# Presentation: Small Bridge Inspections



**Golden Gate Bridge, Highway and Transportation District**
**Building and Operating Committee**
**Meeting of November 19, 2026**
**Agenda Item No. 5**

# Outline

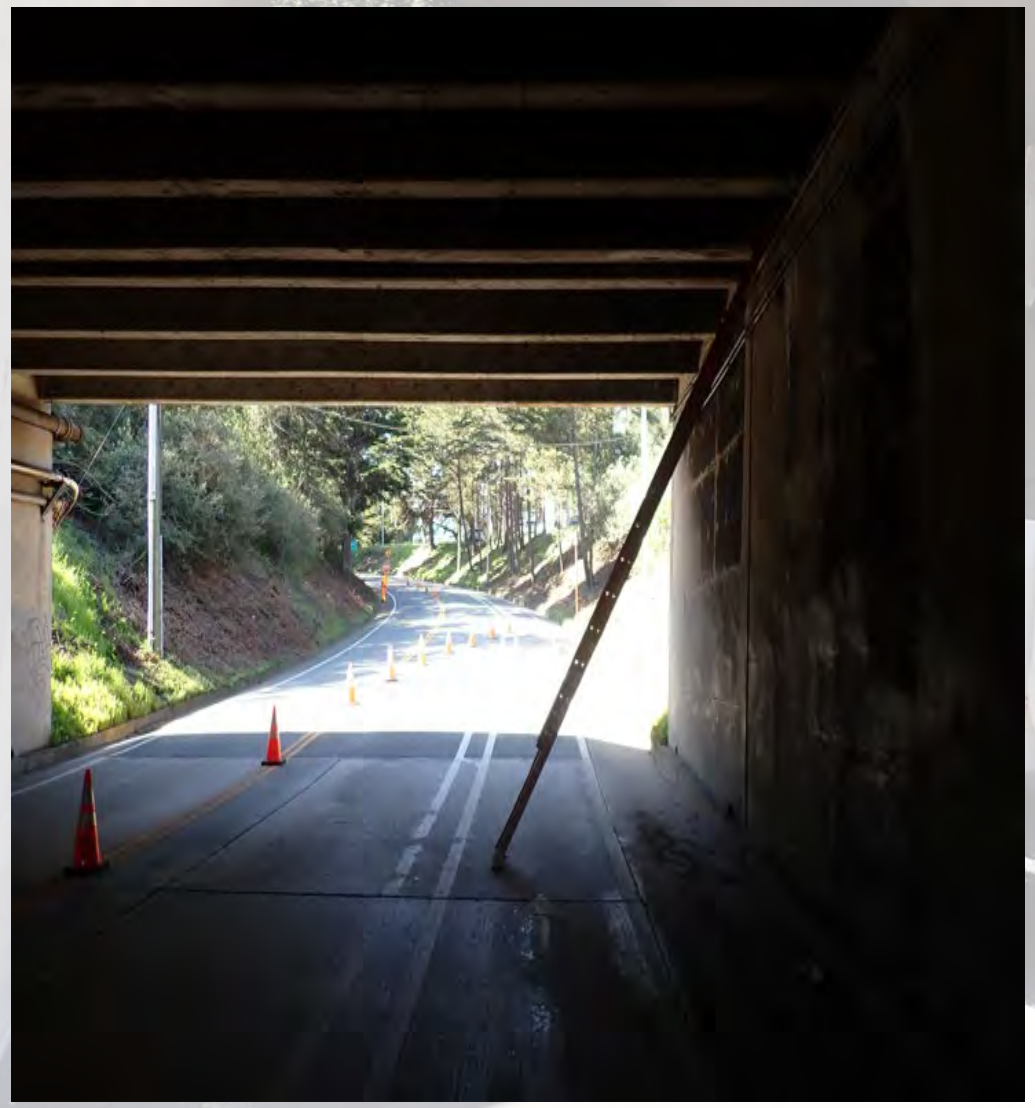
- GGBHTD Bridge Inspection Program
- Small Bridge Locations and History
- Examples of Bridge Inspection Findings
  - ✓Summary of Findings
  - ✓(58) Deck
  - ✓(59) Superstructure
  - ✓(60) Substructure
  - ✓Work recommendations
- Summary

# GGBHTD Bridge Inspection Program



- The GGBHTD owns and operates five different bridges as follows:
  - ✓Golden Gate Bridge (Bridge Number: 27-0052)
  - ✓Bunker Road Undercrossing (27C0053)
  - ✓East Road Undercrossing (27C0054)
  - ✓Lincoln Blvd Undercrossing (34-0062)
  - ✓Toll Plaza Undercrossing (34-0069)

# GGBHTD Bridge Inspection Program



- The National Bridge Inspection Standards (NBIS), set under 23 CFR Part 650 Subpart C, requires bridge owners to inspect all of their bridges every twenty-four months.
- Inspections for the Golden Gate Bridge are performed continuously and must be completed by the end of every even year, e.g. Dec., 2026.

# GGBHTD Bridge Inspection Program



- Inspections for the other four bridges are completed in March every even year and a report is submitted within 90 days
- Inspections are performed by in-house Engineering staff
- Visual and hands-on inspection with use of bucket trucks, ladders, and temporary roadway closures

# 1. Bunker Road Undercrossing



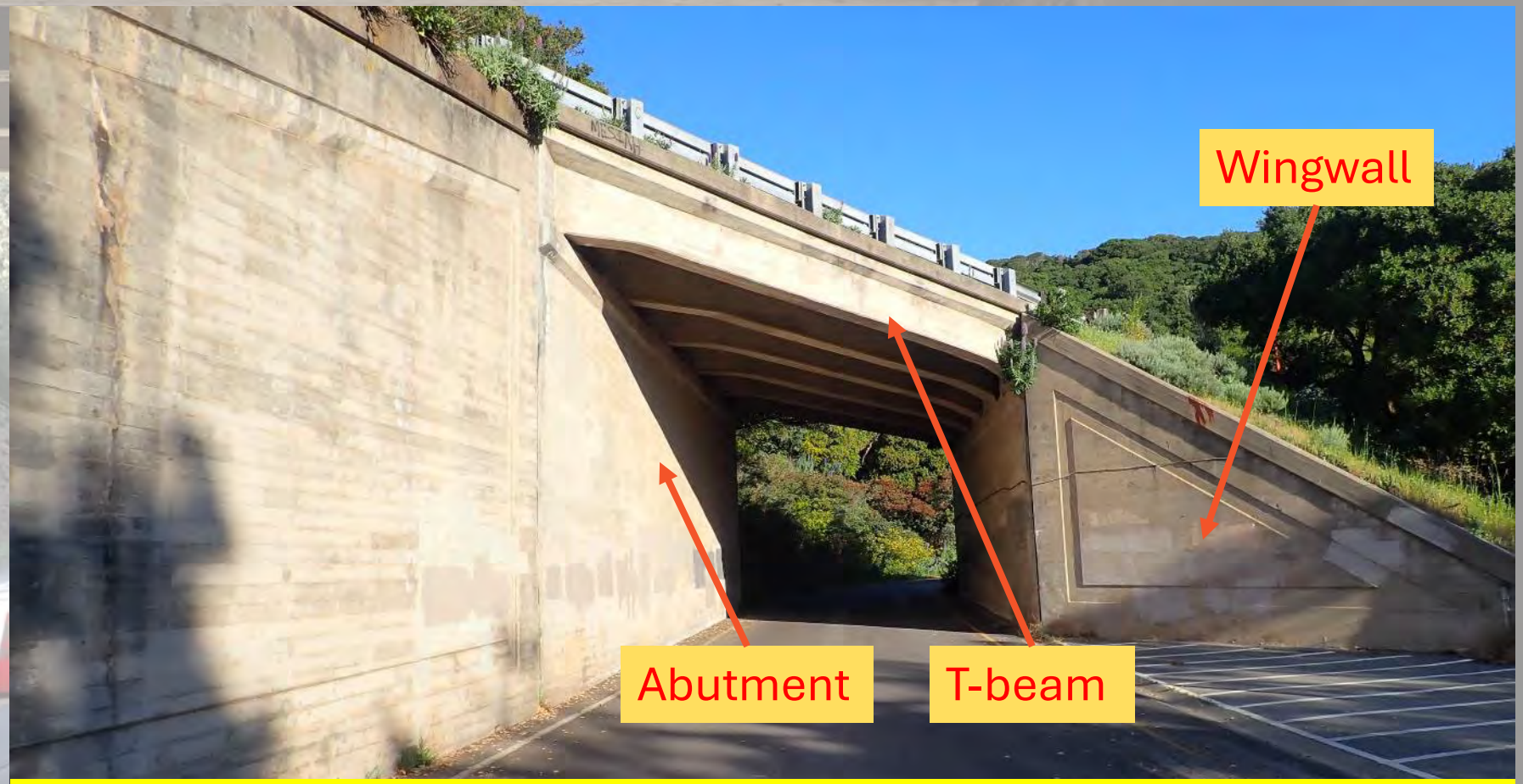




- ✓ Reinforced concrete arch is approximately 36’ long by 110’ wide
- ✓ Fill materials were placed on the top of the arch
- ✓ Reinforced concrete wingwalls on each corner of the bridge

# 2. East Road Undercrossing

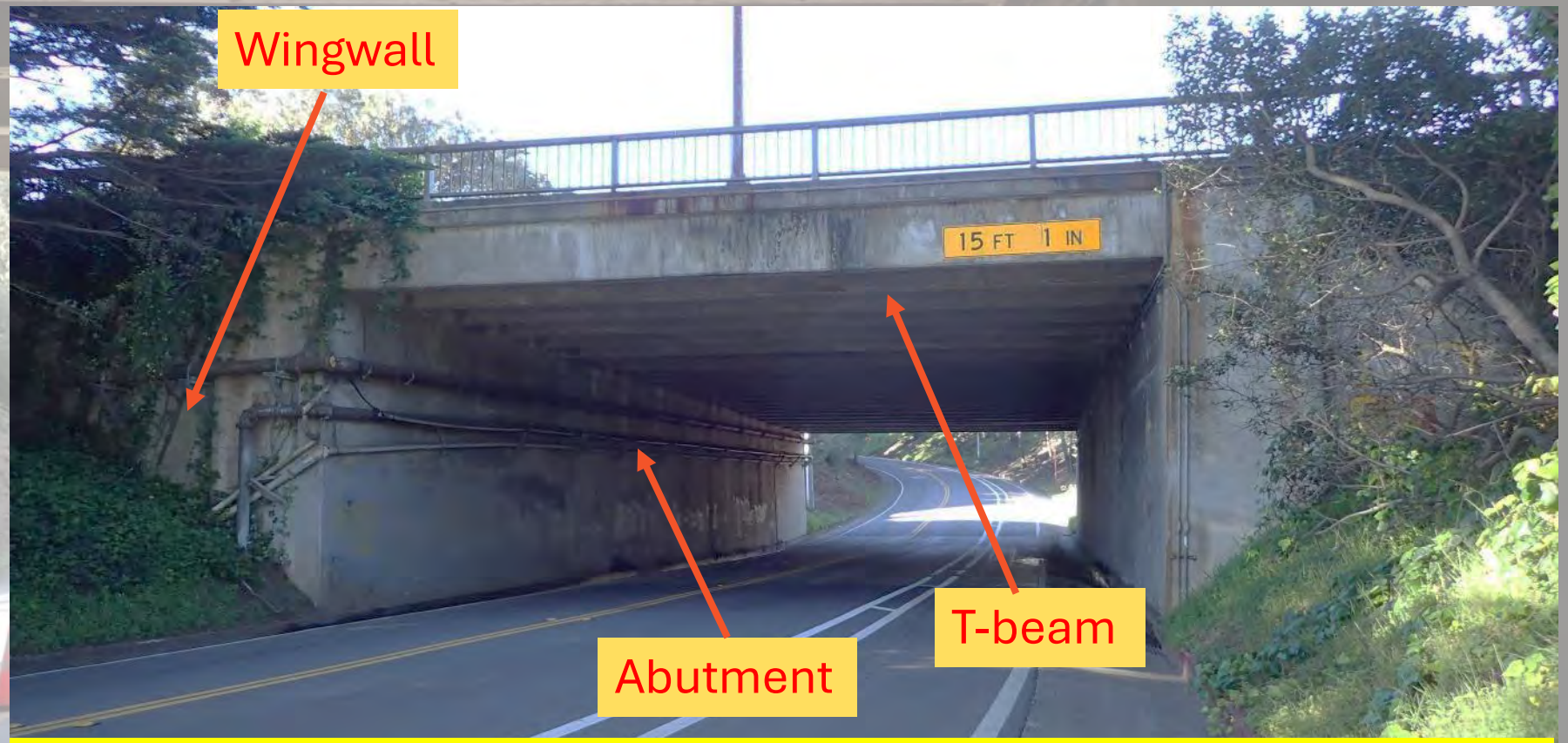



- ✓ Reinforced concrete T-beam bridge is approximately 34’ long by 36’ wide
- ✓ Reinforced concrete abutment on each side supporting deck and beams
- ✓ Reinforced concrete wingwalls on each corner of the bridge

# 3. Lincoln Blvd Undercrossing

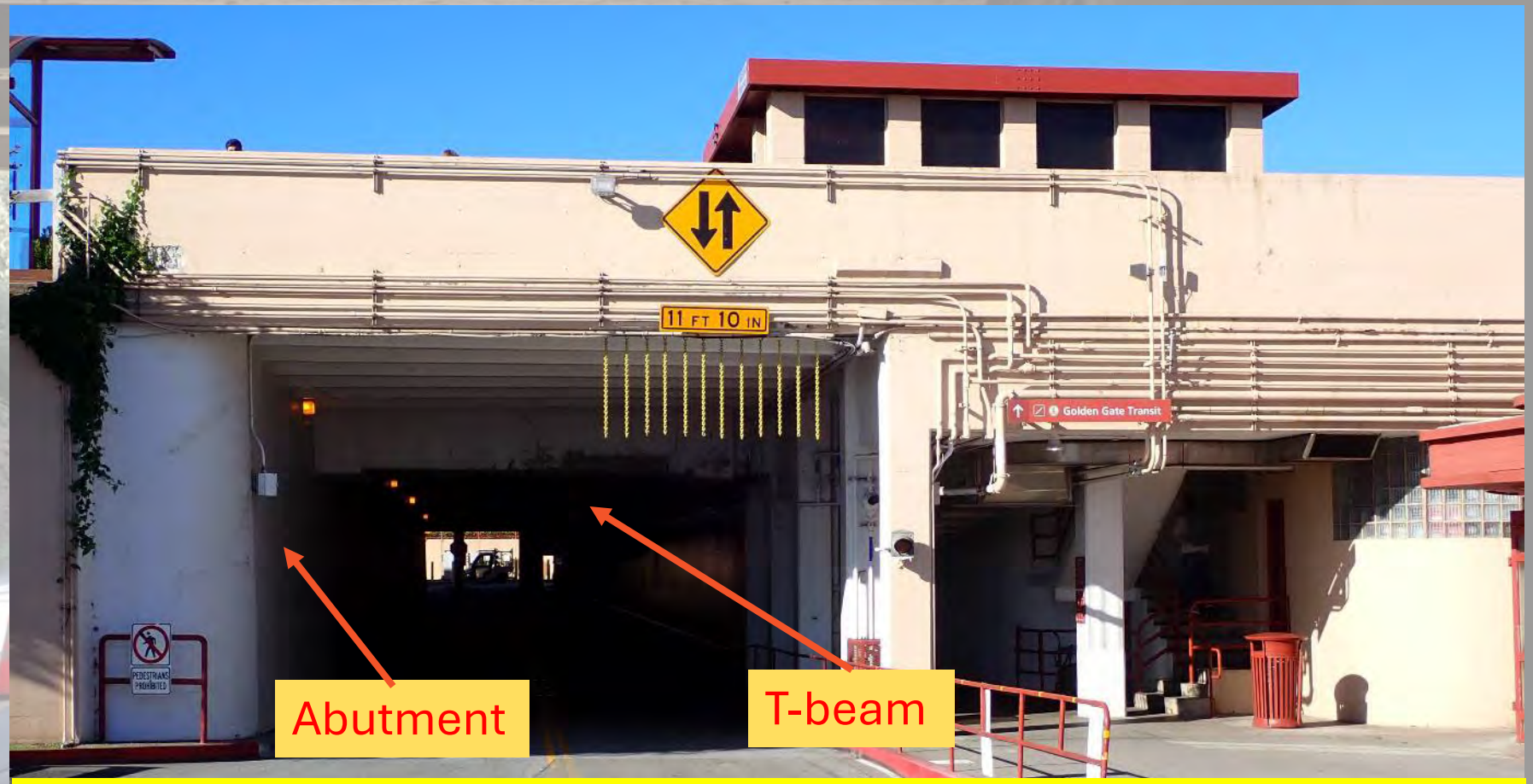



- ✓ The original reinforced concrete T-beam bridge is 43’ long by 68’ wide
- ✓ In 1955, the bridge was widened by 22’ to the west side and 33’ to the east side
- ✓ Reinforced concrete abutments and wingwalls

# 4. Toll Plaza Undercrossing




- ✓ The reinforced concrete T-beam bridge is 28’ long and supported by the reinforced concrete abutment on each side
- ✓ The top of the deck itself serves as the riding surface

# History of Small Bridges



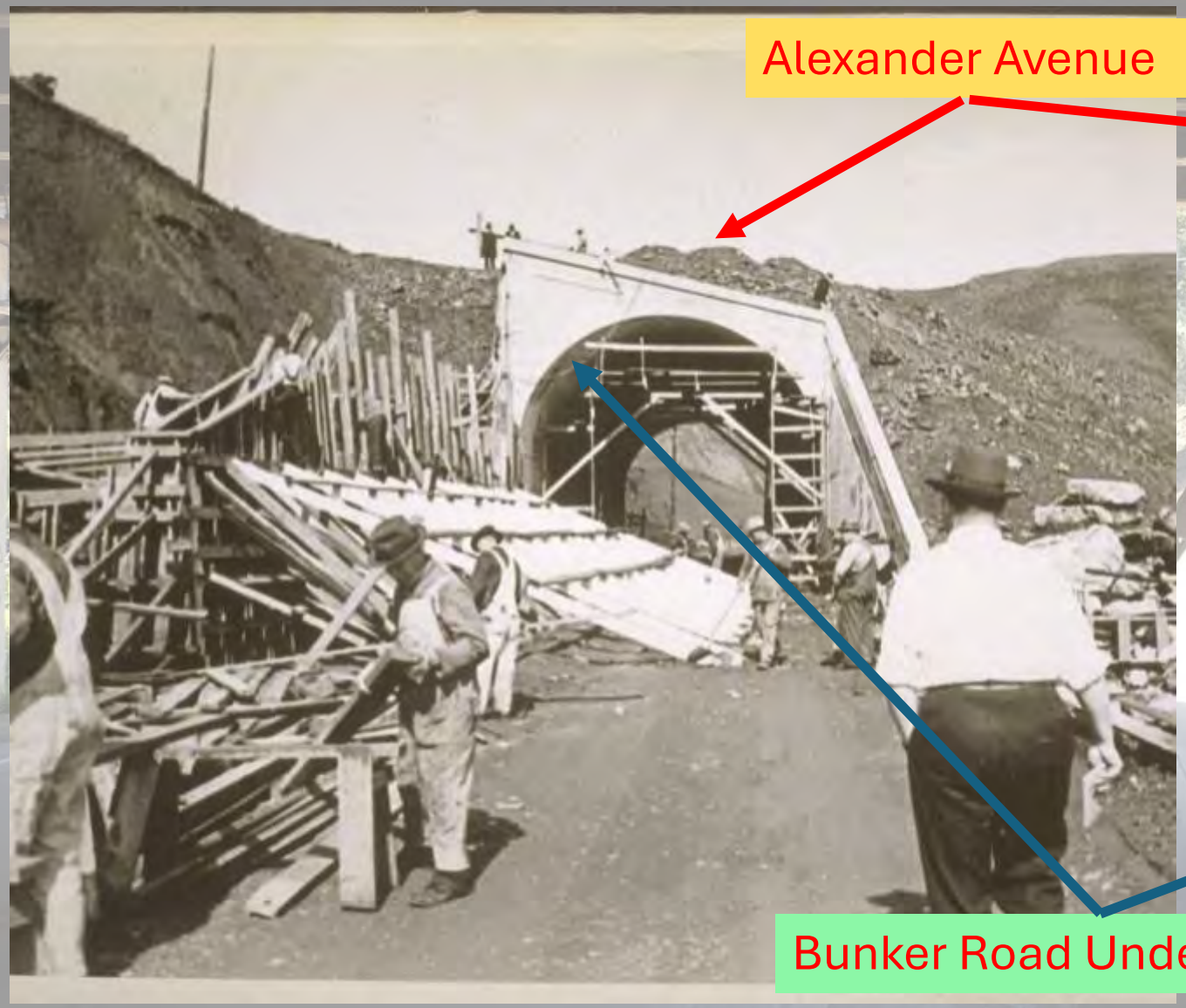

The Alexander Ave. was originally built to provide construction access through the Fort Baker military base during the construction of the Golden Gate Bridge

# History of Small Bridges




**Both the Bunker Road and East Road Undercrossings were constructed as a part of Alexander Avenue**

# History of Small Bridges



Alexander Avenue



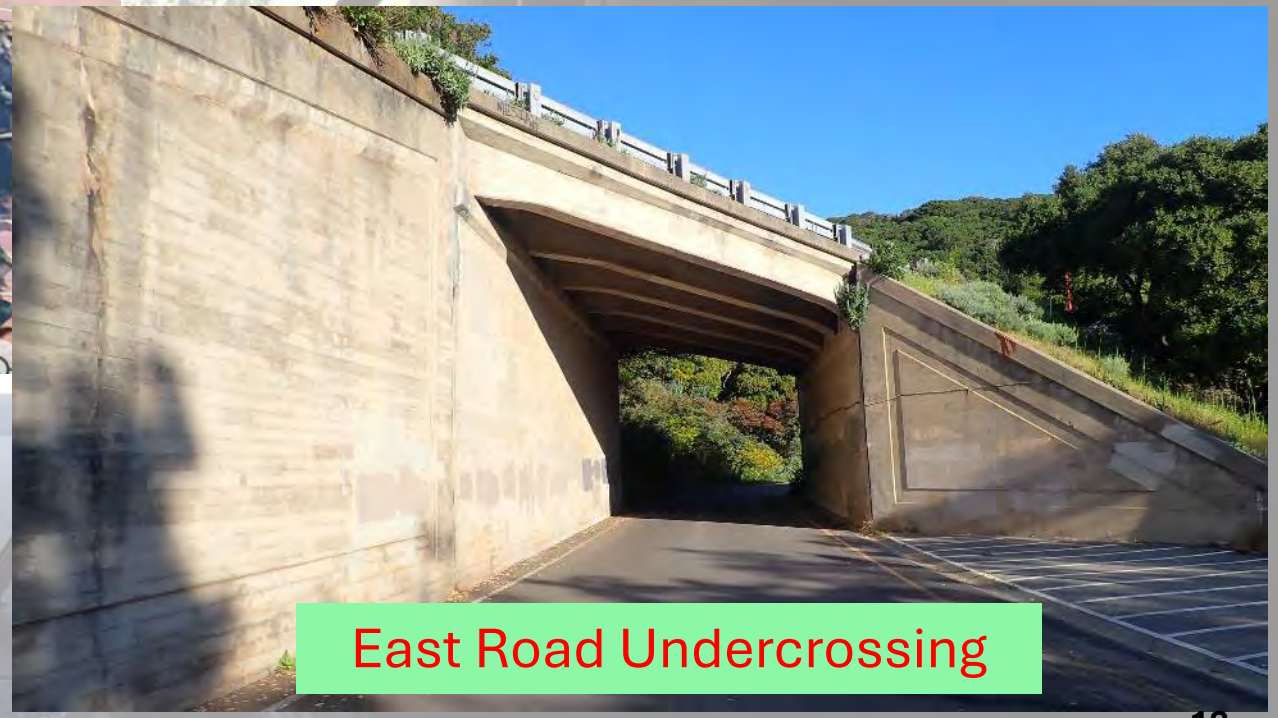
Top View of Bunker Road UC



Bunker Road Undercrossing

# History of Small Bridges



# History of Small Bridges






**Both the Toll Plaza and Lincoln Boulevard Undercrossings along US 101 were constructed to provide access to the Golden Gate Bridge**

# History of Small Bridges



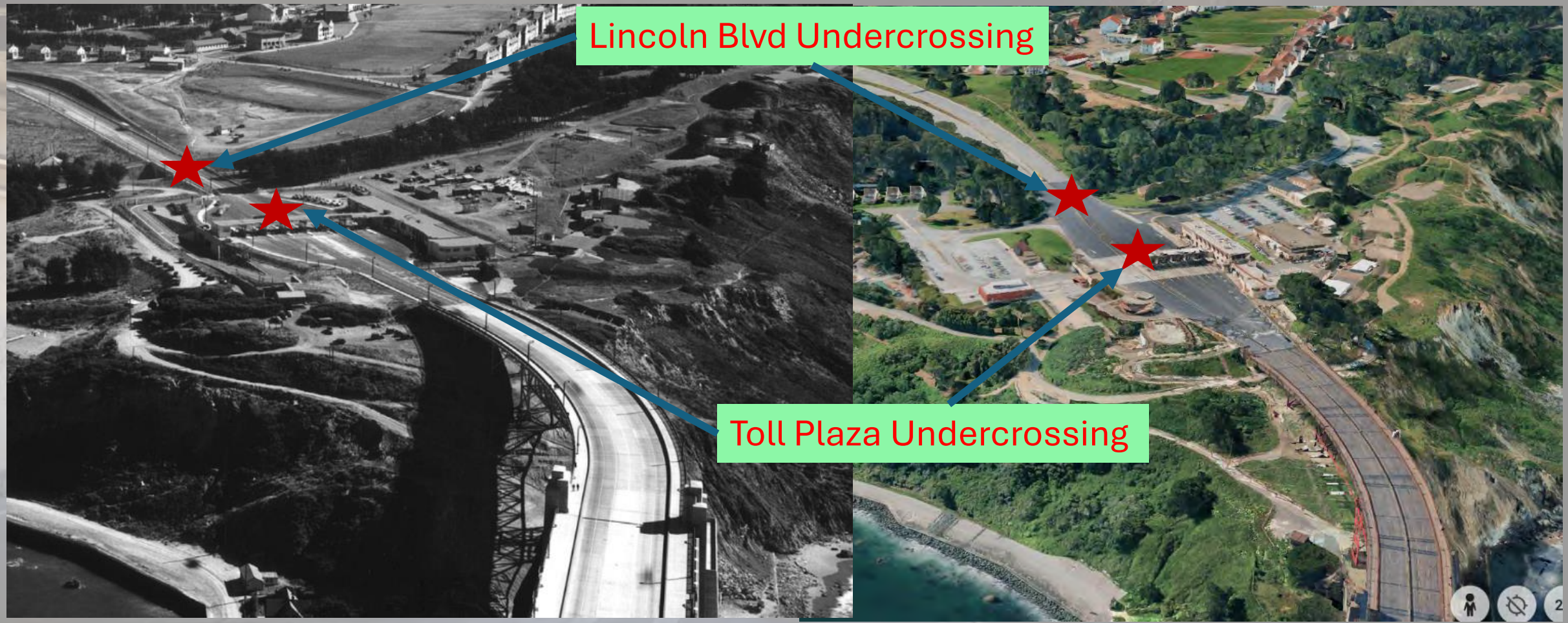



# History of Small Bridges






# History of Small Bridges



# History of Small Bridges

Top View of Toll Plaza UC




US 101 Route




Toll Plaza Undercrossing

# History of Small Bridges



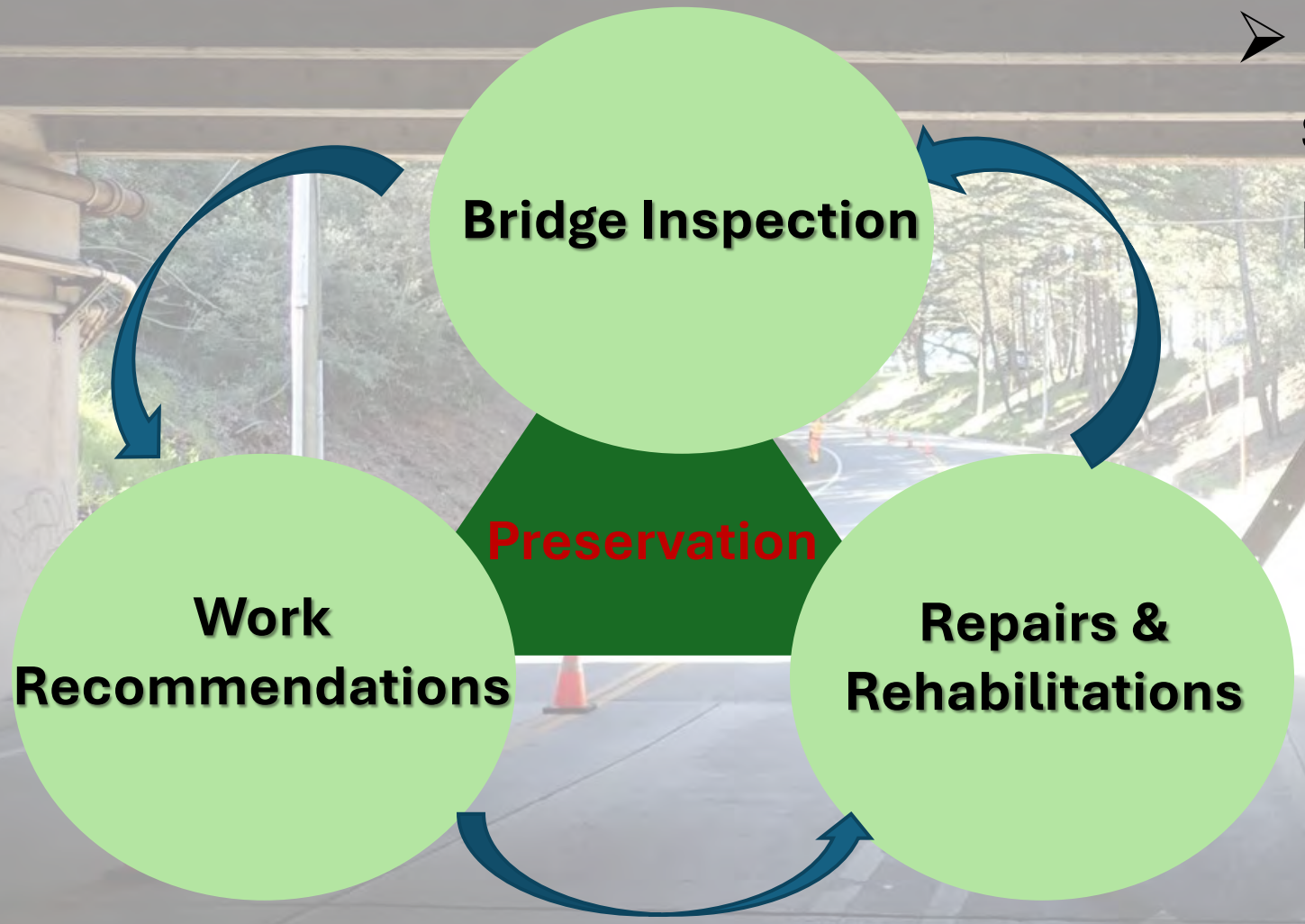
US 101 Route

Top View of Lincoln Blvd UC




Lincoln Blvd Undercrossing

# Full Cycle of Bridge Preservation

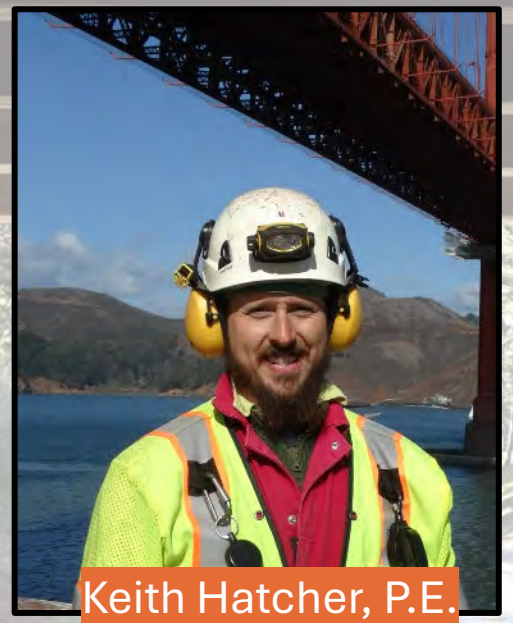



- Bridge inspection plays a significant role for bridge preservation and public safety
  - Evaluate current conditions
  - Develop Work Recommendations (WRs)
  - Prioritize WRs based on calculations and analysis
  - Help to program and coordinate repairs & rehabilitations

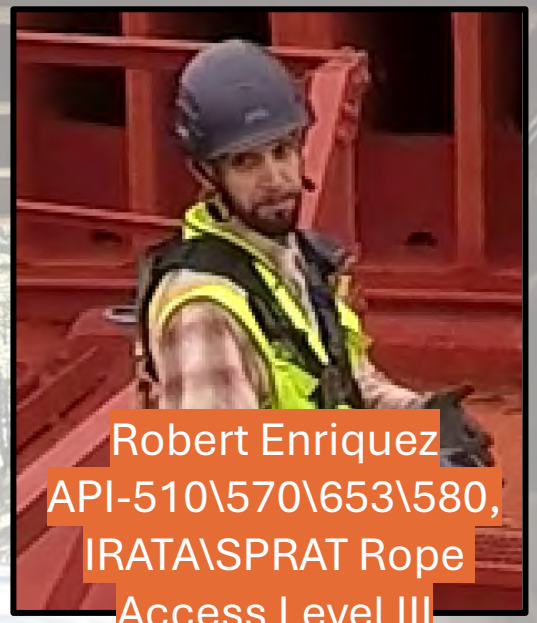
# Inspection Team



Steve Song, Ph.D., P.E.



Keith Hatcher, P.E.



Robert Enriquez
API-510\570\653\580,
IRATA\SPRAT Rope
Access Level III

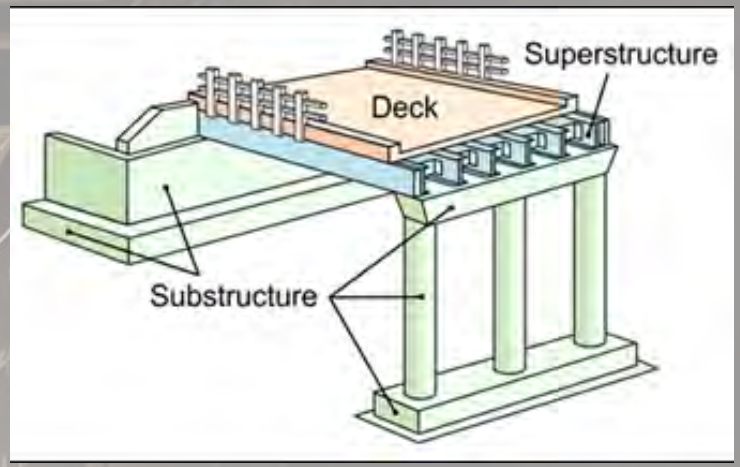


Matt Crom
Document Support

- Inspection team has combined 60 + years industry experience in the areas of bridge inspection, evaluation and maintenance
- Inspection team collaborates closely within Engineering and with Iron Worker, Paint, Security and Labor departments for routine/scheduled work as well as emergency type work

# Summary of Findings

- Ratings for the small structure components (deck, superstructure, and substructure) range from Good to Fair and remain unchanged from the 2024 inspection




| ITEM | East Rd 2026 Condition | Bunker Rd 2026 Condition | Toll Plaza 2026 Condition | Lincoln Blvd 2026 Condition |
|---|---|---|---|---|
| (58) Deck | 7 - Good | N/A | 5 - Fair | 6 - Satisfactory |
| (59) Superstructure | 7 - Good | 6 - Satisfactory | 6 - Satisfactory | 5 - Fair |
| (60) Substructure | 5 - Fair | 5 - Fair | 6 - Satisfactory | 6 - Satisfactory |

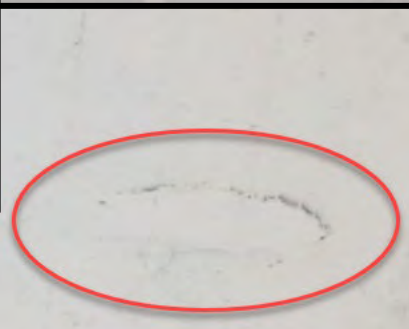
7 – GOOD CONDITION: some minor problems.
6 – SATISFACTORY CONDITION: Structural elements show some minor deterioration.
5 – FAIR CONDITION: All primary structural elements are sound but may have minor section loss, cracking, spalling, or scour.

# (58) Deck – Toll Plaza UC

| ITEM | East Rd 2026 Condition | Bunker Rd 2026 Condition | Toll Plaza 2026 Condition | Lincoln Blvd 2026 Condition |
|---|---|---|---|---|
| (58) Deck | 7 - Good | N/A | 5 - Fair | 6 - Satisfactory |



Localized Minor Underside Cracks



Localized Underside Hollow Spalls



Widespread Topside Cracks & Patching; Localized Spalls

# (59) Superstructure – Lincoln Blvd

| ITEM | East Rd 2026 Condition | Bunker Rd 2026 Condition | Toll Plaza 2026 Condition | Lincoln Blvd 2026 Condition |
|---|---|---|---|---|
| (59) Superstructure | 7 - Good | 6 - Satisfactory | 6 - Satisfactory | 5 - Fair |



Widespread Beam End Spalls with Exposed and Corroded Reinforcement



Scattered Shallow Collision Spalls

- These areas were analyzed and determined to remain structurally adequate.
- Nevertheless, repairs are planned under an upcoming project, for which the Consultant has nearly completed the repair designs.

# (60) Substructure – Bunker Rd and East Rd

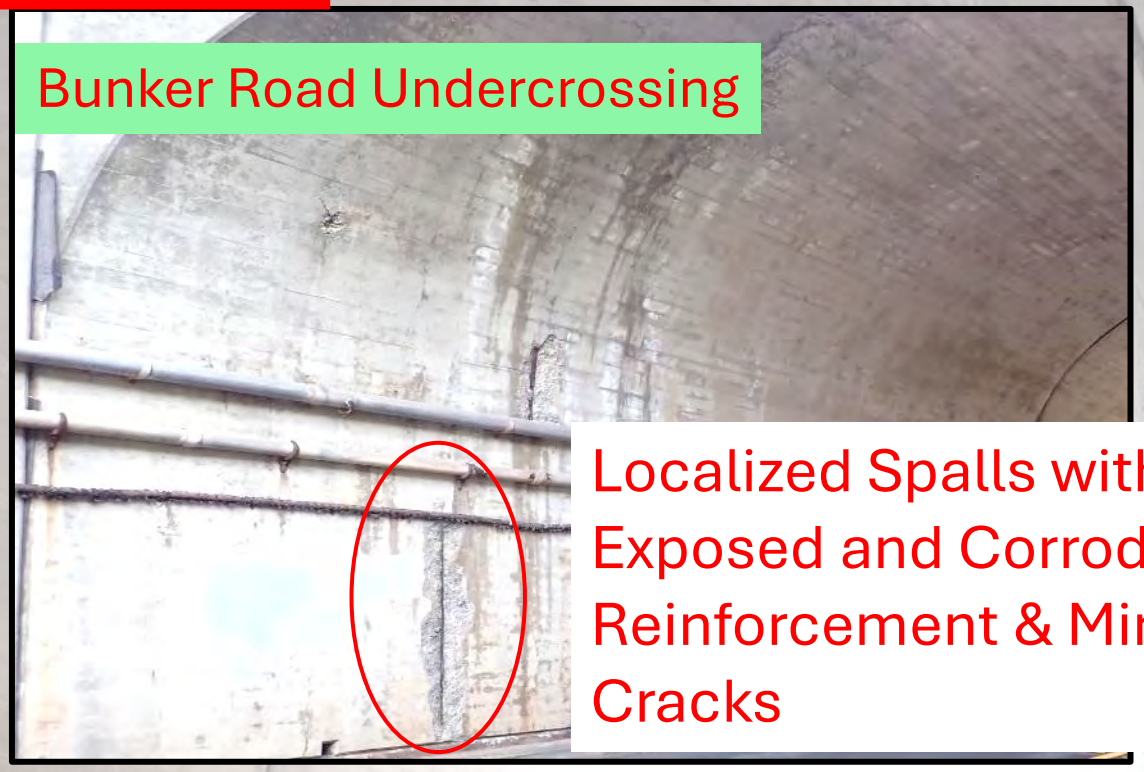
| ITEM | East Rd 2026 Condition | Bunker Rd 2026 Condition | Toll Plaza 2026 Condition | Lincoln Blvd 2026 Condition |
|---|---|---|---|---|
| (59) Superstructure | 7 - Good | 6 - Satisfactory | 6 - Satisfactory | 5 - Fair |
| (60) Substructure | 5 - Fair | 5 - Fair | 6 - Satisfactory | 6 - Satisfactory |

East Road Undercrossing



Localized Spalls with Exposed and Corroded Reinforcement

Bunker Road Undercrossing



Localized Spalls with Exposed and Corroded Reinforcement & Minor Cracks

- Will program to repair these spalls

# Follow-ups to Work Recommendations



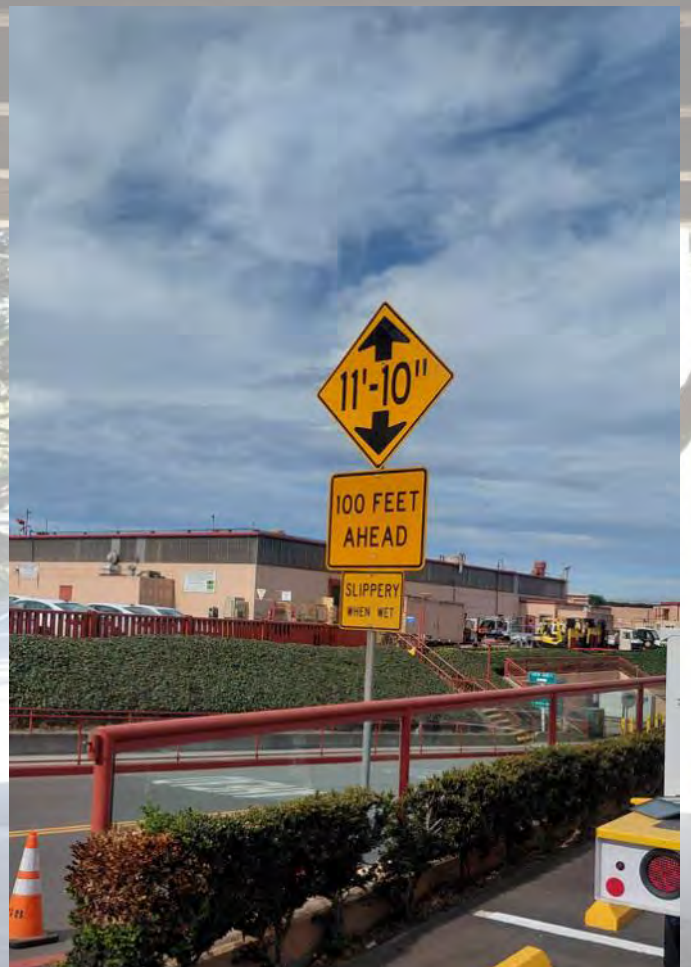
East Rd – Severely rotten west timber horizontal rail replaced in-kind over structure by Maintenance.



Toll Plaza – Maintenance removed hanging spalls and patched collision spalls at both ends.

# Follow-ups to Work Recommendations







Toll Plaza – Signs have been either improved or installed in accordance with the updated CA guidelines

# Work Recommendation



- On 10/25/2025 a pickup truck lost control and collided head-on with the west fascia railing of the Lincoln Blvd Undercrossing, destroying 30ft rail
- District personnel immediately blocked off the area and positioned a crash truck to protect the traveling public
- On 10/27/2025, approximately 200 feet of temporary concrete K-rail barrier was installed along the west fascia
- Consultant drawings for complete replacement nearly finalized

# Summary

- Bridge inspection is vital for bridge preservation
- In-house engineering team, which consists of personnel with deep knowledge on bridge inspection, evaluation and maintenance, performs the inspection for small bridges in accordance with the federal regulations
- The condition rating ranges from good to fair with no significant structural findings
- Considerable efforts have been undertaken to develop work recommendations, and to establish follow-up repair and rehabilitation



# Thank you! Any Questions?