



West Channel looking upstream from Caribbean, Fall 2020

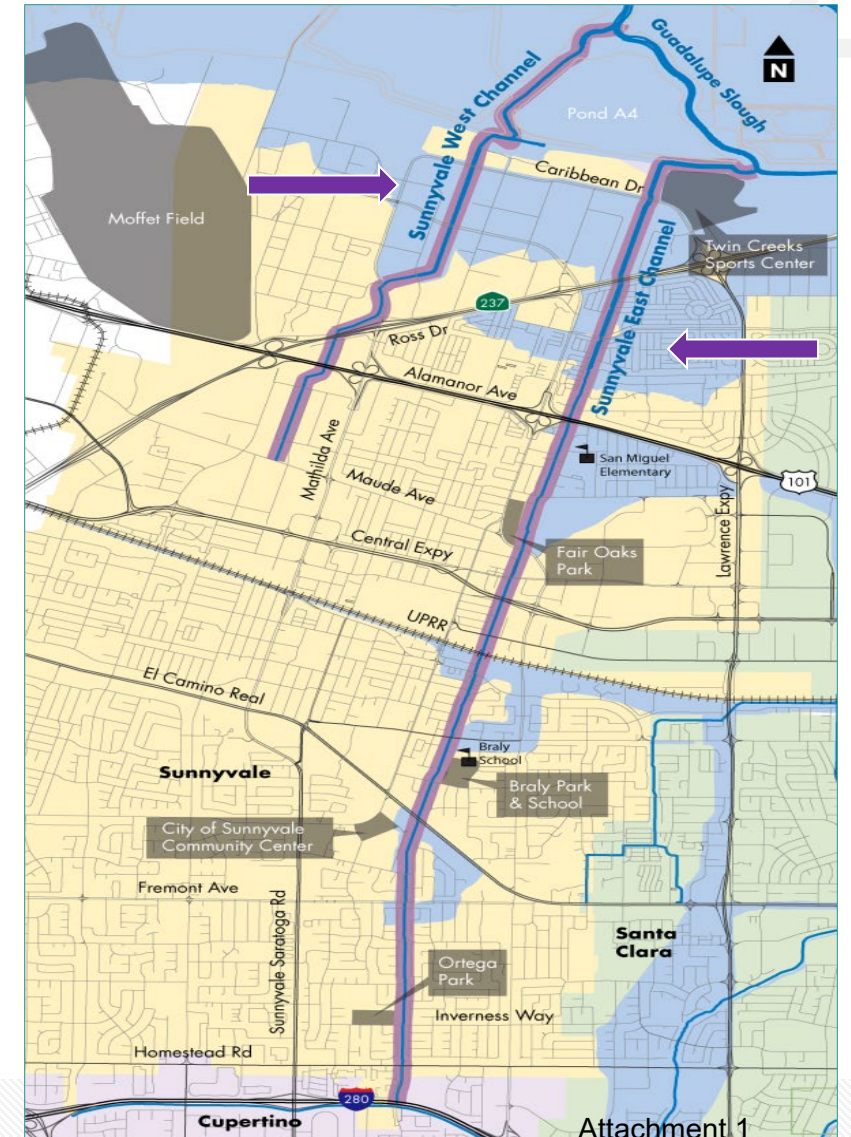
Sunnyvale East-West Flood Protection Project

Presented by: **Mr. Stephen M. Ferranti, P.E.** Engineering Unit Manager

Sunnyvale East-West Flood Protection Project

Overview (1 of 2)

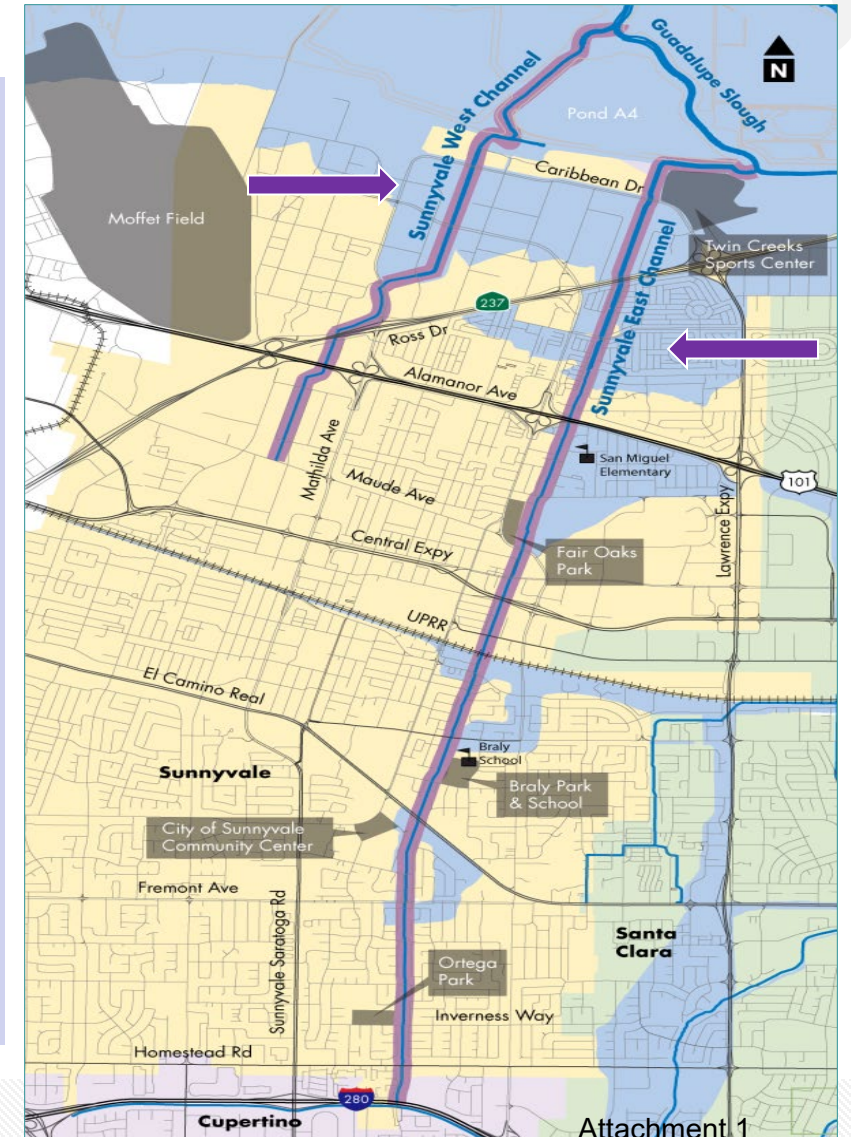
- Storm drain channels constructed by the District in 1960's;
- Historical flooding in 1963, 1968, 1983, 1986 and 1998;
- Project funded by Safe Clean Water measure;
- Design 99% Complete (9± miles)



Sunnyvale East-West Flood Protection Project

Overview (2 of 2)

- Submitted permit applications to Resource Agencies (June 2017);
- Permanent right-of-way acquisition complete
- Temporary Construction Area's pending;
- Trail cost share agreement and JUA complete with City of Sunnyvale;
- Bay Trail cost share agreement complete with Google
- Construction Contract Award – planned sometime in 2022



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Historic Flooding

Flooding from
Sunnyvale East
Channel at Caribbean
Drive and Crossman
Avenue— Feb. 3, 1998



Sunnyvale West Channel Project

Typical channel



Looking south from Carl Road

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valleywater.org

Sunnyvale East Channel Project

Typical channel

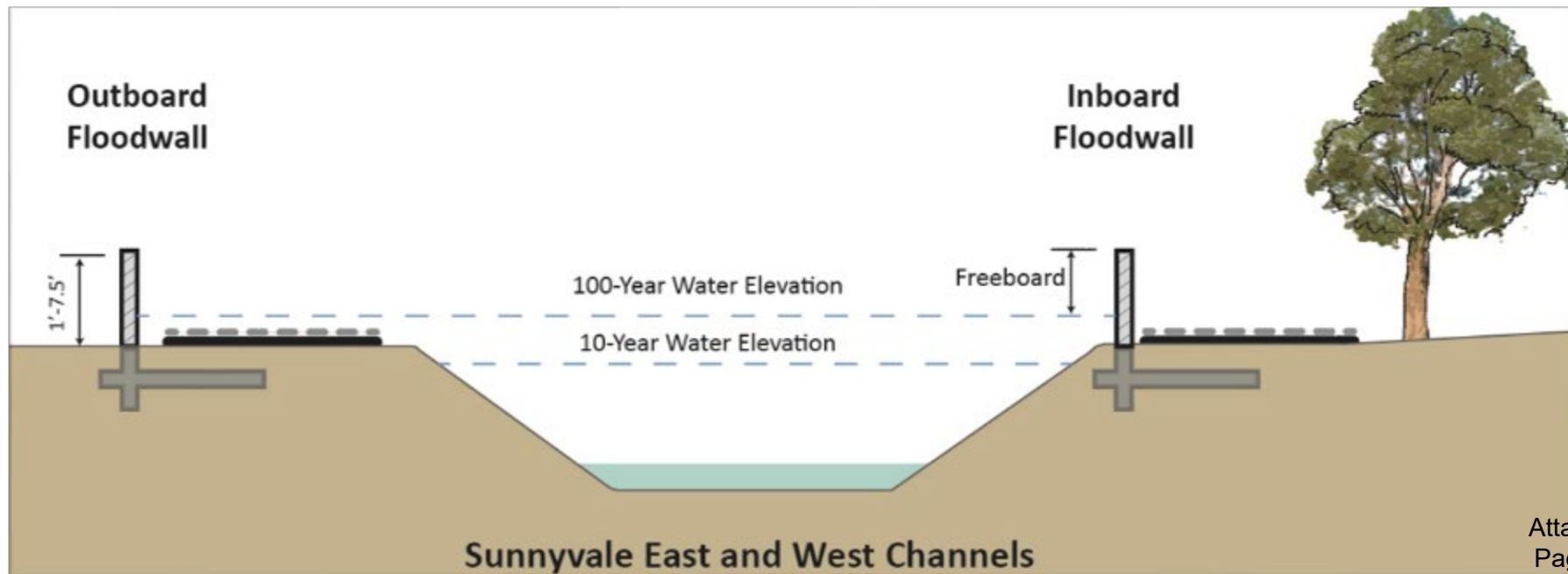


Sunnyvale East Channel:
Looking north from Blythe Avenue

Sunnyvale East-West Flood Protection Project

Proposed Floodwalls

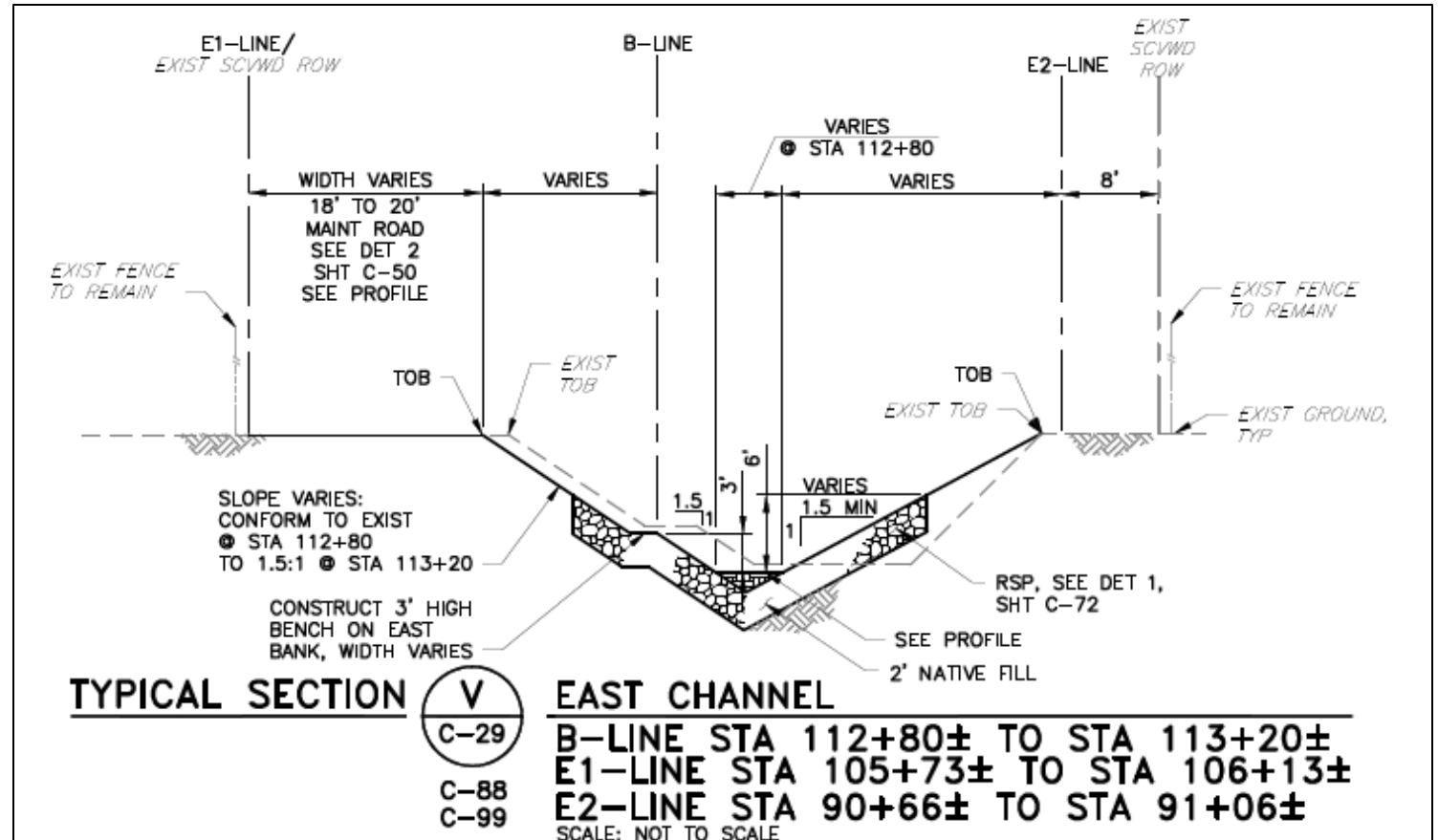
- Provides 100-year flood protection and meets freeboard standards
- East Channel: S.F. Bay to U.S. 101
- West Channel: S.F. Bay to Mathilda Avenue
- Vertical heights ranging from 1 foot to 7.5 feet above existing ground
- Graphic artwork on bridge headwalls and form liners on floodwalls



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Proposed Rock Slope Protection (RSP) and Native Bed Fill

- RSP design per pending discussions with agencies
- Design optimized to include RSP only where needed.
- Proposed 2' thick layer of native fill on invert for habitat value
- Upper slopes to be treated with native seed mix and natural erosion control blanket



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Proposed Bridge/Culvert Modifications

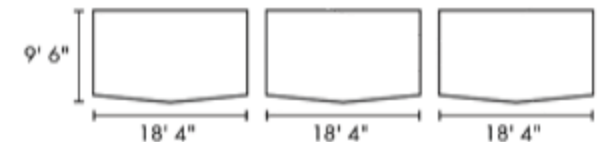
Bridge/culvert Replacements

- East Channel: Caribbean Drive Bridge
 - Replace with larger bridge, triple cell box culvert
 - Requires traffic management during construction
- West Channel:
 - Carl Road Culvert: Replace with larger, single box culvert
 - Java Drive: Reinforced Concrete Box culvert extension
- Provide 100-year flood protection and meet FEMA freeboard standards

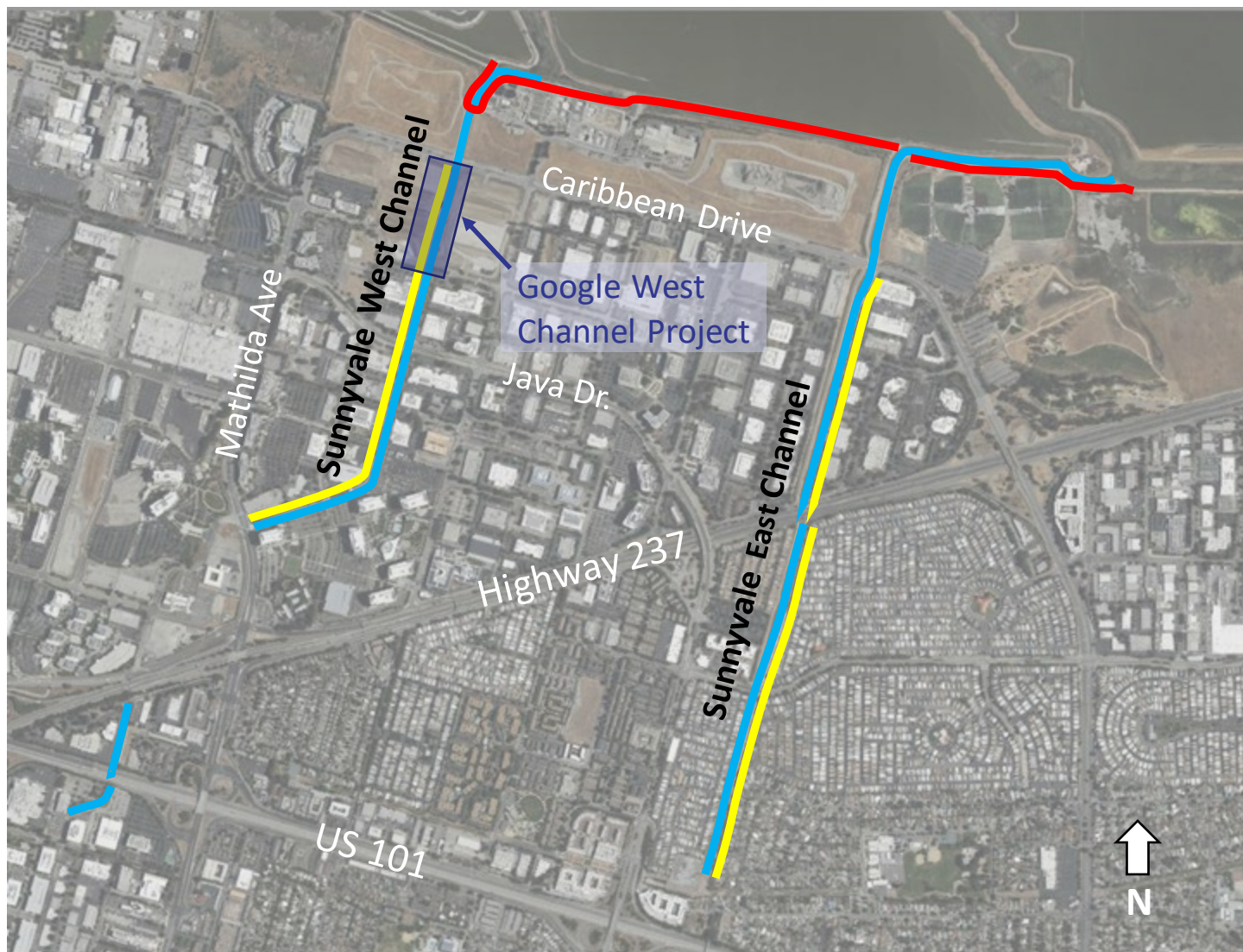
Caribbean Drive Bridge at Sunnyvale East Channel



Triple Box Culvert Section



Trail Cost Share Agreements



- City of Sunnyvale, Joint Use Agreement and Cost Share Agreement (2016)
- Google, SF Bay Trail Cost Share Agreement (2020)
- Actual cost for public trails, will be determined at construction award (TBD)

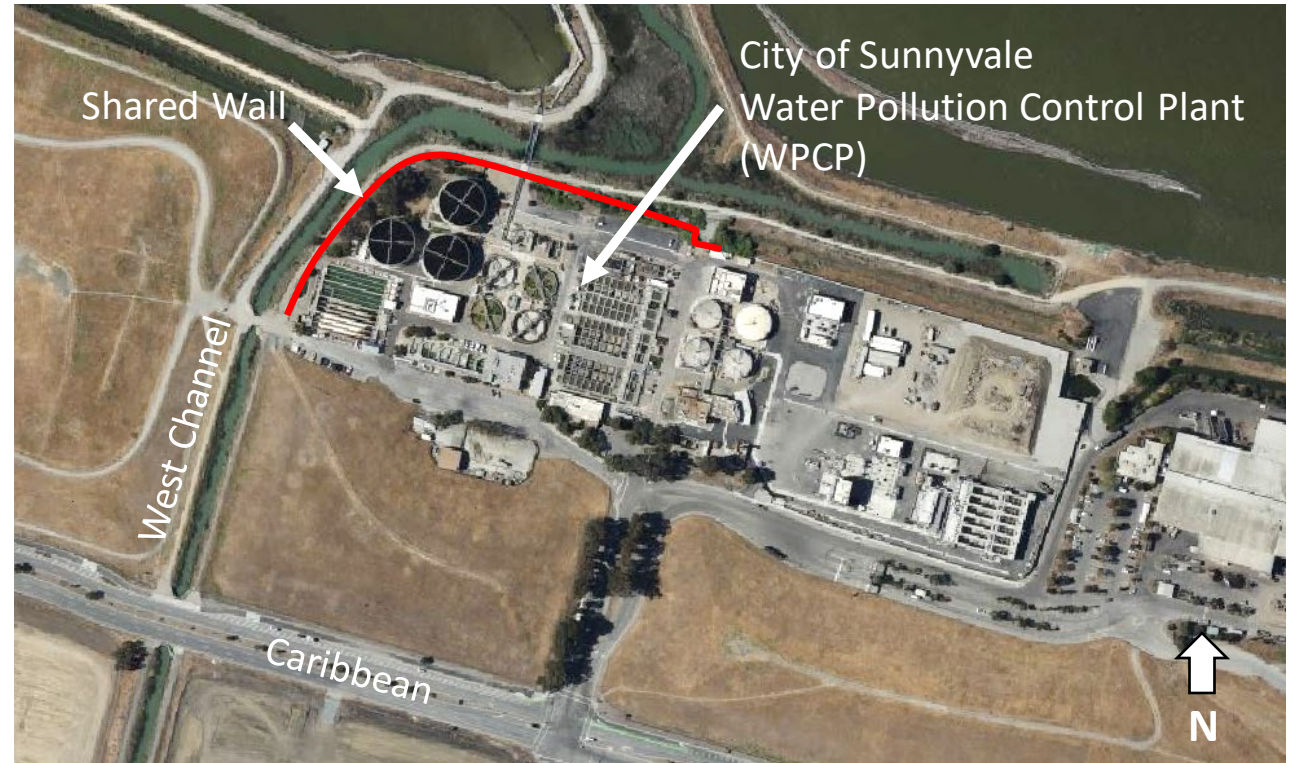
— District Storm Drain
— City of Sunnyvale Trail JUA
— SF Bay trail cost share with Google

Sunnyvale East-West Flood Protection Project

Shared Wall with City of Sunnyvale WPCP

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- Proposed shared wall to serve as a security fence (City) and as a wall for flood protection (VW)
- Estimated construction 2023 by City
- Alignment to be finalized after City Agreement with PG&E and VW review, timing TBD
- Pending cost share agreement between VW and City for WPCP wall



Sunnyvale East-West Flood Protection Project

Summary and Project Update

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- 100% Design Complete - Fall 2021
- Final Agreement with Google on West Channel (Pending)
- EIR Addendum and Permit Discussions (On-going)
- Resource Agency Permits in 2022 (TBD)
- Construction Advertisement upon Receipt of Resource Agency Permits (TBD) *

* Timeline dependent on final agreement with Google and receipt of various Resource Agency permits

QUESTIONS



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