



**METROPOLITAN
TRANSPORTATION
COMMISSION**

Bay Area Metro Center
375 Beale Street, Suite 800
San Francisco, CA 94105
415.778.6700
www.mtc.ca.gov

Air Quality Conformity Task Force

Metropolitan Transportation Commission
Bay Area Metro Center

Mount Hamilton Conference Room

375 Beale Street, Suite 800

(Note: Visitors must check in with the receptionist on the 7th floor)
San Francisco, CA

Conference Call Number: 888-273-3658 (Access Code: 9427202)

Thursday, February 23, 2017

9:30 a.m. –11:00 a.m.

AGENDA

1. Welcome and Introductions
2. PM_{2.5} Project Conformity Interagency Consultations
 - a. Consultation to Determine Project of Air Quality Concern Status
 - i. Great Highway Permanent Restoration Project
 - b. Confirm Projects Are Exempt from PM_{2.5} Conformity
 - i. Projects Exempt Under 40 CFR 93.126 – Not of Air Quality Concern
3. Projects with Regional Air Quality Conformity Concerns
 - a. Review of the Regional Conformity Status for New and Revised Projects
3a_Regional_AQ_Conformity_Review.pdf
3a_Attachment-A_List_of_Proposed_New_Projects_2-23-17.pdf
4. Consent Calendar
 - a. January 26, 2017 Air Quality Conformity Task Force Meeting Summary
5. Other Items – NEPA Delegation/Assignment – Continued Discussion Follow-up

Next Meeting: March 23, 2017

MTC Staff Liaison: Harold Brazil hbrazil@mtc.ca.gov



METROPOLITAN
TRANSPORTATION
COMMISSION

Bay Area Metro Center
375 Beale Street
San Francisco, CA 94105
TEL 415.778.6700
WEB www.mtc.ca.gov

Memorandum

TO: Air Quality Conformity Task Force

DATE: February 9, 2017

FR: Harold Brazil

W. I.

RE: PM_{2.5} Project Conformity Interagency Consultation

Project sponsors representing one projects, seek interagency consultation from the Air Quality Conformity Task Force (AQCTF) at today's meeting and the project is as follows:

No.	Project Sponsor	Project Title
1	San Francisco Department of Public Works (SFDPW)	Great Highway Permanent Restoration Project

2ai_Great_Highway_Permanent_Restoration_Project_Assessment_Form.pdf (for the Great Highway Permanent Restoration project)

MTC also requests the review and concurrence from the Task Force on projects that project sponsors have identified as exempt and likely not to be a POAQC. **2b_Exempt List 020917.pdf** lists exempt projects under 40 CFR 93.126.

Application of Criteria for a Project of Air Quality Concern

Project Title: Great Highway Permanent Restoration

Project Summary for Air Quality Conformity Task Force Meeting: (February 23, 2017)

Description

- Project will convert the existing two Great Highway northbound lanes between Skyline and Sloat Boulevards into a single northbound and a single southbound travel lane in City of San Francisco.
- No change to SR-35 mainline.
- Erosion and dune-sand encroachment is making the southbound lanes increasingly unusable.
- Proposed conversion will maintain connectivity between Sloat Blvd. and SR-35 along the ocean front.
- The current 4-lane configuration will be maintained at both the Skyline and Sloat intersections.
- The project does generate new person trips or vehicle trips, so there will be no increase in traffic volumes; capacity will be reduced, which should result in lower speeds but no substantial effect to LOS at the adjacent intersections.

Background

- NEPA process for Categorical Exclusion almost complete
- Seeking air quality conformity determination on or before February 23, 2017
- Schedule based on seasonal erosion patterns

Not a Project of Air Quality Concern (40 CFR 93.123(b)(1))

(i) New or expanded highway projects with significant number/increase in diesel vehicles?

- Not a new or expanded highway project

(ii) Affects intersections at LOS D, E, or F with a significant number of diesel vehicles?

- Diesel vehicles represent 0.2% of intersection traffic volume
- Intersections at LOS B and C, to remain unchanged
- No project changes to land use that would affect diesel traffic percentage

(iii) New bus and rail terminals and transfer points?—Not Applicable

(iv) Expanded bus and rail terminals and transfer points?—Not Applicable

(v) Affects areas identified in PM10 or PM2.5 implementation plan as site of violation?

- The implementation of this project would not result in any changes in land uses or transportation circulation in the project area that could result in a change in the number of diesel vehicles in traffic in the project area. Approximately 2% of vehicles in California are diesel powered and this project would not change that percentage in local traffic from the current distribution of vehicles by fuel type.

RTIP ID# (required) 240490				
TIP ID# (required) SF-110005				
Air Quality Conformity Task Force Consideration Date 2/23/17				
Project Description (clearly describe project) The Great Highway Permanent Restoration Project consists of the conversion of the existing two Great Highway northbound lanes between Skyline and Sloat Boulevards into a single northbound and a single southbound travel lane. The current 4-lane configuration will be maintained at both the Skyline and Sloat intersections. These northbound and southbound travel lanes will have 8-foot wide shoulders and be separated by double yellow line striping. New catch basins and culverts will be installed and connected to the existing sewer main. The existing Class III bicycle lanes will be maintained in both directions. Bicycle lane signage and signage warning of the lane merges will be installed along both the north and southbound lanes. New pavement striping will be added at the lane transition areas to direct traffic to merge from two lanes into one lane. Parking access will be maintained along the southbound lane. All work will occur within existing City of San Francisco right-of-way.				
Type of Project: Pavement resurfacing and/or rehabilitation				
County San Francisco	Narrative Location/Route & Postmiles Great Highway from Sloat Blvd to SR-35 (Skyline Blvd.) Caltrans Projects – EA#			
Lead Agency: FHWA through Caltrans D04 Office of Local Assistance				
Contact Person (Caltrans) Dan Rivas	Phone# 510-286-5743	Fax#	Email Dan.Rivas@dot.ca.gov	
Contact Person (CCSF) Oliver Iberien	415-558-4011		Oliver.iberien@sfdpw.org	
Federal Action for which Project-Level PM Conformity is Needed (check appropriate box)				
<input checked="" type="checkbox"/> Categorical Exclusion (NEPA)	<input type="checkbox"/> EA or Draft EIS	<input type="checkbox"/> FONSI or Final EIS	<input type="checkbox"/> PS&E or Construction	<input type="checkbox"/> Other
Scheduled Date of Federal Action: September-October 2017				
NEPA Delegation – Project Type (check appropriate box)				
	<input checked="" type="checkbox"/> Section 326 – Categorical Exclusion	<input type="checkbox"/> Section 327 – Non-Categorical Exclusion		
Current Programming Dates (as appropriate)				
	PE/Environmental	ENG	ROW	CON
Start	7/11/16	7/11/16	5/1/17	8/1/17
End	3/1/17	4/30/17	7/30/17	8/1/18

Project Purpose and Need (Summary): *(please be brief)*

The purpose of this project is to maintain connectivity between Sloat Blvd. and SR-35 along the ocean front. Erosion and dune-sand encroachment is making the southbound lanes increasingly unusable.

Surrounding Land Use/Traffic Generators *(especially effect on diesel traffic)*

San Francisco Zoo, Ocean Beach / Public, Open Space

Brief summary of assumptions and methodology used for conducting analysis

The proposed project would reduce capacity. This could result in vehicles traveling at lower MPH, however, the adjacent intersections would not deteriorate to unacceptable LOS. Therefore, there would still be traffic flowing at acceptable levels.

Opening Year: If facility is a highway or street, Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

	LOS	AADT	Truck %
Build	B/C	8,756	5.3
No Build	B/C	8,756	5.3

RTP Horizon Year / Design Year: If facility is a highway or street, Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT

n/a

RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT

n/a

Opening Year: If facility is a bus, rail or intermodal facility/terminal/transfer point, # of bus arrivals for Build and No Build, % and # of bus arrivals will be diesel buses

n/a

RTP Horizon Year / Design Year: If facility is a bus, rail or intermodal facility/terminal/transfer point, # of bus arrivals for Build and No Build, % and # of bus arrivals will be diesel buses

n/a

Describe potential traffic redistribution effects of congestion relief (*impact on other facilities*)

There is now anticipated impact on other facilities.

Comments/Explanation/Details (please be brief)

In the winter of 2009/2010, a section of the Great Highway, between Sloat Boulevard and Skyline Boulevard (California State Route-35), was subjected to intense slip-out of the supporting bluffs. In the area with the most severe bluff slip-out, the southbound lane was undermined and the pavement collapsed. The southbound lane was closed and traffic was temporarily rerouted. Permanent restoration would improve the resiliency of the roadway to future damage.

The emergency response phase addressed the immediate threat and the most severely impacted segments south of Sloat Boulevard. However, other segments of the roadway, in their current physical location, continue to be threatened by potential slip-outs and severe erosion of the coastline.

Great Highway Permanent Restoration

Location and Vicinity Land Uses

 Project Site



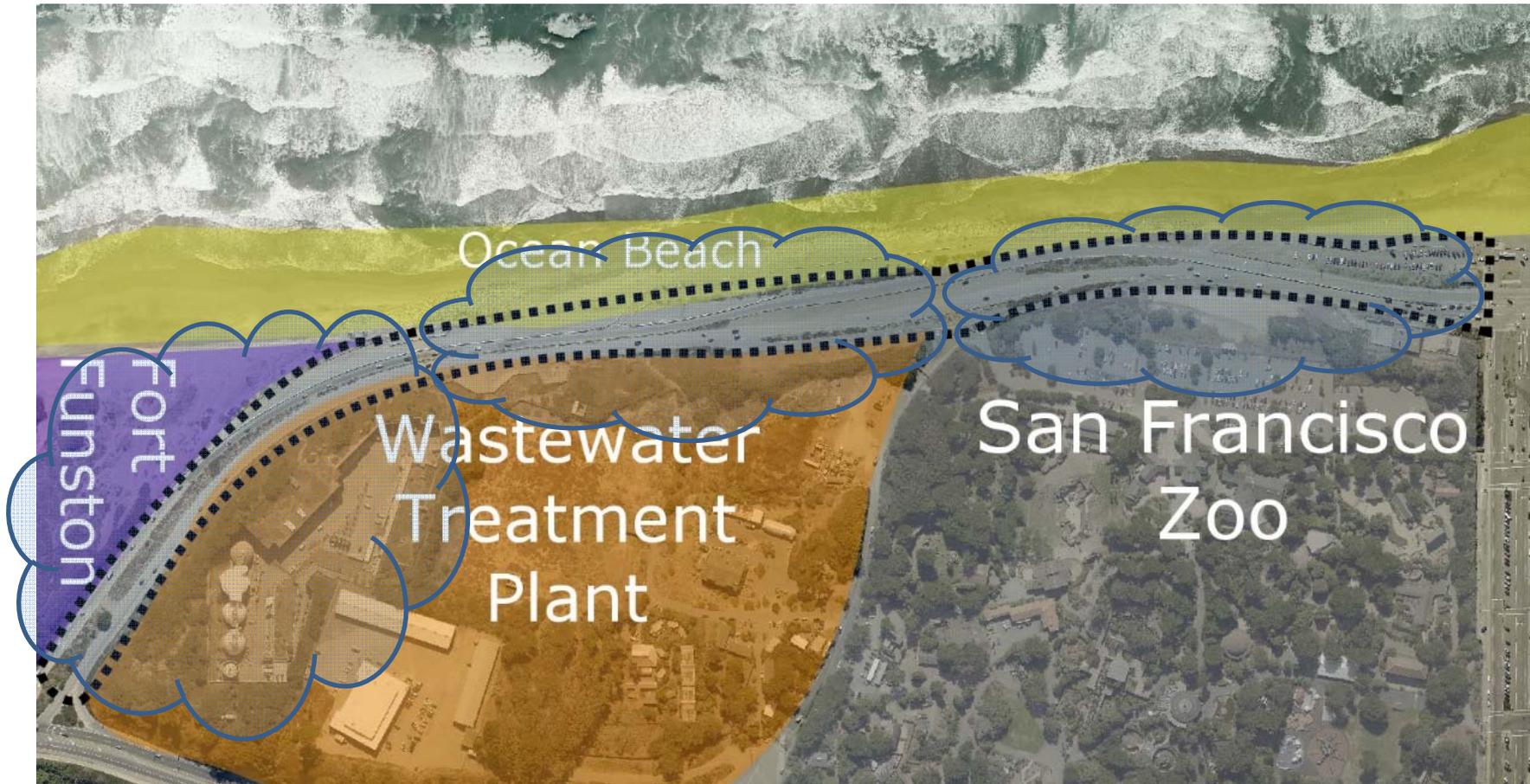
Great Highway Permanent Restoration

Project Goals

- Stabilize Roadway
- Maintain Connectivity
- Consistency with land-use planning



Ocean Beach Existing Conditions



Project Plan Views

Great Highway Permanent Restoration

Great Highway AADT and Truck Volumes

Analysis Year	No Build			Build			Project Change in Truck AADT
	AADT	% Trucks	Truck AADT	AADT	% Trucks	Truck AADT	
2012	12,688 ¹	~5.3 ²	672	12,688	5.3	672	0
2040	?	?	?	?	?	?	?

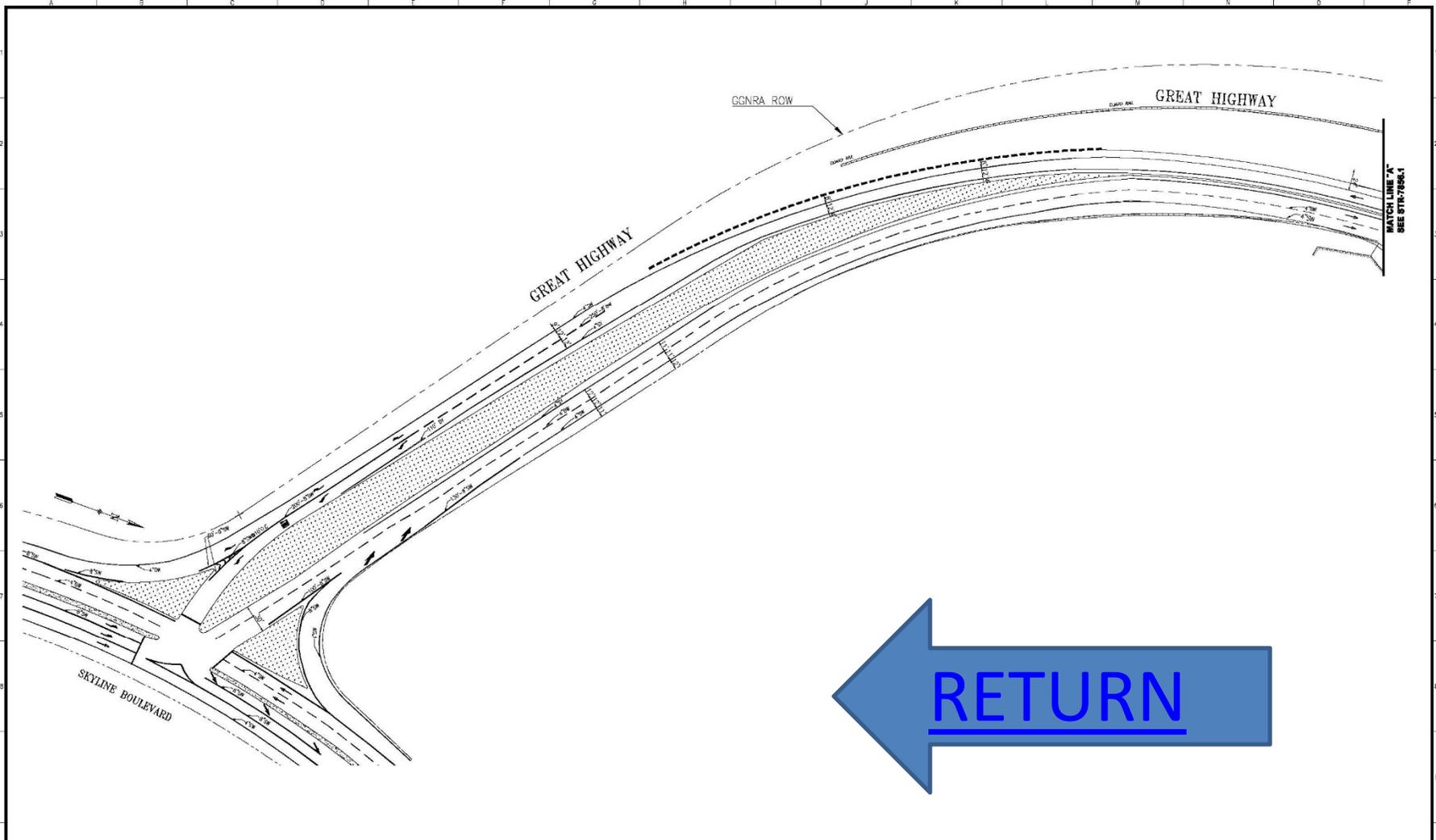
Source: ¹San Francisco Planning Department; ²AECOM, 2014. No predictions are given for 2040 as erosion is expected to have rendered the entire roadway inoperable by that date.

Great Highway Permanent Restoration

Great Highway LOS Summary

	2012		2040	
	No Build	Build	No Build	Build
Great Hwy/Sloat	C	C	?	?
Great Hwy/Skyline	B	B	?	?

Source: AECOM, 2014. No predictions are given for 2040 as erosion is expected to have rendered the entire roadway inoperable by that date.



NO.	DATE	DESCRIPTION	BY	APP.
TABLE OF REVISIONS				
THIS DRAWING WAS LAST MODIFIED: 01/17/17 17:37, BY: esquilad2				

REFERENCE INFORMATION
& FILE NO. OF SURVEYS



DESIGN & ENGINEERING
PUBLIC WORKS
CITY & COUNTY OF SAN FRANCISCO
30 VANNESS AVENUE, 27th FLOOR
SAN FRANCISCO, CA 94102-9028

Section Mgr:	Date:
Deputy Division Mgr: FERRANCO GONZALEZ	
Division Mgr: PATRICIA RIVERA	

DESIGNED: DATE:
DRAWN: DATE:
CHECKED: DATE:

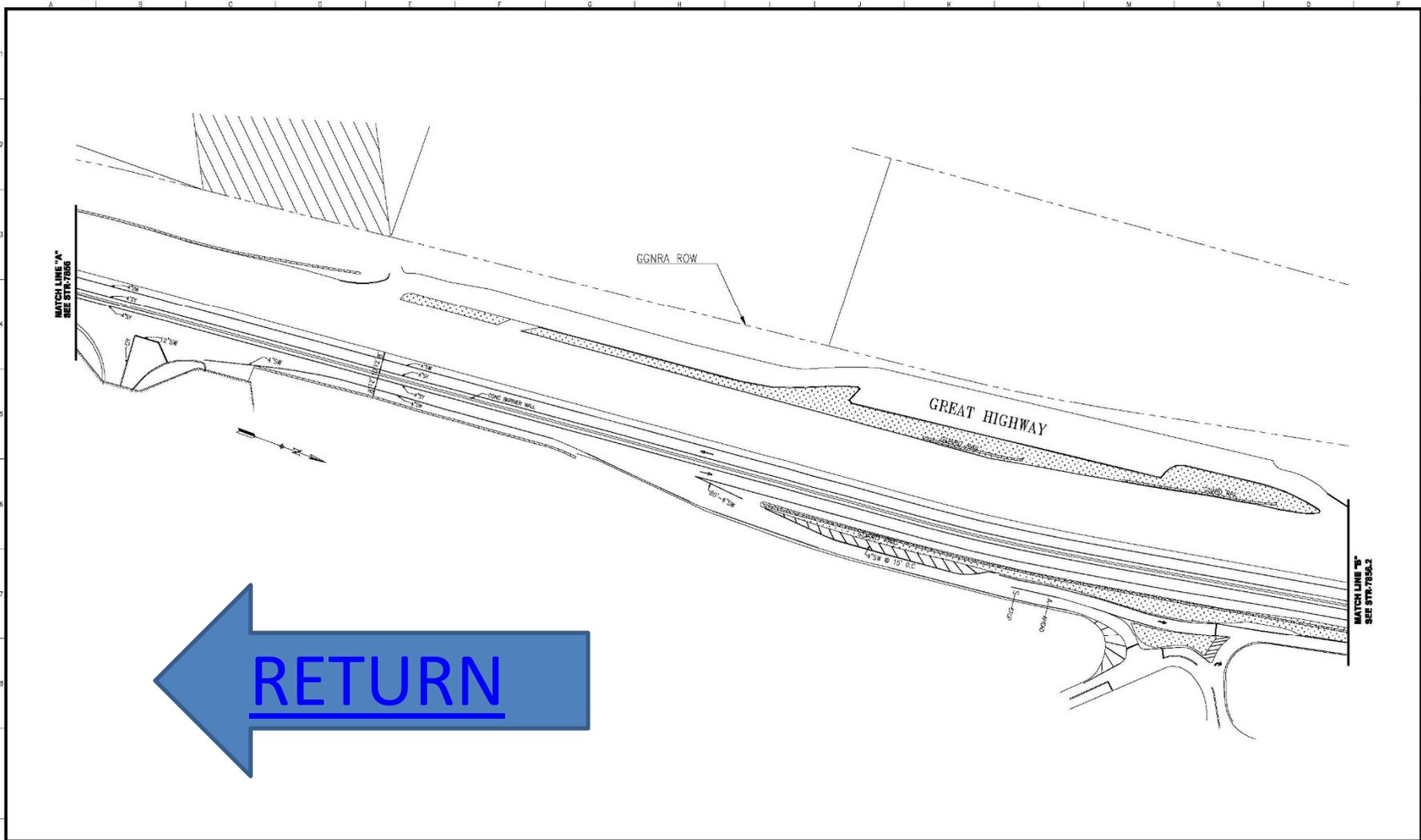
SCALE:
1" = 50'

SHEET OF SHEETS
1 OF 3

GREAT HIGHWAY REROUTE
GREAT HIGHWAY REROUTE
SKYLINE BOULEVARD TO SLOAT BOULEVARD

CONTRACT NO.
DRAWING NO. SIR-7856
FILE NO.
REV. NO.

Drawing: C:\Users\jgarcia\Documents\Projects\San Francisco\Public Works\Projects\7856\7856.dwg
 User: jgarcia
 Date: 01/17/17 17:37
 Plot: 01/17/17 17:37
 Plot File: C:\Users\jgarcia\Documents\Projects\San Francisco\Public Works\Projects\7856\7856.dwg
 Plot Device: HP DesignJet 5000 Series
 Plot Scale: 1" = 50'
 Plot Orientation: Landscape
 Plot Color: Black
 Plot Lineweight: 0.25
 Plot Linetype: Solid
 Plot Font: Arial, 10pt
 Plot Title: SIR-7856



← RETURN

NO.	DATE	DESCRIPTION	BY	APP.
TABLE OF REVISIONS				
THIS DRAWING WAS LAST MODIFIED: 01/17/17 17:37, BY: equino2				

REFERENCE INFORMATION
& FILE NO. OF SURVEYS



DESIGN & ENGINEERING
PUBLIC WORKS
CITY & COUNTY OF SAN FRANCISCO
30 WASHINGTON AVENUE, 8TH FLOOR
SAN FRANCISCO, CA 94102-5028

Section Mgr:	
Deputy Division Mgr:	FERRANCO GONZALEZ
Design Mgr:	PATRYCK PINEIRA

DESIGNED: DATE:	
DRAWN: DATE:	
CHECKED: DATE:	

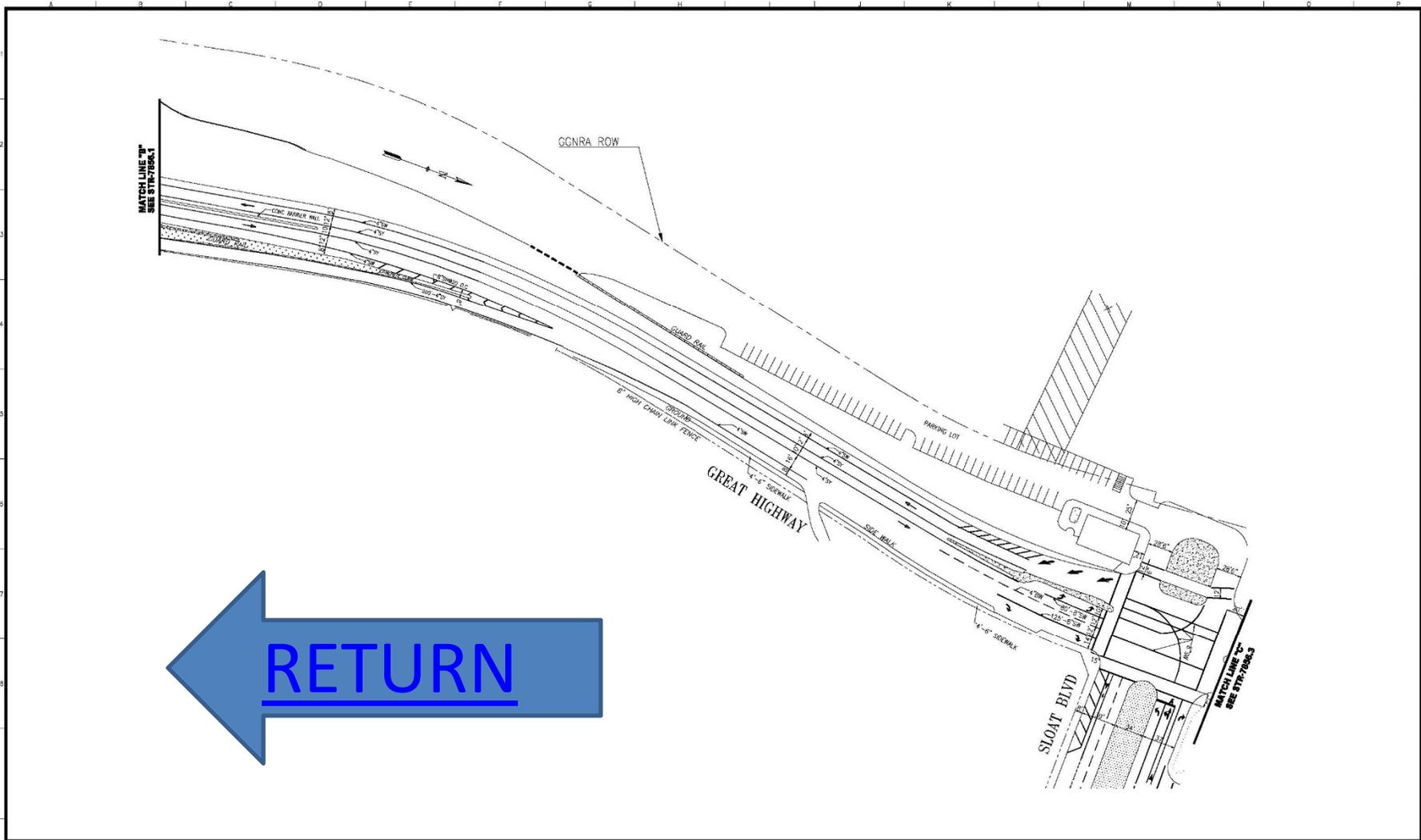
SCALE:	1"=50'
SHEET OF SHEETS	2 OF 3

**GREAT HIGHWAY
REROUTE**

**GREAT HIGHWAY
SKYLINE BOULEVARD TO SLOAT BOULEVARD**

CONTRACT NO.	
DRAWING NO.	STR-7856.1
FILE NO.	
REV. NO.	

DRAWING: \\V:\FIELD_Docs\Highway_Rerouting\Project_Permanent_Accretions\2_Dimensions\Drawings\STR-7856.1.dwg
 DATE: 01/17/17 17:37
 DRAWN: equino2
 CHECKED: equino2
 DESIGNED: equino2
 PROJECT: Highway Rerouting - Permanent Accretions
 MEASUREMENTS ARE IN FEET AND DECIMALS THEREOF.
 MATCH LINE "A" SEE STR-7856
 MATCH LINE "B" SEE STR-7856.2



RETURN

NO.	DATE	DESCRIPTION	BY	APP.
TABLE OF REVISIONS				
THIS DRAWING WAS LAST MODIFIED: 01/17/17 17:37, BY: acquir2				

REFERENCE INFORMATION
& FILE NO. OF SURVEYS



DESIGN & ENGINEERING
PUBLIC WORKS
CITY & COUNTY OF SAN FRANCISCO
30 WAINWING AVENUE, 8TH FLOOR
SAN FRANCISCO, CA 94102 - 8028

Section Mgr:	
Deputy Division Mgr:	FERRNANDO GIBBERICS
Division Mgr:	PATRIK RIVERA

DESIGNED: DATE:	
DRAWN: DATE:	
CHECKED: DATE:	

SCALE:
1" = 50'

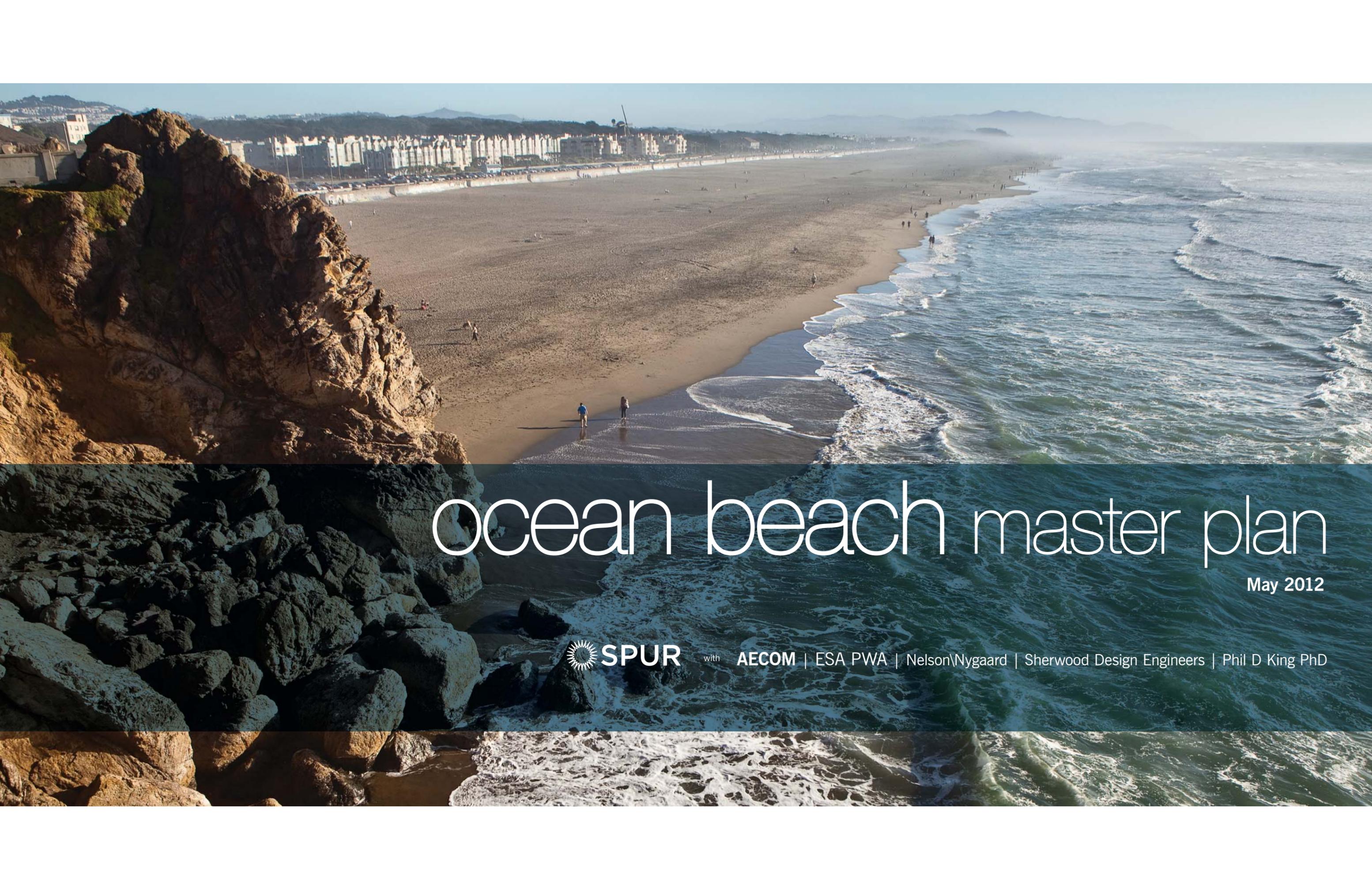
SHEET OF SHEETS
3 OF 3

**GREAT HIGHWAY
REROUTE**

**GREAT HIGHWAY
SKYLINE BOULEVARD TO SLOAT BOULEVARD**

CONTRACT NO.	
DRAWING NO.	STR-7856.2
FILE NO.	
REV. NOS.	

Drawing Path: \\V:\GIS\Drawings\Highway\Bentley\Project\Permitted\Bentley\Drawings\ESR\Drawings\Subbase\Best Highway\SWine Bw to slot bnd\acquir2.dwg
 Plot File: Bldg_17 Jan 2017 - 02:26m
 User: acquir2
 Job: STR-7856.2
 Job User: acquir2
 Job Date: 01/17/2017
 Job Time: 17:37:00
 Job Path: \\V:\GIS\Drawings\Highway\Bentley\Project\Permitted\Bentley\Drawings\ESR\Drawings\Subbase\Best Highway\SWine Bw to slot bnd\acquir2.dwg
 Job User: acquir2
 Job Date: 01/17/2017
 Job Time: 17:37:00



ocean beach master plan

May 2012

 **SPUR** with **AECOM** | **ESA PWA** | **Nelson\Nygaard** | **Sherwood Design Engineers** | **Phil D King PhD**

south reach

Key Move 1:

Reroute the Great Highway behind the zoo via Sloat and Skyline Boulevards.

The first key move of the master plan proposes to reroute the Great Highway behind the zoo, to reconfigure Sloat Boulevard as a pedestrian-and-bicycle-oriented road, and to create a new coastal trail and gateway to Ocean Beach's south end.

Stop Defending What We Don't Need

To date, the city has been defending the Great Highway south of Sloat Boulevard with boulder revetments. Many officials agree that the road is less of a concern than the Lake Merced Tunnel, a 14-foot-diameter underground sewer and stormwater pipe that runs underneath the highway. The road is lightly traveled and frequently closed (most notably in 2010, when the southbound lanes were closed for nearly a year). Rerouting traffic from the Great Highway to Sloat and Skyline (which have capacity to spare) would allow a more flexible approach to coastal protection and create major restoration and recreation opportunities.

Tame an Unsafe and Overwide Street

Sloat Boulevard is six lanes wide, with diagonal parking in the median. Zoo visitors often park there and jaywalk across the street with small children. Rerouting the Great Highway inland would allow significant improvements to Sloat, including moving parking to the south side along the zoo and adding a physically separated bike path. The L Taraval Muni line could be extended one block to terminate adjacent to the zoo. Counterintuitively, auto access to the region could improve as traffic controls are upgraded and this important link is no longer subject to closure by erosion or flood.

A narrower Sloat Boulevard is already in the works. SFMTA is planning striped bicycle lanes on Sloat, replacing two of the six traffic lanes between the Great Highway and Skyline. Caltrans has recently completed a similar treatment east of Everglade Drive. These should provide preliminary data for a more comprehensive reconfiguration of Sloat Boulevard.

Create a New Gateway to the Zoo and the Coast

Drivers, cyclists and Muni riders would all arrive at the south side of Sloat, where they could visit the zoo and access the coast without crossing any streets. A new coastal access point near the pump station would provide bike parking, restrooms and information, while a restored Fleishhacker Pool house could host a visitor center with food and interpretive elements. Sloat's neighborhood businesses could thrive on a safe, attractive seaside street.

Figure V-3 (opposite page):
South Reach | Key Move 1 Illustrative Plan

The first key move proposes to remove the Great Highway in front of the SF Zoo, opening the opportunity for a coastal trail and alternative manage retreat strategies for the bluff.



Key Move 1:
 Reroute the Great Highway behind the zoo via Sloat and Skyline Boulevards.

- 1.1** Reconfigure and signalize Sloat–Great Highway and Sloat–Skyline intersections.
- 1.2** Maintain one-lane driveway from Skyline to treatment plant for trucks.
- 1.3** Reconfigure Sloat with two lanes each way, angle parking along zoo boundary, integrated stormwater management, bikeway and coastal access amenities.
- 1.4** Extend Muni L Taraval south across Sloat, with terminus at zoo entrance.
- 1.5** Introduce coastal trail to Fort Funston and Lake Merced, including a crosswalk at Skyline.
- 1.6** Integrate with California Coastal Trail, linking Lake Merced all the way to Marin County.
- 1.7** Replace beach/zoo parking along Armory Road and at Skyline trailhead.
- 1.8** Reopen Armory Road from Zoo Road to zoo parking lot to provide zoo access.

Open Coastal Access

Removing the Great Highway south of Sloat would offer an amazing recreational resource for cyclists, pedestrians and beach users while allowing for a healthier ecosystem. Today's landscape of asphalt, rubble and boulders can be gradually transformed into a coastal trail linking Fort Funston to the rest of Ocean Beach and beyond, reminiscent of recent improvements at Lands End and Crissy Field. Infrastructure would remain, but the structures used to protect it would be designed with access, aesthetics and natural resources (including the Bank Swallow) in mind.

While emphasizing improved non-auto access, this proposal would actually yield more coastal access parking. In place of the existing parking lot at Sloat and the Great Highway, new lots would be provided at the end of Armory Road, south of the existing zoo parking lot, at a new Skyline trailhead and along the Great Highway north of Sloat. If needed, additional overflow parking could be provided near the Janet Pomeroy Center and on SFPUC property south of the zoo.

Key Move 1 Strategic Actions

The master plan identifies eight strategic actions to achieve Key Move 1 [Refer to Figure V-3]:

- 1.1. Reconfigure and signalize Sloat–Great Highway and Sloat–Skyline intersections
- 1.2. Maintain one-lane driveway from Skyline to treatment plant for trucks
- 1.3. Reconfigure Sloat with two lanes each way, angle parking along zoo boundary, integrated stormwater management, bikeway and coastal access amenities
- 1.4. Extend Muni L Taraval south across Sloat, with terminus at zoo entrance
- 1.5. Introduce coastal trail to Fort Funston and Lake Merced, including a crosswalk at Skyline
- 1.6. Integrate with California Coastal Trail, linking Lake Merced all the way to Marin County
- 1.7. Replace beach/zoo parking along Armory Road and at Skyline trailhead
- 1.8. Reopen Armory Road from Zoo Road to zoo parking lot to provide zoo access

Figure V-4
View of Sloat Boulevard (Before and After)

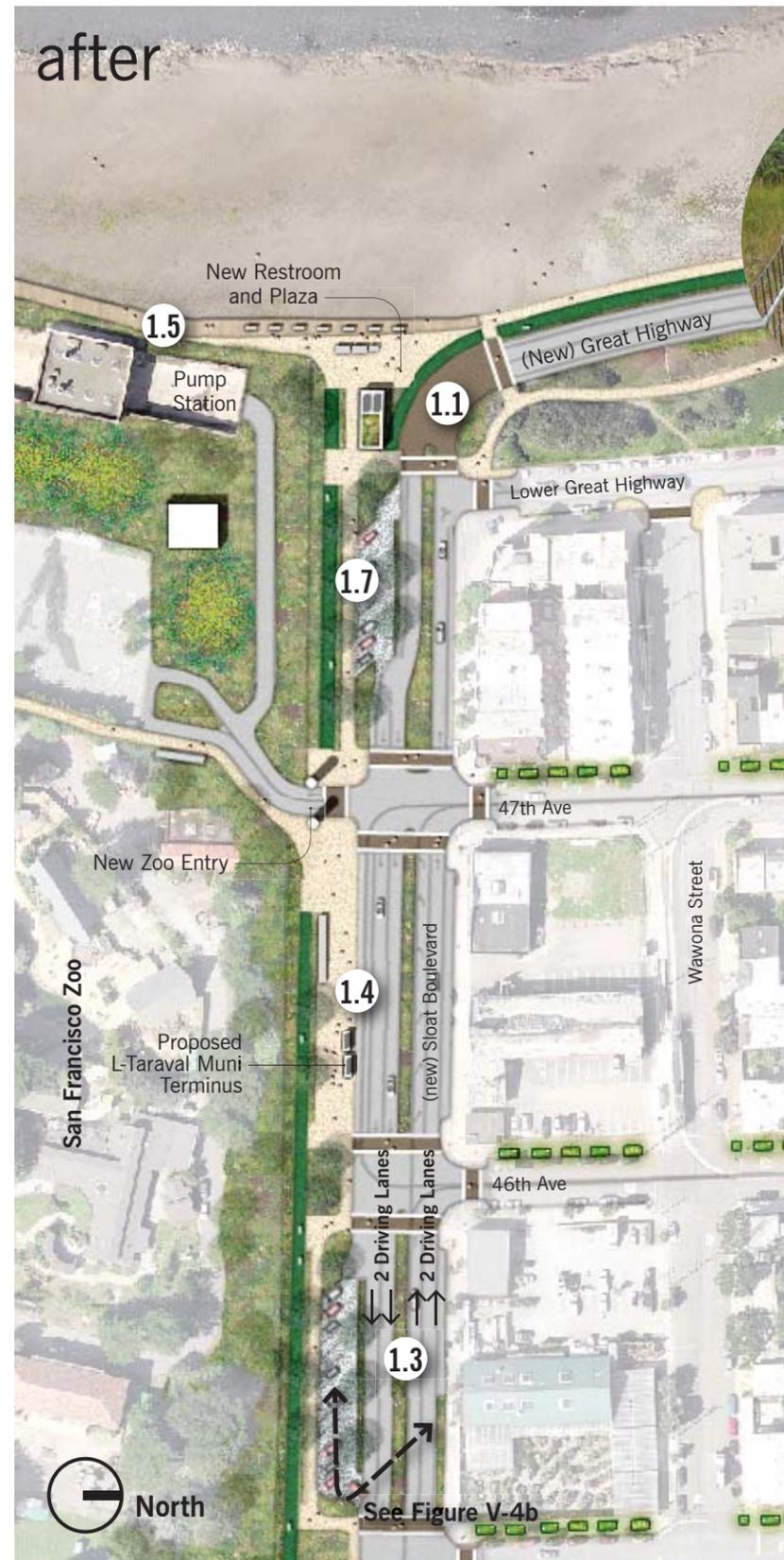
Key Move 1 proposes reducing the number of driving lanes at Sloat Boulevard from 3 each way, to 2 each way. This reconfiguration allows for the creation of a new pedestrian greenway along the Zoo's edge. This greenway would function as the new bike and pedestrian arrival to Ocean Beach's south end.



Figure V-4a: Existing Sloat Blvd = Parallel and Diagonal Parking + 3 Driving Lanes + Diagonal Parking + 3 Driving Lanes



Figure V-4b: Proposed Sloat Blvd = Bike Lane + Pedestrian Walk + Diagonal Parking Pockets + 2 Driving Lanes + Planted Median + 2 Driving Lanes



Bluff Protection Barrier

Boardwalk

Crushed Stone Path



Figure V-5:
Key Move 1 Detail Plan
(Before and After)

The reconfiguration of Sloat Boulevard allows for additional parking pockets to replace the current beach parking at the end of Sloat, and to extend the Muni L Taraval in front of the new Zoo entry.

Legend

- 1.1 Reconfigure and signalize Sloat–Great Highway and Sloat–Skyline intersections.
- 1.3 Reconfigure Sloat with two lanes each way, angle parking along zoo boundary, integrated stormwater management, bikeway and coastal access amenities.
- 1.4 Extend Muni L Taraval south across Sloat, with terminus at zoo entrance.
- 1.5 Introduce coastal trail to Fort Funston and Lake Merced, including a crosswalk at Skyline.
- 1.7 Replace beach/zoo parking along Armory Road and at Skyline trailhead.





Public Restroom



Bike and Transit Amenities



Permeable Paving



Vegetated Swale



Bike Lane Striping



Figure V-6:
View of New Sloat Blvd Configuration

As part of Key Move 1, Sloat Boulevard is reconfigured with new parking along the zoo boundary, permeable paving, a Class I bikeway, and other pedestrian-oriented amenities.

Preliminary Phasing

Phase I (1–3 years)

- > Develop detailed roadway configuration options
- > Conduct traffic modeling
- > Implement striped bike lanes
- > Work with San Francisco Zoo to develop access plan

Phase II (4–10 years)

- > Complete project EIR
- > Initiate capital planning
- > Reduce the Great Highway to two lanes south of Sloat
- > Remove the Sloat parking lot but retain the restroom
- > Provide temporary coastal access parking and trail in former southbound lanes
- > Begin zoo access reconfiguration

Phase III (10–20 years)

- > Reconstruct and signalize Sloat Boulevard
- > Complete zoo access reconfiguration and replacement parking
- > Close and demolish the Great Highway south of Sloat
- > Construct a new coastal access point at Sloat and Great Highway, including restroom
- > Construct a coastal trail

Benefits

- > Creates a spectacular new coastal trail and continuous pedestrian connection
- > Enables significant retreat from coastal erosion and more flexible infrastructure protection
- > Results in major improvements to Sloat Boulevard design, with green infrastructure elements

Constraints

- > Some traffic impacts, likely minor
- > Requires reconfiguring zoo access
- > Cost of roadway and intersection improvements

Outstanding questions

- > What is the nature of the traffic impacts?
- > What is the optimal configuration of Sloat Boulevard and adjacent intersections?

Next Steps

Conduct interagency circulation and access study, to include:

- > Development of detailed roadway configuration options
- > Detailed traffic analysis, to provide the basis for environmental review

Lead Agency: San Francisco Municipal Transportation Authority (SFMTA)

Partners: San Francisco Planning Department, San Francisco Recreation and Parks Department (SFRPD), San Francisco Department of Public Works (SFPD)

Status: This study has been funded.

An interagency circulation and access study has been funded to confirm the anticipated minor traffic impacts of Key Move 1.

The main benefits of this proposal include the creation of spectacular new coastal amenities and the significant retreat it enables from coastal erosion.

Key Move 2:

Introduce a multipurpose coastal protection/restoration/access system.

Remove the Road and Take Advantage of the Opportunity

The Lake Merced Tunnel, a 14-foot-diameter pipe, is a significant piece of infrastructure and worth protecting in the coming decades. West of the zoo, the Great Highway is perched atop an erodible berm of construction fill, well above the pipe. Removing the road — and with it the challenge of defending that vertical space from wave action — would allow a much more flexible approach to coastal protection. Instead of holding the line at a steep bluff with a large seawall or revetment, this approach dissipates wave energy across a wide, shallow profile, using a combination of elements.

Armor the Lake Merced Tunnel with a Low-profile Structure

The Lake Merced Tunnel sits at a much lower elevation than the roadway. If it can be protected with a low wall, cap or internal reinforcement, it can become a sort of “speed bump” under the beach. This is a significant engineering challenge, as it needs to be protected from wave energy, flotation forces (it is mostly empty most of the time) and seismic forces. The recommended solution is conceptual and will require considerable study to ensure its feasibility. However, a preliminary examination of the approach with coastal and structural engineers and agency technical staff suggests that the principles are sound and merit deeper study.

The second key move takes advantage of the road and parking removal South of Sloat, and provides a form of managed retreat by armoring the Lake Merced Tunnel on site with a low-profile, layered, multi-stage, flexible structure. The resulting dynamic system serves to dissipate wave energy and provides a sandy beach most of the time.

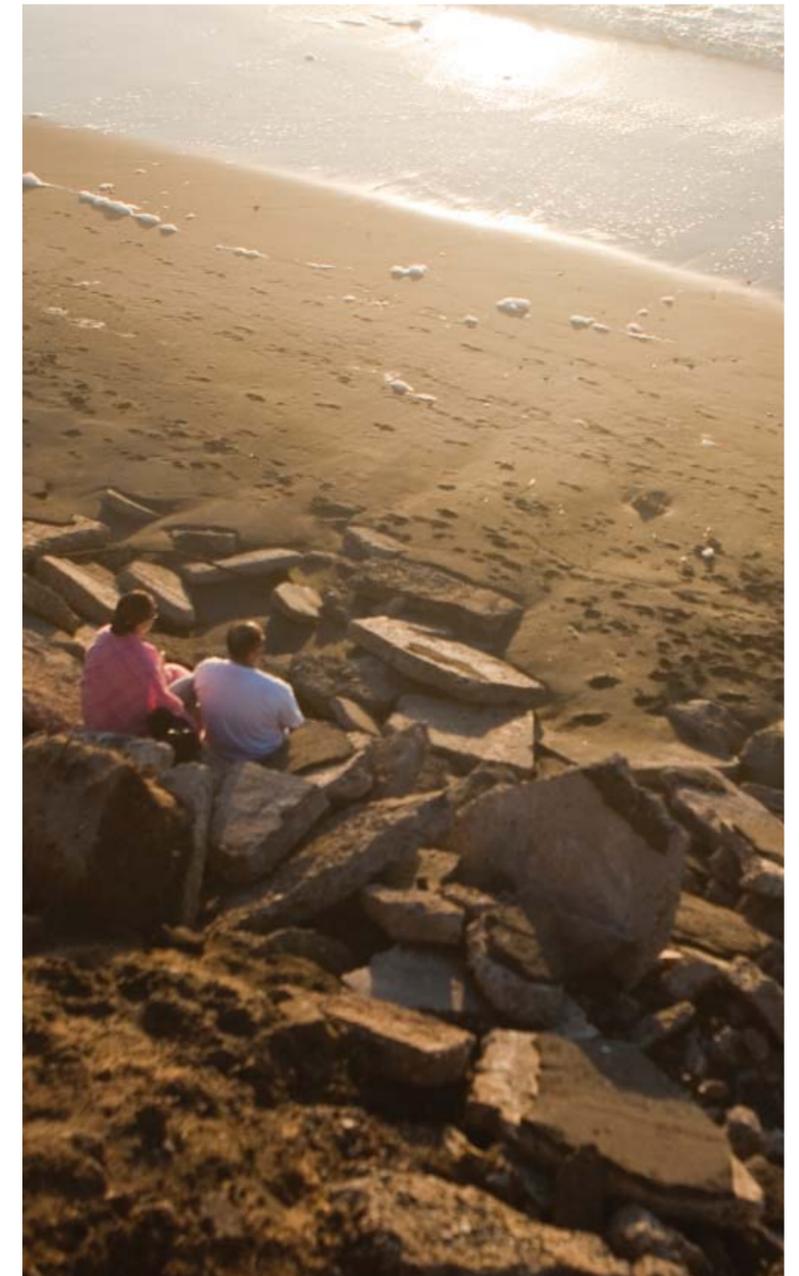
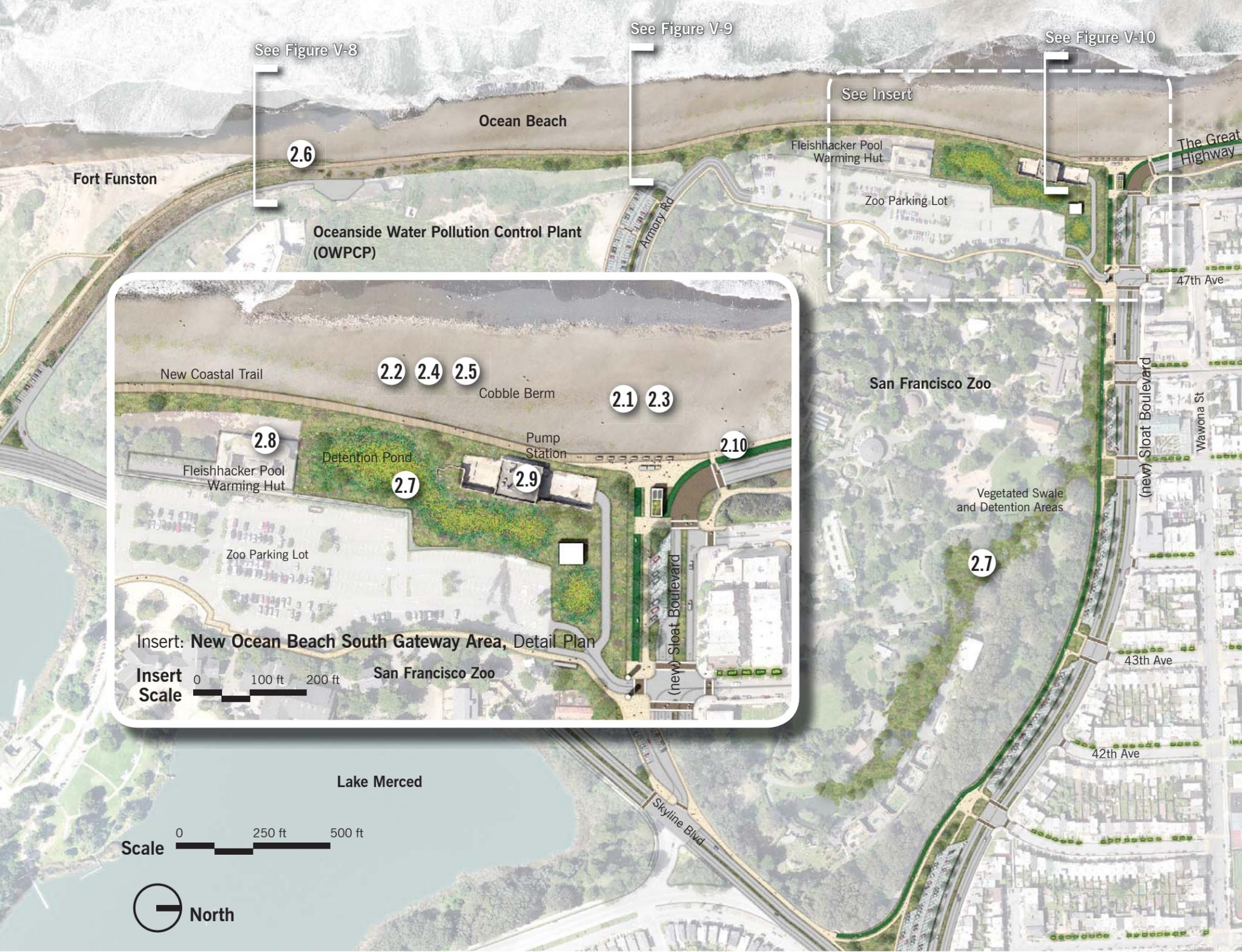


Figure V-7 (opposite page):
South Reach | Key Move 2 Illustrative Plan

The second key move of the master plan proposes to create a dynamic coastal protection system, which consists of placing a cobble berm over Lake Merced Tunnel structure, covered with sand, to serve as wave dissipation zone.

PACIFIC OCEAN



Key Move 2:

Introduce a multipurpose coastal protection/restoration/access system.

- 2.1 Withdraw from bluff edge; incrementally demolish roadway, parking and restroom at Sloat
- 2.2 Reinforce the Lake Merced Tunnel in place with a low-profile structure or internal ballast; remove revetments and fill
- 2.3 Develop and pursue best practices for beach nourishment, including sand placement by Army Corps of Engineers
- 2.4 Place cobble berm over Lake Merced Tunnel structure, covered with sand, to serve as wave dissipation zone; allow severe storm surges to wash over tunnel
- 2.5 Place additional cobble to protect pump station and other wastewater infrastructure
- 2.6 Construct terraced, vegetated seawall with cobble toe along Oceanside Treatment Plant, incorporating tunnel structure, coastal trail, erodable bluff (Bank Swallow habitat) and plant driveway
- 2.7 Create detention swale and constructed wetland through the zoo to passively clean and infiltrate stormwater runoff from Sloat and adjacent parking lot
- 2.8 Renovate Fleishhacker Pool house as a warming hut and interpretive center
- 2.9 Pump station and force mains remain, interpretive elements explain the system to visitors; beautify pump station and reconfigure to maximize adjacent coastal access
- 2.10 Conduct pilot studies of dynamic coastal protection

Layer Flexible, Dynamic Structures over Hard Structures

The hard structure protecting the Lake Merced Tunnel would be covered by a berm of cobble, or stones 2.5 to 10 inches in size. These structures, modeled on natural cobble beaches, can be shaped dynamically by wave action and excel at dissipating wave energy. Additional cobble farther inland would protect existing force mains and high ground near the Fleishhacker Pool building.

A third layer would consist of large quantities of sand, dredged by the U.S. Army Corps of Engineers from the Golden Gate shipping channel and pumped to the beach as part of its beach nourishment program in partnership with the City of San Francisco. Sand would be placed over the cobble, providing a first line of protection and a sandy beach most of the time.

Restore the Surface, Improving Coastal Access and Ecological Function

If infrastructure protection alone were the goal, then a traditional seawall or revetment would do, but other important objectives would be compromised. The recommended approach allows Ocean Beach to protect infrastructure while also improving recreational access, ecological function and character, in keeping with its status as a national park. Regular placement of sand and revegetation would offer an accessible beach environment, with a spectacular trail connecting Sloat Boulevard to Fort Funston. Cobble is passable and attractive even when sand has been washed away, as much of it might be in major storms. And the San Francisco Zoo could find a new expression of its conservation values through an improved relationship to the watershed and the coastal ecosystem.

Figure V-8:
Coastal Section at
Oceanside Water Pollution
Control Plant

Not to Scale

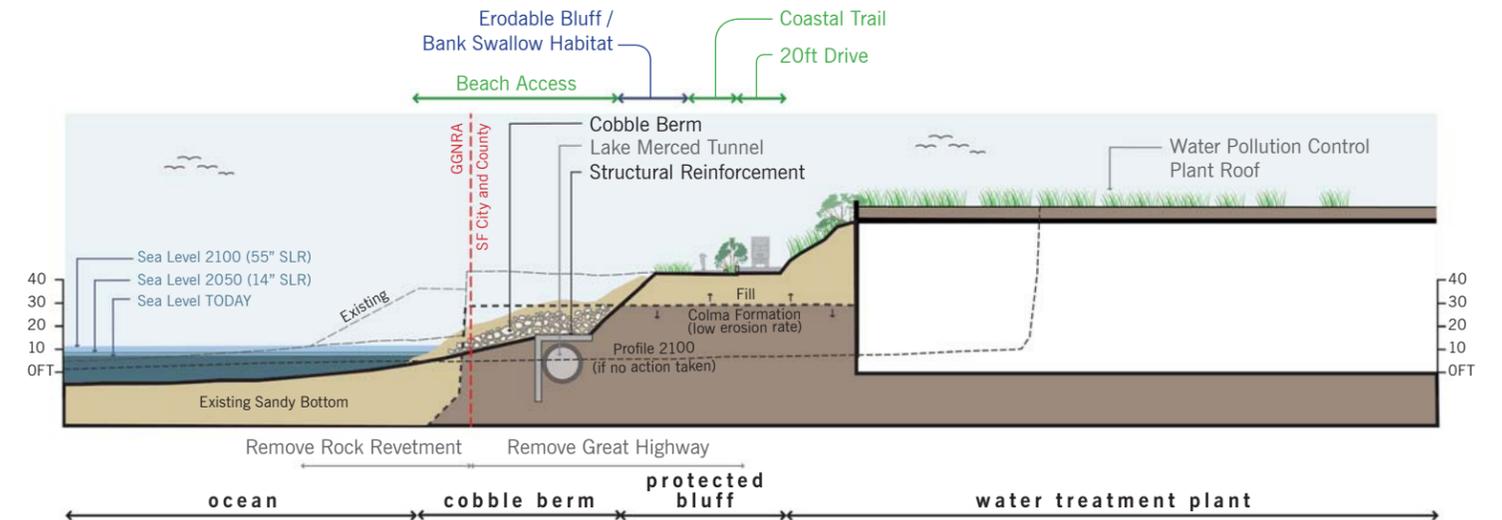


Figure V-9:
Coastal Section at Zoo
Parking Lot

Not to Scale

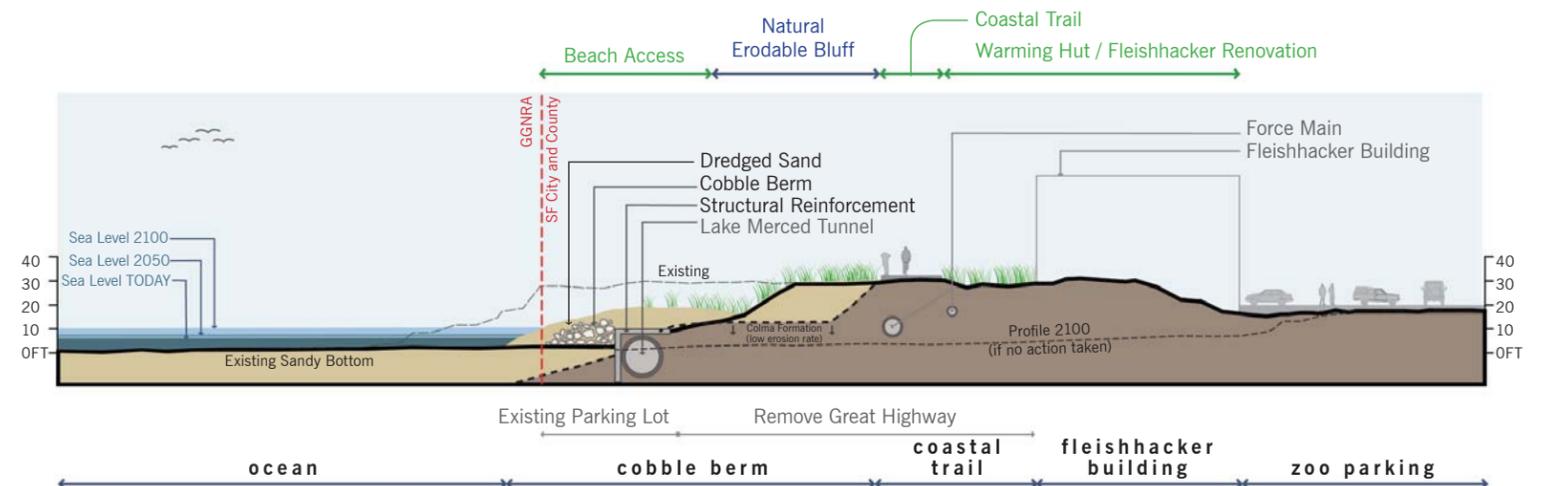
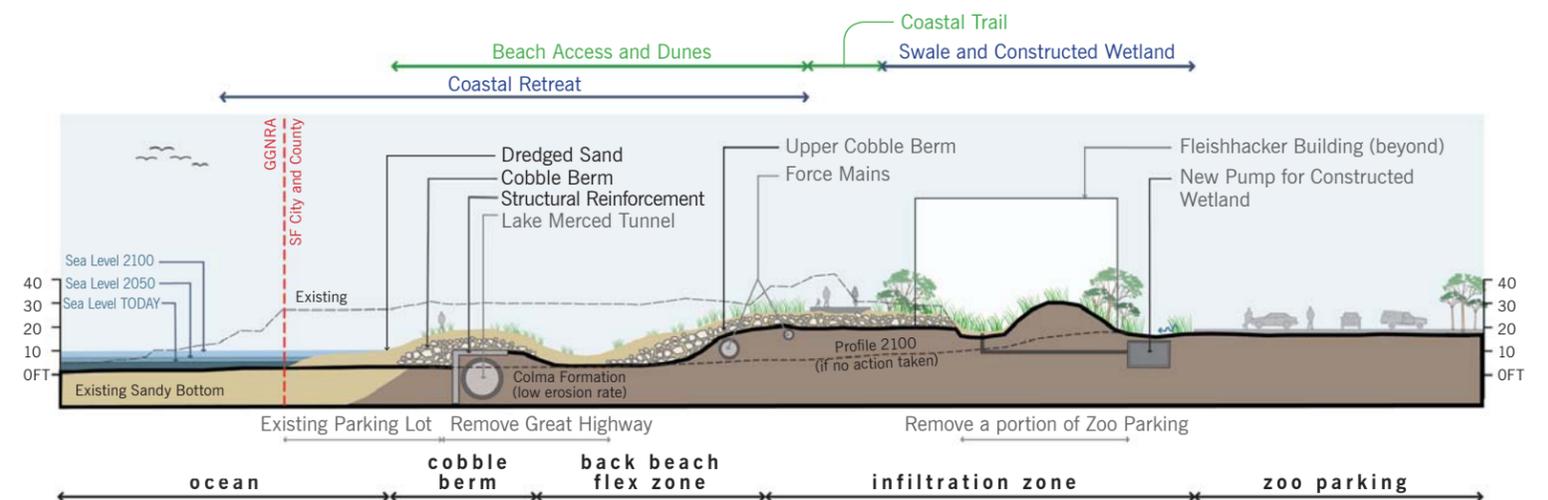


Figure V-10:
Coastal Section at
Proposed Wetland and
New Fleishhacker Pool
Warming Hut

Not to Scale



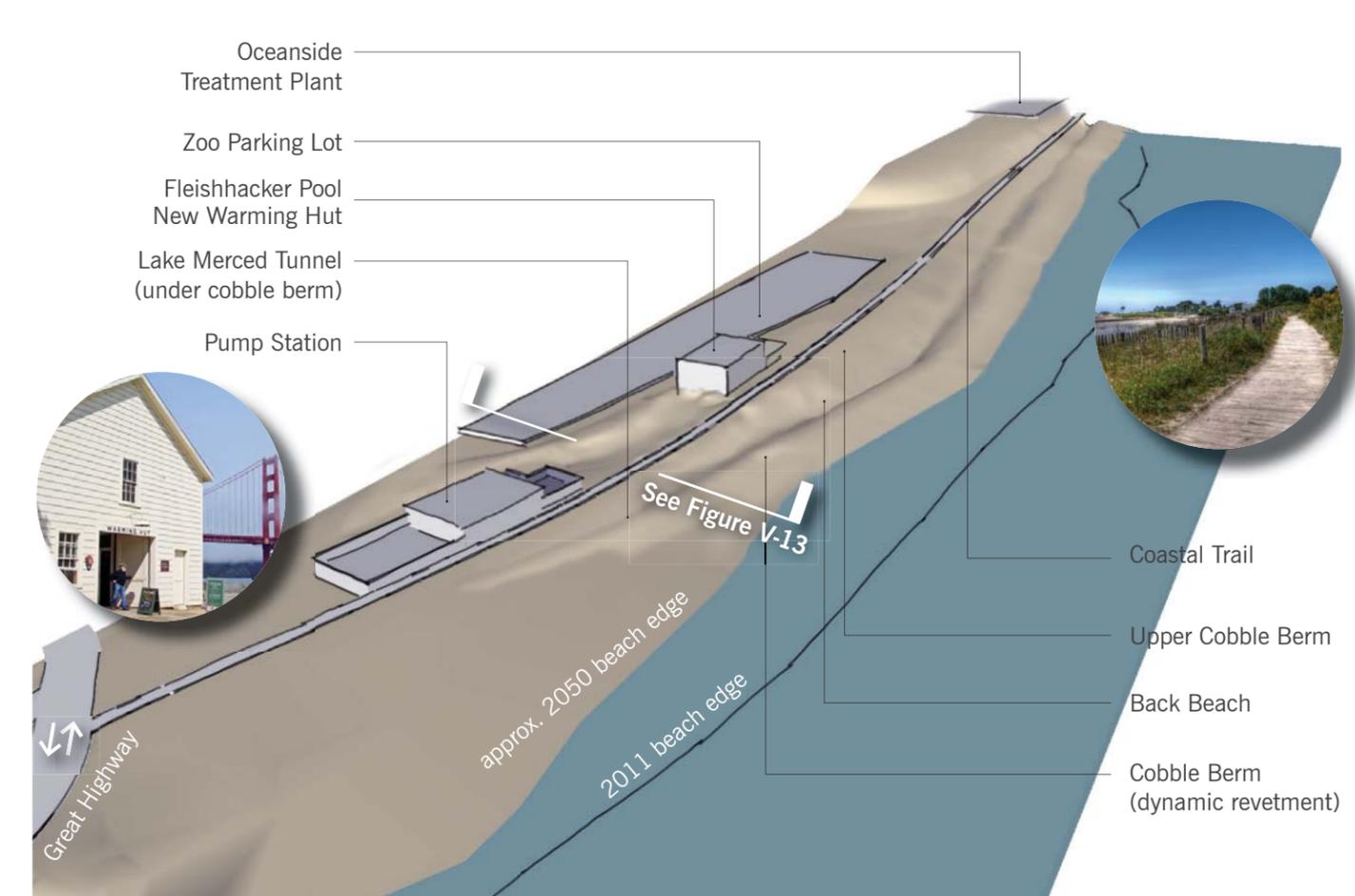
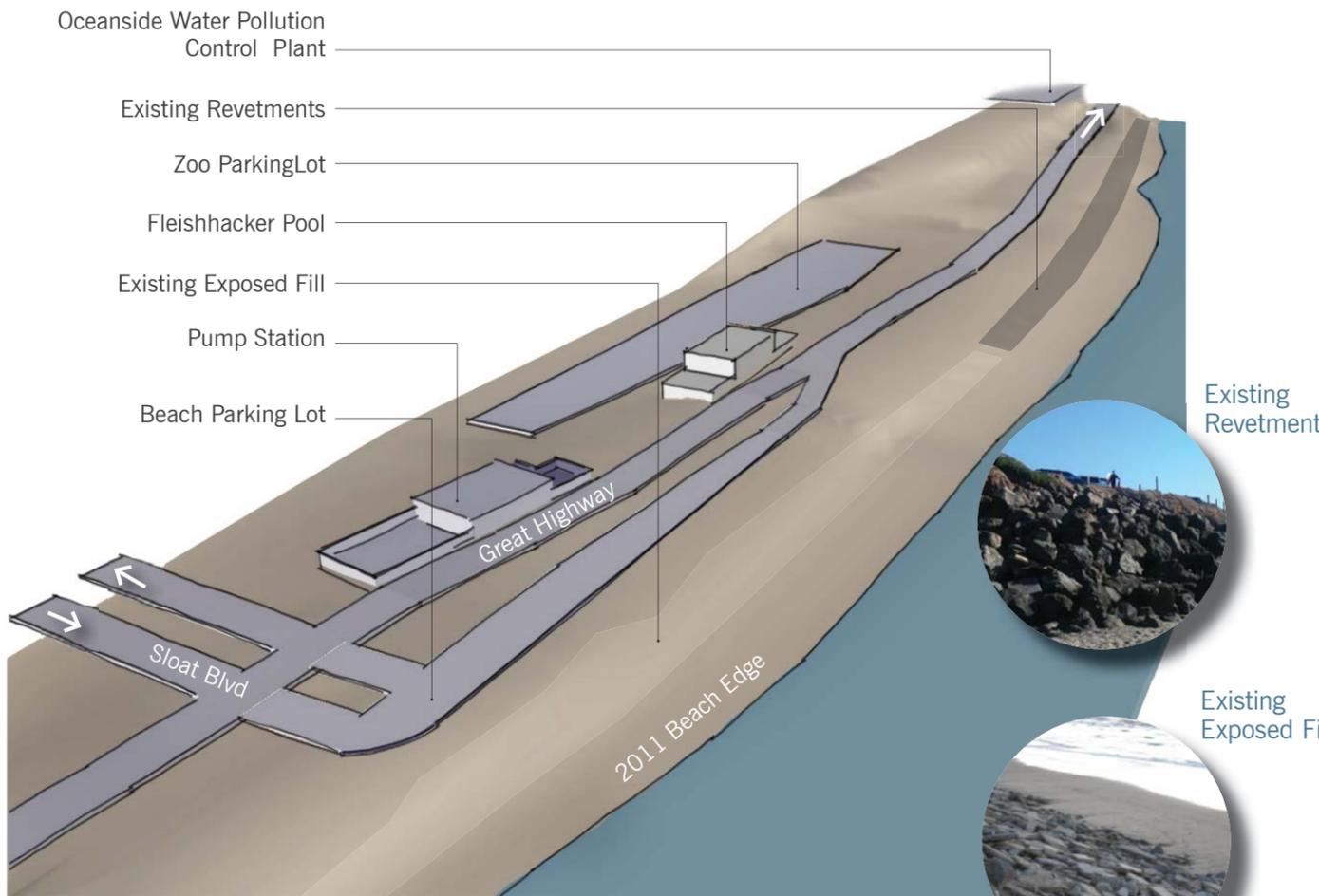
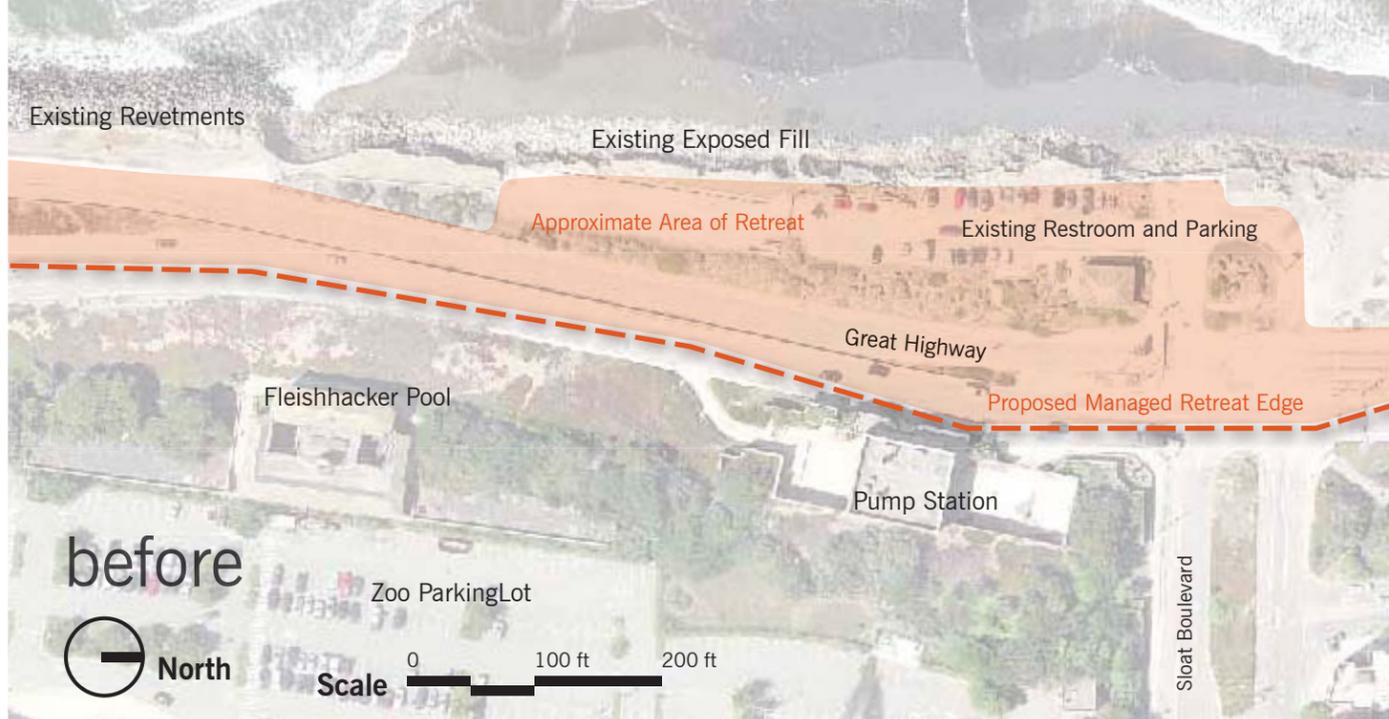


Figure V-11: South of Sloat Existing Conditions Plan and Axonometric

To date, the city has been defending the Great Highway south of Sloat Boulevard with boulder revetments, but many officials agree that the road is less of a concern than the Lake Merced Tunnel.

Figure V-12: South of Sloat Multi-Stage Coastal Protection, 2050 Plan and Axonometric

Key Move 2 proposes the removal of the Great Highway and the beach parking lot, and the addition of a multi-stage coastal protection system of cobble berms and sand nourishment.

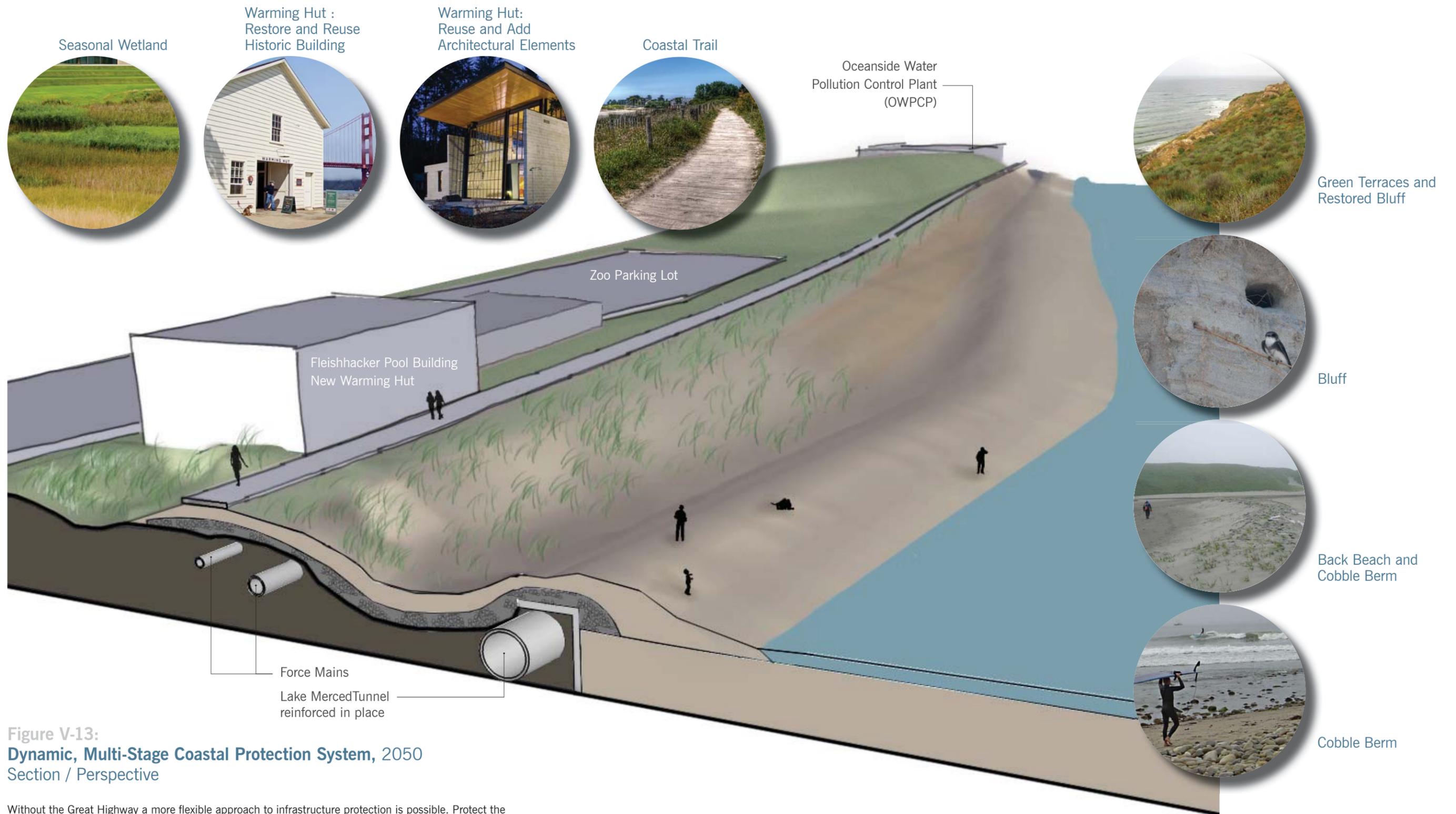


Figure V-13:
Dynamic, Multi-Stage Coastal Protection System, 2050
 Section / Perspective

Without the Great Highway a more flexible approach to infrastructure protection is possible. Protect the Lake Merced Tunnel with a low-profile structure, topped with dynamic cobble berms and sand. Storm surges can dissipate by washing over and up a restored beach and dune landscape.

Introduce a Stormwater Infiltration Wetland

The reconfiguration of Sloat Boulevard and its location in the Sunset Basin watershed creates a significant green infrastructure and stormwater management opportunity. A living system combining green street design, swales and restored waterways would move stormwater flows and direct the water to a constructed wetland for retention and infiltration, recharging San Francisco's freshwater aquifer and combating saltwater intrusion. The wetland would be located at the entrance to the zoo parking lot, removing a small number of parking spaces, which could be relocated at a proposed lot at Armory Road.

The wetland and adjacent vegetation would provide habitat and recreational benefits while improving water quality. This system could be incrementally expanded to increase catchment area and riparian features, including portions of the zoo landscape and conceivably even Lake Merced, ultimately removing up to 33.7 million gallons of stormwater per year from the combined system.

This powerful gesture would support San Francisco's citywide commitment to reducing stormwater flows to the bay and ocean and to simultaneously improving public spaces and ecological amenities.



Source: Sherwood Design Engineers

Figure V-14:
Detention Swale and Constructed
Wetland System Diagram

Legend

- Riparian Zone 330,850 sf (7.6 ac)
- Wetland 145,375 sf (3.3 ac)
- Zoo Catchment 1,864,034 sf (43.0 ac)
- Green Street Collection 1,525,600 sf (35.0 ac)
- Zoo Parking Lot 183,155 sf (4.2 ac)
- Water Flow Direction

Key Move 2 Strategic Actions

In summary, the master plan identifies ten strategic actions to achieve Key Move 2 [Refer to Figure V-7]:

- 2.1. Withdraw from bluff edge; incrementally demolish roadway, parking and restroom at Sloat
- 2.2. Reinforce the Lake Merced Tunnel in place with a low-profile structure or internal ballast; remove revetments and fill
- 2.3. Develop and pursue best practices for beach nourishment, including sand placement by Army Corps of Engineers
- 2.4. Place cobble berm over Lake Merced Tunnel structure, covered with sand, to serve as wave dissipation zone; allow severe storm surges to wash over tunnel
- 2.5. Place additional cobble to protect pump station and other wastewater infrastructure
- 2.6. Construct terraced, vegetated seawall with cobble toe along Oceanside Treatment Plant, incorporating tunnel structure, coastal trail, erodable bluff (Bank Swallow habitat) and plant driveway
- 2.7. Create detention swale and constructed wetland through the zoo to passively clean and infiltrate stormwater runoff from Sloat and adjacent parking lot
- 2.8. Renovate Fleishhacker Pool house as a warming hut and interpretive center
- 2.9. Pump station and force mains remain, interpretive elements explain the system to visitors; beautify pump station and reconfigure to maximize adjacent coastal access
- 2.10. Conduct pilot studies of dynamic coastal protection





Figure V-15:
Aerial View of Ocean Beach
Master Plan Detail

Artist rendering of the improved Ocean Beach's south reach with dynamic coastal protection system, and new coastal trail.

Preliminary Phasing

Phase I (1–3 years)

- > Define an interim coastal protection approach, emphasizing reversible, low-impact options
- > Initiate beach cleanup, reusing rubble for interim protection where feasible
- > Complete environmental clearance, beneficial reuse planning and dredge retrofit to allow beach nourishment by the Army Corps of Engineers
- > Develop a feasibility and engineering study of the proposed concept
- > Develop a 50-year joint coastal management framework among the SFPUC, the NPS and the Army Corps of Engineers, defining coastal protection phasing, triggers and actions

Phase II (4–10 years)

- > Conduct an in situ pilot study of the cobble berm concept
- > Initiate beach nourishment through direct sand placement
- > Complete EIR/EIS and Coastal Commission approvals of the joint coastal management framework
- > Execute a memorandum of understanding among the SFPUC, the NPS and the Army Corps of Engineers
- > Begin installation of the coastal protection system behind the bluff face at critical locations

- > Begin demolition of the parking lot and excavation of fill
- > Pursue private and philanthropic funds for renovation of the Fleishhacker Pool building
- > Complete the design and permitting of the stormwater infiltration wetland

Phase III (10–20 years)

- > Engage in ongoing beach nourishment
- > Remove revetments as new coastal protections allow
- > Demolish the restroom and roadway; excavate the roadbed in targeted locations
- > Complete the Lake Merced Tunnel protections
- > Restore and revegetate back beach surface conditions and integrate with coastal trail
- > Implement the Fleishhacker Pool building renovation
- > Initiate infrastructure reconfiguration planning and environmental work
- > Conduct ongoing research and adaptive management

Phase IV (20+ years)

- > Engage in ongoing beach nourishment
- > Complete the terraced, vegetated seawall and coastal trail at south end
- > Conduct ongoing research and adaptive management
- > Revise the master plan



Key Move 2

Benefits

- > Incorporates significant coastal retreat
- > Protects costly infrastructure in place for decades
- > Provides a softer approach to coastal protection that can work with coastal processes
- > Restores ecological and recreational function

Constraints

- > Significant upfront investment from multiple agencies
- > Challenging to maintain sand cover and surface restoration
- > Depends on careful integration with Army Corps of Engineers beach nourishment
- > Demands a new approach requiring careful study and monitoring

Outstanding Questions

- > What is the detailed form and cost of the Lake Merced Tunnel protection?
- > What are the dynamics of interaction among hard structure, cobble and placed sand?
- > How to phase the protection measures to prevent spills, protect habitat and manage cost?

Next Steps

Joint coastal management framework studies, including:

- > Interim coastal protection strategy
- > Coastal engineering and feasibility study
- > In situ pilot study of dynamic revetment (cobble)
- > Joint coastal management framework and agreement

Lead Agency: San Francisco Public Utilities Commission (SFPUC)

Partners: National Park Service (NPS), Army Corp of Engineers (USACE), San Francisco Department of Public Works (SFDPW), San Francisco Recreation and Parks Department (SFRPD)

Status: These studies have been funded.

40 CFR 93.126 Exempt Projects List

County	TIP ID	Sponsor	Project Name	Project Description	Expanded Description	Project Type under 40 CFR 93.126
CC	CC-110114	CC County	San Pablo Dam Road Traffic Safety Improvements	H8-04-007: Along San Pablo Dam Road, between the Richmond and Orinda City limits; Construct traffic safety improvements.	H8-04-007: This project is to install centerline rumble strips along 4.6 miles of two-lane, winding roadway. Other safety improvements also include upgrade of regulatory and warning signs plus reconstruct median island curbs. CM=NS8	Safety - Traffic control devices and operating assistance other than signal projects
CC	CC-110115	CC County	Byron Highway/Byer Road Safety Improvements	H8-04-008: Construct roadway improvements to improve traffic safety and circulation at Excelsior Middle School on Byron Highway	H8-04-008: 1) Install southbound left-turn lane on Byron Highway on to Byer Road; 2) Construct a two-way left turn lane to improve access at Excelsior Middle School; and 3) Widen roadway to provide paved shoulders.	Safety - Safety improvement program
CC	CC-110116	CC County	H8-04-004 Walnut Creek Crosswalk Improvements	H8-04-004: At the intersection of Olympic Boulevard and Bridgefield Road, construct curb ramp and sidewalk and install Rectangular Rapid Flashing Beacons (RRFBs). At the intersection of Walden Road and Westcliffe Lane, install RRFBs.	H8-04-004: At the intersection of Olympic Boulevard and Bridgefield Road, unincorporated Walnut Creek, construct ADA curb ramp, curb, gutter, and sidewalk on north side. Install Rectangular Rapid Flashing Beacons (RRFBs) at existing crosswalk and install advanced RRFB on Olympic Blvd. At the intersection of Walden Road and Westcliffe Lane, unincorporated Walnut Creek, install RRFBs at existing crosswalk on Walden Road. CM=59	Air Quality - Bicycle and pedestrian facilities
CC	CC-110117	CC County	H8-04-005 Countywide Guardrail Upgrades	H8-04-005 Install FLEAT type and ET type end treatments to upgrade existing guardrail end treatments on Marsh Creek Road, Vasco Road and San Pablo Dam Road.	Marsh Creek Road from the City of Clayton limits to Camino Diablo, Vasco Road from Walnut Boulevard to the Alameda County line, and San Pablo Dam Road from City of Richmond limits to Bear Creek Road. Remove existing end treatments and replace them with updated FLEAT end treatments. This will include replacement of posts and some localized grading. CM=R4	Safety - Guardrails, median barriers, crash cushions



METROPOLITAN
TRANSPORTATION
COMMISSION

Bay Area Metro Center
375 Beale Street
San Francisco, CA 94105
TEL 415.778.6700
WEB www.mtc.ca.gov

Memorandum

TO: Air Quality Conformity Task Force

DATE: February 23, 2017

FR: Adam Crenshaw

W. I.

RE: Review of the Regional Conformity Status for New and Revised Projects

Staff has prepared the following information in an effort to streamline the review of the regional air quality conformity implications of projects that staff proposes to revise or add into the 2017 TIP through current or future revisions. This item is for advisory purposes only. The inclusion of these projects and project changes in a proposed revision to the TIP is subject to Commission approval in the case of amendments and MTC's Executive Director or Deputy Executive Director in the case of administrative modifications. The final determination of the regional air quality conformity status of these projects will be made by the Federal Highway Administration, the Federal Transit Administration and the Environmental Protection Agency as part of their review of proposed final TIP amendments and by the Executive Director or Deputy Executive Director as part of their review for TIP administrative modifications.

Projects Staff Are Proposing to Include in the 2017 TIP

Staff has received requests from sponsors to add 51 new individually listed projects and one group listed projects to the 2017 TIP. Attachment A includes a list of these proposed new projects along with the regional air quality category that staff believes best describes the projects.

MTC staff is not seeking a determination on the status of these projects for project-level conformity purposes with this item.

Item 3a - Attachment A

County	TIP ID/FMS ID	Sponsor	Project Name	Project Description	Project Expanded Description	Project Type
Proposed New Individually Listed Projects for Regional Air Quality Conformity Status Review						
Alameda	6321	Union City Transit	Union City Transit: Paratransit Van Procurement	Union City Transit: Replace six (6) Union City Paratransit vans	Union City Paratransit's six (6) 2009 compressed natural gas (CNG) vans have reached the end of their useful life.	EXEMPT (40 CFR 93.126) - Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet
Alameda	6323	Union City Transit	Union City Transit: Replace Paratransit Sedan	Union City Transit: Replace one (1) Union City Paratransit sedan with one (1) van	Union City Paratransit has become an extremely popular service in recent years with annual ridership increases. Union City Paratransit has always maintained a sedan to transport individuals, but the vehicle has no longer become practical with an increase	EXEMPT (40 CFR 93.126) - Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet
Alameda	6403	AC Transit	AC Transit: 5 Battery Electric Bus purchase	AC Transit: Replace 5 diesel buses with 5 New Flyer battery electric buses with 5 depot charging stations and installation. Includes consulting PM support from CTE.	Purchase 5 New Flyer battery electric buses with 5 depot charging stations and installation. Includes consulting PM support from CTE. These buses will replace 5 existing diesel buses in AC Transit's fleet.	EXEMPT (40 CFR 93.126) - Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet
Alameda	6424	AC Transit	AC Transit: Purchase 10 Double-Decker Buses	AC Transit: Purchase 10 Double-Decker Buses for transbay service	Purchase 10 Double-Decker Buses for transbay service	EXEMPT (40 CFR 93.126) - Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet
Alameda	6425	AC Transit	AC Transit: Purchase 18 40ft Hybrid-Electric Buses	AC Transit: Purchase 18 40-ft Hybrid-Electric Buses to keep AC Transit's fleet in a state of good repair	Purchase 18 40-ft Hybrid-Electric Buses to keep AC Transit's fleet in a state of good repair	EXEMPT (40 CFR 93.126) - Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet
Alameda	6426	AC Transit	AC Transit: Preventive Maintenance (Swap)	AC Transit: Preventive Maintenance (federal funding is provided for this project in exchange for AC Transit's commitment to Replace 9 40' Urban Buses - Battery using local funds)	AC Transit: Preventive Maintenance (federal funding is provided for this project in exchange for AC Transit's commitment to Replace 9 40' Urban Buses - Battery using local funds)	EXEMPT (40 CFR 93.126) - Rehabilitation of transit vehicles
Alameda	6427	AC Transit	AC Transit: Preventive Maintenance (Deferred Comp)	AC Transit: Preventive Maintenance (funding is incentive for delaying bus purchases)	Preventive Maintenance (deferred comp) for delaying purchase of 40' return to fleet buses	EXEMPT (40 CFR 93.126) - Rehabilitation of transit vehicles
Alameda	6428	AC Transit	AC Transit: Replace (27) 40ft Urban Buses - Hybrid	AC Transit: Replace (27) 40ft Urban Buses - Hybrid	Replace (27) 40ft Urban Buses - Hybrid	EXEMPT (40 CFR 93.126) - Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet
Alameda	6429	AC Transit	AC Transit: Purchase 19 60-ft Artic Urban Buses	AC Transit: Purchase 19 60-ft Articulated Urban Buses	Purchase 19 60-ft Articulated Urban Buses (14 replacement and 5 expansion)	EXEMPT (40 CFR 93.126) - Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet
Alameda	6430	AC Transit	AC Transit: Purchase (12) 40ft Urban Buses Hybrid	AC Transit: Purchase (12) 40ft Urban Buses - Hybrids	Purchase (12) 40ft Urban Buses - Hybrids	EXEMPT (40 CFR 93.126) - Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet
Alameda	6431	AC Transit	AC Transit: Purchase (28) 40ft Urban Buses Hybrid	AC Transit: Purchase (28) 40ft Urban Buses - Hybrids	Purchase (28) 40ft Urban Buses - Hybrids	EXEMPT (40 CFR 93.126) - Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet
Alameda	6432	AC Transit	AC Transit: Purchase (36) 40ft Urban Buses Hybrid	AC Transit: Replace (36) 40ft Urban Buses - Hybrids	Replace (36) 40ft Urban Buses - Hybrids	EXEMPT (40 CFR 93.126) - Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet
Alameda	6433	AC Transit	AC Transit: Replace (24) 60ft Artic Buses - Hybrid	AC Transit: Replace (24) 60ft Artic Urban Buses - Hybrid	Replace (24) 60ft Artic Urban Buses - Hybrid	EXEMPT (40 CFR 93.126) - Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet

Item 3a - Attachment A

County	TIP ID/FMS ID	Sponsor	Project Name	Project Description	Project Expanded Description	Project Type
Alameda	6434	AC Transit	AC Transit: Replace (10) 24ft Cut-Away Vans	AC Transit: Replace (10) 24ft Cut-Away Vans	AC Transit: Replace (10) 24ft Cut-Away Vans	EXEMPT (40 CFR 93.126) - Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet
Alameda	6435	AC Transit	AC Transit: Replace (6) 24ft Cut-Away Vans	AC Transit: Replace (6) 24ft Cut-Away Vans	Replace (6) 24ft Cut-Away Vans	EXEMPT (40 CFR 93.126) - Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet
Alameda	6484	Union City Transit	Union City Transit: ADA Paratransit Operating Subsidy	Union City Transit: ADA Paratransit Operating Assistance	Union City Transit: ADA Paratransit Operating Assistance	EXEMPT (40 CFR 93.126) - Operating assistance to transit agencies
Contra Costa	6472	WCCTA	WestCAT: Replace (2) 2002 40ft Revenue Vehicles	WestCAT: Replace (2) 2002 40 ft Revenue Vehicles with similar vehicles	Replace (2) 2002 40 ft Revenue Vehicles with similar vehicles	EXEMPT (40 CFR 93.126) - Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet
Contra Costa	6473	WCCTA	WestCAT: Purchase (2) Fast Fare Electronic Farebo	WestCAT: Purchase and Install (2) FastFare Electronic Fareboxes	WestCAT: Purchase and Install (2) FastFare Electronic Farebox for (2) 40 ft Revenue Vehicle	EXEMPT (40 CFR 93.126) - Purchase of operating equipment for vehicles (e.g., radios, fareboxes, lifts, etc.)
Contra Costa	6476	WCCTA	WestCAT: Replace (6) 2008 Revenue Vehicles	WestCAT: Replace (6) 2008 Revenue Vehicles	Replace (6) 2008 Revenue Vehicles	EXEMPT (40 CFR 93.126) - Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet
Contra Costa	6477	WCCTA	WestCAT: Purchase (6) Electronic Fareboxes	WestCAT: Purchase (6) Electronic Fare boxes	WestCAT: Purchase (6) Electronic Fare boxes, associated with the replacement of (6) 2008 35 ft revenue veicles	EXEMPT (40 CFR 93.126) - Purchase of operating equipment for vehicles (e.g., radios, fareboxes, lifts, etc.)
Contra Costa	6478	WCCTA	WestCAT: Replace (5) 2007 35ft and (4) 2002 40 ft vehicles	WestCAT: Replace (5) 2007 35ft and (4) 2002 40 ft Revenue vehicles	Replace (5) 2007 35ft and (4) 2002 40 ft Revenue vehicles	EXEMPT (40 CFR 93.126) - Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet
Contra Costa	6479	WCCTA	WestCAT: Purchase (9) Electronic Fareboxe	WestCAT: Purchase (9) Electronic Fareboxes	Purchase of (9) Electronic Fareboxes for installation vehicles purchased as replacements for (5) 2007 35ft and (4) 2002 40ft Revenue Vehicles	EXEMPT (40 CFR 93.126) - Purchase of operating equipment for vehicles (e.g., radios, fareboxes, lifts, etc.)
Contra Costa	6480	WCCTA	WestCAT - Replace (2) DAR MiniVans	WestCAT: Replace (2) MiniVans (2007) with (2) Cut Away DAR vehicles	Replace (2) MiniVans (2007) with (2) Cut Away DAR vehicles	EXEMPT (40 CFR 93.126) - Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet
Contra Costa	6481	WCCTA	WestCat:Purchase of (2) Radio Systems	WestCat: Radio systems: Purchase of (2) Radio systems for (2) Cut Away Vans	WestCat: Radio systems: Purchase of (2) Radio systems for (2) Cut Away Van's. Vans also being purchased under separate project listing - Replacing (2) 2007 Vehicles	EXEMPT (40 CFR 93.126) - Purchase of operating equipment for vehicles (e.g., radios, fareboxes, lifts, etc.)
Marin	6439	MCTD	MCTD: Replace Paratransit Vehicles	MCTD: Replace 19 Paratransit Vehicles	MCTD: FY17: Replace 3 local 22ft paratransit cutaway gasoline vehicles contractor owned vehicles. FY20: Replace 16 local 22ft 2015 Starcraft paratransit cutaway gasoline vehicles.	EXEMPT (40 CFR 93.126) - Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet
Marin	6440	MCTD	MCTD-Replace Paratransit Vehicles with Vans	MCTD: Replace two Paratransit Vehicles with Vans and purchase a third vehicle as a non-revenue support vehicle	MCTD: Replace 2 local 22ft paratransit cutaway gasoline vehicles with accessible vans and purchase a third vehicle as a non-revenue support vehicle	EXEMPT (40 CFR 93.126) - Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet
Marin	6441	MCTD	MCTD: Replace Rural Cutaway Vehicles	MCTD: Replace Four (4) Rural Cutaway Vehicles	Replace four(4) 2012 cut-away 7-year cutaway vehicles used on rural service with 30ft narrow diesel vehicles (10 -12 year life)	EXEMPT (40 CFR 93.126) - Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet
Marin	6442	MCTD	MCTD: Replace Articulated Vehicles	MCTD: Replace Articulated Vehicles	Replace ten(10) 2007 articulated 60ft vehicles	EXEMPT (40 CFR 93.126) - Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet

Item 3a - Attachment A

County	TIP ID/FMS ID	Sponsor	Project Name	Project Description	Project Expanded Description	Project Type
Marin	6443	MCTD	MCTD-Replace diesel vehicles	MCTD: Replace 2- 2008 35ft diesel vehicles	MCTD: Replace two 35ft narrow diesel vehicles	EXEMPT (40 CFR 93.126) - Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet
Marin	6444	GGBHTD	GGBHTD: Replace 67 Diesel Buses with Hybrid Buses	GGBHTD: Replace 67 diesel buses with diesel hybrid buses.	Routine replacement of revenue vehicles that have reached end of useful life. Project will replace standard diesel-powered buses with diesel-electric hybrid buses.	EXEMPT (40 CFR 93.126) - Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet
Marin	6447	GGBHTD	GGBHTD: Replace 22 Paratransit Vehicles	GGBHTD: Replace 22 paratransit vehicles	This project replaces 8 paratransit vehicles in 2017 and an additional 14 paratransit vehicles in 2019. These vehicle will be purchased and operated by the contractor Whistle Stop.	EXEMPT (40 CFR 93.126) - Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet
Marin	6449	GGBHTD	GGBHTD: Replace 7 Diesel Buses with Hybrid Buses	GGBHTD: Replace 6 diesel 45' buses with 7 hybrid 40' buses.	This project replaces 6 diesel 45' buses with 7 hybrid 40' buses. The hybrid buses have better fuel economy and lower emissions.	EXEMPT (40 CFR 93.126) - Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet
Marin	6498	GGBHTD	GGBHTD: Replace 8 Paratransit 22' Gas Cut-away Vehicles	GGBHTD: Replace 8 Paratransit 22' Gas Cut-away Vehicles that have reached the end of useful life	Routine replacement of revenue vehicles that have reached end of useful life.	EXEMPT (40 CFR 93.126) - Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet
Marin	6499	GGBHTD	GGBHTD: Replace 14 Paratransit 22' Gas Body-on-Chassis Veh	GGBHTD: Replace 14 Paratransit 22' Gas Body-on-Chassis Vehicles that have reached the end of useful life	Routine replacement of paratransit vehicles that have reached end of useful life.	EXEMPT (40 CFR 93.126) - Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet
Regional	6446	BART	BART: Integrated Carpool to Transit Access Program	BART: Systemwide: Implement program to better integrate carpool access to public transit by matching carpools through an app. The app facilitates carpool matching, payment, and parking space reservation at the BART station.	Scoop Technologies, Inc. (Scoop), the San Francisco Bay Area Rapid Transit District (BART), and the Metropolitan Transportation Commission (MTC) have joined forces to partner on a program to better integrate carpool access to public transit by matching pa	EXEMPT (40 CFR 93.126) - Continuation of ride-sharing and van-pooling promotion activities at current levels
Regional	6468	BART	BART Train Seat Modification	BART: On up to 360 existing BART cars: Remove 7 seats to provide immediate relief for passengers in the peak period commute hours.	The BART Train Seat Modification Project will modify the seat configuration of up to 360 existing BART cars to provide immediate relief to the peak commute period overcrowding that BART is currently experiencing, and potentially increase ridership on the	EXEMPT (40 CFR 93.126) - Rehabilitation of transit vehicles.
Santa Clara	6344	VTA	VTA: LR Vehicle CCTV Door Monitoring System	VTA: Light rail vehicle fleet: Replace existing door monitoring CCTV system	Replace existing door monitoring CCTV system on light rail vehicles. Current CCTV system is limited and a new system will provide better performance.	EXEMPT (40 CFR 93.126) - Purchase of operating equipment for vehicles (e.g., radios, fareboxes, lifts, etc.)
Santa Clara	6448	VTA	VTA: Paratransit Vehicle Procurement	VTA: Procure vehicles and associated equipment for paratransit services.	Procure vehicles and associated equipment for paratransit services.	EXEMPT (40 CFR 93.126) - Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet
Santa Clara	6450	VTA	VTA: Replace Fault Monitoring System on LRVs	VTA: Light rail vehicle fleet: Upgrade Fault Monitoring System (FMS) Network that is no longer supported by the original equipment manufacturer (OEM).	Upgrade Fault Monitoring System (FMS) Network on Light Rail Vehicles that is no longer supported by the original equipment manufacturer (OEM).	EXEMPT (40 CFR 93.126) - Purchase of operating equipment for vehicles (e.g., radios, fareboxes, lifts, etc.)
Santa Clara	6451	VTA	VTA: Pedestrian Swing Gates Replacement	VTA: At various pedestrian crossing locations along the light rail system: Replace spring-hinge pedestrian swing gates	Replace spring-hinge pedestrian swing gates at various pedestrian crossing locations along the light rail system.	EXEMPT (40 CFR 93.126) - Projects that correct, improve, or eliminate a hazardous location or feature.

Item 3a - Attachment A

County	TIP ID/FMS ID	Sponsor	Project Name	Project Description	Project Expanded Description	Project Type
Santa Clara	6452	VTA	VTA: Vasona Pedestrian Back Gates	VTA: At several Vasona Light Rail Corridor crossings: Install pedestrian gates. Scope includes installation of automatic pedestrian gates, swing gates and railings, minor civil improvements and related signal modifications	Install pedestrian gates at several Vasona Light Rail Corridor crossings. Scope includes installation of automatic pedestrian gates, swing gates and railings, minor civil improvements and related signal modifications.	EXEMPT (40 CFR 93.126) - Projects that correct, improve, or eliminate a hazardous location or feature.
Santa Clara	6453	VTA	VTA: Chaboya Yard Well Removal	VTA: At the Chaboya Bus Operating Division: Obtain case closure and demolish the ground water remediation system and wells	Obtain case closure and demolish the ground water remediation system and wells at the Chaboya Bus Operating Division. Includes the abandon (removal) of 50 monitoring wells, abandonment of 5 extraction wells, closure for two groundwater extraction trenches	EXEMPT (40 CFR 93.126) - Reconstruction or renovation of transit buildings and structures (e.g., rail or bus buildings, storage and maintenance facilities, stations, terminals, and ancillary structures).
Santa Clara	6454	VTA	VTA: Guadalupe Train Wash Replacement	VTA: Guadalupe Light Rail Division: Replace train wash.	Replace Guadalupe Light Rail Division train wash including modifications to the concrete slab and trench drains, replacement of the water supply and storage systems, and replacement of all controls and mechanical equipment.	EXEMPT (40 CFR 93.126) - Reconstruction or renovation of transit buildings and structures (e.g., rail or bus buildings, storage and maintenance facilities, stations, terminals, and ancillary structures).
Santa Clara	6455	VTA	VTA: Upgrade Rail Grade Crossing Control Equipment	VTA: Various Locations: Replace existing rail grade crossing equipment; such as controllers, relays, and surge panels; that have become obsolete.	Replace existing rail grade crossing equipment; such as controllers, relays, and surge panels; that have become obsolete and are no longer supported by the Original Equipment Manufacturer. The crossing system would need to be redesigned and equipment would	EXEMPT (40 CFR 93.126) - Construction or renovation of power, signal, and communications systems.
San Mateo	6494	SamTrans	SamTrans: El Camino Real Traffic Signal Priority Project	In San Mateo County: On El Camino Real (State Route 82): Installation of Traffic Signal Priority	Installation of traffic signal priority (TSP) on El Camino real (State Route 82) to improve transit speed along the corridor by either giving buses early green lights or extending green lights at traffic intersections.	EXEMPT (40 CFR 93.128) - Traffic Signal Synchronization Projects
Solano	6413	SolTrans	SolTrans: Data Management Technology Enhancements	SolTrans: Procure data management systems and software	Funds in the amount of \$400,000 for data management systems/software for fuel, assets, vehicle maintenance, facility maintenance, accounting, and data warehousing	EXEMPT (40 CFR 93.126) - Purchase of office, shop, and operating equipment for existing facilities.
Solano	6414	SolTrans	Soltrans: Facilities and Amenities Improvements	Soltrans: Systemwide: Facility and passenger amenities improvements	Facility improvements such as solar panels, additional electric charging stations, updated security camera systems, new and improved passenger amenities such as bus shelters, benches, and shade structures in the amount of \$300,000	EXEMPT (40 CFR 93.126) - Construction of small passenger shelters and information kiosks.
Sonoma	6408	SantaRosa Bus	Santa Rosa CityBus-paratransit operations	Santa Rosa: Provide operating assistance to Santa Rosa Paratransit.	Provide operating assistance to Santa Rosa Paratransit, which provides service within the City of Santa Rosa.	EXEMPT (40 CFR 93.126) - Operating assistance to transit agencies
Sonoma	6412	Petaluma	Petaluma: Replace 1 Paratransit Cutaway FY17	Petaluma: Replace one (1) paratransit cutaway.	Replace one (1) paratransit cutaway. Replace 2007 22' Gas Starcraft with 2017 Accessible Minivan.	EXEMPT (40 CFR 93.126) - Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet
Sonoma	6415	Petaluma	Petaluma: Transit Yard & Facilities Improvements	Petaluma: Transit Yard and Facility: Improvements to enhance security and maintain a state of good repair, including pavement repair and upgrades, video surveillance system, office security, yard lighting, and fence replacement	Improvements to the Transit Yard and Facility to enhance security and maintain a state of good repair, including pavement repair and upgrades, video surveillance system, office security, yard lighting, and fence replacement.	EXEMPT (40 CFR 93.126) - Reconstruction or renovation of transit buildings and structures (e.g., rail or bus buildings, storage and maintenance facilities, stations, terminals, and ancillary structures).
Sonoma	6482	Son Co Transit	Sonoma County Transit: Replace 2009 CNG Buses	Sonoma County Transit: Replace Three 40-foot CNG-Fueled Buses.	Replace three 2009 Orion 40-foot CNG buses with three new 40-foot CNG buses.	EXEMPT (40 CFR 93.126) - Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet

Item 3a - Attachment A

County	TIP ID/FMS ID	Sponsor	Project Name	Project Description	Project Expanded Description	Project Type
Proposed New Group Listed Projects for Regional Air Quality Conformity Status Review						
Santa Clara	6503	Caltrans	GL: Railroad/Highway Crossings	In the County of Santa Clara: At the intersection of Mary Avenue and Caltrain tracks: Eliminate hazards at railroad grade crossing	In the County of Santa Clara: At the intersection of Mary Avenue and Caltrain tracks: Eliminate hazards at railroad grade crossing	EXEMPT (40 CFR 93.126) - Railroad/highway crossing

**Air Quality Conformity Task Force
Summary Meeting Notes
January 26, 2017**

Participants:

Gary Sidhu – Alameda County Transportation
Commission (ACTC)
Tim Lee – WMH
Jennifer Marquez – Circlepoint
Ginger Vagenas – EPA
Rodney Tavitas – Caltrans

Cecilia Crenshaw-Godfrey – FHWA
Marilee Mortenson – Caltrans
Amir Fanai – BAAQMD
Adam Crenshaw – MTC
Harold Brazil – MTC

1. Welcome and Self Introductions: Harold Brazil (MTC) called the meeting to order at 9:35 am.

2. PM_{2.5} Project Conformity Interagency Consultations

a. Consultation to Determine Project of Air Quality Concern Status

i. I-680 NB HOV/Express Lanes – SR 237 to SR 84 (Vallecitos Road) Project

Gary Sidhu (ACTC) began his presentation of the I-680 NB HOV/Express Lanes – SR 237 to SR 84 (Vallecitos Road) project by stating it would widen I-680 from SR 237 in Santa Clara County to SR 84 in Alameda County by constructing a 14-mile-long northbound HOV/Express Lane in the corridor. Mr. Sidhu also mentioned other elements of this project (shoulder work and bridge widening) have been combined into one project to streamline the public input process.

Mr. Sidhu mentioned that the I-680 NB HOV/Express Lanes project completed project-level conformity consultation at the October 2012 Air Quality Conformity Task Force meeting, and cleared in the CEQA and NEPA document.

Mr. Sidhu listed the several project elements have been removed or modified for the Phase 1A project:

- Lane widths have been reduced from the originally proposed 12 feet, and now vary from 11 feet to 12 feet. Shoulder widths originally varied from 10 feet to 17 feet, and now vary from 2 feet to 10 feet.
- The widening of the bridge at PM 10.15 over Alameda Creek and all previously identified work and impacts in the Alameda Creek corridor have been removed from the project.
- The realignment of a Pacific Gas & Electric (PG&E) pipeline near the Sheridan Road Overcrossing has been removed from the project.
- The relocation of two PG&E towers near the Calaveras Road exit has been removed from the project.
- The realignment of the Athenour Way frontage road has been removed from the project.
- The number of retaining walls has been reduced from 48 to 9.
- The number of bridges that will be modified has been reduced from 14 to 3.

Rodney Tavitias (Caltrans) commented that going through this consultation with the Task Force provides disclosure to the public for the changes made to the project and asked Mr. Sidhu to include this meeting's discussion in the environmental process documentation.

Final Determination: The I-680 NB HOV/Express Lanes – SR 237 to SR 84 (Vallecitos Road) project went through interagency consultation with the Air Quality Conformity Task Force (AQCTF) at its October 2012 meeting and was found not be of air quality concern. Since that time, the project has incurred minor changes and the project sponsor is meeting with the Task Force to discuss these changes in order to provide this updated information, with no formal determination on the project being requested.

b. Confirm Projects Are Exempt from PM_{2.5} Conformity

i. Confirmation of the list of exempt projects from PM_{2.5} conformity (2b_Exempt List 011317.pdf)

Harold Brazil (MTC) heard no comments from the Task Force on the **2b_Exempt List 011317.pdf** list of projects.

Final Determination: With email input from FTA and FHWA and input from the other members, the Task Force agreed the projects on the exempt list (**2b_Exempt List 011317.pdf**) were exempt from PM_{2.5} project level analysis.

3. Projects with Regional Air Quality Conformity Concerns

a. Review of the Regional Conformity Status for New and Revised Projects

Projects Staff Proposing to Include in the 2017 TIP

Adam Crenshaw (MTC) stated that MTC staff had received requests from sponsors to add 11 new individually listed projects and 32 group listed projects to the 2017 TIP. Attachment A includes a list of these proposed new projects along with the regional air quality category that staff believes best describes the projects. Mr. Crenshaw went onto mention that MTC staff is not seeking a determination on the status of these projects for project-level conformity purposes with this item.

Ginger Vagenas (EPA) asked about TIP ID number VAR170002 in South San Francisco and if this a new traffic signal installation and Mr. Crenshaw confirmed that it is a new traffic signal installation the project will be required to go through project-level conformity. Ms. Vagenas also asked about TIP ID number VAR170002 in Sunnyvale and how "dilemma zone detection" was being used in this project. Marilee Mortenson (Caltrans) googled dilemma zone detection and provided the following definition for the group:

*"The Advanced **Dilemma-Zone Detection** system enhances safety at signalized intersections by modifying traffic control signal timing to reduce the number of drivers that may have difficulty deciding whether to stop or proceed during a yellow phase. This may reduce rear-end crashes associated with unsafe stopping and angle crashes due to illegally continuing into the intersection during the red phase."*

With the dilemma zone detection definition, Ms. Vagenas and the rest of the Task Force members had no further comments on this agenda item.

4. Consent Calendar

a. December 1, 2016 Air Quality Conformity Task Force Meeting Summary

Final Determination: A correction was made to the draft December 1, 2016 Task Force Meeting summary to say that Rodney Taviias (Caltrans) he did ***NOT*** believe that the 19th Street BART to Lake Merritt Urban Greenway project was of air quality concern. With input from all members, the Task Force concluded that the consent calendar was approved.