



**DATE:** December 4, 2023

**TO:** Transportation Authority of Marin Citizens' Oversight Committee

**FROM:** Anne Richman, Executive Director  
Bill Whitney, Principal Project Delivery Manager

**SUBJECT:** Highway 101 Interchange and Approaching Roadway Study Update (Discussion),  
Agenda Item No. 6

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## **RECOMMENDATION**

For discussion only.

## **BACKGROUND**

The Highway 101 Interchange and Approaching Roadway Study (Study) is included in the Measure AA  $\frac{1}{2}$ -Cent Transportation Sales Tax Expenditure Plan with 3% (estimated \$33 million) of the revenue allocated to the Study.

The Expenditure Plan states the following:

“Accessing Highway 101 in Marin is a major source of congestion on local roads, which reduces the connectivity of communities across Marin. These funds would be used to attract regional, state, and federal funds for a program of improvements to interchanges and local roads. These improvements would improve the operation and safety of these interchanges for all users, allowing smoother travel to and from Highway 101. These funds provide seed money to perform the planning, the public outreach, and to develop the scope of improvements needed at these interchanges.”

The funds are being used to prepare studies of Highway 101 Interchanges at twelve locations as shown below:

- Alexander Avenue / Golden Gate Bridge Vista Point
- Donahue Street / North Bridge Road/ Bridgeway
- SR 131 Tiburon Blvd / East Blithedale Avenue
- Tamalpais Drive / Paradise Drive
- Sir Francis Drake Blvd / Fifer Avenue / Industrial Way
- 2nd Street / Heatherton Avenue
- North San Pedro Road / Merrydale Road
- Manuel T. Freitas Parkway/ Civic Center Drive
- Lucas Valley Road/Smith Ranch Road
- Alameda Del Prado/ Nave Drive
- Ignacio Blvd / Bel Marin Keys / Nave Drive
- San Marin Drive/Atherton Avenue

## **DISCUSSION**

### Existing Conditions, Constraints, and Opportunities

As part of the Study development process, TAM staff and the consulting team collected information and documented the existing conditions and constraints, i.e., traffic volumes (including forecasted volumes), transit service and ridership, bicycle and pedestrian volumes and existing multi-modal infrastructure, non-standard features of the roadways, crash data for safety analysis, environmental conditions, potential impacts from sea level rise, existing right-of-way constraints, and surrounding land use patterns. This exercise provided a “base map” that was used to develop improvement concepts.

Preliminary concepts were developed to improve connectivity for all users. The approach taken was to propose improvements that could be assessed and possibly be implemented in the near-term by relatively simple measures utilizing existing infrastructure. The team also proposed a suite of long-term improvements that require more complex and in-depth analyses, may require additional right-of-way, may have potential environmental impacts, and are more costly.

A report for each of the twelve interchanges has been prepared and is posted on our project webpage (<https://tam101study.com>) and a link is provided on TAM’s website. Each report includes a thorough discussion of the improvement elements and provides a large volume of supporting documentation in the appendix of the report.

### Prioritization and Implementation Plan

The Board approved an evaluation process that was used to assess the proposed improvements for the twelve interchanges and approaching roadways that are part of the Study. The process measured the effectiveness of the improvements in accordance with the adopted goals and objectives, as follows:

1. Enhance Health and Safety
2. Relieve Local Traffic Congestion
3. Improve Multimodal Access to/from and across Highway 101
4. Promote Economic Vitality
5. Implementability

It should be noted that factors such as reducing greenhouse gases (GHG) and providing equity for all users are embedded in the goals and objectives.

The end goal of this phase of the Study was to select interchanges to advance into the next phase of project development. A more in-depth analysis will be required, following the California Department of Transportation’s (Caltrans’) development procedure referred to as the project initiation document (PID) phase.

Based on findings of the evaluation process, staff recommended the following three interchanges be prioritized for further evaluation and development, which was approved by the Board:

- SR 131 Tiburon Blvd / East Blithedale Avenue
- Manuel T Freitas Parkway / Civic Center Drive
- Alameda Del Prado/ Nave Drive

### Technical Advisory Committee (TAC)

A TAC was formed consisting of staff from TAM, Caltrans, Marin Transit, Golden Gate Transit, the County of Marin, and the Cities of San Rafael, Novato, Mill Valley, Belvedere, and the Town of Tiburon. TAM hosted a series of meetings to review previous efforts, design concepts, next steps, and planned outreach to interest groups and the public. We are also holding monthly meetings with Caltrans to receive feedback and to confirm we are preparing the PIDs in accordance with Caltrans procedures.

### Outreach

Although it is TAM's standard practice to provide the public with as much information about our programs and projects, it is a relatively new practice for Caltrans to engage the public in this early stage of a project's development. In the past, Caltrans would only engage the public during the preparation of the environmental document and project report. However, Caltrans is now open to public engagement during development of the PID and recognizes the benefits of public input during this early stage.

TAM, with the support of Caltrans and our local agencies, made presentations to the Mill Valley Bicycle and Pedestrian Advisory Committee (BPAC), the San Rafael BPAC, the Novato Complete Streets and Pathways Oversight Committee, the Golden Gate Transit Bus Passenger Advisory Committee, and TAM's BPAC. All of these groups were pleased with the update and provided useful feedback to the team.

TAM also hosted three public workshops in southern, central and northern Marin this past summer, to inform the public of the interchange studies underway. The team presented the preliminary improvements concepts, next steps, how they can stay informed, and accepted comments and questions. TAM also notified community-based organizations and other interest groups in the vicinity of each interchange.

### PID Development

One of the first tasks in developing a project in accordance with Caltrans' procedures is to prepare what is known as a "Purpose and Need Statement". Once prepared, the Purpose and Need Statement is used as a guiding statement to assess elements of a project during development to confirm the project remains true to the basic principles of the project. It establishes the reason why an agency is proposing a project and justifies the expected outcome of expenditure and allows decisions to be defensible. The following is the preliminary Purpose and Need Statement for the Interchange Studies:

#### **Draft Purpose**

- Improve multimodal connectivity and equitable accessibility for users of all ages and abilities to, from, and across Highway 101.
- Improve local and regional traffic operations.
- Enhance safety for all modes and active transportation options.

#### **Draft Need**

- Pedestrian and separated bicycle routes are discontinuous across Highway 101, have poor connectivity with bus transit, and are not ADA-compliant, which limits regional and local travel options for all users, including equity (underserved or disadvantaged) communities.

- Vehicular traffic experiences peak period congestion, resulting in extended travel times and delays.
- There are high incidences of vehicle, pedestrian, and bicycle collisions within the study area.
- Existing deficiencies limit alternative modes of transportation within the project area.

## **FISCAL IMPACTS**

Sufficient funding has been collected from the Measure AA ½-Cent Transportation Sales Tax to prepare the PIDs for the interchanges and to reimburse Caltrans for oversight review and approval. Budget needed for this year's work is included in the TAM FY2023-24 Annual Budget.

Measure AA provides a limited amount of funding to advance the interchange studies into the next phase(s) of project development. Staff will pursue grant funding opportunities as they become available in the future. Our consultants are currently researching available grants and assessing the project's competitiveness to achieve a successful award.

## **NEXT STEPS**

Staff will continue to develop the PIDs and supporting documents. The draft recommendation for screening the improvement concepts will be brought forward for the TAM Executive Committee to review and receive public input early next year.

## **ATTACHMENTS**

Attachment A – PowerPoint Presentation



Item 6 - Attachment A

# Highway 101 Interchanges and Approaching Roadway Study Update

Citizens' Oversight Committee

December 4, 2023

Bill Whitney, Principal Project Delivery Manager

# Agenda

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- Project Overview & Status
- Project Timeline
- Preliminary Purpose & Need
- Outreach Summary
- Concept Review & Refinement
- Potential Funding Opportunities for Future Phases
- Next Steps

# Project Overview – Project Background

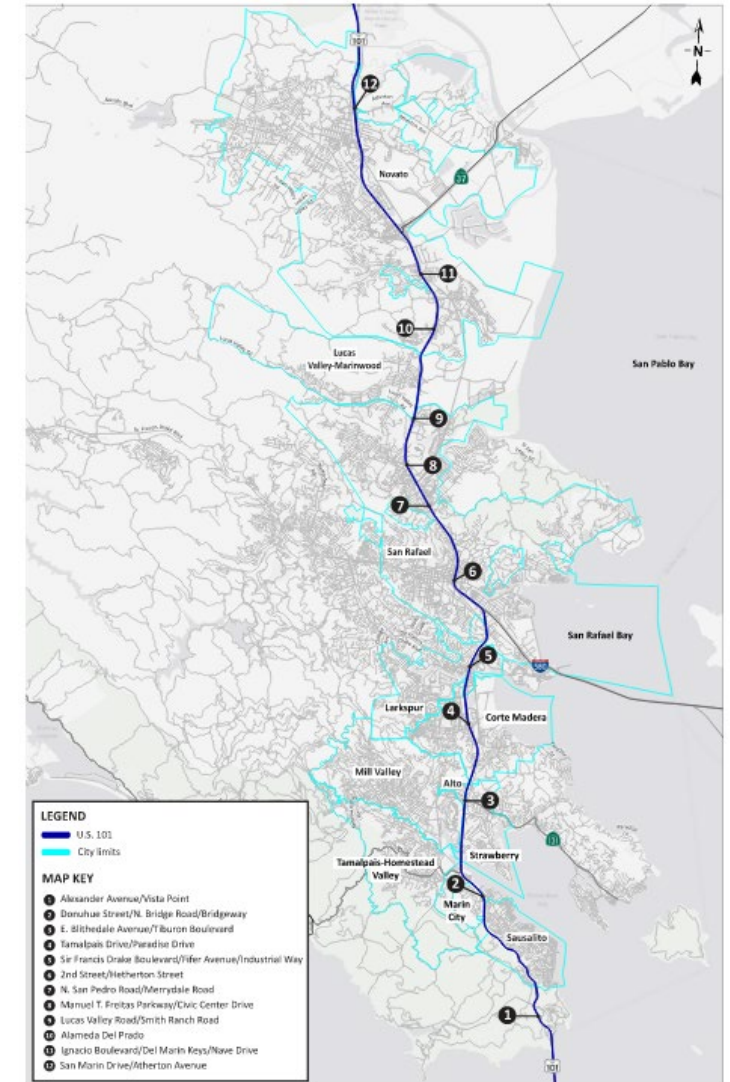
- Study included in the Measure AA ½-Cent Transportation Sales Tax Expenditure Plan
- Plan allocates 3% of sales tax revenue, estimated at \$33 million over the 30-year period of the Measure
- Will fund improvements to local road interchanges:
  - Improve the operation and safety for all users
  - Allow smoother travel to and from Highway 101 and local roads
  - Provide seed money to perform the planning, public outreach, and develop the scope of improvements needed at these interchanges
  - Prioritize improvements for near- and long-term implementation



# Project Overview – Project Background (cont.)

## Studied 12 Interchanges

1. Alexander Avenue
2. Donahue Street/ Bridgeway
3. SR 131 Tiburon Blvd./East Blithedale Avenue
4. Tamalpais Drive/Paradise Drive
5. Sir Francis Drake Boulevard
6. San Rafael On-Ramp at 2nd Street and Hetherton Avenue
7. North San Pedro Road / Merrydale Road
8. Manuel T. Freitas Parkway
9. Lucas Valley Road/Smith Ranch Road
10. Alameda Del Prado/Nave Drive
11. Ignacio Blvd /Bel Marin Keys
12. San Marin Drive/Atherton Avenue

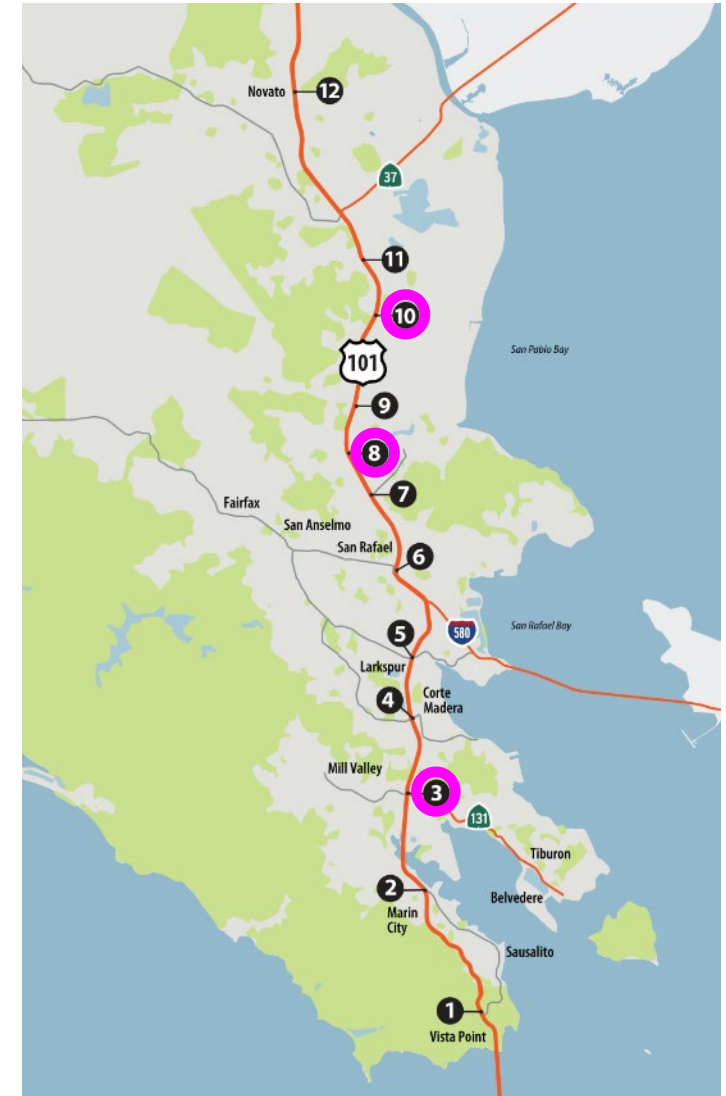




# Project Overview – Project Background (cont.)

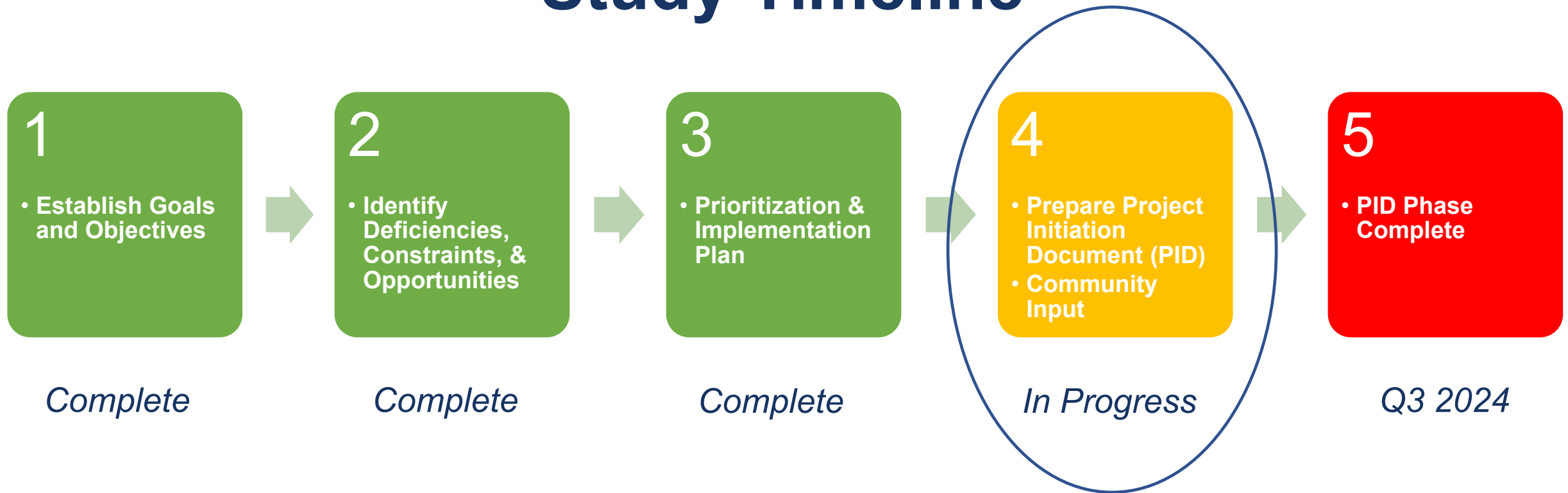
## 3 Interchanges Recommended to Proceed to Project Development:

- SR 131 Tiburon Blvd/E. Blithedale Ave. (#3)
- Freitas Parkway/Civic Center Dr. (#8)
- Alameda del Prado/Nave Drive (#10)



# Project Overview – Project Background (cont.)

## Study Timeline

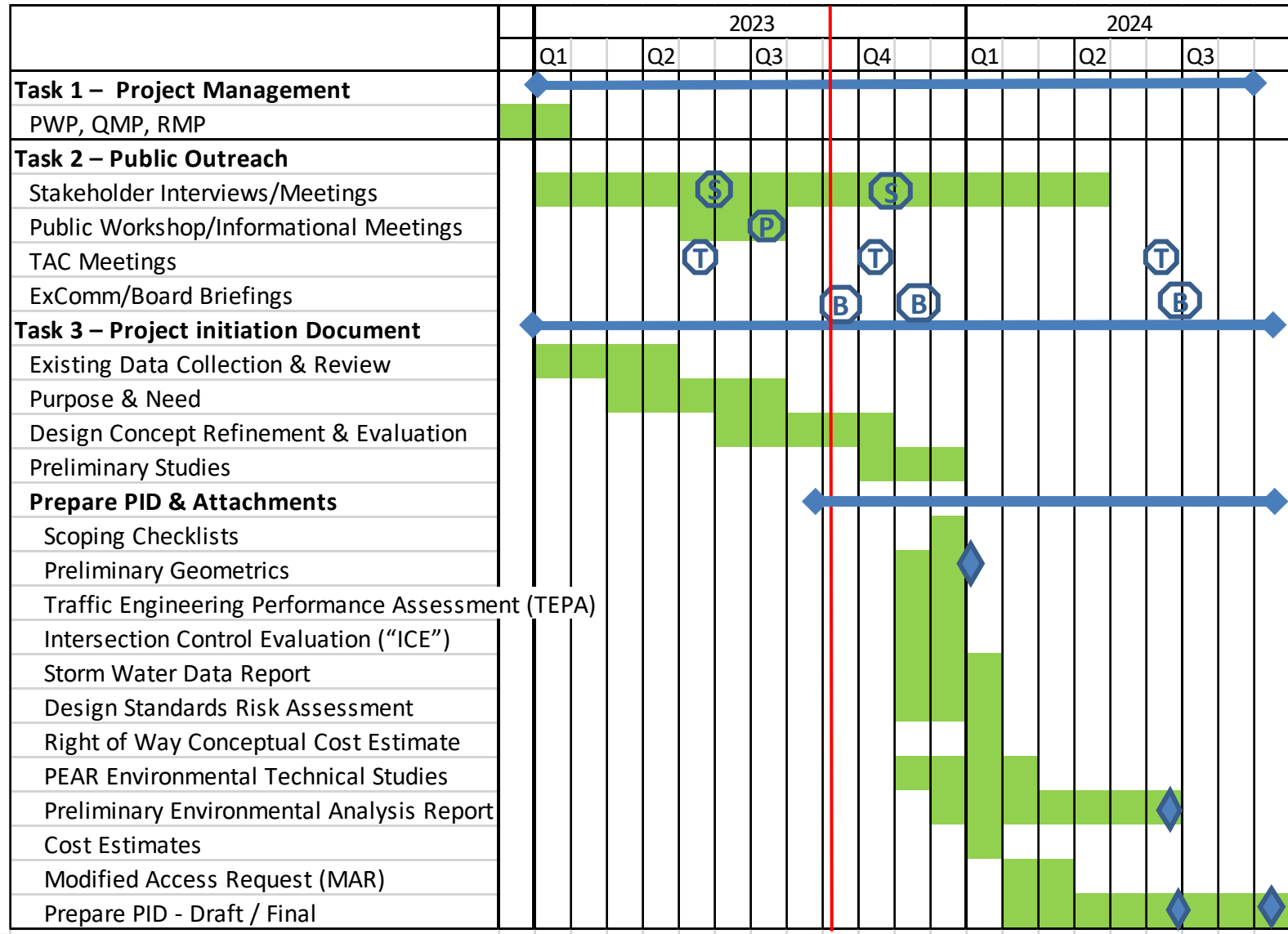


# Project Status

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- Completed
  - Online Survey & Agency Outreach
  - Existing Conditions, Constraints & Opportunities Memos
  - Evaluation & Prioritization
  - Implementation Plan
  - Initial Public Outreach
- Current Activities
  - Concept Refinement
- Upcoming Activities
  - Concept Evaluation & Selection of Project Study Alternatives
  - Initiate PID-level Technical Studies
  - Prepare Project Initiation Document

# Project Timeline – PID Phase



- Ⓢ Stakeholder Meetings
- Ⓣ Technical Advisory Committee Meeting
- Ⓟ ExCom/Board Briefing/Approval
- Ⓟ Public Workshop/Meeting
- ◆ Major Deliverable

# Project Timeline - Implementation

Phase/Timeline	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
PID	Active	Active				
PA&ED		Active	Active	Active		
PS&E					Active	Active
Bid Phase & Procurement						Active

# Project Overview – Project Objectives

## Interchange Improvements seek to:

- Address existing deficiencies
- Improve operation and safety
- Enhance access to, from, and across Highway 101
- Upgrade conditions for vehicular traffic, transit users, pedestrians, and bicyclists
- Improve multimodal connectivity



# Preliminary Purpose & Need

## Draft Purpose

- Improve multimodal connectivity and equitable accessibility for users of all ages and abilities to, from, and across Highway 101
- Improve local and regional traffic operations
- Enhance safety for all modes and active transportation options

## Draft Need

- Pedestrian and separated bicycle routes are discontinuous across U.S. 101, have poor connectivity with bus transit, and are not ADA-compliant which limits regional and local travel options for all users, including equity (underserved or disadvantaged) communities
- Vehicular traffic experiences peak period congestion, resulting in extended travel times and delays
- There are high incidences of vehicle, pedestrian, and bicycle collisions within the study area
- Existing deficiencies limit alternative modes of transportation within the project area

# Recent Outreach Summary

- TAM Traveler Project Kickoff Announcement
- TAM Website Updates – 101Study.com
- TAC Meeting – May 24
- BPAC Meetings
  - TAM BPAC – May 16
  - GGBHTD BPAC – May 17
  - Novato CS & PO Committee – May 17
  - San Rafael BPAC – June 7
  - Mill Valley BPAC – July 19
- Public Workshop Meetings
  - Mill Valley – June 20 (Tiburon Blvd.)
  - San Rafael – June 28 (Manuel T. Freitas)
  - Novato – July 13 (Alameda del Prado)



## Detailed Planning Efforts for Three Marin County Interchanges Kicks Off

TAM is initiating detailed planning for three Marin County interchanges selected for advancement under the Highway 101 Interchange and Approaching Roadway Study:

- SR 131 Tiburon Blvd./East Blithedale Ave.
- Manuel T. Freitas Parkway/Civic Center Dr.
- Alameda del Prado/Nave Drive

At the [TAM BPAC Meeting on May 16](#), TAM staff will provide an overview and receive comments about the interchanges and upcoming planning efforts. We would like to gather community input on the scope of improvements to be studied further in the next phase to ensure that improvements align with the needs and aspirations of your community. To view the improvement concepts or provide a comment visit the project web

page: <https://tam101study.com>. The BPAC agenda will be posted to the TAM calendar page at least 72 hours prior to the meeting.

## You're Invited!

INTERCHANGE IMPROVEMENTS WORKSHOPS



<b>June 20</b> 6pm - 8pm Mill Valley Recreation Center 180 Camino Alto Mill Valley	<b>June 28</b> 6pm - 8pm Terra Linda Community Center 670 Del Ganado Road San Rafael	<b>July 13</b> 6pm - 8pm Hamilton Community Center 503 South Palm Drive Novato
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Sign up for updates at [tam101study.com](https://tam101study.com)

# Outreach – Feedback Received

## SR 131 Tiburon Boulevard/ E. Blithedale

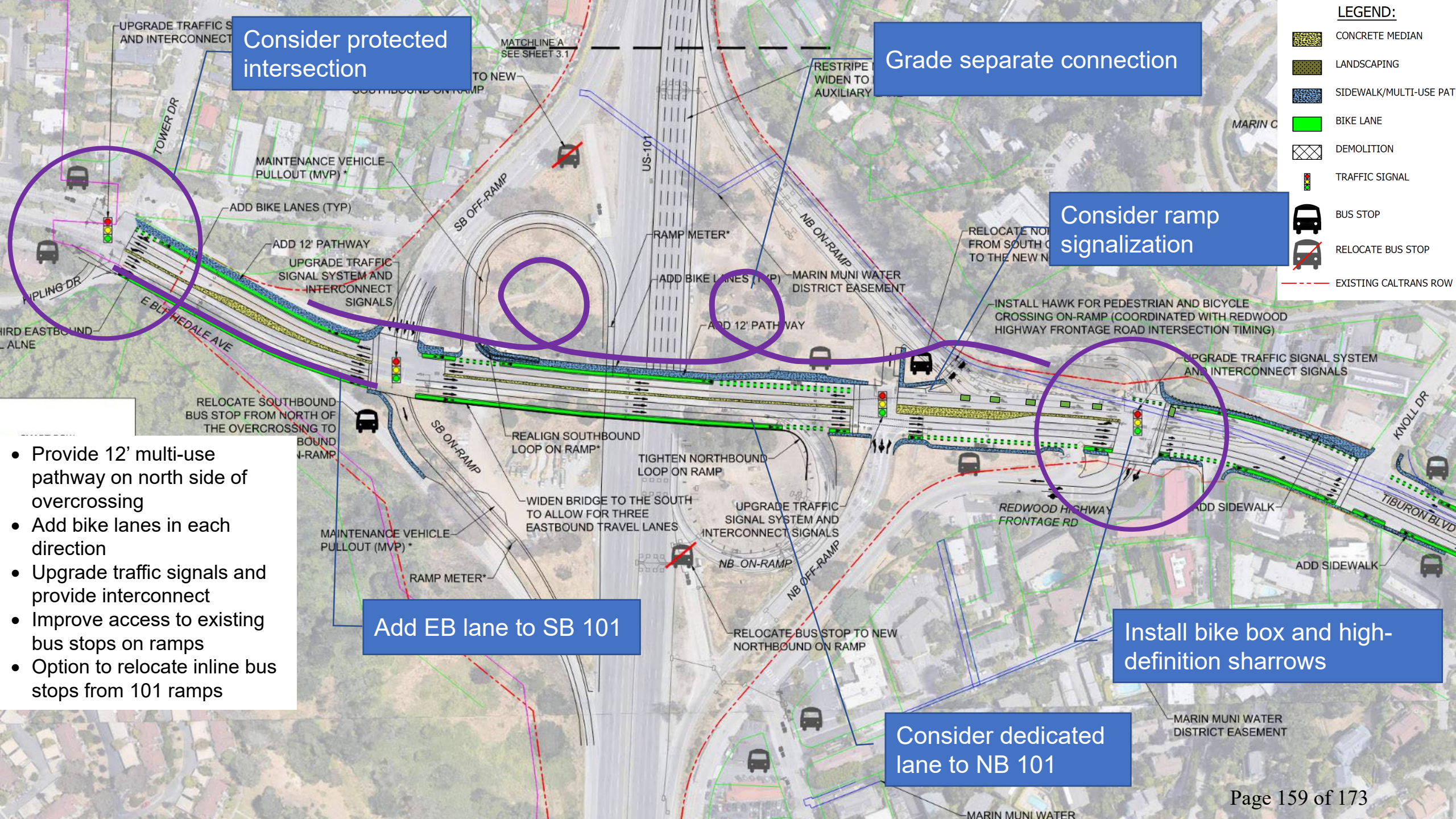
*Comments received: 5 online; 3 comment cards; 502 from survey*

- Eliminate/grade separate ramp crossings
- Add an EB lane from Kipling Drive to the SB on-ramp
- Add protected bike lanes and protected intersections
- Add a dedicated EB lane to NB 101 loop on-ramp
- Recurring congestion on WB E. Blithedale due to a lane reduction to the west of the project









Consider protected intersection

Grade separate connection










Consider ramp signalization

Add EB lane to SB 101

Install bike box and high-definition sharrows

Consider dedicated lane to NB 101

**LEGEND:**

-  CONCRETE MEDIAN
-  LANDSCAPING
-  SIDEWALK/MULTI-USE PATH
-  BIKE LANE
-  DEMOLITION
-  TRAFFIC SIGNAL
-  BUS STOP
-  RELOCATE BUS STOP
-  EXISTING CALTRANS ROW

- Provide 12' multi-use pathway on north side of overcrossing
- Add bike lanes in each direction
- Upgrade traffic signals and provide interconnect
- Improve access to existing bus stops on ramps
- Option to relocate inline bus stops from 101 ramps



# Outreach – Feedback Received

## Freitas Parkway

*Comments received: 4 comment cards, 171 from survey*

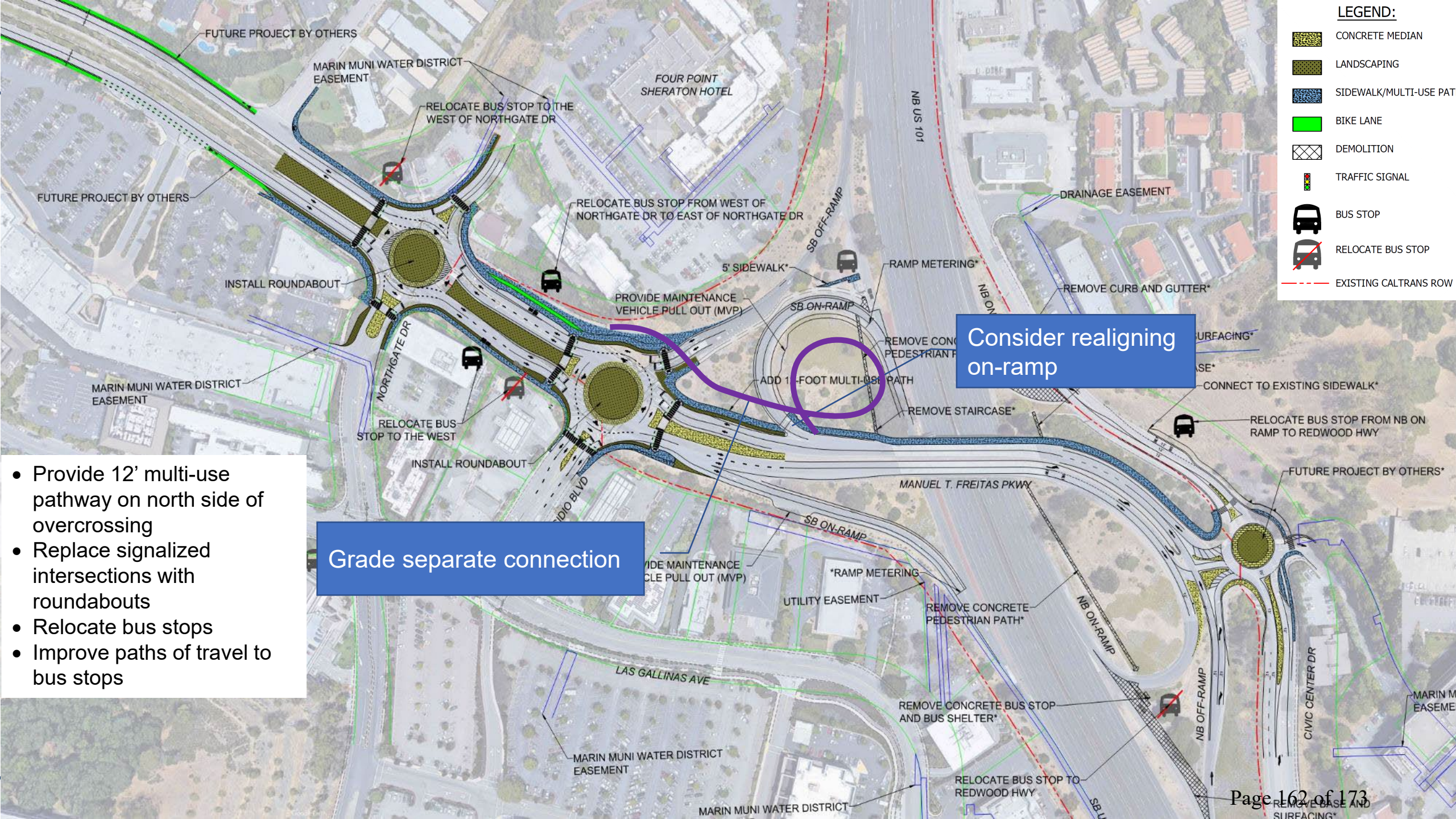
- Concerns raised about east side roundabout
- Poor weave between Del Presidio and SB on-ramp
- Uncontrolled ramp crossings











**LEGEND:**

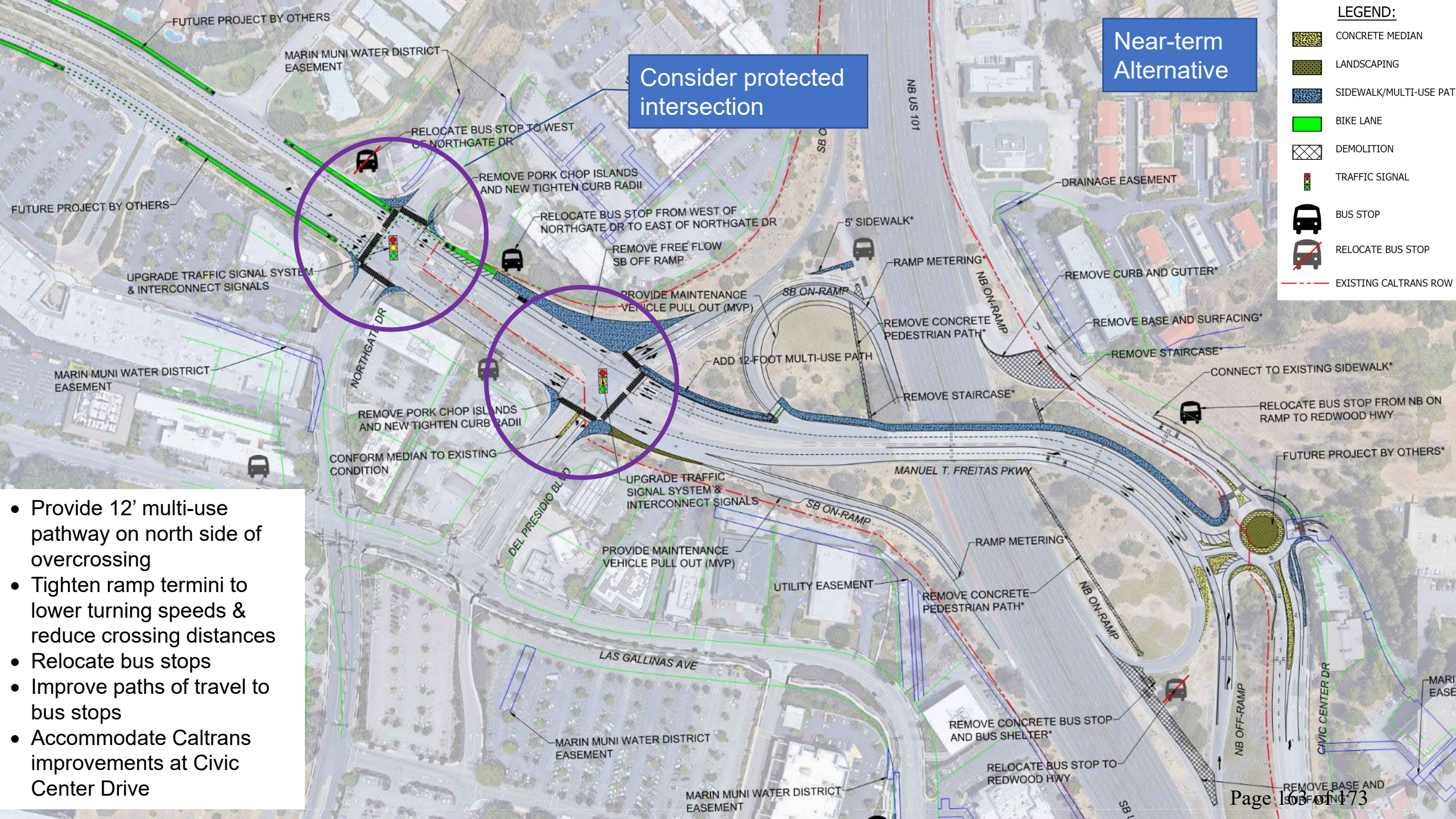
	CONCRETE MEDIAN
	LANDSCAPING
	SIDEWALK/MULTI-USE PATH
	BIKE LANE
	DEMOLITION
	TRAFFIC SIGNAL
	BUS STOP
	RELOCATE BUS STOP
	EXISTING CALTRANS ROW

Consider realigning on-ramp

Grade separate connection

- Provide 12' multi-use pathway on north side of overcrossing
- Replace signalized intersections with roundabouts
- Relocate bus stops
- Improve paths of travel to bus stops





Consider protected intersection

Near-term Alternative

- LEGEND:**
- CONCRETE MEDIAN
  - LANDSCAPING
  - SIDEWALK/MULTI-USE PATH
  - BIKE LANE
  - DEMOLITION
  - TRAFFIC SIGNAL
  - BUS STOP
  - RELOCATE BUS STOP
  - EXISTING CALTRANS ROW

- Provide 12' multi-use pathway on north side of overcrossing
- Tighten ramp termini to lower turning speeds & reduce crossing distances
- Relocate bus stops
- Improve paths of travel to bus stops
- Accommodate Caltrans improvements at Civic Center Drive

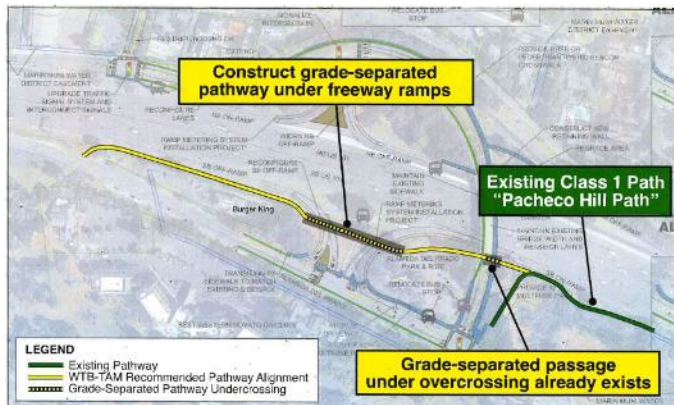


# Outreach – Feedback Received

## Alameda Del Prado

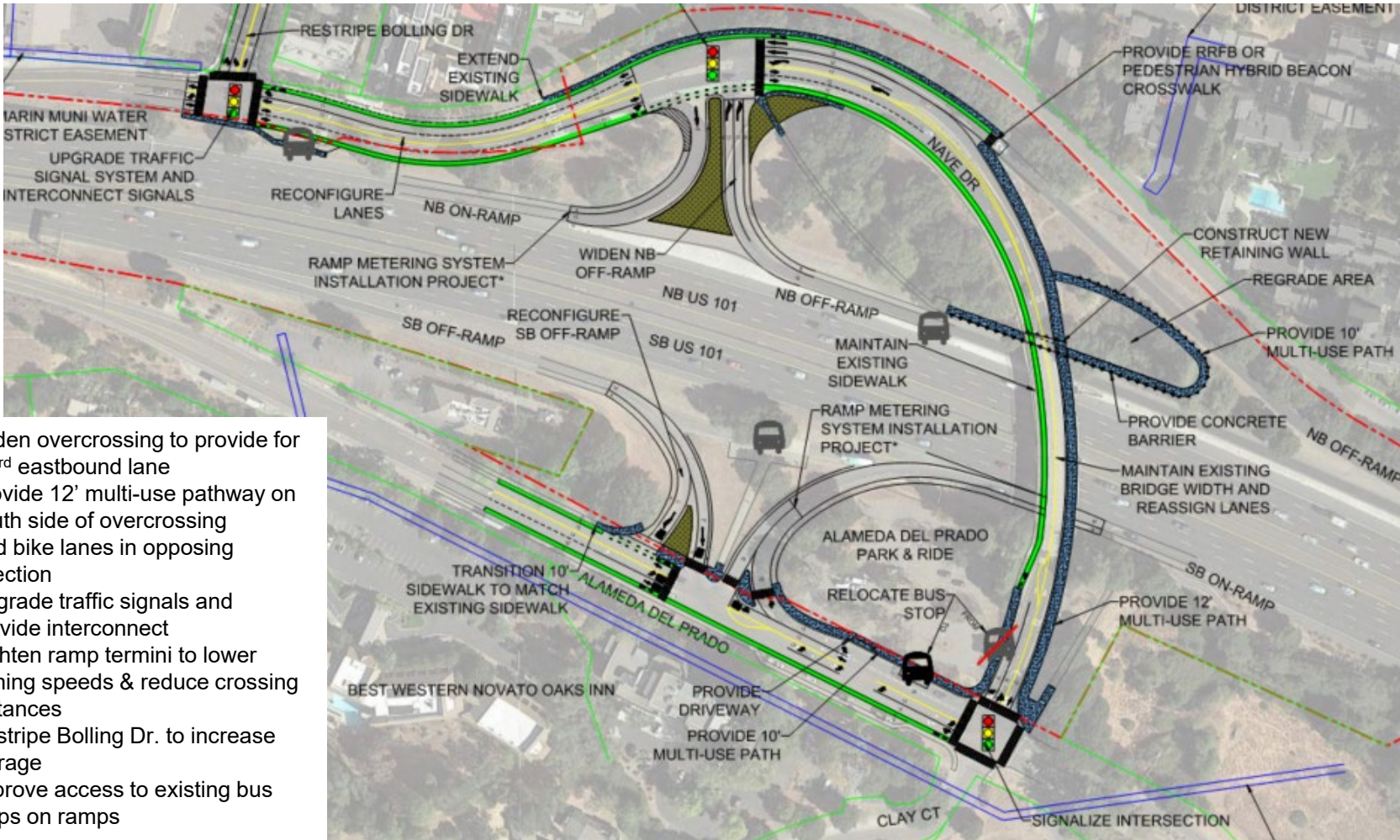
Comments received: 1 online comment; 39 from survey

- Bike crossing at the NB off-ramp is hazardous
- Guardrail is too low for bicyclists
- Provide better bike lockers & amenities at the Park n' Ride
- Close the gap & grade separate the N-S Bikeway through the interchange (see Lincoln Ave I/C example)

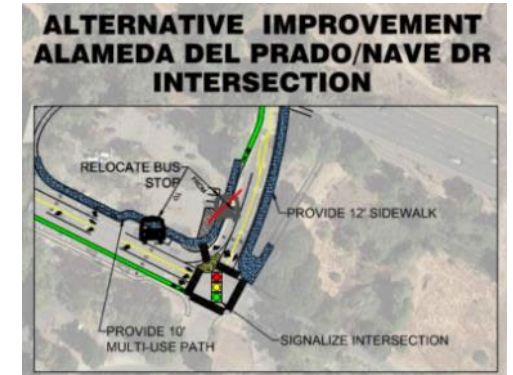




# Concept Refinement – Alameda del Prado/Nave Drive



- Widen overcrossing to provide for a 3<sup>rd</sup> eastbound lane
- Provide 12' multi-use pathway on south side of overcrossing
- Add bike lanes in opposing direction
- Upgrade traffic signals and provide interconnect
- Tighten ramp termini to lower turning speeds & reduce crossing distances
- Restripe Bolling Dr. to increase storage
- Improve access to existing bus stops on ramps

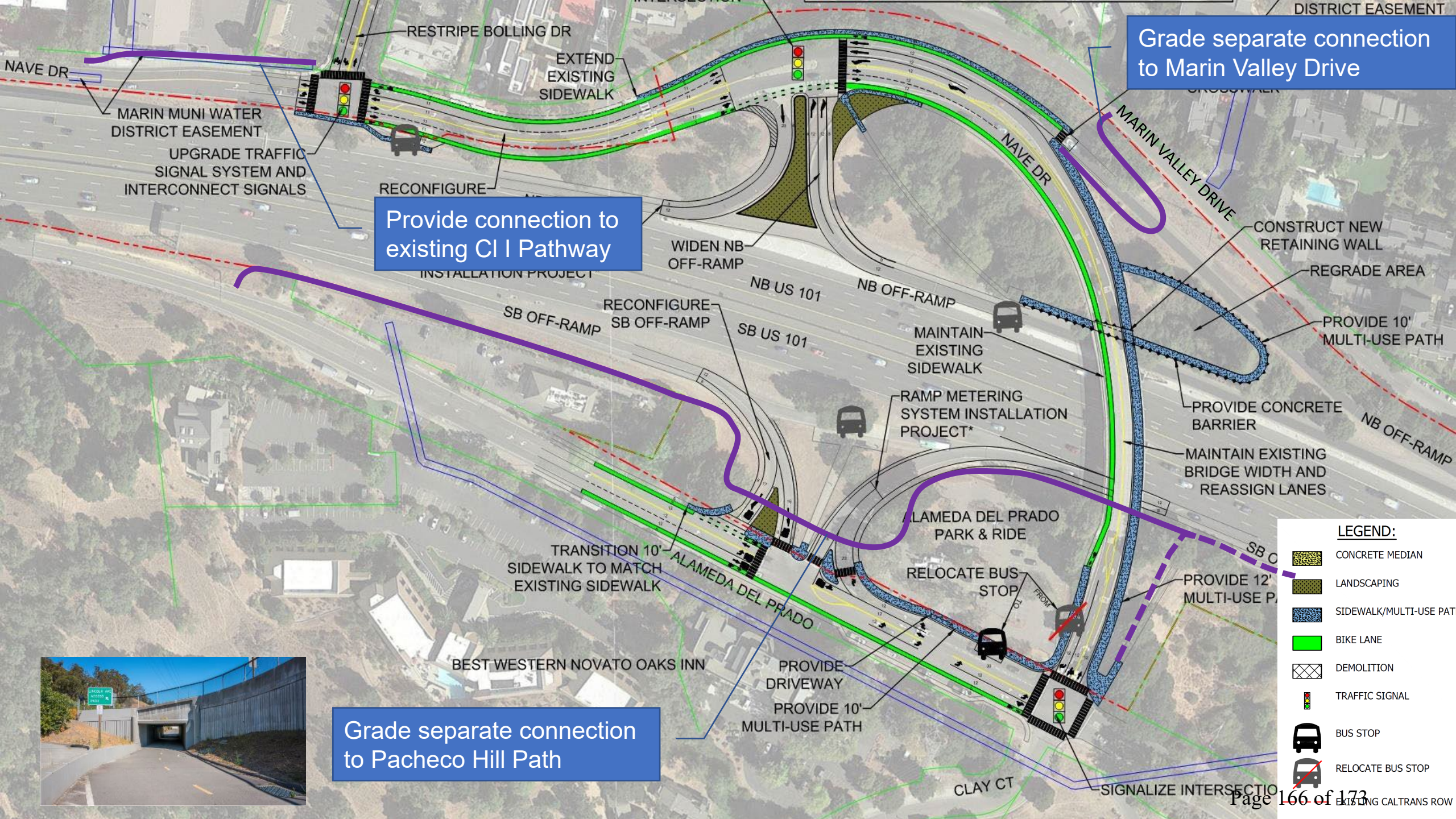




Grade separate connection to Marin Valley Drive

Provide connection to existing CI Pathway

Grade separate connection to Pacheco Hill Path



LEGEND:

- CONCRETE MEDIAN
- LANDSCAPING
- SIDEWALK/MULTI-USE PAT
- BIKE LANE
- DEMOLITION
- TRAFFIC SIGNAL
- BUS STOP
- RELOCATE BUS STOP





# Potential Funding Opportunities for Future Phases

Source	Program
Local & Regional Programs	<ul style="list-style-type: none"> <li>• Measure AA Category 1.3 Improve Hwy 101 Local Interchanges</li> <li>• Active Transportation Program (ATP) – Regional</li> <li>• Transportation Fund for Clean Air (TFCA)</li> <li>• Transportation Development Act Article 3 (TDA 3)</li> <li>• Traffic Impact/Mitigation Fees</li> </ul>
State Programs	<ul style="list-style-type: none"> <li>• STIP/SHOPP/HSIP</li> <li>• Active Transportation Program (ATP) – State</li> <li>• SB1 Local Streets and Roads Program (LSRP)</li> <li>• SB1 Local Partnership Program (LPP)</li> </ul>
Federal Programs	<ul style="list-style-type: none"> <li>• Rebuilding American Infrastructure with Sustainability and Equity (RAISE)</li> <li>• Safe Streets and Roads for All Grant Program (SS4A)</li> <li>• One Bay Area Grant (OBAG) [MTC Administered]</li> <li>• Reconnecting Communities Pilot (RCP)</li> <li>• Active Transportation Infrastructure Investment Program (Section 11529 of IIJA)</li> </ul>

# Next Steps

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- Confirm Draft Purpose & Need
- Concept Refinement & Evaluation
- Continue PID Phase activities
  - Confirm Scope of Improvements
  - Select Project Study Alternatives
  - Preliminary Engineering & Environmental Studies
- 2nd Round of Stakeholder Outreach

# Questions?

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Thank you!

Bill Whitney

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