2nd Street Bridge Deck Replacement Project

Keith Hoey
City Engineer

Joseph Khilla
Assistant City Engineer

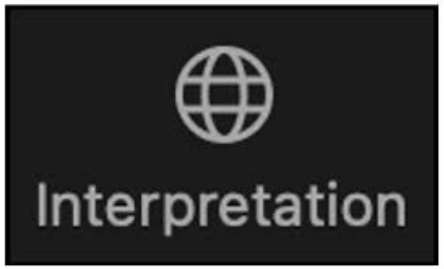
Paul Van Dyk
City Traffic Engineer

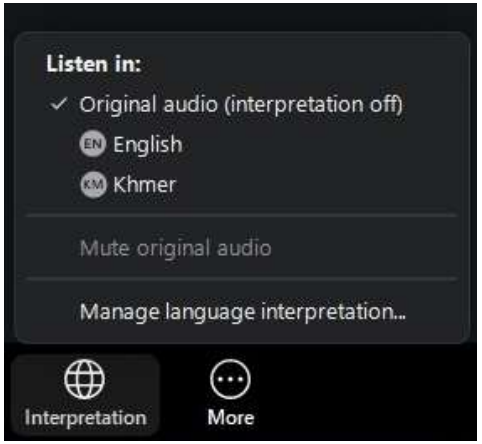
Romeo Firme
Senior Civil Engineer

Virtual Community Meeting
February 5, 2026

Language Interpretation

- Language interpretation can be accessed by clicking the globe “Interpretation” icon
- Select the language you would prefer





Zoom Meeting Guidelines

- Participants will be muted during the presentation
- Questions can be submitted using the Q&A function on Zoom at the end of the presentation
- Questions may also be asked verbally by using the hand raise feature
- Verbal questions will be limited to 2 minutes
- Limit questions to one at a time.
- Unanswered questions can be sent to ContactLBPW@longbeach.gov with the subject line: 2nd Street Deck Replacement Project

Department of Public Works

530+

Budgeted Team Members Across

6

Bureaus

Business Operations

- People & Culture
- Financial Services
- Grants Administration
- Administration
- Personnel Services
- Capital Budget

Engineering

- Civil Engineering
- Stormwater Management
- Traffic Engineering

Public Service

- Street & Landscape Maintenance
- Right-of-Way Construction
- Clean Team
- Traffic Operations
- Facilities Management

Transportation Project Mgmt.

- Corridors and Special Projects
- Streets and Alleys

Transportation Services

- Customer Service
- Parking Operations
- Parking Meters
- Mobility Programs
- Parking Enforcement

Project Mgmt.

- Facility Improvements
- Tidelands & Open Space
- Permits & Inspections
- Project Delivery

Agenda

- Introductions
- Project Overview and Bridge Background
- Bridge Structure and Design Considerations
- Project Highlights
- Traffic Safety
- Phased Construction Plan
- Project Funding
- Q&A

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Bridge History

1956

John H. Davies Bridge (2nd Street Bridge) constructed

1959

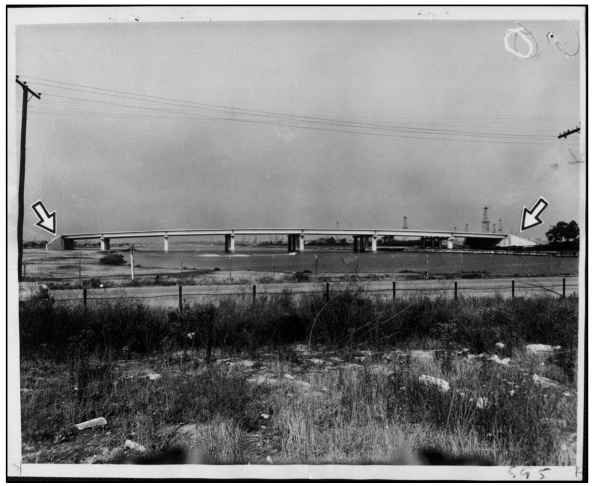
Bridge open to traffic once approaches were completed

1998

Seismic retrofits completed

2026

Critical Deck Replacement

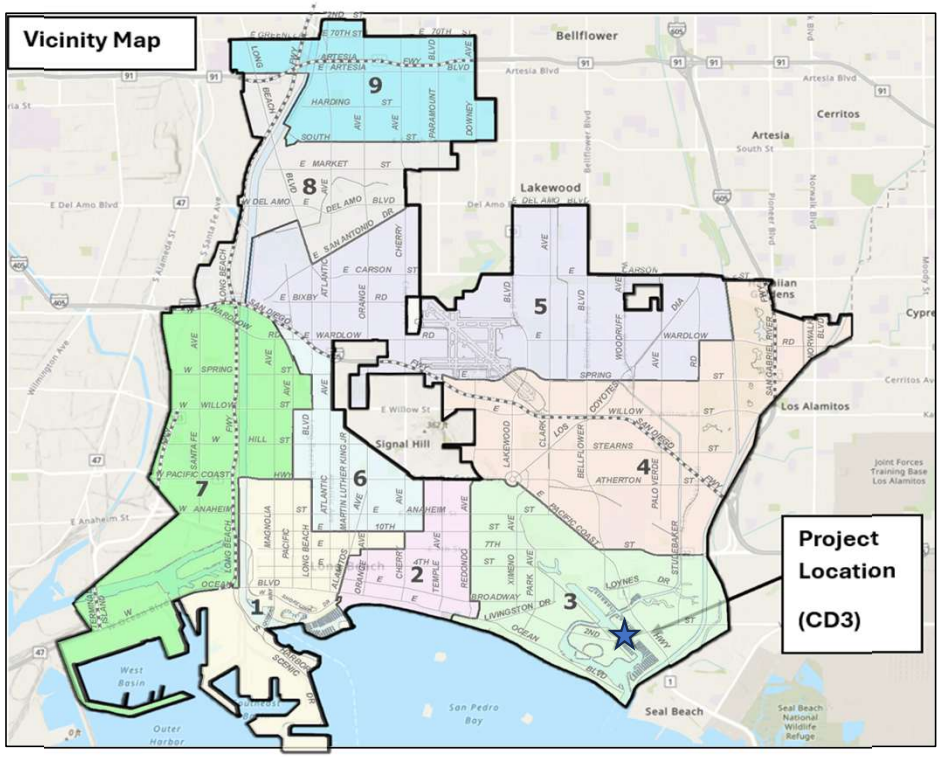


Bridge completed. Pending construction of roadway approaches.

Opening Day Parade

Project Overview

Project Overview



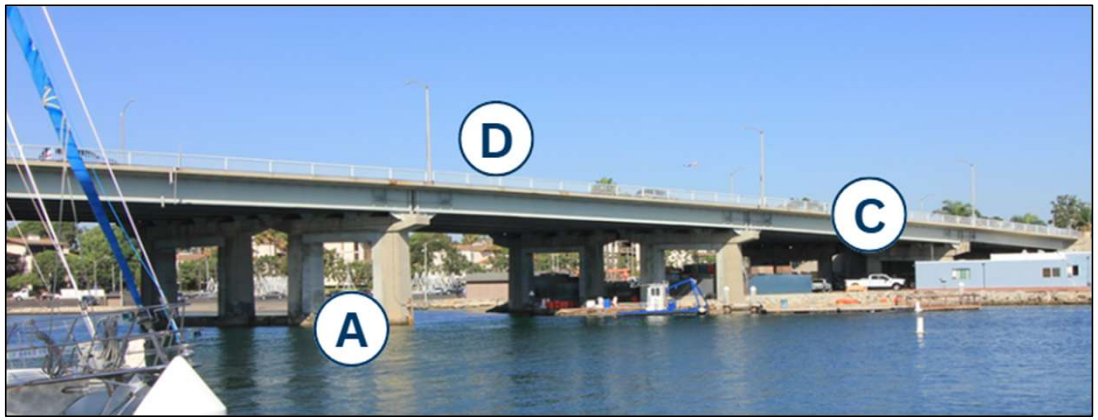
Bridge Structure

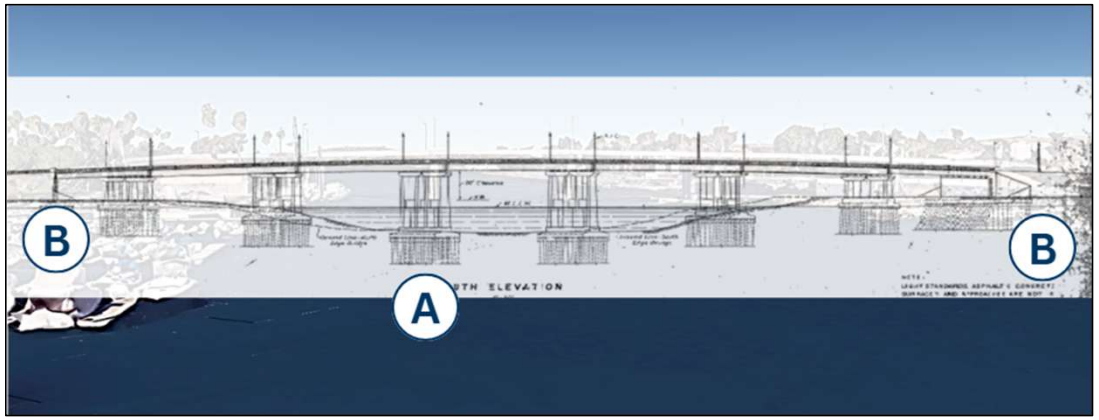
A Reinforced Concrete Piles, Footing, Piers, & Cap Girders

B Reinforced Concrete Abutments & Wing Walls

C Welded Steel Girder Superstructure

D Concrete Bridge Deck





Timeline

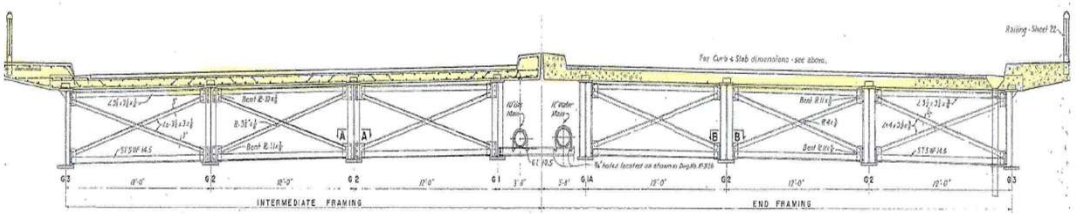
2017 Bridge Inspection

Bridge Inspection Report (BIR) conducted by LA County rated the bridge *"Structurally Deficient"* primarily due to the bridge deck condition.

2019 Material Testing

Material testing of the deck concrete in 2019 supported the BIR finding, resulting in the recommendation to replace the span of the concrete bridge deck as a permanent solution.

Bridge deck inspection photograph.



Detail cross-section of bridge. Deck is highlighted in yellow.

Project Highlights

Replace Bridge Concrete Deck
- Extends life of bridge

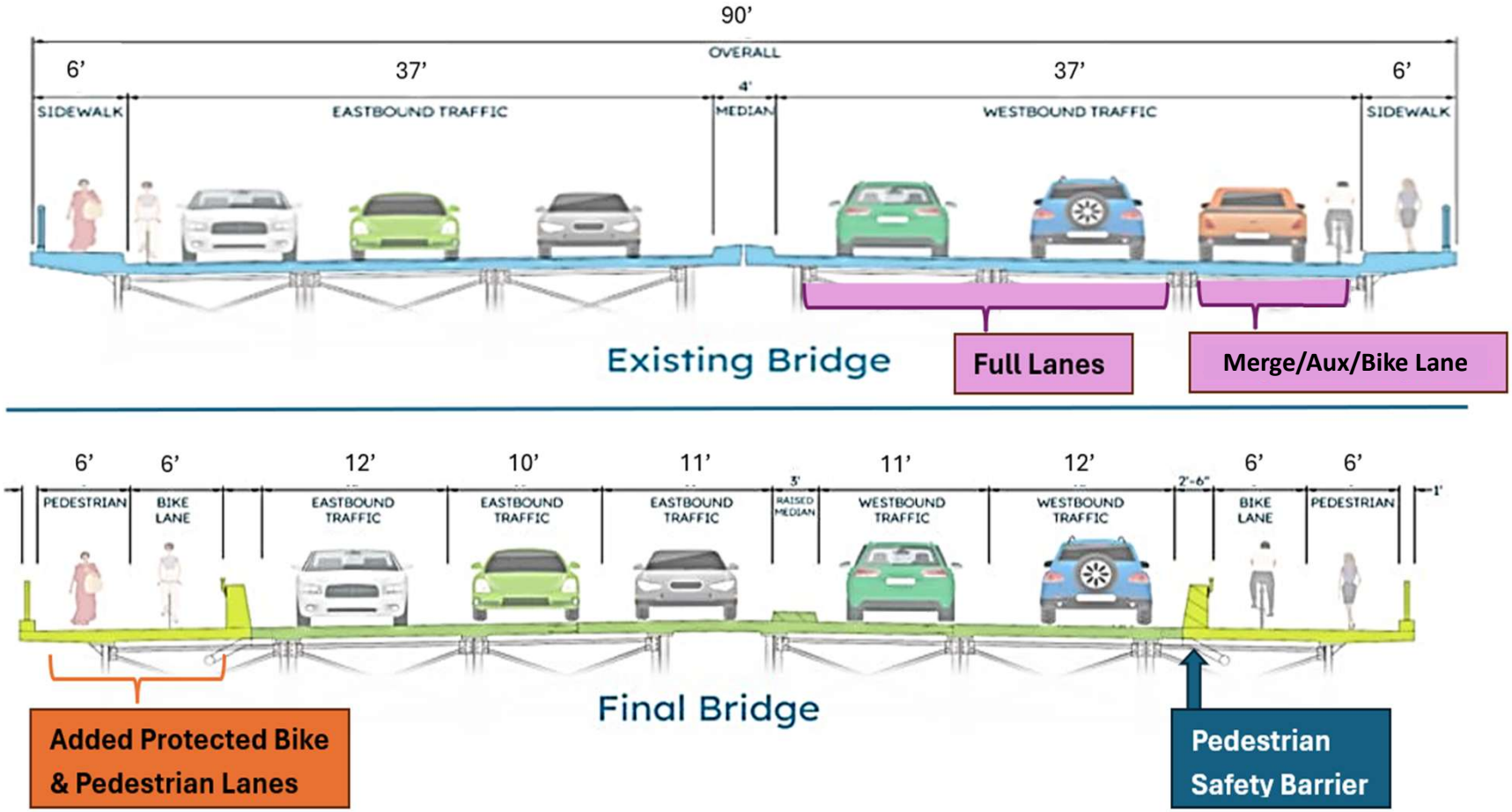
Build Safety Barrier
- Improves safety for all users

Install New Light Poles
- Enhances visibility and safety

Incorporate Protected Bike Lanes & Reconfigure Traffic Lanes
- Improves circulation and mobility

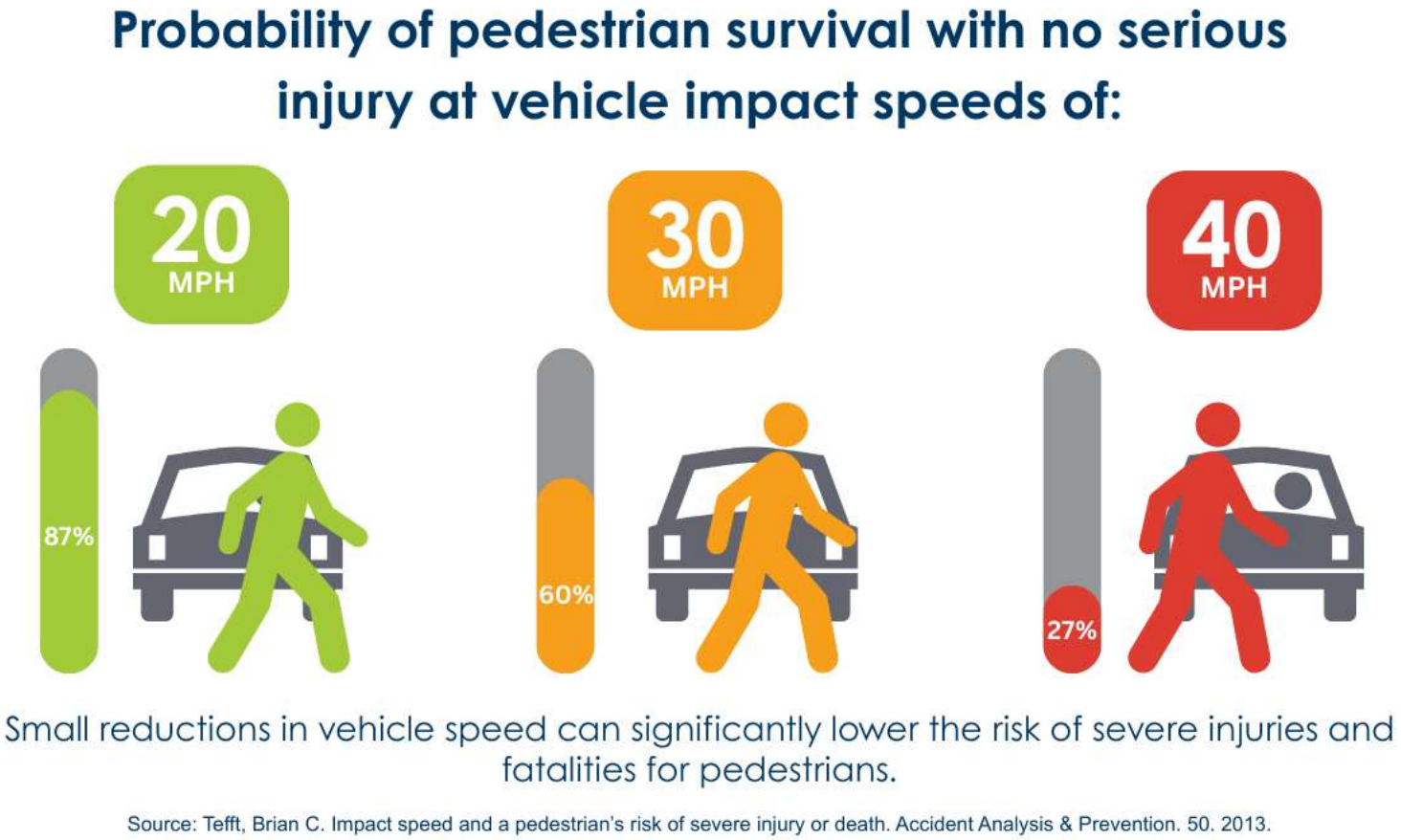
Construction
18-to-24-month duration

Bridge Configuration



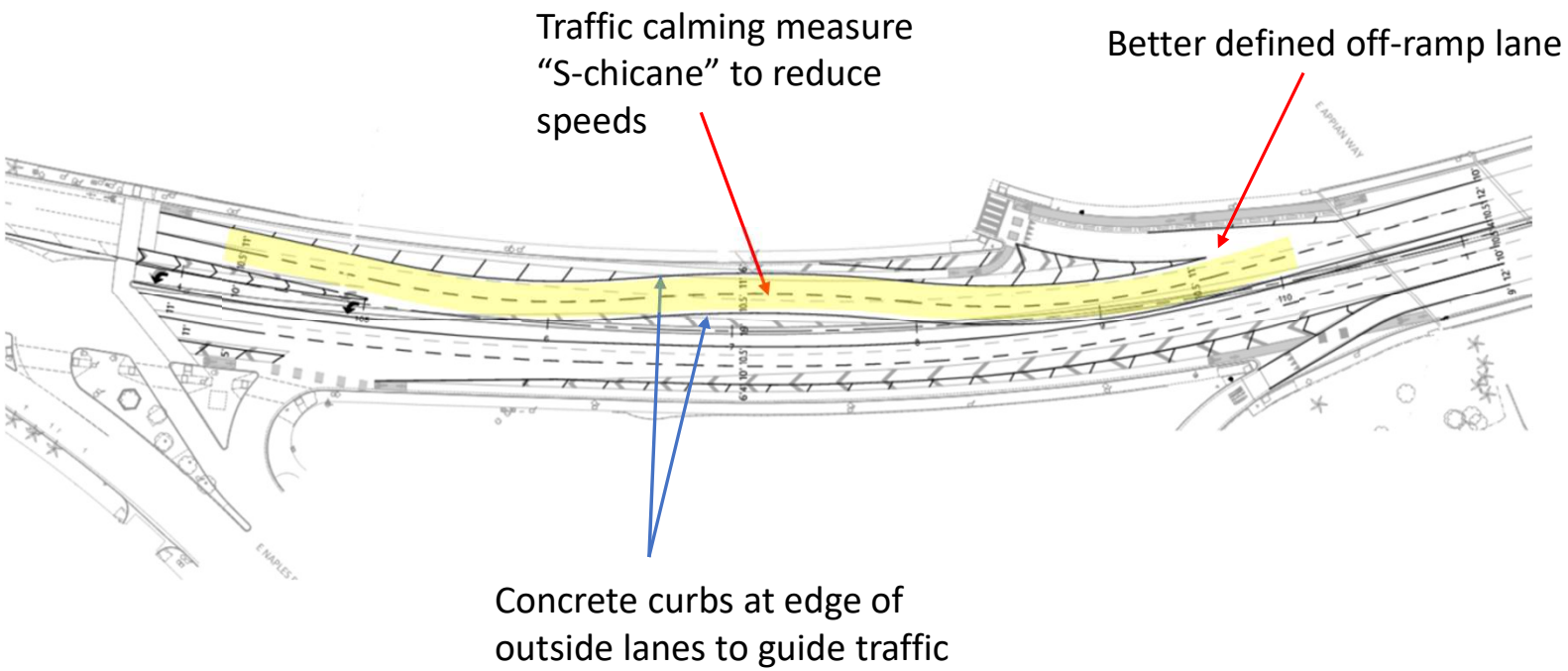
Scenic Views of Long Beach from the Bridge

Roadway Configuration – West of the Bridge



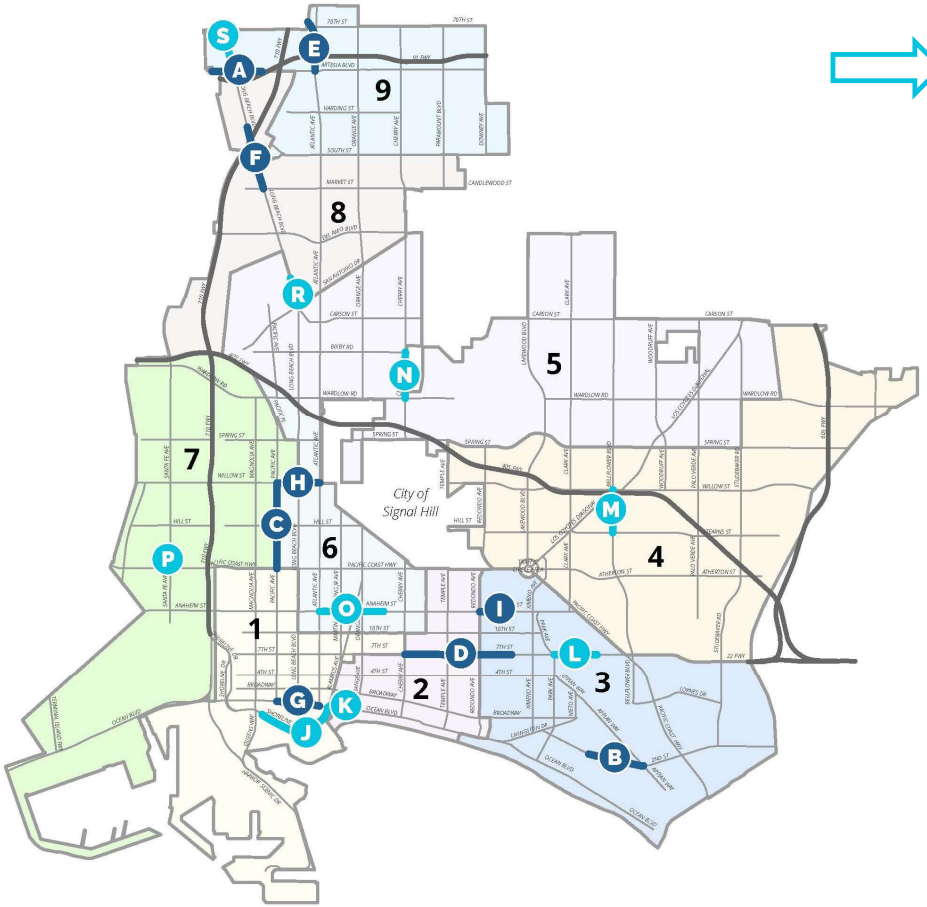
Roadway Configuration – West Approach

Project will realign the roadway to influence vehicular speeds.



Automated Speed Enforcement

Speed Safety System Pilot Program



Need Based Prioritization

A	Artesia Blvd	Harbor St - Butler Ave
B	Second St	Bay Shore Ave - Appian Way
C	Pacific Ave	Pacific Coast Highway - Willow St
D	Seventh St	Cherry Ave - Termino Ave
E	Atlantic Ave	Artesia Blvd - LA River
F	Long Beach Blvd	Market St - Victoria St
G	Ocean Blvd	Pacific Ave - Atlantic Ave
H	Willow St	Pacific Ave - Atlantic Ave
I	Anaheim St	Redondo Ave - Termino Ave

Geographic Diversity Prioritization

J	Shoreline Dr	Pine Ave - Ocean Blvd
K	Ocean Blvd	Alamitos Ave - Orange Ave
L	7th Street	Park Ave - Santiago Ave
M	Bellflower Blvd	Stearns St - Willow St
N	Cherry Ave	Wardlow Rd - Bixby Rd
O	Anaheim St	Atlantic Ave - Walnut Ave
P	Santa Fe Ave	Pacific Coast Highway - 21st St
R	Long Beach Blvd	San Antonio Dr - 45th St
S	Long Beach Blvd	Artesia Blvd - 70th St

Need Based Prioritization

Geographic Diversity Prioritization

Learn more at
lbcity.info/ASEPilot

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Prepared by Traffic Engineering Division Staff,
Engineering Bureau, Department of Public Works for presentation purposes
CVC 22425 Requires geographically diverse locations

Design Considerations & Requirements

State Laws

Assembly Bill 1358 (Complete Streets Act of 2008)
Roadway projects that safely accommodate all users—including pedestrians, bicyclists, transit riders, motorists, children, seniors, and people with disabilities

Senate Bill 1216 (Class III Bikeway Prohibition)
Prohibits Class III shared-lane (sharrow) markings on higher-speed roadways for safer, lower-stress environment for cyclists

California Manual on Uniform Traffic Control Devices
Encourages facilities that reduce conflicts and improve predictability

Master Plans

Bicycle Master Plan (2016)

Safe Streets Long Beach Action Plan (2020)

Long Beach Mobility Element (2013)

Long Beach Climate Action Plan (2022)

Existing Merge/Aux/Bike Lane was reevaluated to comply with laws and master plans. Sharrow lane replaced with protected Bike/Ped Facility.

Design Considerations & Requirements

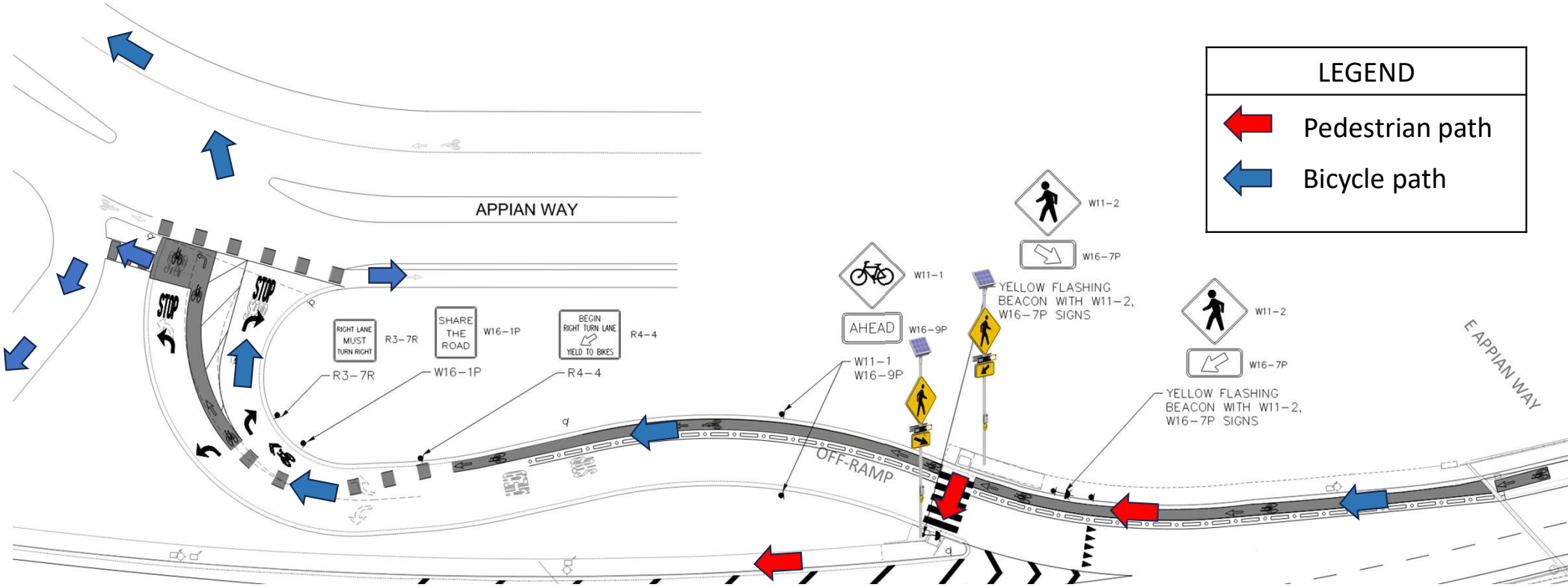
Defined Merge Area
Less Confusion, Predictable Driving Patterns

Defined Bike Area
Less Conflicts with Vehicles

Get there as fast as possible

Get there as safely as possible

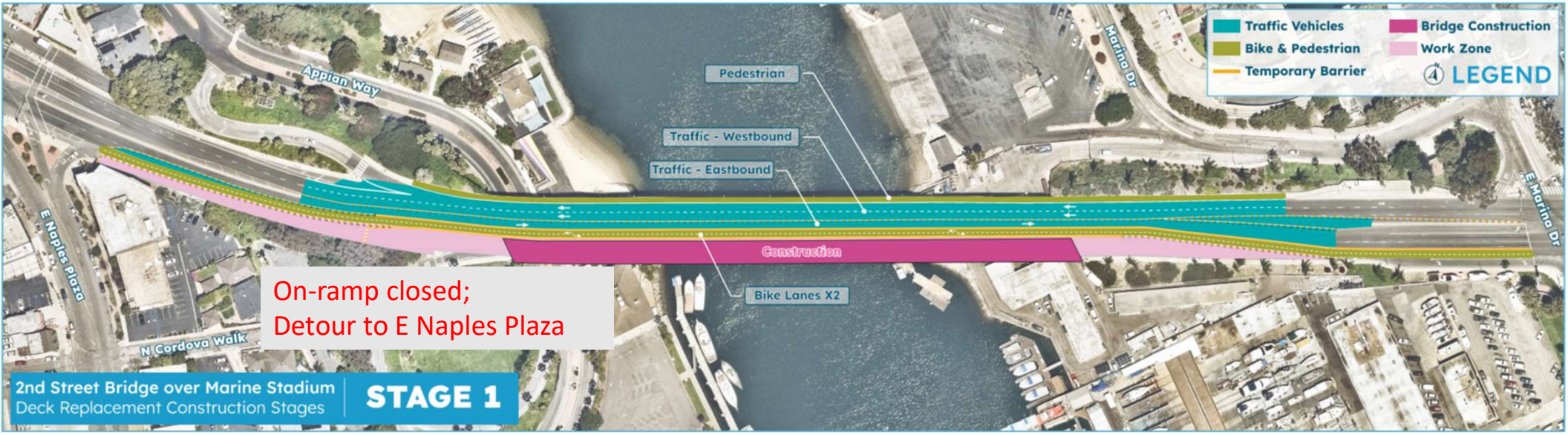
Roadway Configuration - Appian Way Off-Ramp



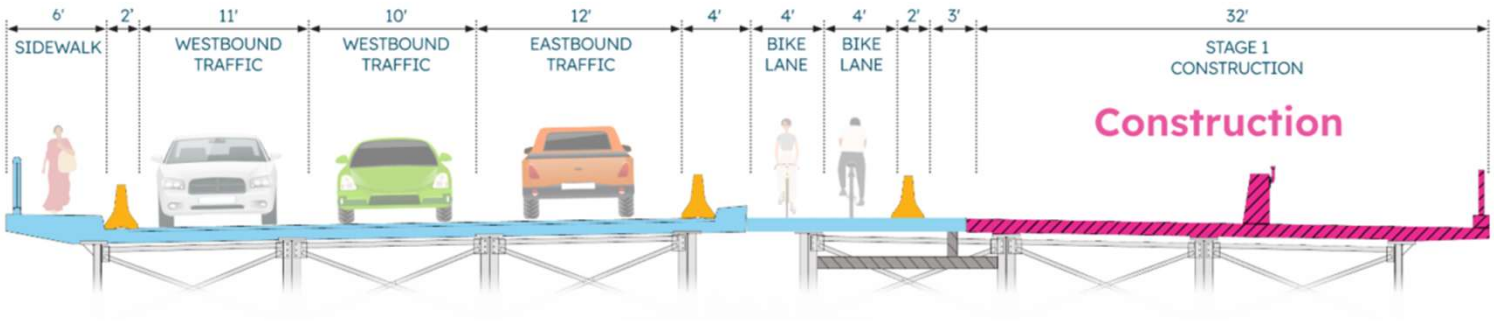
What to Expect During Construction

- Open lane(s) maintained in each direction
- Temporary construction traffic
- Temporary lane shifts or closures
- Temporary “No Parking”
- Daytime construction work hours with some night work when needed
- Typical construction equipment, trucks and noise

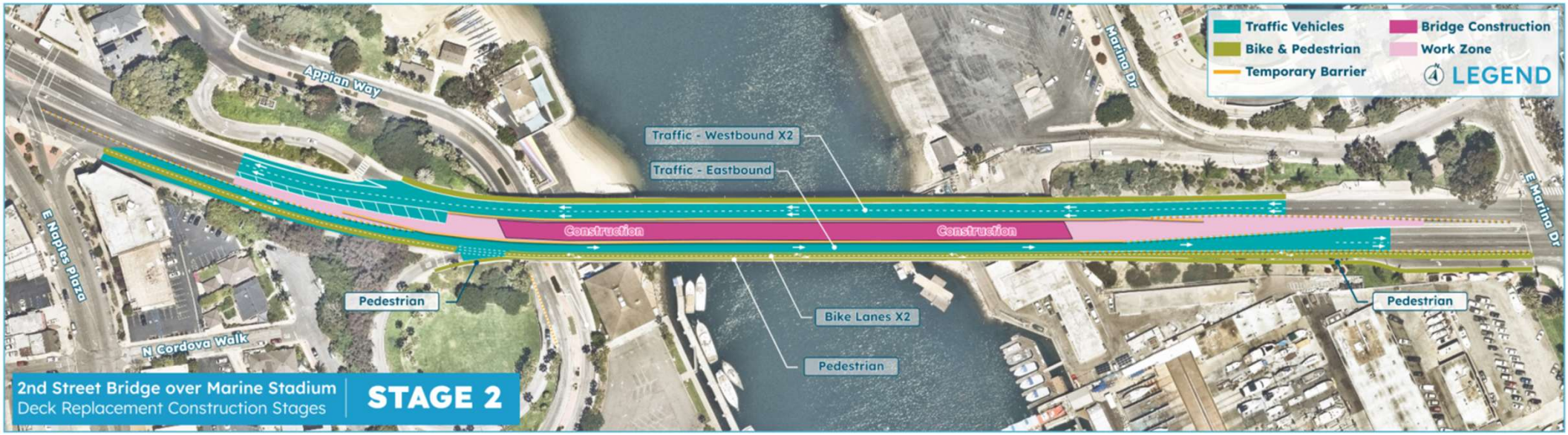
Traffic Staging – Stage 1



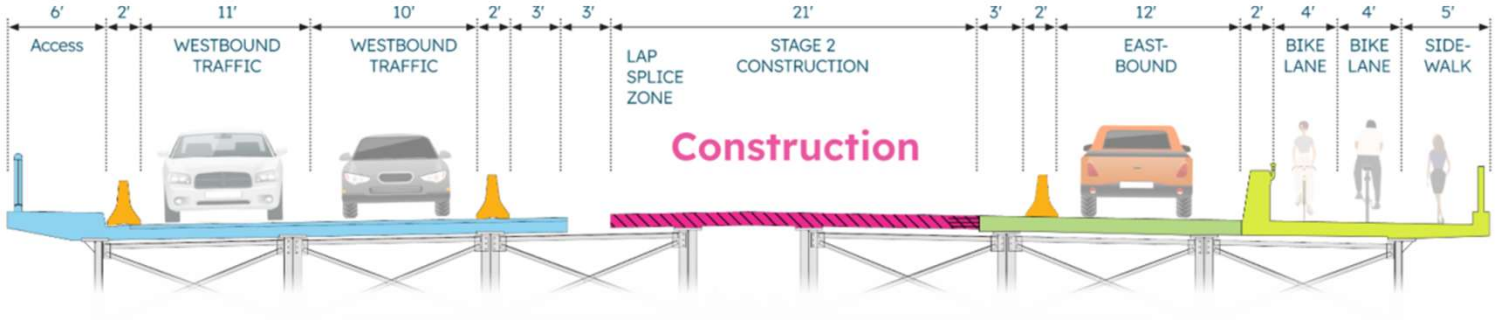
Stage 1



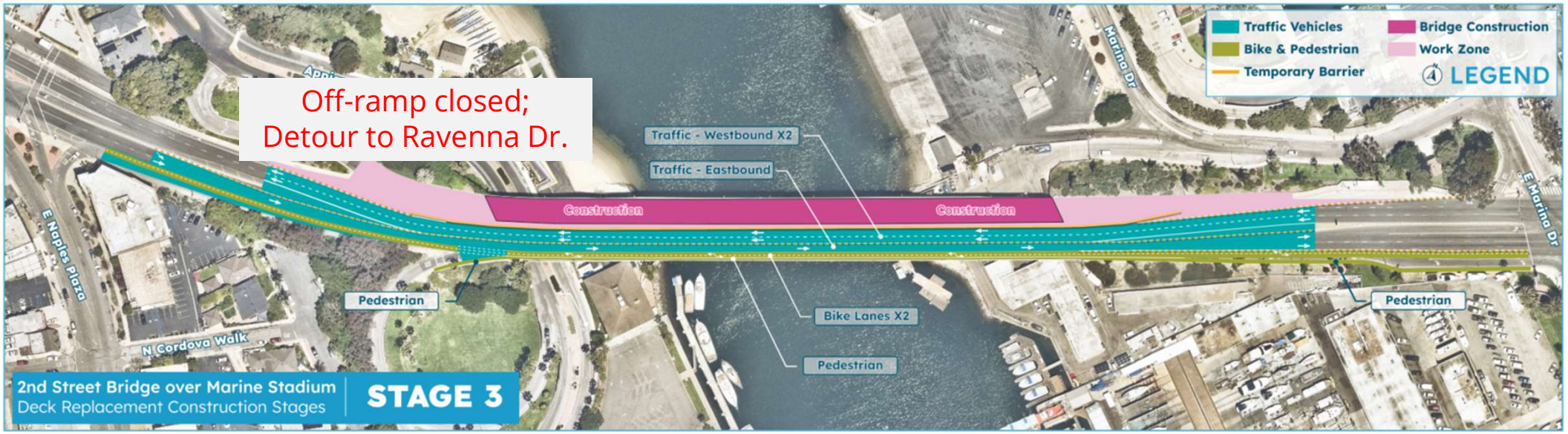
Traffic Staging – Stage 2



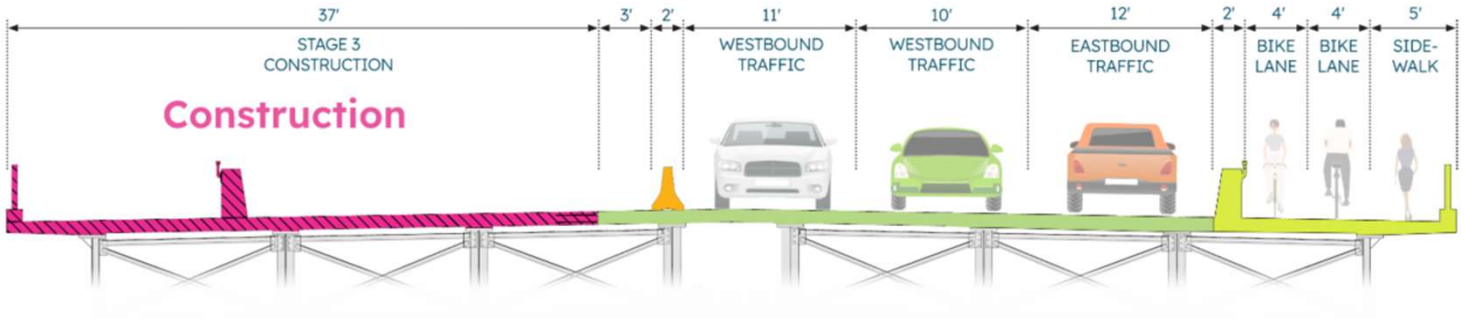
Stage 2



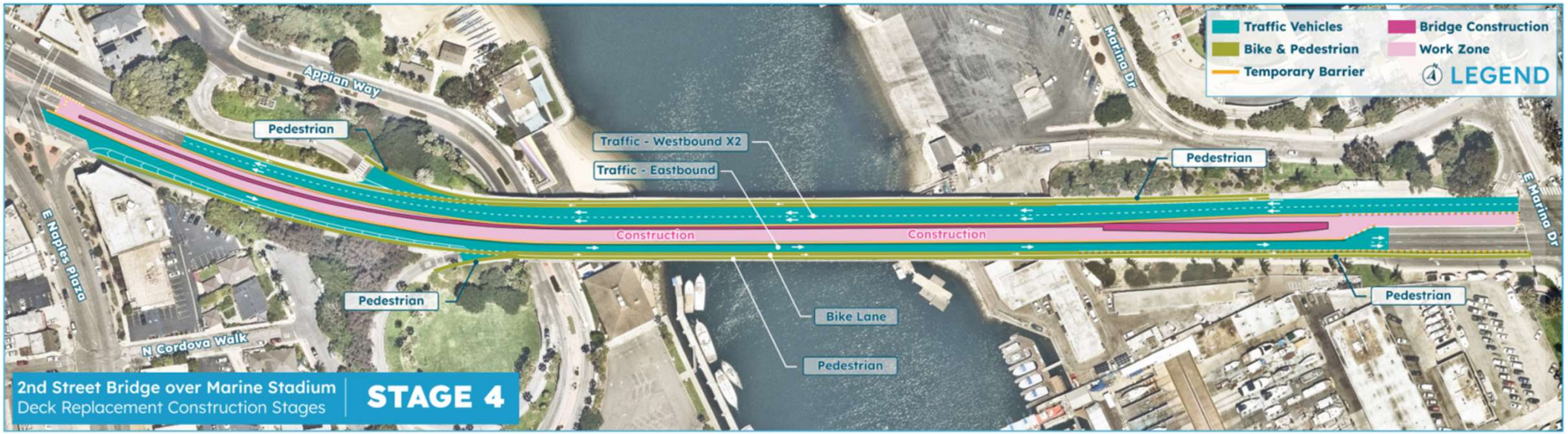
Traffic Staging – Stage 3



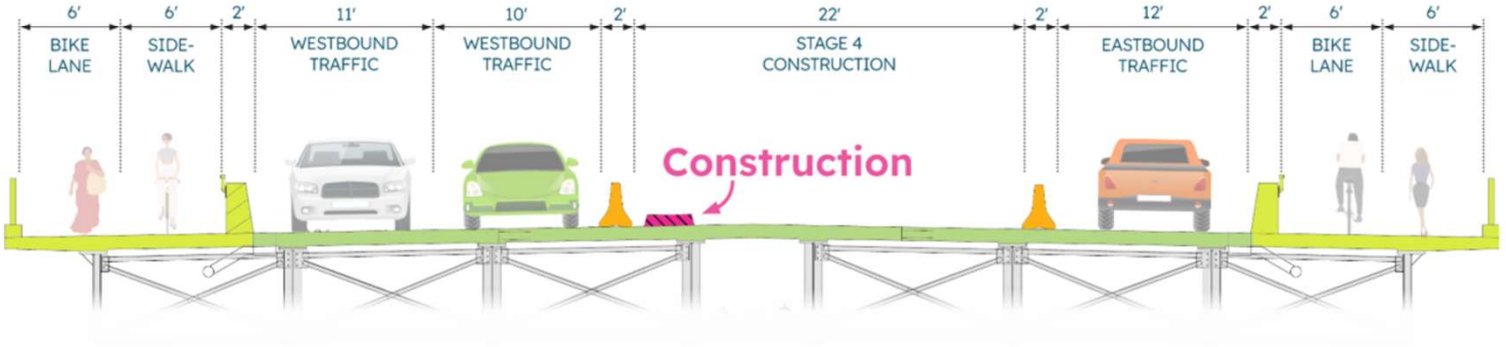
Stage 3



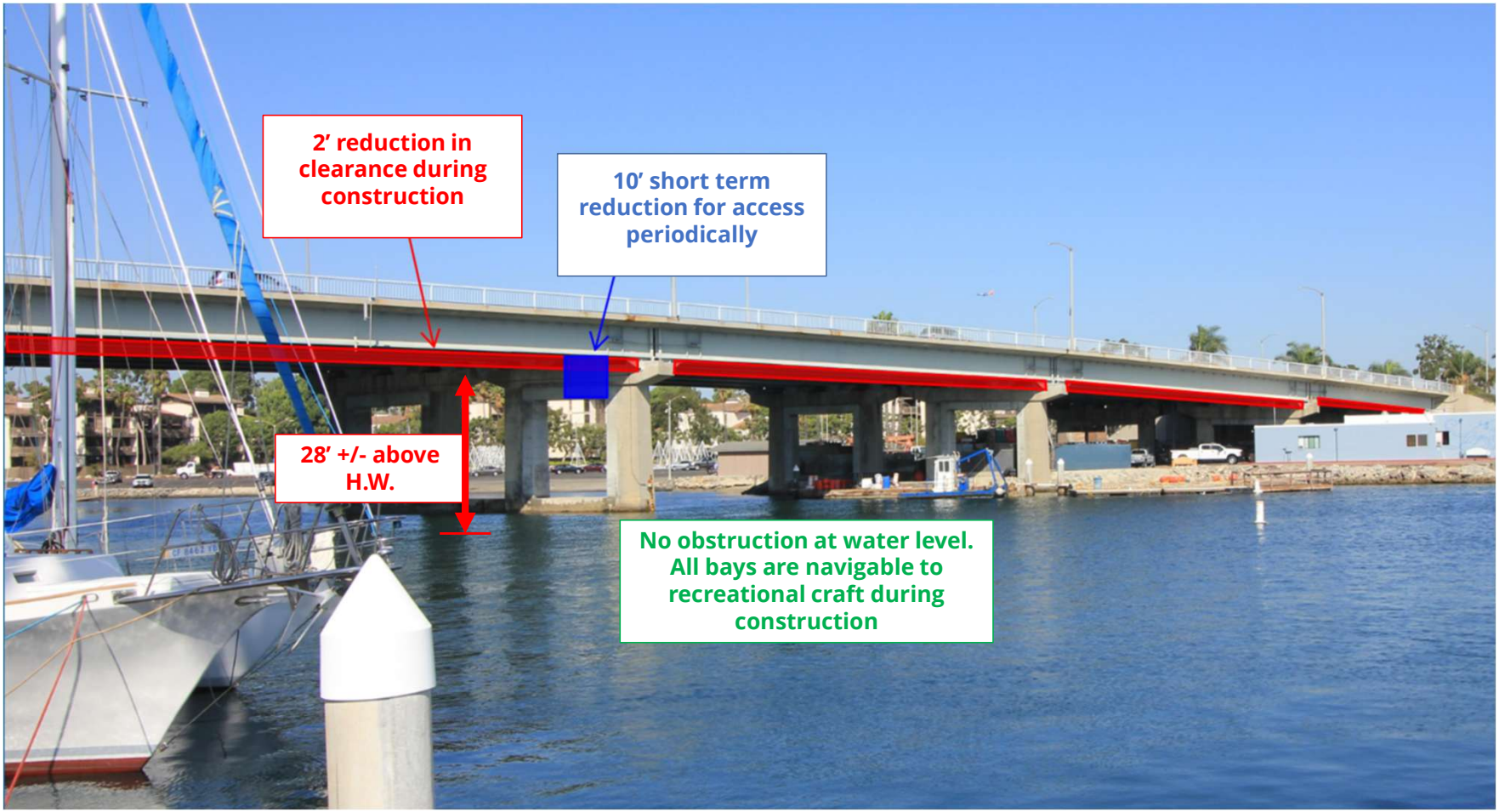
Traffic Staging – Stage 4



Stage 4



Temporary Clearances Under the Bridge



Project Grant Funding

Federal Highway Bridge Program (HBP)

- HBP is funded by Federal Highway Administration (FHWA) Administered through Caltrans
- Local Agencies request funds for Bridge Replacement, Rehabilitation, Retrofitting, Preservation, Protection, and other Safety Related Projects

Bridge Highway Local System (BHLS)

- BHLS is a funding mechanism within HBP which focuses on local bridges and roads
- Prioritizes aging or deficient bridges

2nd Street Bridge's "structurally deficient" rating, mobility enhancements, and significant connection of communities qualified the project.

Project Budget

Preliminary Estimate - $20.4M*

Funding Source	Environmental (Past)	Design (Present)	Construction* (Future)	TOTAL
HBP-BHLS Grant	$531,180	$1,239,420	$16,074,835*	$17,845,435*
Measure A (Public Works Capital Projects Fund)	$98,820	$138,582		$237,402
Measure A (Bond - Local Match)		$229,400	$2,082,665*	$2,312,065*
TOTAL	**$630,000**	**$1,607,402**	**$18,157,500***	**$20,394,902***

*The project budget/costs is subject to change as the design develops and may be influenced by external factors.

Thank You!

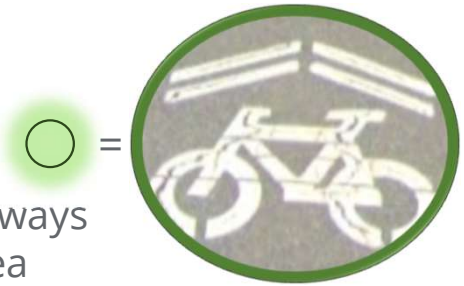
Stay up to date at:
lbcity.info/2ndstreetbridgeproject

Q & A

- Two minutes per question
- One response per question
- Unanswered questions may be submitted via question card for follow-up by Public Works

Appendix

Roadway Configuration



- **Senate Bill 1216 (Class III Bikeway Prohibition)**
  - Restricts use of Class III shared-lane (Sharrow) markings on higher-speed roadways
  - The law requires that we reconsider the existing condition when upgrading area

  - Effectively, the 2nd Street from Marina Drive to Appian Way uses "Sharrows"
  - The City **must** provide a more defined/protected bicycle facility to comply with SB 1216

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This law aims to create a safer, lower-stress environment for cyclists of all abilities by discouraging the combination of high-speed and mixed-use traffic. City intends to comply at this location.

Roadway Configuration

= Project location

= High-Injury Network

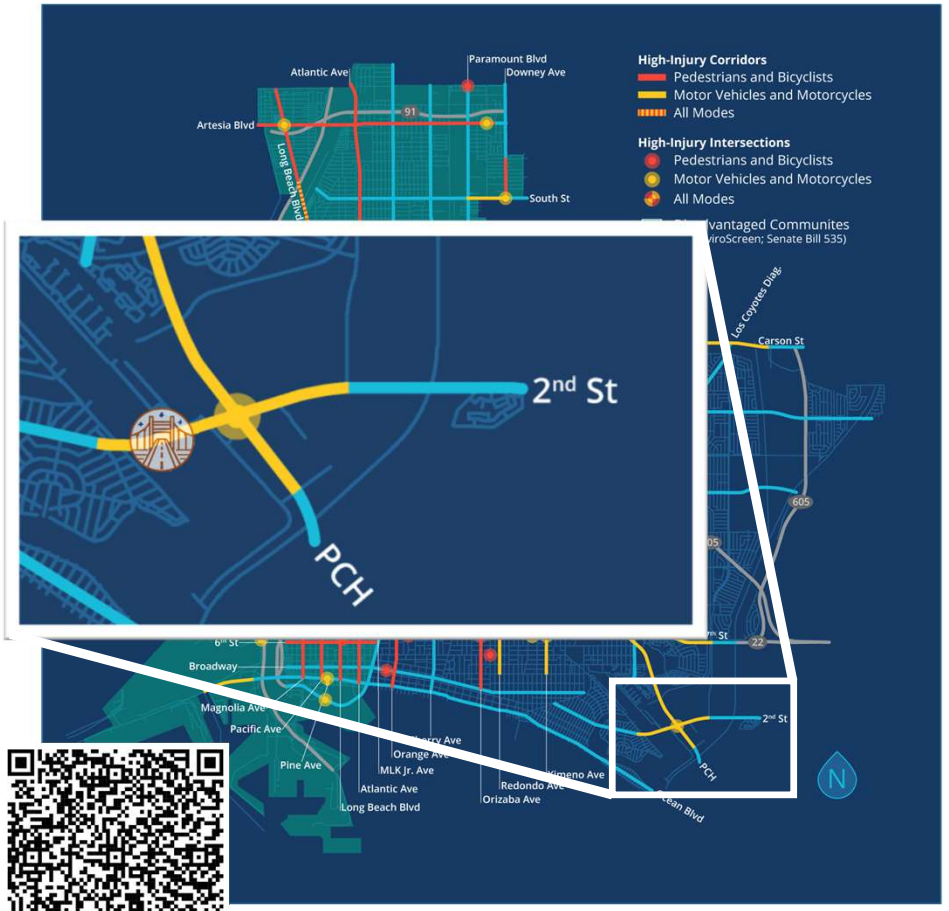
- **Safe Streets Long Beach Action Plan**
  - City adopted and is actively Implementing
  - Based on "Vision Zero", **A goal to <u>eliminate</u> traffic fatalities and severe injuries**
    - Identification of a High Injury Network (HIN)
    - Prioritization of infrastructure improvements and safe speed management
    - Supports Multi-modal integration and Complete Streets principles

- 2nd Street Between Appian Way and Studebaker Rd
  - Ranks 8th on the High-Injury Network
  - Based on 2013 - 2017 Data
    - **46 Motorcycle/Vehicle Crashes**
    - **6 Killed or Seriously Injured Crashes**

Highway Mindset: **"Get there as fast as possible"**

CITY OF LONGBEACH **vs.**

Local Mindset: **"Get there as safely as possible"**



QR: Safe Street Action Plan

Roadway Configuration

Existing Congestion Concerns

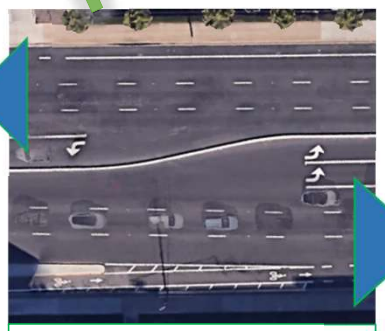
EXISTING CONFIGURATION

2nd Street West of Davies Bridge

WESTBOUND	1 bike-lane, 2 through-lanes
EASTBOUND	2 through-lanes, 1 bike-lane,

2nd Street Appian Off Ramp to Marina

WESTBOUND	1 Off-ramp trap/auxiliary/ merge/ bike lane, 2 through-lanes
EASTBOUND	1 On-ramp Lane 2 through-lanes, 1 bike-lane,

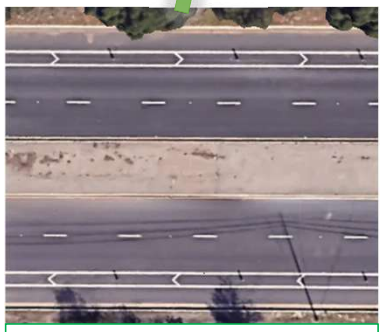


2nd Street Marina to PCH

WESTBOUND	1 bike-lane, 3 through-lanes
EASTBOUND	3 through-lanes, 1 bike-lane,

2nd Street PCH to Studebaker

WESTBOUND	1 bike-lane, 3 through-lanes
EASTBOUND	1 left-turn trap lane, 2 through-lanes, 1 bike-lane



2nd Street East of Studebaker

WESTBOUND	1 bike-lane, 2 through-lanes
EASTBOUND	2 through-lanes, 1 bike-lane

A) Funneling effect caused by the existing addition and removal of through lanes **B)** Behavior of vehicles leaving Caltrans freeways/highways **C)** 2nd Street/PCH Intersection Timing is Controlled by Caltrans