



SFFD | NEW FIRE BOAT STATION 35 AT PIER 22.5

PRESENTATION TO SAN FRANCISCO FIRE COMMISSION – JUNE 14, 2017

CITY HALL, 1 DR. CARLTON B. GOODLETT PLACE, ROOM 416, SAN FRANCISCO, CA 94102

AGENDA:

- Bond Seismic Improvement Program
- Project Approach
- Project History
- Design-Build Procurement



ESER 2014 BACKGROUND

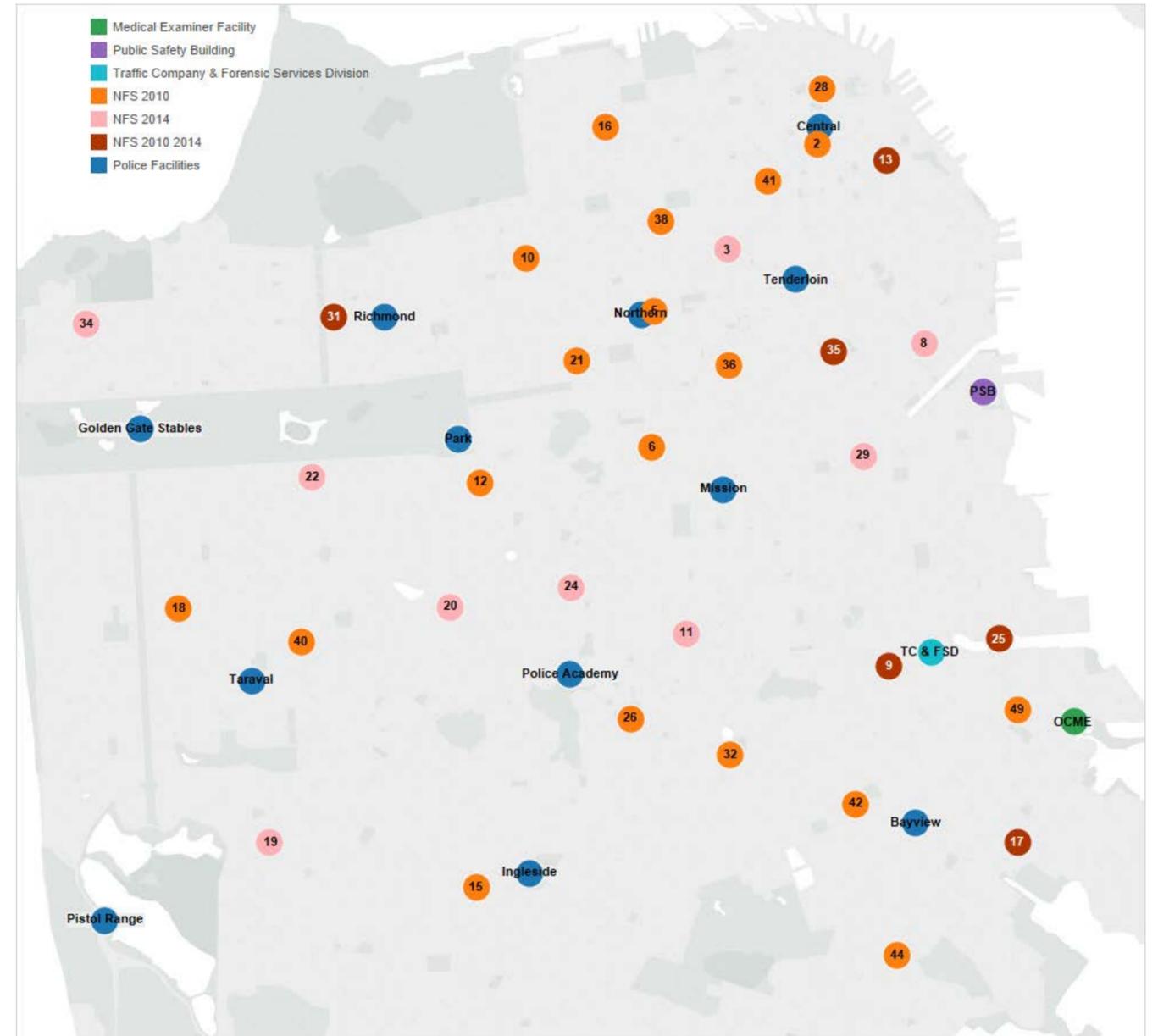
\$400M General Obligation Bond authorized in June 2014 with approval by 79% of voters

- Neighborhood Fire Stations \$85M
- Emergency Firefighting Water System \$55M
- District Police Stations and Infrastructure \$30M
- Motorcycle Police and Crime Lab \$165M
- Medical Examiner Facility \$65M

*Total ESER and PHS funding for SFFD bond funded projects: \$172M



ESER Program Project Map



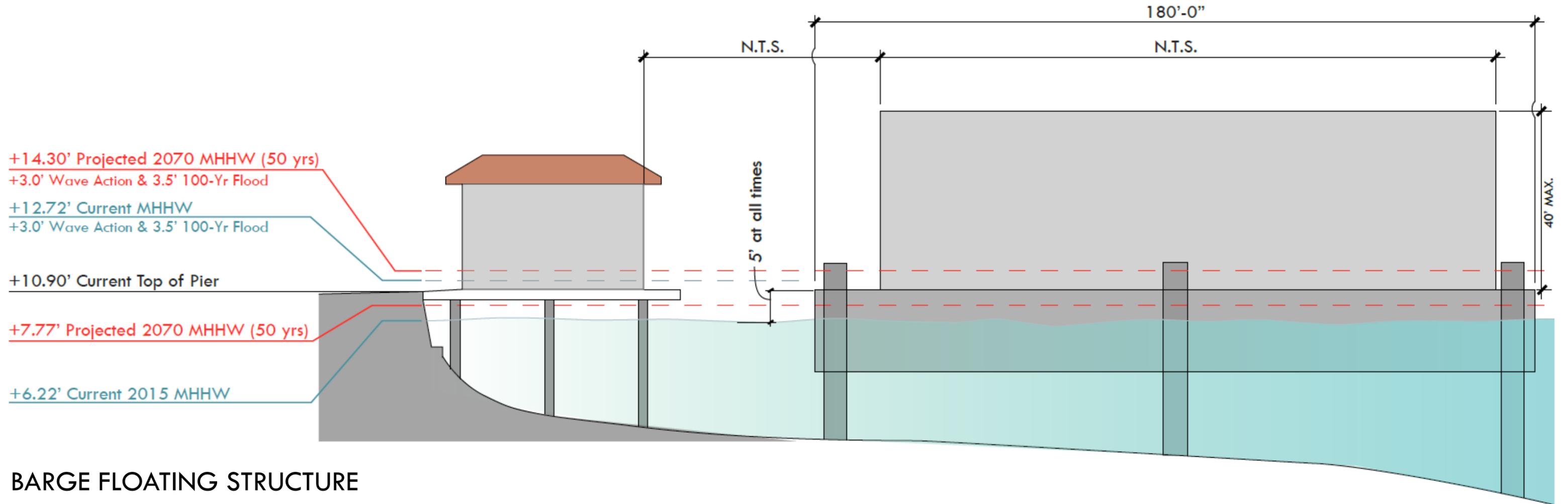
**Building Design & Construction
Project Management**

NEW FIRE BOAT STATION 35 AT PIER 22.5
San Francisco Fire Commission | June 14, 2017

Project: AERIAL PHOTO OF EXISTING SITE



SEA LEVEL RISE



BARGE FLOATING STRUCTURE

SITE HISTORY

1915

- Pier 22 ½ built
- Fire Boat Headquarters Building constructed

1987

- Storage Shed on the Fireboat Pier constructed by San Francisco Port Commission Department of Engineering
- 2 parking lots constructed
- Wood decking at east side of the Fire Boat HQ Building was replaced
- Pier substructure was strengthened with installation of concrete drums at the pilings
- Electrical wiring for the building was reconfigured and electrical equipment was installed at the rear of the building

2006

- Fireboat Headquarters Building listed as contributing resource of the POSF Embarcadero National Register Historic District
- Bulkhead Wharf is not listed (non-contributing resource)
- Important feature of Pier 22 ½ is its connection to the bulkhead wharf and the seawall.

1980s

- Non-historic Fireboat Pier constructed

1999

- Fire Boat Headquarters Building designated as San Francisco City Landmark #225

2010

- Pier Strengthening at Pier 22 ½
 - Emergency stabilization of the pier structure
 - AWSS Hydrant Removed
 - \$2.3M
 - Cowhey Pacific Drilling; Vortex Marine
- ESER 2010 Bond passed
 - Doesn't include Fire Boat Station project

PROJECT HISTORY

2011

- June 23: Fire Commission approved concept of new concrete pier and boathouse structure
- Preliminary Budget: \$20M

2014

- April 2014: Warriors proposed project site moved away from Piers 30/32
- June 2014: SFFD directed Public Works to resume project planning at Pier 22 1/2
- November 2014: ESER 2014 Bond passed

2016

- Introduction of Sea Level Rise (SLR) floating barge solution / scope reduced
- Budget: \$39.9M
- Design-Build project delivery method approved by Fire Administration
- RFQ for Design-Build Services advertised in August
- Pier 26 Fire Boat Berths
 - NTP issued in August to Vortex Marine

2012

- February 29: Fire Commission approved ESER 2010 NFS project portfolio
 - Approved Budget: \$27.17M
 - ESER 2010: \$19.54M
 - Other Funds: \$7.63M
- Slab replacement project completed in June 2012
 - \$437K (non-ESER funds)
 - JOC contractor: Azul Works (LBE)
 - Modification to (E) gas line completed in April 2013
- November 2012: Warriors presented proposed development project at Piers 30/32 included a new Fire Boat Station #35 at the site

2015

- June 2015: Project moved to ESER 2014
 - Baseline Budget: \$37.85M
- RFQ for A/E Services
 - Advertised in September
 - GHD highest ranked respondent in December
- Presentation to Capital Planning Committee in October
 - \$52M

2017

- RFP for Design-Build Services advertised in February
 - RFP Step 1 submissions received in March
 - RFP Step 2 submissions due in May
 - Selection of Design-Builder in June



FIRE STATION EXISTING CONDITIONS



EXISTING CONDITIONS:

- Current facilities are over 100 years old – costly repairs continue to mount
- Two piers, both deteriorating
 - One is completely unusable, the other is in poor condition
- Fire Station not seismically retrofitted
- Storage offsite, so equipment is out of reach in emergency situations
- Spill response containment booms stored in trailers away from water
- Split operations

EXISTING FACILITY DEFICIENCIES:

- Current facility space is grossly undersized for the operation program
- Locker facilities and restrooms are inadequate
 - Only station with no equal accommodations for female firefighters
- Ongoing fireboat maintenance including welding and other metal work currently done in the existing (unsuitable) wood framed shed structure
- No ambulance access to back of fire station for transfer of injured
- No decontamination space for firefighters and equipment

EXISTING CAPACITY



ASSETS

- Two Fire Boats
- One Fire Engine

Historic FS #35 is 4,736 GSF
Shed is 1,720 GSF
Existing Pier/Dock/Parking Lot: 14,820 GSF

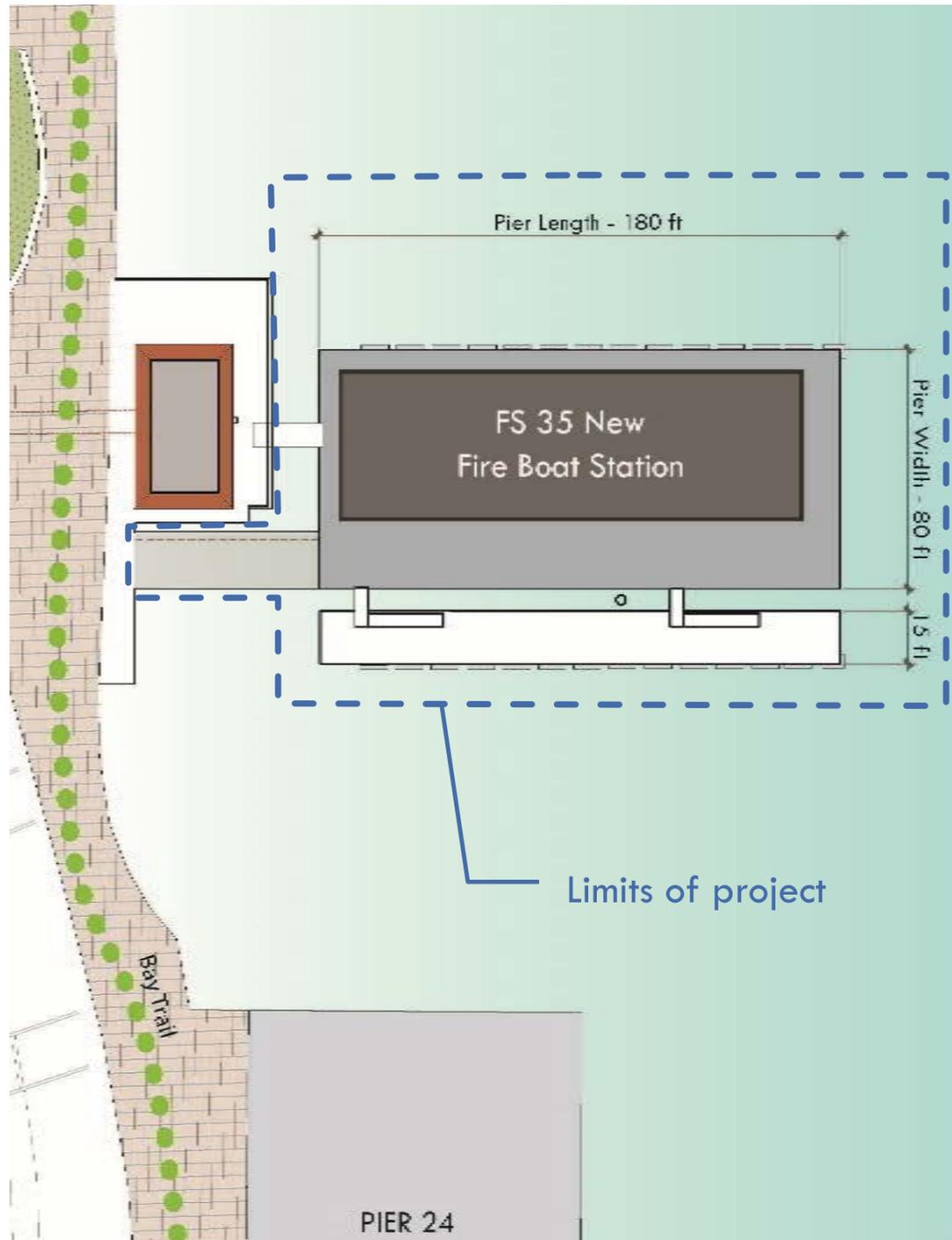
EXISTING STATION

6,100 GSF

LIABILITIES

- Deteriorated Berthing Areas
- No Environmental Responses Equipment Storage, e.g. Oil Spill Boom
- No capacity for: Jet Skis, Small Craft Rescue Equipment, Dive Boat, e.g. Small Rescue Watercraft
- No Storage Areas
- No Decon Area and No Dive Equipment Area
- No Rescue Unloading Area
- No Changing Facilities for Firefighters

PROPOSED CAPACITY



NEW STATION 16,339 GSF

ASSETS

- Three Fire Boats
- Rescue Watercraft
- Jet Skis
- Dive Boat
- One Fire Engine

FEATURES

- Addresses all liabilities of existing facility
- Construction to Essential Facility Standards
- Storage Areas Consolidated for Emergency Response Equipment
- Ambulance Access
- Equipment for Boat Access, Rescue, and Loading and Unloading

Historic FS #35: 4,736 GSF

Existing Pier to remain: 7,000 GSF

Proposed New Barge*: 19,400 GSF

Total Shadow (Remaining + New): 26,400 GSF

*includes: Barge = 14,400 sf; Ramp = 2,000 sf; Float (200'x15') = 3000 sf

for total shadow of all three NEW components on the Bay

ESER SFFD DESIGN GUIDELINES

Fixtures and Furnishings Chart

Space	Component	1 Company	2 Companies	3 Companies	ADD per Battalion Chief or Rescue Captain	ADD per Incident Command Specialist
Dormitory	Assigned beds	13	26	36		4
	Unassigned beds	3	3	5		
Officers Quarters	Bedroom with Restroom	1	2	3	1	
	Lockers	4	8	12	4	
	Assigned beds	4	8	12	4	
Firefighter Lockers <small>Locker quantities are a minimum. Additional lockers are desired if space allows</small>	Male	14	28	42		3
	Female	3	5	7		2
Male Firefighter Restroom-see Note below	Toilets	2	3	3		
	Urinals	1	2	2		
	Lavatories	2	3	4		
	Showers	2	3	4		
Female Firefighter Restroom-see Note below	Toilets	2	2	2		
	Lavatories	2	2	2		
	Showers	2	2	2		
Dining Room and Day Room	Dining Chairs	8	13	17	1	1
	Day Room Seating	4	9	13	1	1
Turnouts	Turnout Lockers: 36-inch wide	20	40	60	4	4
	Drying Hooks	10	20	30	1	1
Specialty Gear Bags	Above Each Turnout Locker: (2) bags on 36" deep open rack	40	80	120	8	8
	In Storage Room: (2) bags on 36" deep x 24" tall open racks	40	80	120	8	8

Note: in addition to these restroom guidelines: each fire station, regardless of size, will have one all-gender ADA-compliant full restroom with toilet, lav and shower.

	SAN FRANCISCO FIRE DEPARTMENT	San Francisco ESER Fire Station Bond Design Guidelines <small>BROWN REYNOLDS WAITFORD</small> BRW ARCHITECTS	DATE ISSUED 11.03.16
	APPROVED BY:		

Prepared 2012; Rev. 1, Feb 2017

DESIGN-BUILD PROCUREMENT

Panel 1: 4 members (1 SFFD)

Panel 2: 5 members (1 SFFD)

Panel 1: 4 members (1 SFFD)



RFQ

5 teams submitted and 5 shortlisted:

- **Overaa/Dutra, JV**
- **Nibbi Brothers**
- **Plant Construction and TEF/KRA, JV**
- **Swinerton/Power, JV**
- **Turner/Pfau Long, JV**

RFP Step 1

3 teams submitted and 2 shortlisted:

- **Overaa/Dutra, JV**
- **Plant Construction and TEF/KRA, JV**
- **Swinerton/Power, JV**

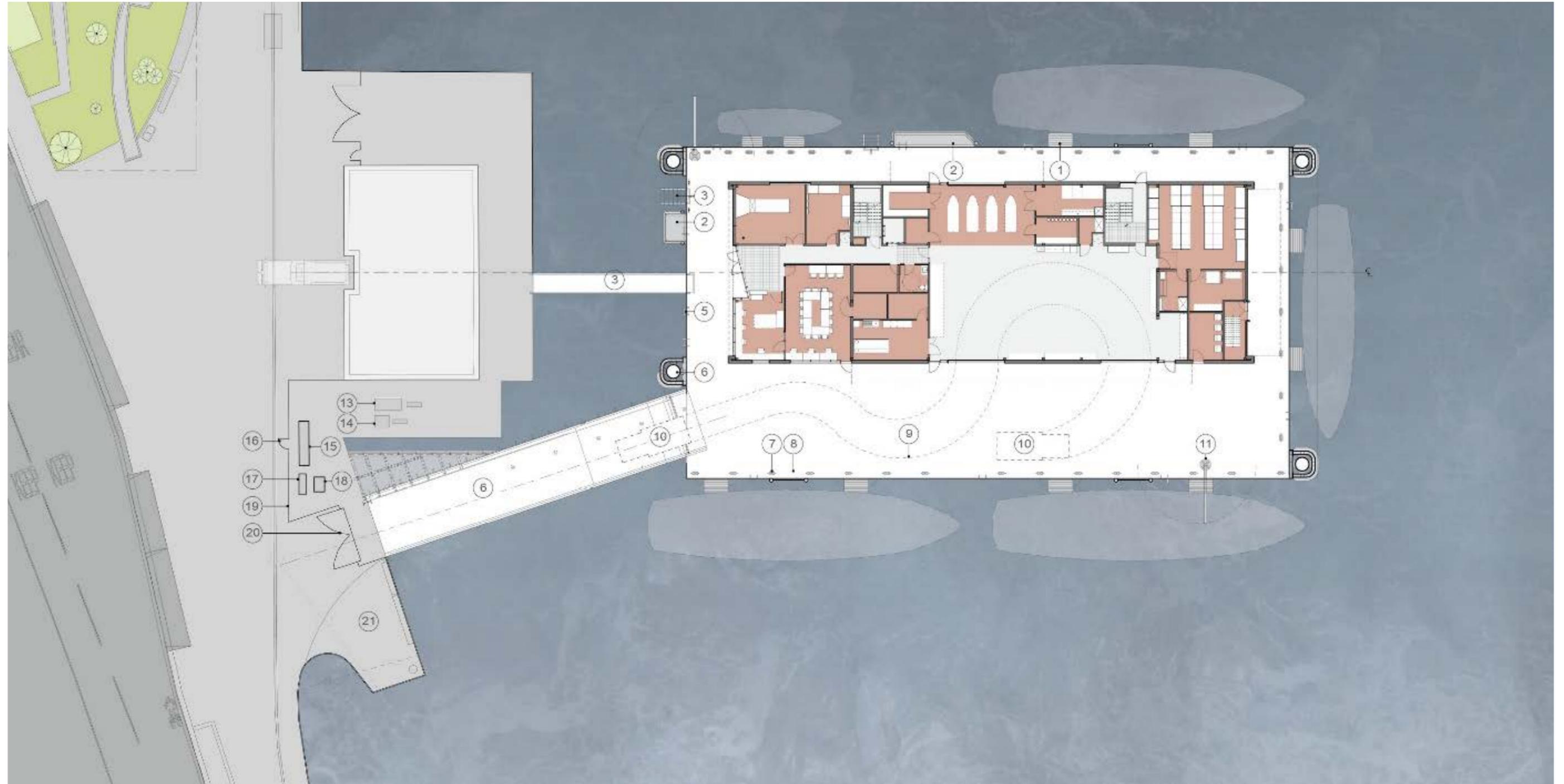
RFP Step 2

1 responsive proposal submitted:

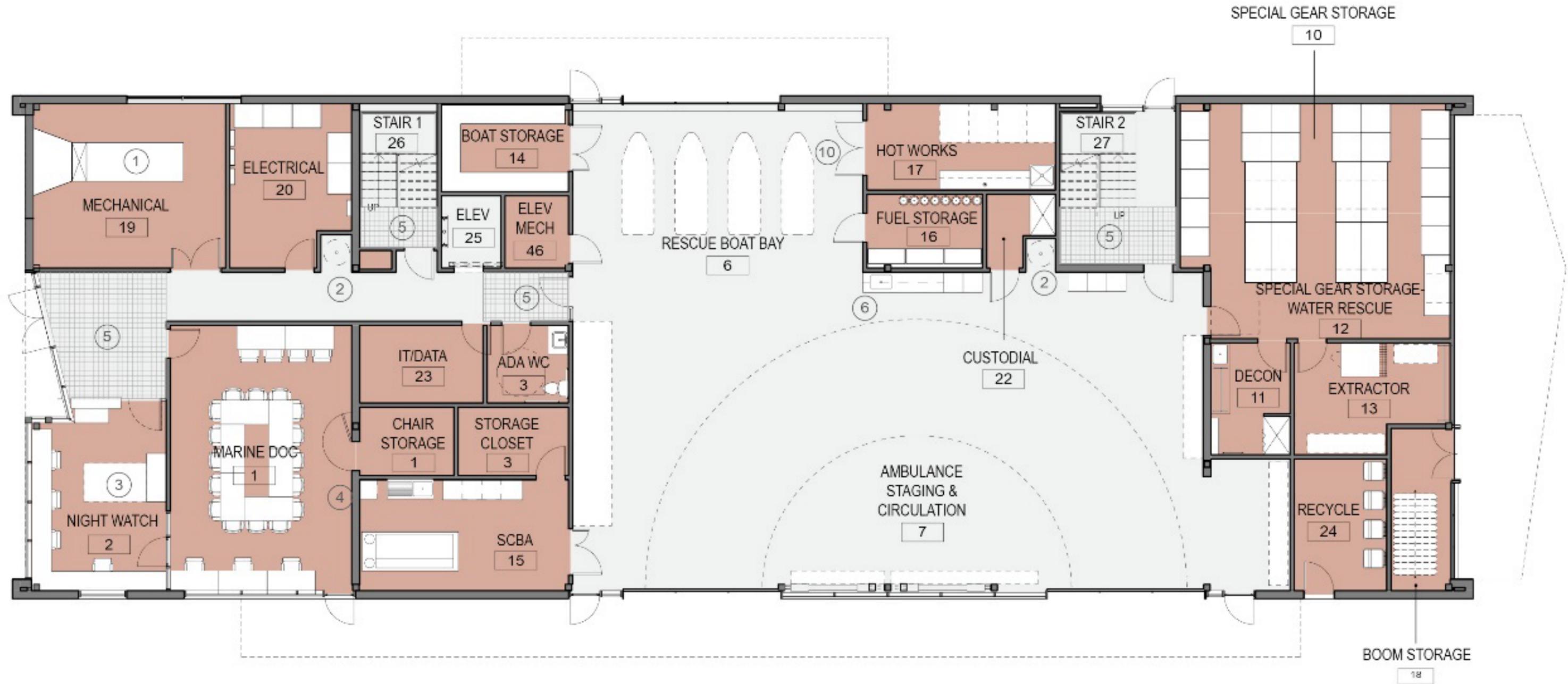
- **Overaa/Dutra, JV**
- **Swinerton/Power, JV**

Total Project Budget:	\$39.9M
Design-Build Budget:	\$29.9M
Design-Build Proposal:	\$29.82M

CONCEPT SITE PLAN



CONCEPT 1ST FLOOR PLAN



CONCEPT 2ND FLOOR PLAN



CONCEPT INTERIOR – DAYROOM/DINING/KITCHEN



CONCEPT ELEVATION - SOUTH



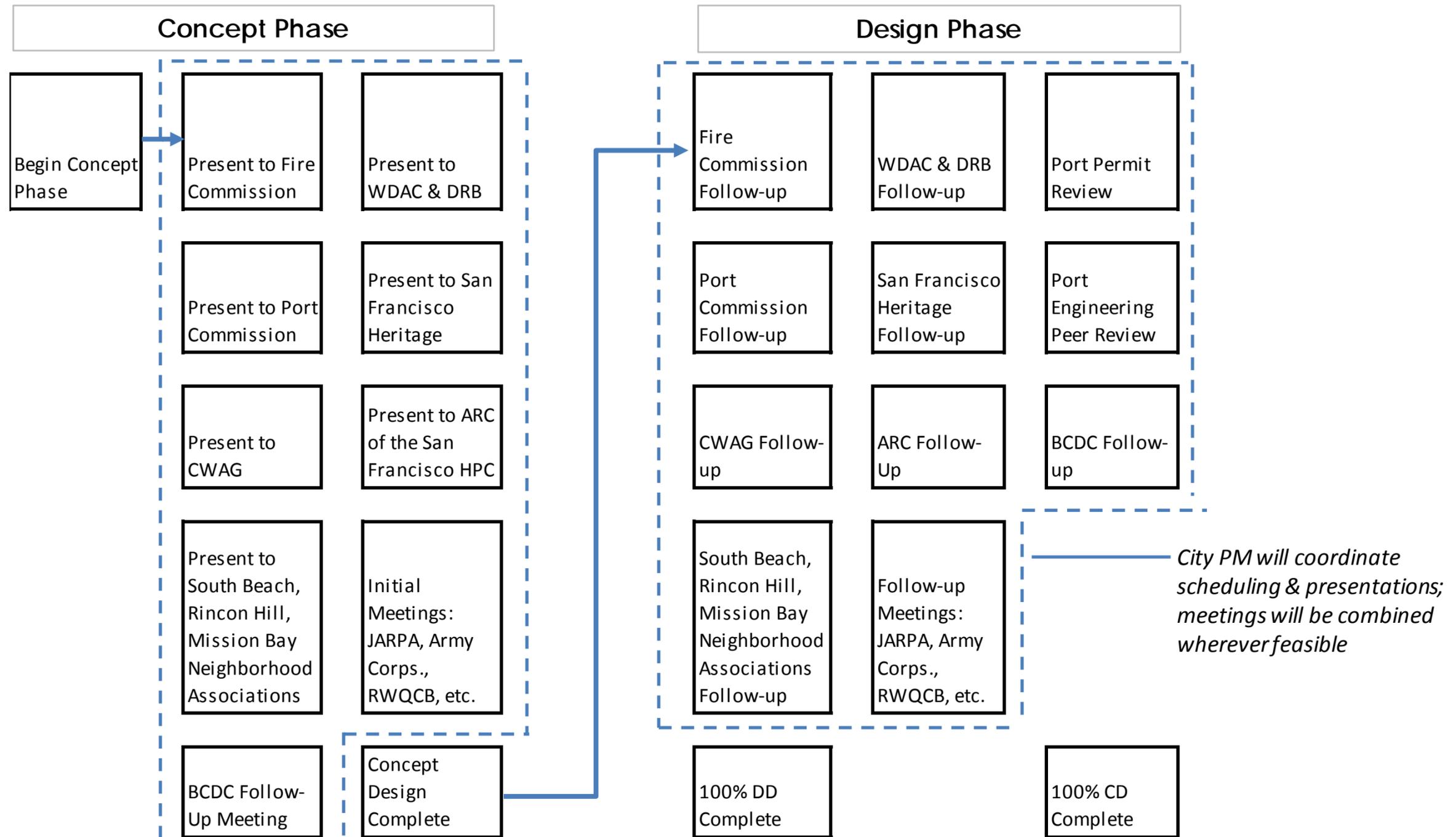
CONCEPT VIEW FROM THE EMBARCADERO



CONCEPT VIEW FROM THE BAY



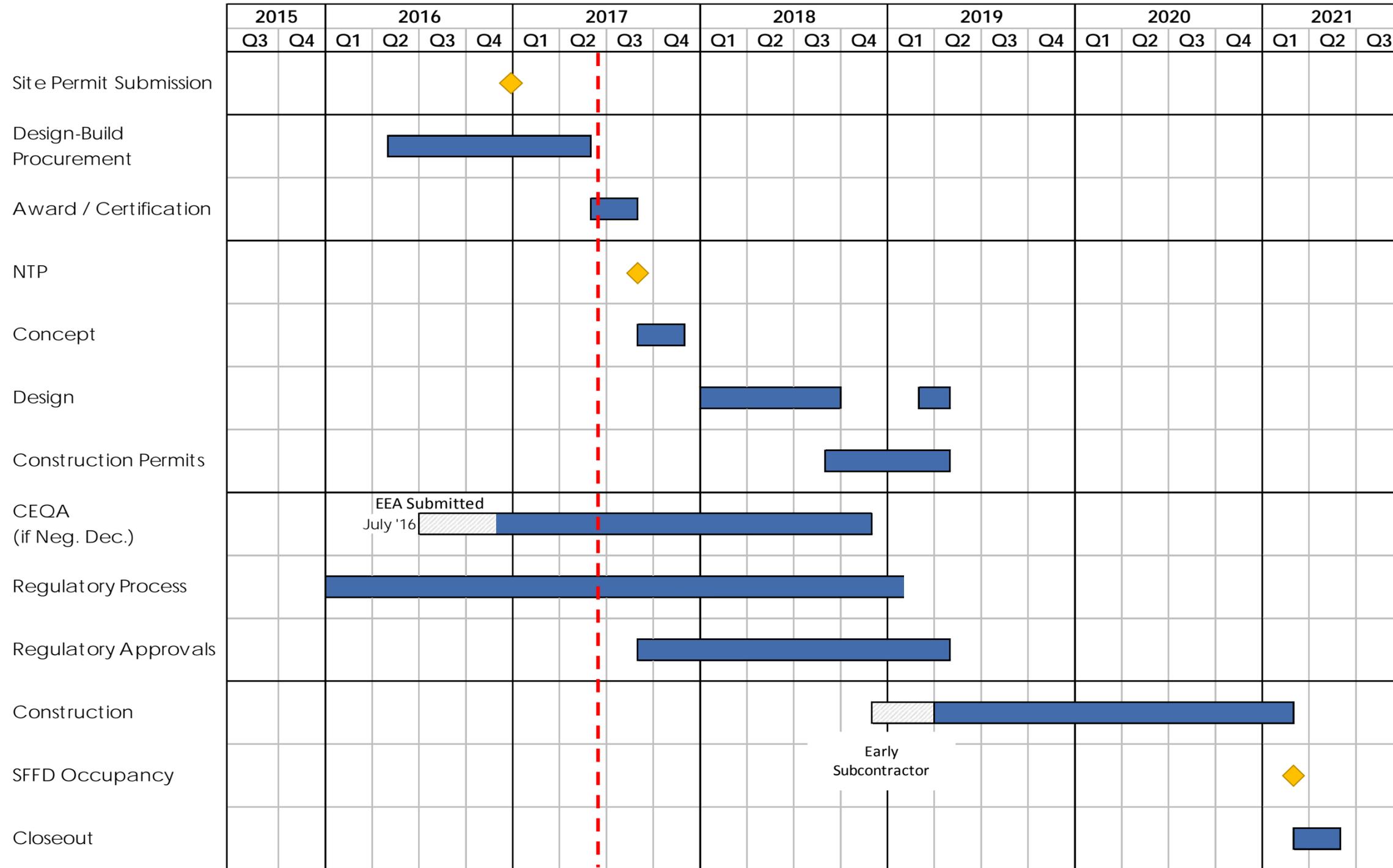
CONCEPTUAL PLANNING PROCESS FLOWCHART



PERMITTING AGENCIES

	Agency	Type of Application
City Agency (Approval)	SF Port Building Permit Division	Port Building Permit
	SF City Planning Environmental Planning Division	CEQA Review and Determination including procedures for historical resources
	San Francisco Fire Department (SFFD) Administration	Design Review
City Agency (Advisory)	San Francisco Fire Commission	
	San Francisco Port Commission	
	Central Waterfront Advisory Group (CWAG)	
	Citizen Advisory Committees (CAC)	Public Design Review
	Waterfront Design Advisory Committee (WDAC)	Public Design Review
Regulatory Agency Approvals	San Francisco Bay Conservation and Development Commission (BCDC)	1) BCDC Permit; Design-Build team to confirm whether Major or Administrative 2) Engineering Criteria Review Board (ECRB) 3) Design Review Board (DRB)
	US Army Corps of Engineers (USACE)	Sec. 10 (RHA) / Sec. 404 (CWA) Permit for discharge of dredged or fill material (33 CFR 323)
	National Marine Fisheries Service (NMFS)	1) Consultation under Sec. 7 (FESA) 2) Incidental Take Authorization under Marine Mammal Protection Act (MMPA)
	San Francisco Bay Regional Water Quality Control Board (RWQCB)	Sec. 401 (CWA) Water Quality Certification
	CA Department of Fish and Wildlife (CDFW)	Incidental Take Permit Sec. 2081 (FGC)
	US Coast Guard	Maritime Transportation Security Act of 2002 (33 CFR)
Regulatory Agency Consultation	US Fish and Wildlife Services (FWS)	Consultation under Sec. 7 (FESA)
	CA State Lands Commission	Use plan consultation
	State Historic Preservation Officer	Sec. 106 (NHPA) consultation

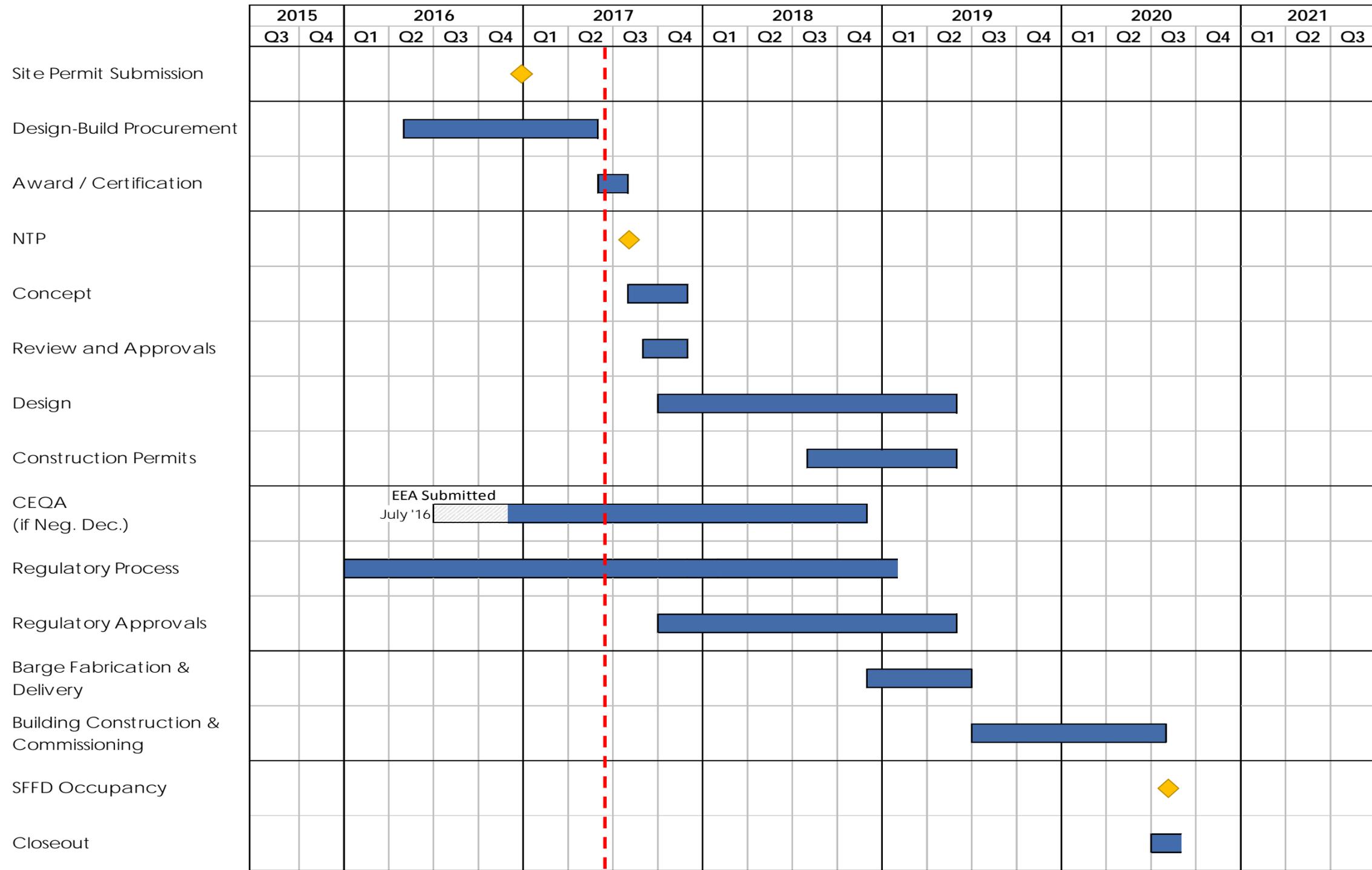
PRELIMINARY SCHEDULE



June 14, 2017



PROPOSER'S SCHEDULE

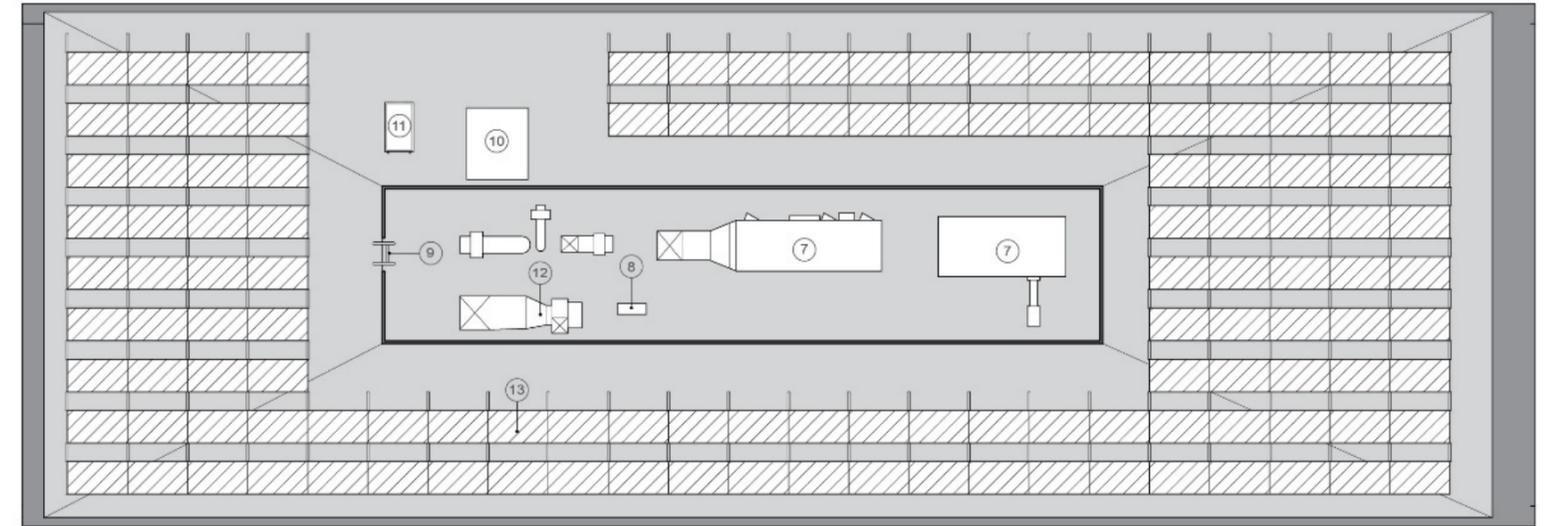


June 14, 2017



PROPOSER'S APPROACH TO SUSTAINABILITY

- Project will be designed & built to meet LEED Gold standards
- Building will be solar ready to receive future panels
- Team's approach to sustainable design:
 - Fully integrated into design process.
 - Shared commitment by all Design-Build team members.
 - Specific to fire stations drawing upon team's expertise.



Proposed Roof Plan

PROPOSER'S METHODOLOGY

- Barge Design and Fabrication team:
 - Power Engineering
 - Liftech Consultants Inc.
 - Shanghai Zhenhua Heavy Industries Co., Ltd. (ZPMC)
- Liftech and ZPMC have partnered on previous marine projects.



- ZPMC is one of the largest steel fabricators in China.
- ZPMC's internal QC department is separate from the fabrication department
- Daily oversight by third party inspection agency
- Periodic (2 days/week) weld audits by American Welding Society (AWS) certified weld inspector
- Reviews by Liftech Shanghai and Liftech's CA Engineer
- Once fabrication is complete, dry barged to San Francisco.
- The building will be assembled on top of the barge docked at Pier 1, Treasure Island.



www.sfearthquakesafety.org/fireboatstation35