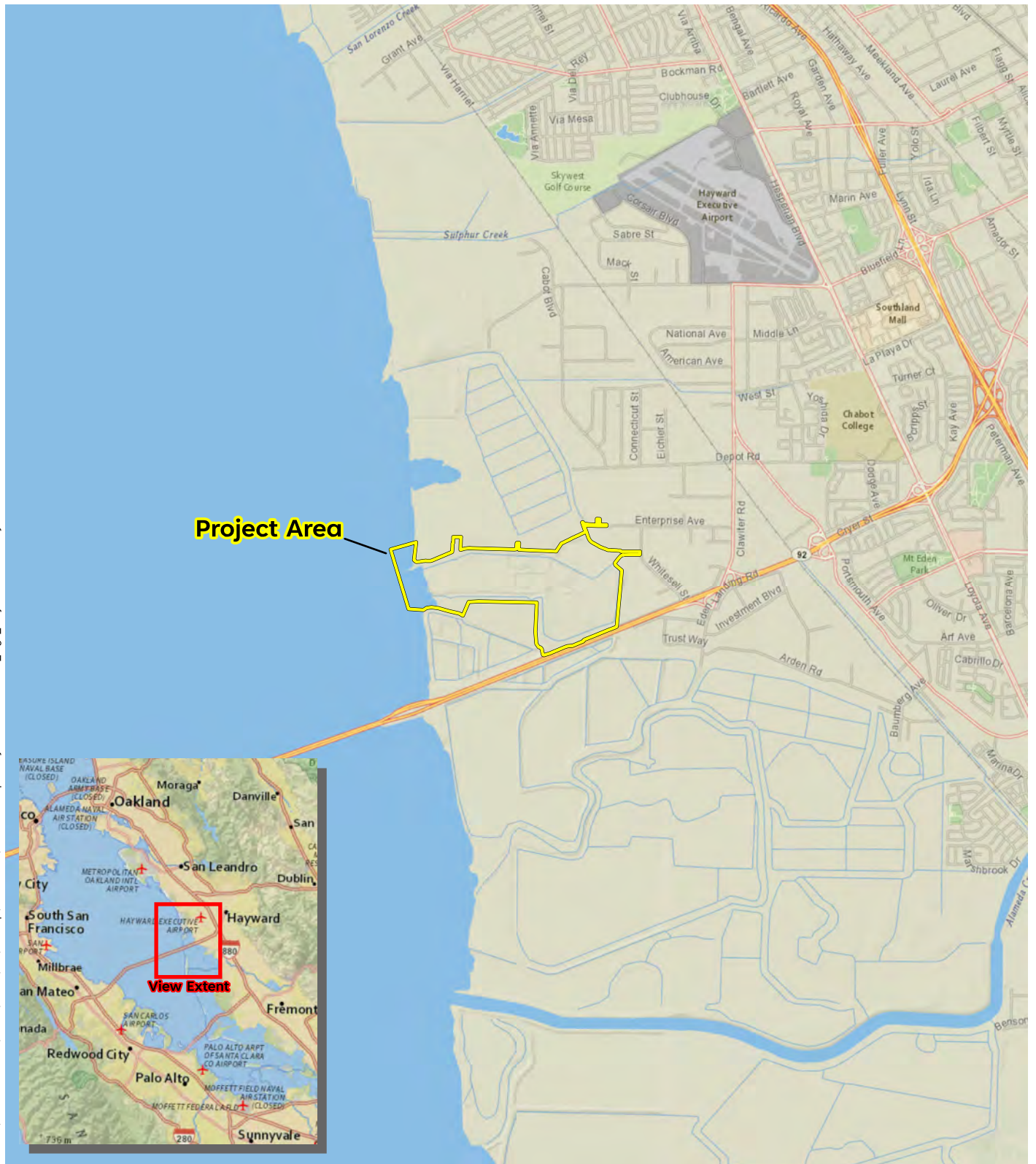


Path: L:\Acad 2000 Files\29000\29324\GIS\ArcMap\29324Base.aprx Layout Name:USFWS\_Fig1\_Project Area Vicinity



Sources: National Geographic, WRA | Prepared By: njander, 6/21/2024

**Figure 1. Project Area Vicinity**

Restore Hayward Marsh  
Hayward Regional Shoreline,  
Alameda County, California

0 0.5 1 Miles





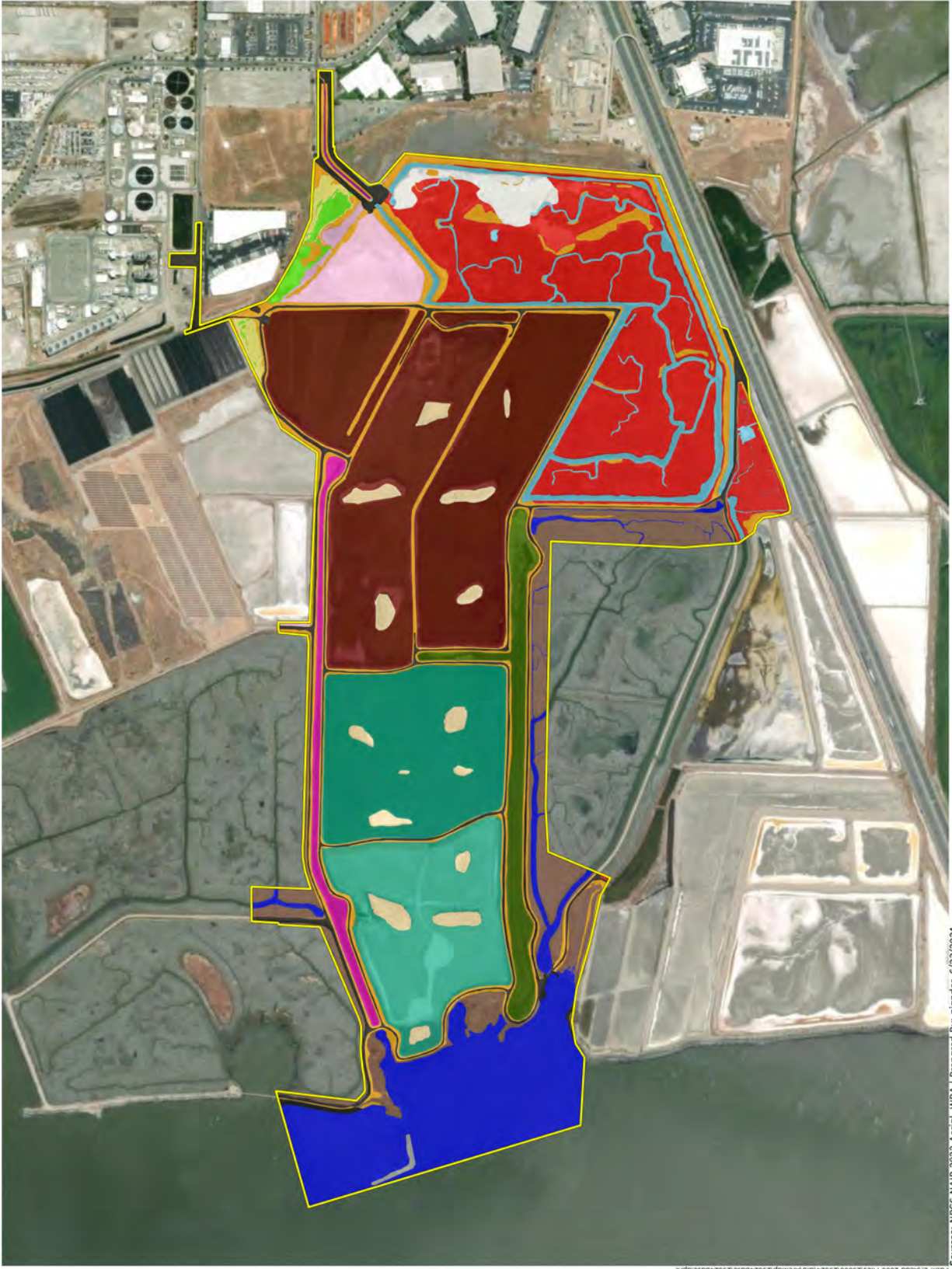


Sources: USDA NAIP Imagery 2022, WRA | Prepared By: njander, 6/21/2024

**Figure 2. Project Area Features**

Restore Hayward Marsh  
Hayward Regional Shoreline,  
Alameda County, California

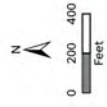




**Figure 3.**  
**Existing Land**  
**Cover Types**

Restore Hayward Marsh  
 Hayward Regional Shoreline,  
 Alameda County, California

Land Cover Type	Project Area (320 ac.)
Barren Rock (0.4 ac.)	
Brackish Water Basin (52.22 ac.)	
Developed (14.39 ac.)	
Flood Control Channel (0.26 ac.)	
Freshwater Treatment Marsh Basin (71.57 ac.)	
Isolated Seasonal Wetland (1.9 ac.)	
Mixing Channel (9.2 ac.)	
Muted Tidal Marsh (48.92 ac.)	
Muted Tidal Open Water (13.6 ac.)	
Muted Tidal Salt Pannes (4.08 ac.)	
Nesting Islands (6.17 ac.)	
Non-Tidal Salt Pannes (772 ac.)	
Northwest Channel (4.41 ac.)	
Ruderal Upland (271.4 ac.)	
Tidal Marsh (20.93 ac.)	
Tidal Open Water (35.61 ac.)	
Transitional Upland (1.84 ac.)	

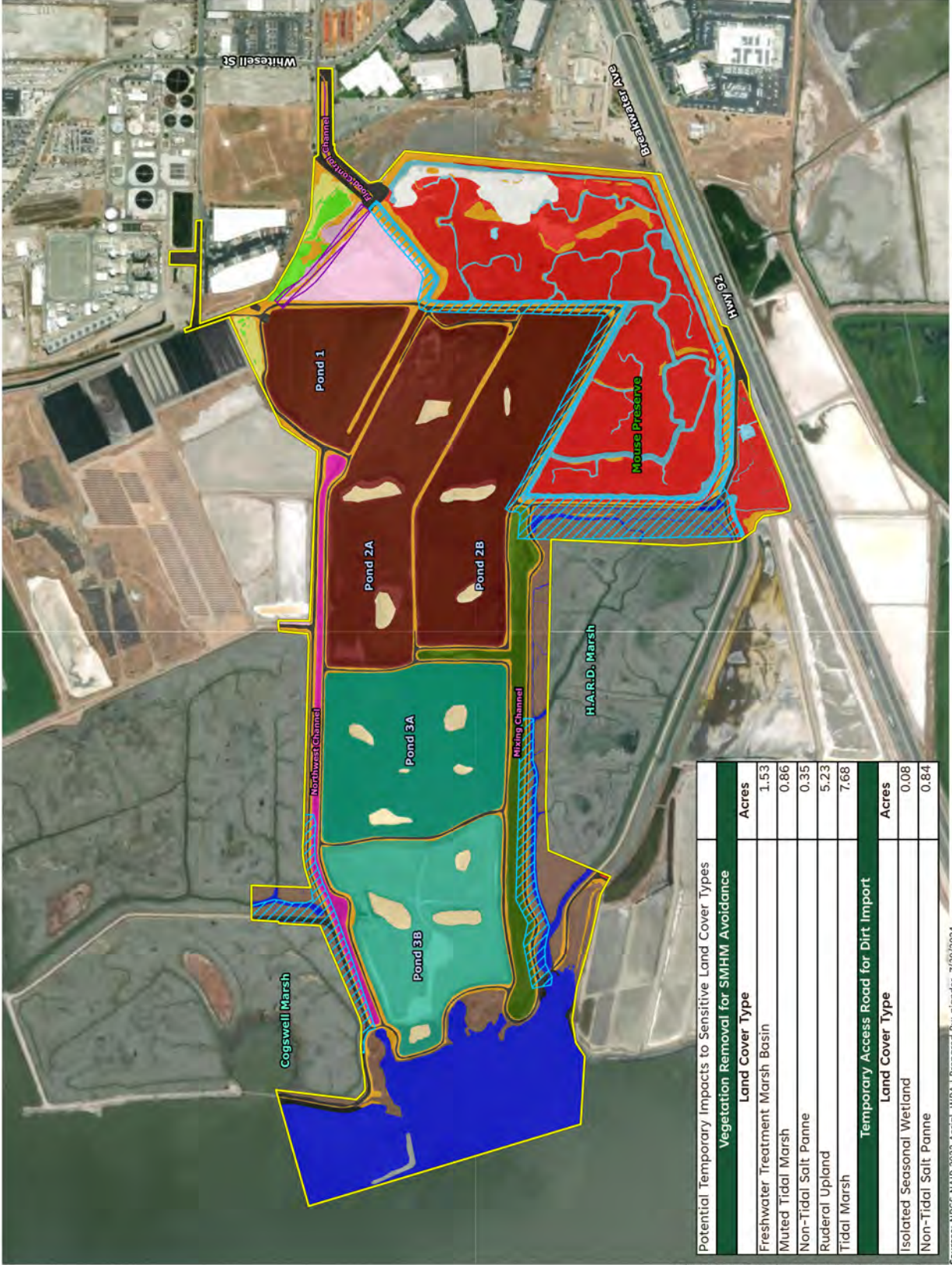
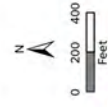




**Figure 4.**  
**Potential Temporary**  
**Impacts to Sensitive**  
**Land Cover Types**

Restore Hayward Marsh  
 Hayward Regional Shoreline,  
 Alameda County, California

- Project Area (320 ac.)
- Potential Temporary Impacts - Access Road
- Potential Temporary Impacts - SMHM Avoidance
- Land Cover Type**
- Barren Rock (0.4 ac.)
- Brackish Water Basin (52.22 ac.)
- Developed (14.39 ac.)
- Flood Control Channel (0.26 ac.)
- Freshwater Treatment Marsh Basin (71.57 ac.)
- Isolated Seasonal Wetland (1.9 ac.)
- Mixing Channel (9.2 ac.)
- Muted Tidal Marsh (48.92 ac.)
- Muted Tidal Open Water (13.6 ac.)
- Muted Tidal Salt Panne (4.08 ac.)
- Nesting Islands (6.17 ac.)
- Non-Tidal Salt Panne (7.72 ac.)
- Northwest Channel (4.41 ac.)
- Ruderal Upland (271.4 ac.)
- Tidal Marsh (20.93 ac.)
- Tidal Open Water (35.61 ac.)
- Transitional Upland (1.84 ac.)



Potential Temporary Impacts to Sensitive Land Cover Types	
Vegetation Removal for SMHM Avoidance	
Land Cover Type	Acres
Freshwater Treatment Marsh Basin	1.53
Muted Tidal Marsh	0.86
Non-Tidal Salt Panne	0.35
Ruderal Upland	5.23
Tidal Marsh	7.68
Temporary Access Road for Dirt Import	
Land Cover Type	Acres
Isolated Seasonal Wetland	0.08
Non-Tidal Salt Panne	0.84

Sources: NRCS NAIP 2022 Aerial, WRA | Prepared By: njander, 7/30/2024



**Figure 5.**

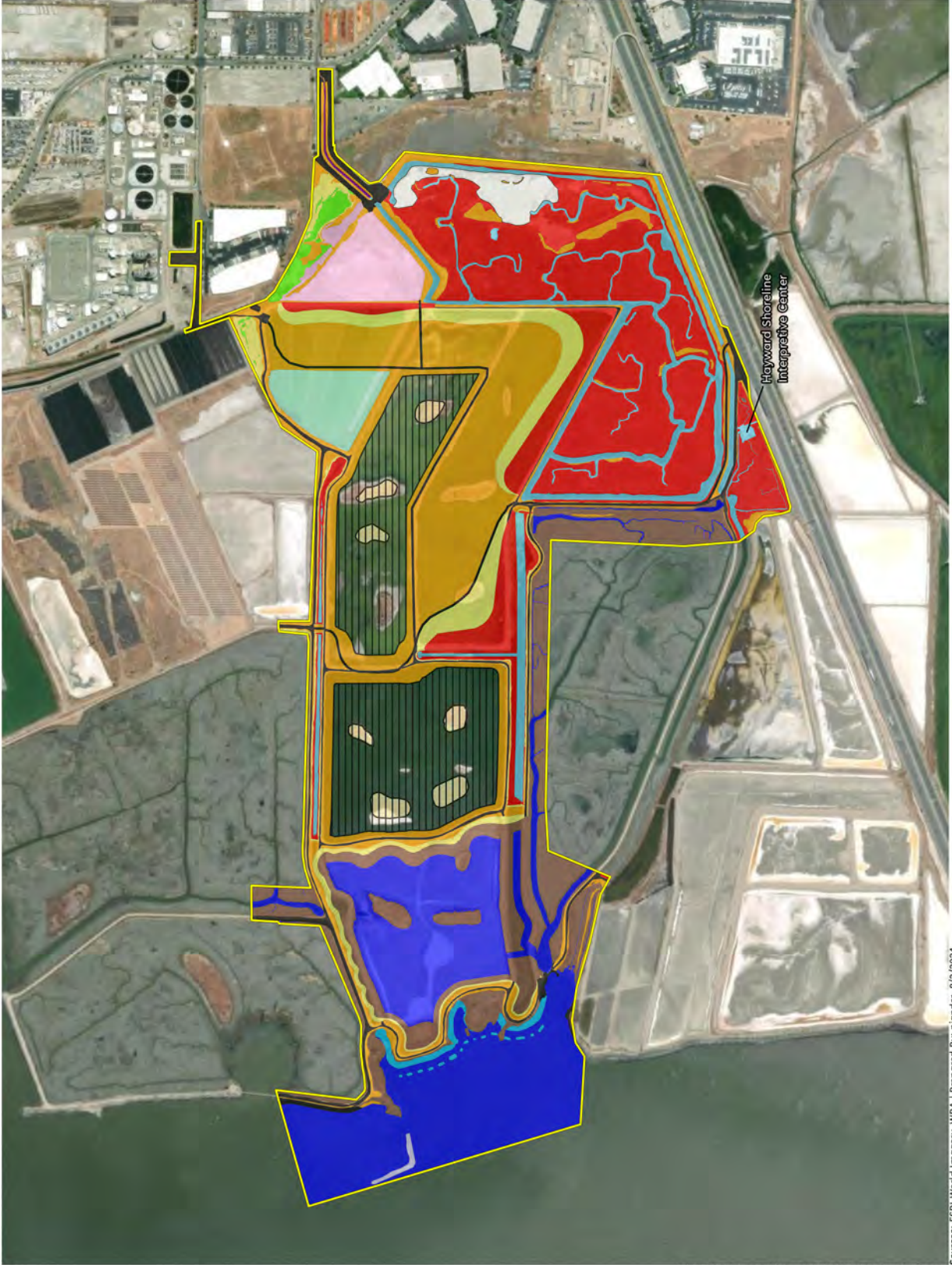
**Post-Restoration  
Land Cover Types**

Restore Hayward Marsh  
Hayward Regional Shoreline,  
Alameda County, California

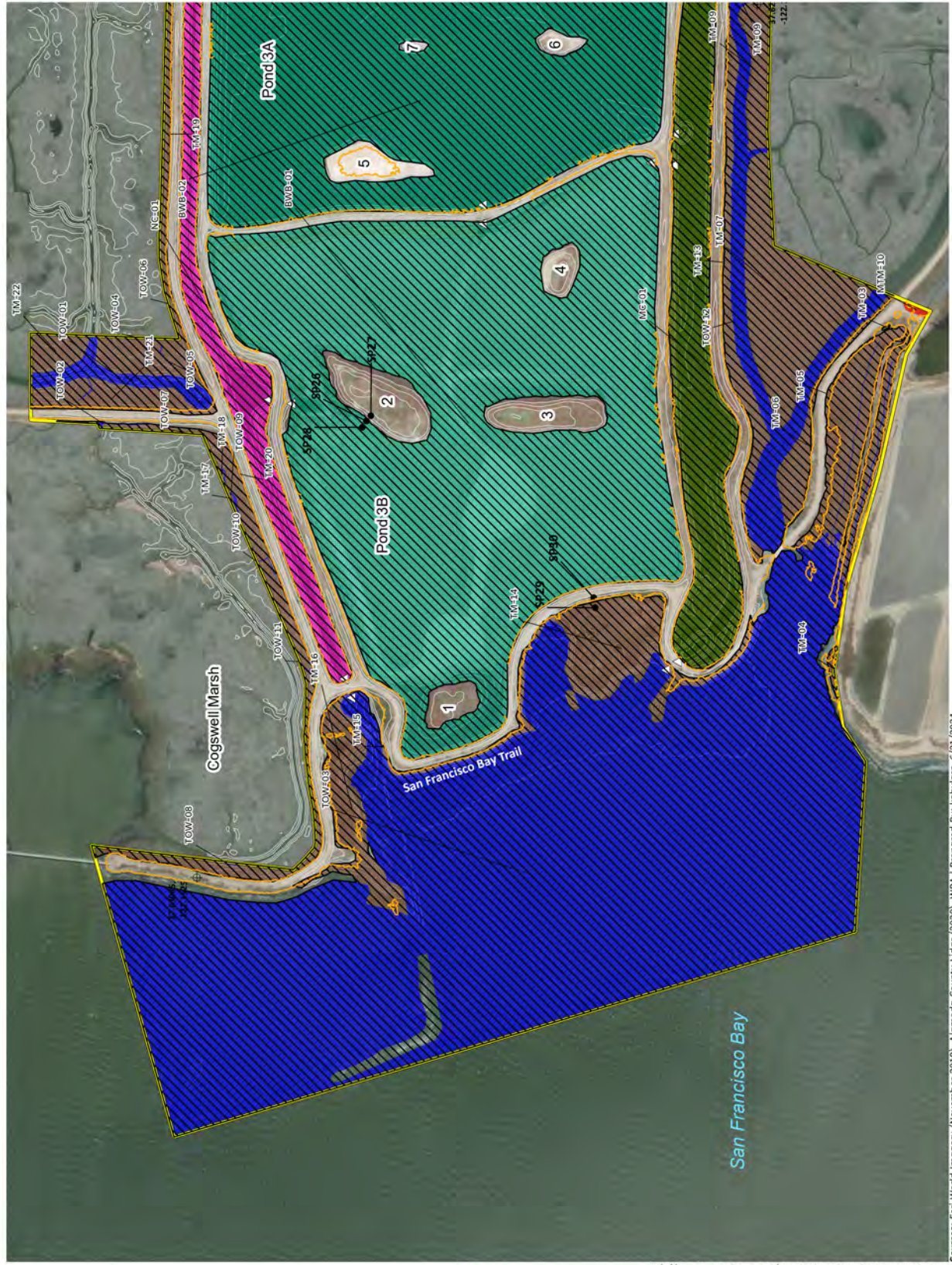
Project Area (320 ac.)

**Land Cover Type**

- Developed (14.56 ac.)
- Ruderal Upland (59.97 ac.)
- Transitional Upland (15.86 ac.)
- Seasonal Pond (6.20 ac.)
- Barren Rock (0.40 ac.)
- Flood Control Channel (0.26 ac.)
- Isolated Seasonal Wetland (1.90 ac.)
- Living Shoreline (1.56 ac.)
- Muted Tidal Marsh (61.39 ac.)
- Muted Tidal Open Water (17.19 ac.)
- Muted Tidal Salt Pannes (4.08 ac.)
- Managed Tern Nesting Pond (39.32 ac.)
- Nesting Island (3.66 ac.)
- Non-Tidal Salt Pannes (7.59 ac.)
- Tidal Marsh (31.81 ac.)
- Tidal Open Water (54.25 ac.)







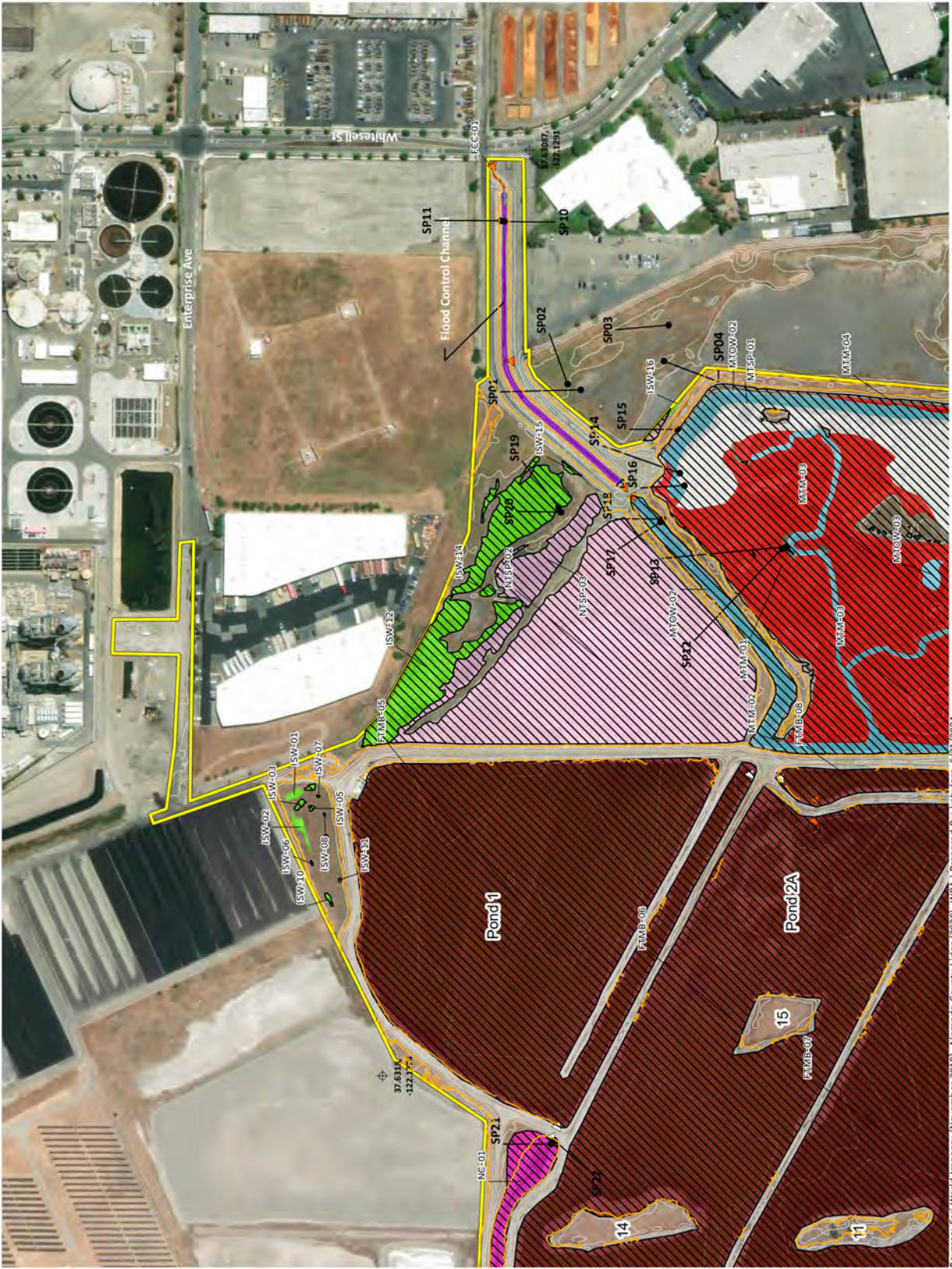


**Figure 6.**  
**Potential Section 404 Waters of the U.S. and Waters of the State**  
**Page 2**



Sources: Esri World Imagery (November 2019), Alameda County LIDAR (2020), WRA | Prepared By: koby/arz. 6/21/2024





**Figure 6.**  
**Potential Section 404 Waters of**  
**the U.S. and Waters of the State**  
**Page 3**

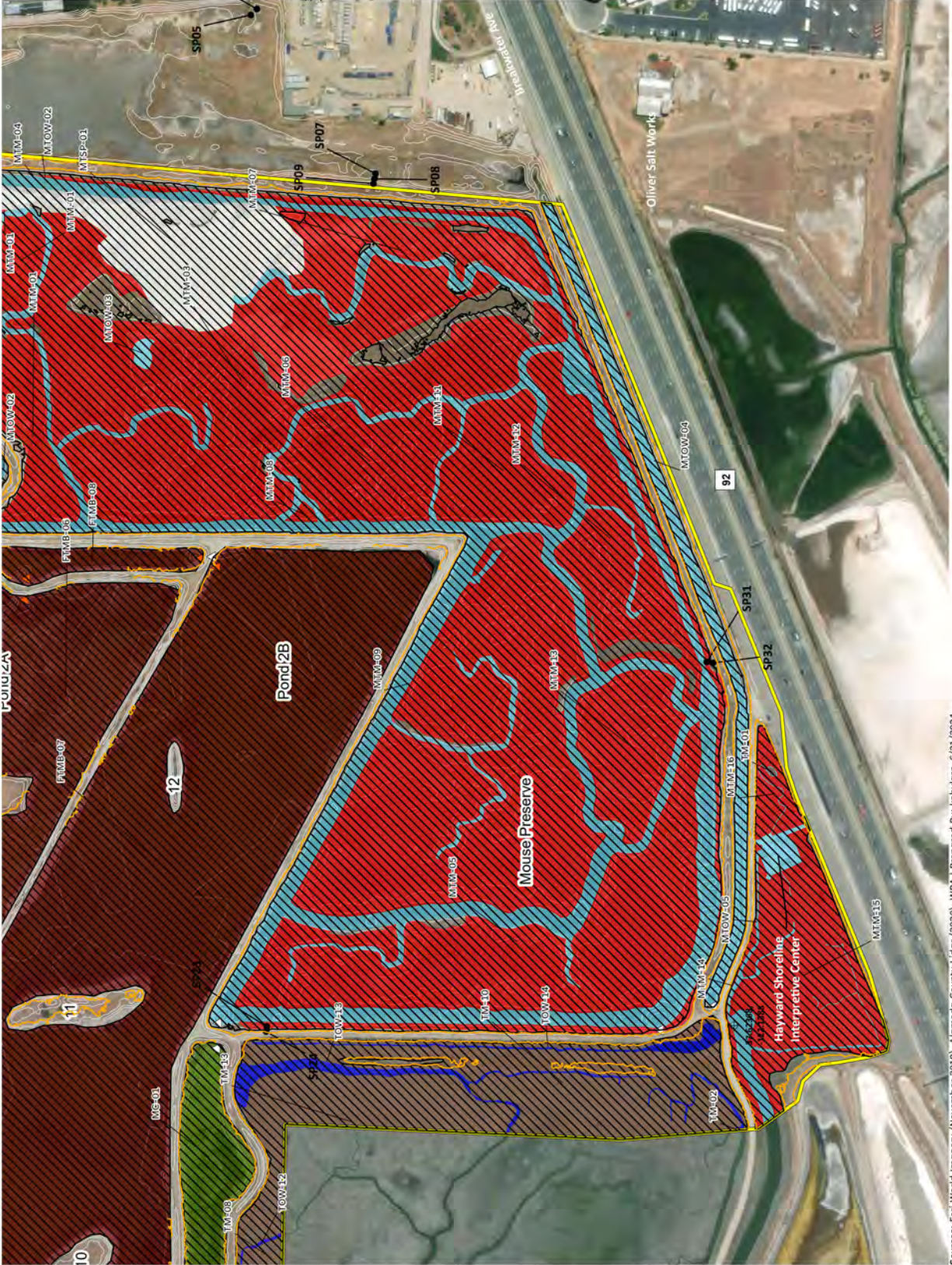
Restore Hayward Marsh (Former USD Treatment Marsh)  
 Hayward Regional Shoreline, Alameda County, California

- Study Area (320 ac)
- Sample Points
- Water Control Structure
- Culvert
- Map Reference Point
- 1-Foot Contour
- HTL: 8.39 ft (NAVD88)\*
- Section 404 Waters of the U.S.
- Waters of the State
- Brackish Water Basin (52.2 ac.)
- Flood Control Channel (0.3 ac.)
- Freshwater Treatment Marsh Basin (71.6 ac.)
- Isolated Seasonal Wetland (1.9 ac.)
- Mixing Channel (9.2 ac.)
- Muted Tidal Marsh (48.92 ac.)
- Muted Tidal Open Water (13.6 ac.)
- Muted Tidal Salt Pannes (41 ac.)
- Muted Tidal Salt Pannes (77 ac.)
- Non-Tidal Salt Pannes (4.4 ac.)
- Northwest Channel (20.9 ac.)
- Tidal Marsh (35.6 ac.)
- Tidal Open Water (35.6 ac.)

\*Modeled High Tide Line is displayed for reference. Tidal habitat was mapped primarily based on field observations.







**Figure 6.**  
**Potential Section 404 Waters of the U.S. and Waters of the State**  
 Page 4

Restore Hayward Marsh (Former USD Treatment Marsh)  
 Hayward Regional Shoreline, Alameda County, California

- Study Area (320 ac)
- Sample Points
- Water Control Structure
- Culvert
- Map Reference Point
- 1-Foot Contour
- HTL: 8.39 ft (NAVD88)\*
- Section 404 Waters of the U.S.
- Waters of the State
- Brackish Water Basin (52.2 ac.)
- Flood Control Channel (0.3 ac.)
- Freshwater Treatment Marsh Basin (71.6 ac.)
- Isolated Seasonal Wetland (1.9 ac.)
- Mixing Channel (9.2 ac.)
- Muted Tidal Marsh (48.92 ac.)
- Muted Tidal Open Water (13.6 ac.)
- Muted Tidal Salt Pannes (41 ac.)
- Non-Tidal Salt Pannes (77 ac.)
- Northwest Channel (4.4 ac.)
- Tidal Marsh (20.9 ac.)
- Tidal Open Water (35.6 ac.)

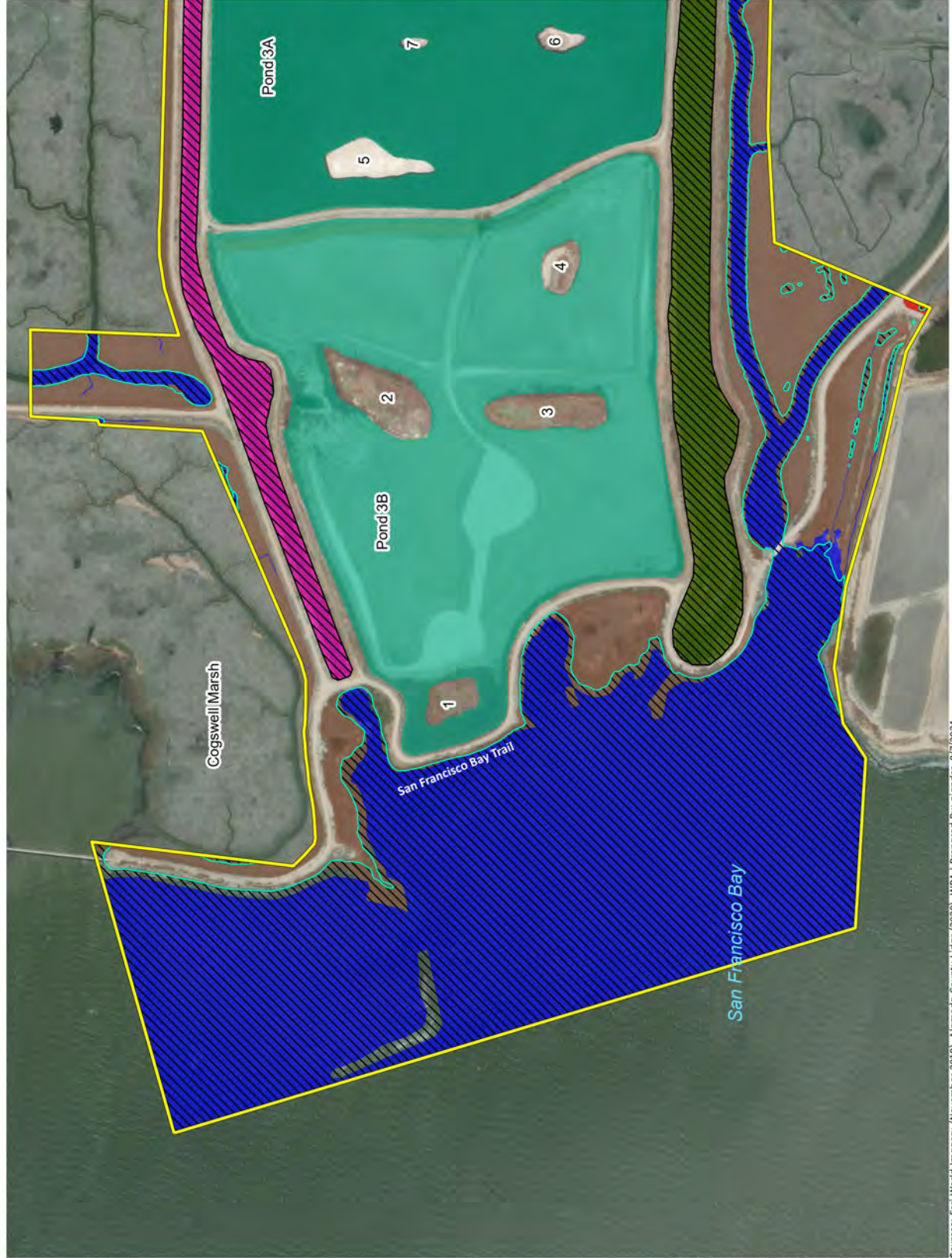
\*Modeled High Tide Line is displayed for reference. Tidal habitat was mapped primarily based on field observations.



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 Feet  
 1:3,000





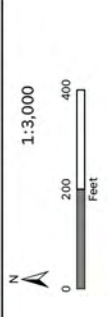
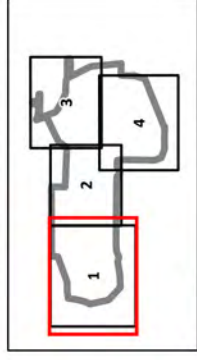


**Figure 7.**  
**Section 10 Jurisdiction**  
**Page 1**

Restore Hayward Marsh (Former USD Treatment Marsh)  
 Hayward Regional Shoreline, Alameda County, California

- Study Area (320 ac)
  - Section 10 (San Francisco Bay)
  - MHW (6.39 feet NAVD88)
- Aquatic Resources**
- Brackish Water Basin
  - Flood Control Channel
  - Freshwater Treatment Marsh Basin
  - Isolated Seasonal Wetland
  - Mixing Channel
  - Muted Tidal Marsh
  - Muted Tidal Open Water
  - Muted Tidal Salt Panne
  - Non-Tidal Salt Panne
  - Northwest Channel
  - Tidal Marsh
  - Tidal Open Water
















Note: Mapped jurisdictional features are subject to verification by USACE San Francisco District.  
 \*Modeled Mean High Water is displayed for reference. Tidal habitat was mapped primarily based on field observations.





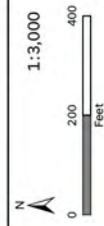
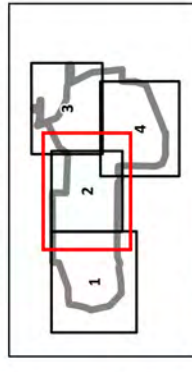
**Figure 7.**  
**Section 10 Jurisdiction**  
**Page 2**

Restore Hayward Marsh (Former USD Treatment Marsh)  
 Hayward Regional Shoreline, Alameda County, California

-  Study Area (320 ac)
-  Section 10 (San Francisco Bay)
-  MHW (6.39 feet NAVD88)
- Aquatic Resources**
-  Brackish Water Basin
-  Flood Control Channel
-  Freshwater Treatment Marsh Basin
-  Isolated Seasonal Wetland
-  Mixing Channel
-  Muted Tidal Marsh
-  Muted Tidal Open Water
-  Muted Tidal Salt Panne
-  Non-Tidal Salt Panne
-  Northwest Channel
-  Tidal Marsh
-  Tidal Open Water

Note: Mapped jurisdictional features are subject to verification by USACE San Francisco District.

\*Modeled Mean High Water is displayed for reference. Tidal habitat was mapped primarily based on field observations.


















Sources: Esri World Imagery (November 2019), Alameda County Lidar (2020), WRA | Prepared By: njander, 8/7/2024



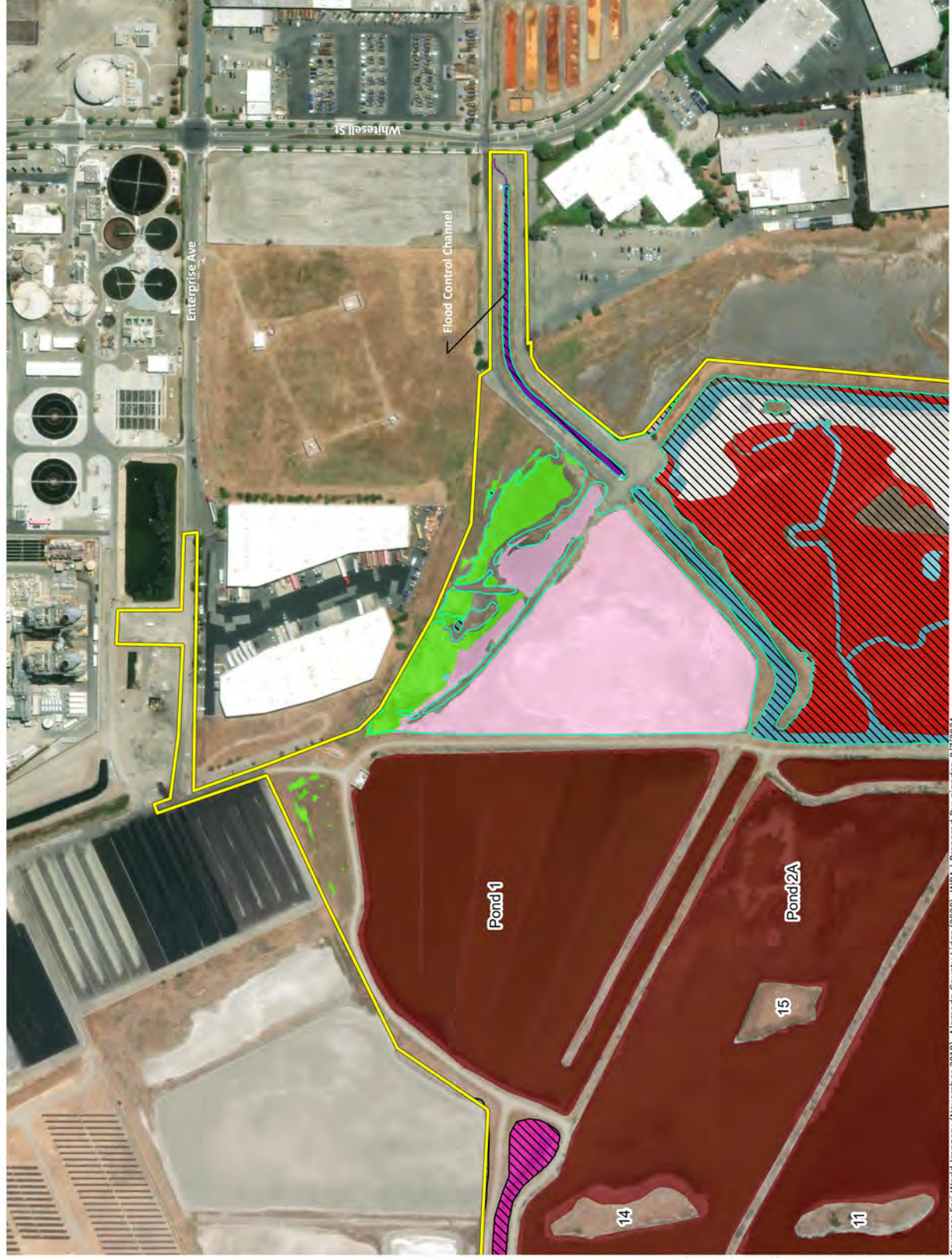
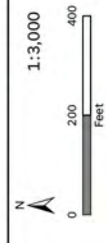
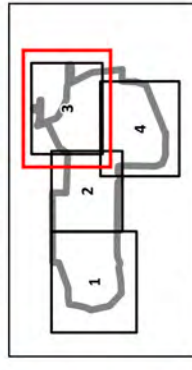
**Figure 7.**  
**Section 10 Jurisdiction**  
**Page 3**

Restore Hayward Marsh (Former USD Treatment Marsh)  
 Hayward Regional Shoreline, Alameda County, California

-  Study Area (320 ac)
-  Section 10 (San Francisco Bay)
-  MHW (6.39 feet NAVD88)
- Aquatic Resources**
-  Brackish Water Basin
-  Flood Control Channel
-  Freshwater Treatment Marsh Basin
-  Isolated Seasonal Wetland
-  Mixing Channel
-  Muted Tidal Marsh
-  Muted Tidal Open Water
-  Muted Tidal Salt Panne
-  Non-Tidal Salt Panne
-  Northwest Channel
-  Tidal Marsh
-  Tidal Open Water

Note: Mapped jurisdictional features are subject to verification by USACE San Francisco District.

\*Modeled Mean High Water is displayed for reference. Tidal habitat was mapped primarily based on field observations.


















Sources: Esri World Imagery (November 2019), Alameda County Lidar (2020), WRA | Prepared By: nlander, 8/7/2024



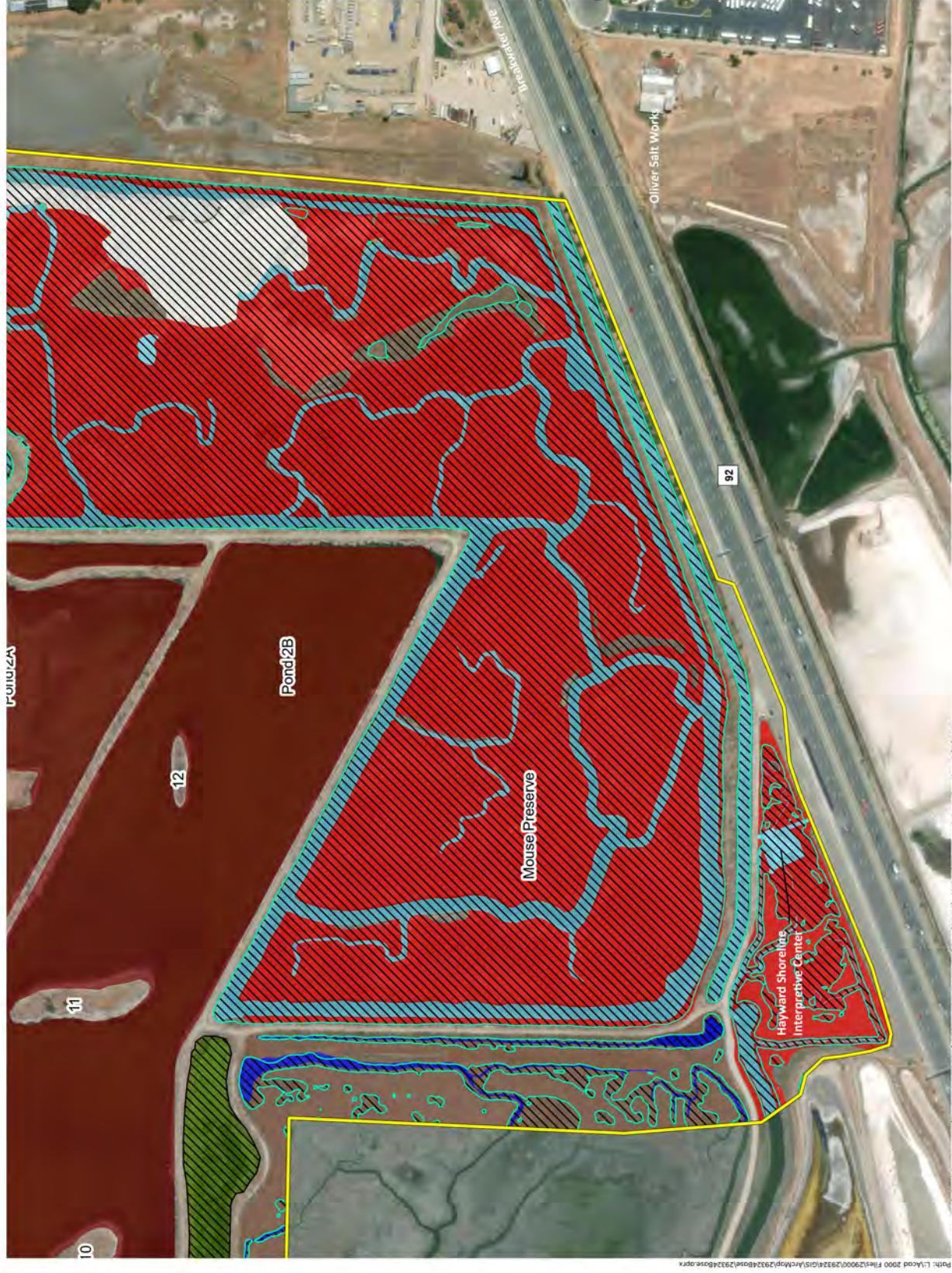
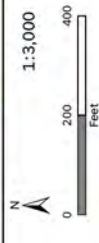
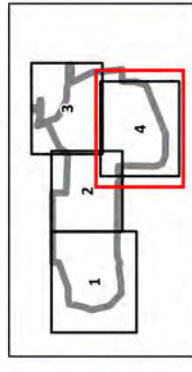
**Figure 7.**  
**Section 10 Jurisdiction**  
**Page 4**

Restore Hayward Marsh (Former USD Treatment Marsh)  
 Hayward Regional Shoreline, Alameda County, California

-  Study Area (320 ac)
-  Section 10 (San Francisco Bay)
-  MHW (6.39 feet NAVD88)
- Aquatic Resources**
-  Brackish Water Basin
-  Flood Control Channel
-  Freshwater Treatment Marsh Basin
-  Isolated Seasonal Wetland
-  Mixing Channel
-  Muted Tidal Marsh
-  Muted Tidal Open Water
-  Muted Tidal Salt Panne
-  Non-Tidal Salt Panne
-  Northwest Channel
-  Tidal Marsh
-  Tidal Open Water

Note: Mapped jurisdictional features are subject to verification by USACE San Francisco District.

\*Modeled Mean High Water is displayed for reference. Tidal habitat was mapped primarily based on field observations.



Sources: Esri World Imagery (November 2019), Alameda County Lidar (2020), WRA | Prepared By: njander, 8/7/2024



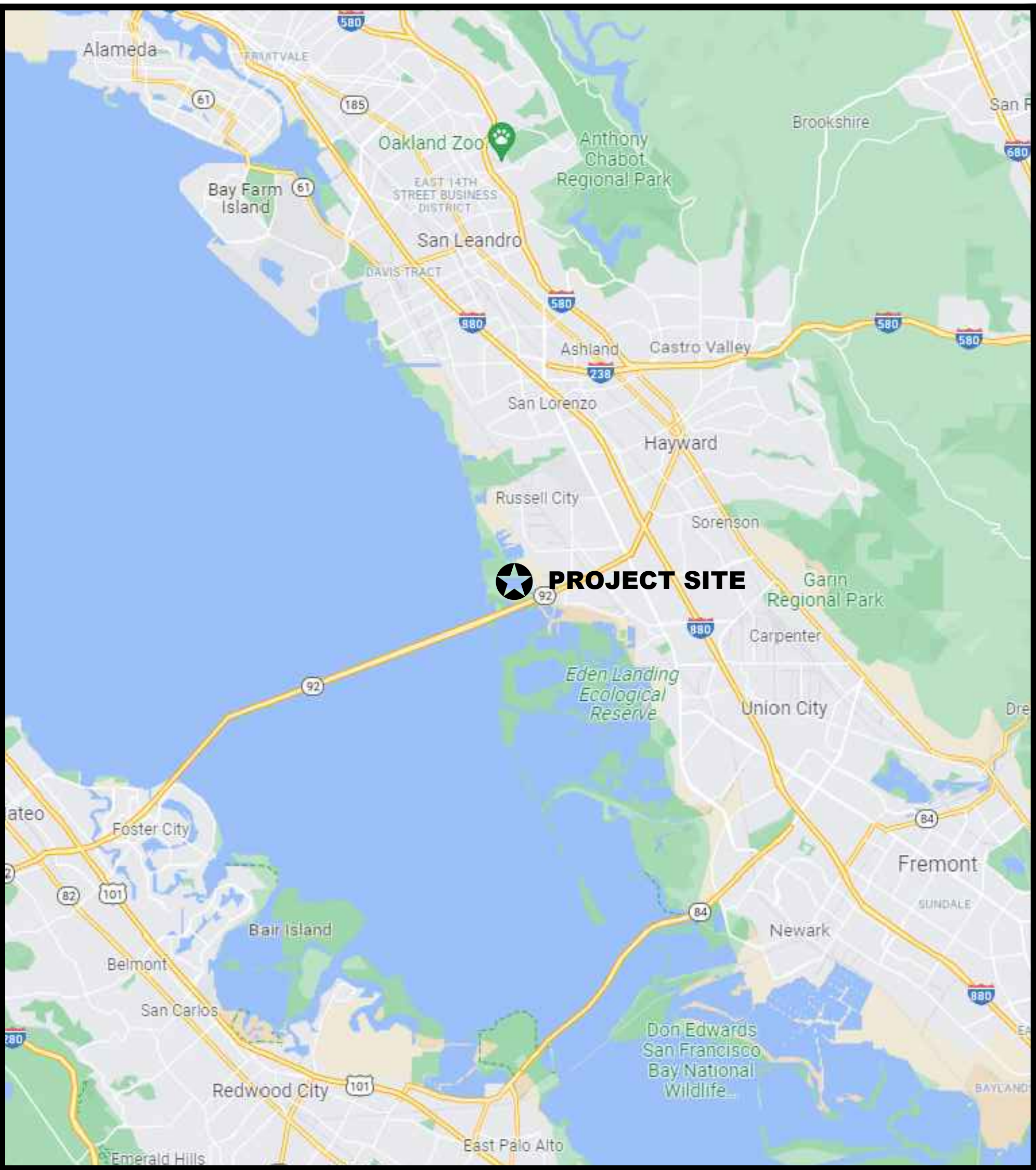
# RESTORE HAYWARD MARSH

## (FORMER USD TREATMENT MARSH)

### HAYWARD, CA

## 65% DESIGN PLANS

#### LOCATION MAP



NOT TO SCALE

#### SURVEY DATUM

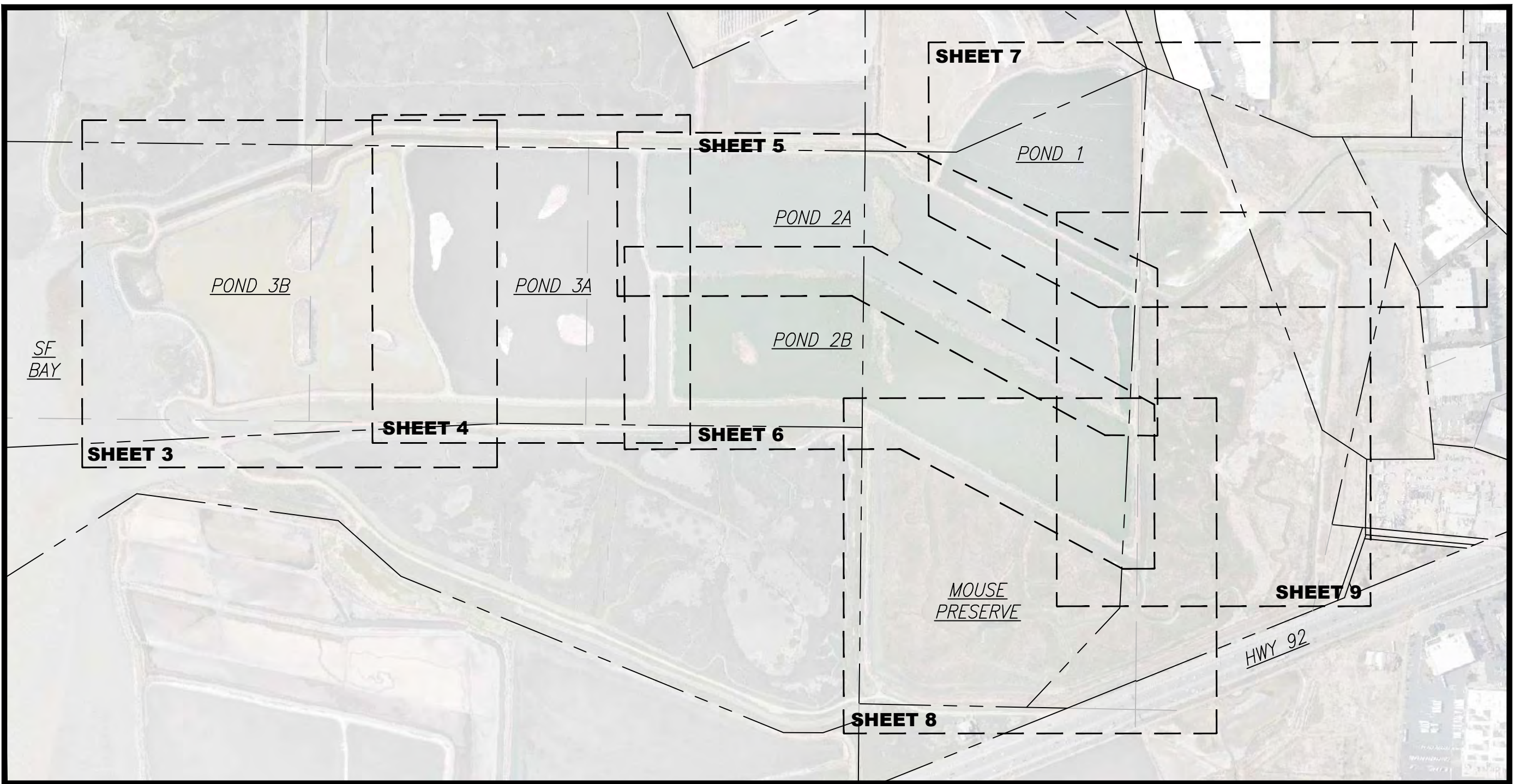
Topographic survey was provided by Bay Area Land Surveying on 10/25/2023.  
Preliminary Boundary survey provided by Bay Area Land Surveying on 10/30/2023.

Horizontal Datum: NAD83, USA, California Zone 3, US Survey Feet  
Vertical Datum: NAVD88, Feet

#### MAP DATA

Contour Interval: 1 Foot

Aerial Photo: Bing Maps



NOT TO SCALE

#### SHEET INDEX

SHEET	PAGE	SHEET NAME
1	1 OF 31	COVER SHEET
2	2 OF 31	PROJECT OVERVIEW
2.1	3 OF 31	CONSTRUCT ACCESS AND STAGING PLAN
2.2	4 OF 31	SITE PREPARATION PLAN
3	5 OF 31	POND 3B GRADING PLAN
4	6 OF 31	POND 3A GRADING PLAN
5	7 OF 31	POND 2A GRADING PLAN
6	8 OF 31	POND 2B GRADING PLAN
7	9 OF 31	POND 1 GRADING PLAN
8	10 OF 31	MOUSE PRESERVE GRADING PLAN
9	11 OF 31	MOUSE PRESERVE GRADING PLAN
10	12 OF 31	SECTIONS AND DETAILS
11	13 OF 31	SECTIONS AND DETAILS
12	14 OF 31	SECTIONS AND DETAILS
C101	15 OF 31	MARSH BENCH - PLAN
C102	16 OF 31	SECTIONS
C601	17 OF 31	CIVIL DETAILS
16	18 OF 31	WATER CONTROL STRUCTURES

SHEET	PAGE	SHEET NAME
17	19 OF 31	WATER CONTROL STRUCTURES
L1.1	20 OF 31	PLANTING PLAN - KEY MAP
L1.2	21 OF 31	POND_3B - PLANTING PLAN
L1.3	22 OF 31	POND_3A - PLANTING PLAN
L1.4	23 OF 31	POND_2A - PLANTING PLAN
L1.5	24 OF 31	POND_2B - PLANTING PLAN
L1.6	25 OF 31	POND_1 - PLANTING PLAN
L1.7	26 OF 31	MOUSE_PRESERVE - PLANTING PLAN
L1.8	27 OF 31	PLANTING PALETTES AND_NOTES
L1.9	28 OF 31	PLANTING DETAILS
L2.0	29 OF 31	IRRIGATION OVERVIEW_PLAN
L3.0	30 OF 31	PUBLIC ACCESS PLAN
L3.1	31 OF 31	FENCE AND_GATE DETAILS

East Bay  
Regional Park District

2950 PERALTA OAKS COURT, OAKLAND, CA 94605  
WWW.EBPARKS.ORG 888-327-2757

INITIALS  
DESIGNED BY: AP  
DRAWN BY: ML  
CHECKED BY: AP

APPROVED

CHIEF OF DESIGN & CONSTRUCTION

CHIEF OF PARK OPERATIONS

ENGINEER OF RECORD:

**UPRIGHT ENGINEERING**  
3641 MT. DIABLO BLVD, #1841  
LAFAYETTE, CA 94549  
925-275-5304, info@upcivl.com



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CALL 811 MINIMUM 2 WORKING DAYS  
MAXIMUM 14 CALENDAR DAYS

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS  
0" 1" 2" 3"

#### REVISIONS

KEY	DESCRIPTION	DATE
△	65% DESIGN	11/14/2023
△	PERMIT SET	07/17/2024
△		
△		
△		
△		

PROJECT  
65% DESIGN  
NOT FOR CONSTRUCTION

RESTORE HAYWARD MARSH  
(FORMER USD  
TREATMENT MARSH)

HAYWARD, CA

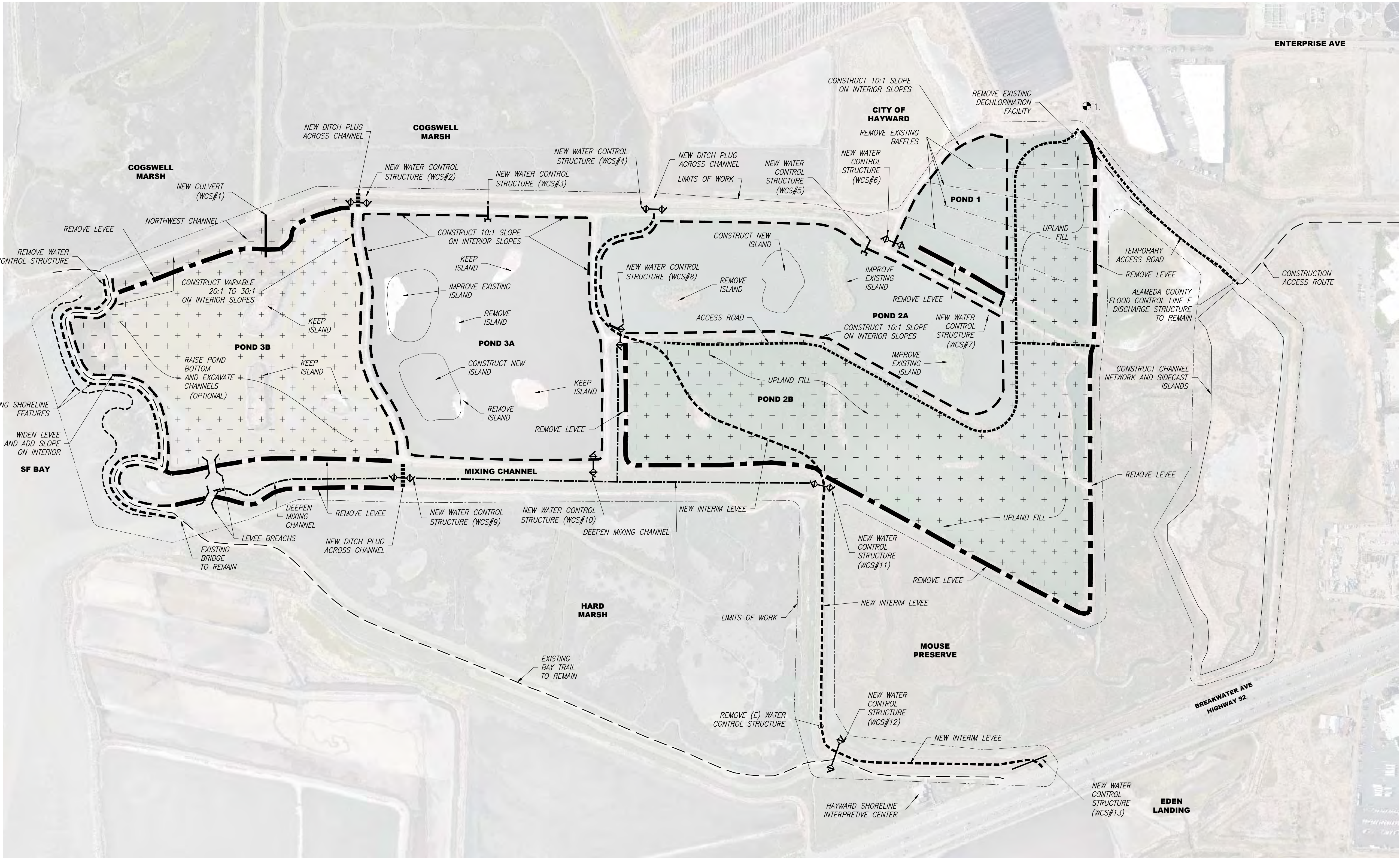
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CONTRACT NUMBER:

SHEET TITLE

COVER SHEET

SHEET NO.  
SHEET: 1  
OF: 31





NAME	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	2056874.45	6088320.75	8.25	REBAR



2950 PERALTA OAKS COURT, OAKLAND, CA 94605  
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INITIALS

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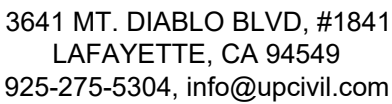
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APPROVED

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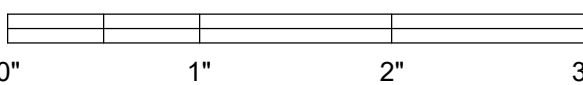
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

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## REVISIONS

KEY	DESCRIPTION	DATE
	65% DESIGN	11/14/2023
	PERMIT SET	07/17/2024
		
		
		
		

PROJECT

65% DESIGN  
NOT FOR CONSTRUCTION

# RESTORE HAYWARD MARSH (FORMER USD TREATMENT MARSH)

HAYWARD, CA

PROJECT NUMBER:

CONTRACT NUMBER

SHEET TITLE

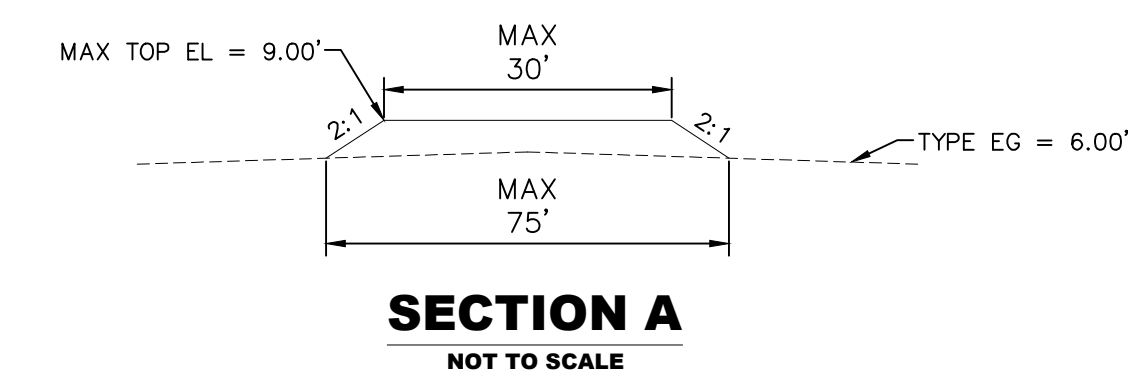
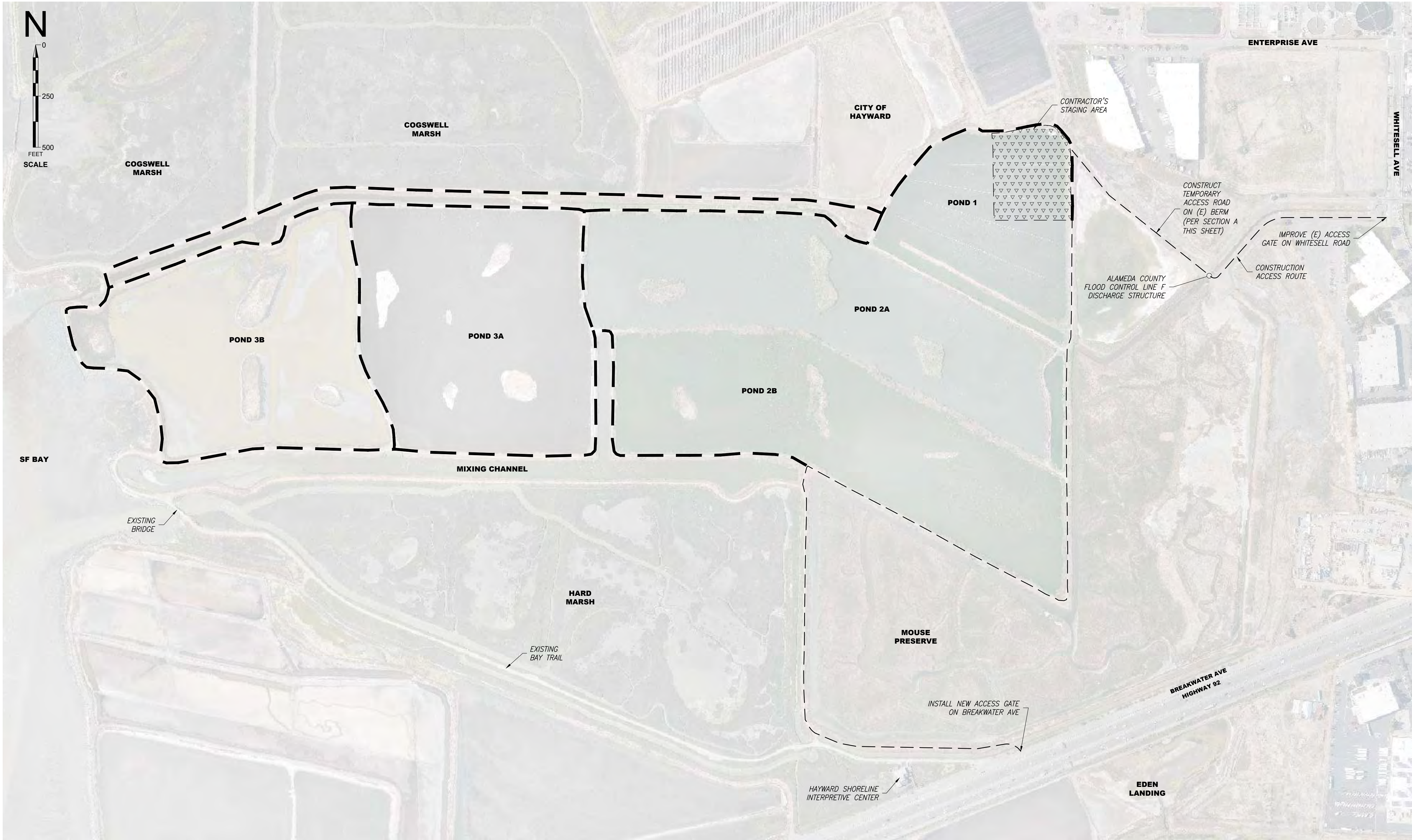
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OF: 31

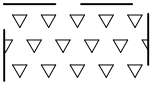
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**CONSTRUCTION ACCESS AND STAGING PLAN**

**LEGEND**

- CONSTRUCTION ACCESS ROUTE
- HAUL ROUTE
-  CONTRACTOR'S STAGING AREA

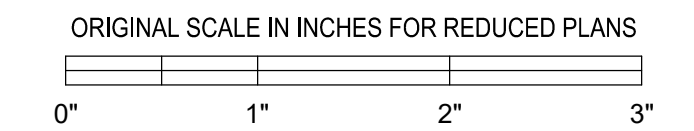
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

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CHIEF OF DESIGN & CONSTRUCTION

CHIEF OF PARK OPERATIONS  
ENGINEER OF RECORD:  
 **UPRIGHT ENGINEERING**  
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REVISIONS		
KEY	DESCRIPTION	DATE
	65% DESIGN	11/14/2023
	PERMIT SET	07/17/2024
		
		
		
		

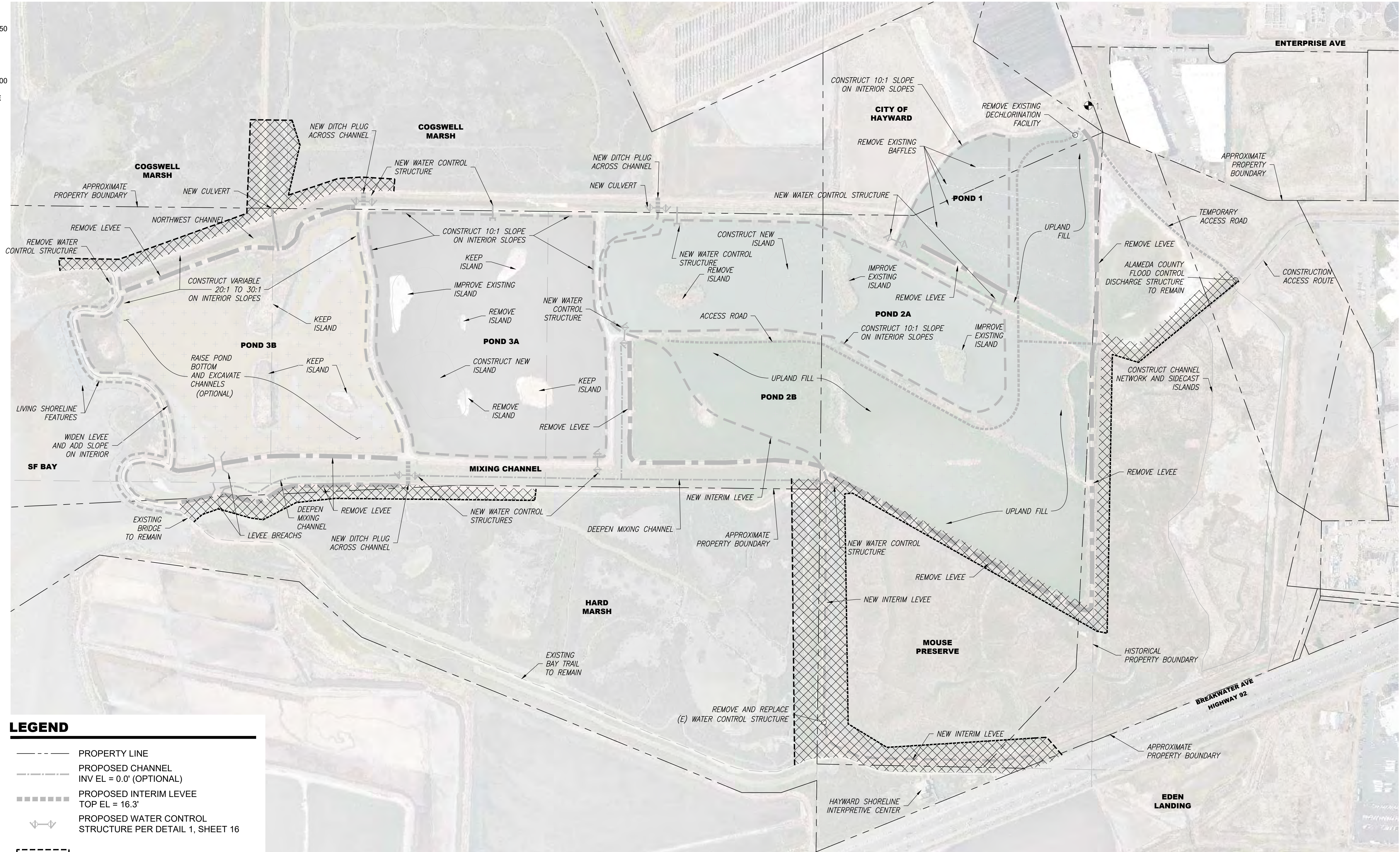
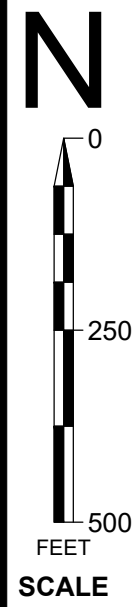
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65% DESIGN  
NOT FOR CONSTRUCTION  
  
RESTORE HAYWARD MARSH  
(FORMER USD  
TREATMENT MARSH)  
  
HAYWARD, CA

PROJECT NUMBER:  
CONTRACT NUMBER:

SHEET TITLE  
**CONSTRUCTION  
ACCESS & STAGING**

SHEET NO.  
SHEET: 3  
OF: 31  
**2.1**





### LEGEND

- PROPERTY LINE
- PROPOSED CHANNEL  
INV EL = 0.0' (OPTIONAL)
- PROPOSED INTERIM LEVEE  
TOP EL = 16.3'
- PROPOSED WATER CONTROL  
STRUCTURE PER DETAIL 1, SHEET 16
- SMHM EXCLUSION FENCING
- AREAS WHERE EXISTING CHANNEL EXPECTED TO PREVENT SMHM  
FROM ACCESSING WORK AREA; NO EXCLUSION FENCING PROPOSED
- SMHM EXCLUSION FENCING

### SITE PREPARATION

### CONTROL POINT LIST

NAME	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	2056874.45	6088320.75	8.25	REBAR

# East Bay

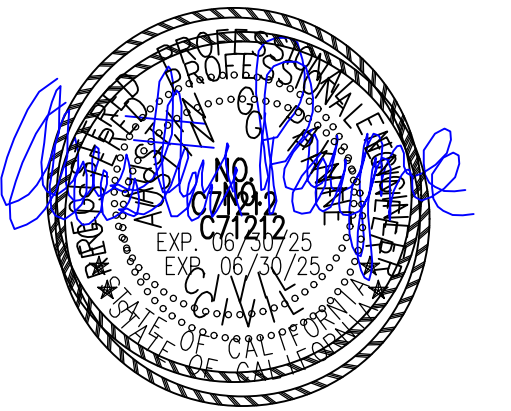
## Regional Park District

2950 PERALTA OAKS COURT, OAKLAND, CA 94605  
WWW.EBPARKS.ORG 888-327-2757

INITIALS  
DESIGNED BY: AP  
DRAWN BY: ML  
CHECKED BY: AP

APPROVED  
CHIEF OF DESIGN & CONSTRUCTION

CHIEF OF PARK OPERATIONS  
ENGINEER OF RECORD:  
**UPRIGHT ENGINEERING**  
3641 MT. DIABLO BLVD, #1841  
LAFAYETTE, CA 94549  
925-275-5304, info@upcivil.com



**811** Know what's below.  
Call before you dig.  
CALL 811  
MINIMUM 2  
WORKING DAYS  
MAXIMUM 14  
CALENDAR DAYS

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS  
0" 1" 2" 3"

REVISIONS		
KEY	DESCRIPTION	DATE
1	65% DESIGN	11/14/2023
2	PERMIT SET	07/17/2024
3		
4		
5		
6		

PROJECT  
65% DESIGN  
NOT FOR CONSTRUCTION  
RESTORE HAYWARD MARSH  
(FORMER USD  
TREATMENT MARSH)

HAYWARD, CA

PROJECT NUMBER:  
CONTRACT NUMBER:

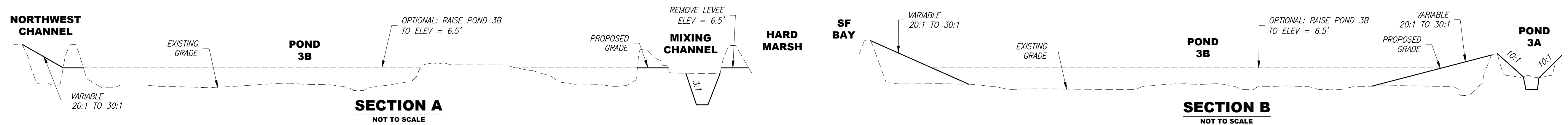
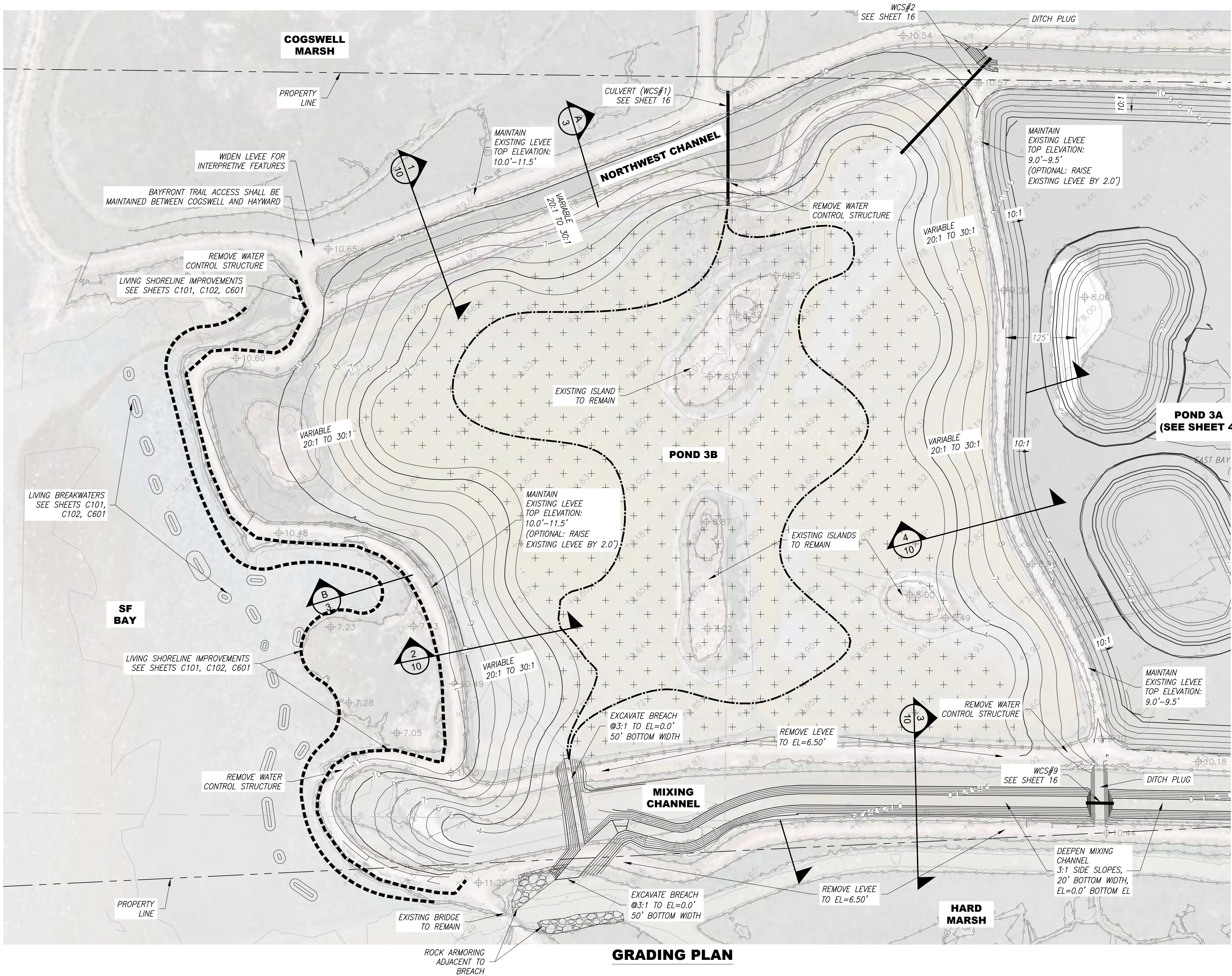
SHEET TITLE

## SITE PREPARATION

SHEET NO.  
SHEET: 4  
OF: 31

2.2





**LEGEND**

- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING TOPO POINTS
- PROPOSED MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPERTY LINE
- PROPOSED CHANNEL  
INV EL = 0.0' (OPTIONAL)
- FILL POND 3B TO ELEV = 6.5' (OPTIONAL)
- MEAN HIGH WATER (6.39')
- MEAN SEA LEVEL + 5' (8.22')

**NOTES**

LEVEE SIDE SLOPES WILL INCLUDE VARIATIONS IN SLOPE TO MIMIC A NATURAL SHORELINE. NOT ALL SLOPES IN THESE PLANS ARE SHOWN WITH THIS VARIATION.

INITIALS  
DESIGNED BY: AP  
DRAWN BY: ML  
CHECKED BY: AP

APPROVED

CHIEF OF DESIGN & CONSTRUCTION

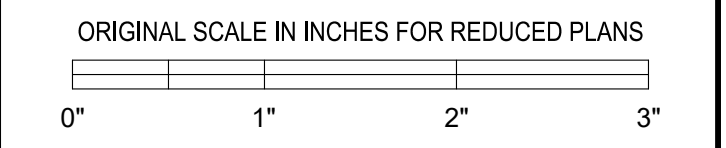
CHIEF OF PARK OPERATIONS

ENGINEER OF RECORD:  
**UPRIGHT ENGINEERING**  
3641 MT. DIABLO BLVD, #1841  
LAFAYETTE, CA 94549  
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MAXIMUM 14 CALENDAR DAYS



REVISIONS		
KEY	DESCRIPTION	DATE
1	65% DESIGN	11/14/2023
2	PERMIT SET	07/17/2024
3		
4		
5		
6		

PROJECT

65% DESIGN  
NOT FOR CONSTRUCTION

RESTORE HAYWARD MARSH  
(FORMER USD  
TREATMENT MARSH)

HAYWARD, CA

PROJECT NUMBER:  
CONTRACT NUMBER:

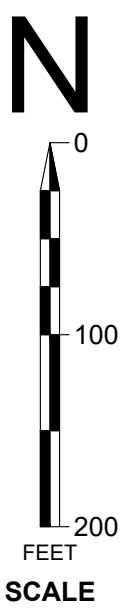
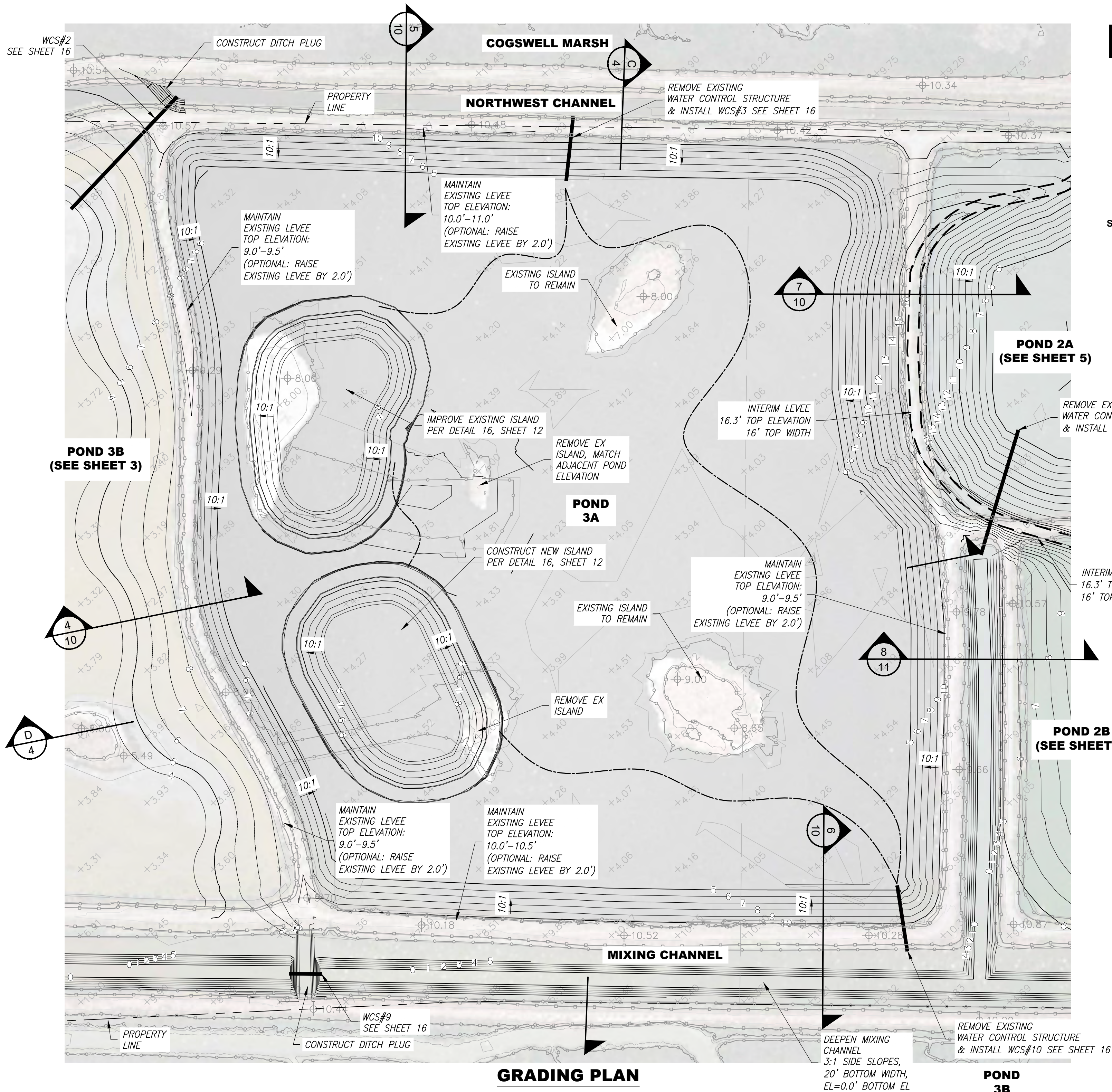
SHEET TITLE

**POND 3B GRADING  
PLAN**

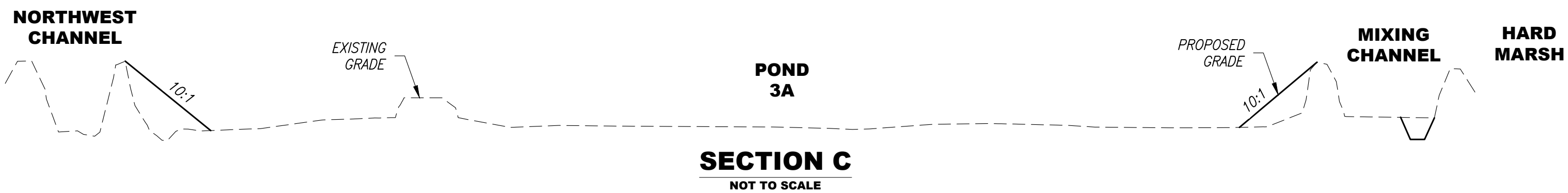
SHEET NO.  
SHEET: 5  
OF: 31

**3**





- LEGEND**
- EXISTING MINOR CONTOUR
  - EXISTING MAJOR CONTOUR
  - EXISTING TOPO POINTS
  - PROPOSED MINOR CONTOUR
  - PROPOSED MAJOR CONTOUR
  - PROPERTY LINE
  - PROPOSED CHANNEL, INV EL = 0.0' (OPTIONAL) 20' BOTTOM WIDTH, 3:1 SIDE SLOPES
  - MEAN HIGH WATER (6.39')
  - MEAN SEA LEVEL + 5' (8.22')
- NOTES**
- LEVEE SIDE SLOPES WILL INCLUDE VARIATIONS IN SLOPE TO MIMIC A NATURAL SHORELINE. NOT ALL SLOPES IN THESE PLANS ARE SHOWN WITH THIS VARIATION.



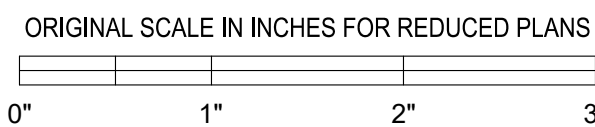
INITIALS  
DESIGNED BY: AP  
DRAWN BY: ML  
CHECKED BY: AP

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REVISIONS		
KEY	DESCRIPTION	DATE
1	65% DESIGN	11/14/2023
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6		

PROJECT  
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NOT FOR CONSTRUCTION

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TREATMENT MARSH)

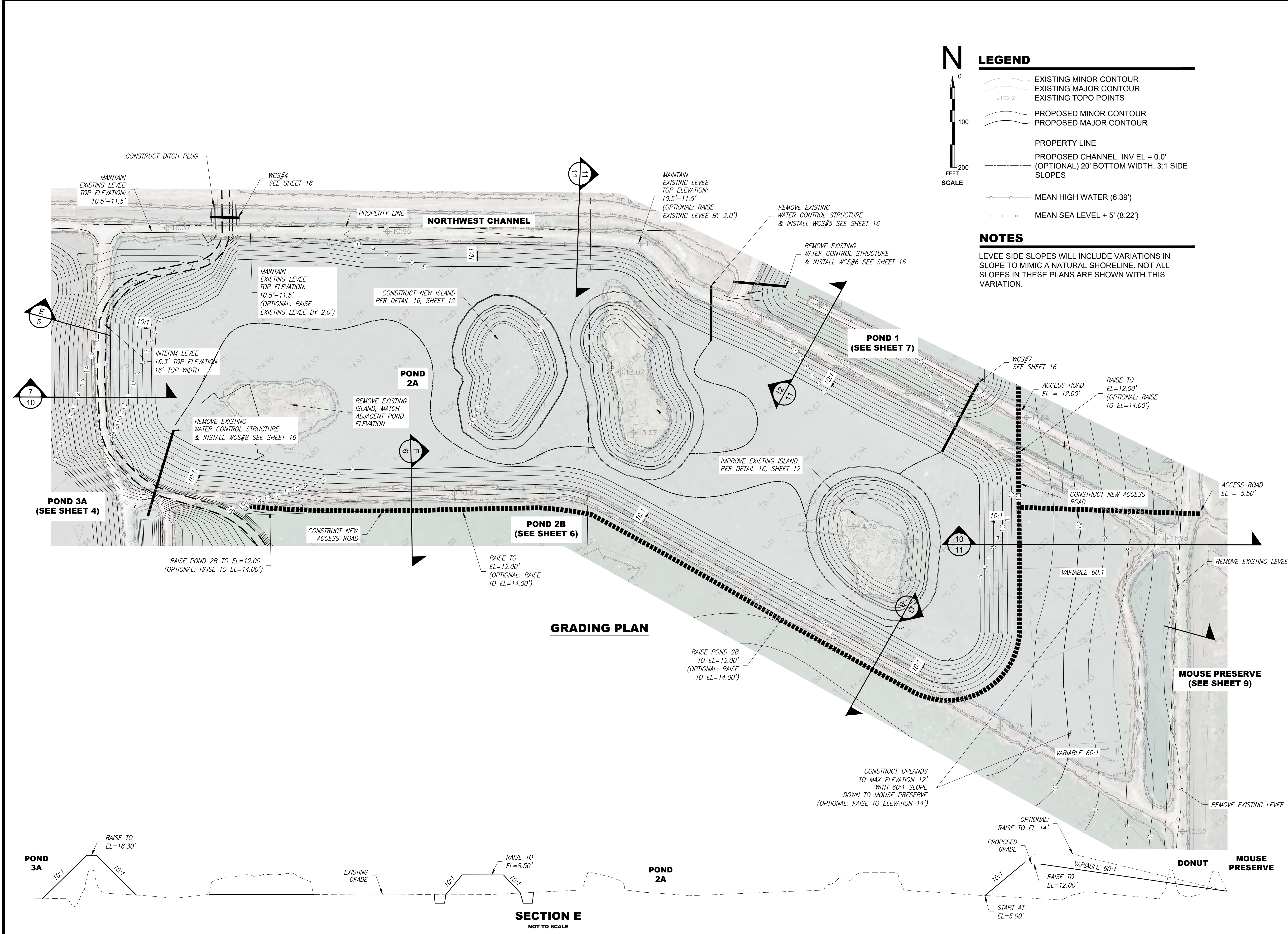
HAYWARD, CA

PROJECT NUMBER:  
CONTRACT NUMBER:

SHEET TITLE  
POND 3A GRADING  
PLAN

SHEET NO.  
SHEET: 6  
OF: 31





N  
0  
100  
200  
FEET  
SCALE

**LEGEND**

- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING TOPO POINTS
- PROPOSED MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPERTY LINE
- PROPOSED CHANNEL, INV EL = 0.0' (OPTIONAL) 20' BOTTOM WIDTH, 3:1 SIDE SLOPES
- MEAN HIGH WATER (6.39')
- MEAN SEA LEVEL + 5' (8.22')

**NOTES**

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# East Bay

## Regional Park District

2950 PERALTA OAKS COURT, OAKLAND, CA 94605  
WWW.EBPARKS.ORG 888-327-2757

INITIALS

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DRAWN BY: ML

CHECKED BY: AP

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CHIEF OF DESIGN & CONSTRUCTION

CHIEF OF PARK OPERATIONS

ENGINEER OF RECORD:

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MINIMUM 2 WORKING DAYS  
MAXIMUM 14 CALENDAR DAYS

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

0" 1" 2" 3"

KEY	DESCRIPTION	DATE
65% DESIGN		11/14/2023
PERMIT SET		07/17/2024

PROJECT

65% DESIGN  
NOT FOR CONSTRUCTION

RESTORE HAYWARD MARSH  
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HAYWARD, CA

PROJECT NUMBER:

CONTRACT NUMBER:

SHEET TITLE

POND 2A GRADING PLAN

SHEET NO.

SHEET: 7  
OF: 31

5



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INITIALS	
DESIGNED BY:	<u>AP</u>
DRAWN BY:	<u>ML</u>
CHECKED BY:	AP


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CHIEF OF PARK OPERATIONS

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ENGINEER OF RECORD:

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ENGINEERING**







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925-275-5304, [info@upcivl.com](mailto:info@upcivl.com)



ORIGINAL SCALE IN INCHES FOR REDUCED PLANS



0" 1" 2" 3"

REVISIONS		
KEY	DESCRIPTION	DATE
	65% DESIGN	11/14/2023
	PERMIT SET	07/17/2024
		
		
		
		

PROJECT

65% DESIGN  
NOT FOR CONSTRUCTION

RESTORE HAYWARD MARSH  
(FORMER USD  
TREATMENT MARSH)

HAYWARD, CA

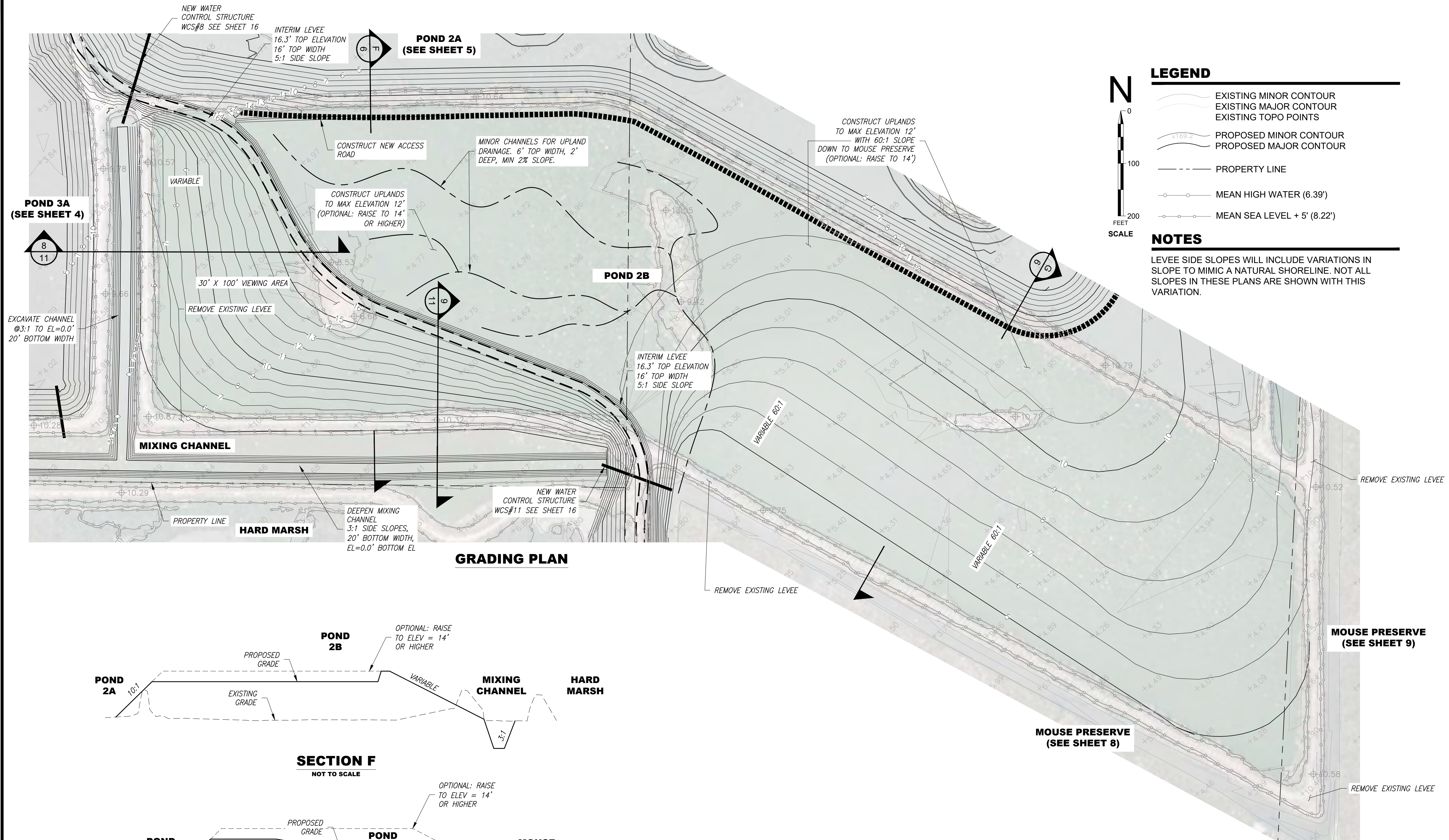
PROJECT NUMBER:

CONTRACT NUMBER:

SHEET TITLE

POND 2B GRADING  
PLAN

SHEET NO. 6  
 SHEET: 8  
 OF: 31



## GRADING PLAN

**SECTION F**  
**NOT TO SCALE**

**SECTION G**  
**NOT TO SCALE**






INITIALS	
DESIGNED BY:	<u>AP</u>
DRAWN BY:	<u>ML</u>
CHECKED BY:	<u>AP</u>

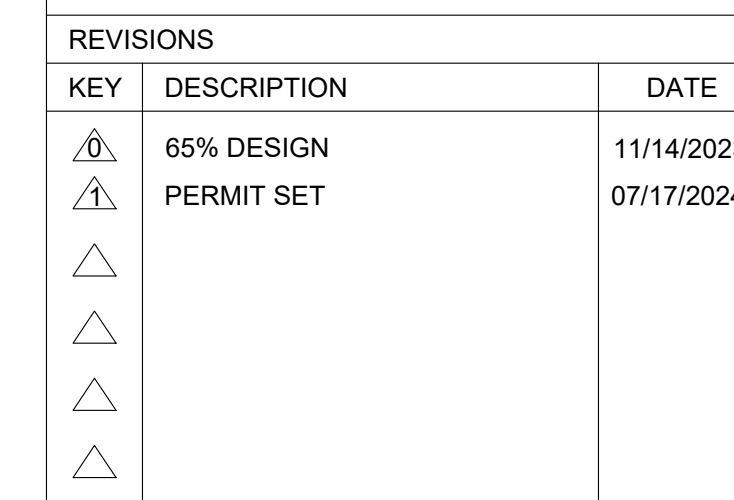
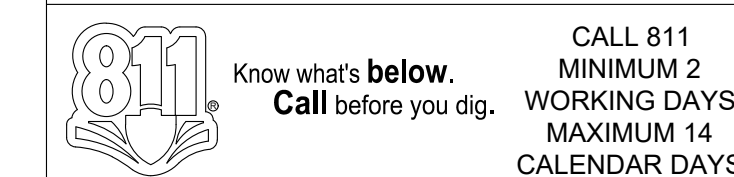
CHIEF OF PARK OPERATIONS

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ENGINEER OF RECORD:

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LAFAYETTE, CA 94549  
925-275-5304, [info@upcivil.com](mailto:info@upcivil.com)



PROJECT NUMBER:	
CONTRACT NUMBER:	

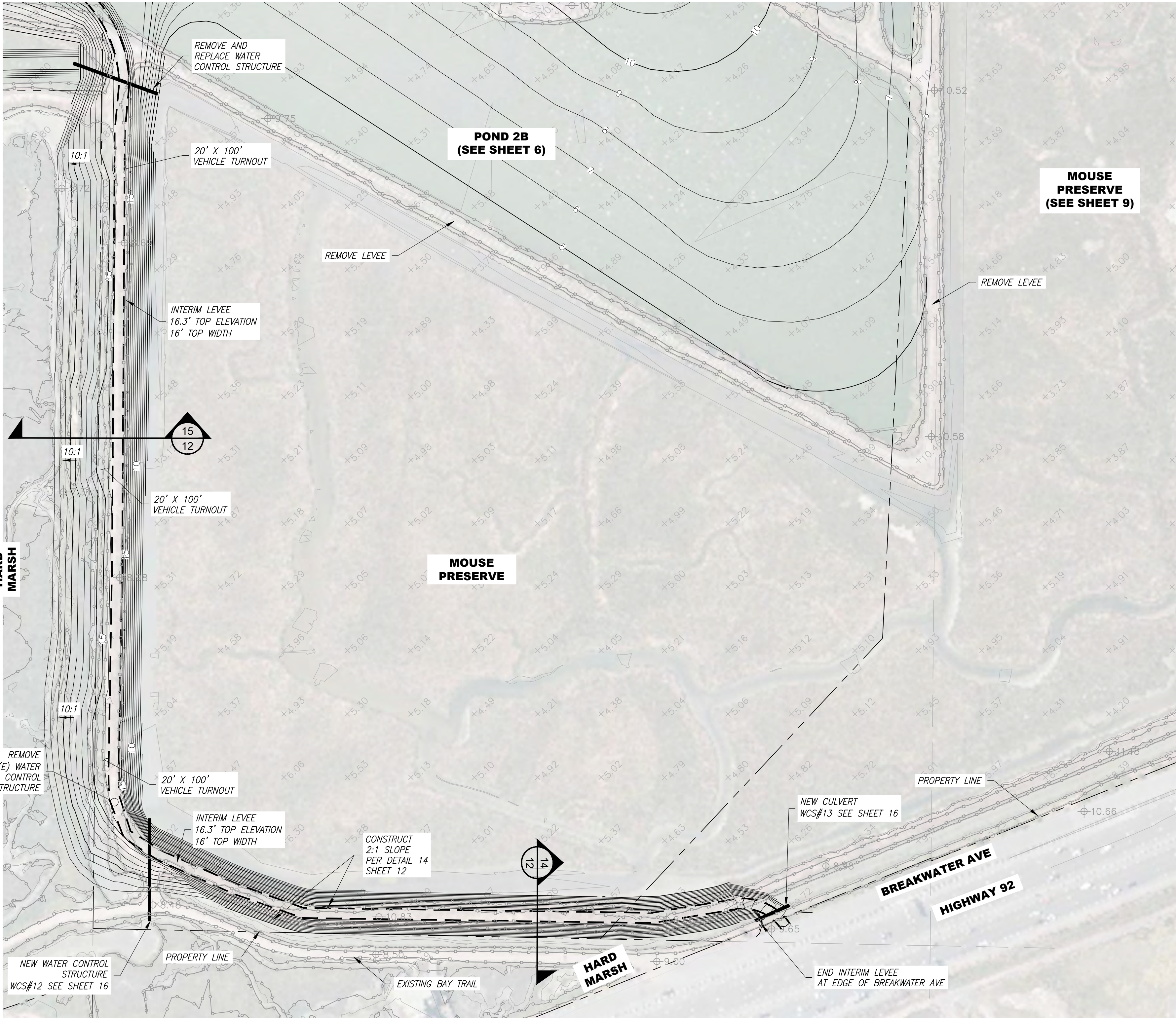
SHEET NO. 7  
 SHEET: 9  
 OF: 31



**SECTION H**  
NOT TO SCALE

The diagram illustrates a cross-section of a site. The **EXISTING GRADE** is shown as a dashed line, and the **PROPOSED GRADE** is shown as a solid line. A **POND 1** is located on the left side of the section. The slopes are indicated as **10:1** on the left and **VARIABLE 60:1** on the right. An **OPTIONAL: RAISE TO EL 14'** is noted for the proposed grade. The area to the right is labeled **MOUSE PRESERVE**.





GRADING PLAN

N  
0  
100  
200  
FEET  
SCALE

**LEGEND**

- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING TOPO POINTS
- PROPOSED MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPERTY LINE
- MEAN HIGH WATER (6.39')
- MEAN SEA LEVEL + 5' (8.22')

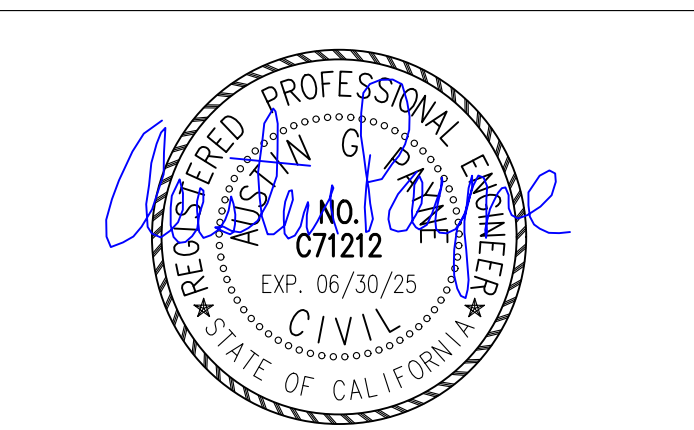
**NOTES**

LEVEE SIDE SLOPES WILL INCLUDE VARIATIONS IN SLOPE TO MIMIC A NATURAL SHORELINE. NOT ALL SLOPES IN THESE PLANS ARE SHOWN WITH THIS VARIATION.

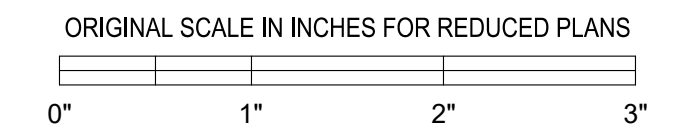
INITIALS  
DESIGNED BY: AP  
DRAWN BY: ML  
CHECKED BY: AP

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CHIEF OF DESIGN & CONSTRUCTION

CHIEF OF PARK OPERATIONS  
ENGINEER OF RECORD:  
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REVISIONS		
KEY	DESCRIPTION	DATE
1	65% DESIGN	11/14/2023
2	PERMIT SET	07/17/2024
3		
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6		

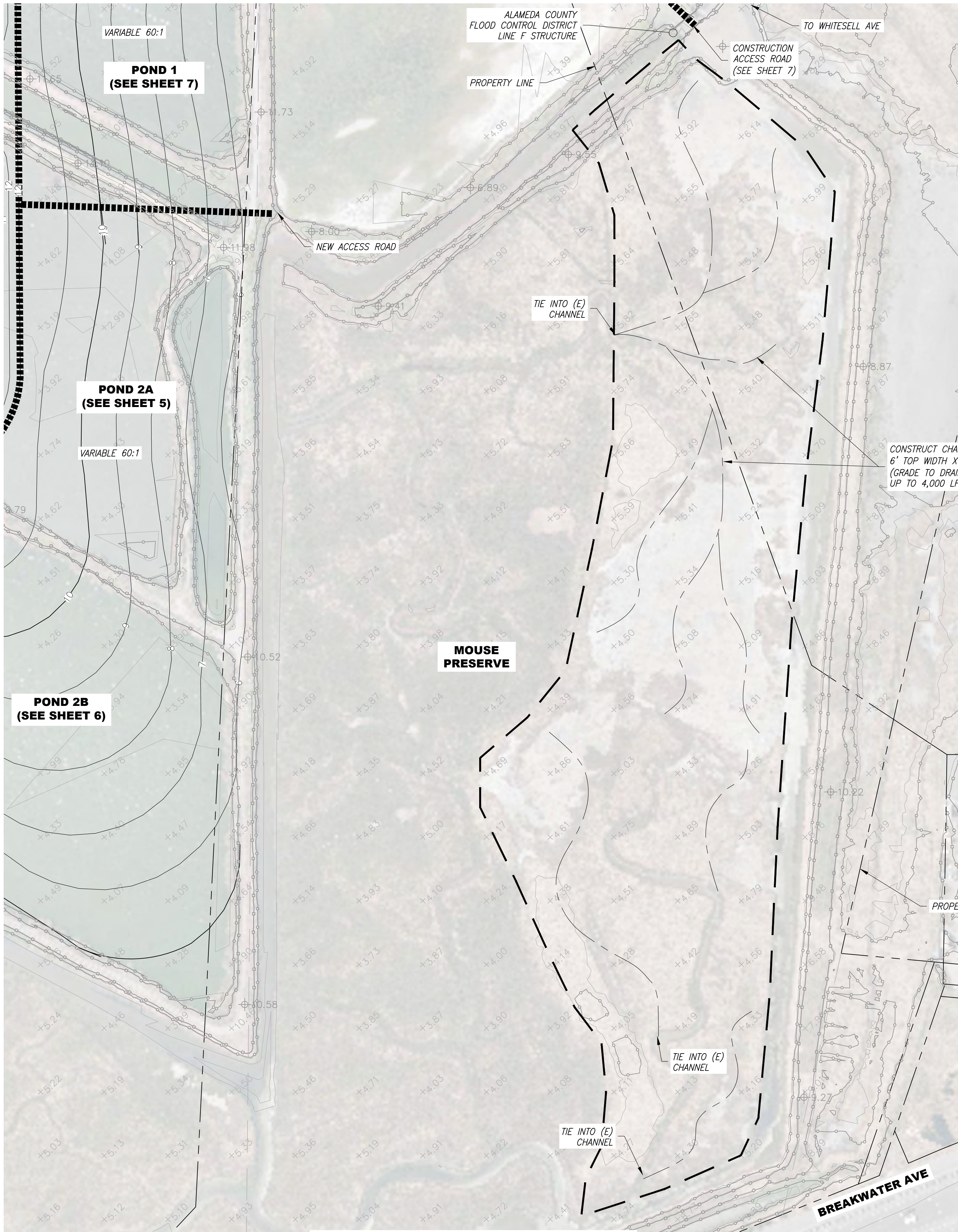
PROJECT  
65% DESIGN  
NOT FOR CONSTRUCTION  
  
RESTORE HAYWARD MARSH  
(FORMER USD TREATMENT MARSH)  
  
HAYWARD, CA

PROJECT NUMBER:  
CONTRACT NUMBER:

SHEET TITLE  
**MOUSE PRESERVE  
GRADING PLAN**

SHEET NO.  
SHEET: 10  
OF: 31





GRADING PLAN

N  
0  
100  
200  
FEET  
SCALE

**LEGEND**  

EXISTING MINOR CONTOUR

EXISTING MAJOR CONTOUR

EXISTING TOPO POINTS

PROPOSED MINOR CONTOUR

PROPOSED MAJOR CONTOURMEAN HIGH WATER (6.39')**NOTES**  
LEVEE SIDE SLOPES WILL INCLUDE VARIATIONS IN SLOPE TO MIMIC A NATURAL SHORELINE. NOT ALL SLOPES IN THESE PLANS ARE SHOWN WITH THIS VARIATION.

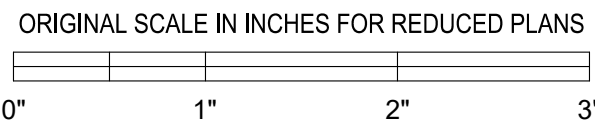
INITIALS  
DESIGNED BY: AP  
DRAWN BY: ML  
CHECKED BY: AP

APPROVED  
  
CHIEF OF DESIGN & CONSTRUCTION

CHIEF OF PARK OPERATIONS  
ENGINEER OF RECORD:  
**UPRIGHT  
ENGINEERING**  
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MAXIMUM 14  
CALENDAR DAYS



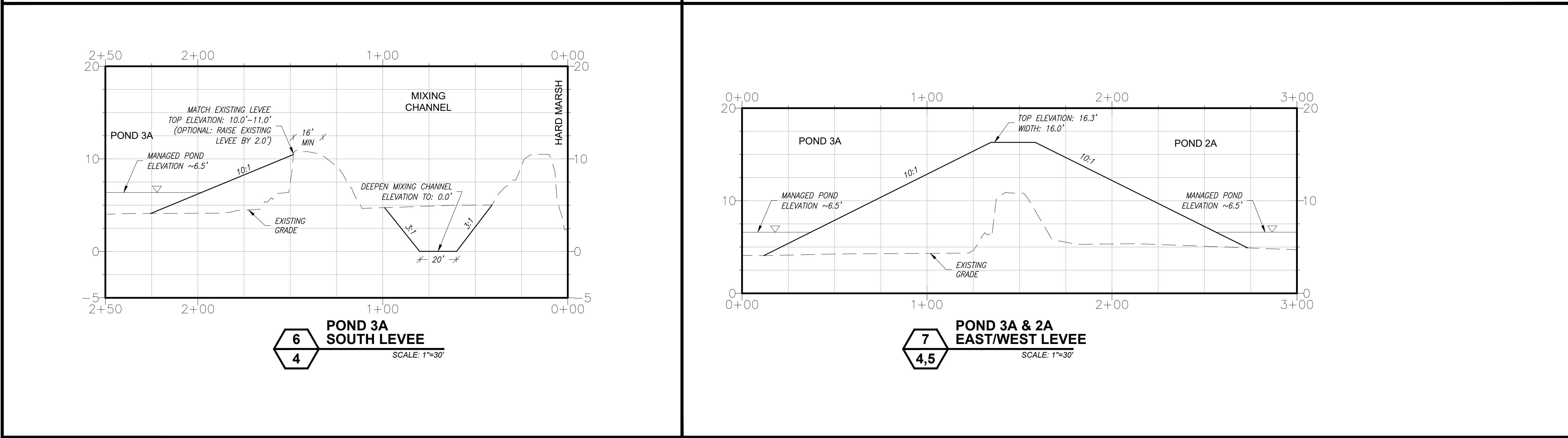
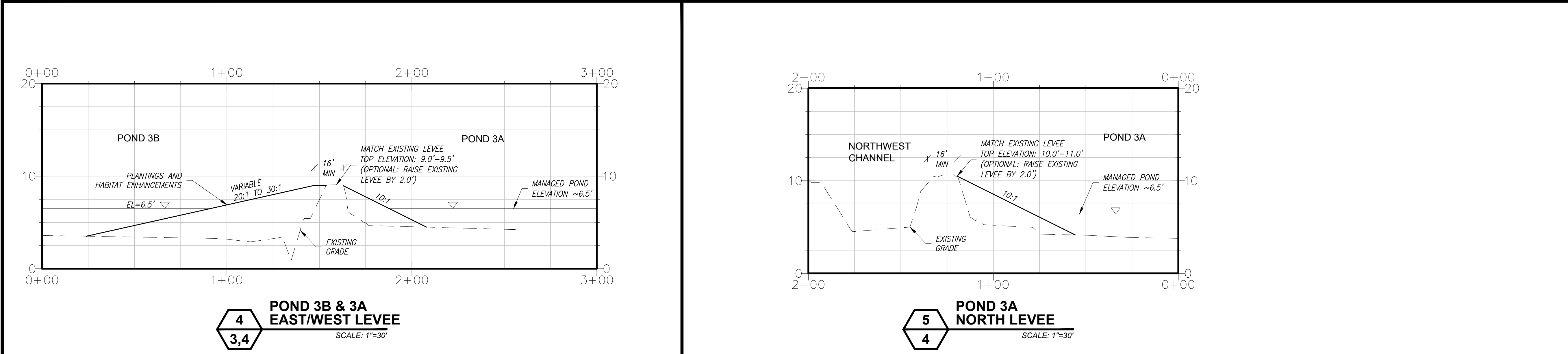
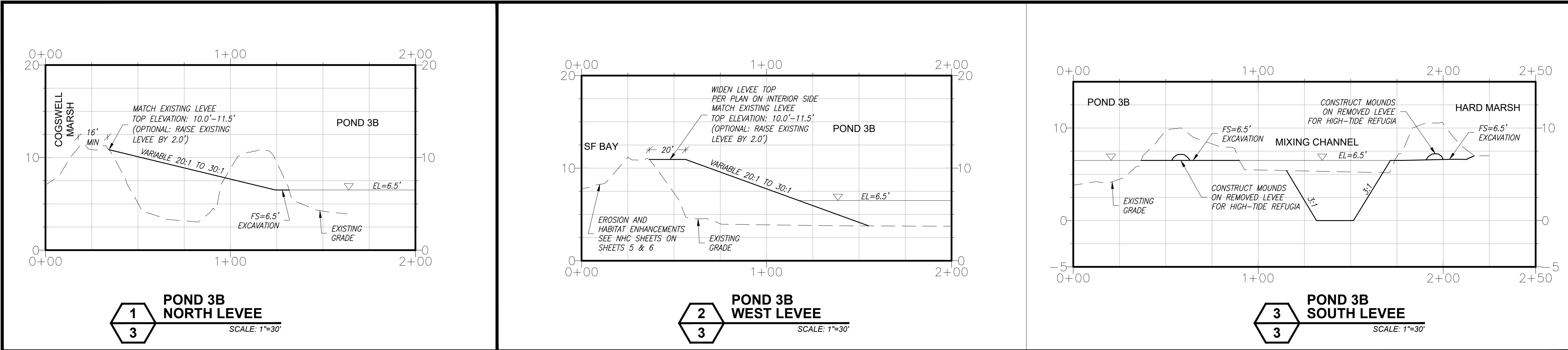
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KEY	DESCRIPTION	DATE
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	PERMIT SET	07/17/2024

PROJECT  
65% DESIGN  
NOT FOR CONSTRUCTION  
  
RESTORE HAYWARD MARSH  
(FORMER USD  
TREATMENT MARSH)  
  
HAYWARD, CA

PROJECT NUMBER:  
CONTRACT NUMBER:

SHEET TITLE  
  
MOUSE PRESERVE  
GRADING PLAN





REVISIONS		
KEY	DESCRIPTION	DATE
△	65% DESIGN	11/14/2023
△	PERMIT SET	07/17/2024
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△		
△		

PROJECT  
**65% DESIGN  
NOT FOR CONSTRUCTION**  
**RESTORE HAYWARD MARSH  
(FORMER USD  
TREATMENT MARSH)**  
**HAYWARD, CA**

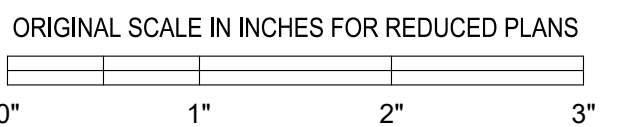
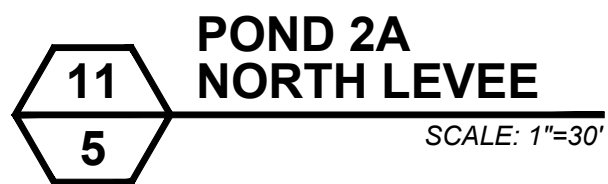
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SHEET TITLE

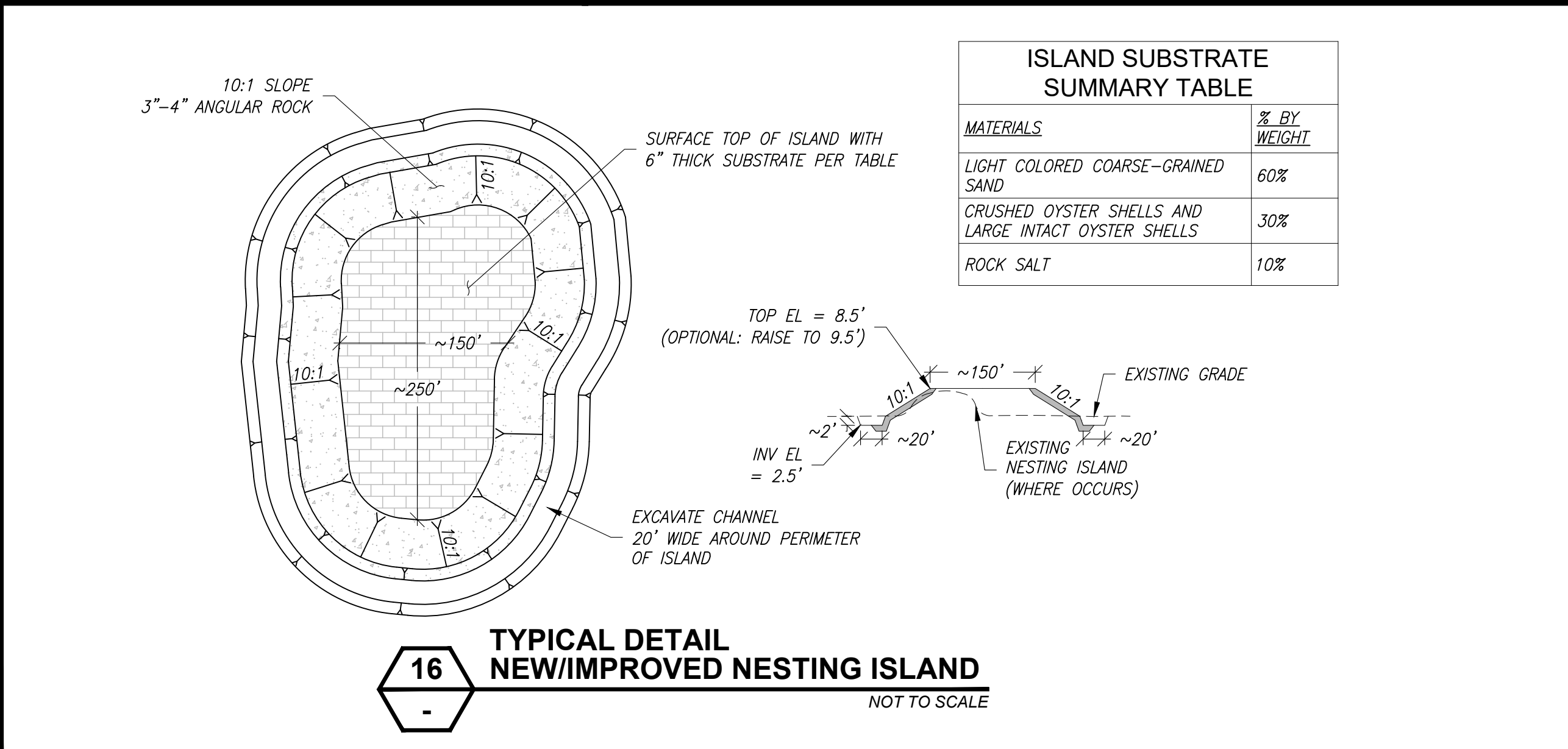
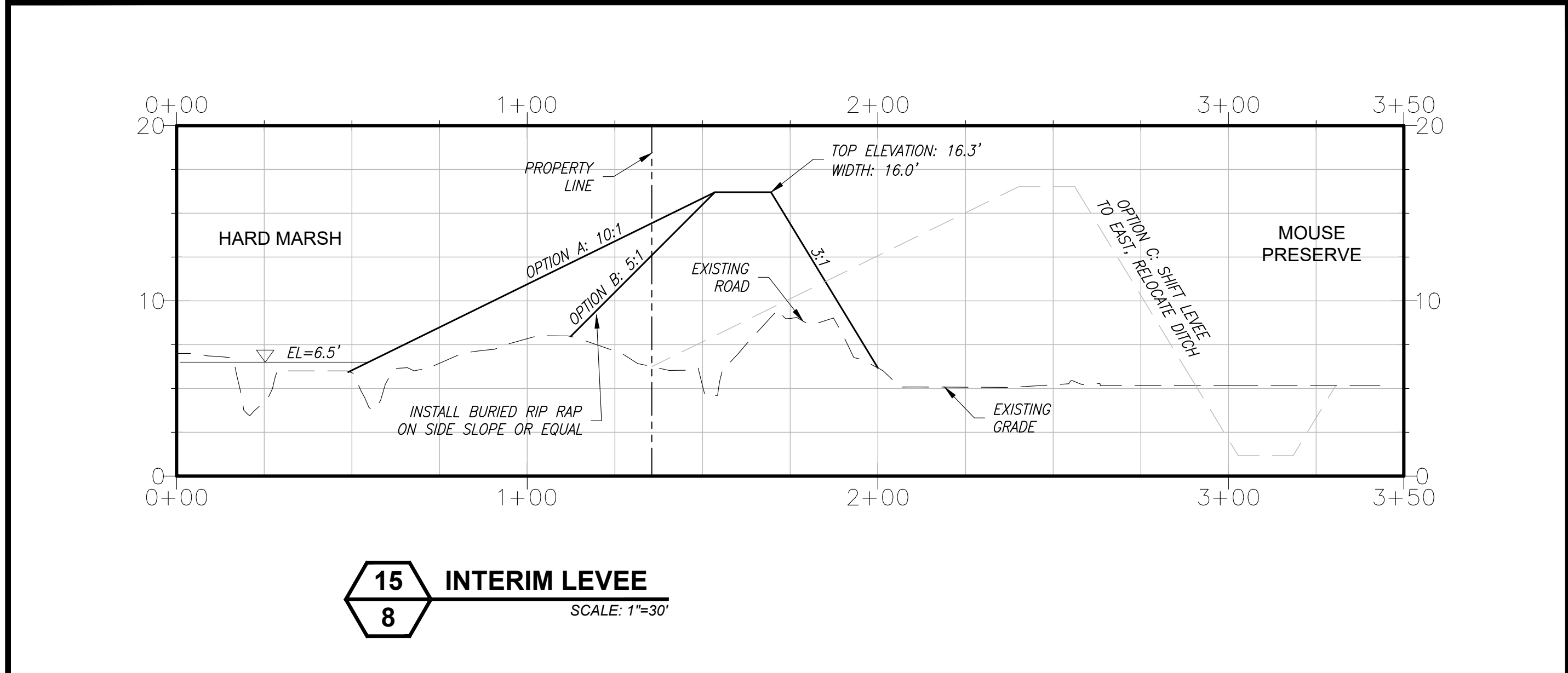
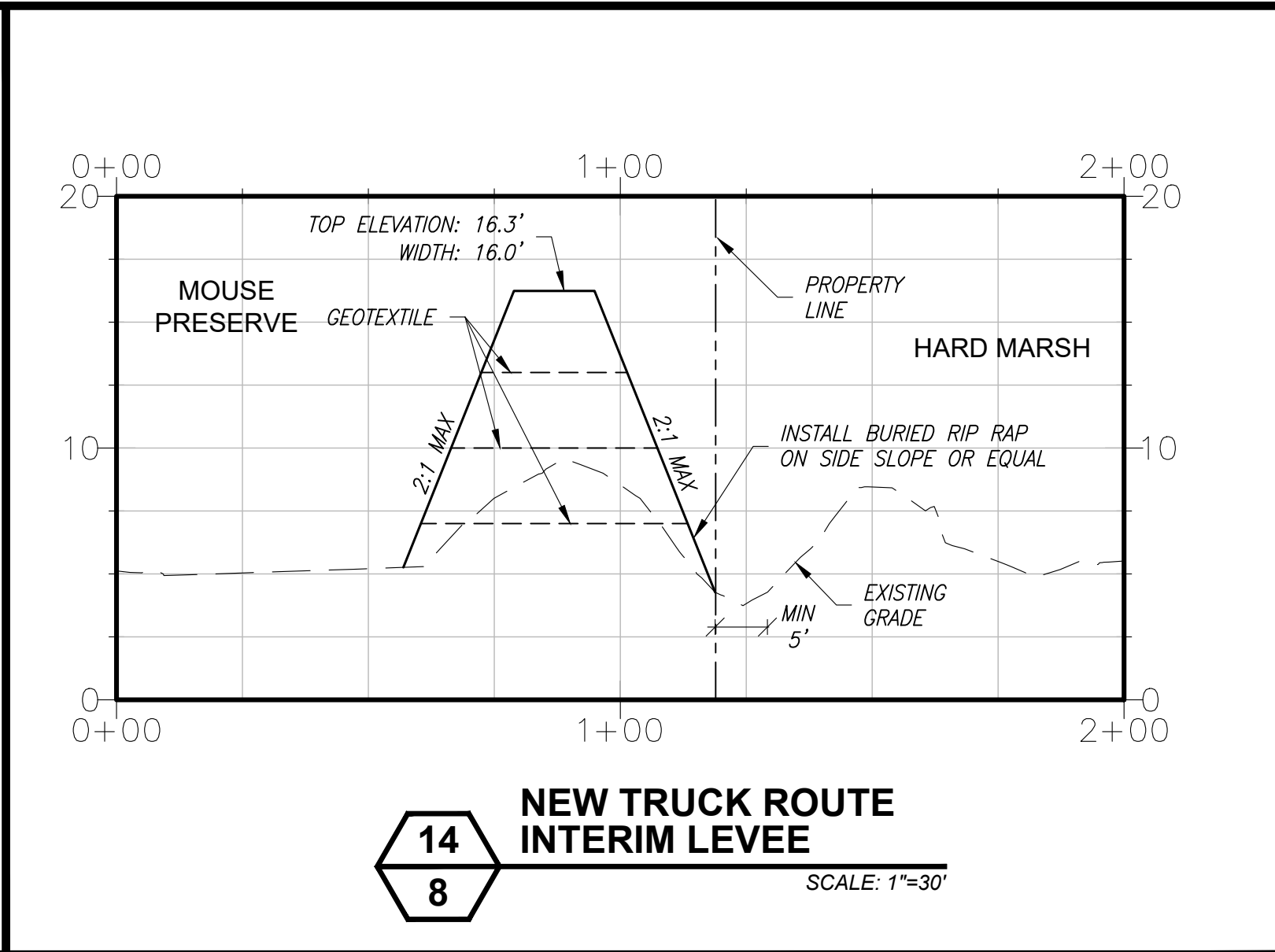
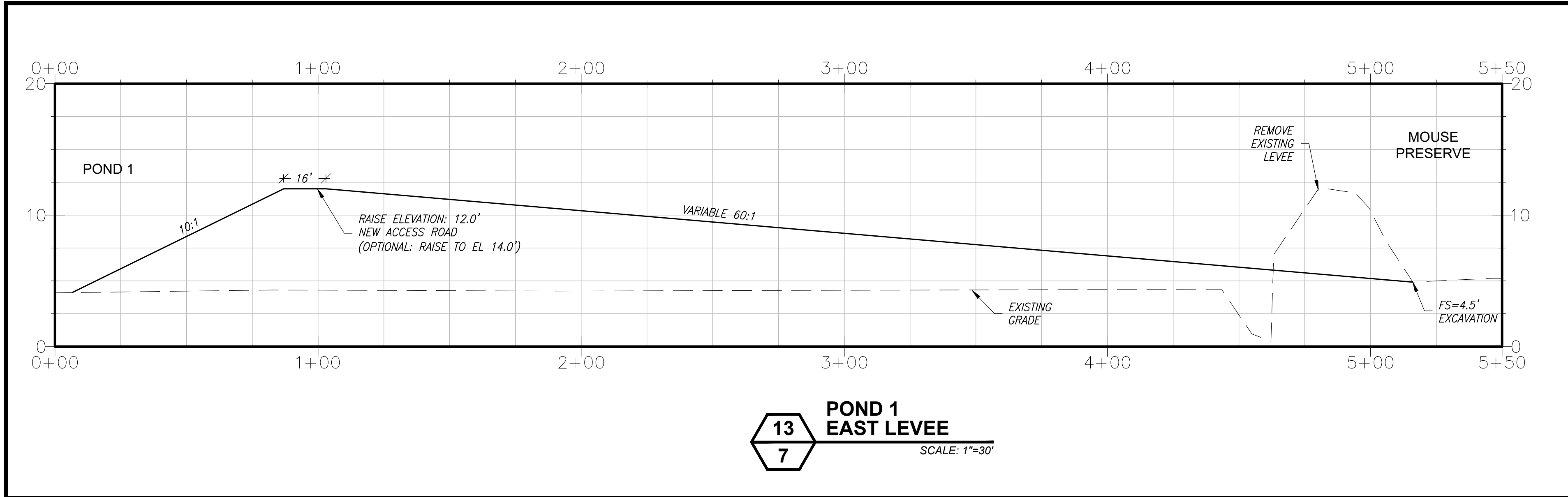
**SECTIONS**

SHEET NO.  
SHEET: 12  
OF: 31  
**10**



11





East Bay

Regional Park District

2950 PERALTA OAKS COURT, OAKLAND, CA 94605

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INITIALS

DESIGNED BY: AP

DRAWN BY: ML

CHECKED BY: AP

APPROVED

CHIEF OF DESIGN & CONSTRUCTION

CHIEF OF PARK OPERATIONS

ENGINEER OF RECORD:

UPRIGHT

ENGINEERING

3641 MT. DIABLO BLVD, #1841

LAFAYETTE, CA 94549

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WORKING DAYS  
MAXIMUM 14  
CALENDAR DAYS

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

0"

1"

2"

3"

REVISIONS

KEY	DESCRIPTION	DATE
<div><div></div><div></div></div>	65% DESIGN	11/14/2023
<div><div></div><div></div></div>	PERMIT SET	07/17/2024
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PROJECT

65% DESIGN  
NOT FOR CONSTRUCTION

RESTORE HAYWARD MARSH  
(FORMER USD  
TREATMENT MARSH)

HAYWARD, CA

PROJECT NUMBER:

CONTRACT NUMBER:

SHEET TITLE

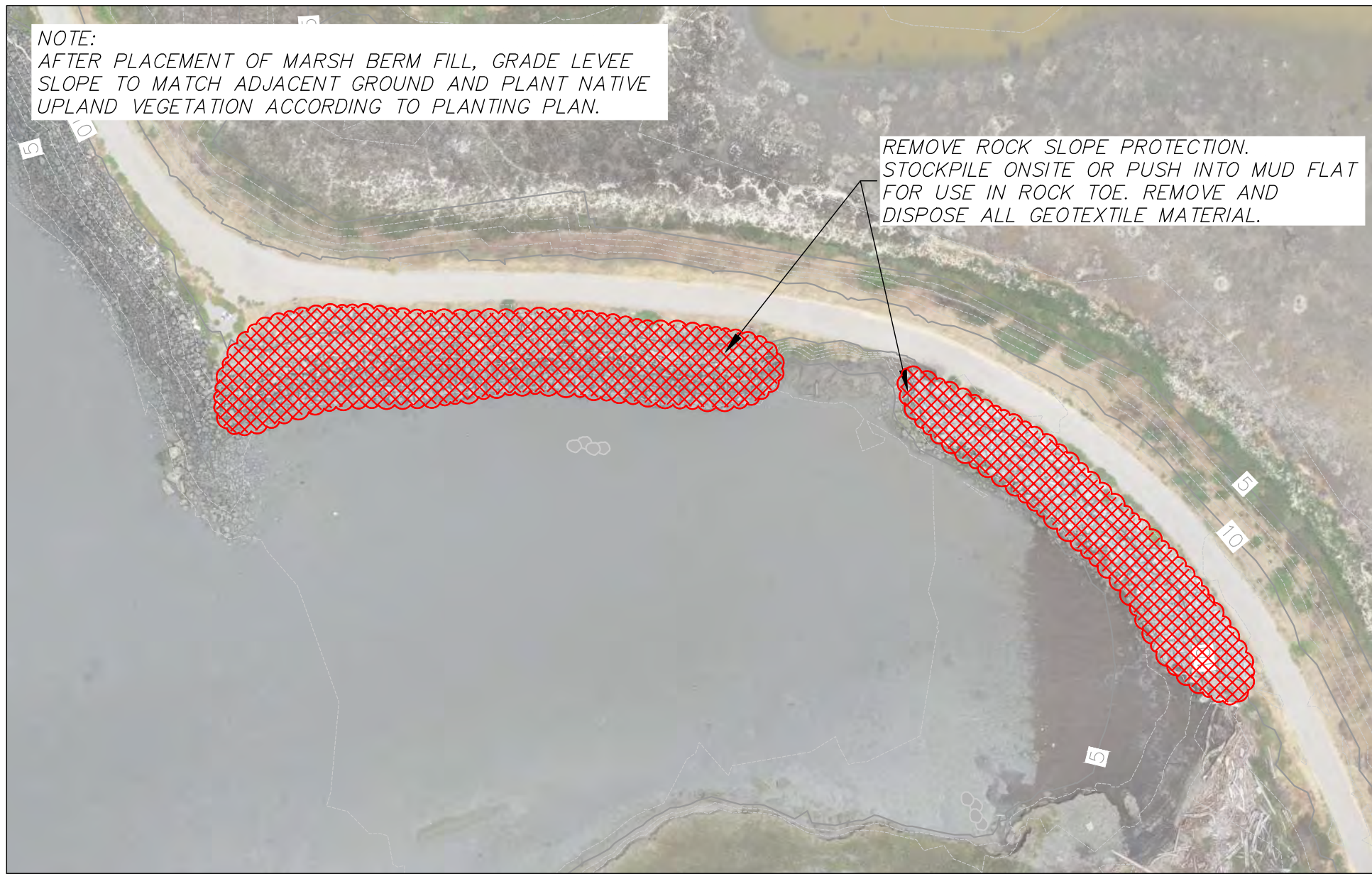
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SHEET NO.

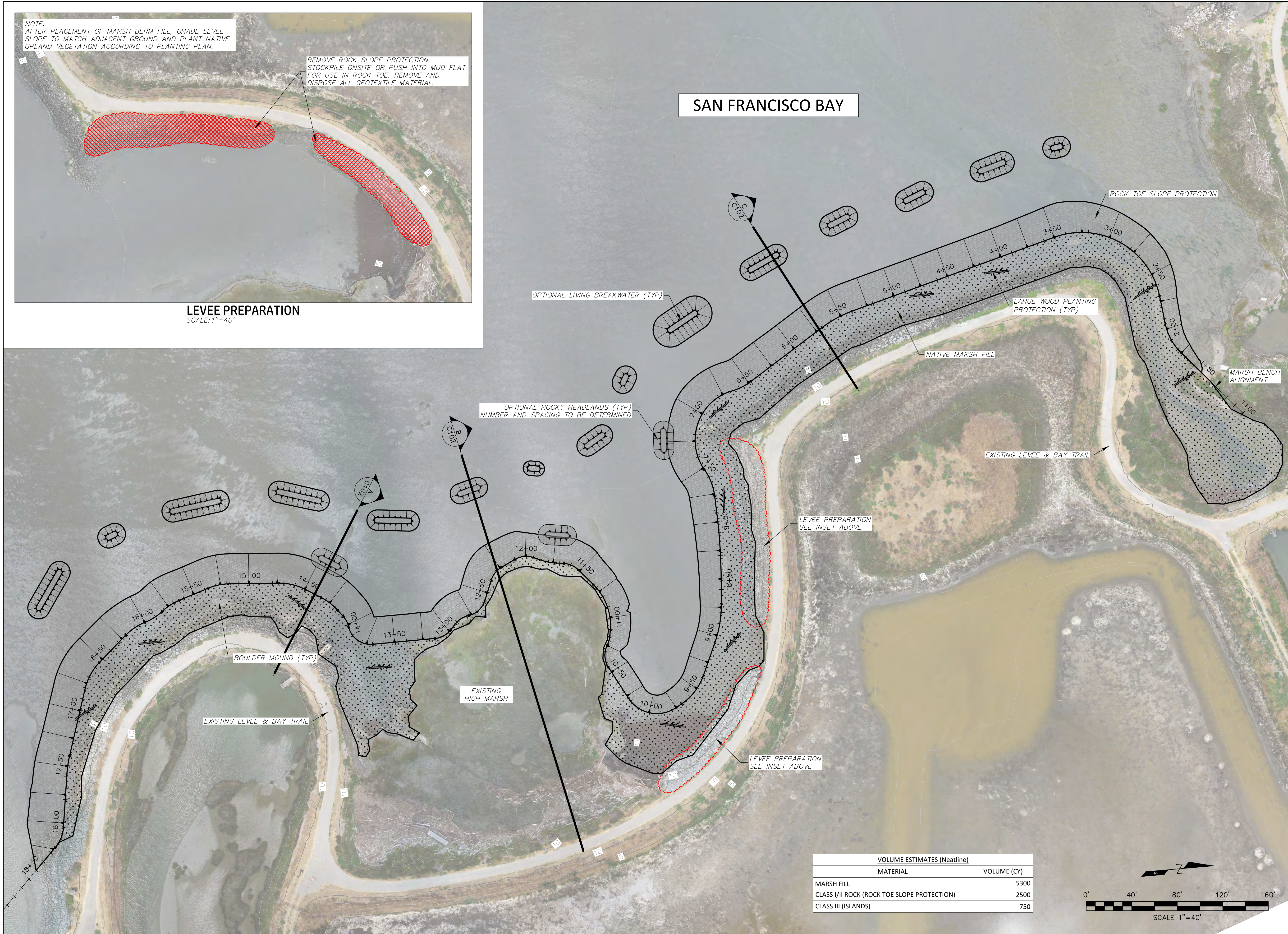
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OF: 31

12

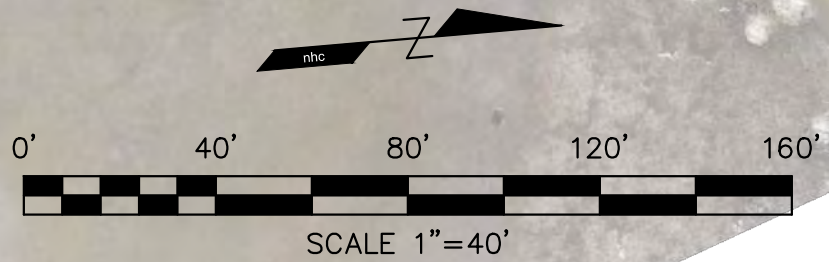




**LEVEE PREPARATION**  
SCALE: 1"=40'



VOLUME ESTIMATES (Neatline)	
MATERIAL	VOLUME (CY)
MARSH FILL	5300
CLASS I/II ROCK (ROCK TOE SLOPE PROTECTION)	2500
CLASS III (ISLANDS)	750

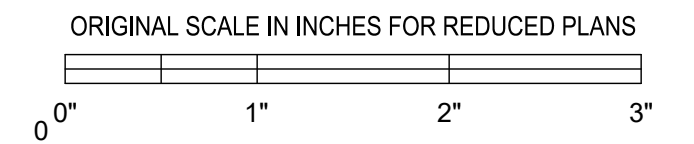


INITIALS  
DESIGNED BY: RB/BW  
DRAWN BY: TS  
CHECKED BY: BW

APPROVED  
CHIEF OF DESIGN & CONSTRUCTION  
CHIEF OF PARK OPERATIONS

**nhc**  
**northwest hydraulic consultants**  
2600 capital avenue, suite 140  
sacramento, california 95816-5928  
phone: (916) 371-7400  
[www.nhcweb.com](http://www.nhcweb.com)

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MINIMUM 2 WORKING DAYS  
MAXIMUM 14 CALENDAR DAYS



REVISIONS		
KEY	DESCRIPTION	DATE
△	65% DESIGN	20231114
△		
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PROJECT  
**65% DESIGN  
NOT FOR CONSTRUCTION  
RESTORE HAYWARD MARSH  
(FORMER USD TREATMENT  
MARSH)  
HAYWARD, CA**

PROJECT NUMBER:  
CONTRACT NUMBER:

SHEET TITLE  
**MARSH BENCH  
PLAN**

SHEET NO.  
SHEET: 15  
OF: 31  
**C101**



INITIALS

DESIGNED BY:RB/BW

DRAWN BY:TS

CHECKED BY:BW

APPROVED

CHIEF OF DESIGN & CONSTRUCTION

CHIEF OF PARK OPERATIONS

nhc

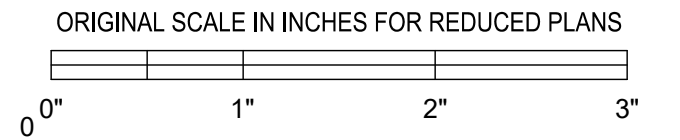
northwest hydraulic consultants

2600 capital avenue, suite 140  
sacramento, california 95816–5928  
phone: (916) 371–7400  
www.nhcweb.com

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WORKING DAYS  
MAXIMUM 14  
CALENDAR DAYS



REVISIONS		
KEY	DESCRIPTION	DATE
△	65% DESIGN	20231114
△		
△		
△		
△		
△		

PROJECT

65% DESIGN  
NOT FOR CONSTRUCTION

RESTORE HAYWARD MARSH  
(FORMER USD TREATMENT  
MARSH)

HAYWARD, CA

PROJECT NUMBER:

CONTRACT NUMBER:

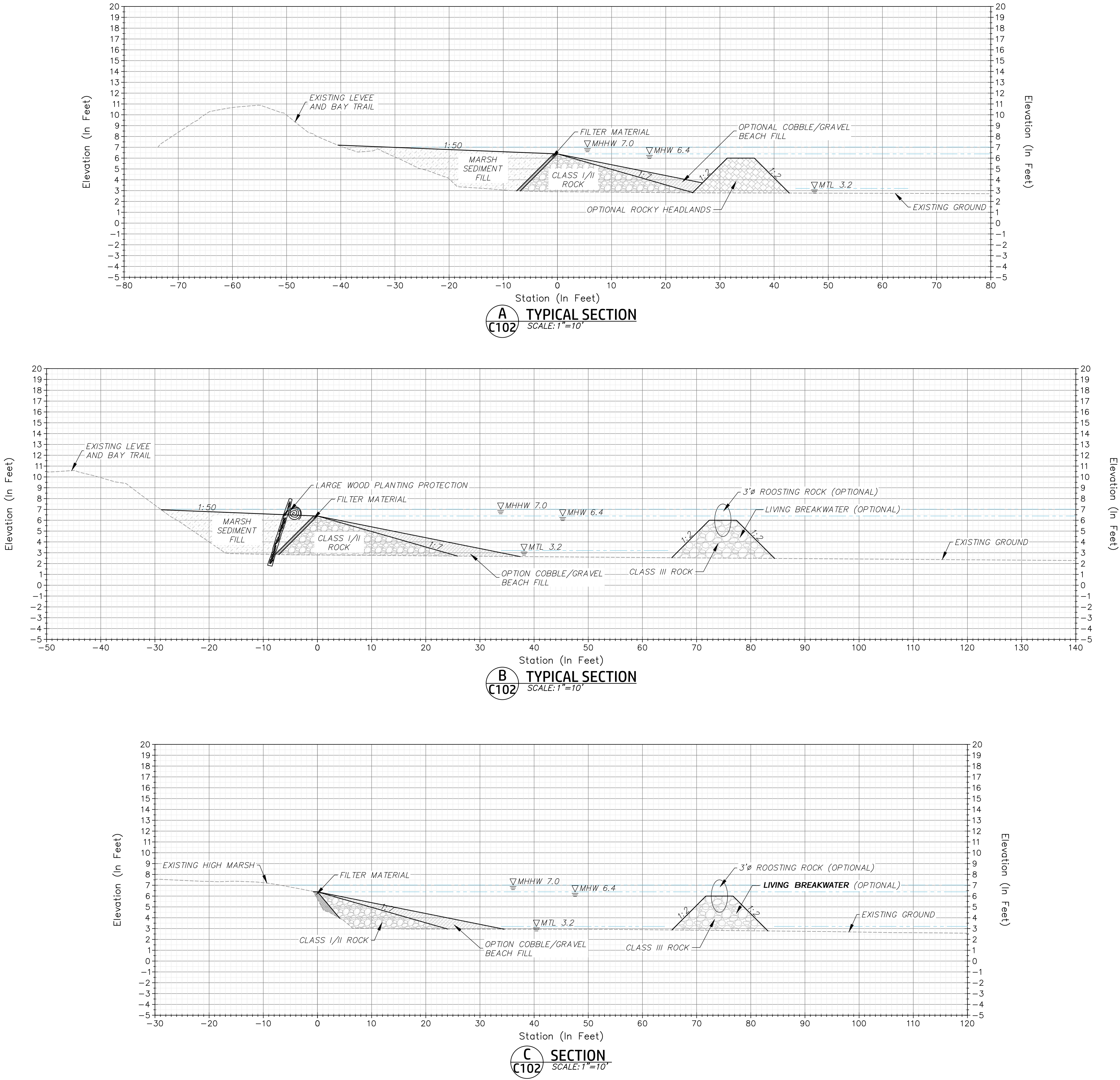
SHEET TITLE

SECTIONS

SHEET NO.

SHEET: 16  
OF: 31

C102





INITIALS

DESIGNED BY:RB/BW

DRAWN BY:TS

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CHIEF OF DESIGN & CONSTRUCTION

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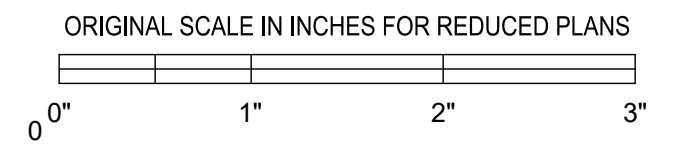
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WORKING DAYS  
MAXIMUM 14  
CALENDAR DAYS



REVISIONS		
KEY	DESCRIPTION	DATE
△	65% DESIGN	20231114
△		
△		
△		
△		
△		

PROJECT

65% DESIGN

NOT FOR CONSTRUCTION

RESTORE HAYWARD MARSH  
(FORMER USD TREATMENT  
MARSH)

HAYWARD, CA

PROJECT NUMBER:

CONTRACT NUMBER:

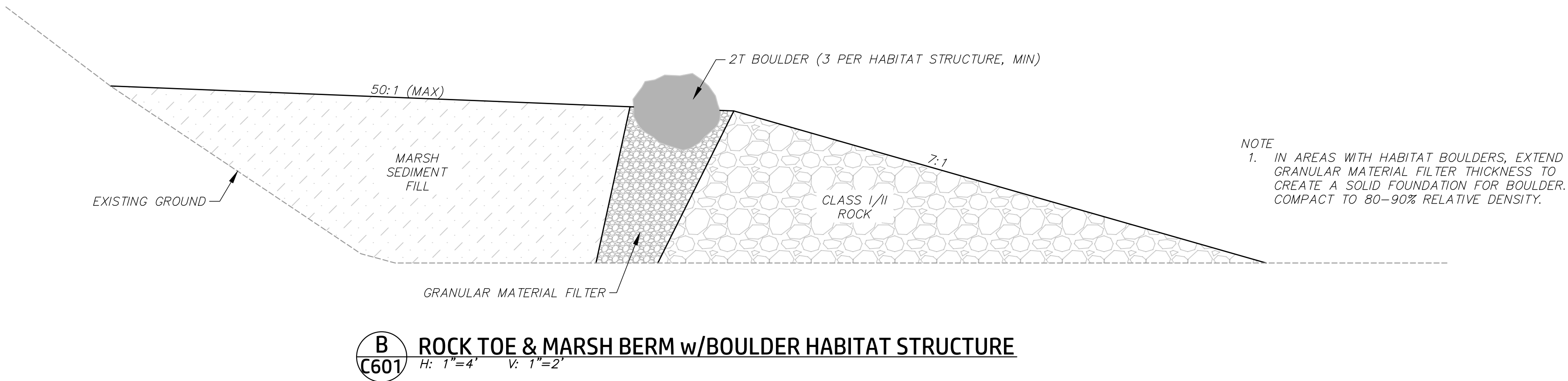
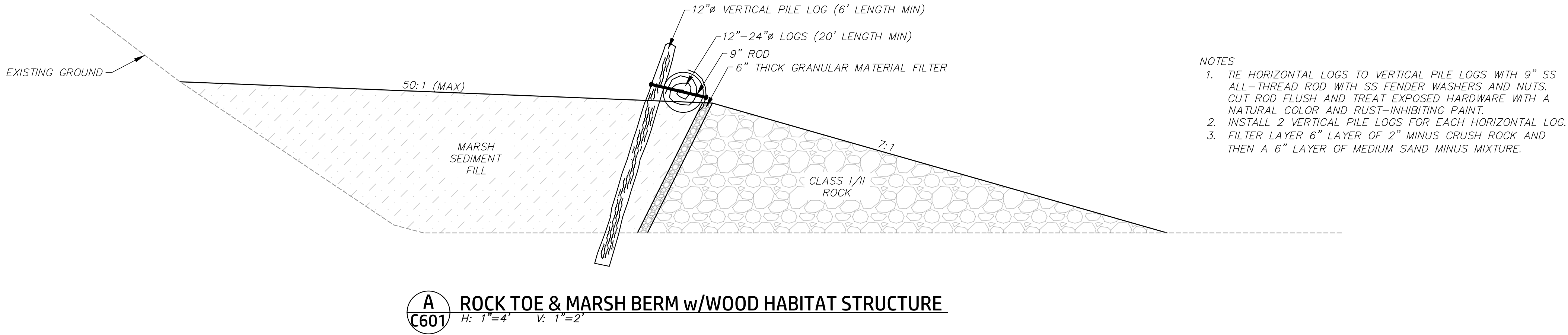
SHEET TITLE

CIVIL DETAILS

SHEET NO.

SHEET: 17  
OF: 31

C601





INITIALS  
DESIGNED BY: AP  
DRAWN BY: CS  
CHECKED BY: AP

APPROVED  
CHIEF OF DESIGN & CONSTRUCTION

CHIEF OF PARK OPERATIONS  
ENGINEER OF RECORD:  
**UPRIGHT ENGINEERING**  
3641 MT. DIABLO BLVD, #1841  
LAFAYETTE, CA 94549  
925-275-5304, info@upcivil.com



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ORIGINAL SCALE IN INCHES FOR REDUCED PLANS  
0" 1" 2" 3"

REVISIONS		
KEY	DESCRIPTION	DATE
1	65% DESIGN	11/14/2023
2		
3		
4		
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6		

PROJECT  
65% DESIGN  
NOT FOR CONSTRUCTION

RESTORE HAYWARD MARSH  
(FORMER USD  
TREATMENT MARSH)

HAYWARD, CA

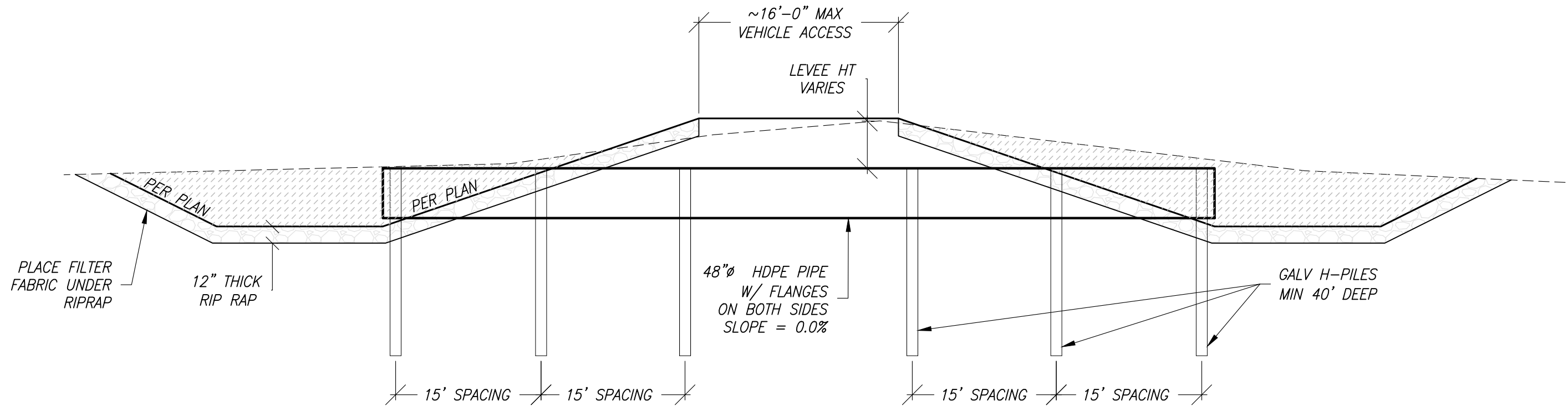
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WATER CONTROL  
STRUCTURES

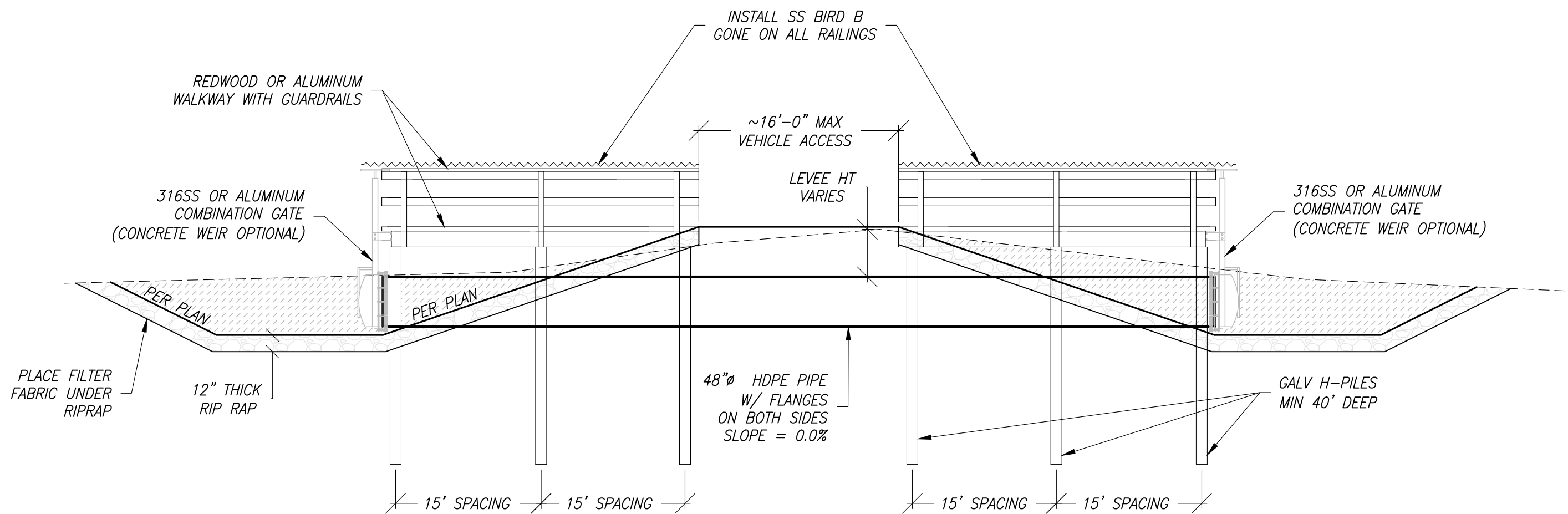
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SHEET: 18  
OF: 31

16

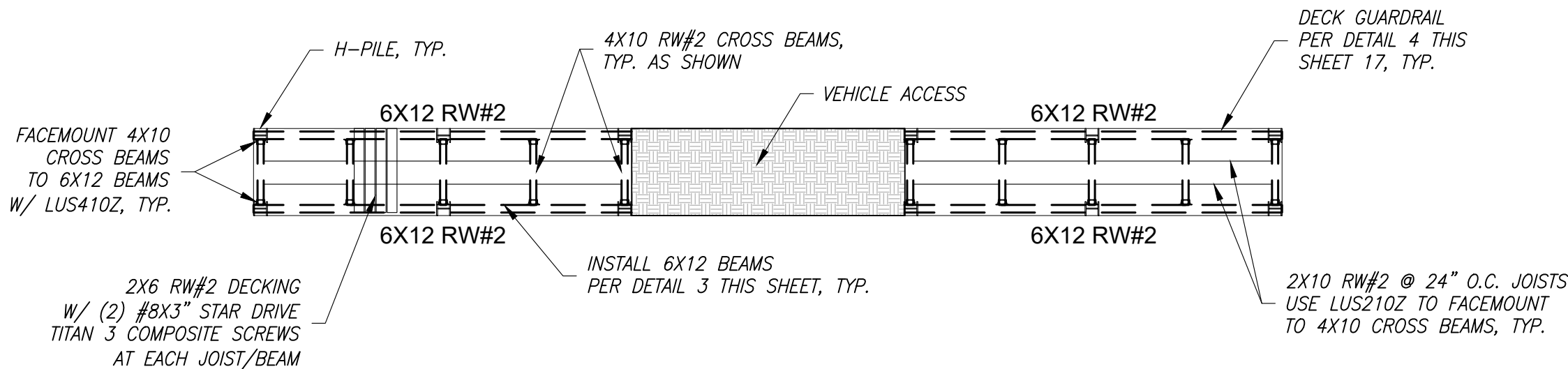
WATER CONTROL STRUCTURES SUMMARY						
ID #	NO. OF PILES	PIPE LENGTH (FT)	PIPE DIAMETER (IN)	INVERT ELEVATION (FT)	GATES	WEIRS
WCS 1	28	200	48	2.5	NONE	NONE
WCS 2	28	200	48	2.5	BOTH ENDS	NONE
WCS 3	14	100	48	2.5	NONE	ONE END
WCS 4	32	235	48	2.5	BOTH ENDS	NONE
WCS 5	14	100	48	2.5	NONE	ONE END
WCS 6	16	110	48	3.5	BOTH ENDS	NONE
WCS 7	28	200	48	2.5	NONE	ONE END
WCS 8	24	175	48	2.5	BOTH ENDS	NONE
WCS 9	12	80	48	0.0	BOTH ENDS	NONE
WCS 10	14	95	48	2.5	BOTH ENDS	NONE
WCS 11	16	115	48	0.0	BOTH ENDS	NONE
WCS 12	12	80	48	1.5	BOTH ENDS	NONE
WCS 13	12	80	48	4.0	NONE	NONE



1 WATER CONTROL STRUCTURE (CONDUIT ONLY)  
NOT TO SCALE

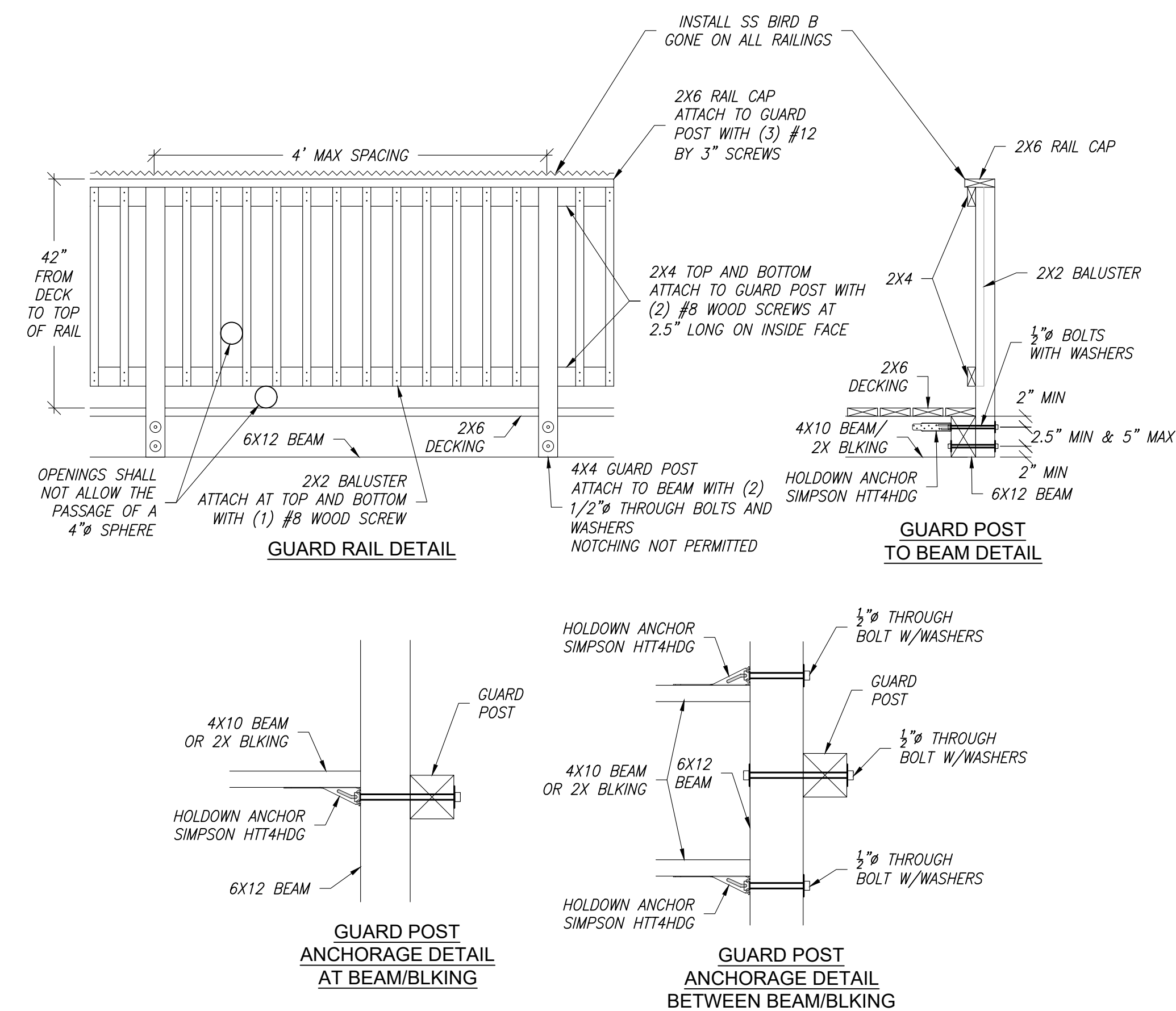
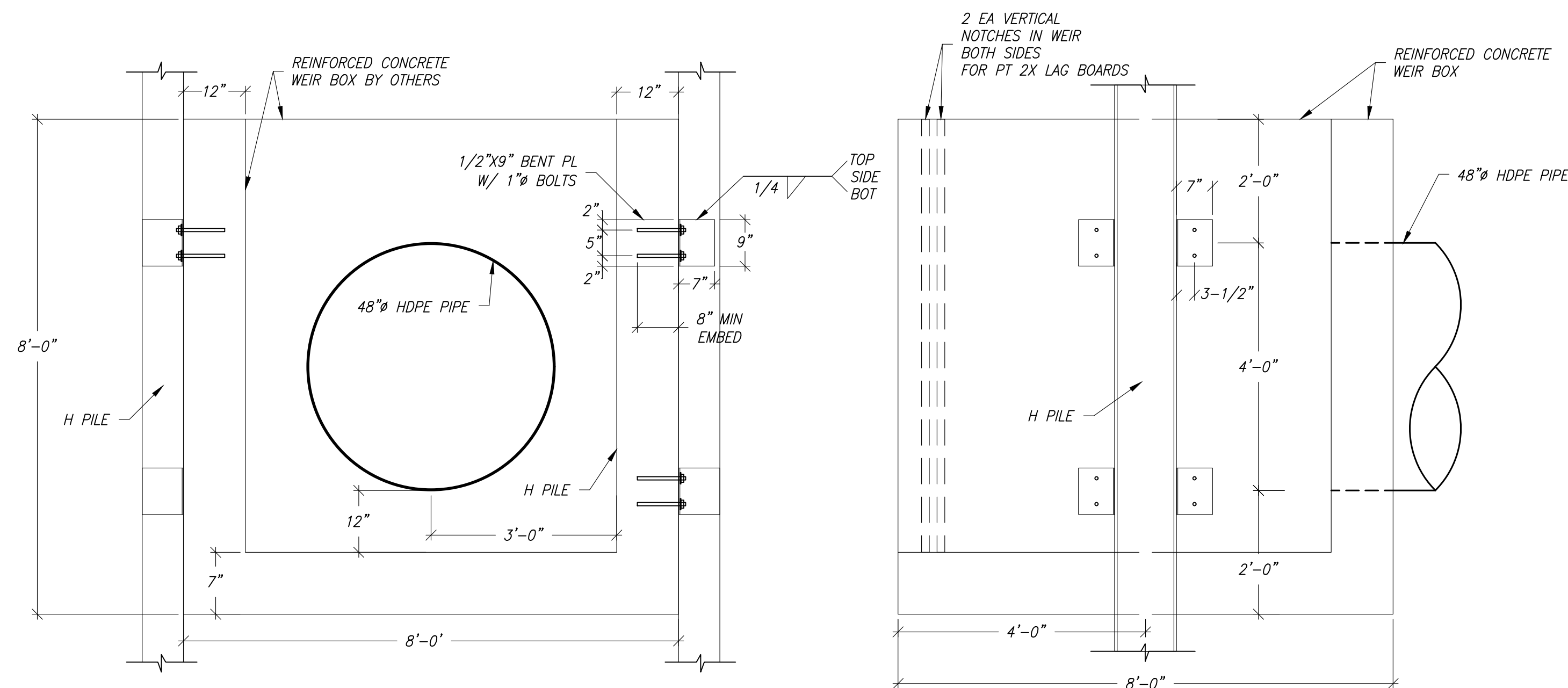
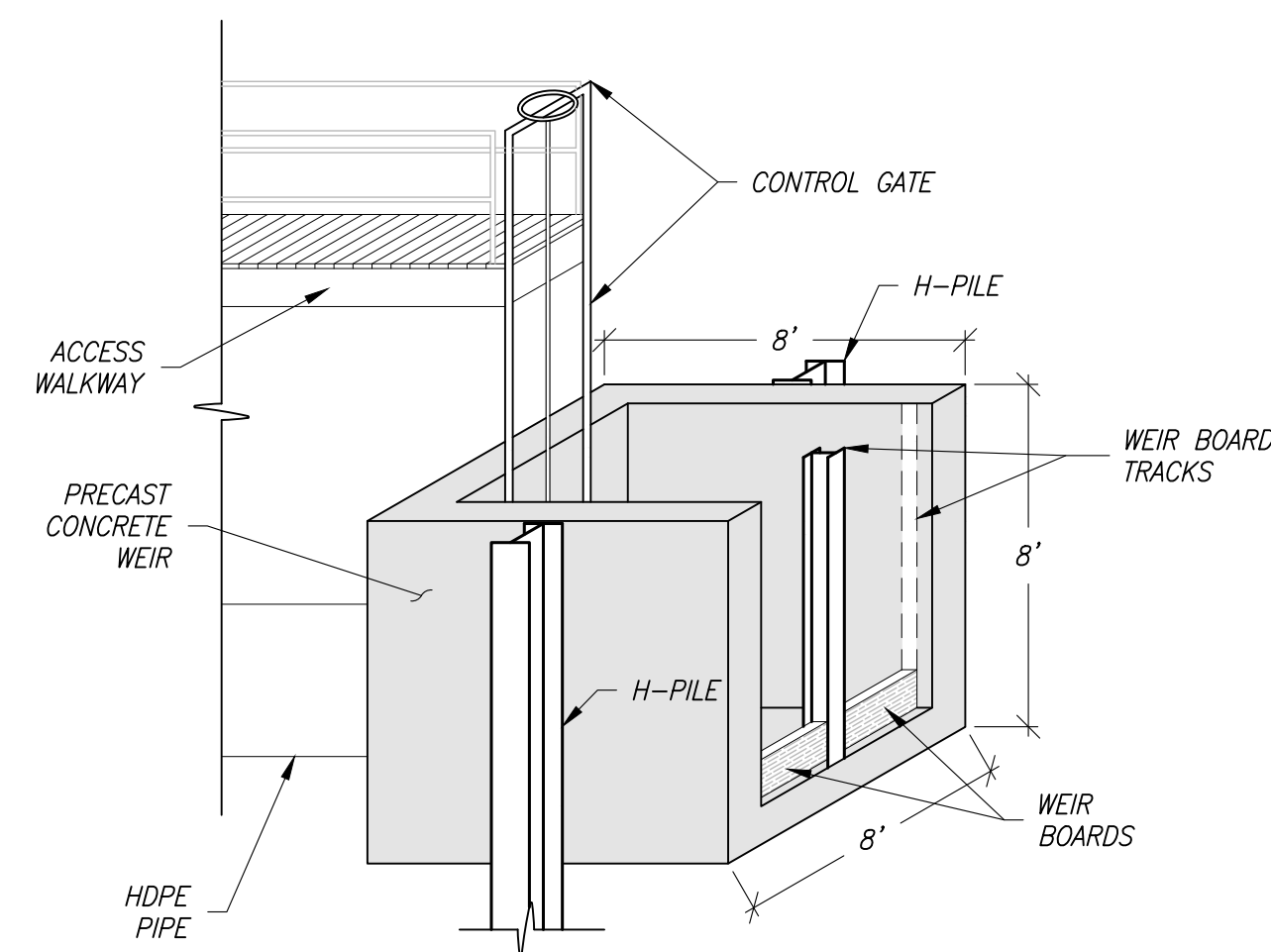
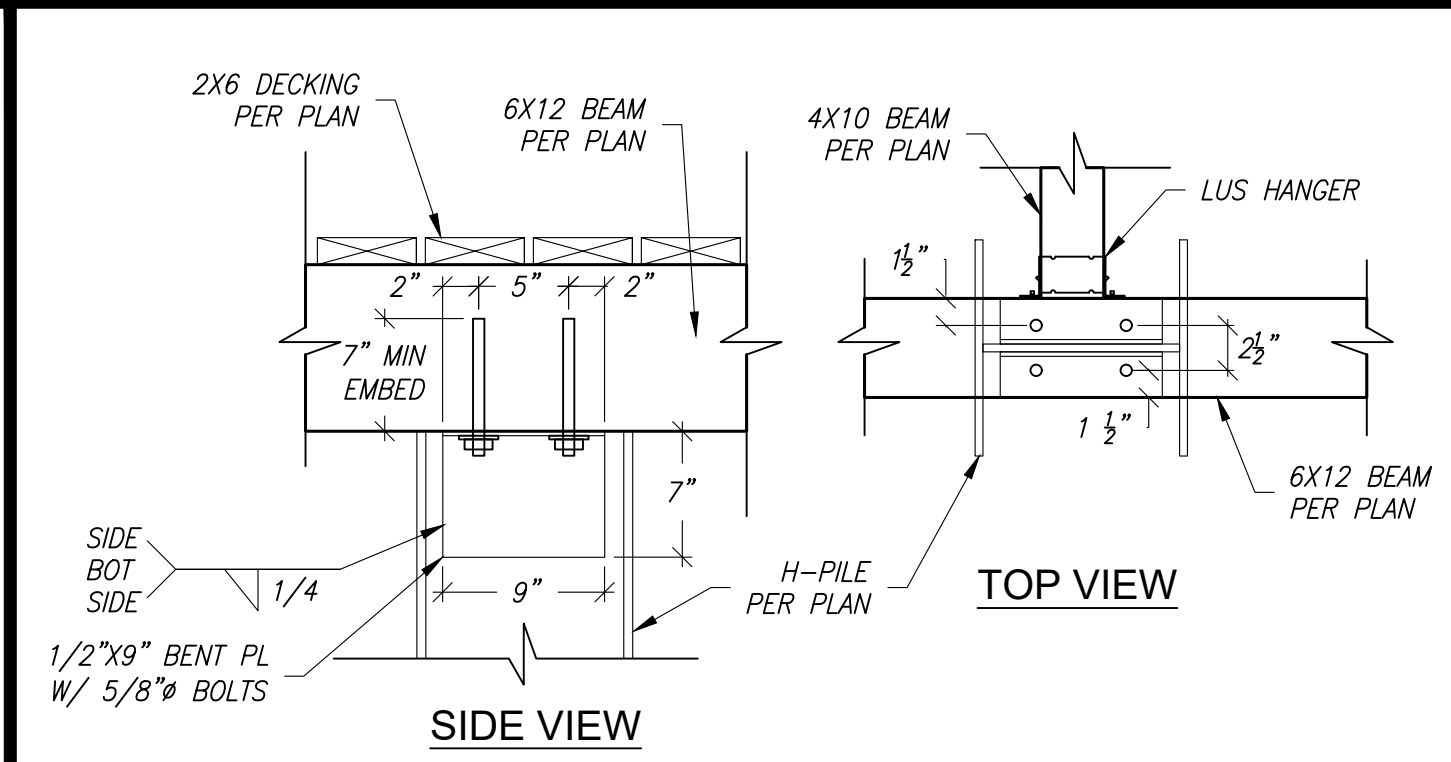
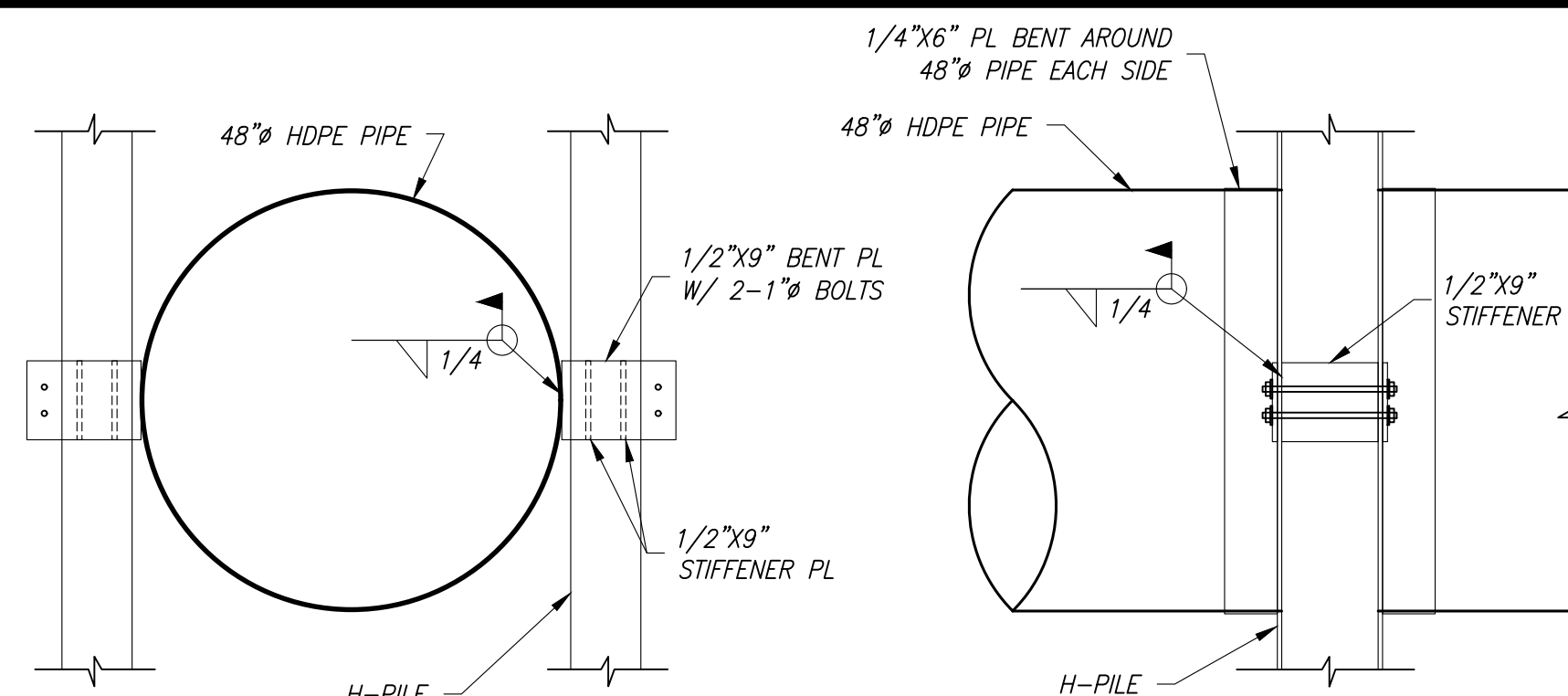
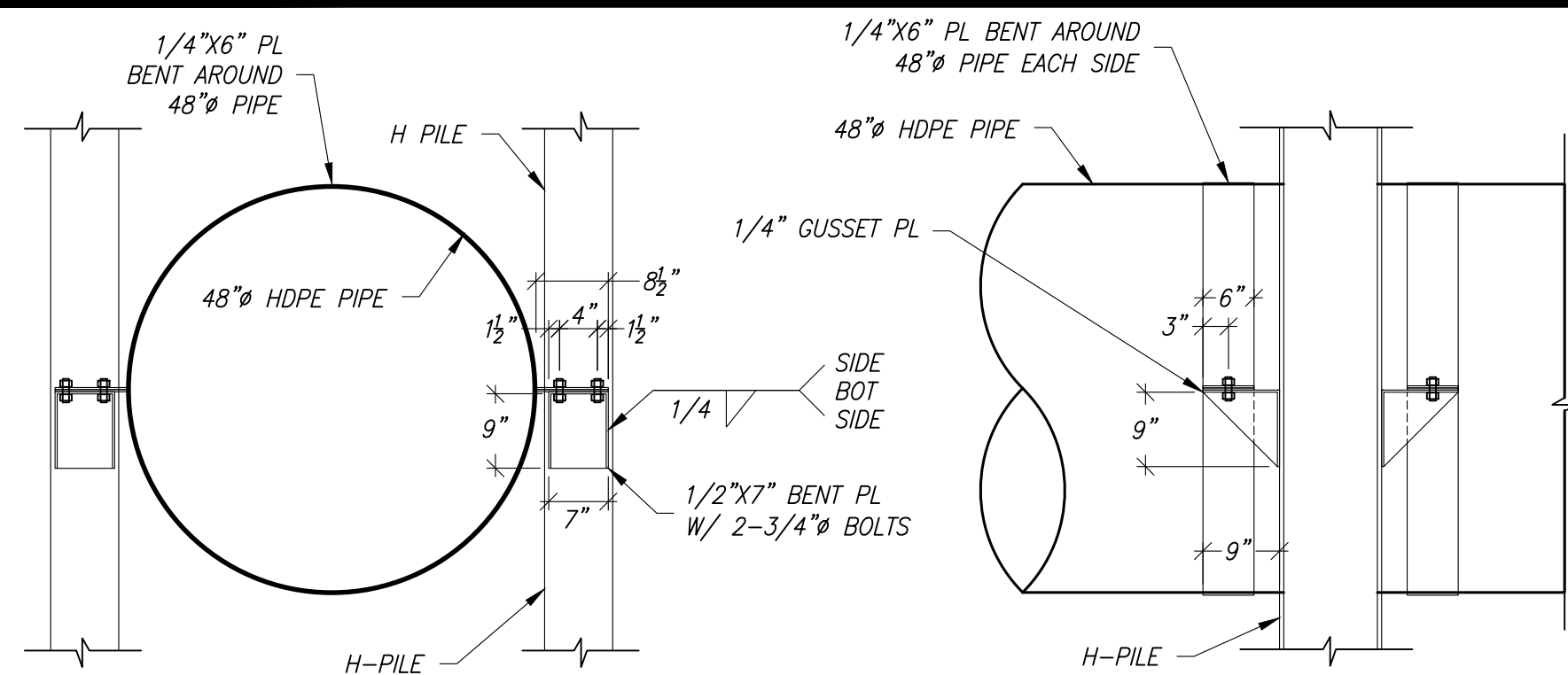


2 WATER CONTROL STRUCTURE (CONDUIT W/ WALKWAYS & COMBINATION GATES/CONCRETE WEIRS)  
NOT TO SCALE

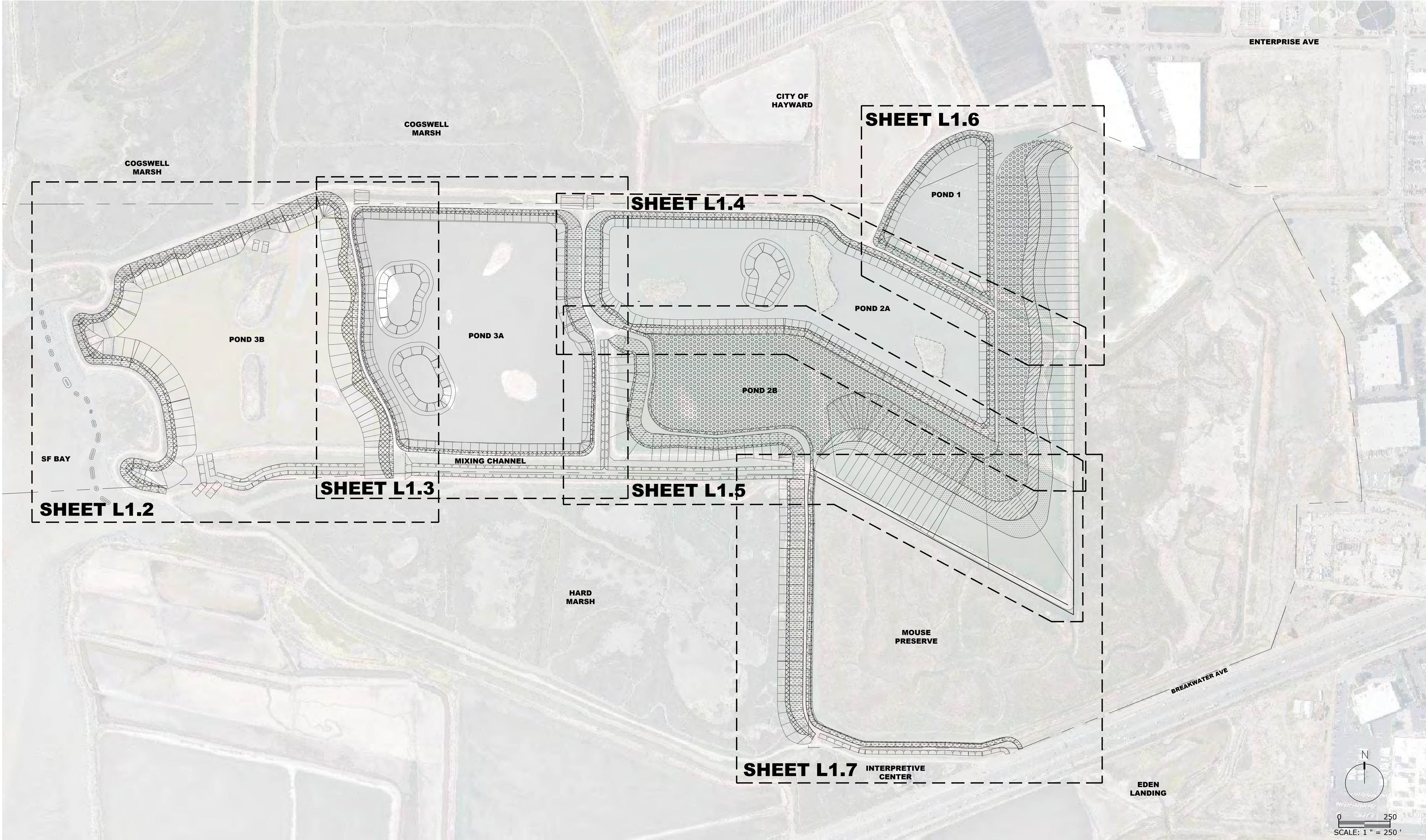


3 WALKWAY FRAMING PLAN  
NOT TO SCALE



[illegible]

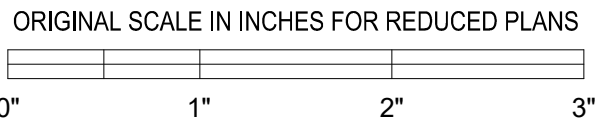




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CHIEF OF PARK OPERATIONS \_\_\_\_\_



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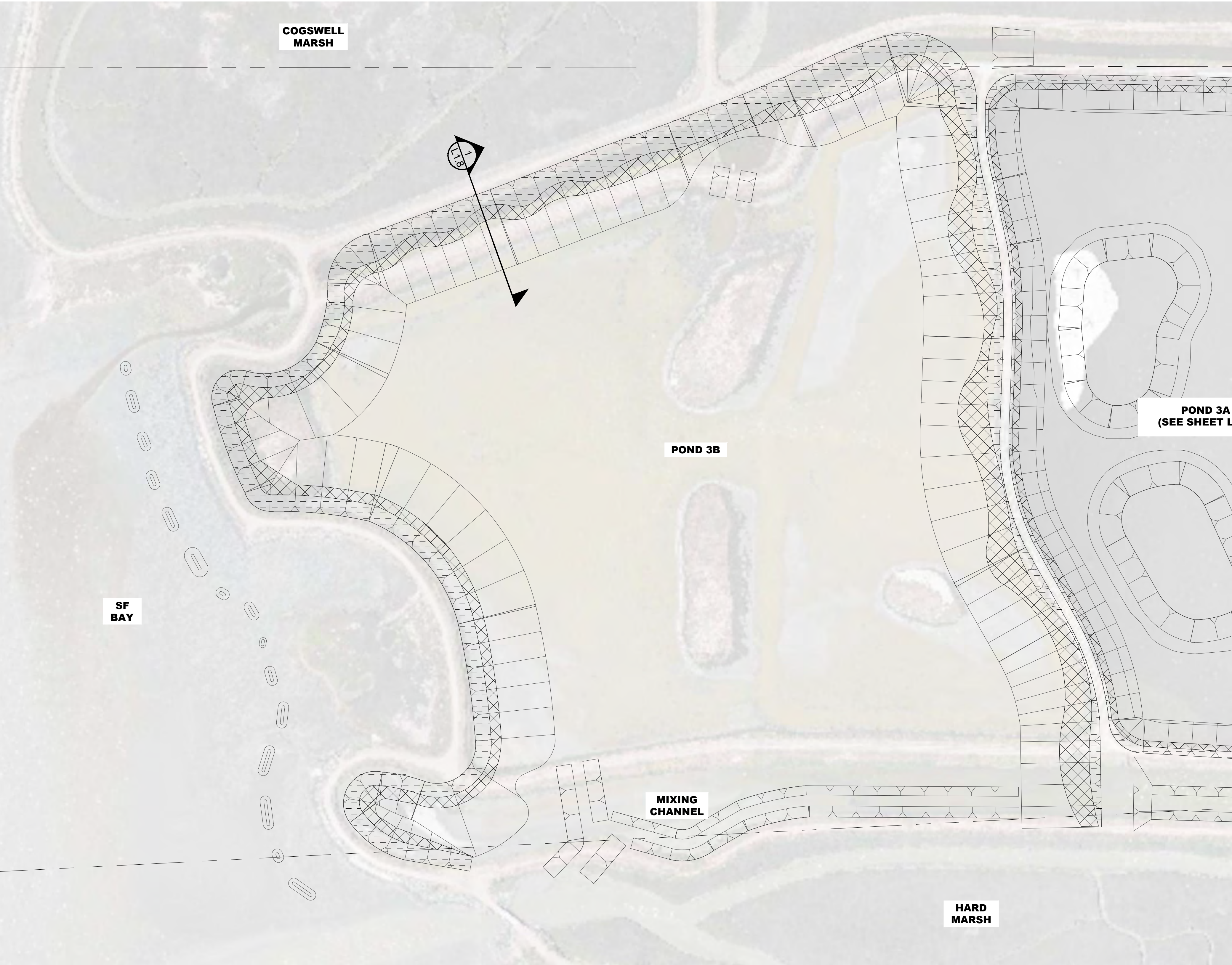
PROJECT  
**65% DESIGN  
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**RESTORE HAYWARD MARSH  
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TREATMENT MARSH)**  
**HAYWARD, CA**

PROJECT NUMBER:  
CONTRACT NUMBER:  
DRAWING SCALE:  
SHEET TITLE

**PLANTING  
PLAN  
KEY\_MAP**

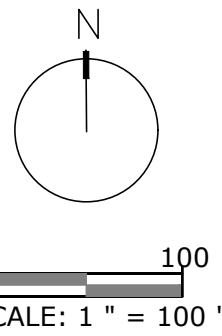
SHEET NO.  
SHEET: 20  
OF: 31  
**L1.1**





**PLANTING PLAN**

- PLANTING & SEEDING LEGEND**
- TRANSITIONAL ZONE PLANTING & SEEDING AREA
  - UPLAND PLANTING & SEEDING AREA
  - MUTED TIDAL PLANTING AREA
  - TRANSITIONAL ZONE SEEDING AREA
  - UPLAND SEEDING AREA



East Bay

Regional Park District

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PROJECT NUMBER:  
CONTRACT NUMBER:  
DRAWING SCALE:

SHEET TITLE

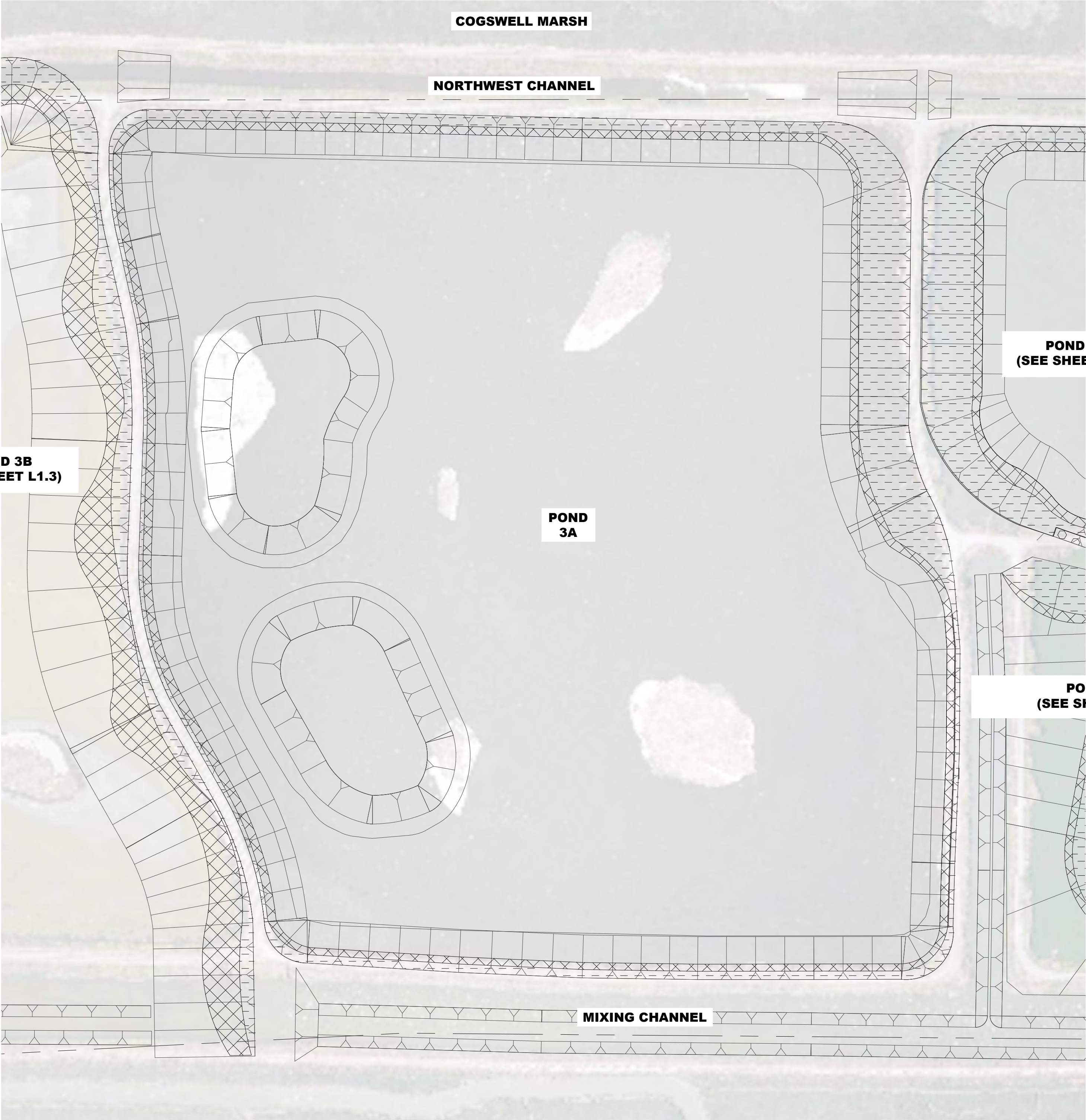
POND\_3B  
PLANTING  
PLAN

SHEET NO.

SHEET: 21  
OF: 31

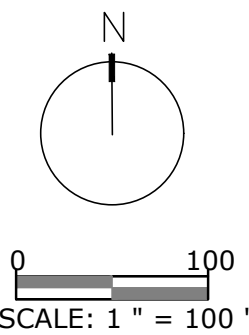
L1.2





**PLANTING & SEEDING LEGEND**

- TRANSITIONAL ZONE PLANTING & SEEDING AREA
- UPLAND PLANTING & SEEDING AREA
- MUTED TIDAL PLANTING AREA
- TRANSITIONAL ZONE SEEDING AREA
- UPLAND SEEDING AREA



**PLANTING PLAN**

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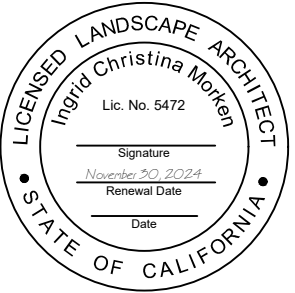
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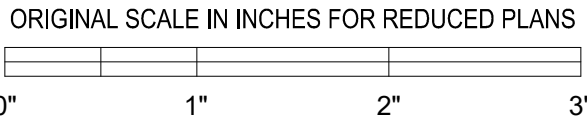
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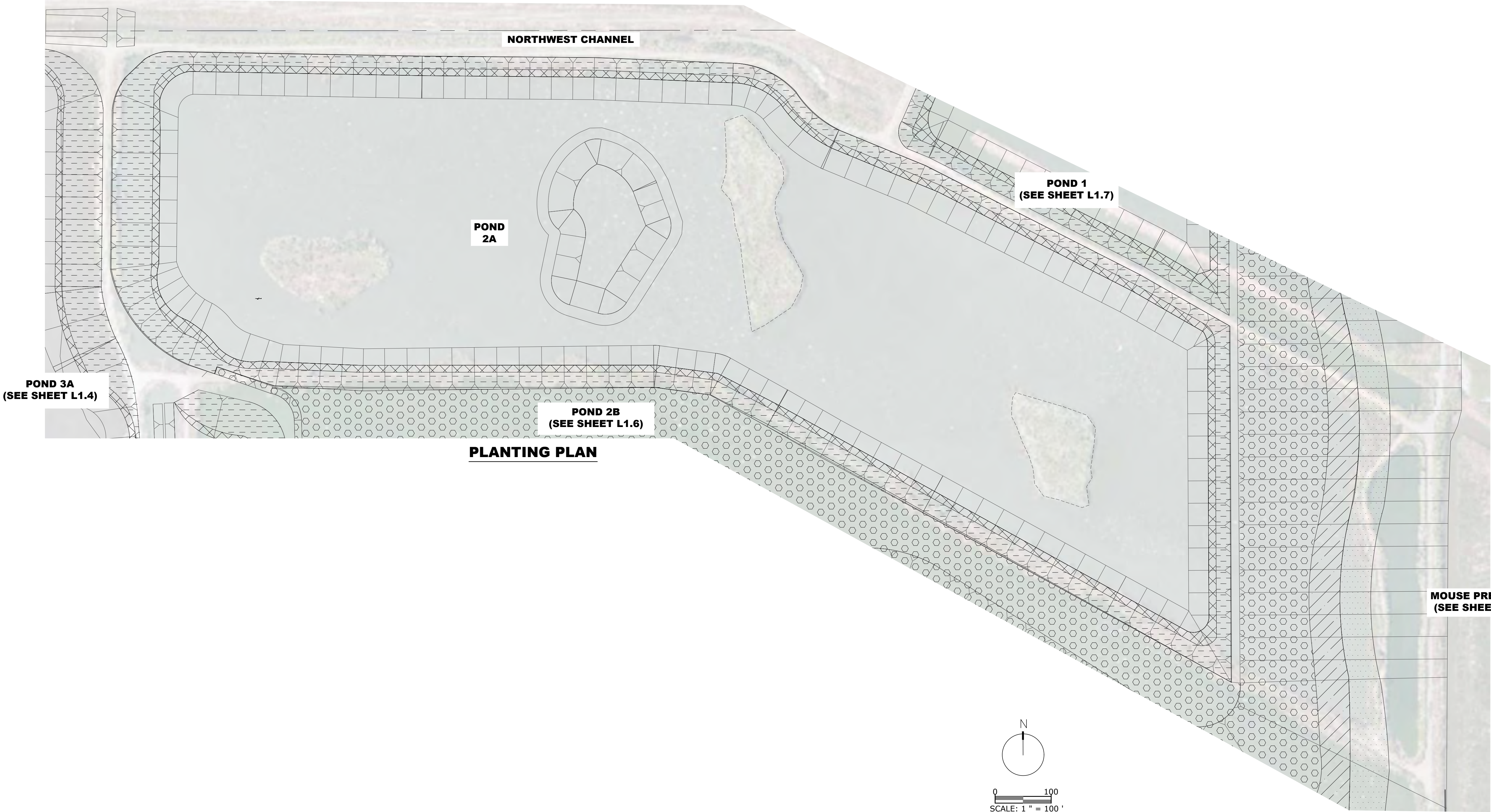
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PROJECT NUMBER:  
CONTRACT NUMBER:  
DRAWING SCALE:  
SHEET TITLE

POND\_3A  
PLANTING  
PLAN



- PLANTING & SEEDING LEGEND
- TRANSITIONAL ZONE PLANTING & SEEDING AREA
  - UPLAND PLANTING & SEEDING AREA
  - MUTED TIDAL PLANTING AREA
  - TRANSITIONAL ZONE SEEDING AREA
  - UPLAND SEEDING AREA



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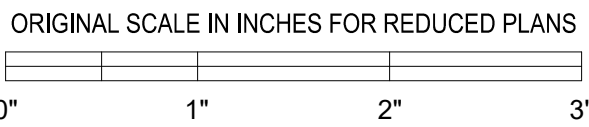
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SHEET TITLE

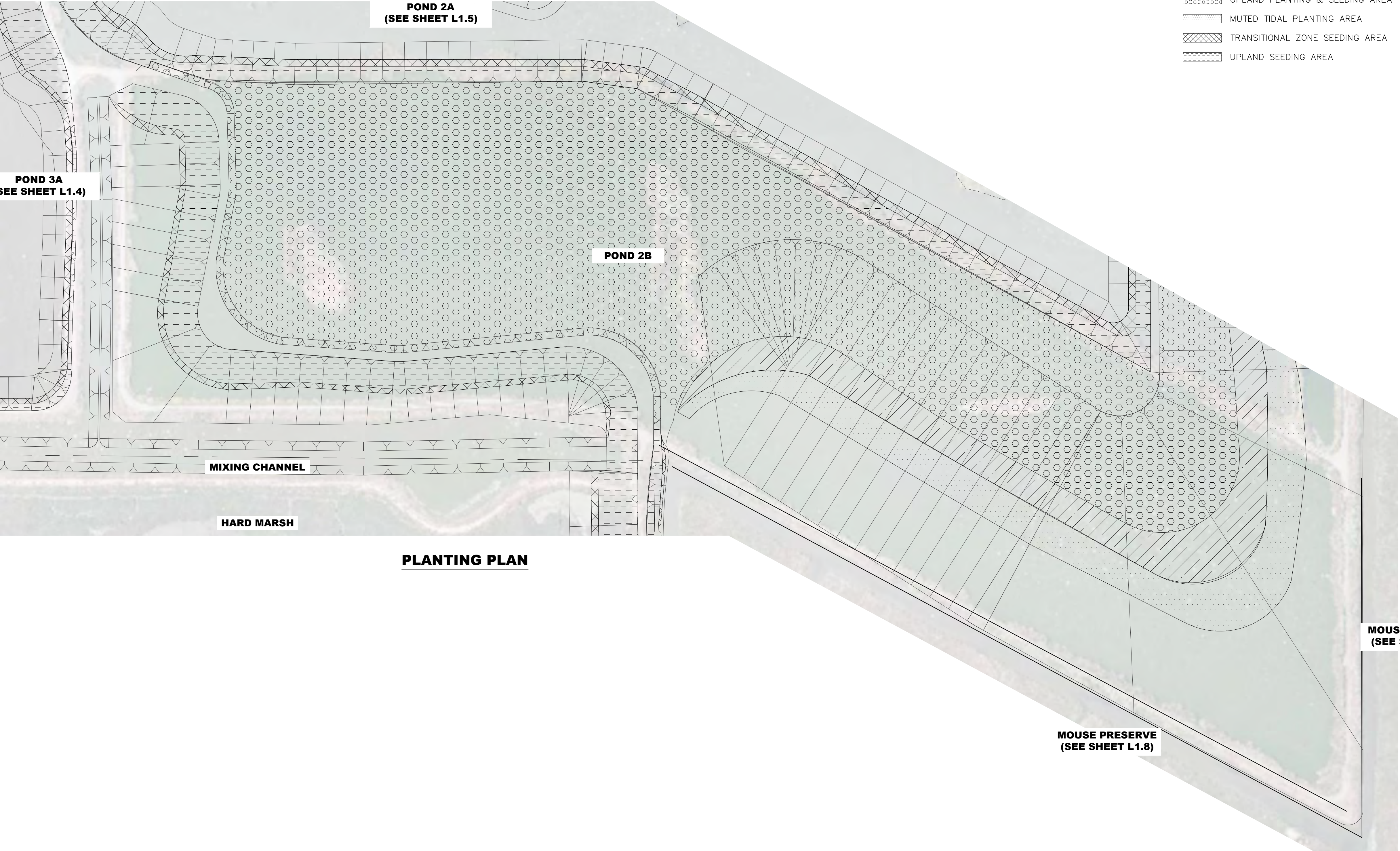
POND\_2A  
PLANTING  
PLAN

SHEET NO.

SHEET: 23  
OF: 31

L1.4





**PLANTING PLAN**

**PLANTING & SEEDING LEGEND**

- TRANSITIONAL ZONE PLANTING & SEEDING AREA
- UPLAND PLANTING & SEEDING AREA
- MUTED TIDAL PLANTING AREA
- TRANSITIONAL ZONE SEEDING AREA
- UPLAND SEEDING AREA

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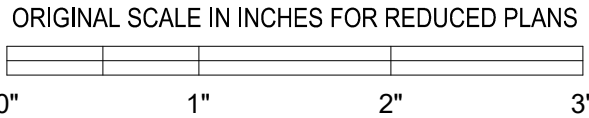
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PROJECT NUMBER:  
CONTRACT NUMBER:  
DRAWING SCALE:

SHEET TITLE

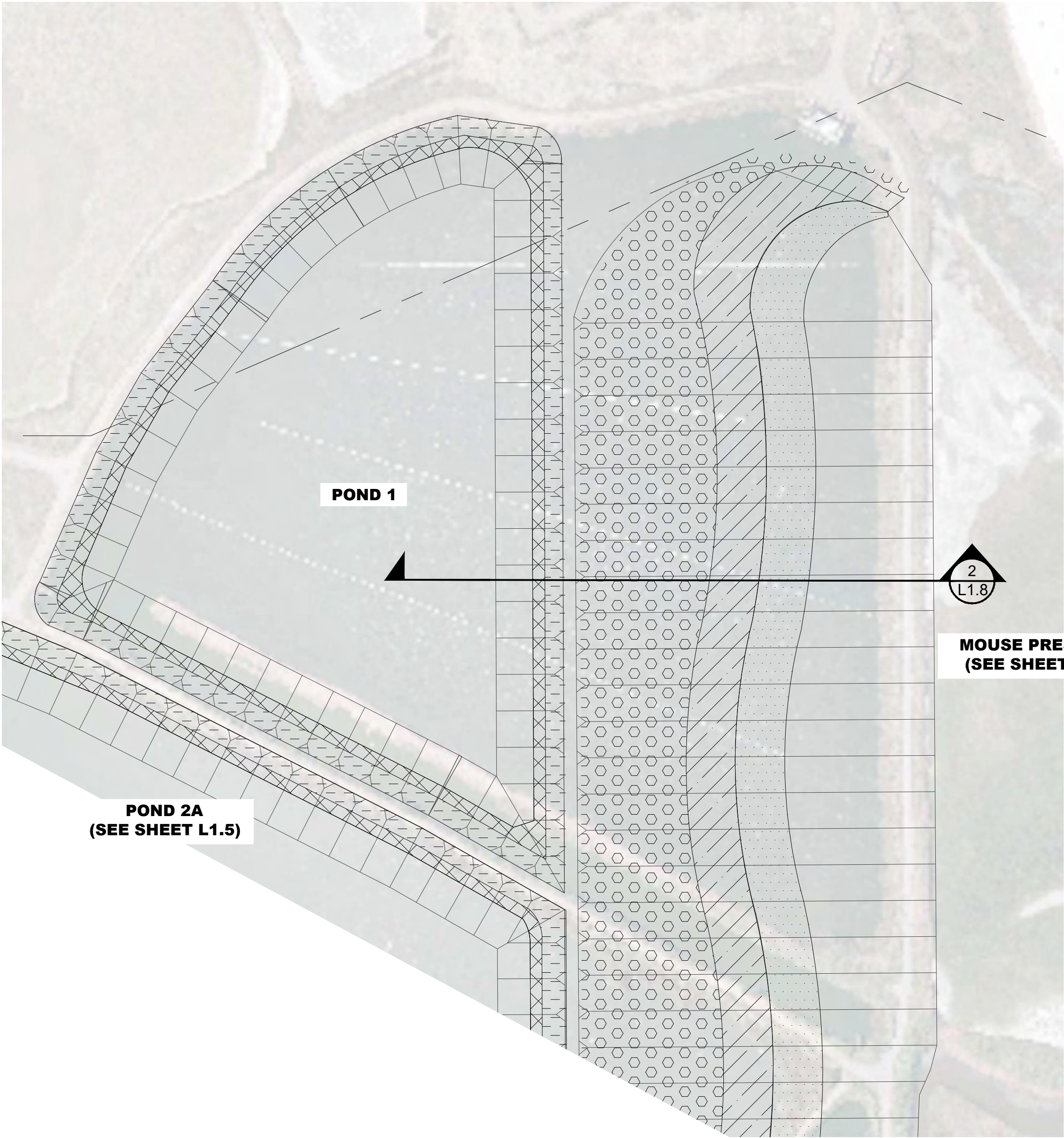
POND\_2B  
PLANTING  
PLAN

SHEET NO.

SHEET: 24  
OF: 31

L1.5



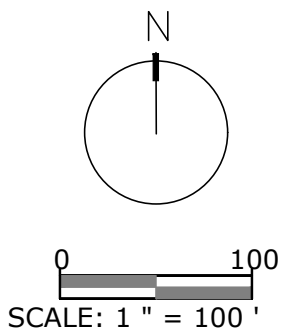


MOUSE PRESERVE  
(SEE SHEET L1.9)

POND 2A  
(SEE SHEET L1.5)

POND 1

2  
L1.8



**PLANTING PLAN**

**PLANTING & SEEDING LEGEND**

- TRANSITIONAL ZONE PLANTING & SEEDING AREA
- UPLAND PLANTING & SEEDING AREA
- MUTED TIDAL PLANTING AREA
- TRANSITIONAL ZONE SEEDING AREA
- UPLAND SEEDING AREA

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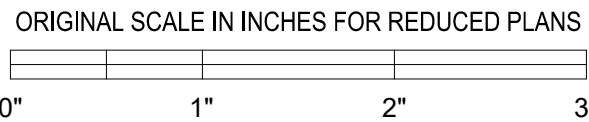
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CONTRACT NUMBER:  
DRAWING SCALE:

SHEET TITLE

POND\_1  
PLANTING  
PLAN

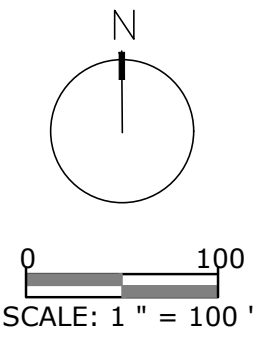
SHEET NO.  
SHEET: 25  
OF: 31

L1.6





- PLANTING & SEEDING LEGEND**
- TRANSITIONAL ZONE PLANTING & SEEDING AREA
  - UPLAND PLANTING & SEEDING AREA
  - MUTED TIDAL PLANTING AREA
  - TRANSITIONAL ZONE SEEDING AREA
  - UPLAND SEEDING AREA



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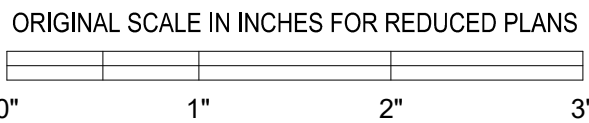
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


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(FORMER USD  
TREATMENT MARSH)

HAYWARD, CA

PROJECT NUMBER:  
CONTRACT NUMBER:  
DRAWING SCALE:

SHEET TITLE

MOUSE\_PRESERVE  
PLANTING  
PLAN

SHEET NO.  
SHEET: 26  
OF: 31

L1.7



PLANTING NOTES

1. PLANTING NOTES DESCRIBED IN THE DISTRICT'S STANDARD PLAN NUMBER 601 SHALL BE USED AS APPLICABLE.
2. PLANT INSTALLATION SHALL OCCUR BETWEEN OCTOBER 15TH AND DECEMBER 31ST OR AS APPROVED BY THE OWNER'S REPRESENTATIVE. ANY IRRIGATION SYSTEMS SHALL BE OPERATIONAL PRIOR TO PLANTING.
3. PLANTINGS SHALL BE INSTALLED IN CLUSTERS WITHIN THE UPLAND, TRANSITION ZONE, AND MUTED TIDAL MARSH PLANTING AREAS COMPRISING APPROXIMATELY 20% OF THE TOTAL AREA.
4. THE CONTRACTOR SHALL STAKE OR MARK THE OUTER LIMITS OF THE PLANTING AREAS AND A TYPICAL LAYOUT FOR APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. THE ELEVATION RANGES FOR THE PLANTING AREAS SHALL BE FINALIZED FOLLOWING EARTHWORK ACTIVITIES AND BASED ON OBSERVATIONS OF THE POST-CONSTRUCTION TIDAL RANGE WITHIN THE PROJECT AREA. THE CONTRACTOR SHALL ENSURE THAT THE PLANTINGS ARE INSTALLED WITHIN THE APPROPRIATE ELEVATION RANGES.
5. FOLIAGE PROTECTION CAGES SHALL BE INSTALLED AROUND SHRUB PLANTINGS AS NEEDED TO PREVENT HERBIVORY.

UPLAND ZONE PLANT PALETTE

SYMBOL	BOTANICAL NAME	COMMON NAME	CONTAINER SIZE	SPACING (O.C. FEET)	APPROX. PLANTING ELEVATION
BAC PIL	BACCHARIS PILULARIS VAR. PILULARIS	COYOTE BRUSH (PROSTRATE FORM)	D-40 OR EQ	6.0	>9.00'
ERI NUD	ERIOGONUM NUDUM	BUCKWHEAT	D-40 OR EQ	3.0	
FRA CAL	FRANGULA CALIFORNICA	COFFEEBERRY	D-40 OR EQ	8.0	
HET ARB	HETEROMELES ARBUTIFOLIA	TOYON	D-40 OR EQ	8.0	
LUP ALB	LUPINUS ALBIFRONS	SILVER BUSH LUPINE	D-40 OR EQ	4.0	
MIM AUR	MIMULUS AURANTIACUS	STICKY MONKEY FLOWER	D-40 OR EQ	5.0	
ROS CAL	ROSA CALIFORNICA	CALIFORNIA ROSE	D-40 OR EQ	8.0	
SCR CAL	SCROPHULARIA CALIFORNICA	BEE PLANT	D-40 OR EQ	3.0	

TRANSITION ZONE PLANT PALETTE

SYMBOL	BOTANICAL NAME	COMMON NAME	CONTAINER SIZE	SPACING (O.C. FEET)	APPROX. PLANTING ELEVATION
BAC GLU	BACCHARIS GLUTINOSA	SALT MARSH BACCHARIS	D-16 OR EQ	3.0	7.50' - 8.50'
BAC PIL	BACCHARIS PILULARIS VAR. PILULARIS	COYOTE BRUSH (PROSRATE FORM)	D-16 OR EQ	6.0	> 8.00'
DIS SPI	DISTICHLIS SPICATA	SALT GRASS	4" POT OR EQ	1.5	7.25' - 9.00
FRA SAL	FRANKENIA SALINA	ALKALI HEATH	4" POT OR EQ	2.0	7.00' - 8.50'
GRI STR	GRINDELIA STRICTA VAR. ANGUSTIFOLIA	MARSH GUMPLANT	D-16 OR EQ	3.0	7.25' - 8.25'
SYM CHI	SYMPHYOTRICHUM CHILENSE	CALIFORNIA ASTER	D-16 OR EQ	3.0	7.25' - 9.00'

MUTED TIDAL MARSH PLANT PALETTE

SYMBOL	BOTANICAL NAME	COMMON NAME	CONTAINER SIZE	SPACING (O.C. FEET)	APPROX. PLANTING ELEVATION
DIS SPI	DISTICHLIS SPICATA	SALT GRASS	4" POT OR EQ	1.5	6.50' - 7.50'
FRA SAL	FRANKENIA SALINA	ALKALI HEATH	4" POT OR EQ	2.0	7.00' - 8.50'
JAU CAR	JAUMEA CARNOSA	FLESHY JAUMEA	4" POT OR EQ	2.0	6.50' - 7.50'
LIM CAL	LIMONIUM CALIFORNICUM	WESTERN MARSH ROSEMARY	4" POT OR EQ	2.0	7.00' - 7.50'
SAL PAC	SALICORNIA PACIFICA	CALIFORNIA PICKLEWEED	4" POT OR EQ	2.0	5.75' - 7.00'
TRI MAR	TRIGLOCHIN MARITIMA	SEASIDE ARROWGRASS	4" POT OR EQ	2.0	6.50' - 7.50'

SEEDING NOTES

1. SEED SHALL BE SUPPLIED ON THE BASIS OF PURE LIVE SEED (PLS).
2. SEEDING AREAS SHALL BE MARKED PRIOR TO SEED APPLICATION AND APPROVED BY THE OWNER'S REPRESENTATIVE.
3. SOIL WILL BE PREPARED FOR SEED INSTALLATION BY HAND RAKING OR DISKING.
4. SEED APPLICATION METHODS SHALL INCLUDE DRILL SEEDING OR HYDROSEEDING, DEPENDING ON ACCESS AND SLOPE.

UPLAND ZONE SEED MIX

SYMBOL	BOTANICAL NAME	COMMON NAME	PURE LIVE SEED POUND/ACRE	APPROX. PLANTING ELEVATION
ACH MIL	ACHILLEA MILLEFOLIUM	YARROW	0.50	>9.00'
ACM AME	ACHISPON AMERICANUS	SPANISH CLOVER	0.50	
AMB PSI	AMBROSIA PSILOSTACHYA	WESTERN/PERENNIAL RAGWEED	1.00	
ART CAL	ARTEMISIA CALIFORNICA	CA SAGEBRUSH	0.15	
ART DOU	ARTEMISIA DOUGLASSIANA	CA MUGWORT	0.20	
BRO CAR	BROMUS CARINATUS	CALIFORNIA BROME	5.00	
CEN PUN	CENTROMADIA PUNGENS	COMMON SPIKEWEED/TARWEED	0.20	
DAN CAL	DANTHONIA CALIFORNICA	CALIFORNIA OAT GRASS	1.50	
ELY GLA	ELYMUS GLAUCUS	BLUE WILDRYE	4.00	
ELY TRI	ELYMUS TRITICOIDES	CREEPING WILD RYE	4.00	
ESC CAL	ESCHSCHOLZIA CALIFORNICA	CALIFORNIA POPPY	1.00	
FES MIC	FESTUCA MICROSTACHYS	THREE WEEKS FESCUE	6.00	
HET GRA	HETEROTHECA GRANDIFLORA	TELEGRAPH WEED	0.50	
HOR BRA	HORDEUM BRACHYANTHERUM	MEADOW BARLEY	4.00	
HOR DEP	HORDEUM DEPRESSUM	ALKALI BARLEY	4.00	
LAS GLA	LASTHENIA GLABRATA	CA GOLDFIELDS	1.00	
SIS BEL	SISYRINCHIUM BELLUM	BLUE-EYED GRASS	1.50	
STI PUL	STIPA PULCHRA	PURPLE NEEDLEGRASS	4.00	
TOTAL			39.05	

TRANSITION ZONE SEED MIX

SYMBOL	BOTANICAL NAME	COMMON NAME	PURE LIVE SEED POUND/ACRE	APPROX. PLANTING ELEVATION
ATR TRI	ATRIPLEX TRIANGULARIS	FAT HEN	2.00	7.50'-9.00'
BAC GLU	BACCHARIS GLUTINOSA	SALT MARSH BACCHARIS	2.00	
BAC PIL	BACCHARIS PILULARIS VAR. PILULARIS	COYOTE BRUSH (PROSTRATE FORM)	0.20	
DIS SPI	DISTICHLIS SPICATA	SALT GRASS	2.50	
ELY TRI	ELYMUS TRITICOIDES	CREEPING WILD RYE	4.00	
FRA SAL	FRANKENIA SALINA	ALKALI HEATH	0.50	
GRI STR	GRINDELIA STRICTA	MARSH GUMPLANT	2.00	
HOR DEP	HORDEUM DEPRESSUM	ALKALI BARLEY	4.00	
TOTAL			17.20	

NOTES:

1. QUALITY AND SIZE OF PLANTS SHALL BE IN ACCORDANCE WITH RULES AND GRADING ADOPTED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC., AND INCLUDED IN THE AMERICAN STANDARD FOR NURSERY STOCK. PLANTS SHALL HAVE A NORMAL HABIT OF GROWTH FOR THE SPECIES AND SHALL BE SOUND, HEALTHY, VIGOROUS, AND FREE OF DISEASE AND INSECTS.

2. CONTAINER-GROWN PLANTS SHALL HAVE BEEN GROWN IN CANS FOR A MINIMUM OF SIX MONTHS AND A MAXIMUM OF TWO YEARS. PLANTS SHALL HAVE SUFFICIENT ROOTS TO HOLD EARTH TOGETHER INTACT AFTER REMOVAL FROM CONTAINERS BUT NOT ROOT BOUND.

3. DURABLE LEGIBLE LABELS STATING IN WEATHER RESISTANT INK, THE CORRECT BOTANICAL NAME, SHALL BE SECURELY ATTACHED TO PLANTS DELIVERED TO THE SITE.

4. TREE STAKES SHALL BE 2" DIA GA-B OR ACQ PRESERVATIVE TREATED LODGE POLE PINE. STAKES SHALL BE LONG ENOUGH TO KEEP THE TREE IN AN UPRIGHT POSITION. IMMEDIATELY AFTER PLANTING INSTALL 2 STAKES PER TREE. DO NOT DAMAGE THE ROOT BALL. UON, DISTRICT SHALL REMOVE THE STAKES AS SOON AS THE TREE CAN SUPPORT ITSELF (GENERALLY WITHIN 6 TO 12 MONTHS).

5. PLANT TIES SHALL BE 1" WIDE EXTRUDED VINYL BASED TAPE AT LEAST 10 MILS THICK, ONE PER STAKE. EACH TIE MUST FORM A FIGURE 8 BY CROSSING BETWEEN THE TREE AND THE STAKE. INSTALL TIES AT LOWEST POSITION THAT WILL SUPPORT THE TREE. WRAP EACH END OF THE TIE 1-1/2 TURNS AROUND THE STAKE AND SECURELY TIE.

6. SOIL FOR BACKFILLING PITS SHALL BE MATERIAL GENERATED FROM PIT EXCAVATION CLEAN OF DEBRIS. NATIVE PLANT BACKFILL SHALL NOT BE AMENDED OR FERTILIZED.

7. SOIL AMENDMENT FOR NON-NATIVE PLANTS SHALL BE ONE OR A COMBINATION OF THE FOLLOWING: NITROLIZED FIR BARK OR GREEN COMPOST. MIX 1 PART AMENDMENT WITH 3 PARTS SOIL GENERATED FROM PIT EXCAVATION CLEAN OF DEBRIS.

8. NON-NATIVE NURSERY GROWN CONTAINER PLANTS SHALL RECEIVE A BIODEGRADABLE PACKET FERTILIZER WHICH SHALL HAVE A NUTRIENT RELEASE OVER 12-MONTH PERIOD. EACH PACKET SHALL BE 10 GRAMS AND BE 20% NITROGEN, 10% PHOSPHORIC ACID, AND 5% WATER SOLUBLE POTASH (20-10-5). SEE DISTRICT STANDARD PLANTING PLANS FOR NUMBER OF PACKET FERTILIZERS REQUIRED.

9. BACKFILL SHALL BE COMPACTED TO STABILIZE THE TREE OR SHRUB IN THE PLANTING PIT. COMPACT EVERY FEW SHOVELS OF BACKFILL USING A HAND TAMPER, THE HEEL OF YOUR FOOT, OR BY HAND. BE CAREFUL NOT TO APPLY EXCESSIVE PRESSURE (ESPECIALLY IN CLAY SOILS) WHICH WILL REDUCE SOIL POROSITY ESSENTIAL FOR HEALTHY ROOT GROWTH.

10. MULCH SHALL BE A MIX OF 1/3 GREEN COMPOST AND 2/3 WOOD CHIPS. CHIPS SHALL BE GENERATED ON-SITE OR DERIVED FROM CLEAN WOOD. PRIOR TO INSTALLATION SUBMIT A SAMPLE OF CHIPS DERIVED FROM CLEAN WOOD FOR APPROVAL. MULCH THE ENTIRE PLANTED AREA EXCEPT KEEP MULCH CLEAR FROM BASE OF TREE OR SHRUB.

11. A ROOT BARRIER SHALL BE USED WHERE TREE PLANTING IS WITHIN 10 FEET OF CONCRETE CURB OR SIDEWALK. ROOT BARRIER SHALL BE BLACK HDPE OR PE PLASTIC. LINEAR ROLL OR INTERLOCKING PANELS 24" MIN DEEP 0.05" MIN THICK AND HAVE VERTICAL 0.05" MIN THICK ROOT-DEFLECTING RIBS. INSTALL ROOT BARRIER VERTICAL AND ADJACENT TO CURB OR SIDEWALK WITH ROOT-DEFLECTING RIBS FACING ROOT BALL. TOP OF BARRIER SHALL BE 2 INCH BELOW TOP OF CONCRETE.

PLANTING NOTES

DRAWN ON REVISIONS DATE APPROVED03-23-15DATE: 5/1/16USE LHM, PE, CHIEF OF DESIGN & CONSTRUCTION SHEET T OF T

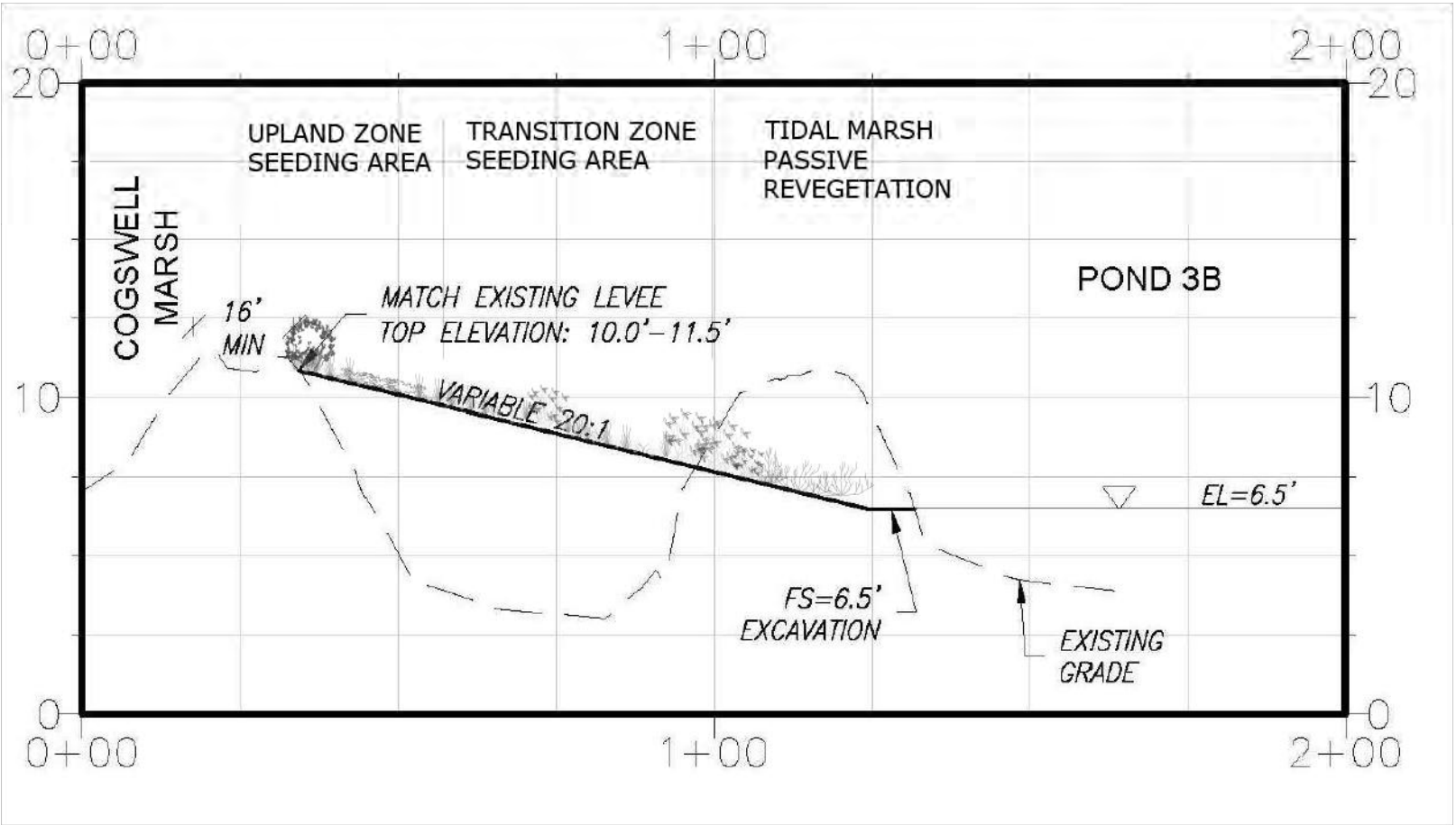
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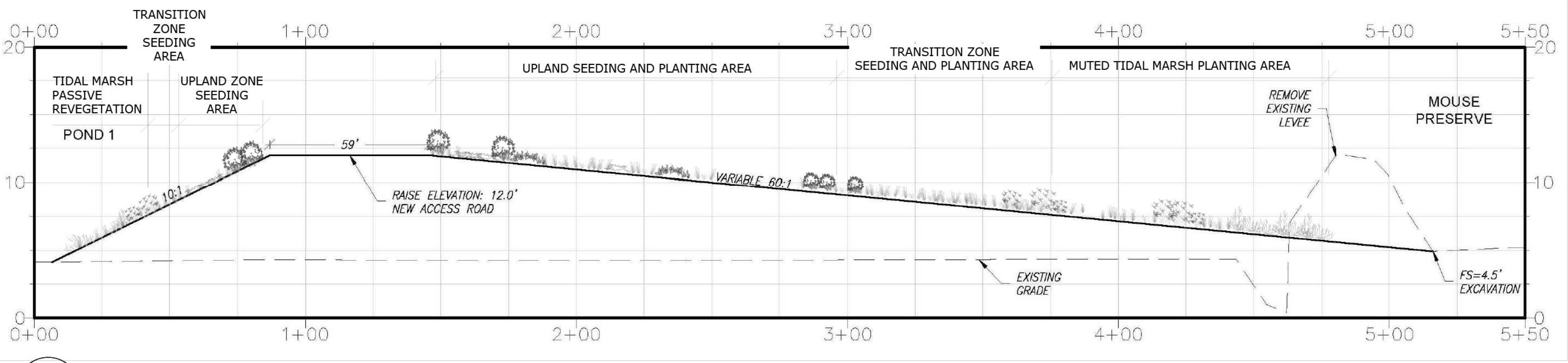
EAST BAY REGIONAL PARK DISTRICT - STANDARD PLANS

601

NOT TO SCALE



1 L1.2 TYPICAL CROSS SECTION OF POND LEVEE REVEGETATION NOT-TO-SCALE



2 L1.6 TYPICAL CROSS SECTION OF POND LEVEE AND MOUSE PRESERVE HORIZONTAL LEVEE REVEGETATION NOT-TO-SCALE

East Bay Regional Park District

2950 PERALTA OAKS COURT, OAKLAND, CA 94605  
WWW.EBPARKS.ORG 888-327-2757

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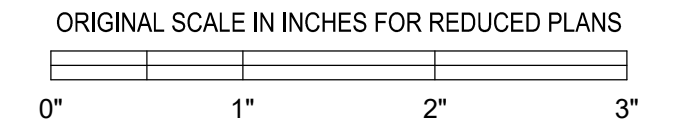
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CHIEF OF PARK OPERATIONS



811 Know what's below. Call before you dig. CALL 811 MINIMUM 2 WORKING DAYS MAXIMUM 14 CALENDAR DAYS



REVISIONS		
KEY	DESCRIPTION	DATE
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PROJECT

65% DESIGN  
NOT FOR CONSTRUCTION

RESTORE HAYWARD MARSH  
(FORMER USD TREATMENT MARSH)

HAYWARD, CA

PROJECT NUMBER:  
CONTRACT NUMBER:  
DRAWING SCALE:  
SHEET TITLE

PLANTING PALETTES AND NOTES

SHEET NO.  
SHEET: 27  
OF: 31

L1.8





- NOT-TO-SCALE

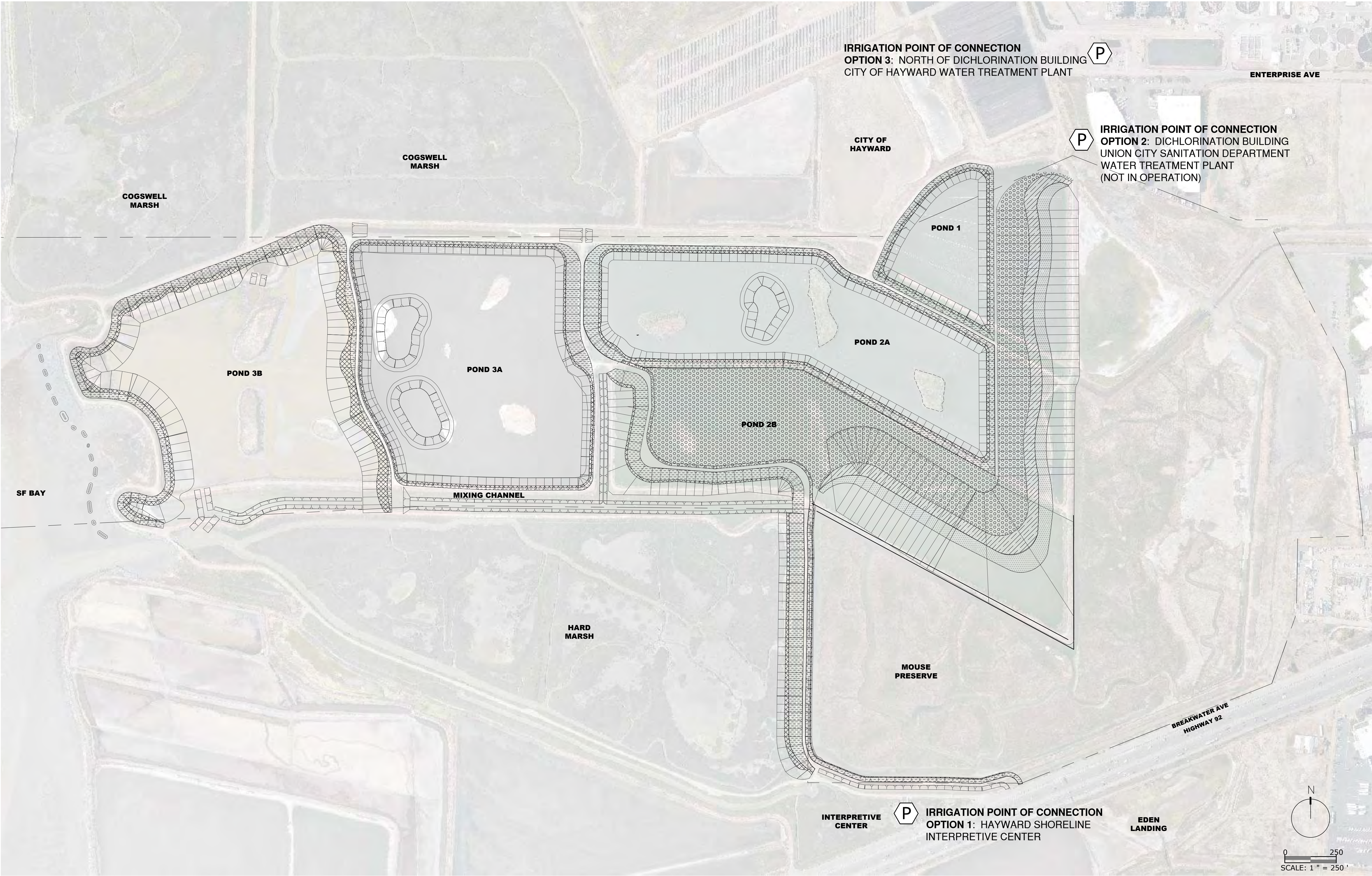
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## L1.9





**IRRIGATION LEGEND**


SYMBOL	DESCRIPTION
	POINT OF CONNECTION LOCATION

**IRRIGATION NOTES:**

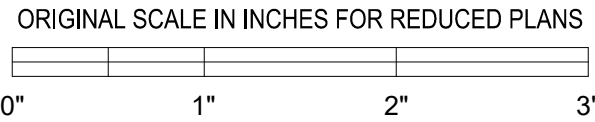
1. THE POINT OF CONNECTION(S) FOR THE IRRIGATION SYSTEMS SHALL BE DETERMINED BASED ON FLOW AND PRESSURE REQUIREMENTS AND GENERAL FEASIBILITY IN COORDINATION WITH THE DISTRICT.
2. A TEMPORARY DRIP OR OTHER TYPE OF APPROVED IRRIGATION SYSTEM SHALL BE USED FOR THE UPLAND PLANTINGS.
3. A TEMPORARY SPRAY OR OTHER APPROVED TYPE OF IRRIGATION SYSTEM SHALL BE USED FOR THE TRANSITION ZONE AND MUTED TIDAL MARSH PLANTINGS IF NECESSARY AND FEASIBLE.
4. THE IRRIGATION SYSTEMS SHALL BE INSTALLED AND OPERABLE PRIOR TO PLANT INSTALLATION UNLESS OTHERWISE APPROVED BY THE OWNER'S REPRESENTATIVE.
5. THE IRRIGATION SCHEDULES SHALL BE DETERMINED BASED ON LOCAL RAINFALL AND EVAPOTRANSPIRATION DATA. THE INTENT OF THE IRRIGATION SYSTEMS IS TO PROVIDE THE MINIMUM AMOUNT OF WATER TO SUSTAIN GOOD PLANT HEALTH.

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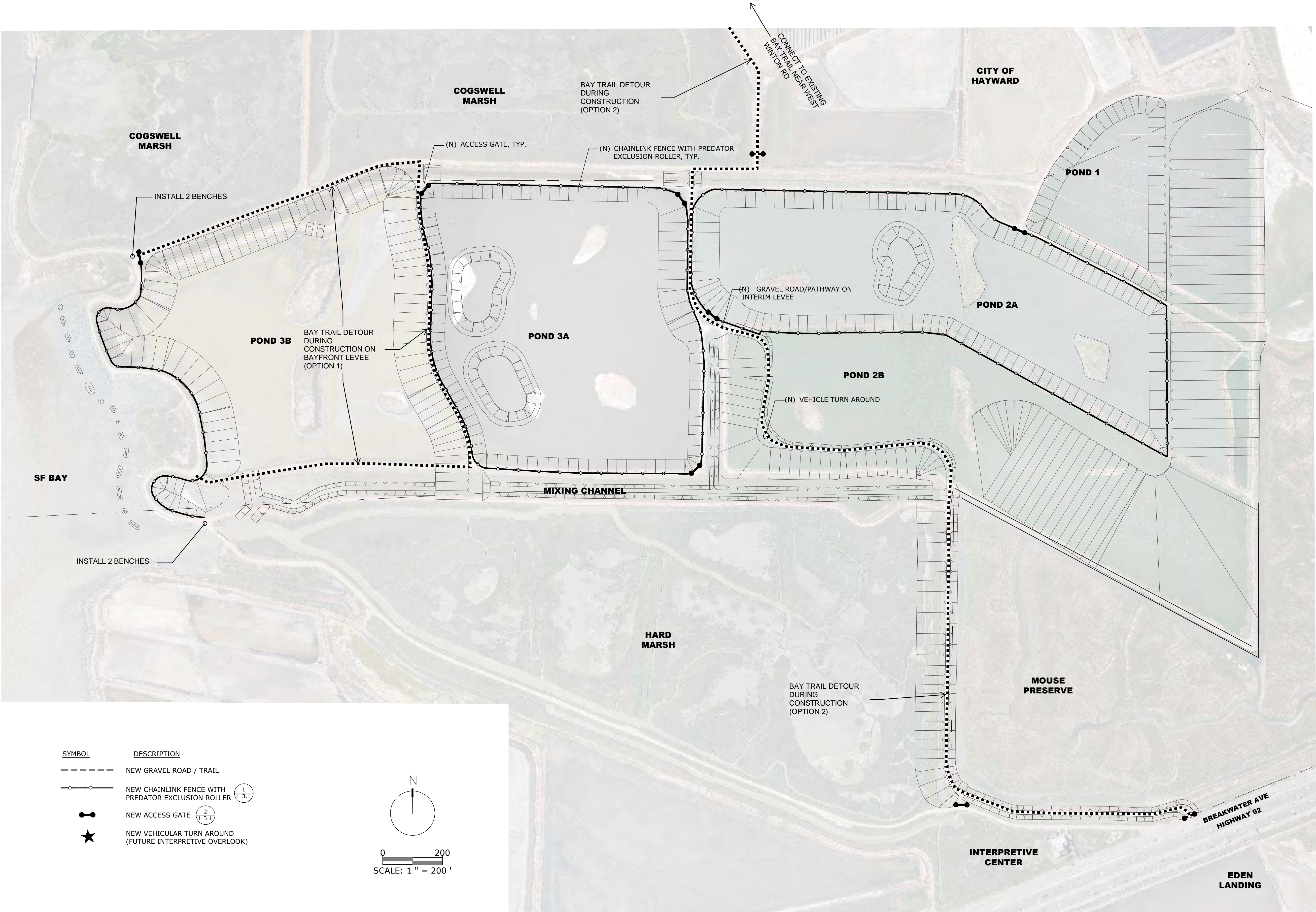
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RESTORE HAYWARD MARSH  
(FORMER USD  
TREATMENT MARSH)

HAYWARD, CA

PROJECT NUMBER:  
CONTRACT NUMBER:  
DRAWING SCALE:  
SHEET TITLE





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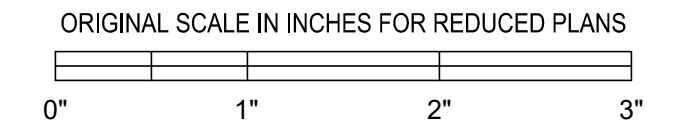
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RESTORE HAYWARD MARSH  
(FORMER USD  
TREATMENT MARSH)

HAYWARD, CA

PROJECT NUMBER:

CONTRACT NUMBER:

DRAWING SCALE:

SHEET TITLE

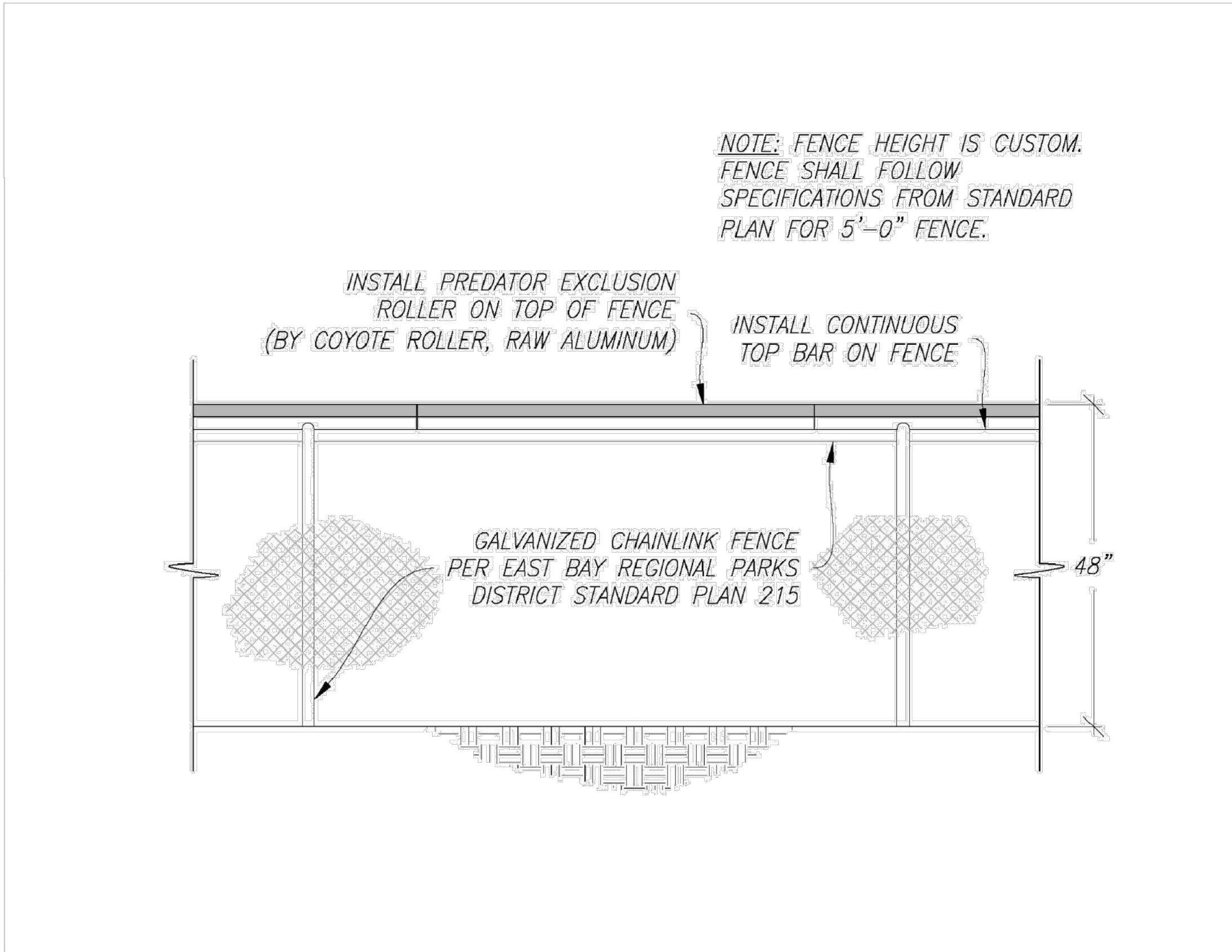
PUBLIC  
ACCESS  
PLAN

SHEET NO.

SHEET: 30  
OF: 31

L3.0





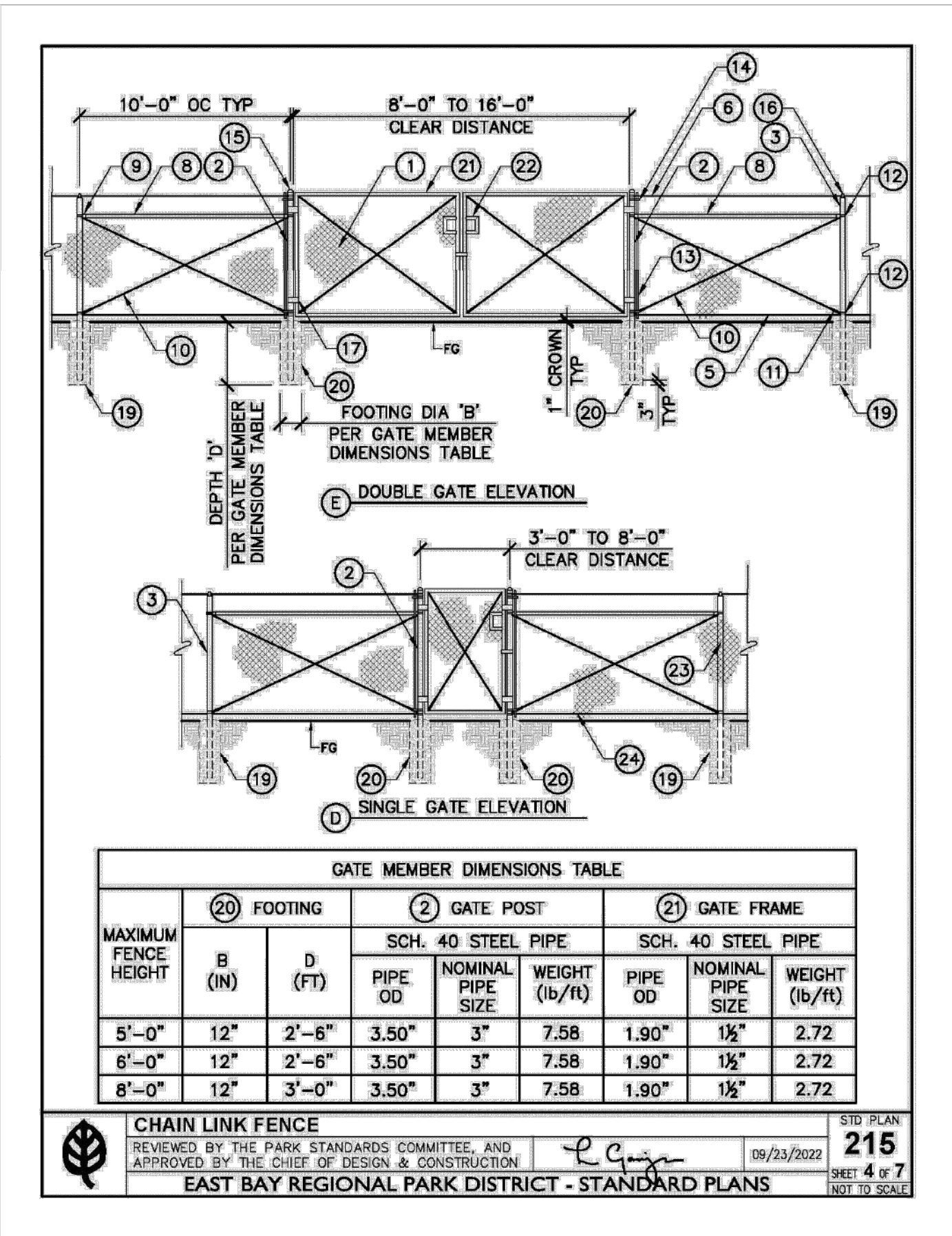
- NOTES
1. THE FENCE SHALL BE INSTALLED AT THE LOCATIONS SHOWN ON SHEET L3.0.
  2. COMPLETE SPECIFICATIONS FOR THE CHAINLINK FENCE ARE PROVIDED ON THE DISTRICT'S STANDARD PLAN 215, SHEETS 1 TO 7.

1

L3.0

CHAINLINK FENCE WITH PREDATOR EXCLUSION ROLLER

NOT-TO-SCALE



- NOTES
1. THE DOUBLE GATE (E) SHALL BE INSTALLED AT THE LOCATIONS SHOWN ON SHEET L3.0.
  2. COMPLETE SPECIFICATIONS FOR THE CHAINLINK FENCE AND GATES ARE PROVIDED ON THE DISTRICT'S STANDARD PLAN 215, SHEETS 1 TO 7.

2

L3.0

ACCESS GATE

NOT-TO-SCALE

INITIALS

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PROJECT

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RESTORE HAYWARD MARSH  
(FORMER USD  
TREATMENT MARSH)

HAYWARD, CA

PROJECT NUMBER:  
CONTRACT NUMBER:  
DRAWING SCALE:

SHEET TITLE

FENCE  
AND\_GATE  
DETAILS

SHEET NO.  
SHEET: 31  
OF: 31

L3.1