

# SAN FRANCISCO MARINA

## IMPROVEMENT & REMEDIATION PROJECT

COMMUNITY MEETING 2  
08.2023



**2:00pm: Welcome**

**2:10pm: Presentation**

- **Project Team and Background**
- **Remediation**
- **Marina & Upland Concept Design Review**

**2:40pm: Q&A**

**3:30pm: Meeting Close**

# COMMUNITY MEETING GUIDELINES

- **All voices and opinions are important**
- **We are committed to remaining open to all perspectives**
- **Comments and questions will be heard during Q&A after the presentation**
- **Speak one at a time and be mindful of time**
- **Respect presenters and other meeting participants, even if you disagree with their views**

# SF RPD TEAM

## MARINA IMPROVEMENT LEAD

### RECREATION & PARK DEPARTMENT

KELLI RUDNICK, DEPUTY DIRECTOR OF CAPITAL  
MONICA SCOTT, PROJECT MANAGER  
SCOTT GRINDY, HARBORMASTER

### MOFFATT AND NICHOL – MARINA DESIGN

RICHARD DORNHELM, PROJECT MANAGER  
ASHLEY CHILKA, SENIOR ENGINEER

### FIELD OPERATIONS - LANDSCAPE ARCHITECTS

RICHARD KENNEDY, PARTNER  
VERONICA RIVERA, ASSOCIATE PARTNER



# PG&E TEAM

## REMEDIATION LEAD

### PACIFIC GAS & ELECTRIC (PG&E)

MAGGIE TRUMBLY, ENVIRONMENTAL REMEDIATION  
RYAN MATTSON, PE, PROJECT MANAGER  
DEVIN HASSETT, COMMUNITY OUTREACH

### HALEY & ALDRICH, INC.,

BECKY COLEMAN, PE, REMEDY PROJECT MANAGER

**1890<sup>s</sup>-1906**

**1915**

**1930<sup>s</sup>**

**1960<sup>s</sup>**

**2001**

**2014-2021**

**2021 TODAY!**

**NORTH BEACH MGP OPERATED FROM 1890s**

**PANAMA-PACIFIC INTERNATIONAL EXPOSITION**

**THE PRESENT-DAY EAST HARBOR MARINA WAS CONSTRUCTED**

**THE CITY & COUNTY OF SAN FRANCISCO COMMENCED LEGAL ACTION AGAINST PG&E FOR CLEAN UP OF MGP RESIDUES**

**PG&E REMEDIAL INVESTIGATIONS, INTERIM ACTION, AND FEASIBILITY STUDIES FOR CLEANUP OF ENVIRONMENTAL IMPACTS TOOK PLACE.**

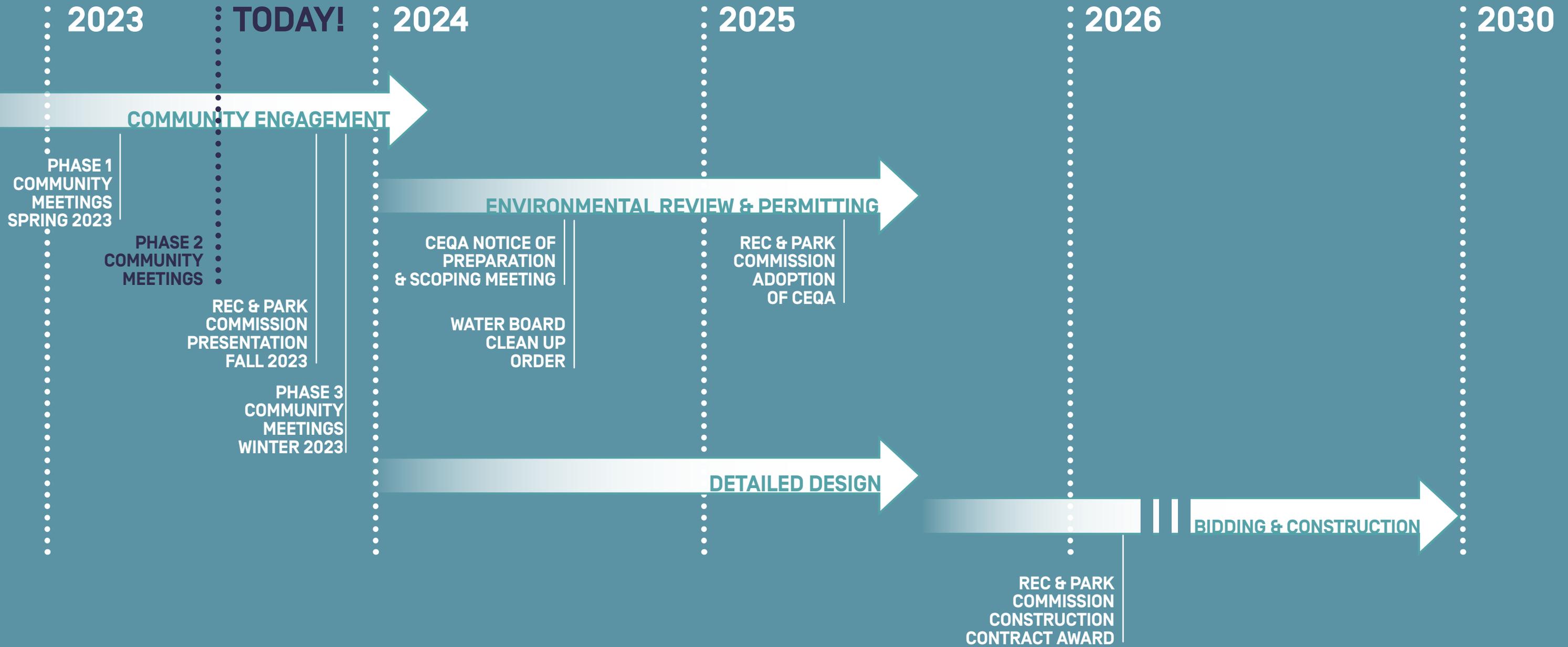
**CONCEPT PLAN DEVELOPMENT FOR MARINA IMPROVEMENT AND REMEDIATION PROJECT**

**THE 1906 EARTHQUAKE SEVERELY DAMAGED THE NORTH BEACH MANUFACTURED GAS PLANT**

**THE MARINA DISTRICT RESIDENTIAL NEIGHBORHOOD CONSTRUCTION FLOURISHED BETWEEN THE 1920-1930**

**THE CITY & COUNTY OF SAN FRANCISCO (SF RPD) APPROVED A SETTLEMENT AGREEMENT WITH PG&E TO DEVELOP A JOINT SAN FRANCISCO MARINA IMPROVEMENT AND REMEDIATION PROJECT**

SAN FRANCISCO MARINA IMPROVEMENT & REMEDIATION PROJECT  
**SITE HISTORY**



SAN FRANCISCO MARINA IMPROVEMENT & REMEDIATION PROJECT  
**PROJECT SCHEDULE**

SAN FRANCISCO BAY

WEST HARBOR SLIPS

EAST HARBOR SLIPS

MARINA GREEN

MARINA BLVD.

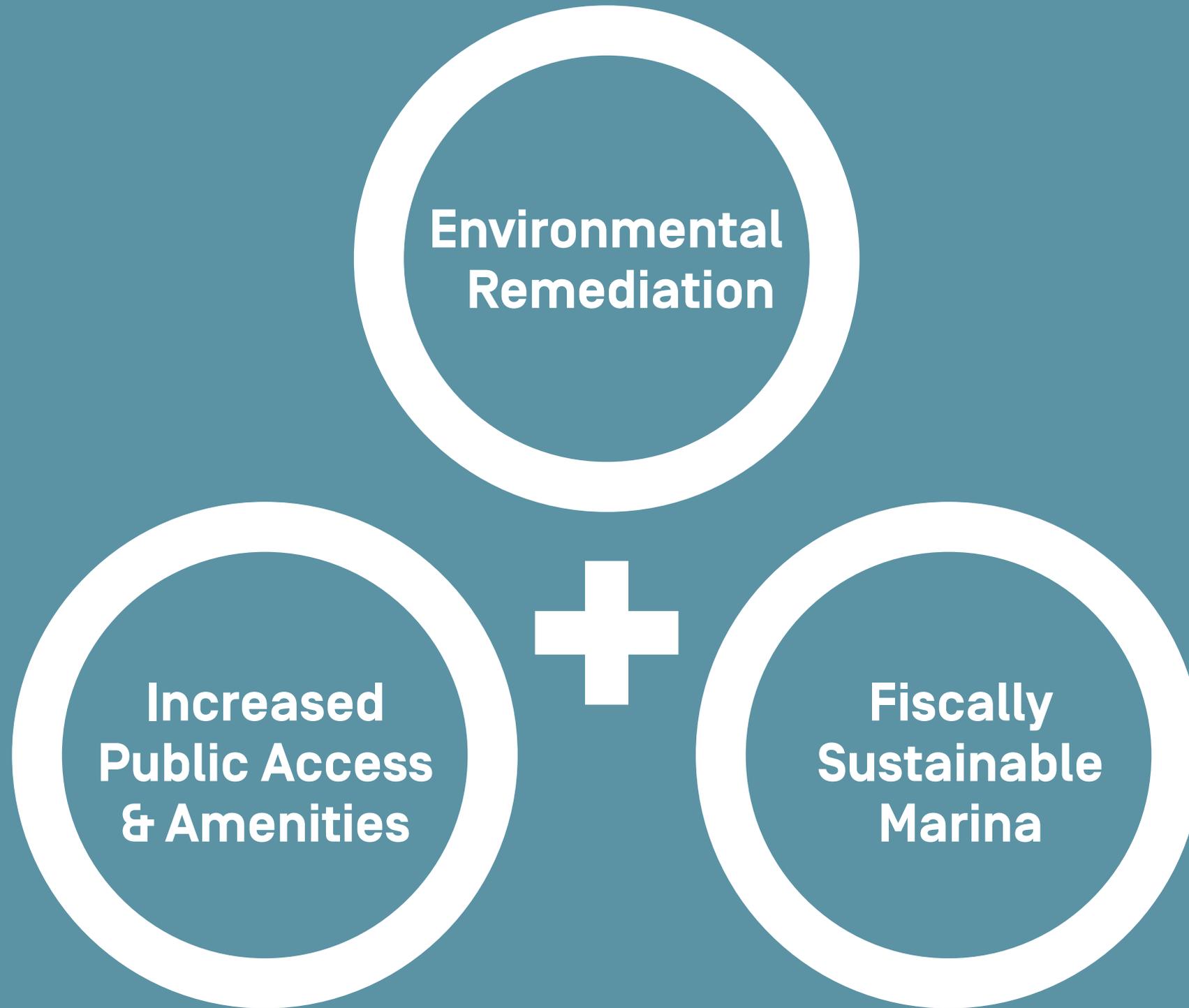
MARINA TRIANGLE

WHAT IS THE EXTENT OF THE PROJECT?

THE PROJECT ENCOMPASSES THE SF MARINA WATERS, FROM WEST HARBOR TO FORT MASON, AND THE MARINA TRIANGLE. THE MARINA GREEN IS NOT PART OF THE PROJECT.

SAN FRANCISCO MARINA IMPROVEMENT & REMEDIATION PROJECT  
**PROJECT EXTENT**

COMMUNITY MEETING 2 - AUGUST 2023



SAN FRANCISCO MARINA IMPROVEMENT & REMEDIATION PROJECT  
**PROJECT GOALS**

## WHAT TYPE OF REMEDIATION IS TAKING PLACE & WHY?

PG&E developed feasibility studies evaluating different remediation alternatives. The "Renovation Remediation Plan" introduces the least amount of environmental and community disruption while protecting human health and the environment and supporting development of new community benefits for the public.

SAN FRANCISCO BAY

CAP

DREDGE WITH CAP PLACEMENT

RETAIN EXISTING SEDIMENT

TARGETED DEEPER DREDGE

SAN FRANCISCO BAY TRAIL

MARINA GREEN

MARINA BLVD.

EAST HARBOR SLIPS

MARINA TRIANGLE

SAN FRANCISCO MARINA IMPROVEMENT & REMEDIATION PROJECT  
**SELECTED REMEDIATION STRATEGY**

COMMUNITY MEETING 2 - AUGUST 2023

**WORK ACTIVITIES (2 YEARS)**

Northern portion of current berthing area will be dredged and capped to a final operational depth of 10 feet below average lowest tide

Channel area will be dredged and capped to a final operational depth of 14 feet below average lowest tide

Southern portion of current berthing area will not be dredged, leaving a natural sediment cover over MGP residues

Outside East Harbor will be dredged near the entrance channel to allow for capping, with direct cap placement under Pier 1

SAN FRANCISCO BAY

CAP

DREDGE WITH CAP PLACEMENT

RETAIN EXISTING SEDIMENT

TARGETED DEEPER DREDGE

EAST HARBOR SLIPS

MARINA GREEN

DREDGE AND CAP BELOW MARINA OPERATIONAL DEPTH

MARINA BLVD.

MARINA TRIANGLE

SOUTHERN PORTION OF CURRENT BERTHING AREA WILL NOT BE DREDGED, LEAVING A NATURAL SEDIMENT COVER OVER MGP RESIDUES

**SAN FRANCISCO MARINA IMPROVEMENT & REMEDIATION PROJECT  
SELECTED REMEDIATION DETAILS**

# WHY THIS STRATEGY WAS SELECTED:

- **Protective of human health and the environment**
- **Utilizes natural protective cover of clean, accumulated sediment**
- **Requires less overall remediation time and disturbance of impacted sediments**
- **Manages impacts through limited dredging and placing an environmental cap [rated for 100+ years]**
- **Introduces the least amount of community and environmental disruption**



SAN FRANCISCO MARINA IMPROVEMENT & REMEDIATION PROJECT  
**SITE REMEDIATION**

# WHY OTHER STRATEGIES WERE NOT SELECTED:

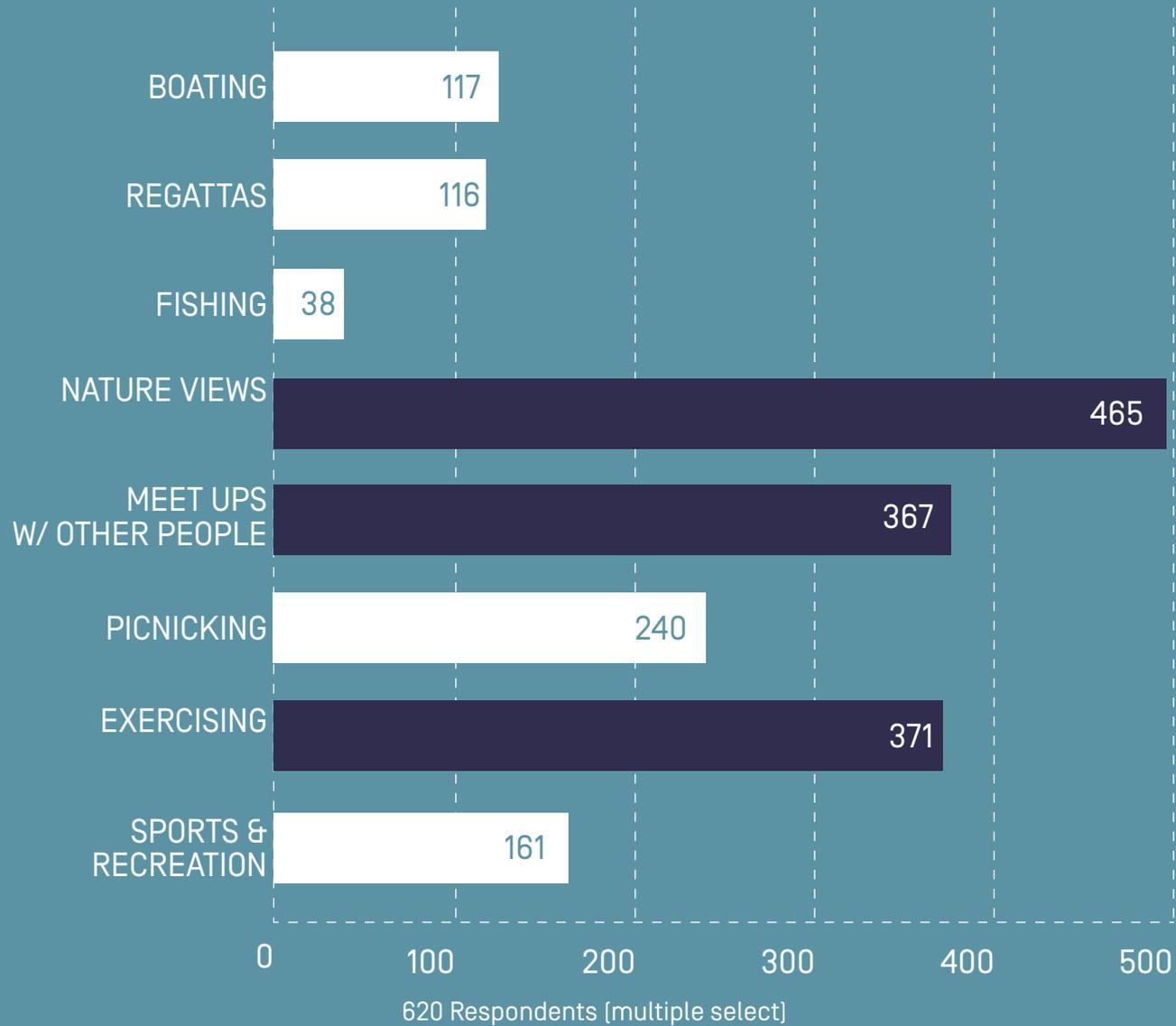
- **Increased dredging destroys aquatic habitat, introduces contaminants to Bay waters**
- **Increased construction time (up to 20 years) results in more GHG emissions, noise, traffic and other impacts**
- **Increased sediment transportation required for off-site disposal and capping**



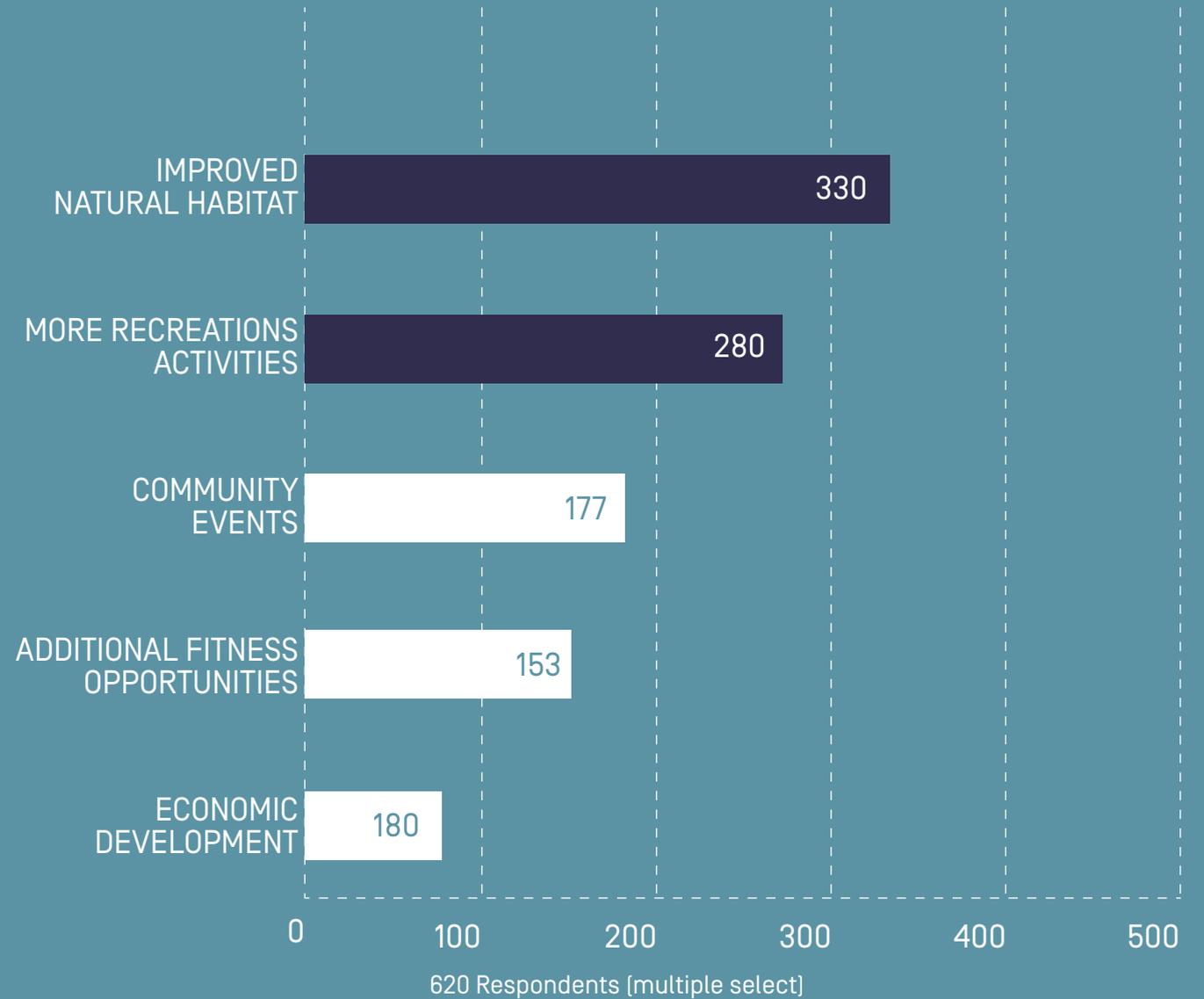
SAN FRANCISCO MARINA IMPROVEMENT & REMEDIATION PROJECT  
**COMMUNITY ENGAGEMENT**

68 ATTENDEES  
89 ATTENDEES  
MOSCONE REC CENTER  
SAN FRANCISCO 2023  
COMMUNITY MEETING 2 - AUGUST 2023

### What type of activities do you currently enjoy in the Marina?



### Which of the following excite you about the Marina?



## SAN FRANCISCO MARINA IMPROVEMENT & REMEDIATION PROJECT SURVEY DATA

Survey results are from the project survey fielded in person and online. 654 people responded to the survey; this data is not a statistically significant or representative sample.

COMMUNITY MEETING 2 - AUGUST 2023



SAN FRANCISCO BAY

WEST HARBOR SLIPS

EAST HARBOR SLIPS

MARINA GREEN

MARINA BLVD.

MARINA TRIANGLE

SAN FRANCISCO MARINA IMPROVEMENT & REMEDIATION PROJECT  
**EXISTING SITE PLAN**

COMMUNITY MEETING 2 - AUGUST 2023



SAN FRANCISCO BAY

WEST HARBOR SLIPS

RELOCATED EAST HARBOR SLIPS

EAST HARBOR SLIPS

MARINA GREEN

MARINA BLVD.

MARINA TRIANGLE

SHALLOW WATER BASIN

SAN FRANCISCO MARINA IMPROVEMENT & REMEDIATION PROJECT  
**PROPOSED FRAMEWORK PLAN**



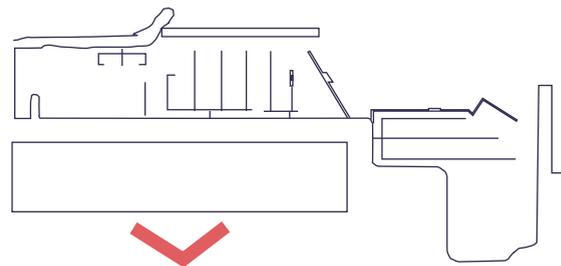
GOLDEN GATE BRIDGE

WEST HARBOR

MARINA GREEN

ANGEL ISLAND

ALCATRAZ



SAN FRANCISCO MARINA IMPROVEMENT & REMEDIATION PROJECT  
**MARINA HORIZON TODAY**



GOLDEN GATE BRIDGE

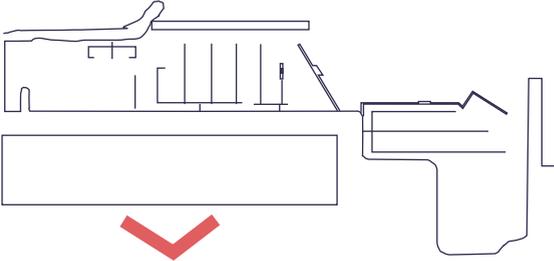
WEST HARBOR

MARINA GREEN

WEST HARBOR EXTENSION

ANGEL ISLAND

ALCATRAZ



SAN FRANCISCO MARINA IMPROVEMENT & REMEDIATION PROJECT  
**MARINA HORIZON PROPOSED**

DESIGN OF WEST HARBOR BREAKWATERS & HARBOR SLIPS

SAN FRANCISCO BAY

WEST HARBOR SLIPS

RELOCATED EAST HARBOR SLIPS

DESIGN OF EAST HARBOR BREAKWATERS & HARBOR SLIPS

EAST HARBOR SLIPS

MARINA GREEN

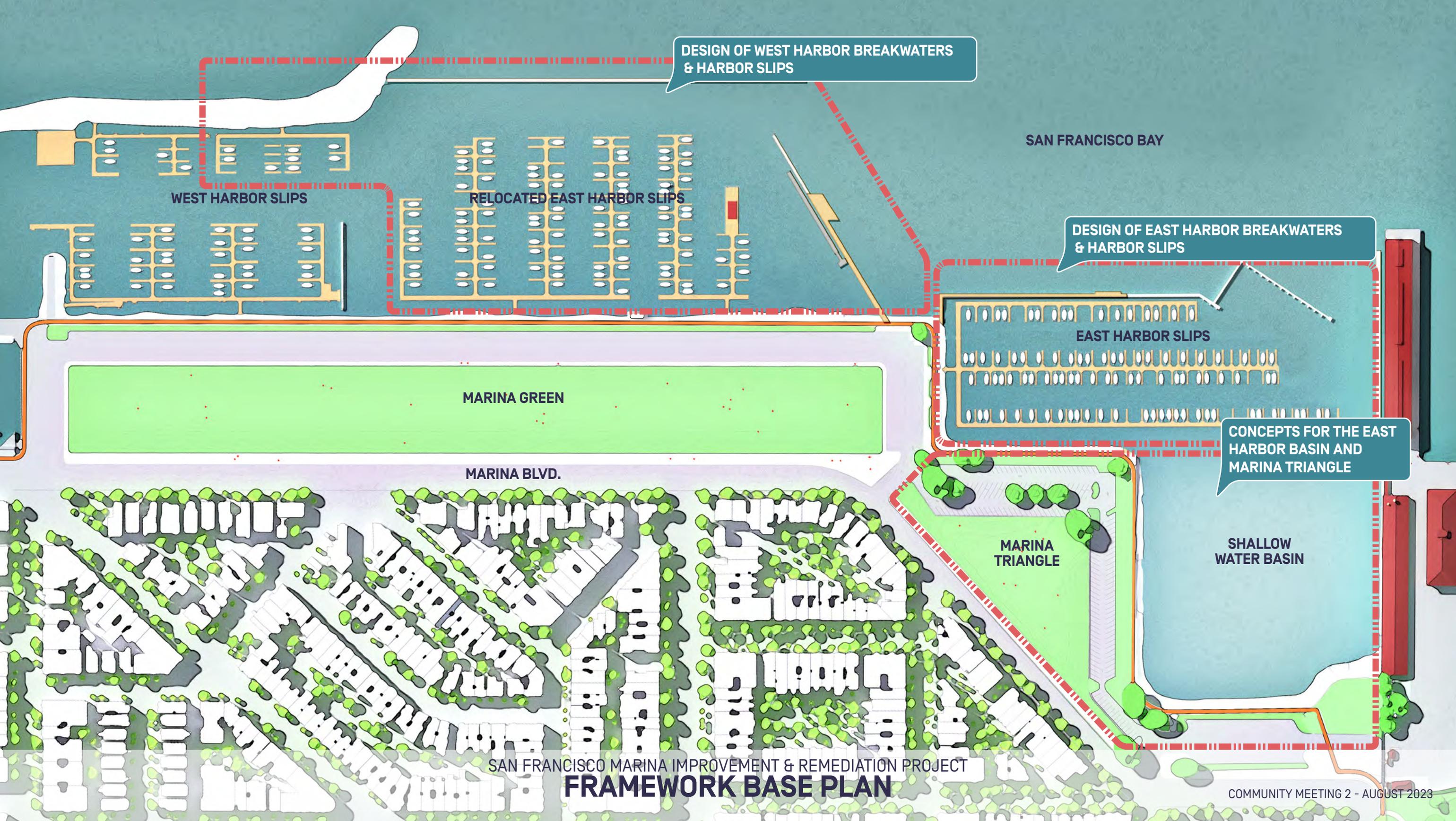
CONCEPTS FOR THE EAST HARBOR BASIN AND MARINA TRIANGLE

MARINA BLVD.

MARINA TRIANGLE

SHALLOW WATER BASIN

SAN FRANCISCO MARINA IMPROVEMENT & REMEDIATION PROJECT  
**FRAMEWORK BASE PLAN**



MARINA GREEN

N

CONSOLIDATED PARKING DRIVE AISLE

IMPROVED PUBLIC RESTROOM

MARINA TRIANGLE

SHALLOW WATER BASIN

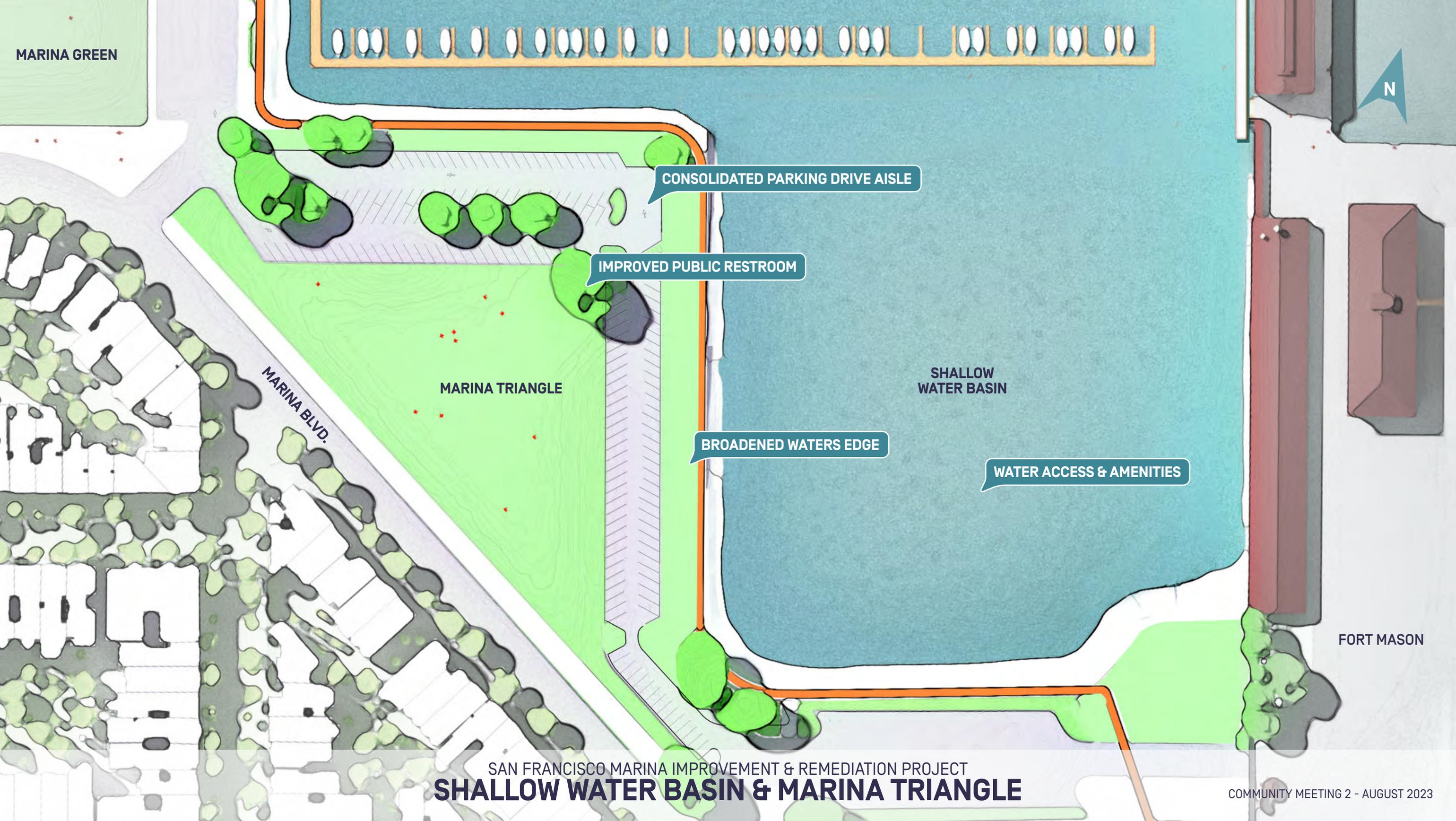
BROADENED WATERS EDGE

WATER ACCESS & AMENITIES

MARINA BLVD.

FORT MASON

SAN FRANCISCO MARINA IMPROVEMENT & REMEDIATION PROJECT  
**SHALLOW WATER BASIN & MARINA TRIANGLE**





Habitat Frame

Marina Mosaic

SAN FRANCISCO MARINA IMPROVEMENT & REMEDIATION PROJECT  
**TWO UPLAND CONCEPTS**



MARINA GREEN

IMPROVED PUBLIC RESTROOMS  
STORAGE (TBD)

BAY TRAIL

BOATING DOCK

SHALLOW  
WATER BASIN

NATURE EXPLORATION TERRACE

ECO-RIP RAP

LAUNCH COVE

VIEWING TERRACE

MARINA GROVE

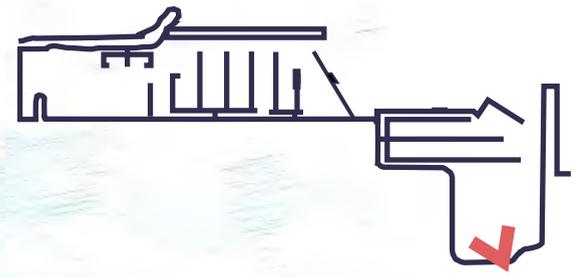
PICNIC GROVE

GOLDEN GATE BRIDGE LAWN

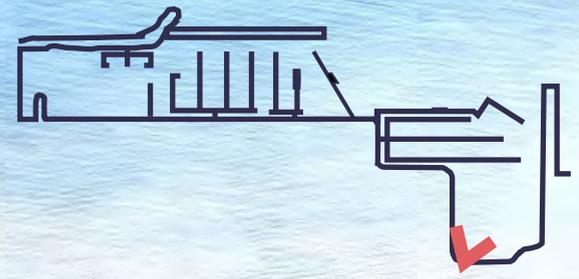
FITNESS PLAZA

VOLLEYBALL COURT

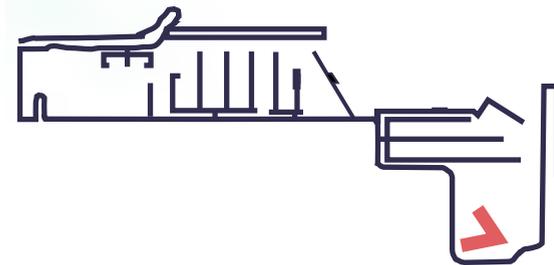
SAN FRANCISCO MARINA IMPROVEMENT & REMEDIATION PROJECT  
**HABITAT FRAME**



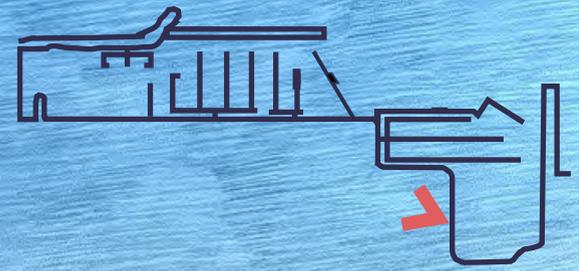
SAN FRANCISCO MARINA IMPROVEMENT & REMEDIATION PROJECT  
**VIEWING TERRACE**



SAN FRANCISCO MARINA IMPROVEMENT & REMEDIATION PROJECT  
**LAUNCH COVE**



SAN FRANCISCO MARINA IMPROVEMENT & REMEDIATION PROJECT  
**NATURE EXPLORATION TERRACE**



SAN FRANCISCO MARINA IMPROVEMENT & REMEDIATION PROJECT  
**GOLDEN GATE BRIDGE LAWN**



MARINA GREEN

BOATER STORAGE (TBD)  
KAYAK & CANOE LAUNCH

IMPROVED PUBLIC RESTROOMS

PICNIC GROVE

GG BRIDGE LAWN

FITNESS PLAZA

SHALLOW  
WATER BASIN

BOATING DOCK

VOLLEYBALL COURTS

EAST HARBOR BALCONY

BAY TRAIL

NATURE EXPLORATION PLAZA

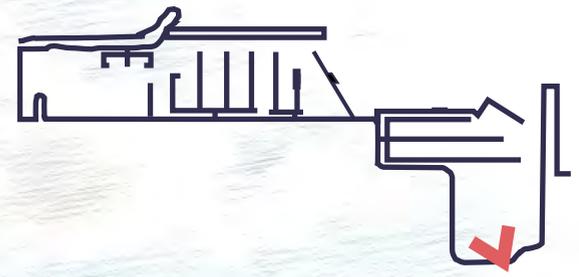
EAST HARBOR TERRACES

BASIN ACCESS

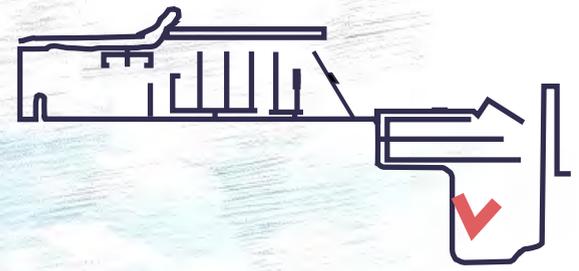
MARINA GROVE

EXISTING PARKING

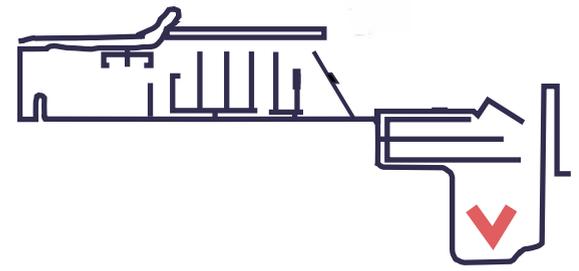
SAN FRANCISCO MARINA IMPROVEMENT & REMEDIATION PROJECT  
**MARINA MOSAIC**



SAN FRANCISCO MARINA IMPROVEMENT & REMEDIATION PROJECT  
**EAST HARBOR TERRACES**



SAN FRANCISCO MARINA IMPROVEMENT & REMEDIATION PROJECT  
**BOATING DOCK**



SAN FRANCISCO MARINA IMPROVEMENT & REMEDIATION PROJECT  
**SHALLOW WATER BASIN**



SAN FRANCISCO MARINA IMPROVEMENT & REMEDIATION PROJECT  
**NATURE EXPLORATION PLAZA**

DESIGN OF WEST HARBOR BREAKWATERS & HARBOR SLIPS

SAN FRANCISCO BAY

WEST HARBOR SLIPS

RELOCATED EAST HARBOR SLIPS

DESIGN OF EAST HARBOR BREAKWATERS & HARBOR SLIPS

SAN FRANCISCO BAY TRAIL

EAST HARBOR SLIPS

MARINA GREEN

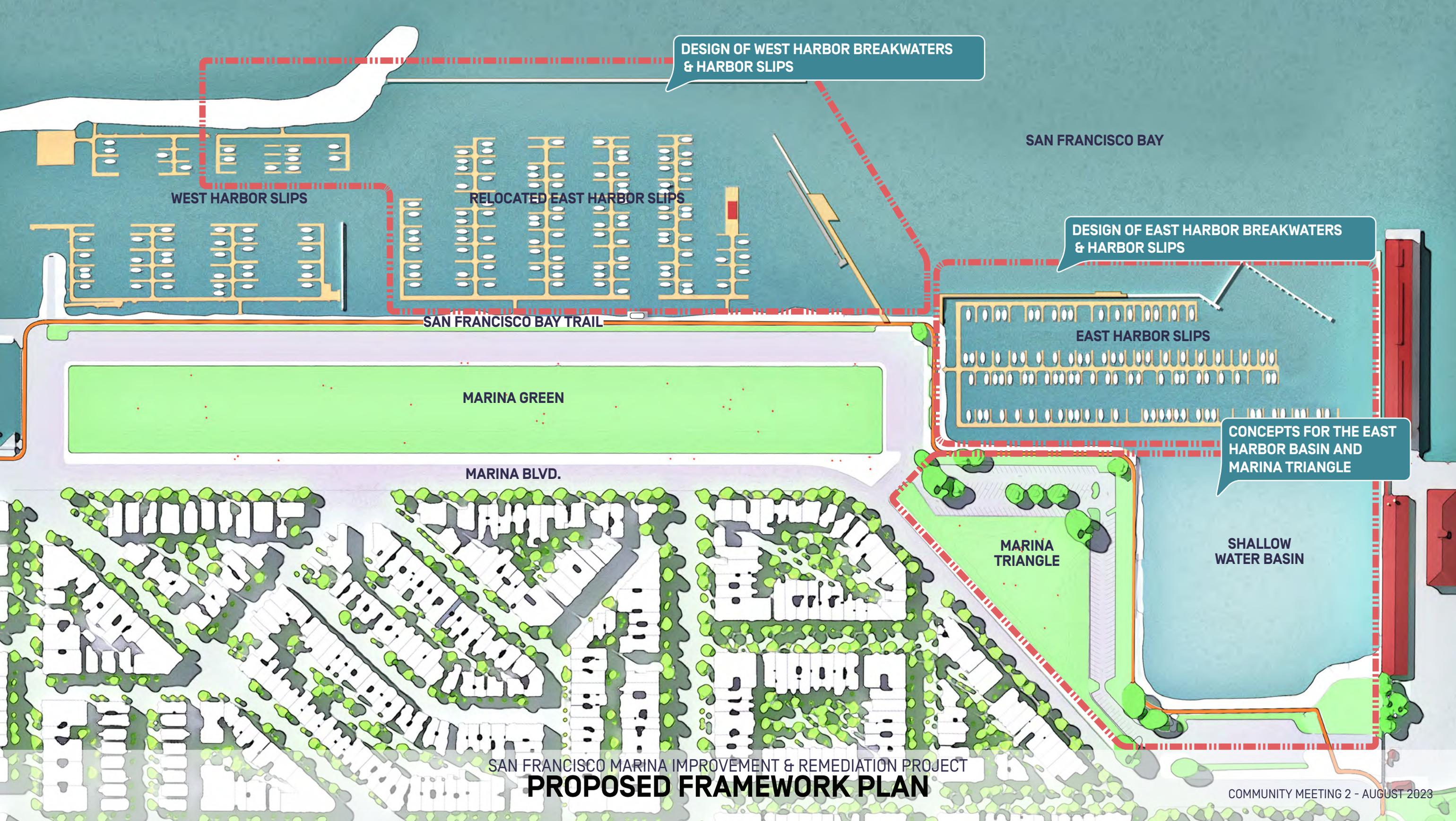
CONCEPTS FOR THE EAST HARBOR BASIN AND MARINA TRIANGLE

MARINA BLVD.

MARINA TRIANGLE

SHALLOW WATER BASIN

SAN FRANCISCO MARINA IMPROVEMENT & REMEDIATION PROJECT  
**PROPOSED FRAMEWORK PLAN**



SAN FRANCISCO BAY

NEW BREAKWATERS

N

TWO SIDED ACCESS TO FUEL DOCK,  
DEEPER DEPTH

100' WIDE CHANNEL

REINSTALLATION OF DOCKS  
ORIGINALLY HERE

FUEL DOCK & CONCESSION BLDG.

BREAKWATER

ALCATRAZ OVERLOOK

WEST HARBOR SLIPS

EXISTING SLIPS

RELOCATED EAST HARBOR SLIPS

GUEST DOCKS

PEDESTRIAN  
BREAKWATER

121'-9"

EV CHARGERS

WATER TAXI

NEW & UPGRADED DOCKS

100'-9"

SAN FRANCISCO BAY TRAIL

MARINA GREEN

SAN FRANCISCO MARINA IMPROVEMENT & REMEDIATION PROJECT  
**WEST HARBOR EXTENSION**



TWO PUBLICLY ACCESSIBLE BREAKWATERS WITH OPEN WATER VIEWS

SAN FRANCISCO BAY



BREAKWATER

ALCATRAZ OVERLOOK

GUEST DOCKS

WATER TAXI

PEDESTRIAN BREAKWATER

PEDESTRIAN BREAKWATER WITH FISHING OPTIONS

ANGEL ISLAND OVERLOOK

EAST HARBOR BREAKWATER

PILE SUPPORTED WAVE ATTENUATOR

92'

EAST HARBOR SLIPS

NEW & UPGRADED DOCKS

PROTECTED SLIPS AND SHALLOW WATER BASIN

EV CHARGERS

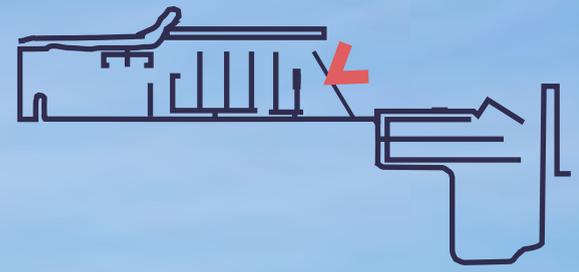
SIDE TIES

MARINA GREEN

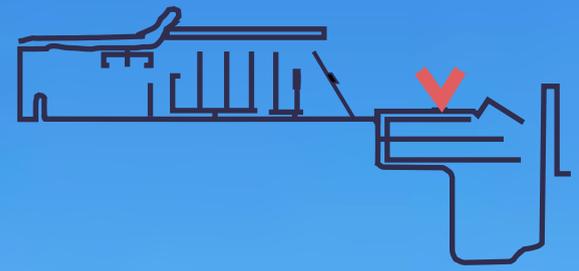
MARINA BLVD.

FORT MASON

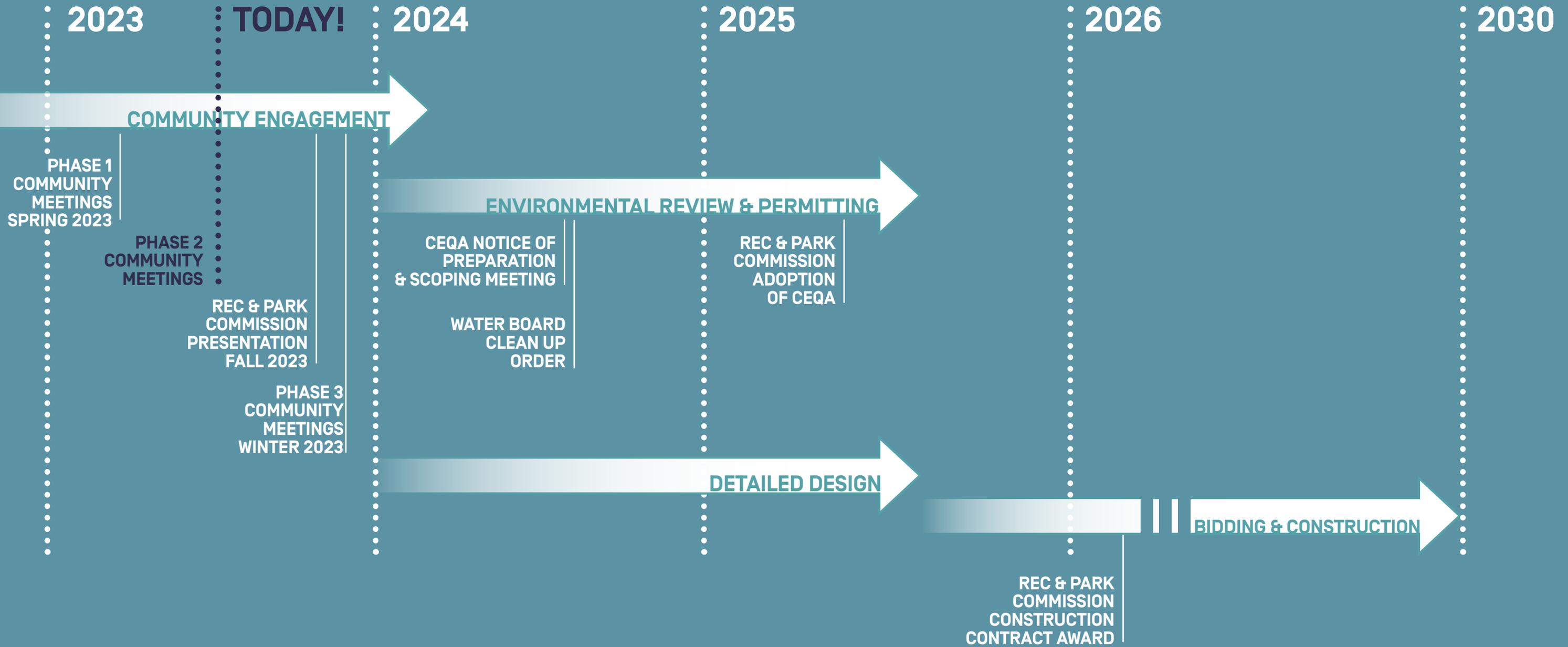
SAN FRANCISCO MARINA IMPROVEMENT & REMEDIATION PROJECT  
**EAST HARBOR SLIPS**



SAN FRANCISCO MARINA IMPROVEMENT & REMEDIATION PROJECT  
**ALCATRAZ OVERLOOK**



SAN FRANCISCO MARINA IMPROVEMENT & REMEDIATION PROJECT  
**ANGEL ISLAND OVERLOOK**



SAN FRANCISCO MARINA IMPROVEMENT & REMEDIATION PROJECT  
**PROJECT SCHEDULE**

# Q&A

## **REC & PARK COMMISSION PRESENTATION OCTOBER 19TH, 2023**

CONTACT INFORMATION:

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415-831-2750

## **REC & PARK PROJECT TEAM**

CONTACT INFORMATION

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[HTTPS://BIT.LY/SFMARINAPROJECT](https://bit.ly/sfmarinaproject)

# SAN FRANCISCO MARINA PARK

THANK YOU!