

Westside Bridges Project

Retaining Wall Treatment



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Authority

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Project Location



Prepared By:
WMH

Yerba Buena Island Westside Bridges Project
PROJECT LOCATION MAP

September 2020

Identification of the project's six retaining walls



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Project Overview

The Yerba Buena Island Westside Bridges Seismic Retrofit (Project) encompasses eight (8) existing bridge structures on the west side of Yerba Buena Island (YBI).

- These structures generally comprise a viaduct along Treasure Island Road, just north of the San Francisco-Oakland Bay Bridge (SFOBB).
- The Project limits along Treasure Island Road are from the SFOBB to approximately 2000-feet northward.
- This stretch of Treasure Island Road includes the bridge structures and portions of “at-grade” roadway.



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Project Overview

The current bridges were constructed from 1937 through to 1964 and have been determined to be seismically deficient.

The SFCTA, in cooperation with Caltrans, TIDA, and the FHWA, are bringing the bridge structures up to current seismic safety standards. The Project consists of the following work.

- Demolish seven (7) bridge structures;
- Realign roadway into the hillside;
- Construct six (6) retaining walls;
- Construct one undercrossing structure; and
- Seismically retrofit one bridge structure.



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Why we are here



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The purpose of our presentation today relates to the aesthetic treatment of the new Retaining Walls associated with the Westside Bridges Project

The Aesthetic Treatment Process

The SFCTA Westside Bridges Project Team has taken deliberate steps to produce a recommendation for the aesthetic treatment for these walls.

To accomplish this task - we carefully considered the perspectives of numerous key stakeholder groups, constructability and previously approved treatments for relevant architectural walls on Yerba Buena Island.



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The Aesthetic Treatment Process

Various Geographic and Community-Specific Perspectives taken into consideration:

- Drivers on the Lower Deck of the Bay Bridge
- Residents/Guests/Businesses along the Embarcadero in San Francisco
- Those individuals taking the future Ferry to Treasure Island (TI)

Constructability:

- Potential Treatments from the engineering perspective
- Potential Treatments from the construction perspective

Previous Approvals:

- The retaining walls adjacent to the Yerba Buena Water Tanks



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The Aesthetic Treatment Recommendation

The Project Team developed several visual simulations.

A. Plain gray concrete color.

- This option was discarded as it did not provide a natural blend to the background environment.

B. A “Rock Texture” on Retaining Wall 1 was selected because the construction method of the wall provides the opportunity to provide this natural rock texture application.

- This treatment is consistent with walls for TIDA development with similar construction methods.

C. The remaining retaining walls will be treated with a ‘staining process’ to match color tones of the natural environment.

- The Team evaluated multiple shades of green and earth tones.
- The Team determined the ‘tan’ tone was better in matching the predominate earth tones of the natural environment.



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The Aesthetic Treatment Recommendation

Retaining Wall Number 1

Shotcrete "Rock Surface" style texture with natural colored stain to match environment

Retaining Walls Number 2, 3, 5 and 6

- Concrete Staining to 'best match' the seasonal fluctuations of the trees, bushes, grasses and mosses on the west-facing side of Yerba Buena Island

Retaining Wall Number 4

- Natural concrete to match the exit from the Bay Bridge



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Retaining wall treatment



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(WALL SHOWN WITHOUT TREATMENT)

Retaining walls from lower deck of Bay Bridge



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(WALL SHOWN WITHOUT TREATMENT)

Retaining walls from just before TI/YBI Ramp



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(WALL SHOWN WITHOUT TREATMENT)

Retaining walls from the Embarcadero



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(WALL SHOWN WITHOUT TREATMENT)

Retaining wall treatment



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(WALL SHOWN WITH RECOMMENDED TREATMENT)

Retaining walls from lower deck of Bay Bridge



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(WALL SHOWN WITH RECOMMENDED TREATMENT)

Retaining walls from just before TI/YBI Ramp



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(WALL SHOWN WITH RECOMMENDED TREATMENT)

Retaining walls from the Embarcadero



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(WALL SHOWN WITH RECOMMENDED TREATMENT)

YBI water tank retaining walls



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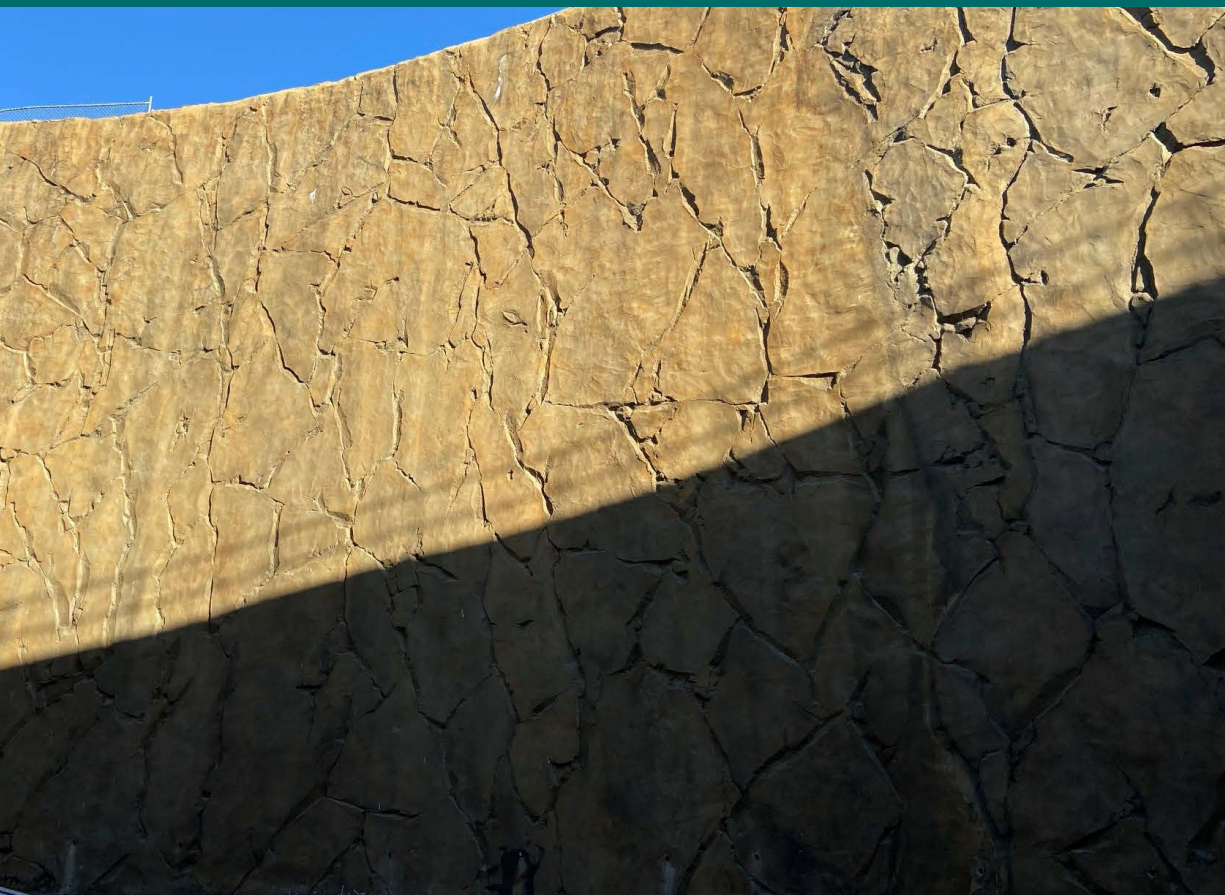
WATER TANK RETAINING WALLS



YBI water tank retaining walls



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Thank you.
Any Questions?

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