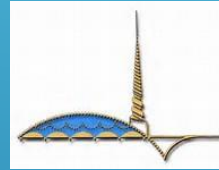
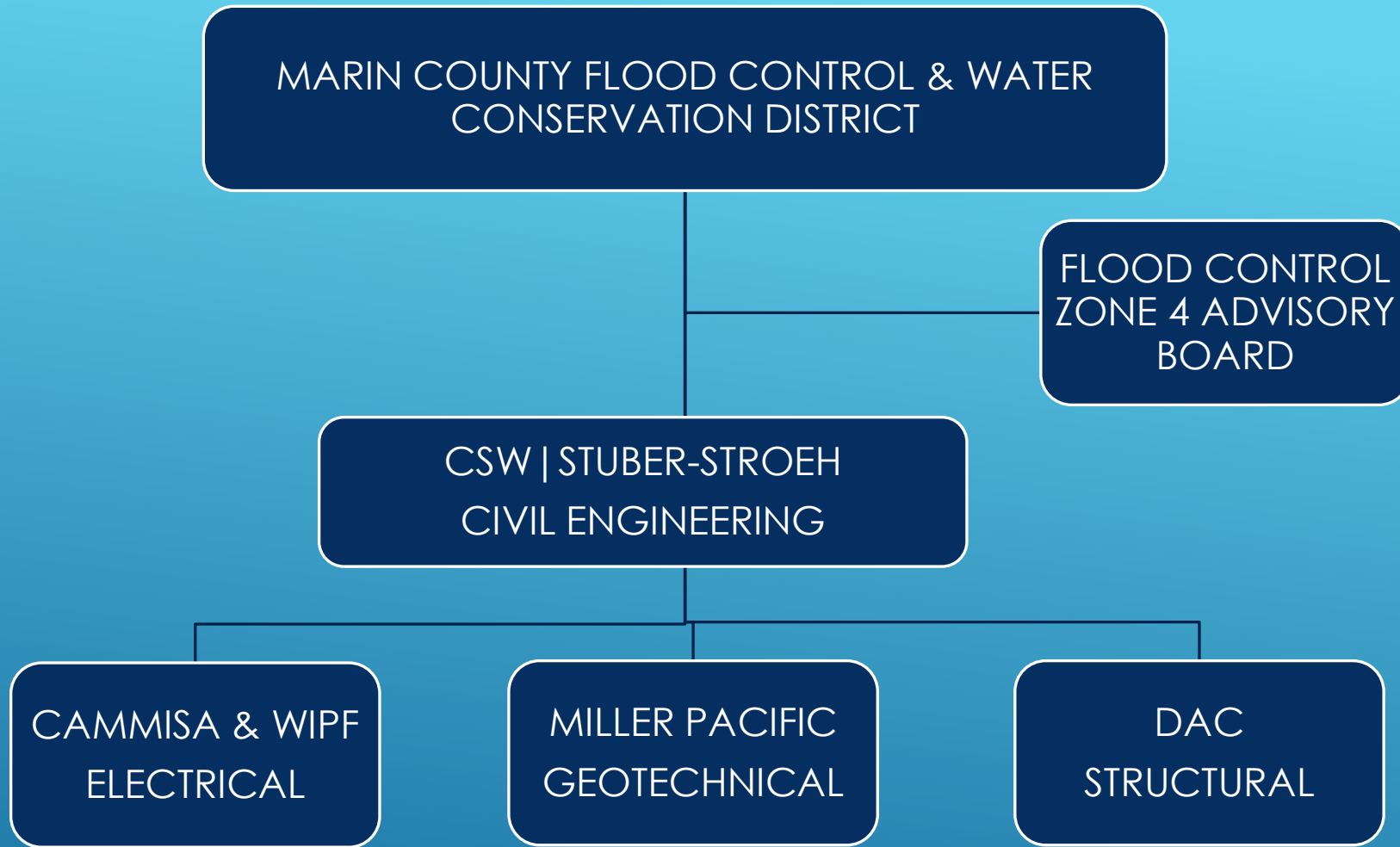


# COVE STORMWATER PUMP STATION UPGRADES



**MARIN COUNTY FLOOD CONTROL &  
CONSERVATION DISTRICT**

**FLOOD CONTROL ZONE No. 4**



# TEAM ORGANIZATION CHART

# Cove Shopping Center



# PROJECT VICINITY MAP

# COVE STORMWATER PUMP STATION UPGRADES

## Purpose of Upgrade:

Increase pumping capacity to meet potential future 100-year Inflows (21,100 gpm – Alternative Recommended by Advisory Board)

Provide onsite back-up generator to power entire pump station

Increase trash rack effectiveness

Improve wet well layout

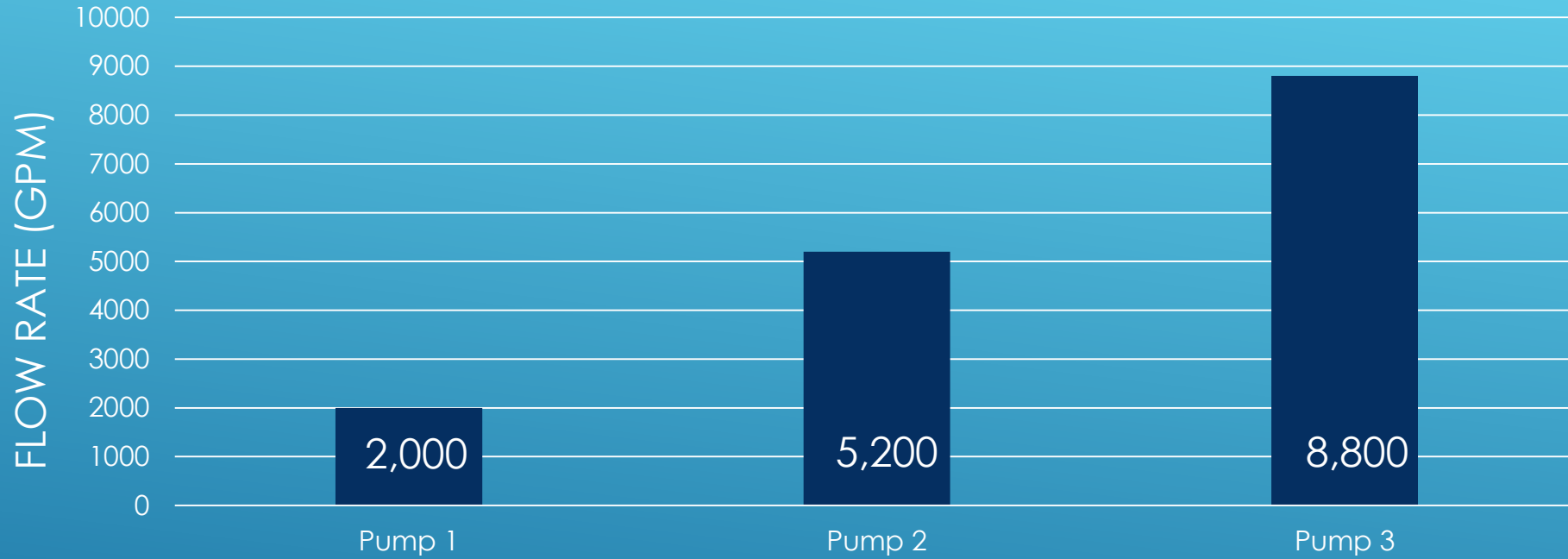
Upgrade controls & electrical system

Improve seismic stability of existing building

Install SCADA for Remote Monitoring



## EXISTING PUMPING CAPACITY



Total Capacity  
= 16,000 gpm

# HYDROLOGY & HYDRAULIC STUDY

Schaaf & Wheeler





# COVE PUMP STATION EXISTING CONDITIONS





### Wet Well Inspection

- Visual Inspection of Wet Well
- Delimitation Survey
- Rebound Hammer
- Reinforcing Steel Survey (GPR)
- Concrete Coring
- Chloride Content Testing
- Concrete Comprehensive Strength Testing

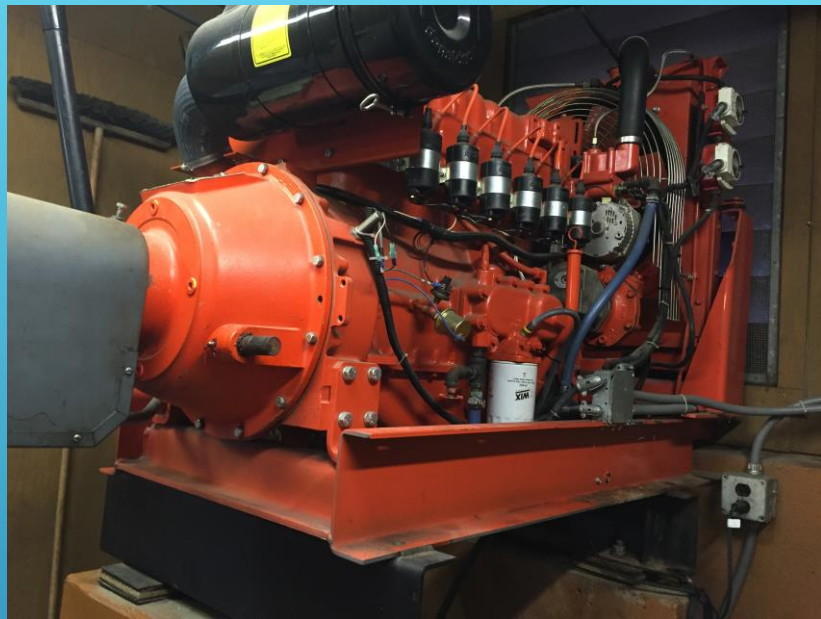
### Wet Well Inspection Summary

- Concrete Comprehensive Strength Exceeds Original Design
- Replace Corroded Ladder Rungs
- No Signs of Corrosion in Reinforcing Steel
- Overall Concrete Condition was Acceptable

# WET WELL OBSERVATION FINDINGS



**Vertical Pump**



**Gas Engine**



**Motor Control Center**

# COVE PUMP STATION EXISTING CONDITIONS



# EXISTING CONDITIONS

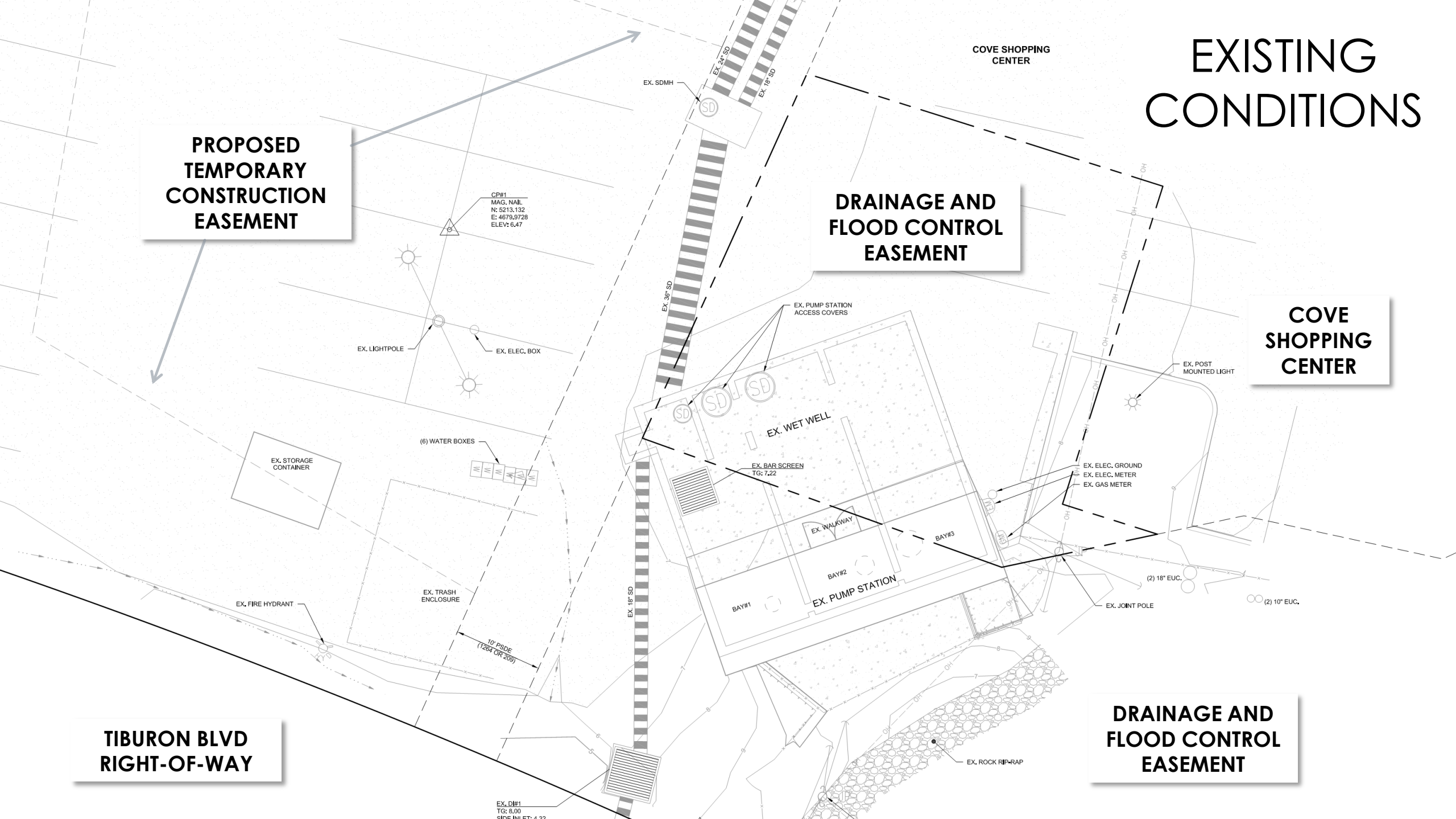
**PROPOSED  
TEMPORARY  
CONSTRUCTION  
EASEMENT**

**DRAINAGE AND  
FLOOD CONTROL  
EASEMENT**

**COVE  
SHOPPING  
CENTER**

**DRAINAGE AND  
FLOOD CONTROL  
EASEMENT**

**TIBURON BLVD  
RIGHT-OF-WAY**



# PROPOSED CONDITIONS

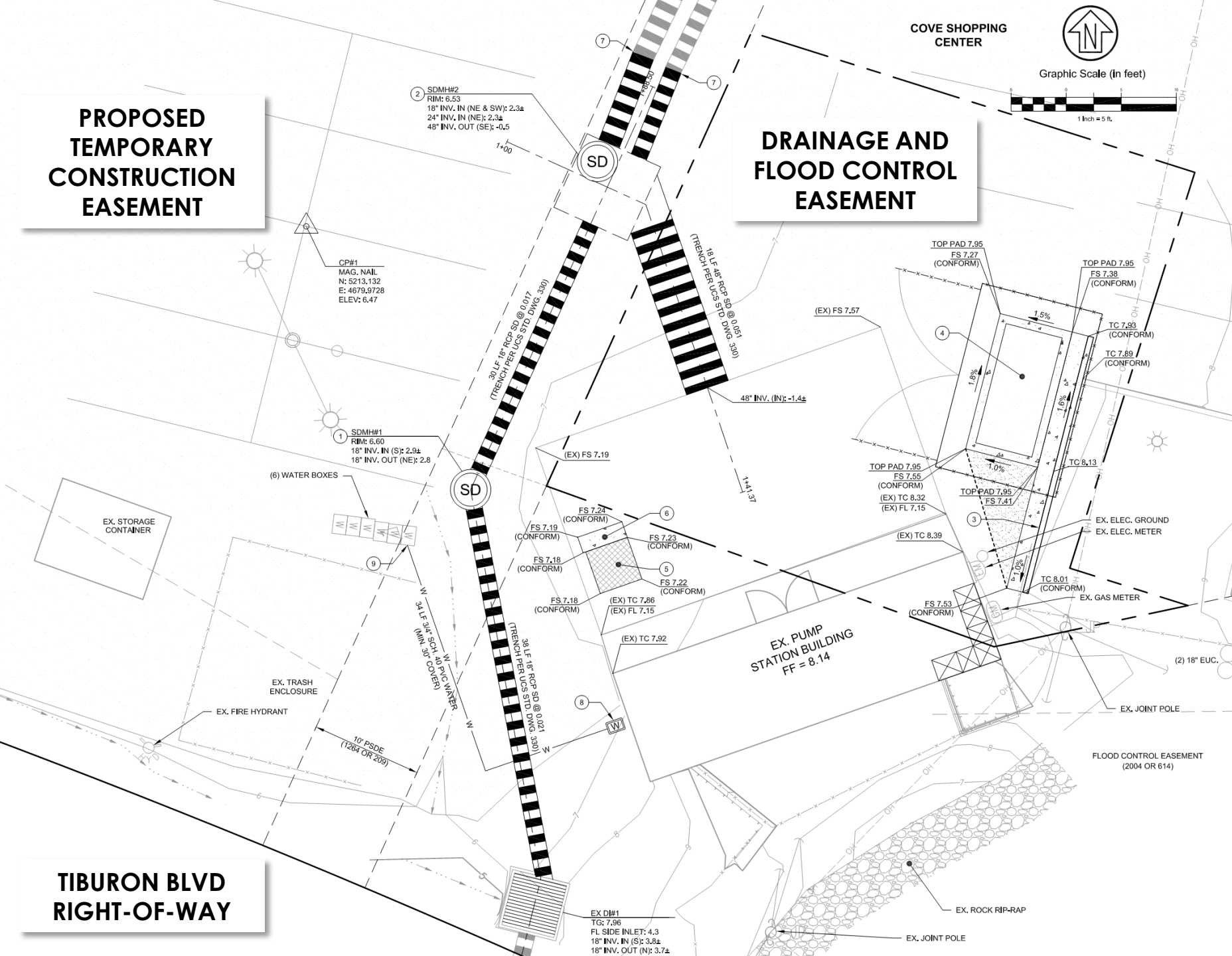
**PROPOSED  
TEMPORARY  
CONSTRUCTION  
EASEMENT**

**DRAINAGE AND  
FLOOD CONTROL  
EASEMENT**

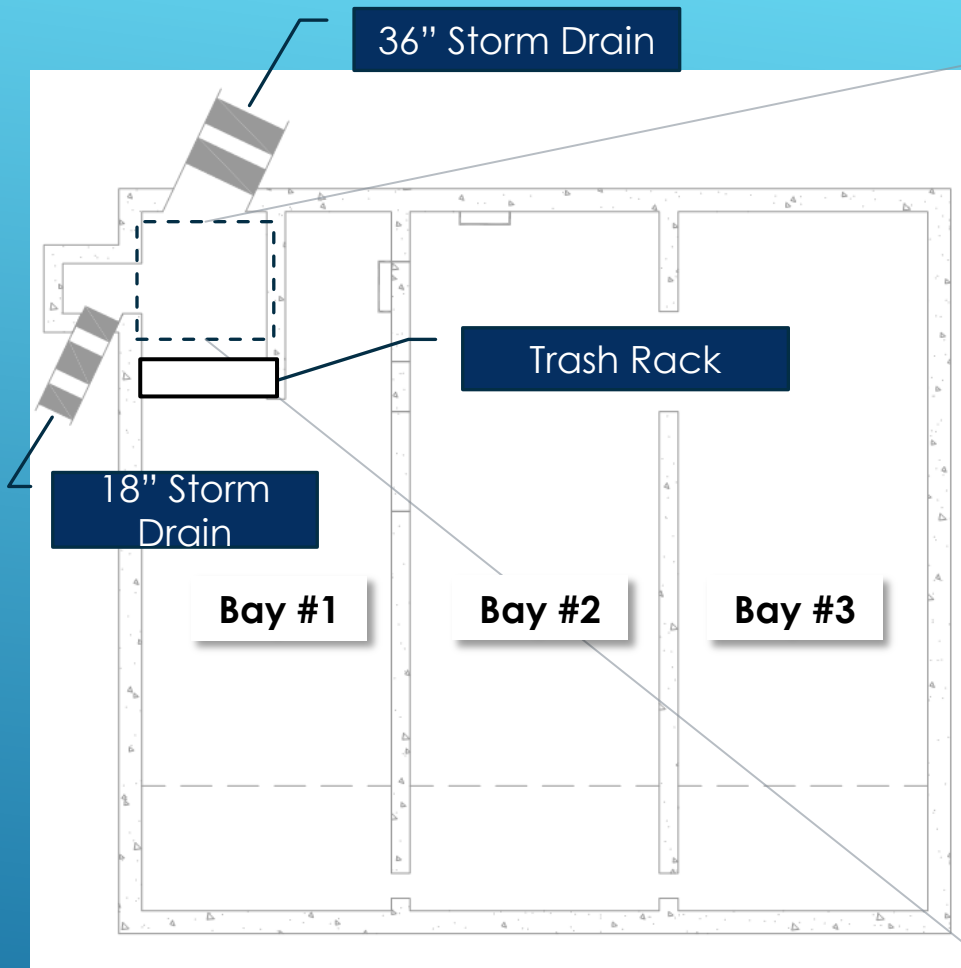
**COVE  
SHOPPING  
CENTER**

**DRAINAGE AND  
FLOOD CONTROL  
EASEMENT**

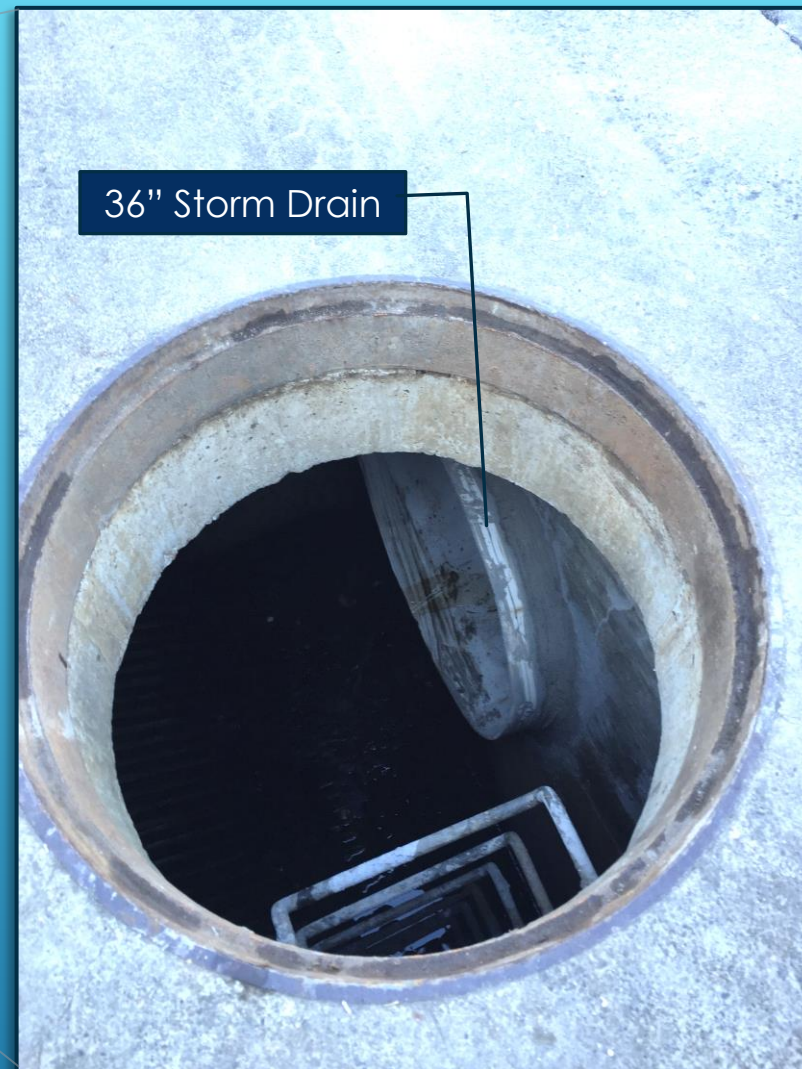
**TIBURON BLVD  
RIGHT-OF-WAY**



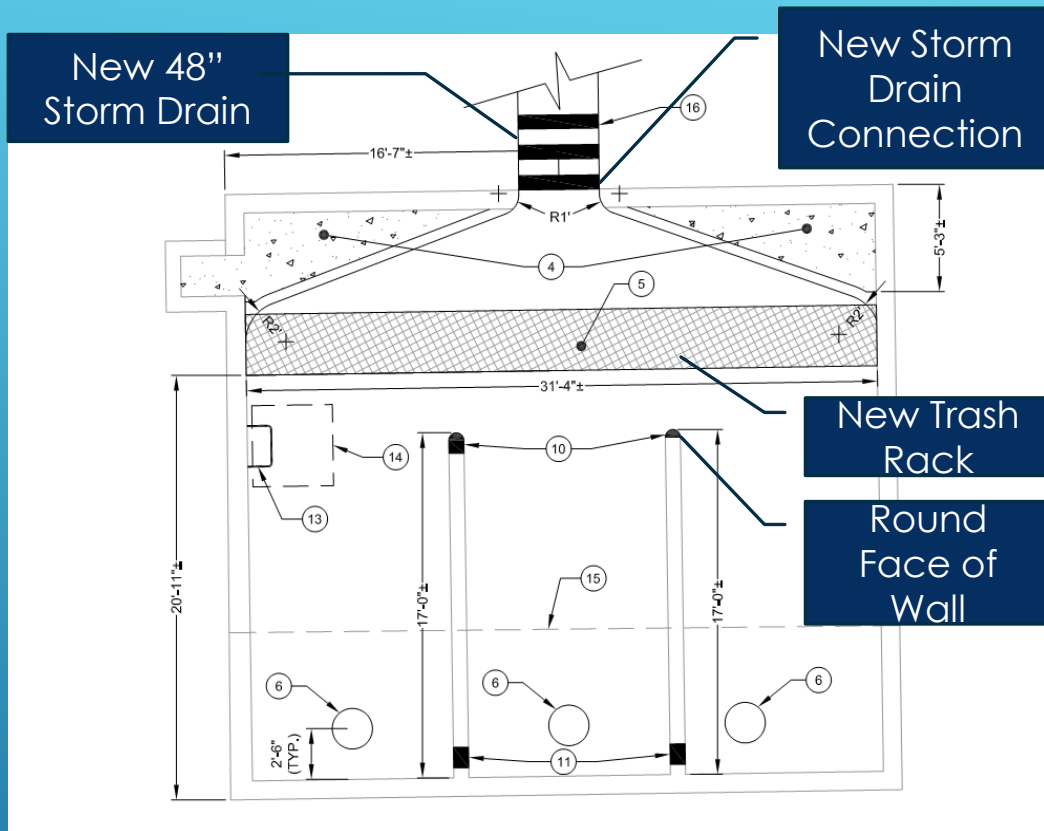




**WET WELL PLAN VIEW**



# WET WELL EXISTING CONDITIONS



**WET WELL PLAN VIEW**



**EXAMPLE OF NEW STORM DRAIN CONNECTION**

# WET WELL PROPOSED IMPROVEMENTS





**North Francisco Blvd  
Pump Station**



**Kerner Blvd Pump  
Station**

# PUMP STATION IMPROVEMENTS EXAMPLES

# PUMP STATION UPGRADE SCOPE

ITEM No.	DESCRIPTION
1	Mob/Demob
2	New Motor Control Center
3	Standby Generator and Automatic Transfer Switch
4	New Pumps, Tubes, Discharges
5	Misc. Electrical Improvements
6	Modify Wet Well
7	New Wet Well Hatches
8	New Trash Rack, Fence, Etc.
9	New Storm Drain Pipes (100-year inflow)
10	Misc Site Items

▶ **SCHAAF & WHEELER - \$2.4 MILLION**

▶ **CSW | ST2 - \$1.9 MILLION**

**OPINION OF PROBABLE CONSTRUCTION COST**



- ❑ DESIGN COMPLETE – WINTER 2017
- ❑ PERMITTING, CEQA, TEMPORARY CONSTRUCTION EASEMENT – WINTER 2017-18
- ❑ BIDDING – WINTER 2017-18
- ❑ AWARD PROJECT – SPRING 2018
- ❑ CONSTRUCTION – SPRING TO FALL 2018

## PROJECT SCHEDULE

□ **Questions?**

