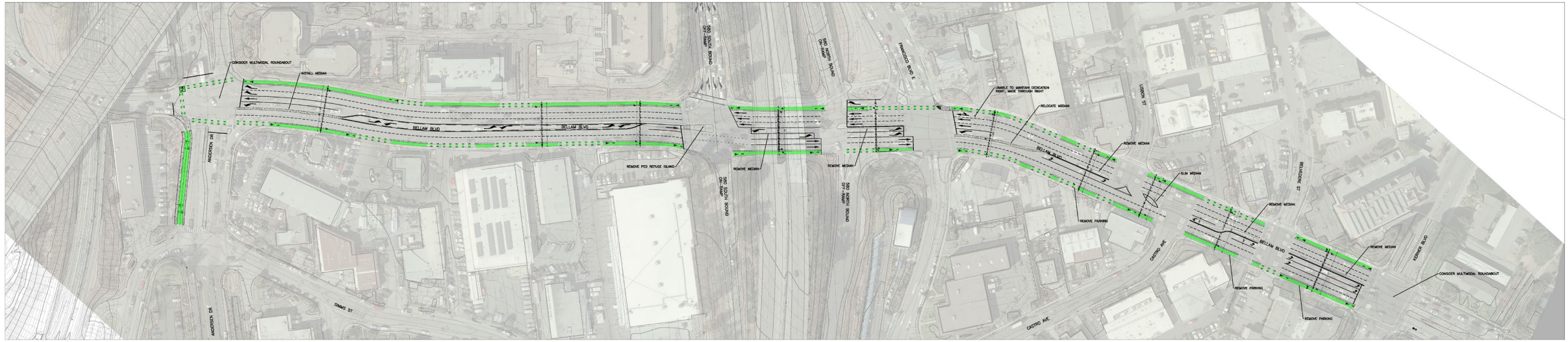


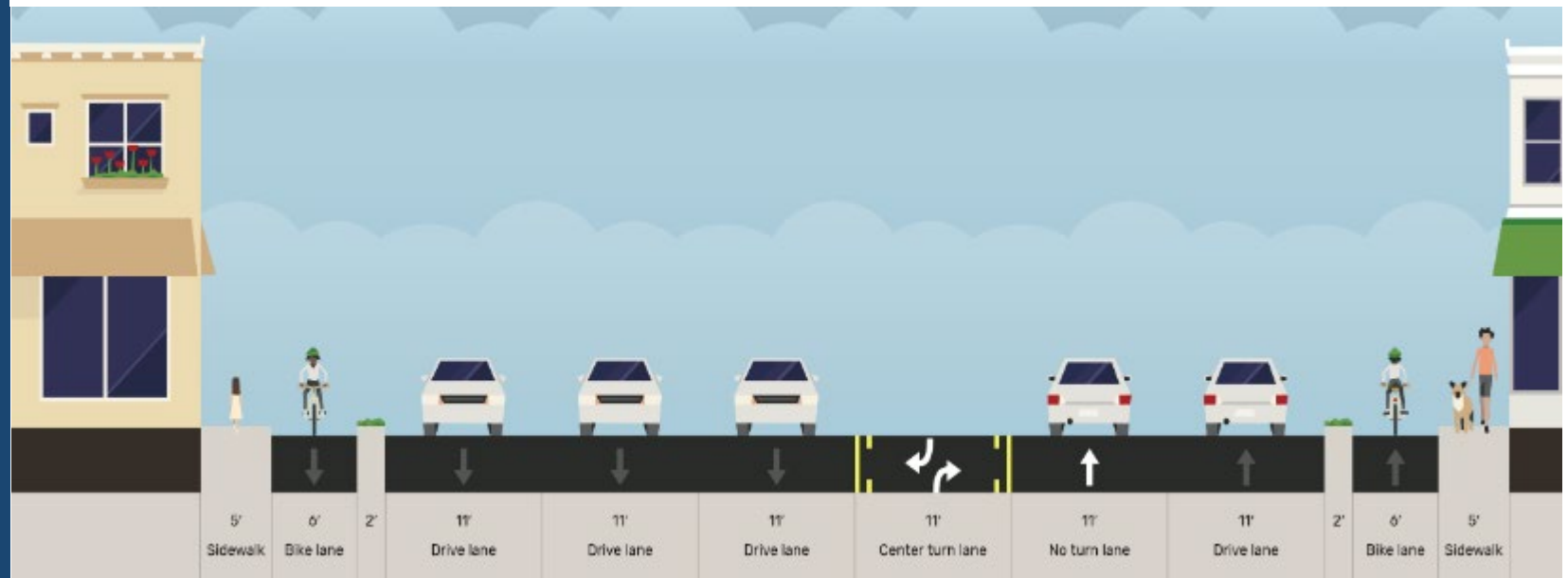
Andersen Dr Mid-Way – Visual Simulation

Bellam Improvements – Replace Existing Structure

NB US 101 to EB I-580 Direct Connector Project

Potential Bellam Pedestrian & Bicycle Improvements





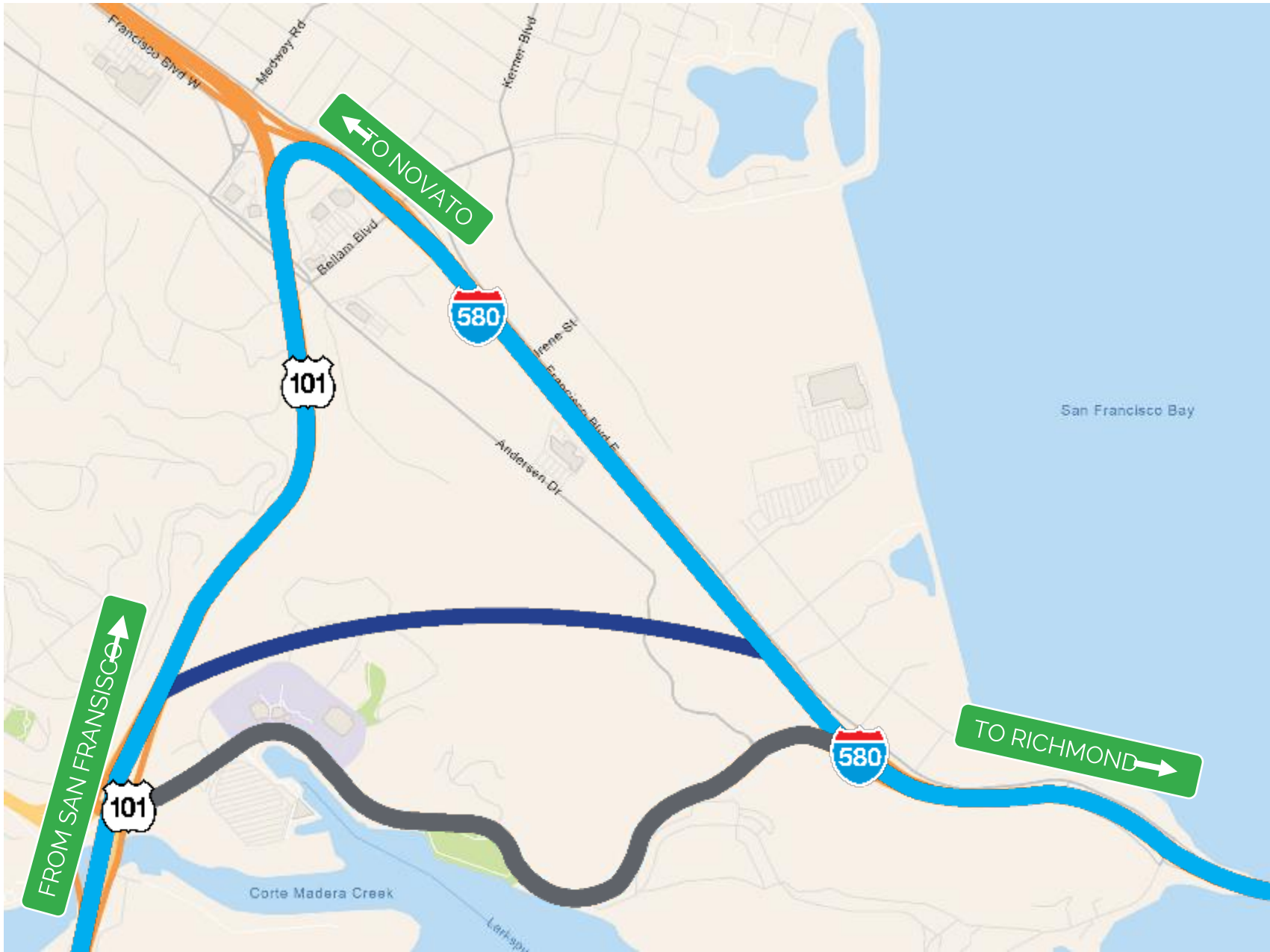
Alternatives Summary Table

Alternatives	Naming	Design Speed (mph)	Preliminary Cost	EB 580 Off-ramp to Bellam Closure?
1A	Hillside A	50	$292M	
1B	Hillside B	50	$379M	
2	Simms St	45	$174M	
3A	Low Speed A	35	$138M	
3B	Low Speed B	35	$114M	Yes
Modified 3B	Low Speed B Modified	35	$139 M +	
4	Swing Out	35	$225M	Yes
5	Medium Speed	40	$189M	
6	Andersen Mid-Way	45	$256M +	

2040 PM Travel Time – Alternative 1A

No Build
SFD: 14.9 min
Bellam: 15.7 min

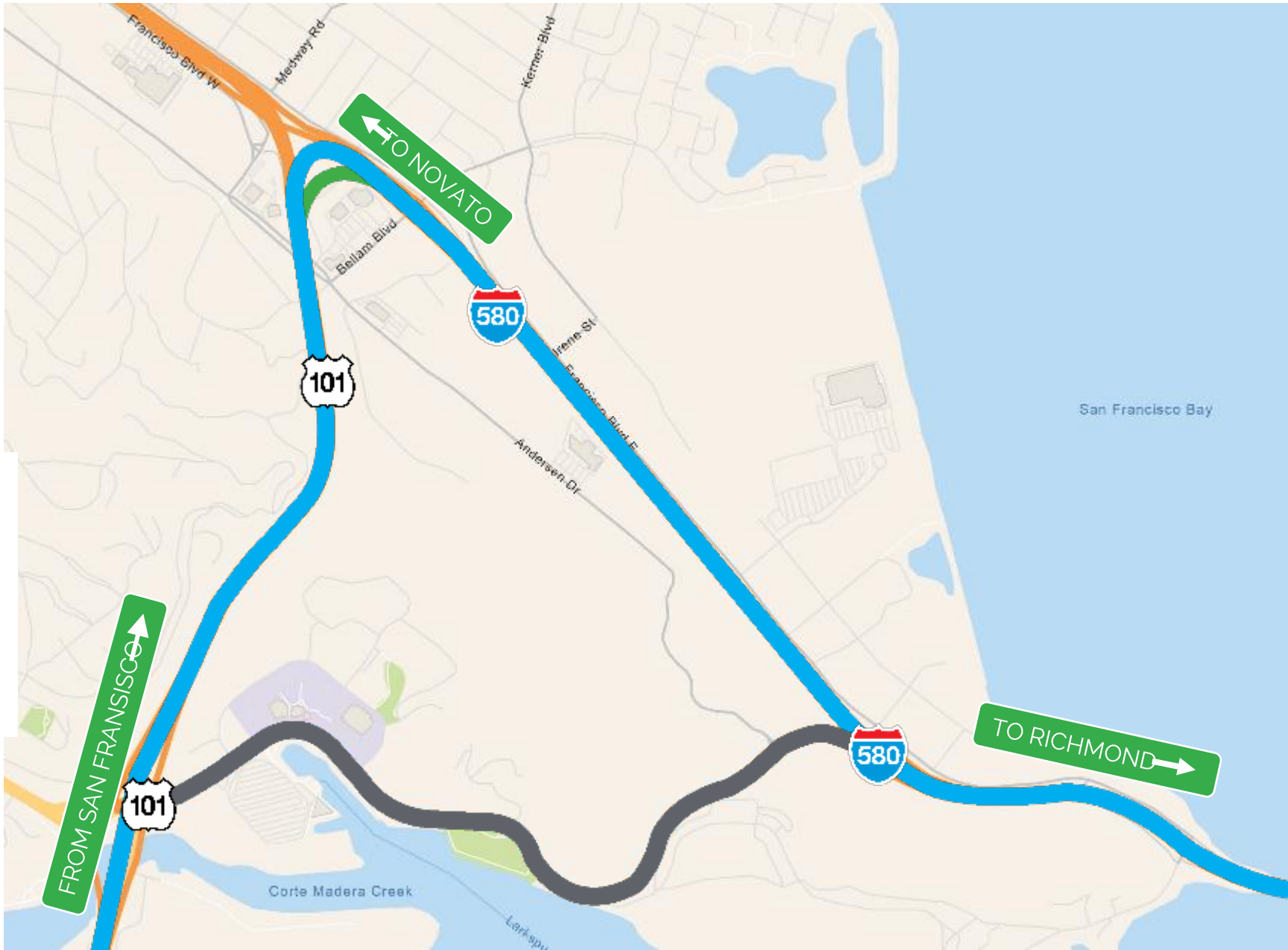
Direct Connector:
5.3 min
SFD: 7.2 min
Bellam: 12.3 min



2040 PM Travel Time – Alternative 3A

No Build
SFD: 14.9 min
Bellam: 15.7 min

Direct Connector:
7.6 min
SFD: 7.9 min
Bellam: 10.6 min



Concepts for WB I-580 to SB US 101

Prior Concepts Considered
&
Not Carried Forward

Prior Concepts

- Widen Sir Francis Drake Blvd in eastbound direction only

- Widen Sir Francis Drake Blvd in Both Directions

- Top of the Ridge

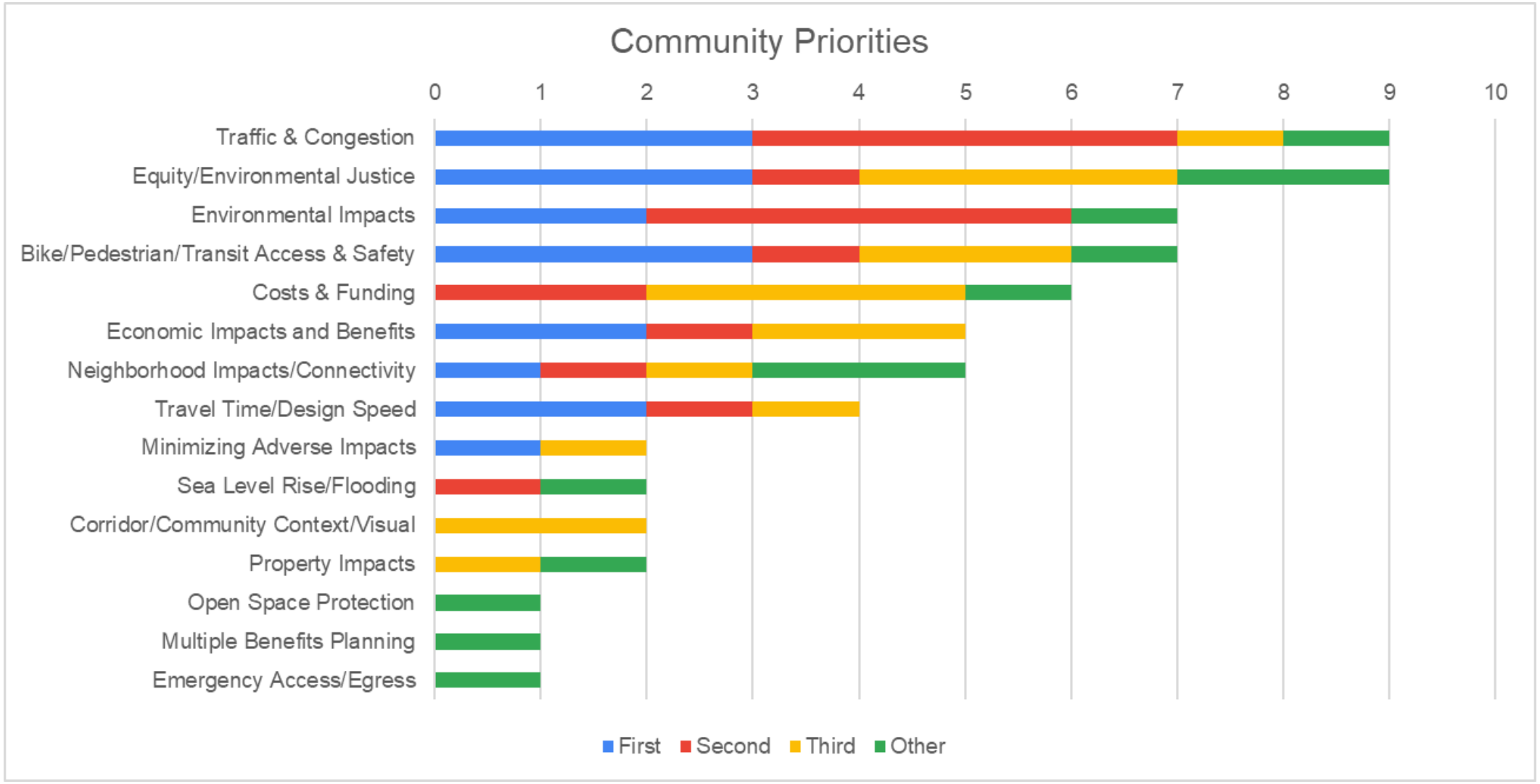
- Elevated Sir Francis Drake Blvd

Summary of Issues with Prior Concepts

- Geometric Feasibility – Weaving distance, physical constraints
- Environmental Impacts - Proximity to Bay, visual Impacts, large amount of earthwork
- Impacts to Existing Infrastructure –Access to Ferry Terminal and pedestrian bridges
- Sir Francis Drake Alternatives – Does not separate local and regional traffic, signals continue to be bottleneck
- These same alternatives were dropped during the Greenbrae Project due to similar issues

Stakeholder Working Group and San Rafael Input

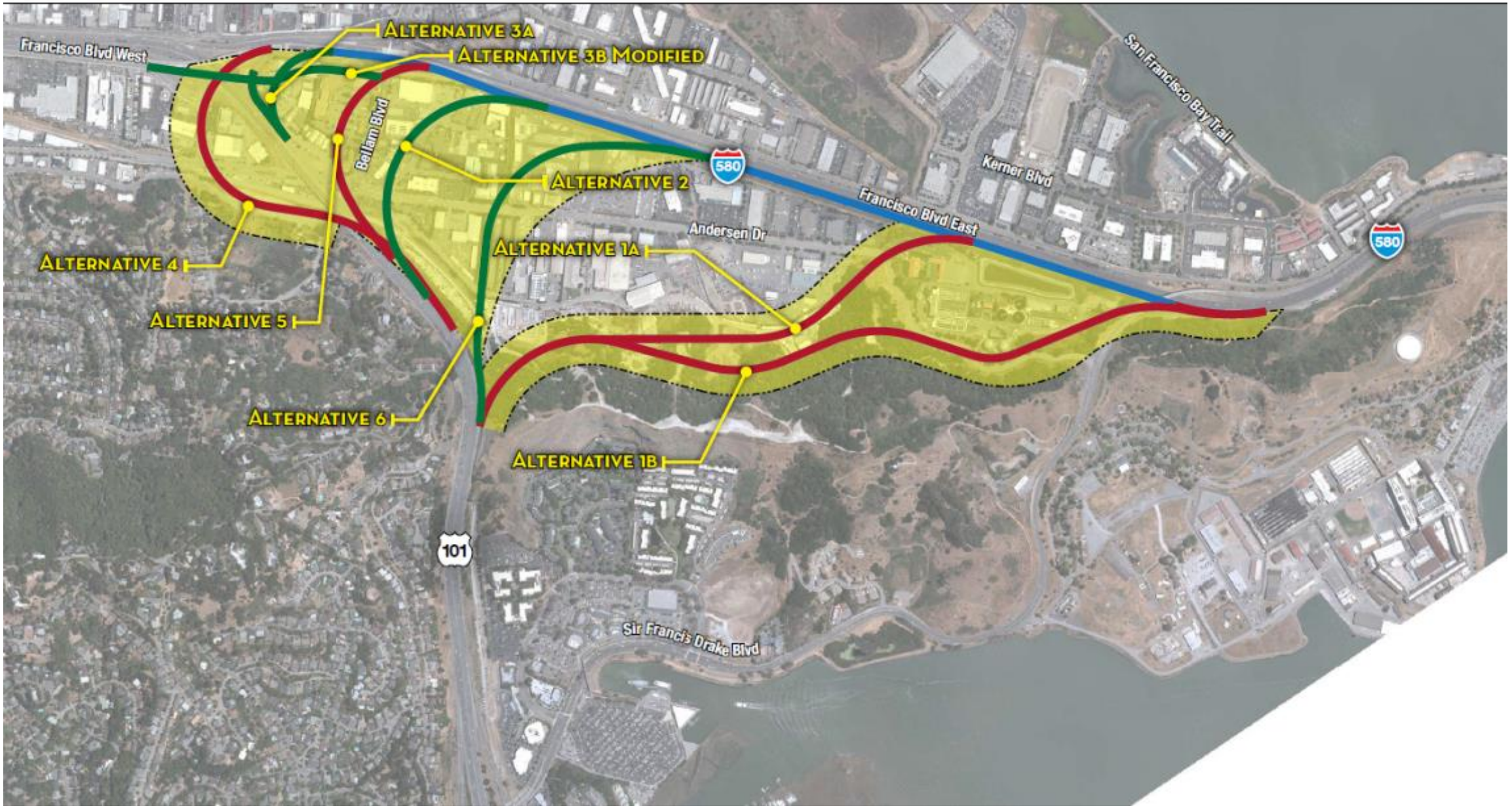
Stakeholder Working Group – Priorities



Preliminary Feedback

- Lack of Support for Alts 3B, 4, 5
  - Do not close Bellam Blvd off-ramp
  - Visual impacts
  - Business impacts
- Very Limited Support for Alts 1A/1B
  - Fastest speed
  - Furthest from neighborhoods
  - Cost prohibitive
  - Environmental impacts
  - Impacts to designated open space
  - Impacts to Marin Sanitary Service facility
  - Future compatible WB-SB connector will increase impacts
- Limited Support for Alts 2, 6
  - Structure height
  - Visual impacts
  - Commercial/Business impacts
- Strong Support for Alts 3A, 3B Modified
  - Smaller footprint
  - Impacts concentrated in localized area
  - Lower costs that may be funded

Alternatives Under Consideration



Local Needs

- Regional and Local Traffic backs up onto freeways (NB 101 and EB I-580) from Sir Francis Drake and Bellam off-ramps
- Constrained movements and close signaling at Bellam and Sir Francis Drake under-crossings exacerbate local traffic congestion
- Additional improvements are needed on Bellam to improve pedestrian and bicycle safety and connectivity

Key Comments from San Rafael City Council

- Council has adopted Guiding Principles for consideration during project development
- General agreement to eliminate Alternatives 1A, 1B, 3B, 4 & 5 from further consideration
- Desire to find solutions that reduce congestion on Bellam and accelerate improvements there
- Some members felt that the overall project duration was too long and there is a general desire to expedite the project
- Consider additional improvements to Sir Francis Drake Boulevard

Equity Considerations

Public Engagement Approach

Connect

Meaningfully connect with and listen to community

Collaborate

Equip SWG and community to make meaningful contributions

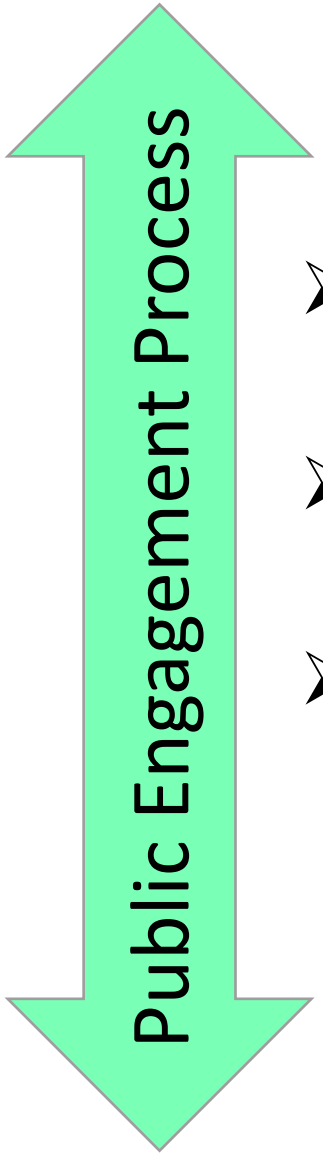
Sustain

Plan for equitable outcomes and build lasting relationships and partnerships/Tools to be effective

Equity Considerations – Evaluation of Alternatives

Category	Element
Land Use/Job Impact	Residential/Commercial/Industrial
	Job Creation/Loss
Access and Parking	Access to Canal/Travel Time
	Parking
	Transit Access
Safety	Emergency Response
	Pedestrian and Bike Safety
	Vehicular Safety
Environment	Air Quality
	Visual
Beautification/Placemaking	Landscape/Beautification
	Public Art/Placemaking

Equity Considerations – Community Engagement



- Partner with community-based organizations and others to develop outreach efforts with the community
- Implement capacity building with community leaders for transportation issues
- Leverage existing community communication platforms to engage the community in project planning, including Bellam Boulevard improvements

Capacity Building Modules (preliminary)

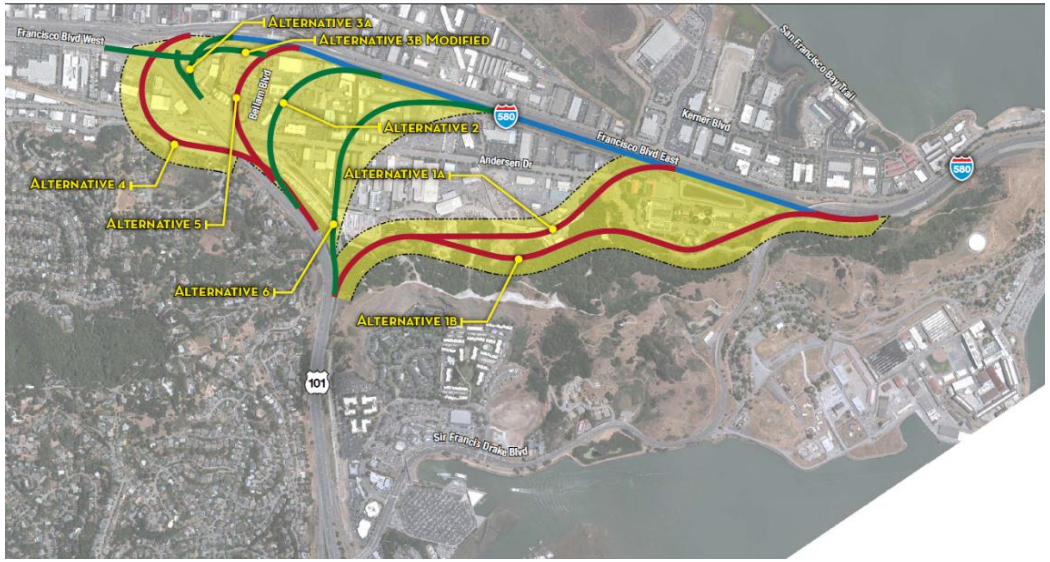
1. Introduction to Transportation Planning: Overview, Situating, Community-Building
2. Transportation Planning: History, Opportunities & Challenges
3. Transportation Planning Practice: Agencies, Policies, Processes & Decision-Making
4. Community Oriented Transportation: Best Practices from Comparable Communities
5. Infrastructure for Working People: Planning for Bikes, Walkability & Safety

Upcoming Project Activities

Over the next year:

- Narrow the 9 Connector Alternatives to 2-4 for detailed review and analysis
- Finalize Project Initiation Document
- Implement engagement and capacity-building
- Initiate neighborhood and community engagement on design for traffic circulation improvements and bike/pedestrian options at the EB Bellam off-ramp and in the Bellam corridor.
- Initiate environmental scoping and public input on Connector alternatives and Bellam improvements.

Summary/Next Steps



- Consider that input provided from Stakeholder Working Group and the San Rafael City Council recommended dropping from consideration Alternatives 1A, 1B, 3B, 4 and 5
- Additional input, if necessary, will be provided by the 101-580 Ad Hoc Committee at their next meeting
- Consider elimination of project alternatives

Questions?

Transportation Authority of Marin