

**RECLAMATION DISTRICT NO. 1601
TWITCHELL ISLAND
BOARD OF TRUSTEES MEETING
TUESDAY, JULY 15, 2025
9:00 AM
ENGINEER'S REPORT**

I. PROJECT FUNDING AGREEMENT TW – 21 - 1.2 TIMES/TWERP PROJECT

A. Review the status of the Twitchell Island Wetland Enhancement & Restoration Project.

- a) Seek the Board of Trustees authority to go out to Bid for the Plans and specs for the planting/irrigation project anticipate the award the contract at the District's August Board Meeting.

EXHIBIT A: Plan Set from Still Water Sciences/Department of Water Resources

II. PROJECT FUNDING AGREEMENT TW – 24 - 1.0 - SP PHASE II OF DISTRICT MULTI-BENEFIT PROJECT

A. Review the status of the Twitchell Island Wetland Enhancement & restoration Project.

- a) The final design of Phase 1 (i.e., toe berm) is underway, anticipating the submittal of the plans & specifications to DWR towards the end of July.
- b) A meeting will be set up with DWR/CDFW shortly to discuss compensatory mitigation.
- c) GEI will be setting up a consultation with Delta Stewardship Council shortly regarding the Consistency Finding process.
- d) Anticipating bidding Phase 1 this fall and beginning construction in May 2026.

III. DISTRICT PUMP STATION SOLAR ARRAY

A. PGE Interconnection

- a) Interconnection agreement:
 - 1. Awaiting approval on electrical plan updates in response to Sacramento County review.
 - a. Updated SLD to reflect equipment changes has been submitted to PG&E.
- b) Transformer: – **PG&E has engaged in this conversation**

1. **We have requested a site meeting to discuss layout challenges at the site.**
 - a. **Only sub-surface transformers and constructed as watertight and cannot be installed above ground. The ground water at this location is very shallow, making installation in a vault sub-surface challenging.**
 - b. **Pad mount transformers cannot be installed on an elevated platform.**

B. Construction

a) Site work

1. As-built survey of final pile location conducted and analyzed for final baseplate fabrication and installation. – Complete
2. Pile cap elevation survey – Complete
3. Cut Piles to design elevation - Complete
4. Install Pile Caps – Completed
5. Weld Pile Pickhole Plugs - Completed
6. Galvanize Piles and Caps - Completed
7. Racking and Panel fabrication - Anticipated delivery in early May.
 - a. PV Modules – Delayed, racking installation re-scheduled to early June.
 - b. **PV Modules – Delivered 6/30/25 scheduled to start on 7/21.**

b) Scope Changes – No new changes to report

1. Change Order 01 – approved 2/11/25
 - a. WCD 01 – Domestic Content / Safe Harbor procurement.
2. Change Order 02 – approved 2/11/25
 - a. WCD 02 – Provide and Install 100 Ton Riprap to stabilize 3 subgrade locations identified during walkthrough.
 - b. WCD 03 – Expand drainage ditch crossing to install duct bank across drainage ditch withing easement.

- c. WCD 04 – Provide additional 710 Ton Riprap for expanded un-stabilized sub-grade at unit rate. Removed WCD 02 lump sum directive.
- d. WCD 05 – Add additional 2,400 Ton Class II - ¾-inch Aggregate.

3. Potential Changes

- a. Transformer upsize: A larger transformer is required for the size of the array. Waiting on PGE Interconnection requirements to determine size requirements.
- b. Transformer location: Depending on PGE Interconnection requirements pole mount vs. pad mount vs. platform mount.
- c. Switchgear location: Modify pump house to mount switchgear inside structure.
 - RFP in development, in review with electrical engineer. – Received minor comments from electrical engineer.
 - RFP in contractors' court, awaiting pricing. **Still pending pricing**
- d. Remove Concrete Bollards from Array Columns: Work Change Directive Issued.
- e. Data Acquisition System: Work Change Directive and CCO in development. – **On-going**

c) Forecasted Schedule

- 1. Carport racking installation –**Late July**.
- 2. Switchgear installation – ~~June~~/July/**August**.

C. Summary of additional costs: **No Additional costs approved this term.**

EXHIBIT B: Field Photos of delivered solar panels from KSN Inc Daily Field Reports

EXHIBIT C: Email from PG&E regarding electrical layout and transformer situation

IV. SYSTEMWIDE MULTI BENEFIT PROJECT SEVENMILE SLOUGH EROSION REPAIRS.

A. Review the status of the erosion repair project.

a) Plans

1. Currently at 60% and will be at 90% by the end of the week. (Updated imagery needed)
2. Will submit to DWR for review by end of week.

b) Environmental

1. US Army Corps of Engineers (USACE) Nation Wide Permit (NWP) and State of California Regional Water Quality Control Board (RWQCB) permit applications are drafted and ready to be sent once plans are ready for review. (by end of week)
2. State of California Department of Fish & Wildlife (DF&W) 1600 Permit has been prepared for submittal and can be finalized once plans are ready. (will submit by end of week)
3. Dianne Moore, our contract Biologist, is scheduled to conduct the Biological Assessment, unknown on actual date she has been very busy. KSN is urging her to complete it soon.

EXHIBIT D: Draft Plans

V. AB 360 LEVEE SUBVENTIONS PROGRAM

- ##### **A. Review discovery of Levee Seepage at Levee Station 235+00 just east of the center Island road along Sevenmile Slough Levee. Review with the Board of Trustees and seek authority to core trench this area to suppress the seepage.**

EXHIBIT E: Field Photos of seepage at toe of levee

EXHIBIT F: Base Map and Cross-Sections of levee in area of seepage

EXHIBIT A

SACRAMENTO COUNTY, CA

DESIGN INTENT. THESE DRAWINGS REPRESENT THE GENERAL DESIGN INTENT TO BE IMPLEMENTED AND CONTRACTOR IS RESPONSIBLE FOR ALL ITEMS SHOWN ON THESE PLANS. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE PROJECT MANAGER FOR ANY CLARIFICATIONS OR FURTHER DETAILS NECESSARY TO ACCOMMODATE ACTUAL SITE CONDITIONS. ANY DEVIATION FROM THESE PLANS WITHOUT THE LANDOWNER'S REPRESENTATIVE APPROVAL ARE AT THE CONTRACTOR'S OWN RISK AND EXPENSE. NOTIFY PROJECT MANAGER IMMEDIATELY OF ANY UNEXPECTED AND CHANGED CONDITIONS, SAFETY HAZARDS, AND ENVIRONMENTAL PROBLEMS ENCOUNTERED.

2. **JOB SITE CONDITIONS AND CONTRACTOR RESPONSIBILITY.** CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR SITE CONDITIONS DURING THE COURSE OF THE CONSTRUCTION OF THIS PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY, AND ALL ENVIRONMENTAL PROTECTION ELEMENTS, WHETHER SHOWN ON THESE DRAWINGS OR NOT. CONTRACTOR SHALL FOLLOW ALL APPLICABLE CONSTRUCTION AND SAFETY REGULATIONS. THESE REQUIREMENTS SHALL APPLY CONTINUOUSLY AND WILL NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE LANDOWNER OR THE ENGINEER (STILLWATER SCIENCES) HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT FROM LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE LANDOWNER OR ENGINEER.

3. **DAMAGE.** CONTRACTOR SHALL EXERCISE CARE TO AVOID DAMAGE TO EXISTING PUBLIC AND PRIVATE PROPERTY, INCLUDING NATIVE TREES AND SHRUBS, AND OTHER PROPERTY IMPROVEMENTS. IF CONTRACTOR CAUSES DAMAGES TO SUCH ITEMS, HE SHALL BE RESPONSIBLE FOR REPAIR OR REPLACEMENT IN LIKE NUMBER, KIND, CONDITION, AND SIZE. ANY SUCH COST MAY BE DEDUCTED BY OWNER FROM MONIES DUE CONTRACTOR UNDER THIS CONTRACT.

4. **LIMITS OF WORK, ACCESS, STAGING AND MOBILIZATION AREAS.** THE APPROXIMATE LIMITS OF WORK ARE SHOWN ON THE DRAWINGS. EXACT LIMITS OF WORK, POINTS OF INGRESS-EGRESS, CREEK CHANNEL ACCESS, MOBILIZATION, STAGING, AND WORK AREAS WILL BE FLAGGED IN THE FIELD BY THE ENGINEER. EQUIPMENT MAINTENANCE AND FUELING MUST OCCUR OUTSIDE OF THE CHANNEL AREA AS DESCRIBED IN THE ENVIRONMENTAL PERMITS FOR THE PROJECT.

5. **PLANTING DESIGN.** THE PLANTING PLAN SET CONTAINED HEREIN IS FOR CONCEPTUAL DESIGN AND PLANNING PURPOSES ONLY. REQUIRED ON-SITE ENGINEERING, ADAPTATION, AND FINAL DESIGN DECISIONS ARE THE SOLE RESPONSIBILITY OF THE PROJECT MANAGER, CLIENT, AND/OR FIELD ENGINEER. THIS PLAN SET SHALL NOT BE INTERPRETED AS FINAL ENGINEERING DESIGN OR A GUARANTEE OF PROJECT SUCCESS. IT IS DISTINCTLY UNDERSTOOD THAT FINAL PLANT SPECIES SELECTION, QUANTITIES, PLACEMENT, AND ALL OTHER PROJECT IMPLEMENTATION DECISIONS SHALL BE MADE ON-SITE AND AT THE DISCRETION OF THE AFOREMENTIONED PARTIES.

6. **IRRIGATION DESIGN.**

6.1. **BASIS OF DESIGN:** THE IRRIGATION SYSTEM LAYOUT, COMPONENTS, AND WATERING SCHEDULES SHOWN ON THESE PLANS ARE BASED ON THE ENGINEER'S APPROXIMATION OF PLANT WATER REQUIREMENTS DERIVED FROM ESTIMATED PLANT MATERIAL QUANTITIES AND TYPES, AND ASSUMED SITE CONDITIONS. THIS DESIGN REPRESENTS A GENERAL GUIDELINE FOR ACHIEVING ADEQUATE IRRIGATION COVERAGE AND WATER CONSERVATION.

6.2. **PUMP SIZING:** PUMP SELECTION INDICATED HEREIN IS BASED ON ESTIMATED FLOW RATES REQUIRED FOR THE CONCEPTUALIZED ZONES AND CALCULATED TOTAL DYNAMIC HEAD (TDH), INCORPORATING ASSUMPTIONS FOR FRICTION LOSSES, ELEVATION CHANGES, AND REQUIRED OPERATING PRESSURES. ACTUAL FIELD CONDITIONS MAY VARY.

6.3. **CONTRACTOR RESPONSIBILITY - VERIFICATION:** THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR FIELD VERIFYING ALL SITE CONDITIONS, INCLUDING BUT NOT LIMITED TO, POINT OF CONNECTION PRESSURE AND FLOW, ELEVATION CHANGES, SOIL TYPES, PLANTING LOCATIONS, AND DIMENSIONS PRIOR TO COMMENCING INSTALLATION. ANY DISCREPANCIES AFFECTING THE PROPOSED DESIGN SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION IMMEDIATELY.

6.4. **CONTRACTOR RESPONSIBILITY - INSTALLATION & FIELD ENGINEERING:** THE IRRIGATION SYSTEM WILL REQUIRE SIGNIFICANT FIELD FITTING AND ADJUSTMENTS. THE CONTRACTOR IS RESPONSIBLE FOR THE FINAL LAYOUT, ROUTING, COMPONENT PLACEMENT, AND ALL NECESSARY FIELD ENGINEERING TO ENSURE A FULLY FUNCTIONAL AND OPERATIONAL SYSTEM CONFORMING TO THE DESIGN INTENT AND ACTUAL SITE CONDITIONS. THIS INCLUDES ADJUSTMENTS TO PIPE ROUTING, HEAD LOCATIONS, NOZZLE SELECTION, AND ZONE CONFIGURATIONS AS REQUIRED.

6.5. **PERFORMANCE & LIABILITY:** THE INFORMATION PROVIDED ON THESE PLANS IS INTENDED AS A GUIDELINE FOR BIDDING AND CONSTRUCTION. THE ENGINEER/DESIGNER ASSUMES NO LIABILITY OR RESPONSIBILITY FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, OR SAFETY PRECAUTIONS CONNECTED WITH THE INSTALLATION, NOR FOR THE PERFORMANCE, OPERATION, COVERAGE, OR MAINTENANCE OF THE FINAL INSTALLED IRRIGATION SYSTEM. THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR THE COMPLETE INSTALLATION, FUNCTIONALITY, AND PERFORMANCE THEREOF.

6.6. **COMPLIANCE:** THE CONTRACTOR SHALL INSTALL THE IRRIGATION SYSTEM IN ACCORDANCE WITH ALL APPLICABLE LOCAL CODES, ORDINANCES, MANUFACTURER'S RECOMMENDATIONS, AND INDUSTRY BEST PRACTICES.

7. **BEST MANAGEMENT PRACTICES FOR CONSTRUCTION ACTIVITIES:** ERODED SEDIMENTS AND OTHER POLLUTANTS MUST BE RETAINED ONSITE AND MAY NOT BE TRANSPORTED FROM THE SITE VIA SHEET FLOW, SWALES, AREA DRAINS, NATURAL DRAINAGE COURSES, OR WIND. STOCKPILES OF EARTH AND OTHER CONSTRUCTION RELATED MATERIALS MUST BE PROTECTED FROM BEING TRANSPORTED FROM THE SITE BY THE FORCES OF WIND OR WATER. FUELS, OILS, SOLVENTS, AND OTHER TOXIC MATERIALS MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND ARE NOT TO CONTAMINATE THE SOIL AND SURFACE WATERS. ALL APPROVED STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER. SPILLS MAY NOT BE WASHED INTO THE DRAINAGE SYSTEM. EXCESS OR WASTE CONCRETE MAY NOT BE WASHED INTO PUBLIC WAY OR ANY OTHER DRAINAGE SYSTEM. PROVISIONS MUST BE MADE TO RETAIN CONCRETE WASTES ON SITE UNTIL THEY CAN BE DISPOSED AS A SOLID WASTE. TRASH AND CONSTRUCTION RELATED SOLID WASTE MUST BE DEPOSITED INTO A COVERED WASTE RECEPTACLE TO PREVENT CONTAMINATION OF RAINWATER AND DISPERSAL BY WIND. SEDIMENTS AND OTHER MATERIAL MAY NOT BE TRACKED FROM TO THE SITE BY VEHICLE TRAFFIC.

The map displays the Sacramento-San Joaquin River Delta. Major waterways include the Sacramento River, San Joaquin River, and various islands such as Andrus Island, Webb Tract, Bradford Island, and Twitchell Island. State Highways 160, 12, and 152 are shown. A black box on Twitchell Island is labeled 'PROJECT LOCATION'.

An aerial photograph showing a landscape with various land uses. A large, irregularly shaped area in the upper-middle portion of the image is outlined in black. This outlined area appears to be a wetland or marsh, characterized by its darker, more textured appearance compared to the surrounding agricultural fields. The fields are divided into rectangular plots, some of which are green, suggesting recent planting or irrigation. A winding road or canal runs along the top edge of the outlined area. The overall image has a grainy, historical quality.

Sheet Number	Sheet Title
1	TITLE SHEET
2	OVERVIEW
3	PLAN VIEW
4	PLANTING PLAN 1 - WEST SIDE
5	PLANTING PLAN 2 - CENTER
6	PLANTING PLAN 3 - EAST SIDE
7	PLANTING PLAN 4 - TULE PLANTING AND SEEDING
8	PLANTING TABLES - WOODLAND
9	PLANTING TABLES - BLACK WILLOW FOREST
10	PLANTING TABLES - COTTONWOOD
11	PLANTING TABLES - COYOTE BRUSH
12	PLANTING TABLES - MULEFAT
13	PLANTING TABLES - ROSE BRIAR
14	PLANTING TABLES - WILLOW SCRUB
15	PLANTING TABLES - TULE
16	INFRASTRUCTURE PLANVIEW DETAILS
17	WEST-EAST TYPICAL SECTIONS
18	SOUTH-NORTH TYPICAL SECTIONS
19	DITCH FLOWLINE PROFILES 1
20	DITCH FLOWLINE PROFILES 2
21	IRRIGATION LAYOUT
22	IRRIGATION DETAILS
23	IRRIGATION SYSTEM DIAGRAM
24	PLANTING DETAILS
25	PLANTING DETAILS (2)

<E>	EXISTING
<P>	PROPOSED
	EXISTING TREE (SURVEYED)
	EXISTING TREE (APPROXIMATE LOCATION)
	EXISTING POOL (APPROXIMATE LOCATION)
	LARGE WOOD FEATURE NUMBER
	INDIVIDUAL LOG OR ROOTWAD DESIGNATION
	DETAIL # ON SHEET
	SHEET #

SACRAMENTO COUNTY, CA

2855 TELEGRAPH AVENUE, SUITE 400
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NO.	DESCRIPTION	DATE

SCALE: AS NOTED

DATE: 7/10/25

DESIGN: RT/JB

DRAWN: BW/HG

CHECKED: JB

APPROVED: RT

TITLE SHEET

SHEET 1 OF 25

SACRAMENTO COUNTY, CA

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REVISIONS

NO.	DESCRIPTION	DATE

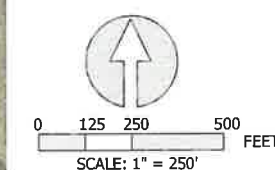
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| | WATER SURFACE ELEVATION |
| | EXISTING ROAD |
| | HEAD DITCH |
| | WATER LINE |
| | EXISTING FENCE LINE |

DESIGN: RT/JB
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CHECKED: JB
APPROVED: RT

OVERVIEW

SHEET 2 OF 25





**TWITCHELL ISLAND
MITIGATION AND
ENHANCEMENT SITES -
DESIGN PROJECT**
SACRAMENTO COUNTY, CA

Stillwater Sciences

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REVISIONS

NO.	DESCRIPTION	DATE

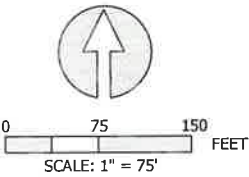
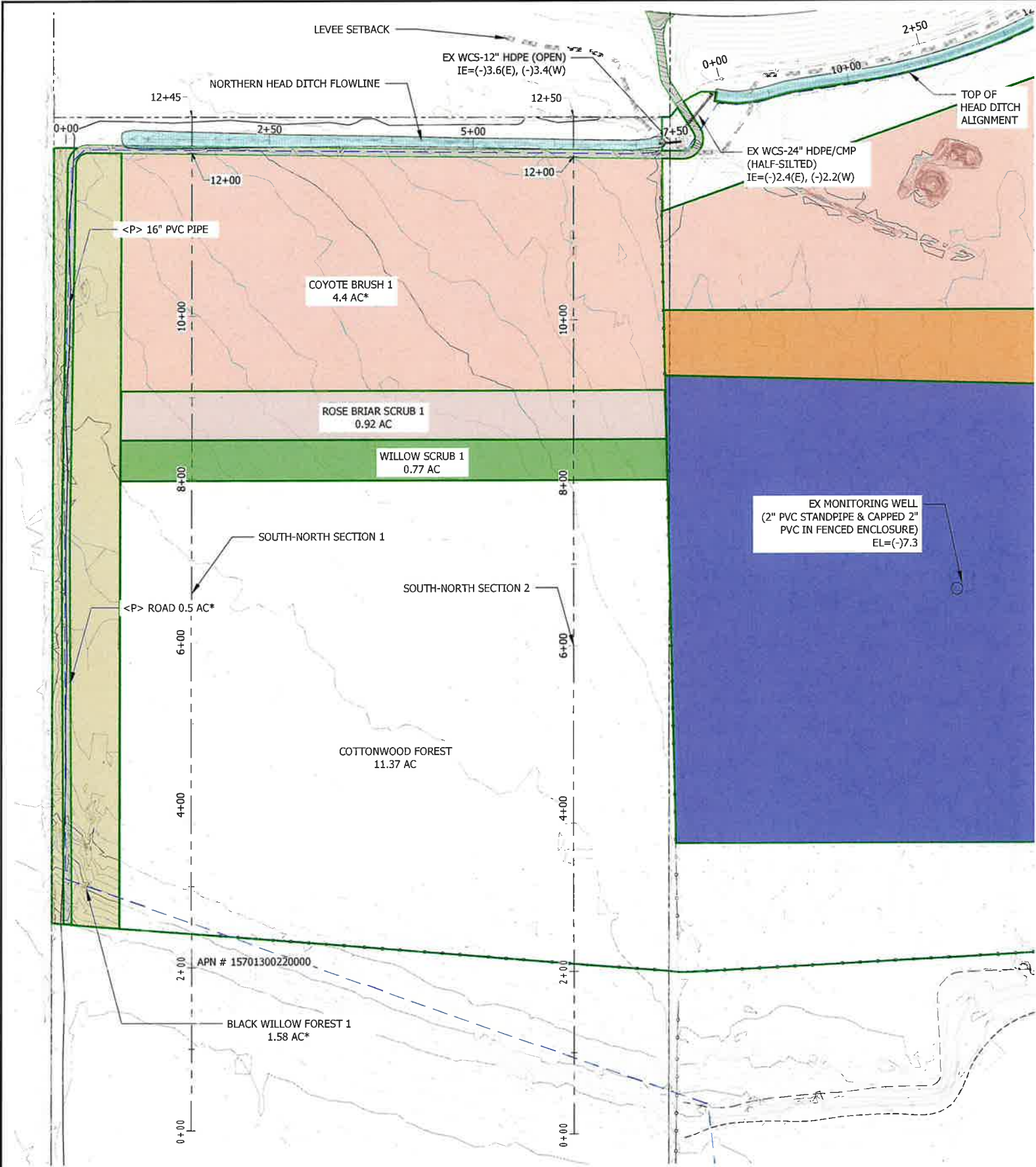
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- PROFILE LINE
- PARCEL BOUNDARY
- WATER SURFACE ELEVATION
- EXISTING ROAD
- HEAD DITCH
- OAK SYCAMORE WOODLAND
- BLACK WILLOW FOREST
- COTTONWOOD
- COYOTE BRUSH
- MULEFAT
- ROSE BRIAR
- WILLOW SCRUB
- HERBACEOUS
- WATER LINE
- EXISTING FENCE LINE

PROJECT NUMBER: 1013.00
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PLAN VIEW



TWITCHELL ISLAND
MITIGATION AND
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DESIGN PROJECT
SACRAMENTO COUNTY, CA

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NO.	DESCRIPTION	DATE

LEGEND

###+00 STATIONING IN FEET

⬮ PROFILE LINE

--- PARCEL BOUNDARY

— WATER SURFACE ELEVATION

/// EXISTING ROAD

▬ HEAD DITCH

■ OAK SYCAMORE WOODLAND

■ BLACK WILLOW FOREST

■ COTTONWOOD

■ COYOTE BRUSH

■ MULEFAT

■ ROSE BRIAR

■ WILLOW SCRUB

■ HERBACEOUS

— WATER LINE

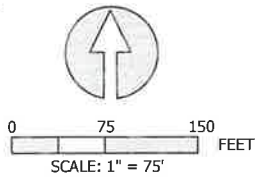
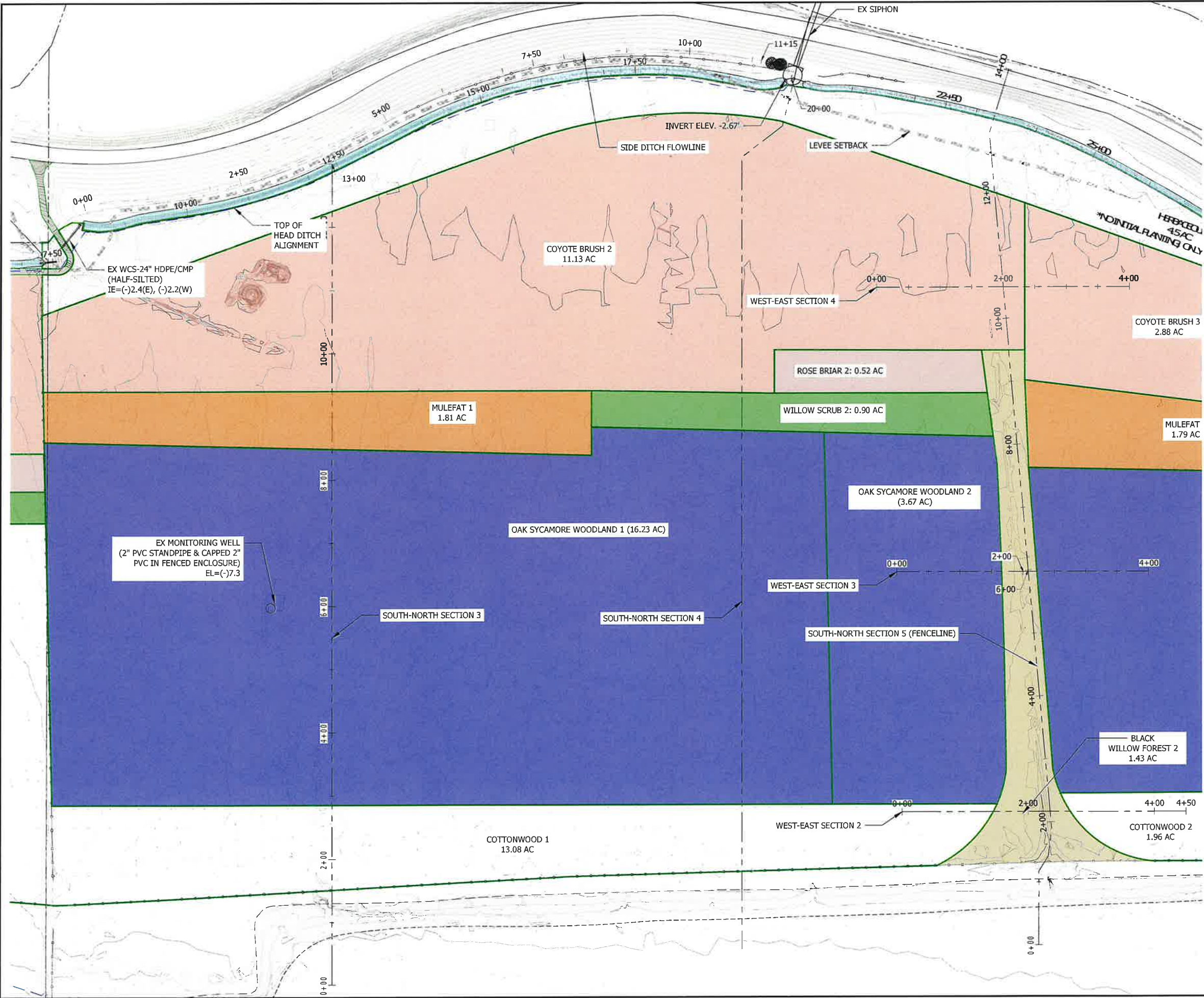
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PLANTING PLAN 1 - WEST
SIDE

IF BAA DOES NOT MAGNIFY 1" DRAWING IS NOT TO SCALE - ADJUST ACCORDINGLY
LAST TAVED: 7/2/2025 PLOT DATE: 7/10/2025 PLOT STILLWATER-DATSCALE-255
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NO.	DESCRIPTION	DATE

LEGEND

- ####+00 STATIONING IN FEET
- +---+ PROFILE LINE
- PARCEL BOUNDARY
- WATER SURFACE ELEVATION
- EXISTING ROAD
- HEAD DITCH
- OAK SYCAMORE WOODLAND
- BLACK WILLOW FOREST
- COTTONWOOD
- COYOTE BRUSH
- MULEFAT
- ROSE BRIAR
- WILLOW SCRUB
- HERBACEOUS
- WATER LINE
- EXISTING FENCE LINE

PROJECT NUMBER: 1013.00
SCALE: AS NOTED
DATE: 7/10/25

DESIGN: RT/JB
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APPROVED: RT

PLANTING PLAN 2 -
CENTER

EXISTING/PROPOSED/STILLWATER SCIENCE/1013.00 TWITCHELL ISLAND MITIGATION AND ENHANCEMENT SITES - DB TECHNICAL
SHEET 5 OF 25
DATE: 7/10/25
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TWITCHELL ISLAND
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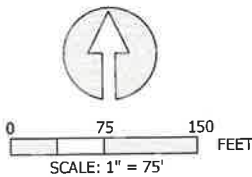
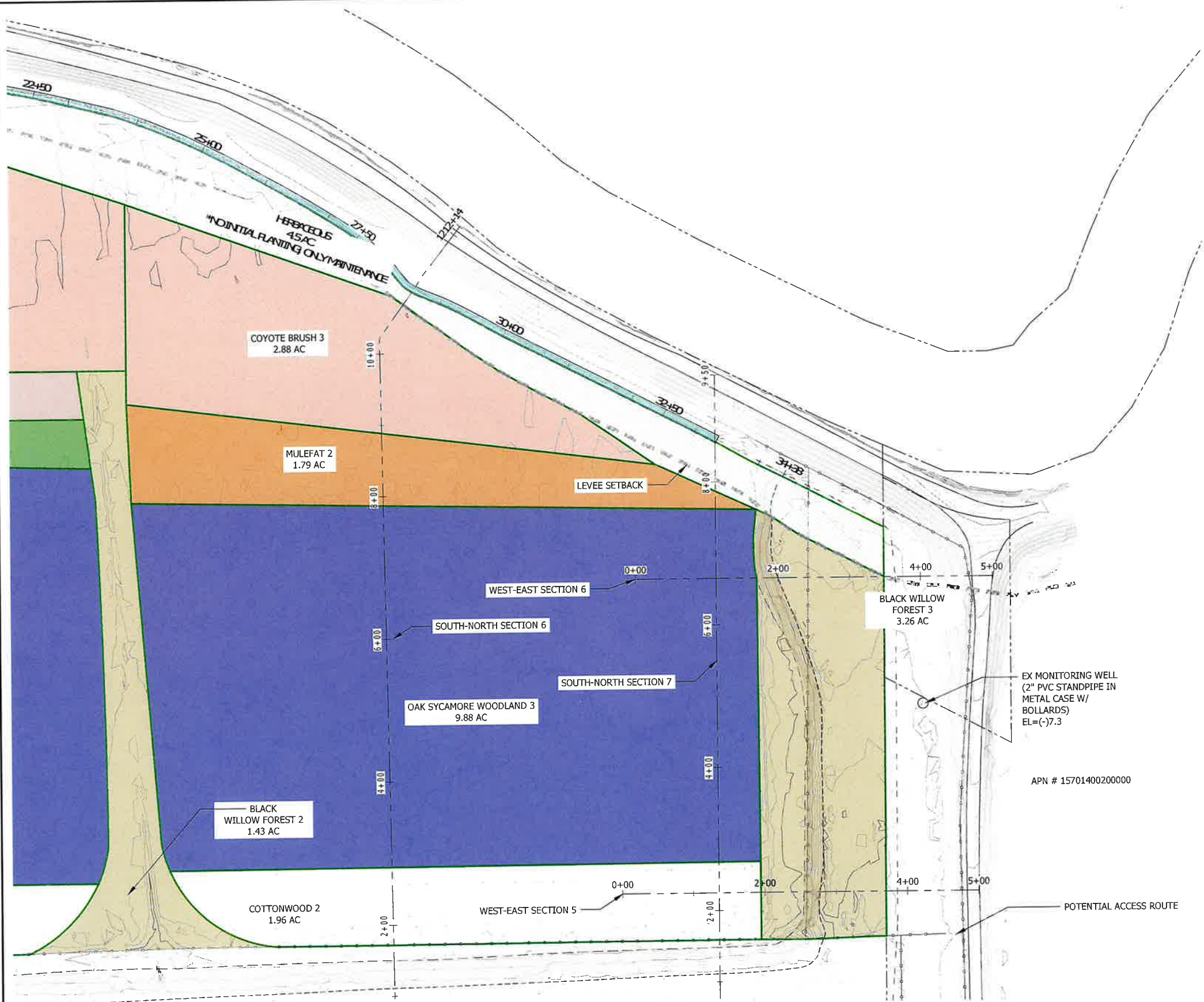
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PLANTING PLAN 3 - EAST
SIDE

SHEET 6 OF 25



TWITCHELL ISLAND
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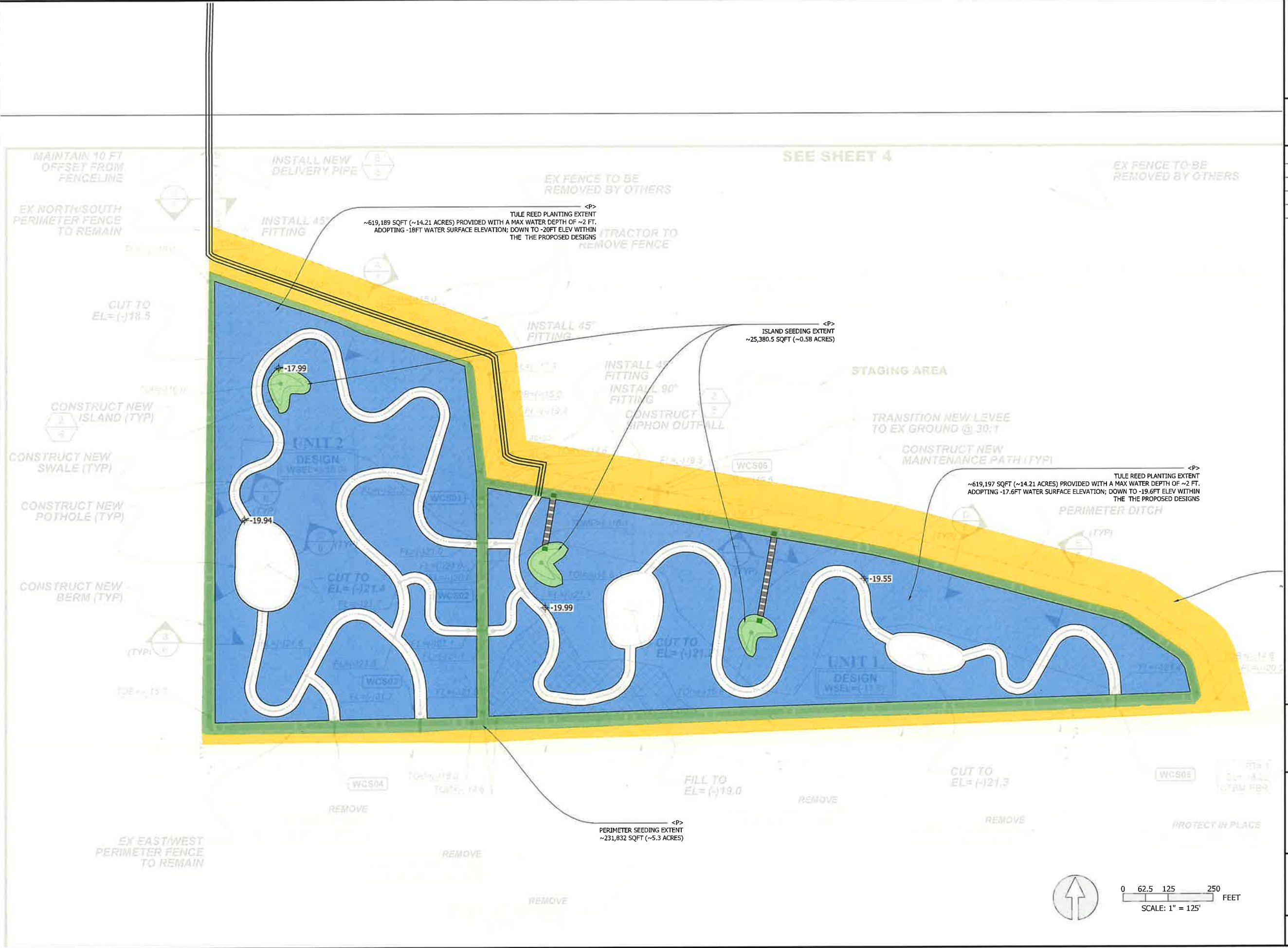
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PROJECT NUMBER: 1013.00
SCALE: AS NOTED
DATE: 7/10/25

DESIGN: RT/JB
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PLANTING PLAN 4 - TULE
PLANTING AND SEEDING

SHEET 7 OF 25



Riparian Forest: Oak Sycamore Woodland1						
Scientific name	Common name	Form	Acres	Spacing (feet)	Fill	Quantity
Acer negundo	box elder	tree	16.23	20	8%	142
Baccharis pilularis	coyote brush	shrub	16.23	10	4%	283
Baccharis salicifolia subsp. salicifolia	mule fat	shrub	16.23	10	1%	71
Cephalanthus occidentalis	California button willow	shrub	16.23	10	2%	142
Fraxinus latifolia	Oregon ash	tree	16.23	20	8%	142
Platanus racemosa	western sycamore	tree	16.23	20	30%	531
Populus fremontii subsp. fremontii	Fremont cottonwood	tree	16.23	20	3%	54
Quercus agrifolia	coast live oak	tree	16.23	20	20%	354
Quercus lobata	valley oak	tree	16.23	20	10%	177
Rosa californica	California rose	shrub	16.23	10	1%	71
Rubus ursinus	California blackberry	shrub	16.23	10	1%	71
Salix exigua	narrowleaf willow	shrub	16.23	10	2%	142
Salix gooddingii	Goodding's black willow	tree	16.23	20	2%	36
Salix laevigata	red willow	tree	16.23	20	2%	36
Salix lasiandra	Pacific willow	tree	16.23	20	2%	36
Salix lasiolepis	arroyo willow	shrub	16.23	10	2%	142
Sambucus mexicana	blue elderberry	shrub	16.23	10	1%	71
Vitis californica	California wild grape	shrub	16.23	10	1%	71
				Total percent fill:	100%	
				Total number of plants:		2,572
				Shrubs/trees per acre:		158

Riparian Forest: Oak Sycamore Woodland2						
Scientific name	Common name	Form	Acres	Spacing (feet)	Fill	Quantity
Acer negundo	box elder	tree	3.69	20	8%	33
Baccharis pilularis	coyote brush	shrub	3.69	10	4%	65
Baccharis salicifolia subsp. salicifolia	mule fat	shrub	3.69	10	1%	17
Cephalanthus occidentalis	California button willow	shrub	3.69	10	2%	33
Fraxinus latifolia	Oregon ash	tree	3.69	20	8%	33
Platanus racemosa	western sycamore	tree	3.69	20	30%	121
Populus fremontii subsp. fremontii	Fremont cottonwood	tree	3.69	20	3%	13
Quercus agrifolia	coast live oak	tree	3.69	20	20%	81
Quercus lobata	valley oak	tree	3.69	20	10%	41
Rosa californica	California rose	shrub	3.69	10	1%	17
Rubus ursinus	California blackberry	shrub	3.69	10	1%	17
Salix exigua	narrowleaf willow	shrub	3.69	10	2%	33
Salix gooddingii	Goodding's black willow	tree	3.69	20	2%	9
Salix laevigata	red willow	tree	3.69	20	2%	9
Salix lasiandra	Pacific willow	tree	3.69	20	2%	9
Salix lasiolepis	arroyo willow	shrub	3.69	10	2%	33
Sambucus mexicana	blue elderberry	shrub	3.69	10	1%	17
Vitis californica	California wild grape	shrub	3.69	10	1%	17
				Total percent fill:	100%	
				Total number of plants:		598
				Shrubs/trees per acre:		162

Riparian Forest: Oak Sycamore Woodland3						
Scientific name	Common name	Form	Acres	Spacing (feet)	Fill	Quantity
Acer negundo	box elder	tree	9.88	20	8%	87
Baccharis pilularis	coyote brush	shrub	9.88	10	4%	173
Baccharis salicifolia subsp. salicifolia	mule fat	shrub	9.88	10	1%	44
Cephalanthus occidentalis	California button willow	shrub	9.88	10	2%	87
Fraxinus latifolia	Oregon ash	tree	9.88	20	8%	87
Platanus racemosa	western sycamore	tree	9.88	20	30%	323
Populus fremontii subsp. fremontii	Fremont cottonwood	tree	9.88	20	3%	33
Quercus agrifolia	coast live oak	tree	9.88	20	20%	216
Quercus lobata	valley oak	tree	9.88	20	10%	108
Rosa californica	California rose	shrub	9.88	10	1%	44
Rubus ursinus	California blackberry	shrub	9.88	10	1%	44
Salix exigua	narrowleaf willow	shrub	9.88	10	2%	87
Salix gooddingii	Goodding's black willow	tree	9.88	20	2%	22
Salix laevigata	red willow	tree	9.88	20	2%	22
Salix lasiandra	Pacific willow	tree	9.88	20	2%	22
Salix lasiolepis	arroyo willow	shrub	9.88	10	2%	87
Sambucus mexicana	blue elderberry	shrub	9.88	10	1%	44
Vitis californica	California wild grape	shrub	9.88	10	1%	44
				Total percent fill:	100%	
				Total number of plants:		1,574
				Shrubs/trees per acre:		159

TWITCHELL ISLAND
MITIGATION AND
ENHANCEMENT SITES -
DESIGN PROJECT

SACRAMENTO COUNTY, CA

Stillwater Sciences

2855 TELEGRAPH AVENUE, SUITE 400
BERKELEY, CA 94705 P: (510) 848-8098

REVISIONS

NO.	DESCRIPTION	DATE

PROJECT NUMBER: 1013.00
SCALE: AS NOTED
DATE: 7/10/25

DESIGN: RT/JB
DRAWN: BW/HG
CHECKED: JB
APPROVED: RT

PLANTING TABLES -
WOODLAND

SHEET 8 OF 25

LAST SAVE: 7/10/2025 11:28 AM PROJECT: TWITCHELL ISLAND MITIGATION AND ENHANCEMENT SITES - 08 TELEGRAPH AVENUE, SUITE 400, BERKELEY, CA 94705 PLANTING TABLES - WOODLAND SHEET 8 OF 25

Riparian Forest: BlackWillow1						
Scientific name	Common name	Form	Acres	Spacing (feet)	Fill	Quantity
Acer negundo	box elder	tree	1.58	20	5%	17
Baccharis salicifolia subsp. salicifolia	mule fat	shrub	1.58	10	4%	14
Cephalanthus occidentalis	California button willow	shrub	1.58	10	7%	21
Fraxinus latifolia	Oregon ash	tree	1.58	20	5%	17
Platanus racemosa	western sycamore	tree	1.58	20	9%	28
Populus fremontii subsp. fremontii	Fremont cottonwood	tree	1.58	20	7%	22
Rubus ursinus	California blackberry	shrub	1.58	10	2%	7
Salix exigua	narrowleaf willow	shrub	1.58	10	11%	35
Salix gooddingii	Goodding's black willow	tree	1.58	20	17%	53
Salix laevigata	red willow	tree	1.58	20	7%	22
Salix lasiandra	Pacific willow	tree	1.58	20	4%	13
Salix lasiolepis	arroyo willow	shrub	1.58	10	13%	42
Sambucus mexicana	blue elderberry	shrub	1.58	10	4%	14
Vitis californica	California wild grape	shrub	1.58	10	2%	7
				Total percent fill:	100%	
				Total number of plants:		312
				Shrubs/trees per acre:		197

Riparian Forest: BlackWillow2						
Scientific name	Common name	Form	Acres	Spacing (feet)	Fill	Quantity
Acer negundo	box elder	tree	1.43	20	6%	16
Baccharis salicifolia subsp. salicifolia	mule fat	shrub	1.43	10	5%	13
Cephalanthus occidentalis	California button willow	shrub	1.43	10	7%	19
Fraxinus latifolia	Oregon ash	tree	1.43	20	6%	16
Platanus racemosa	western sycamore	tree	1.43	20	9%	26
Populus fremontii subsp. fremontii	Fremont cottonwood	tree	1.43	20	7%	19
Rubus ursinus	California blackberry	shrub	1.43	10	2%	7
Salix exigua	narrowleaf willow	shrub	1.43	10	11%	32
Salix gooddingii	Goodding's black willow	tree	1.43	20	17%	48
Salix laevigata	red willow	tree	1.43	20	7%	19
Salix lasiandra	Pacific willow	tree	1.43	20	4%	12
Salix lasiolepis	arroyo willow	shrub	1.43	10	13%	38
Sambucus mexicana	blue elderberry	shrub	1.43	10	5%	13
Vitis californica	California wild grape	shrub	1.43	10	2%	7
				Total percent fill:	100%	
				Total number of plants:		285
				Shrubs/trees per acre:		200

Riparian Forest: BlackWillow3						
Scientific name	Common name	Form	Acres	Spacing (feet)	Fill	Quantity
Acer negundo	box elder	tree	2.25	20	5%	23
Baccharis salicifolia subsp. salicifolia	mule fat	shrub	2.25	10	5%	20
Cephalanthus occidentalis	California button willow	shrub	2.25	10	7%	30
Fraxinus latifolia	Oregon ash	tree	2.25	20	5%	23
Platanus racemosa	western sycamore	tree	2.25	20	9%	37
Populus fremontii subsp. fremontii	Fremont cottonwood	tree	2.25	20	7%	29
Rubus ursinus	California blackberry	shrub	2.25	10	2%	10
Salix exigua	narrowleaf willow	shrub	2.25	10	11%	49
Salix gooddingii	Goodding's black willow	tree	2.25	20	17%	71
Salix laevigata	red willow	tree	2.25	20	7%	29
Salix lasiandra	Pacific willow	tree	2.25	20	4%	18
Salix lasiolepis	arroyo willow	shrub	2.25	10	14%	59
Sambucus mexicana	blue elderberry	shrub	2.25	10	5%	20
Vitis californica	California wild grape	shrub	2.25	10	2%	10
				Total percent fill:	100%	
				Total number of plants:		428
				Shrubs/trees per acre:		190

TWITCHELL ISLAND
MITIGATION AND
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DESIGN PROJECT

SACRAMENTO COUNTY, CA

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REVISIONS

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APPROVED: RT

PLANTING TABLES -
BLACK WILLOW FOREST

Scrub-Shrub: Mulefat1						
Scientific name	Common name	Form	Acres	Spacing (feet)	Fill	Quantity
Baccharis pilularis	coyote brush	shrub	1.81	10	10%	81
Baccharis salicifolia subsp. salicifolia	mule fat	shrub	1.81	10	44%	356
Cephalanthus occidentalis	California button willow	shrub	1.81	10	2%	16
Rosa californica	California rose	shrub	1.81	10	8%	64
Rubus ursinus	California blackberry	shrub	1.81	10	2%	16
Salix exigua	narrowleaf willow	shrub	1.81	10	8%	64
Salix lasiolepis	arroyo willow	shrub	1.81	10	9%	69
Sambucus mexicana	blue elderberry	shrub	1.81	10	15%	119
Vitis californica	California wild grape	shrub	1.81	10	2%	19
				Total percent fill:	100%	
				Total number of plants:		804
				Shrubs/trees per acre:		443

Scrub-Shrub: Mulefat2						
Scientific name	Common name	Form	Acres	Spacing (feet)	Fill	Quantity
Baccharis pilularis	coyote brush	shrub	1.79	10	10%	80
Baccharis salicifolia subsp. salicifolia	mule fat	shrub	1.79	10	44%	351
Cephalanthus occidentalis	California button willow	shrub	1.79	10	2%	16
Rosa californica	California rose	shrub	1.79	10	8%	63
Rubus ursinus	California blackberry	shrub	1.79	10	2%	16
Salix exigua	narrowleaf willow	shrub	1.79	10	8%	63
Salix lasiolepis	arroyo willow	shrub	1.79	10	9%	68
Sambucus mexicana	blue elderberry	shrub	1.79	10	15%	117
Vitis californica	California wild grape	shrub	1.79	10	2%	18
				Total percent fill:	100%	
				Total number of plants:		792
				Shrubs/trees per acre:		443

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PLANTING TABLES -
MULEFAT

SHEET 12 OF 25

LAST SAID 7/10/2025 PLOT DATE 7/10/2025 PLOT SITE STILLWATER-CONTRACT-225
C:\Users\jwilliams\OneDrive\Documents\Twitchell Island Mitigation and Enhancement Sites - DB Technical
Stages-Mulefat2-Planting Tables\12-Sheets\12-Planting Tables - Mulefat2-Scrub.DWG

Scrub-Shrub: Rose1						
Scientific Name	Common name	Form	Acres	Spacing (feet)	Fill	Quantity
Baccharis pilularis	coyote brush	shrub	0.92	10	14%	61
Baccharis salicifolia subsp. salicifolia	mule fat	shrub	0.92	10	8%	35
Cephalanthus occidentalis	California button willow	shrub	0.92	10	7%	30
Rosa californica	California rose	shrub	0.92	10	46%	195
Rubus ursinus	California blackberry	shrub	0.92	10	2%	9
Salix exigua	narrowleaf willow	shrub	0.92	10	10%	41
Sambucus mexicana	blue elderberry	shrub	0.92	10	13%	56
				Total percent fill:	100%	
				Total number of plants:		427
				Shrubs/trees per acre:		462

Scrub-Shrub: Rose2						
Scientific Name	Common name	Form	Acres	Spacing (feet)	Fill	Quantity
Baccharis pilularis	coyote brush	shrub	0.52	10	14%	34
Baccharis salicifolia subsp. salicifolia	mule fat	shrub	0.52	10	9%	22
Cephalanthus occidentalis	California button willow	shrub	0.52	10	8%	19
Rosa californica	California rose	shrub	0.52	10	45%	110
Rubus ursinus	California blackberry	shrub	0.52	10	2%	5
Salix exigua	narrowleaf willow	shrub	0.52	10	9%	23
Sambucus mexicana	blue elderberry	shrub	0.52	10	14%	34
				Total percent fill:	100%	
				Total number of plants:		247
				Shrubs/trees per acre:		475

TWITCHELL ISLAND
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APPROVED: RT

PLANTING TABLES - ROSE
BRIAR

LAST SAVED: 7/10/2025 PLOT DATE: 7/10/2025 PLOT STYLE: STILLWATER-CONTIGAL-135.DWG USER: JAMES GUNAWARDENA PROJECT: TWITCHELL ISLAND MITIGATION AND ENHANCEMENT SITES - DESIGN PROJECT SHEET: 13 OF 25

TWITCHELL ISLAND
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PLANTING TABLES - TULE

Wetland area broadcast seeding						
Scientific name	Common name	Life Form	Seeding Rate (broadcast) (lbs/acre)	Area of planting zone (acres)	Percent composition in seed mix	Total lbs
Carex barbarae	Santa Barbara sedge	perennial graminoid	4.40	17.0	10%	8
Elymus glaucus	blue wild-rye	perennial grass	16.20	17.0	15%	42
Elymus triticoides	beardless wild rye	perennial grass	9.60	17.0	20%	33
Hordeum brachyantherum subsp. californicum	California barley	perennial grass	17.20	17.0	20%	59
Juncus balticus	Baltic rush	perennial graminoid	4.00	17.0	15%	11
Poa secunda subsp. secunda	one-sided blue grass	perennial grass	2.10	17.0	10%	4
Stipa pulchra	purple needle grass	perennial grass	19.80	17.0	10%	34
TOTAL					100%	191

Wetland Area							
Scientific name	Common name	Unit	Form	Acres	Spacing (feet)	Fill	Quantity
Schoenoplectus californicus AND/OR Schoenoplectus acutus subsp. occidentalis	tule species	TuleWest	graminoid	14.21	5	100%	24,768
Schoenoplectus californicus AND/OR Schoenoplectus acutus subsp. occidentalis	tule species	TuleEast	graminoid	14.21	5	100%	24,768
Total				28.43	5	100%	49,536
Footnote: The desired planting unit is approximately 2.5 by 2.5 inches; it is estimated that 1,250 square feet of mature tule stands will yield the necessary quantity of tule rhizomes per planting area.							

\\nas01\projects\2013\Twitchell_Island_Mitigation_and_Enhancement_Sites\Drawings\DWG\PLANTING_TABLES_TULE.dwg 7/10/2025 7:10:25 PM RT JB 1013.00 AS NOTED 7/10/25 15 OF 25

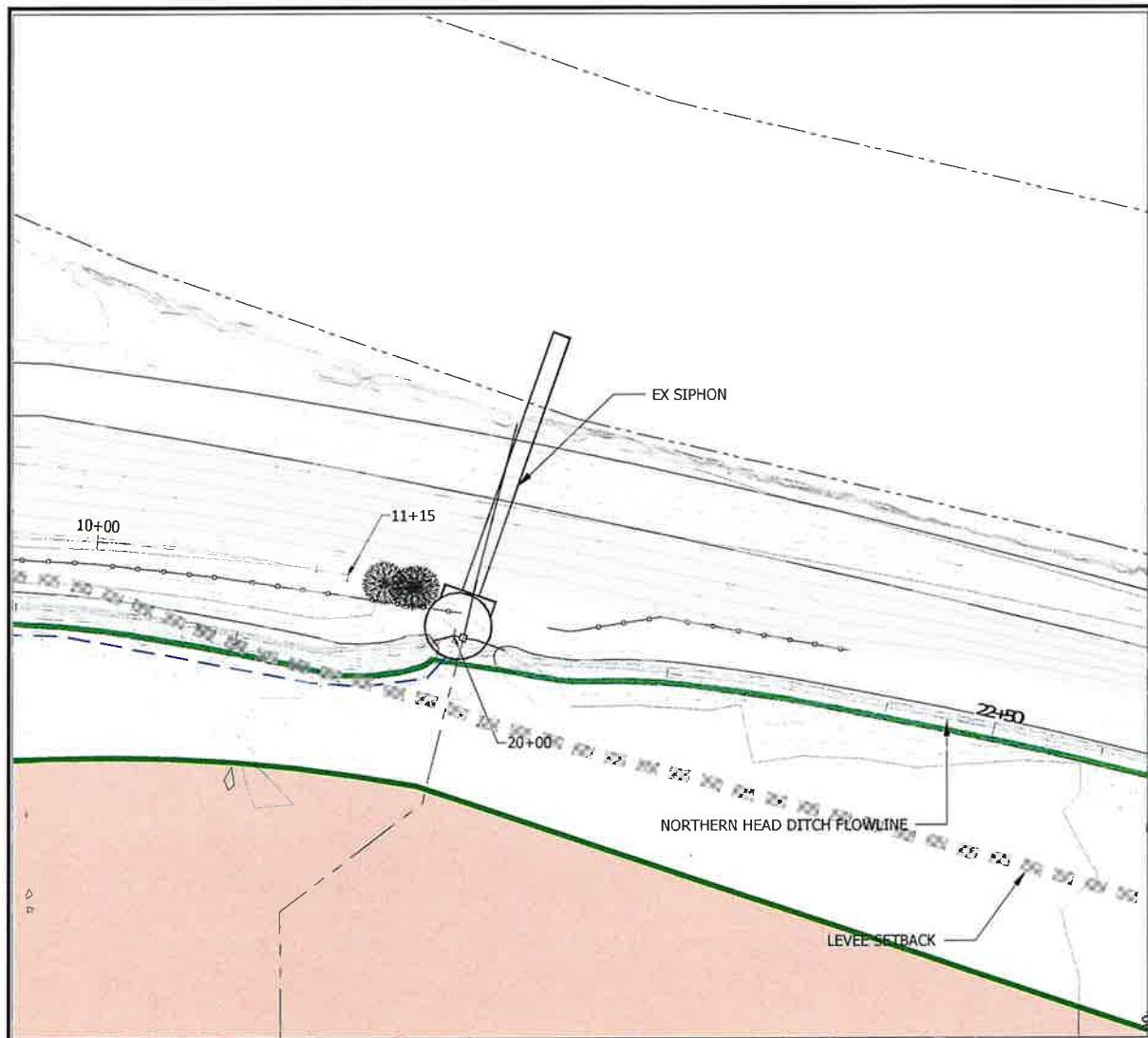
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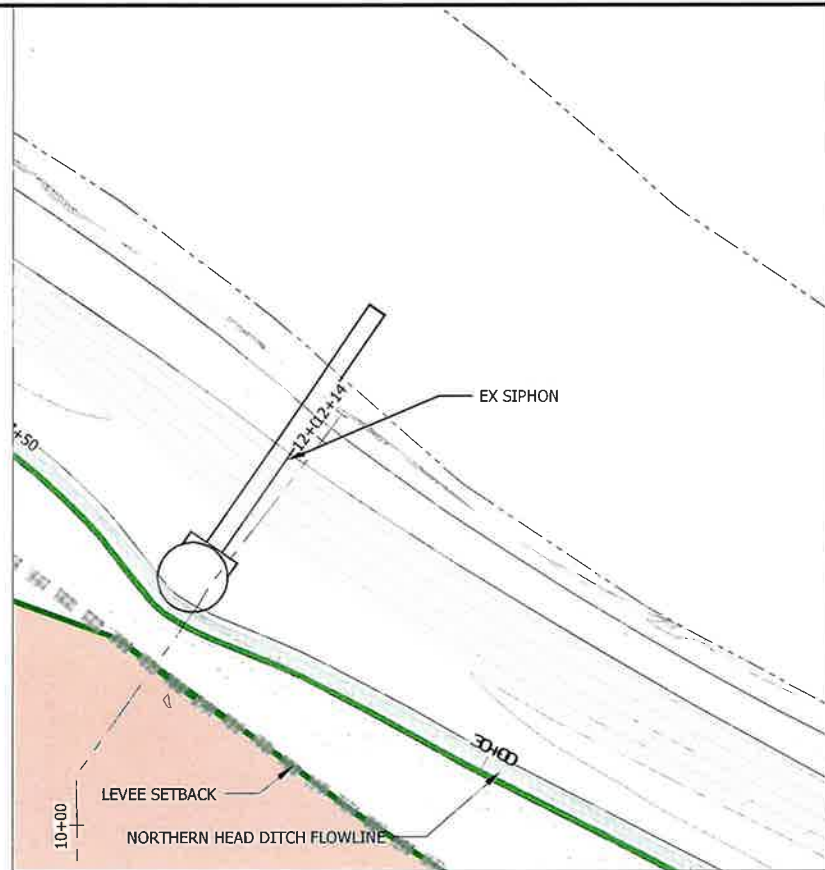
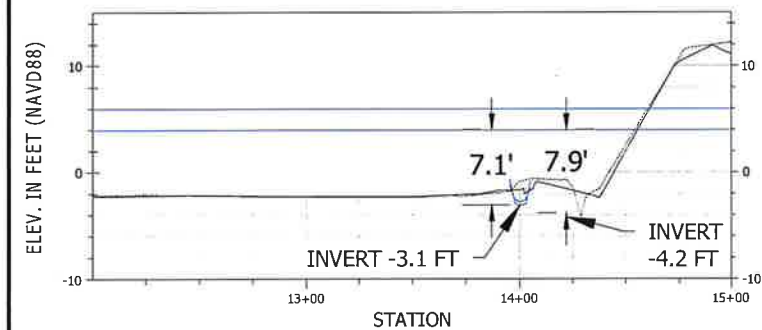
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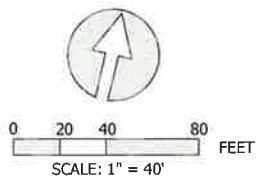
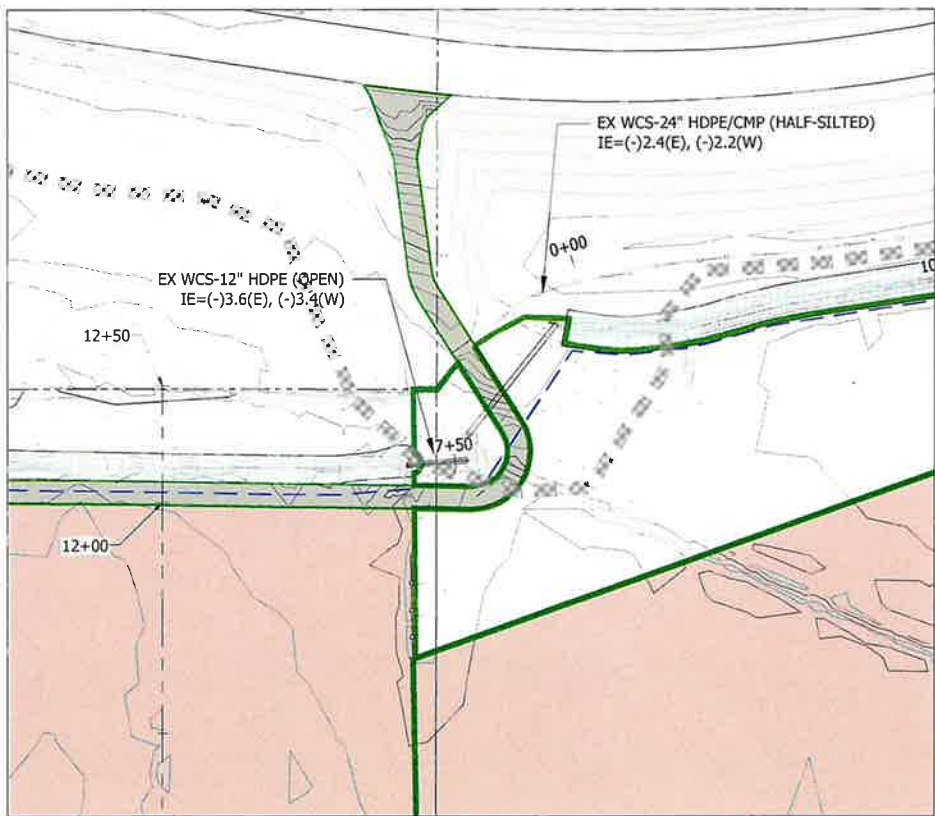
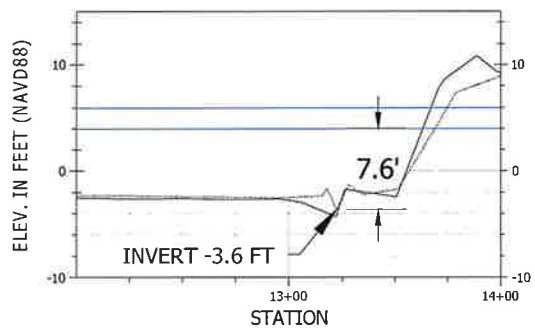
- ####+00 STATIONING IN FEET
- PROFILE LINE
- - - - - PARCEL BOUNDARY
- - - - - WATER SURFACE ELEVATION
- - - - - EXISTING ROAD
- ▬ HEAD DITCH
- ▬ COYOTE BRUSH
- ▬ HERBACEOUS
- - - - - WATER LINE
- EXISTING FENCE LINE



SIPHON - WEST



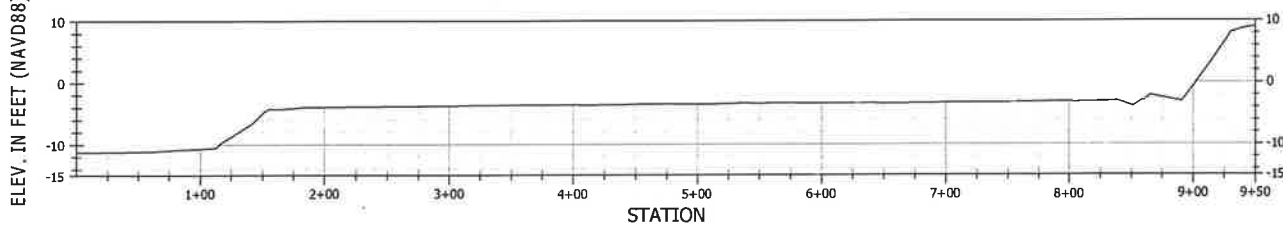
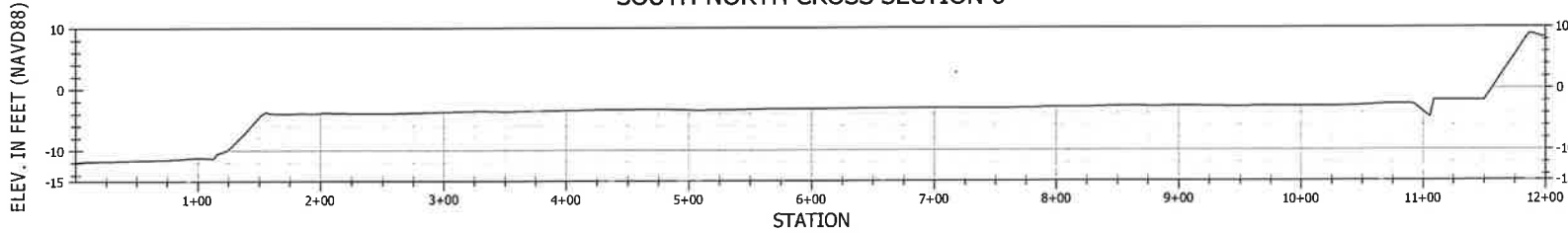
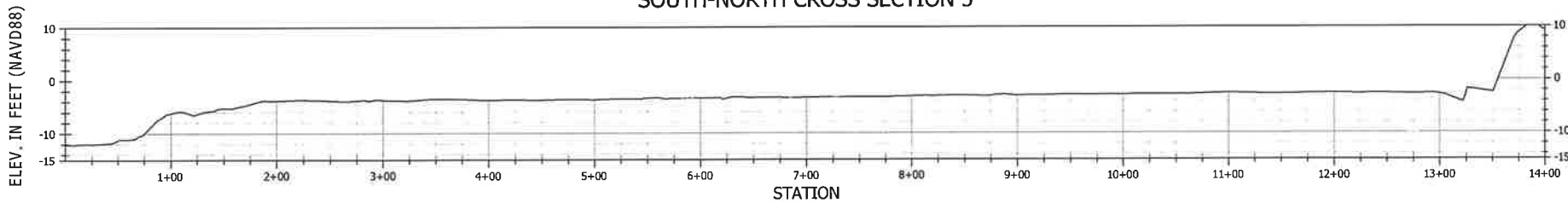
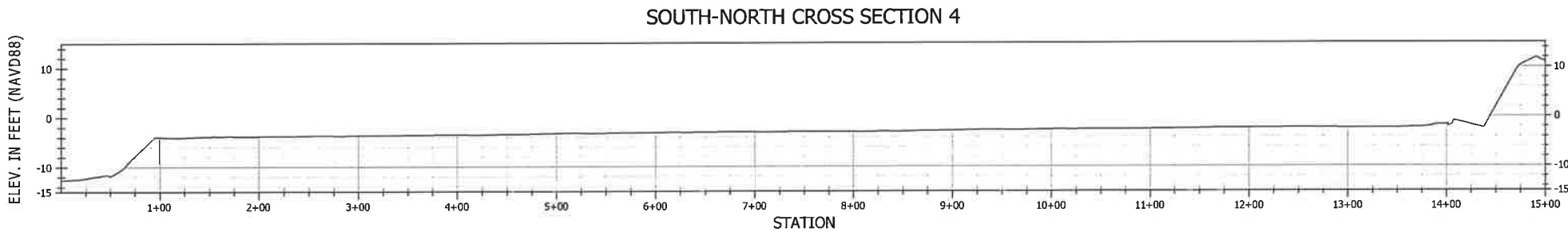
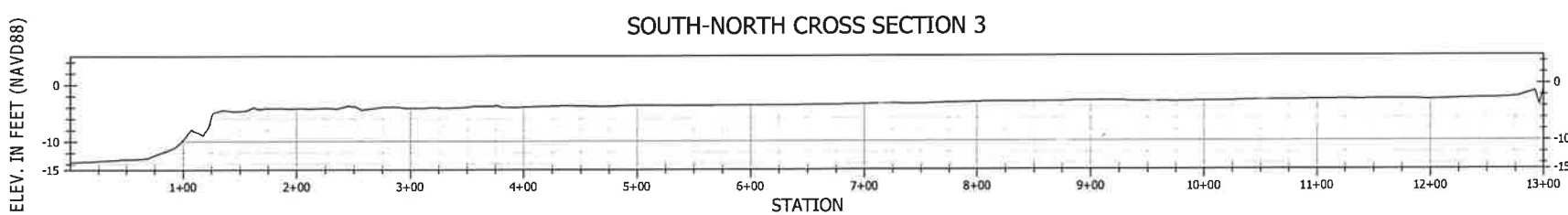
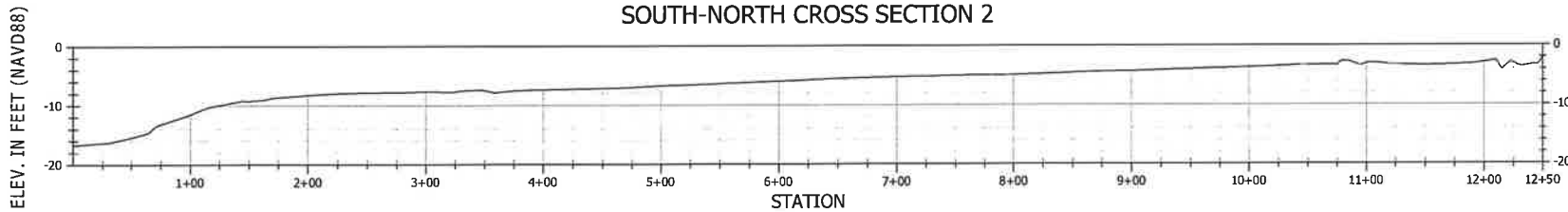
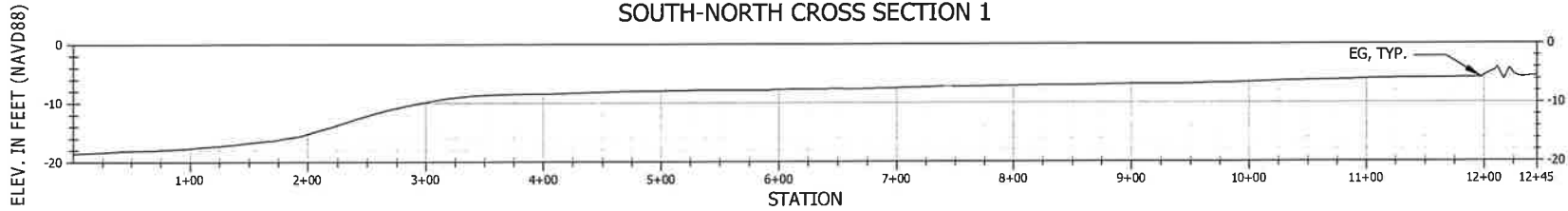
SIPHON - EAST



PROJECT NUMBER: 1013.00
SCALE: AS NOTED
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DESIGN: RT/JB
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INFRASTRUCTURE
PLANVIEW DETAILS



TWITCHELL ISLAND
MITIGATION AND
ENHANCEMENT SITES -
DESIGN PROJECT
SACRAMENTO COUNTY, CA

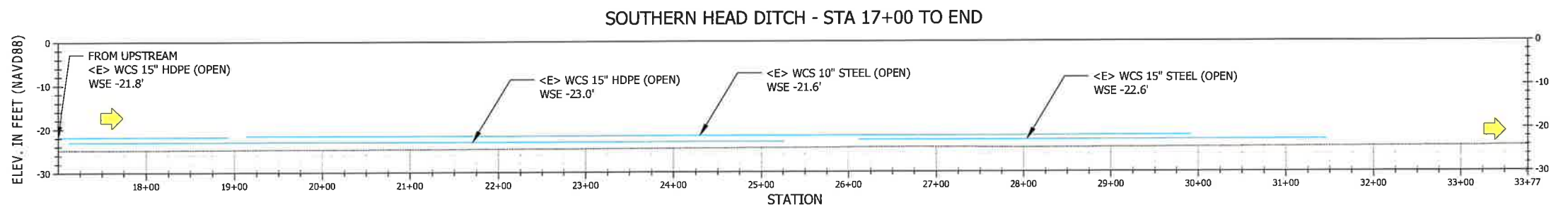
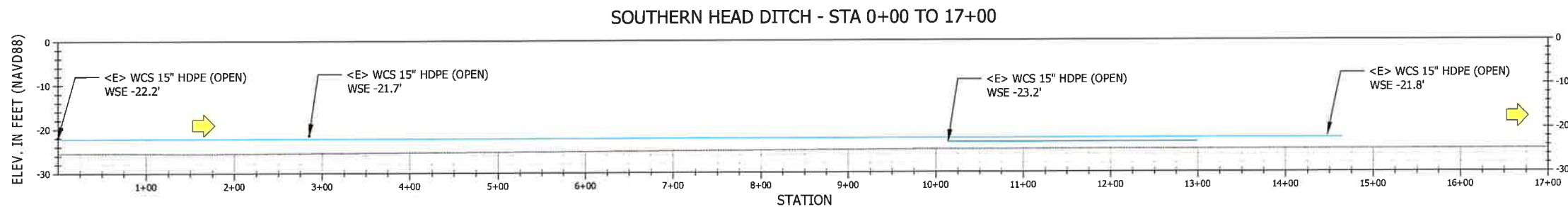
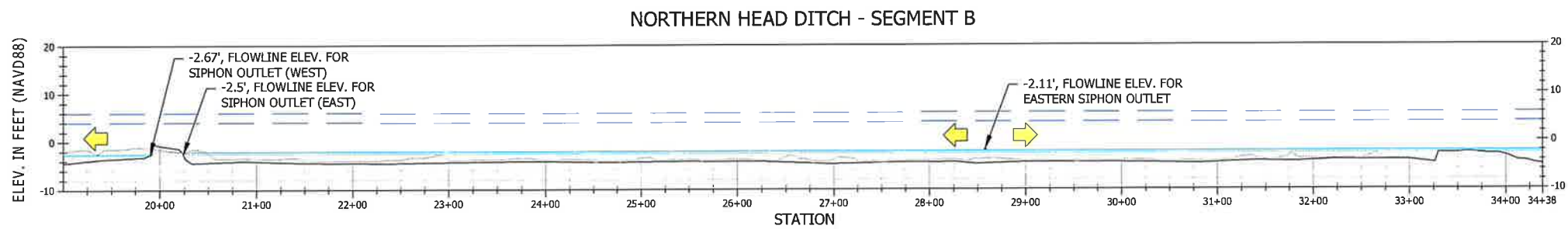
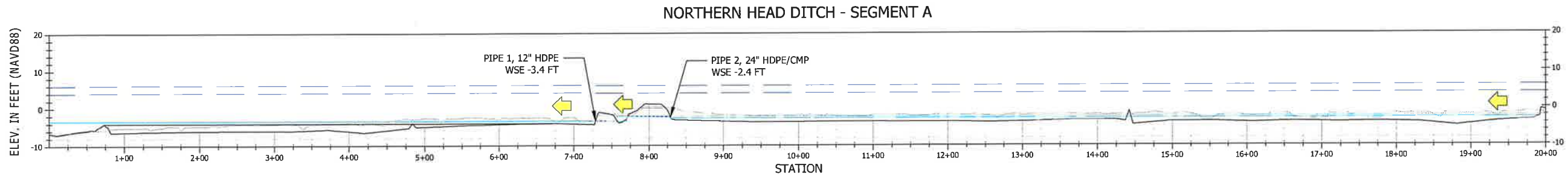
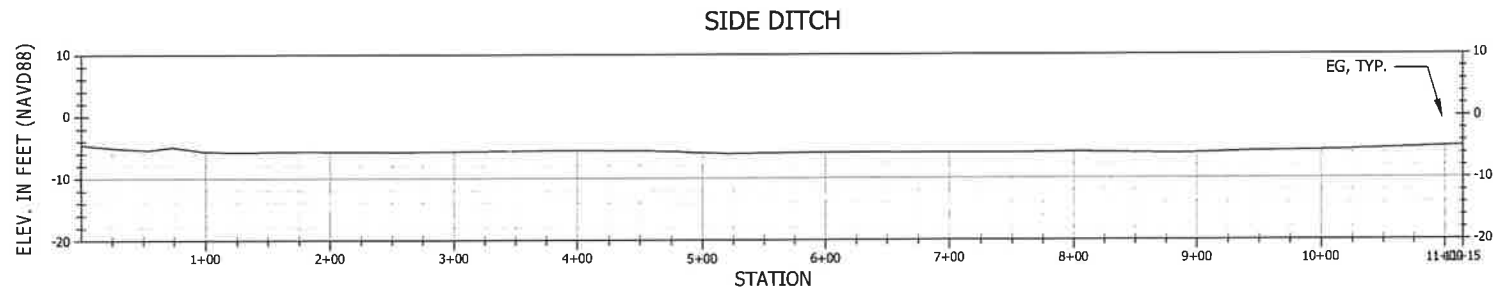
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SOUTH-NORTH TYPICAL
SECTIONS



TWITCHELL ISLAND
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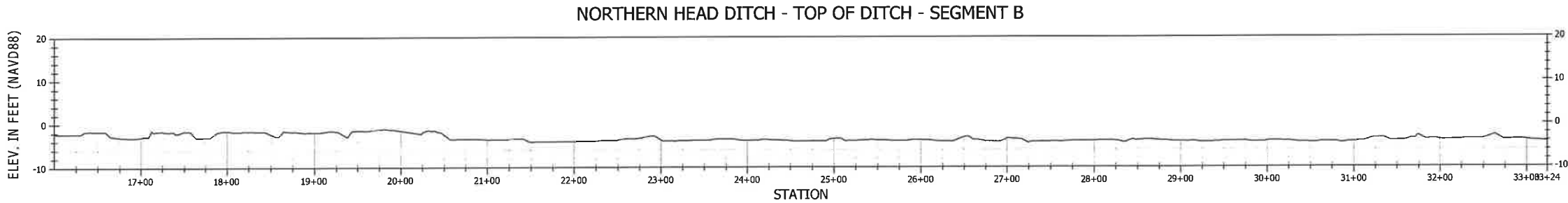
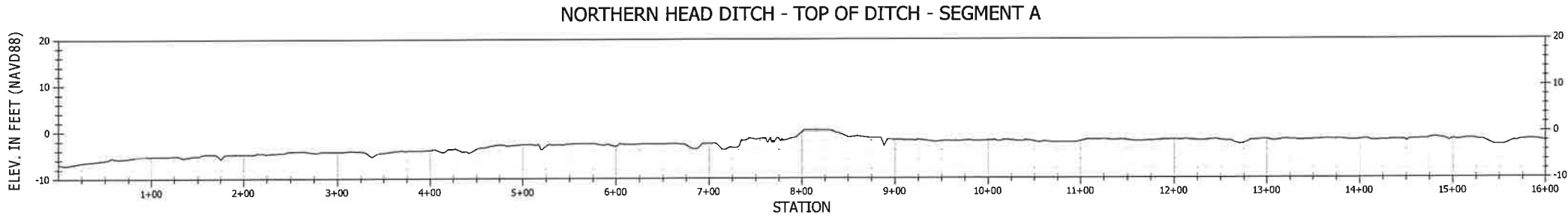
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DITCH FLOWLINE
PROFILES 1

SHEET 19 OF 25

LAST SAVED: 7/10/2025 11:01:00 AM PLOT DATE: 7/10/2025 PLOT TITLE: STILLWATER-DRYSCALE-255
C:\Users\BROWN\OneDrive\Documents\Twitchell Island Mitigation and Enhancement\BID - OF TECHNICAL SHEETS\ASSET1 - BROWNS PLANNING\PLAN\ASSET1_SHEETS\19_Typical Section.dwg



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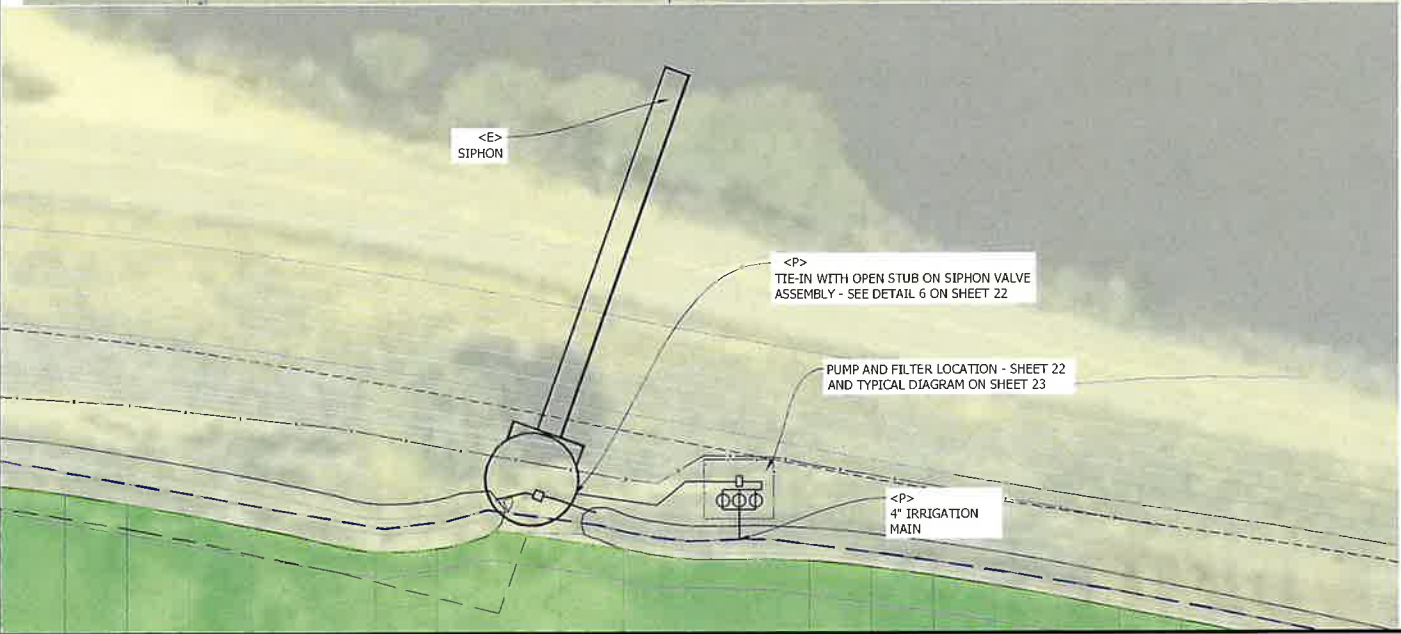
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DESIGN: RT/JB
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APPROVED: RT

DITCH FLOWLINE
PROFILES 2

SHEET 20 OF 25

\\STILLWATER\PROJECTS\1013 TWITCHELL ISLAND MITIGATION AND ENHANCEMENT SITES - DESIGN\DWG\20 DITCH FLOWLINE PROFILES 2.dwg 7/10/25 10:10:10 AM RT/JB



- NOTES:
- 4 IRRIGATION ZONES, WATERED ONCE A WEEK.
 - APPROXIMATELY 5,000 PLANTS PER ZONE ON AVERAGE.
 - APPROXIMATELY 20 ACRES PER ZONE.
 - APPROXIMATELY 50,000 GALLONS PER ZONE PER WEEK ON AVERAGE.
 - PROPOSED SYSTEM IS MODULAR BY DESIGN AND EXACT SYSTEM LAYOUT TO BE FIELD FITTED BY CONTRACTOR.

TWITCHELL ISLAND MITIGATION AND ENHANCEMENT SITES - DESIGN PROJECT

SACRAMENTO COUNTY, CA

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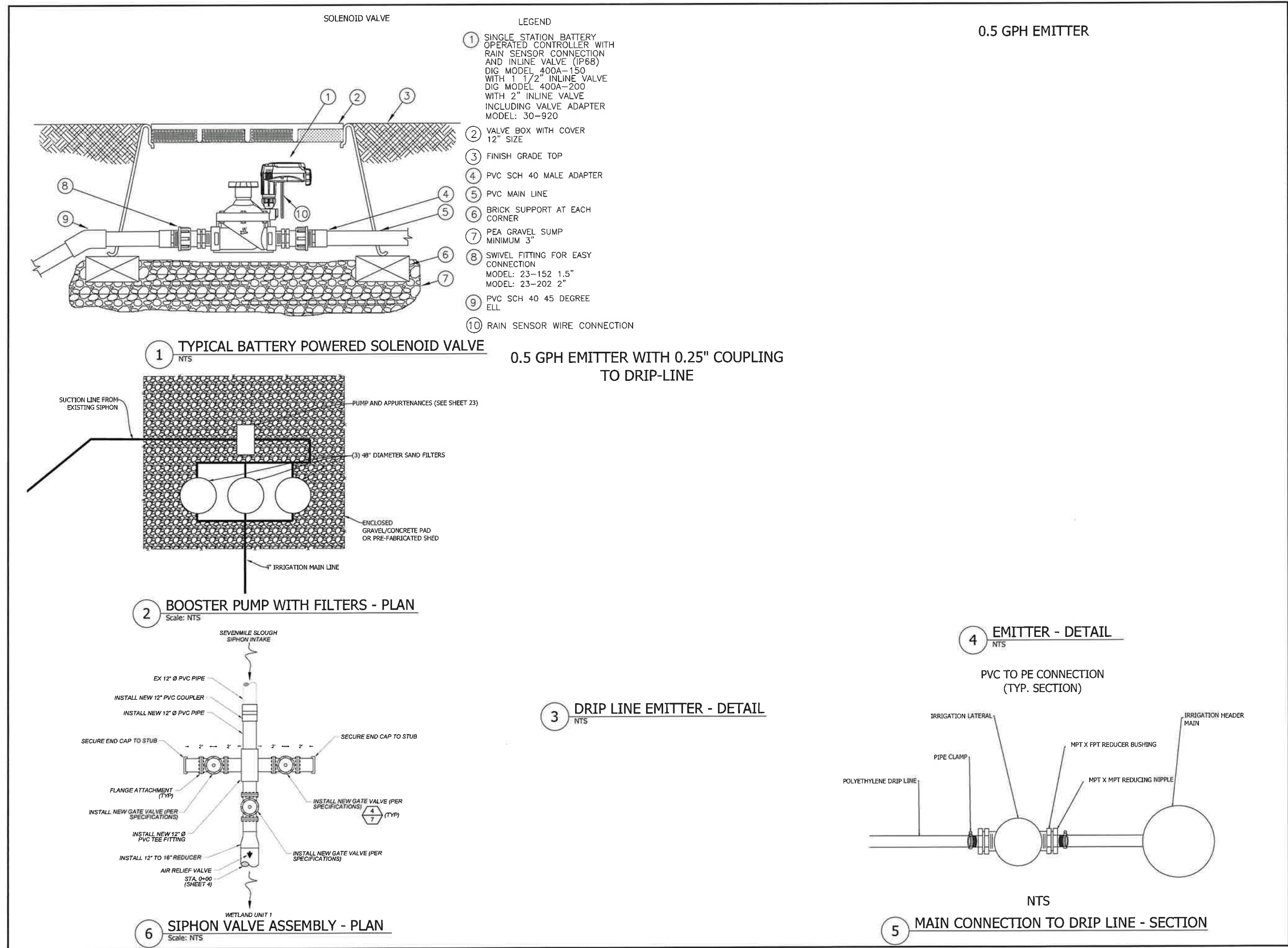
NO.	DESCRIPTION	DATE

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IRRIGATION LAYOUT

SHEET 21 OF 25



TWITCHELL ISLAND
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IRRIGATION DETAILS

SHEET 22 OF 25

LAST DATE: 4/14/2025 PLOT DATE: 7/10/2025 PLOT STILLWATER-GRAYS-C25
DESIGN: RT/JB, DRAWN: BW/HG, CHECKED: JB, APPROVED: RT
STILLWATER-GRAYS-C25 PLOT STILLWATER-GRAYS-C25 PLOT STILLWATER-GRAYS-C25

TWITCHELL ISLAND
MITIGATION AND
ENHANCEMENT SITES -
DESIGN PROJECT

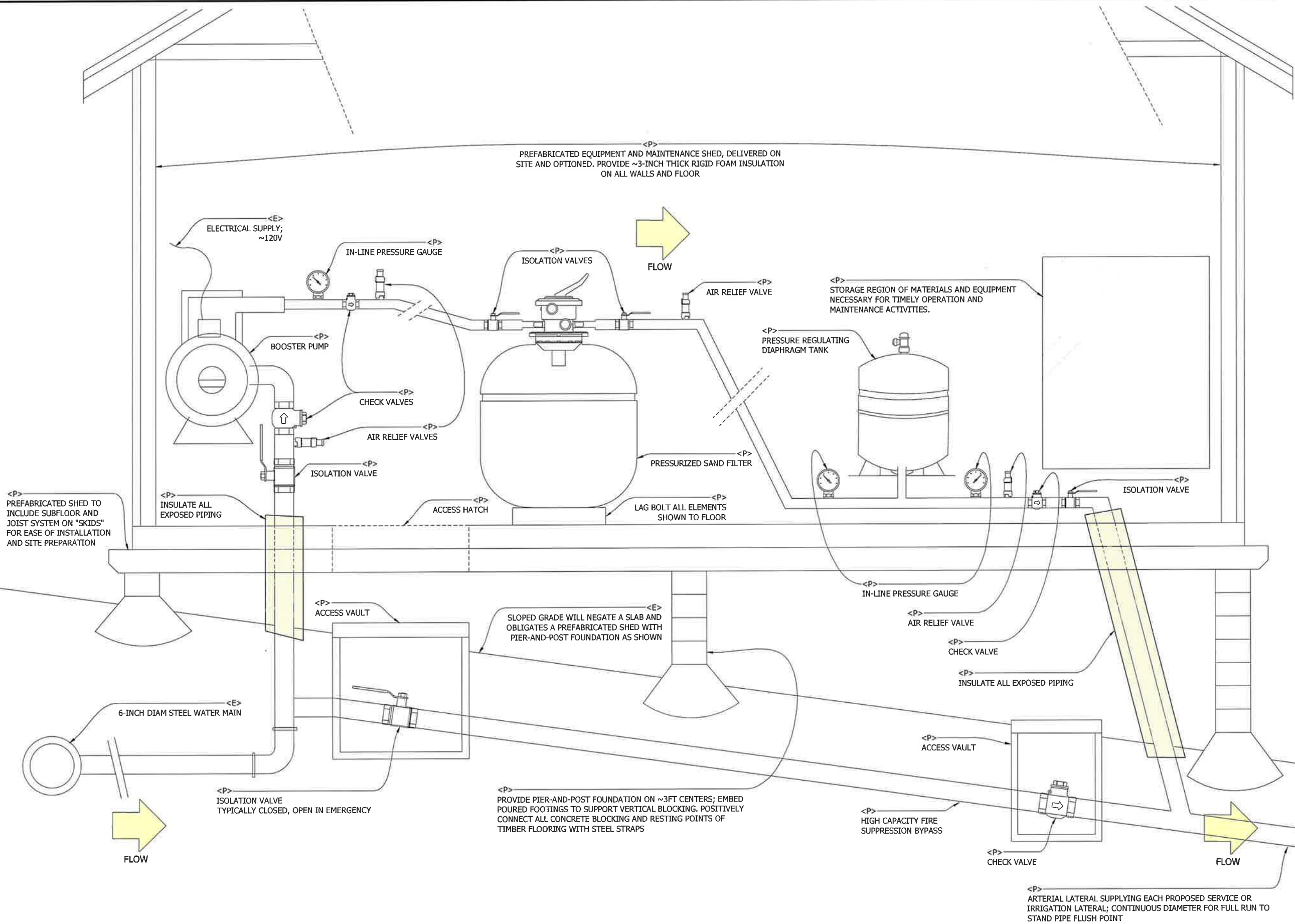
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REVISIONS

NO.	DESCRIPTION	DATE



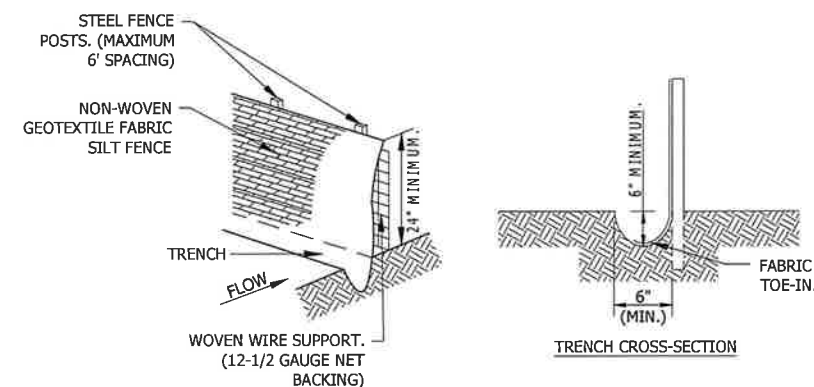
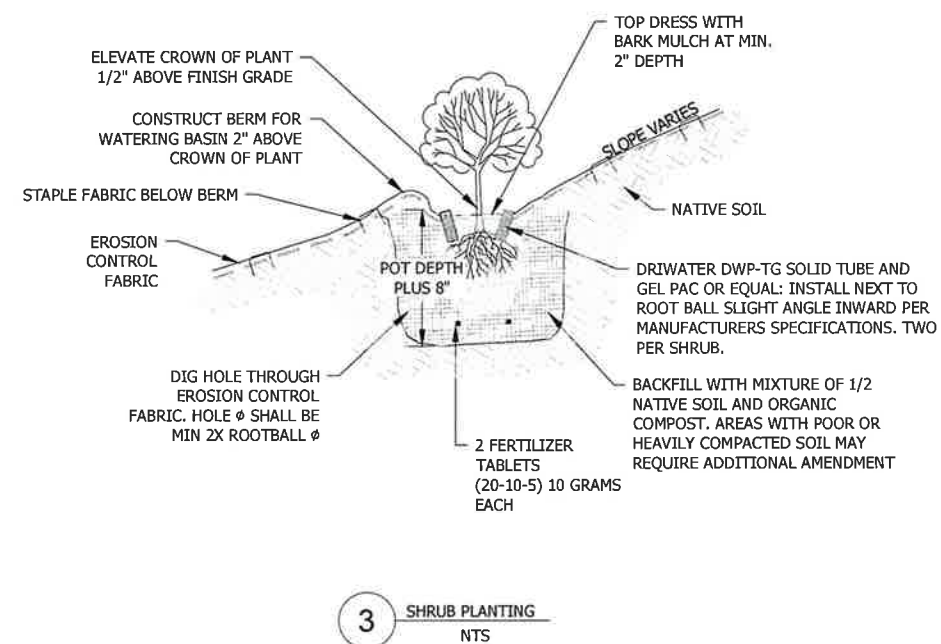
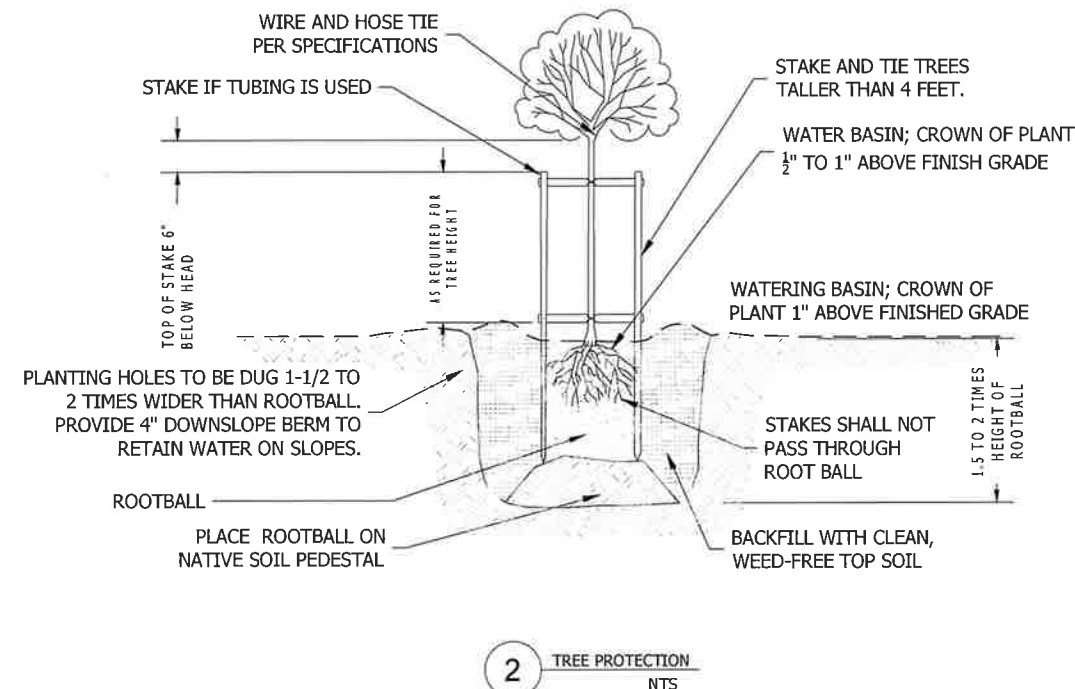
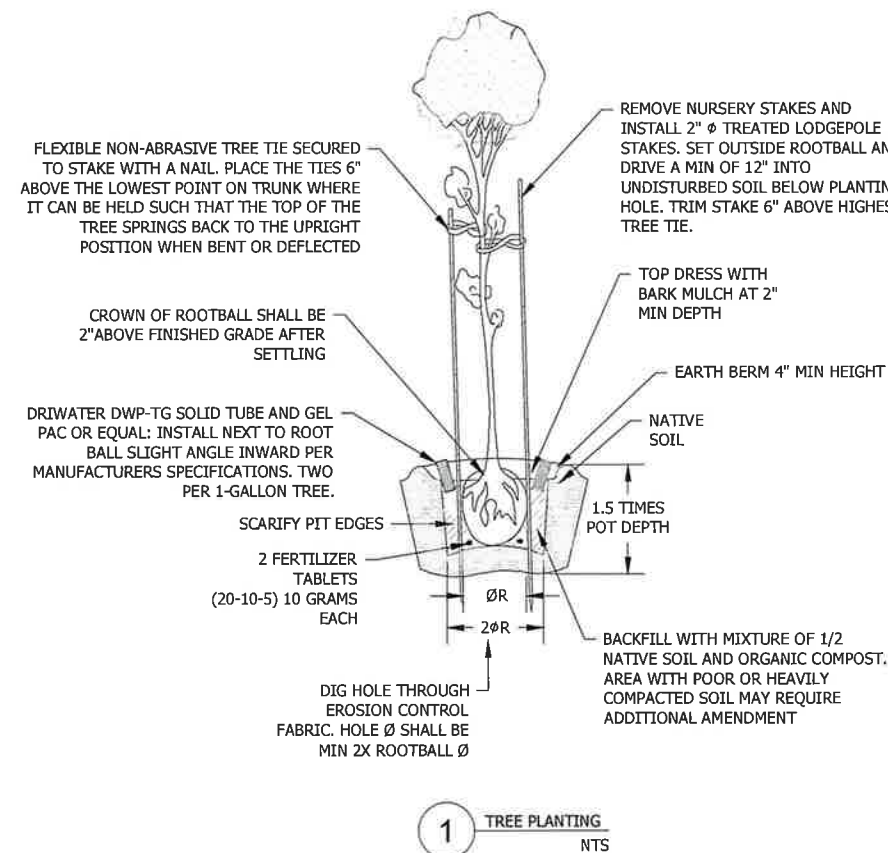
1 TYPICAL MODULAR IRRIGATION DISTRIBUTION SYSTEM - DIAGRAM

PROJECT NUMBER: 1013.00
SCALE: AS NOTED
DATE: 7/10/25

DESIGN: RT/JB
DRAWN: BW/HG
CHECKED: JB
APPROVED: RT

IRRIGATION SYSTEM
DIAGRAM

SHEET 23 OF 25



- NOTES:

1. STEEL POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MIN. OF ONE (1') FOOT.
2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED IN (E.G. PAVEMENT) WEIGHT FABRIC FLAP WITH WASHED GRAVEL ON UPHILL SIDE TO PREVENT FLOW UNDER FENCE.
3. THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
4. SILT FENCE SHALL BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IN TURN IS SECURELY FASTENED TO THE STEEL FENCE POSTS.
5. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 6 INCHES. THE SILT SHALL BE DISPOSED OF IN AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.

TWITCHELL ISLAND MITIGATION AND ENHANCEMENT SITES - DESIGN PROJECT

SACRAMENTO COUNTY, CA

Stillwater Sciences

2855 TELEGRAPH AVENUE, SUITE 400
BERKELEY, CA 94705 P: (510) 848-8098

REVISIONS

NO.	DESCRIPTION	DATE

PROJECT NUMBER: 1013.00

SCALE: AS NOTED

DATE: 7/10/25

DESIGN: RT/JB

DRAWN: BW/HG

CHECKED: JB

APPROVED: RT

PLANTING DETAILS

SHEET 24 OF 25

OPEN PLANTING HOLES IN SOIL SLIGHTLY DEEPER THAN LENGTH OF ROOTBALL WITH SHOVEL, TROWEL OR OTHER TOOL



INSERT SALVAGED PLANTS DEEPLY INTO HOLES SO THAT TOP OF ROOTBALL IS AT LEAST 1/2" BELOW ADJACENT NATIVE SOIL



FIRM SOILS AROUND SALVAGED PLANTS, SOIL & ROOTS WITH BLOWS FROM SMALL SLEDGE OR MALLET



COMPLETELY COVER ALL SALVAGED PLANT ROOTBALLS WITH 1/2" NATIVE SOIL & TOPPED WITH 2-3" OF MULCH

5 SALVAGED PLANTS
NTS

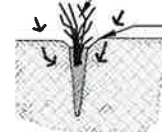
NOTES:

1. LEAVES MAY BE CLIPPED; HOWEVER, EACH UNIT SHALL INCLUDE AERIAL STEMS THAT ARE A MINIMUM OF 18" TO 36" TALL AND ROOTBALLS SHALL BE NO SMALLER THAN 2.4" X 2.4", WITH HEALTHY RHIZOMES AND TOPS.
2. HOLE SHALL BE EQUAL IN DEPTH TO THE ROOTBALL AND 1 TO 1.5 TIMES THE WIDTH OF THE ROOTBALL (ROOTBALL IS FLUSH OR SLIGHTLY BELOW FINISHED GRADE)
3. BACKFILL WITH CLEAN, WEED-FREE TOP SOIL, TAMP SOIL TO REMOVE AIR POCKETS
4. CONSTRUCT A BERM ON THE DOWNSLOPE SIDE THAT IS A HALF-CIRCLE 2" TO 3" ABOVE GRADE

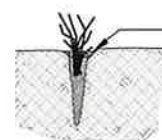
OPEN PLANTING HOLES IN SOIL SLIGHTLY DEEPER THAN LENGTH OF PLUGS WITH SHOVEL, TROWEL OR OTHER TOOL



INSERT PLUGS DEEPLY INTO HOLES SO THAT TOP OF PLUG SOIL IS AT LEAST 1/2" BELOW ADJACENT NATIVE SOIL

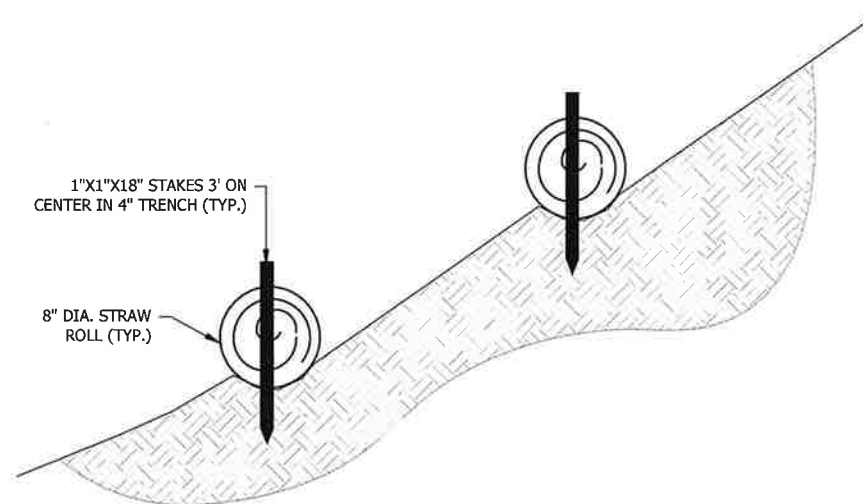


FIRM SOILS AROUND PLUGS, SOIL & ROOTS WITH BLOWS FROM SMALL SLEDGE OR MALLET



COMPLETELY COVER ALL PLUG NURSERY SOIL WITH 1/2" CLEAN, WEED-FREE TOPSOIL

6 PLUG INSTALLATION
NTS



NOTE:

PLACE THE LOOSE EDGE OF THE FIBER ROLLS INTO A 4-INCH DEEP TRENCH AND SECURE WITH A SINGLE ROW OF STAPLES INSTALLED ON 12-INCH CENTERS. THEN PROCEED TO POSITION THE FIBER ROLLS INTO THE TRENCH ADJACENT TO THE SIDEWALK/BACK OF CURB/BACK OF V-DITCH. DRIVE WOODEN 18-INCH STAKES THROUGH THE ROLL ON APPROXIMATELY 3-FOOT CENTERS TO SECURE IN PLACE. CONSTRUCTION OF THE TRENCH AND PROPER STAPLE PLACEMENT IS NECESSARY TO PREVENT WATER AND SEDIMENT FROM FLOWING DIRECTLY UNDER THE SEDIMENT CONTROL ROLL. WITH THIS TYPE OF INSTALLATION, WATER WILL ACCUMULATE BEHIND THE ROLL, ALLOWING SEDIMENT LADEN WATER TO BE FILTERED THROUGH THE ROLL WHILE DEPOSITION OF SEDIMENT OCCURS BEHIND THE ROLL.

7 STRAW ROLL INSTALLATION
NTS

TWITCHELL ISLAND
MITIGATION AND
ENHANCEMENT SITES -
DESIGN PROJECT

SACRAMENTO COUNTY, CA

Stillwater Sciences

2855 TELEGRAPH AVENUE, SUITE 400
BERKELEY, CA 94705 P: (510) 848-8098

REVISIONS

NO.	DESCRIPTION	DATE

PROJECT NUMBER: 1013.00

SCALE: AS NOTED

DATE: 7/10/25

DESIGN: RT/JB

DRAWN: BW/HG

CHECKED: JB

APPROVED: RT

PLANTING DETAILS (2)

SHEET 25 OF 25

EXHIBIT B





EXHIBIT C

Christopher H. Neudeck

From: Tim Pfisterer <tim@panelized.com>
Sent: Tuesday, July 8, 2025 3:24 PM
To: Loomis, Alena; Barry Sgarrella; Younus, Aman
Cc: Christopher H. Neudeck; Jeff Mueller; Winston Friedman; Michael Flood; Sean M. Pritchard
Subject: RE: Transformer Upgrade SP#130853570 EGI#125547778 PM# 35633908 - TWITCHELL ISL RD WS 1.3MI S/JACKSON SLU RD, Isleton

CAUTION: This email originated from outside the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Alena,

Just wanted to follow up here after the holiday weekend. Has anything transpired since our last phone call and email?

- Our last conversation was talking about keeping the PGE meter in the pump house and relocating it to the new 1200a service. PGE has always had access to
- If you can set up an on-site meeting, I'd really like to discuss the mechanics and engineered design with someone in person so they can understand what exactly we are trying to do. The President of RD1601 would like to attend this meeting to have input on the final design.

Thanks,

Tim Pfisterer
Project Manager

The logo for panelizedsolar, with 'panelized' in a grey sans-serif font and 'solar' in a green sans-serif font, with a small yellow sun icon above the 'a' in 'solar'.

5731 Stoddard Rd.
Modesto Ca 95356
209-649-9889 mobile
209-343-8655 fax
Tim@panelized.com

From: Tim Pfisterer

Sent: Tuesday, July 1, 2025 4:15 PM

To: Loomis, Alena <A0LV@pge.com>; Barry Sgarrella <barry@solagra.com>; Younus, Aman <M1YW@pge.com>

Cc: 'Christopher H. Neudeck' <cneudeck@ksninc.com>; Jeff Mueller <jmueller@ksninc.com>; Winston Friedman <winston@solagra.com>; Michael Flood

<mflood@panelized.com>

Subject: RE: Transformer Upgrade SP#130853570 EGI#125547778 PM# 35633908 - TWITCHELL ISL RD WS 1.3MI S/JACKSON SLU RD, Isleton

Hello Alena,

Everything is looking pretty good since our phone calls and your verifications.

Currently for the last 25 years, PGE has had access to the pump house meter on the existing 600a MSB. We would like to keep it that way as the new 1200a has been set up for commercial meter in the cabinet and PGE will continue to have access to the meter.

I also understand per our conversation that the UCD transformer will need to be installed underground.

Thanks,

Tim Pfisterer
Project Manager

panelizedsolar

5731 Stoddard Rd.

Modesto Ca 95356

209-649-9889 mobile

209-343-8655 fax

Tim@panelized.com

From: Loomis, Alena <AOLV@pge.com>

Sent: Tuesday, July 1, 2025 1:30 PM

To: Tim Pfisterer <tim@panelized.com>; Barry Sgarrella <barry@solagra.com>; Younus, Aman <M1YW@pge.com>

Cc: 'Christopher H. Neudeck' <cneudeck@ksninc.com>; Jeff Mueller <jmueller@ksninc.com>; Winston Friedman <winston@solagra.com>; Michael Flood <mflood@panelized.com>

Subject: RE: Transformer Upgrade SP#130853570 EGI#125547778 PM# 35633908 - TWITCHELL ISL RD WS 1.3MI S/JACKSON SLU RD, Isleton

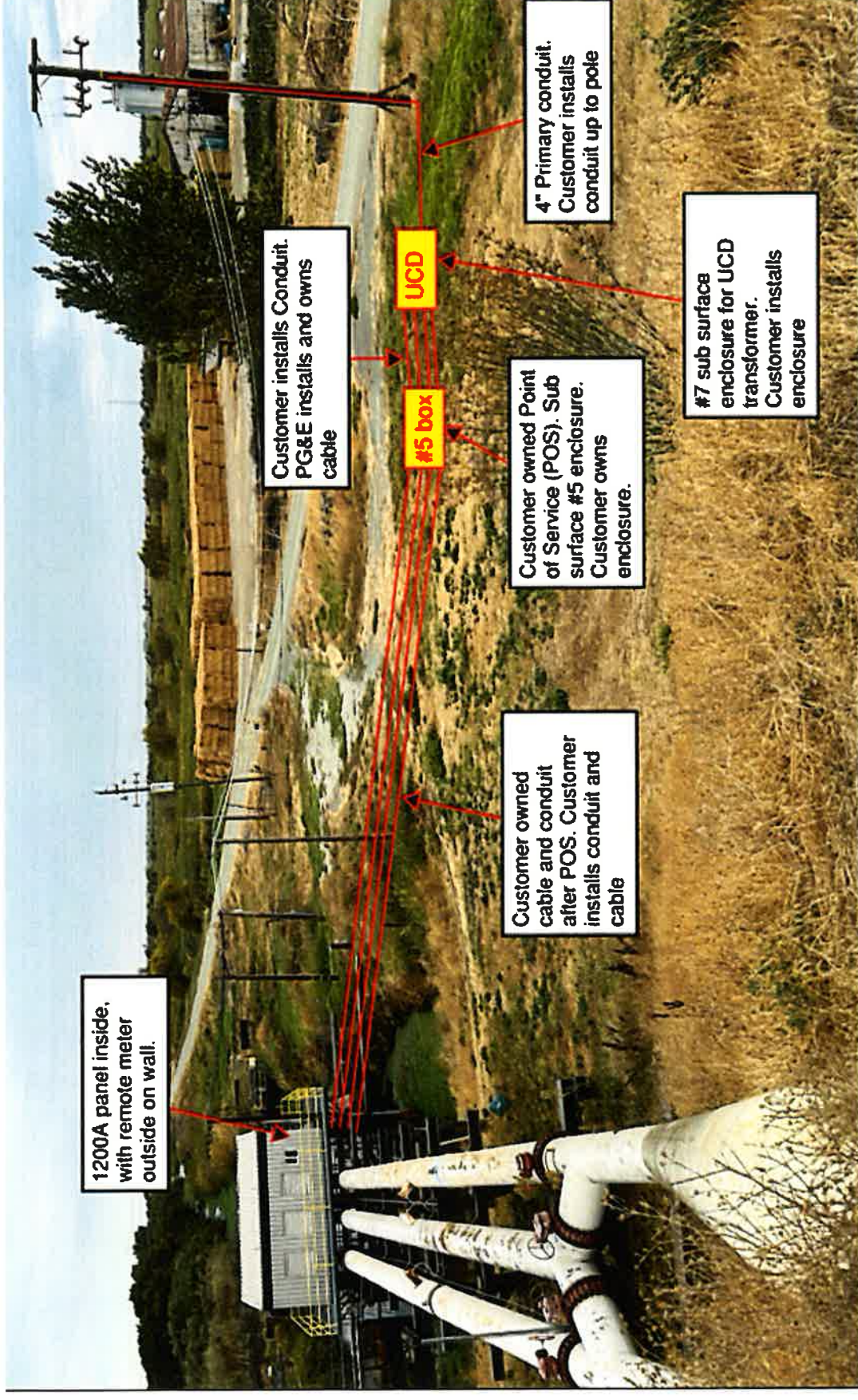
Classification: Public

Hi Tim,

Following up from our phone conversations, our estimating team went back to Standards to come up with a different plan. This is their proposal of the new plan. You would install the 1200A panel inside the building and a remote meter on the outside wall so that PG&E could access/view the remote

meter. You would also install all conduits, cable and substructures (including the #5 box and #7 box) up to the #7 box. We would then install the subsurface transformer in the #7 box.

Also to reiterate, the subsurface transformer is the only 100% watertight transformer option and it cannot be installed above ground, and we cannot install a pad mount transformer on a raised platform, so the subsurface is the only option at this time.



Let me know if you have any questions, once you confirm that you are on board with this plan then estimating will revise their design based on this new plan.

Thank you,

Alena Loomis

Pacific Gas and Electric
New Business Representative
Strategic Accounts Team - North
C) 530-201-2273

From: Tim Pfisterer <tim@panelized.com>

Sent: Monday, June 30, 2025 9:57 AM

To: Loomis, Alena <AOLV@pge.com>; Barry Sgarrella <barry@solagra.com>; Younus, Aman <M1YW@pge.com>

Cc: 'Christopher H. Neudeck' <cneudeck@ksninc.com>; Jeff Mueller <jmueller@ksninc.com>; Winston Friedman <winston@solagra.com>; Michael Flood <mflood@panelized.com>

Subject: RE: Transformer Upgrade SP#130853570 EGI#125547778 PM# 35633908 - TWITCHELL ISL RD WS 1.3MI S/JACKSON SLU RD, Isleton

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Hello Alena,

Just left you a voicemail. As construction and sites change, the customer has ideas and locations that change.

The 1200a MSB has been requested to relocate to the platform.

Again, we need a "site visit" and then we can redesign the "site plan" once we confirm what will fall under the approved install by PGE.

Please set up a site meeting early next week.

Thanks,

Tim Pfisterer

Project Manager

panelizedsolar

5731 Stoddard Rd.

Modesto Ca 95356

209-649-9889 mobile
209-343-8655 fax
Tim@panelized.com

From: Loomis, Alena <AOLV@pge.com>
Sent: Monday, June 30, 2025 9:19 AM
To: Barry Sgarrella <barry@solagra.com>; Tim Pfisterer <tim@panelized.com>; Younus, Aman <M1YW@pge.com>
Cc: 'Christopher H. Neudeck' <cneudeck@ksninc.com>; Jeff Mueller <jmueller@ksninc.com>; Winston Friedman <winston@solagra.com>; Michael Flood <mflood@panelized.com>
Subject: RE: Transformer Upgrade SP#130853570 EGI#125547778 PM# 35633908 - TWITCHELL ISL RD WS 1.3MI S/JACKSON SLU RD, Isleton

Classification: Public

I have been looking back at our original conversation about this setup. I had let you know that the 600amp on the platform would have to be converted to a subpanel, and a new meter panel would have to be installed outside of the building, as we cannot trench to the platform. Please see attached email conversation for more on what was discussed the first time I received this application. This is when I requested an updated site plan and later received your proposal to locate the 1200Amp panel outside of the building shown below.

We did originally discuss a pad mount transformer, still waiting for a response on why PG&E went subsurface in the design and if a pad mount is possible.

Thanks,

Alena Loomis

Pacific Gas and Electric
New Business Representative
Strategic Accounts Team - North
CJ 530-201-2273

From: Loomis, Alena <AOLV@pge.com>
Sent: Monday, June 30, 2025 8:52 AM
To: Barry Sgarrella <barry@solagra.com>; Tim Pfisterer <tim@panelized.com>; Younus, Aman <M1YW@pge.com>
Cc: 'Christopher H. Neudeck' <cneudeck@ksninc.com>; Jeff Mueller <jmueller@ksninc.com>; Winston Friedman <winston@solagra.com>; Michael Flood

<mflood@panelized.com>

Subject: RE: Transformer Upgrade SP#130853570 EGI#125547778 PM# 35633908 - TWITCHELL ISL RD WS 1.3MI S/JACKSON SLU RD, Isleton

I have reached out to estimating about your questions regarding the subsurface vs. pad mount transformer. However, the panel location was based on the site plan I received with the application which shows the panel next to the transformer pictured below. If this has been updated please provide a new site plan.



Thanks,

Alena Loomis

Pacific Gas and Electric
New Business Representative
Strategic Accounts Team - North
C) 530-201-2273

From: Barry Sgarrella <barry@solagra.com>

Sent: Thursday, June 26, 2025 3:49 PM

To: Tim Pfisterer <tim@panelized.com>; Loomis, Alena <A0LV@pge.com>; Younus, Aman <M1YW@pge.com>

Cc: 'Christopher H. Neudeck' <cneudeck@ksninc.com>; Jeff Mueller <jmueller@ksninc.com>; Winston Friedman <winston@solagra.com>; Michael Flood <mflood@panelized.com>

Subject: RE: Transformer Upgrade SP#130853570 EGI#125547778 PM# 35633908 - TWITCHELL ISL RD WS 1.3MI S/JACKSON SLU RD, Isleton

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Thanks Tim,

A site visit would be the most effective way to revise the design so it works for all.

Barry Sgarrella

President
Reclamation District 1601
C: 415-720-5060

From: Tim Pfisterer <tim@panelized.com>

Sent: Thursday, June 26, 2025 3:44 PM

To: Loomis, Alena <A0LV@pge.com>; Barry Sgarrella <barry@solagra.com>; Younus, Aman <M1YW@pge.com>

Cc: 'Christopher H. Neudeck' <cneudeck@ksninc.com>; Jeff Mueller <jmueller@ksninc.com>; Winston Friedman <winston@solagra.com>; Michael Flood <mflood@panelized.com>

Subject: RE: Transformer Upgrade SP#130853570 EGI#125547778 PM# 35633908 - TWITCHELL ISL RD WS 1.3MI S/JACKSON SLU RD, Isleton

Hello Alena,

In reviewing the proposed layout, I want to communicate the intent of the District and what they are looking for. See the attached edited layout for review:

- New UCD Transformer does not need to underground as the water table is only 2' deep. We have asked for a watertight transformer to be placed on a pad above grade. Is this possible? Reason is New Transformer would be below Base Flood Elevation and would be submerged if levee breaks.
- Option 2 is to have an upgraded standard pad mount tranny but if levee ever broke, it would be flooded.
- The new 1200a panel is planned to be installed on the pump house platform in the bldg. in the north-west corner. (just across from the existing 600a pump panel and meter).
- The conductors from new transformer would need to feed underground to pump house, then transition to rigid pipe (open air) to enter the bottom of the new 1200a panel elevated in pump house.

I think a site visit with the powers that be, would be good for everyone to put their eyes on this site. Let me know when and I will make time to meet PGE representatives.

Thanks,

Tim Pfisterer
Project Manager

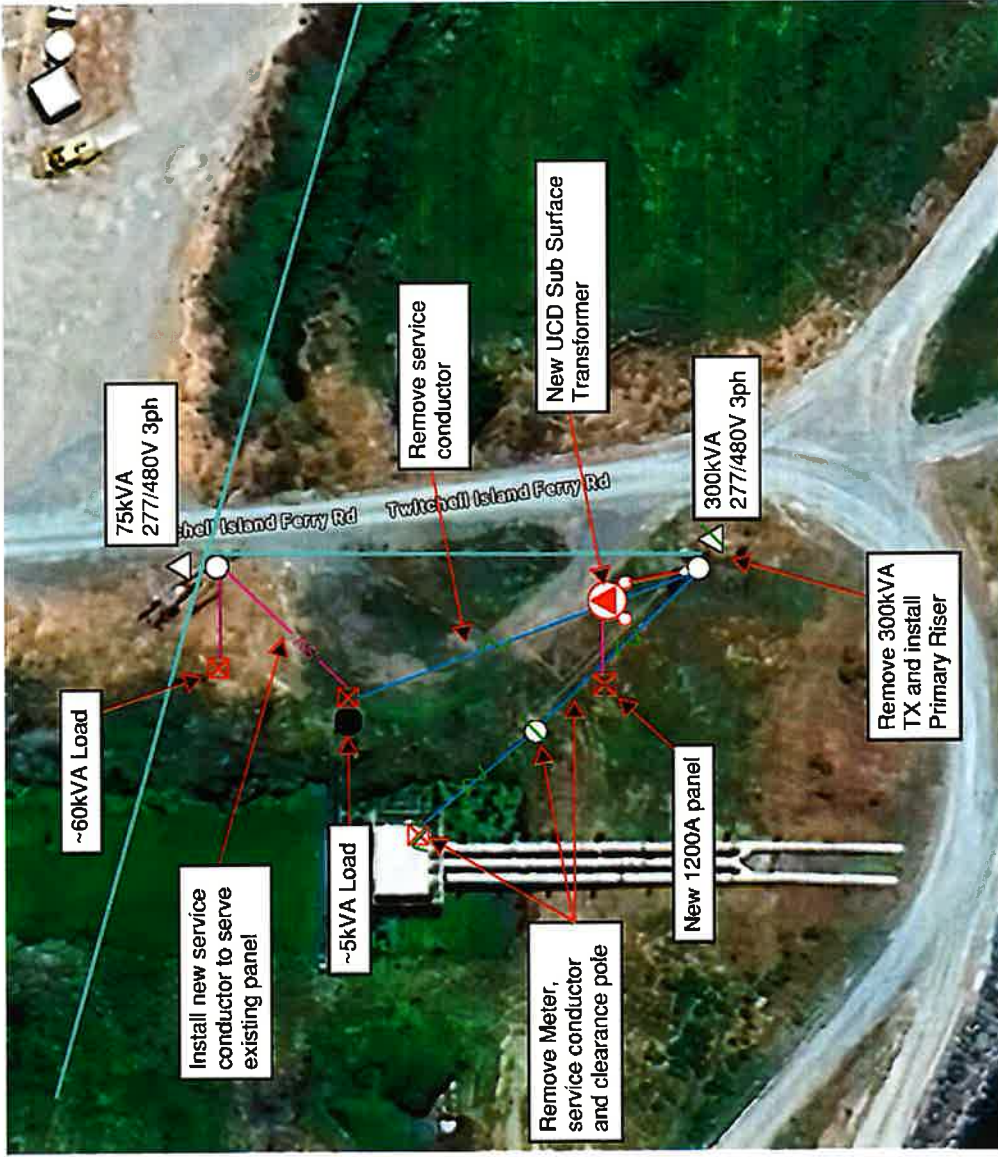
panelizedsolar

5731 Stoddard Rd.
Modesto Ca 95356
209-649-9889 mobile
209-343-8655 fax
Tim@panelized.com

From: Loomis, Alena <AOLV@pge.com>
Sent: Thursday, June 26, 2025 9:25 AM
To: Barry Sgarrella <barry@solagra.com>; Younus, Aman <M1YV@pge.com>
Cc: 'Christopher H. Neudeck' <cneudeck@ksninc.com>; Jeff Mueller <jmueller@ksninc.com>; Winston Friedman <winston@solagra.com>; Tim Pfisterer <tim@panelized.com>
Subject: RE: Transformer Upgrade SP#130853570 EGI#125547778 PM# 35633908 - TWITCHELL ISL RD WS 1.3MI S/JACKSON SLU RD, Isleton

Classification: Public

The estimators did let me know that since we are removing the 300kVA overhead transformer that services both meters and converting it to an Underground transformer (which will not be able to serve the pole mounted meter) we will have to re-route the service to the pole mounted meter as part of this project. They have come up with a plan to run a new service to the pole mounted meter from a different overhead transformer down the line. Here is a tentative drawing of what that would look like. The final design should be done soon. Let me know if you have any questions.



Thank you,

Alena Loomis

Pacific Gas and Electric
New Business Representative
Strategic Accounts Team - North
C) 530-201-2273

From: Loomis, Alena <A01V@pge.com>

Sent: Wednesday, June 25, 2025 12:06 PM

To: Barry Sgarrella <barry@solagra.com>; Younus, Aman <M1YW@pge.com>

Cc: 'Christopher H. Neudeck' <cneudeck@ksninc.com>; Jeff Mueller <jmueller@ksninc.com>; Winston Friedman <winston@solagra.com>; Tim Pfisterer <tim@panelized.com>

Subject: RE: Transformer Upgrade SP#130853570 EGI#125547778 PM# 35633908 - TWITCHELL ISL RD WS 1.3MI S/JACKSON SLU RD, Isleton

Thanks for the clarification, I let the estimating team know that the meter on the pole will remain and is not part of the project.

Thanks,

Alena Loomis

Pacific Gas and Electric
New Business Representative
Strategic Accounts Team - North
C) 530-201-2273

From: Barry Sgarrella <barry@solagra.com>

Sent: Wednesday, June 25, 2025 12:01 PM

To: Loomis, Alena <AOLV@pge.com>; Younus, Aman <M1YW@pge.com>

Cc: 'Christopher H. Neudeck' <cneudeck@ksninc.com>; Jeff Mueller <jmueller@ksninc.com>; Winston Friedman <winston@solagra.com>; Tim Pfisterer <tim@panelized.com>

Subject: RE: Transformer Upgrade SP#130853570 EGI#125547778 PM# 35633908 - TWITCHELL ISL RD WS 1.3MI S/JACKSON SLU RD, Isleton

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Good morning, Alena,

The existing meter that serves the pump station and will serve the solar array is mounted inside the machinery house on the southeast corner of the building—see the attached photo.

The meter mounted on the pole is used for a completely separate purpose. It provides power to recirculating pumps on RD-1601's rice project. That meter will remain, but it is not part of the solar project.

Thank you,

Barry Sgarrella

President
Reclamation District 1601
C: 415-720-5060

From: Loomis, Alena <AOLV@pge.com>
Sent: Wednesday, June 25, 2025 8:55 AM
To: Barry Sgarrella <barry@solagra.com>; Younus, Aman <M1YW@pge.com>
Cc: 'Christopher H. Neudeck' <cneudeck@ksninc.com>; Jeff Mueller <jmueller@ksninc.com>; Winston Friedman <winston@solagra.com>; Tim Pfisterer <tim@panelized.com>
Subject: RE: Transformer Upgrade SP#130853570 EGI#125547778 PM# 35633908 - TWITCHELL ISL RD WS 1.3MI S/JACKSON SLU RD, Isleton

Classification: Public

Good morning,

Our estimating team is almost finished with the design for the transformer upgrade for this project, however they had a question that is needing clarification. Could you clarify if the meter panel that is outside of the building mounted to the pole is being removed? That is what seems to be shown on the SLD. Will it be tied into the new 1200Amp switchgear along with the service from the building?

Thank you,

Alena Loomis

Pacific Gas and Electric
New Business Representative
Strategic Accounts Team - North
C) 530-201-2273

From: Barry Sgarrella <barry@solagra.com>

Sent: Monday, May 5, 2025 4:55 PM

To: Loomis, Alena <AOLV@pge.com>; Younus, Mohammad Aman <MohammadAman.Younus@pge.com>

Cc: Gillis, Gregory <G1Gf@pge.com>; 'Christopher H. Neudeck' <cneudeck@ksninc.com>; Jeff Mueller <jmueller@ksninc.com>; Winston Friedman <winston@solagra.com>; Tim Pfisterer <tim@panelized.com>

Subject: RE: Transformer Upgrade SP#130853570 EGI#125547778 PM# 35633908 - TWITCHELL ISL RD WS 1.3MI S/JACKSON SLU RD, Isleton

Classification: Public

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I have attached a copy of the Sacramento County building permit for the subject project. Foundations are complete. Solar array began erection today.

Barry Sgarrella

President

Reclamation District 1601

C: 415-720-5060

From: Loomis, Alena <AOLV@pge.com>
Sent: Wednesday, April 30, 2025 11:17 AM
To: Barry Sgarrella <barry@solagra.com>
Cc: Gillis, Gregory <G1Gf@pge.com>; 'Christopher H. Neudeck' <cneudeck@ksninc.com>; Jeff Mueller <jmueller@ksninc.com>; Winston Friedman <winston@solagra.com>; Tim Pfisterer <tim@panelized.com>
Subject: RE: Transformer Upgrade SP#130853570 EGI#125547778 PM# 35633908 - TWITCHELL ISL RD WS 1.3MI S/JACKSON SLU RD, Isleton

Classification: Public

Barry,

I apologize that you feel that this process has been redundant – I would like to help you get this moved forward from this point. Here is how the timeline has occurred from the Service Planning perspective.

The EGI Engineering team that reviews solar interconnection applications is not related to our Service Planning team that handles transformer upgrades/mitigations. If the timeline that Aman originally communicated to you is incorrect, please contact him regarding this miscommunication. When Service Planning receives a transformer upgrade application, our timeline is at least 6-8 months for completion from the time the app is created. So, although Aman sent this to their Engineering team on 7/24/24, and they would have then determined an upgrade was needed during that process and created an application with us; I received the initial application from EGI to perform a transformer upgrade on 10/9/2024. This original application with Service Planning was then cancelled due to being over our allowable application intake time limit as we were waiting for you to provide new drawings for the proposed transformer and switchgear location (see attached our original communications). I then received the new application on 2/13/25.

After receiving the new application from Aman on 2/13/25 – I sent you an email that day requesting all the updated documents as I only received a site plan and no SLD (see email below on this chain). I did not receive a response; our estimating department cannot move the design forward without an SLD. I had communications with Aman, and he provided me the SLD on 4/9/25 after receiving it from you.

We cannot install a 500kVA sealed transformer as you're requesting because it is not a size that we use, as I communicated in the past. With the proposed generation we have to serve your system with a 750kVA pad mount unit. Moving forward I will do what I can to get this pushed through the processes as quickly as I can now that I have the information that I need.

Thank you,

Alena Loomis

Pacific Gas and Electric
New Business Representative
Enterprise Customer Mgmt - EGI/EV North
C) 530-201-2273

From: Barry Sgarrella <barry@solagra.com>
Sent: Tuesday, April 29, 2025 5:48 PM
To: Loomis, Alena <AOLV@pge.com>
Cc: Gillis, Gregory <G1Gf@pge.com>; 'Christopher H. Neudeck' <cneudeck@ksninc.com>; Jeff Mueller <jmueller@ksninc.com>; Winston Friedman <winston@solagra.com>; Tim Pfisterer <tim@panelized.com>
Subject: RE: Transformer Upgrade SP#130853570 EGI#125547778 PM# 35633908 - TWITCHELL ISL RD WS 1.3MI S/JACKSON SLU RD, Isleton

Classification: Public

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Alena,

I received your email today.

This project has been in PG&E's queue since February 23, 2023. We received a preliminary engineering cost estimate, which included a proposed pad-mount 750 KVA transformer upgrade. Since the project is below the Base Flood Elevation, a conventional pad-mount transformer would not work. The only change we requested is a sealed transformer of at least 500 KVA.

Aman Younus transmitted this to PG&E Engineering on 7/24/2024 with an expected 6-12 month timeframe, which complies with our project schedule. We have PG&E's approval for Conditional Operation up to 300 KW. Based on Aman's emails, we expected PG&E Engineering to come back with a revised quote for the sealed transformer. For some reason, Engineering bounced it back to Service Planning, and it looks like the entire process is starting again. **This redundancy is unacceptable.**

The final building permit for the project was issued in March 2025. Per Aman's email, we will send you a copy of the permit. We are building the solar array now and expect to be ready to interconnect

in July 2025. We cannot tolerate an additional 6-8 months for completion of a design that has not changed except for the need for a sealed transformer.

Please advise.

Barry Sgarrella

President
Reclamation District 1601
C: 415-720-5060

From: Loomis, Alena <AOLV@pge.com>
Sent: Tuesday, April 29, 2025 1:19 PM
To: Barry Sgarrella <barry@solagra.com>
Cc: Gillis, Gregory <G1Gf@pge.com>
Subject: Transformer Upgrade SP#130853570 EGI#125547778 PM# 35633908 - TWITCHELL ISL RD WS 1.3MI S/JACKSON SLU RD, Isleton

Classification: Public

Good afternoon Barry,

I received your request for contact regarding the project timeline. On 4/9, I received your updated SLD that had been requested and sent it over to our estimating department to get the project scheduled for design. The design can take up to 8 weeks to complete from when we receive all necessary information. I will not know the costs of the project until the design is complete. It's currently on the estimating schedule for 6/11.

The overall transformer upgrade timeline can take 6-8 months. When the design is completed I will send it over to you.

Feel free to contact me anytime with questions or status updates.

Thank you,

Alena Loomis

Pacific Gas and Electric
New Business Representative
Enterprise Customer Mgmt - EGI/EV North

C) 530-201-2273
Email: alena.loomis@pge.com
Hours – 7:00 A.M. – 3:30 P.M. M-F


From: Loomis, Alena <AOLV@pge.com>
Sent: Thursday, February 13, 2025 8:32 AM
To: Barry Sgarrella <barry@solagra.com>
Subject: Application Received: Transformer Upgrade SP#130853570 EGI#125547778 - TWITCHELL ISL RD WS 1.3MI S/JACKSON SLU RD, Isleton

Classification: Public

Good morning,

I have received the new service planning application for the upgrade project on Twitchell Isl Rd, could you please send over all of the new documents you've created (updated site plans, sld, etc.). I was only provided one new site plan with the application so I don't believe I received all of the new information.

Thank you,

Alena Loomis
Pacific Gas and Electric
New Business Representative
Enterprise Customer Management - EGI/EV
C) 530-201-2273
Email: alena.loomis@pge.com
Hours – 7:00 A.M. – 3:30 P.M. M-F



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EXHIBIT D

RECLAMATION DISTRICT NO. 1601
TWITCHELL ISLAND

SACRAMENTO COUNTY, CALIFORNIA
SYSTEMWIDE MULTIBENEFIT PROJECT
SEVENMILE SLOUGH EROSION REPAIRS
STATION 166+50 TO STATION 179+50



SHEET NO.	DESCRIPTION
01	TITLE SHEET
02	NOTES & DETAILS
03	BASE MAP
04-07	FOCUSED PLAN VIEWS
08-12	CROSS SECTIONS

SHEET INDEX



FILE: S:\1110_Twitchell_Island\1061_ERP-7-mile slough\08_Civil\400_Plans\020_CAD\Sheets\01-Title Sheet.dwg
PLOT DATE: Jun 03, 2025 - 2:39pm



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SUBMITTAL	
%	Date
60%	6/3/2025



NORTH ORIENTATION



PROJECT ENGINEER
5/23/2025

NO.	DESCRIPTION	DATE	APPR.

DESIGN BY DAV
DRAWN BY BRH
CHECK BY DAV
HORIZONTAL DATUM
CCS83, ZONE 2
VERTICAL DATUM
NAVD88

DRAWING SCALE
N.T.S.
ORIGINAL DRAWING SCALE
0 1/2" 1"



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711 N. Pershing Avenue
Stockton, CA 95203
209-946-0268
1550 Harbor Blvd., Suite 212
West Sacramento, CA 95691
916-403-5900

RECLAMATION DISTRICT NO. 1601
TWITCHELL ISLAND
SACRAMENTO COUNTY, CALIFORNIA
**2025 SEVENMILE SLOUGH EROSION REPAIRS
TITLE SHEET**

DATE
JUNE 2025
SHEET IDENTIFICATION
G-001
SHEET 01 OF 12
KSN PROJECT FILE NO.
1110-1061

FILE SPEC: P:\1110_Twitchell_Island\1061_ERP-7-mile_slough\08_Civil\400_Plans\020_CAD\Sheets\02-Notes and Details.dwg
PLOT DATE: Jun 03, 2023 - 2:56pm

GENERAL NOTES:

- PRIOR TO THE COMMENCEMENT OF WORK, A JOINT INSPECTION BETWEEN THE ENGINEER, OR HIS REPRESENTATIVE, AND THE CONTRACTOR, OR HIS REPRESENTATIVE, WILL BE CONDUCTED TO REVIEW THE PRE-CONSTRUCTION CONDITIONS OF THE EXISTING FACILITIES IN THE VICINITY OF THE PROJECT SITE, (E.G. ROADS, PUMPS, DISCHARGE PIPES, SIPHONS, RAMPS, GATES, SIGNS, ETC.) IF SUCH EXISTING FACILITIES ARE DAMAGED BY THE CONTRACTOR'S OPERATIONS, THE CONTRACTOR AT HIS EXPENSE, SHALL REPLACE OR RESTORE THEM TO THE CONDITION THAT EXISTED PRIOR TO THE COMMENCEMENT OF WORK.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT (209) 946-0268, A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY WORK.
- THE DISTRICT RESERVES THE RIGHT TO SUSPEND CONSTRUCTION AT ANY TIME IN THE EVENT OF EXTREME HIGH OR LOW TIDES, FLOOD EVENTS, OTHER CONDITIONS OR EMERGENCIES THAT MAY JEOPARDIZE THE INTEGRITY OF THE DISTRICT'S LEVEE SYSTEM.
- THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, COUNTY AND LOCAL REQUIREMENTS, AS REQUIRED FOR TRAFFIC CONTROL AND PUBLIC SAFETY DURING PROJECT CONSTRUCTION.
- THE DISTRICT WILL FURNISH ALL RIGHT-OF- WAYS FOR ALL LEVEE ROADS UNDER THE DISTRICT'S JURISDICTION. THE CONTRACTOR WILL SECURE RIGHT-OF-WAYS FOR ALL OTHER AREAS NOT UNDER THE DISTRICT'S JURISDICTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ACCESS ALONG THE DISTRICT/COUNTY LEVEE ROADS AT ALL TIMES DURING CONSTRUCTION, ANY DAMAGE TO THE LEVEE ROADS AND ACCESS RAMPS SHALL BE IMMEDIATELY REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.
- IF DELIVERING MATERIAL OR EQUIPMENT BY TRUCK, ALL TRUCK TRAFFIC SHALL BE LIMITED TO THE DISTRICT/COUNTY LEVEE ROADS, UNLESS OTHERWISE APPROVED.
- MAXIMUM SPEED LIMIT ON DISTRICT LEVEE ROADS IS 30 MPH, OR AS POSTED.
- THE ENGINEER WILL PROVIDE LOCATIONS OF THE DESIGNATED PROJECT REPAIR SITES WITH START AND STOP POINTS, AND WILL PROVIDE TEMPORARY BENCHMARKS IN THE VICINITY OF THE PROJECT SITES TO BE UTILIZED BY THE CONTRACTOR FOR SETTING ROCK ELEVATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR SETTING ALL CONSTRUCTION STAKING AND SURVEYING, AS MAY BE REQUIRED FOR CONSTRUCTION ACTIVITIES, INCLUDING, BUT NOT LIMITED TO, SETTING TOP AND BOTTOM OF ROCK ELEVATIONS THROUGHOUT THE PROJECT SITES.
- CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE DISTRICT AND THE DISTRICT'S ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DISTRICT OR THE ENGINEER.
- ANY DEFICIENCIES NOTED DURING INTERIM AND FINAL INSPECTIONS BY THE ENGINEER AND/OR DISTRICT, SHALL BE CORRECTED BY THE CONTRACTOR PRIOR TO FINAL ACCEPTANCE BY THE DISTRICT. ANY ADDITIONAL COSTS AND EXPENSES FOR MOBILIZATION AND/OR DEMOBILIZATION, LABOR, EQUIPMENT AND OTHER ASSOCIATED COSTS REQUIRED TO CORRECT THE DEFICIENCIES NOTED, EXCEPT SPECIFIED MATERIAL(S), SHALL BE BORNE BY THE CONTRACTOR.
- THE CONTRACTOR SHALL NOT CLOSE ANY ROAD, STREET, OR HIGHWAY TO THE PUBLIC EXCEPT WITH THE PERMISSION OF THE ENGINEER AND THE PROPER GOVERNMENTAL AUTHORITY. TEMPORARY PROVISIONS SHALL BE MADE BY THE CONTRACTOR TO ENSURE CONTINUOUS ACCESS TO PUBLIC AND PRIVATE DRIVEWAYS, AND PROPER FUNCTIONING OF SEWER INLETS, GUTTERS, CULVERTS, DRAINAGE AND IRRIGATION DITCHES, AND NATURAL WATER COURSES.
- THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER.
- SHOULD IT APPEAR THAT THE WORK TO BE DONE, OR ANY MATTER RELATIVE THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE ENGINEER AT (209) 946-0268 FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.
- THE INTENT OF THESE PLANS ARE TO SERVE AS A GUIDE AND TO PROVIDE THE CONTRACTOR WITH INFORMATION AND DETAILS NECESSARY TO CONSTRUCT THE PROJECT AND FURNISH THE NECESSARY LABOR, MATERIALS, AND EQUIPMENT TO PERFORM THE WORK IN ACCORDANCE WITH THEIR TRUE INTENT AND PURPOSE. THE CONTRACTOR SHALL NOTIFY THE DISTRICTS ENGINEER IMMEDIATELY REGARDING ANY DISCREPANCIES AND AMBIGUITIES WHICH MAY EXIST IN THE PLANS OR SPECIFICATIONS. IF THE PLANS DESCRIBE PORTIONS OF THE WORK IN GENERAL TERMS BUT NOT IN COMPLETE DETAIL, IT IS UNDERSTOOD THAT ONLY THE BEST GENERAL PRACTICE IS TO PREVAIL AND THAT ONLY MATERIALS AND WORKMANSHIP OF THE FIRST QUALITY ARE TO BE USED.

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE OSHA REGULATIONS.
- ALL IMPROVEMENTS TO BE DONE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER WHENEVER IT APPEARS THERE IS A CHANGE IN SITE CONDITIONS OR AN ADJUSTMENT TO BE MADE IN WORK REQUIREMENTS.
- THE CONTRACTOR SHALL AT ALL TIMES BE RESPONSIBLE FOR THE SECURITY OF HIS PLANT AND EQUIPMENT. THE DISTRICT WILL NOT TAKE ANY RESPONSIBILITY FOR MISSING OR DAMAGED EQUIPMENT, TOOLS, OR PERSONAL BELONGINGS.

ENVIRONMENTAL NOTES:

- THE CONTRACTOR SHALL MAINTAIN AIR POLLUTION CONTROLS BY NOT DISCHARGING SMOKE, DUST, OR ANY OTHER AIR CONTAMINANTS INTO THE ATMOSPHERE IN SUCH QUANTITY AS WILL VIOLATE THE REGULATIONS OF ANY LEGALLY CONSTITUTED AUTHORITY. HE SHALL ALSO ABATE DUST NUISANCE BY CLEANING, SWEEPING AND SPRINKLING WITH WATER, OR OTHER MEANS AS NECESSARY. THE USE OF WATER IN AN AMOUNT WHICH RESULTS IN MUD ON PUBLIC ROADS IS NOT ACCEPTABLE AS A SUBSTITUTE FOR SWEEPING OR OTHER METHODS.
- THE CONTRACTOR SHALL EXERCISE EVERY REASONABLE PRECAUTION TO PROTECT STREAMS, WATERWAYS AND OTHER BODIES OF WATER FROM POLLUTION WITH FUELS, OIL, BITUMENS, CALCIUM CHLORIDE, AND OTHER HARMFUL MATERIALS AND SHALL CONDUCT AND SCHEDULE HIS OPERATIONS SO AS TO AVOID OR MINIMIZE MUDDYING AND SILTING OF SAID WATERS. CARE SHALL BE EXERCISED TO PRESERVE ROADSIDE VEGETATION BEYOND THE LIMITS OF CONSTRUCTION.
- DURING THE COURSE OF CONSTRUCTION, ANY AREAS GENERATING DUST BY THE CONTRACTOR SHALL BE KEPT WELL WATERED. DURING WET CONDITIONS, CONTRACTOR SHALL KEEP ALL ROADWAYS ADJACENT TO THE PROJECT AREA WHICH ARE USED BY THE CONTRACTOR, DISTRICT AND PUBLIC, FREE AND CLEAR FROM MUD.
 - CROP DAMAGE: THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL TO PREVENT CROP DAMAGE AND FOR ANY AREAS IN ADDITION TO THOSE MENTIONED THAT GENERATE DUST AND/OR OTHER CONDITIONS WHICH MIGHT DAMAGE CROPS.
 - NON-WORK DAYS: THE CONTRACTOR MAY BE RESPONSIBLE FOR DUST CONTROL IN ANY PROJECT OR CROP AREAS WHICH ARE USED BY THE CONTRACTOR.
- THROUGHOUT ALL PHASES OF CONSTRUCTION, INCLUDING SUSPENSION OF WORK, AND UNTIL FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL KEEP THE WORK SITE CONDITIONS CLEAN AND FREE FROM RUBBISH AND DEBRIS.
- THE CONTRACTOR SHALL PRESERVE AND PROTECT ANY PLANTS AND TREES AS MAY BE DESIGNATED AND MARKED BY THE ENGINEER AT THOSE REPAIR SITES AND DESIGNATED PRIOR TO COMMENCEMENT OF SITE WORK. SOME PRUNING AND TRIMMING OF BRANCHES MAY BE REQUIRED. NO TREES OR OTHER VEGETATION WITH A DIAMETER AT BREAST HEIGHT OF GREATER THAN 2" SHALL BE REMOVED. LIST OF TREES SHOWN ON PROJECT PLANS IS NOT EXHAUSTIVE.
- RIPRAP SHALL BE CAREFULLY PLACED, BY HAND IF NECESSARY, AROUND THE BASE OF ANY DESIGNATED PLANTS AND TREES.
- IN COMPLIANCE WITH CALIFORNIA CODE OF REGULATIONS, TITLE 13, SECTION 2449, WHICH OUTLINES THE GENERAL REQUIREMENTS FOR IN-USE OFF-ROAD DIESEL-FUELED FLEETS, ALL PRIME CONTRACTORS AND SUBCONTRACTORS INVOLVED IN BIDDING OR WORKING ON A PUBLIC WORKS PROJECT ARE REQUIRED TO FURNISH COPIES OF VALID CALIFORNIA AIR RESOURCES BOARD (CARB) CERTIFICATES OF COMPLIANCE WITH THE REGULATION FOR IN-USE OFF-ROAD DIESEL FUELED FLEETS PRIOR TO THE COMMENCEMENT OF ANY NEW CONTRACT WITH A PUBLIC WORKS AWARDDING BODY. THIS REQUIREMENT IS AN INTEGRAL PART OF THE BID FORM, AND BY SIGNING THE BID FORM, THE BIDDER ACKNOWLEDGES THEIR UNDERSTANDING AND AGREEMENT TO COMPLY WITH THIS STIPULATION.

UTILITY NOTES:

- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE ACTUAL LOCATION OF ALL UNDERGROUND, SURFACE, OVERHEAD, AND SUBMARINE IMPROVEMENTS, OR FACILITIES WHICH MAY BE SUBJECT TO DAMAGE BY REASON OF HIS OPERATIONS.
- THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES AND SHALL CONTACT THE RESPECTIVE UTILITY COMPANIES PRIOR TO COMMENCEMENT OF WORK. HF SHALL BE RESPONSIBLE FOR THE LOCATION AND PRESERVATION OF ALL SUCH FACILITIES IN THE AREA OF CONSTRUCTION, AND SHALL NOTIFY UTILITIES TWENTY-FOUR (24) HOURS IN ADVANCE OF ANY CONSTRUCTION. (UNDERGROUND SERVICE ALERT (800) 642-2444).

PERMIT COMPLIANCE NOTES:

CALIFORNIA DEPARTMENT OF FISH & GAME PERMIT

- THE CONTRACTOR SHALL ADHERE TO CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE (DFW) CODES APPLICABLE TO THIS TYPE OF WORK.

- CONTRACTOR IS RESPONSIBLE FOR STRICT COMPLIANCE WITH THE DFW PROJECT SITE AGREEMENT AND DISTRICT'S ANNUAL ROUTINE LEVEE MAINTENANCE AGREEMENT NO. 11-757-92
- A COPY OF THE DFW AGREEMENTS FOR THIS PROJECT WILL BE FURNISHED TO THE CONTRACTOR PRIOR TO CONSTRUCTION START.
- THE CONTRACTOR SHALL KEEP A COPY OF THE PROJECT DFW AGREEMENTS AVAILABLE FOR INSPECTION ON SITE AT ALL TIMES.

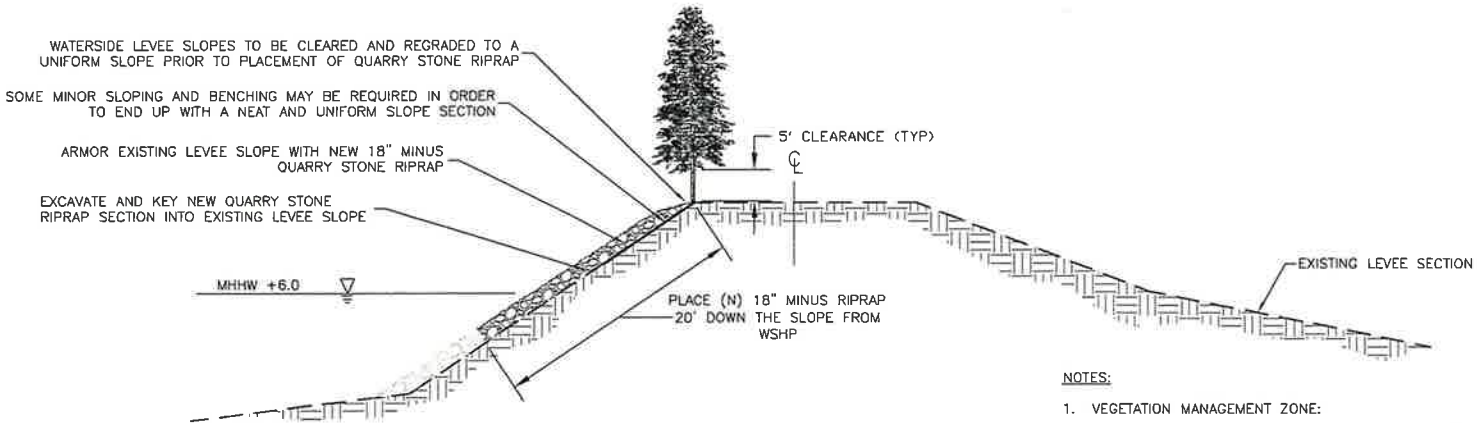
CONSTRUCTION NOTES:

- ALL EROSION SITE AREAS TO RECEIVE QUARRY STONE RIPRAP, AND/OR FILL SHALL BE CLEARED TO THE GROUND SURFACE OF ALL VEGETATIVE GROWTH AND DEBRIS, EXCEPT AS NOTED BELOW. CLEARED MATERIALS MAY BE TEMPORARILY STOCKPILED ON THE BACKSLOPE OF THE LEVEE. UNDER NO CIRCUMSTANCES SHALL MATERIAL BE BURNED ON THE LEVEE SECTION OR DISPOSED OF BY DUMPING IT INTO THE WATERWAYS. THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ANY CLEARED MATERIALS OFF THE PROJECT.
- UNLESS OTHERWISE SPECIFIED OR SHOWN ON THE PLANS, THE EMBANKMENT SLOPES SHALL BE CONSTRUCTED FROM MATERIALS SPECIFIED IN ORDER TO END UP WITH A NEAT AND UNIFORM SLOPE SECTION.
- ANY EXCAVATION AND EMBANKMENT SECTIONS REQUIRED, SHALL BE BALANCED IN ORDER TO END UP WITH THE MINIMUM SLOPE SECTION.
- MATERIAL SHALL BE PLACED IN A SYSTEMATIC MANNER WITH PLACEMENT BEGINNING AT THE BASE OF THE EMBANKMENT SLOPES AND BROUGHT TO A MINIMUM DESIGN SLOPE SECTION AS SHOWN.
- ALL QUARRY STONE RIPRAP SHALL BE PLACED UNIFORMLY ON PREPARED LEVEE SLOPES, AND KEYED INTO THE LEVEE SECTION, LEVEE TOE OR WATERSIDE BENCH, AND INTO ANY PREVIOUSLY PLACED QUARRY STONE RIPRAP, UNLESS OTHERWISE DIRECTED.
- QUARRY STONE RIPRAP SHALL BE PLACED SYSTEMATICALLY BEGINNING AT THE BASE OF THE PREPARED EMBANKMENT SLOPES TO THE LINES AND GRADES SHOWN ON THE PLANS.
- BUCKET TAMPING OF THE STONE ABOVE THE WATER SHALL BE REQUIRED TO SET THE NEW STONE PROTECTION IN PLACE AND TO ACHIEVE THE REQUIRED SLOPE AND TOLERANCE OF PLUS 2 INCHES TO MINUS 1 INCH WILL BE ALLOWED FROM THE THICKNESS SHOWN ON THE PLANS.
- BUCKET TAMPING OF THE QUARRY STONE RIPRAP WILL BE PERFORMED IN A MANNER NOT TO DEGRADE THE STONE PLACED.

- REARRANGING OF INDIVIDUAL STONES BY MECHANICAL EQUIPMENT OR HAND MAY BE REQUIRED TO THE EXTENT NECESSARY TO OBTAIN A REASONABLY WELL GRADED DISTRIBUTION OF STONE SIZES TO PROVIDE A FINISHED SURFACE FREE OF PROTRUDING STONES.
- DUE TO VARIATIONS IN SLOPE LENGTH, THE APPLICATION RATE OF ANY FILL AND QUARRY STONE RIPRAP MAY VARY BETWEEN STATIONS.
- WATERSIDE LEVEE SLOPE SECTIONS REQUIRING SPOT REPAIRS OR RESTORATION, WILL REQUIRE EXTREME CARE DURING PLACEMENT TO SUPPLEMENT ONLY THOSE AREAS REQUIRING REPAIRS, AS DESIGNATED BY THE ENGINEER.
- DESIGNATED REPAIR SITE ADJUSTMENTS MAY BE REQUIRED BY THE ENGINEER PRIOR TO OR DURING QUARRY STONE RIPRAP PLACEMENT, OR AS OTHERWISE DIRECTED.
- ACTUAL FIELD CONDITIONS WILL VARY IN TYPE OF REPAIRS REQUIRED. THE ENGINEER AND CONTRACTOR IS RESPONSIBLE FOR VERIFYING ACTUAL CONDITIONS AND TYPE OF REPAIRS REQUIRED, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- EXTREME CARE MUST BE USED WHILE WORKING AROUND OR NEAR ANY LEVEE STRUCTURES: E.G. SIPHONS, DISCHARGE PIPES, PUMPS, ETC.
- FOR THE PURPOSE OF THESE PLANS, THE TERM "EMBANKMENT" INCLUDES ALL THE EXCAVATION AND FILL PORTIONS AS MAY BE DESIGNATED ON THE PLANS AND REQUIRED AS A RESULT OF THE LEVEE WATERSIDE SLOPING OPERATIONS.

DUST AND MUD CONTROL:

- DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL KEEP ALL CONSTRUCTION AREAS, HAUL ROADS, OTHER ROADWAYS, AND OTHER USE AREAS WHERE DUST IS GENERATED WELL WATERED.
- THE CONTRACTOR MAY BE REQUIRED TO DEDICATE AT LEAST ONE (1) WATER TRUCK FOR THE ALLEVATION OR PREVENTION OF DUST NUISANCE FOR, BUT NOT LIMITED TO, THE FOLLOWING AREAS:
 - PROJECT AREA
 - ACCESS ROADS
 - CROP AREAS
 - LEVEE CROWN ROADS
- WATER WILL BE MADE AVAILABLE FOR THE CONSTRUCTION OPERATIONS FROM THE SURROUNDING WATERWAY. THE PUMPING FACILITY SHALL BE LOCATED IN AN AREA THAT WILL NOT CREATE A TRAFFIC OR MUD HAZARD ON THE ROADS USED BY THE CONTRACTOR, PUBLIC AND LOCAL TRAFFIC.



NOTES:

- VEGETATION MANAGEMENT ZONE:
 - TREES SHALL BE TRIMMED 5' ABOVE THE GROUND (15' CLEARANCE ABOVE THE LEVEE CROWN) AND THINNED FOR VISIBILITY AND ACCESS AS NOTED.
 - BRUSH AND WEEDS SHALL NOT BE OVER 12" HIGH AND SHALL BE TRIMMED, MOWED, THINNED, OR REMOVED FOR VISIBILITY AND ACCESS AS NOTED.
 - REMOVE SAPLINGS LESS THAN 2" IN DIAMETER AT BREAST HEIGHT AS NOTED, LEAVING THE ROOT SYSTEM UNDISTURBED.

TYPICAL EROSION REPAIR SECTION

NOT TO SCALE

SUBMITTAL	
%	Date
60%	6/3/2025

NO.	DESCRIPTION	DATE	APPR.

DESIGN BY	DAV
DRAWN BY	BRH
CHECK BY	DAV
HORIZONTAL DATUM	CCS83, ZONE 2
VERTICAL DATUM	NAVD88

711 N. Pershing Avenue
Stockton, CA 95203
209-946-0268

1550 Harbor Blvd., Suite 212
West Sacramento, CA 95691
916-403-5900

RECLAMATION DISTRICT NO. 1601 TWITCHELL ISLAND SACRAMENTO COUNTY, CALIFORNIA	DATE JUNE 2025
2025 SEVENMILE SLOUGH EROSION REPAIRS NOTES & DETAILS	SHEET IDENTIFICATION G-002
	SHEET 02 OF 12
	KSN PROJECT FILE NO 1110-1061

FILE SPEC: P:\1110-Twitchell Island\1061_ERP-7-mile slough\08_Civil\400_Plans\020_CAD\Sheets\03-Base Map.dwg
PLOT DATE: Jun 03, 2025 - 2:38pm



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%	Date
60%	6/3/2025



NO.	DESCRIPTION	DATE	APPR.

DESIGN BY	DAV
DRAWN BY	BRH
CHECK BY	DAV
HORIZONTAL DATUM	CCS83, ZONE 2
VERTICAL DATUM	NAVD88

DRAWING SCALE	1" = 800'
ORIGINAL DRAWING SCALE	0 1/2" 1"

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711 N. Pershing Avenue
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209-946-0268

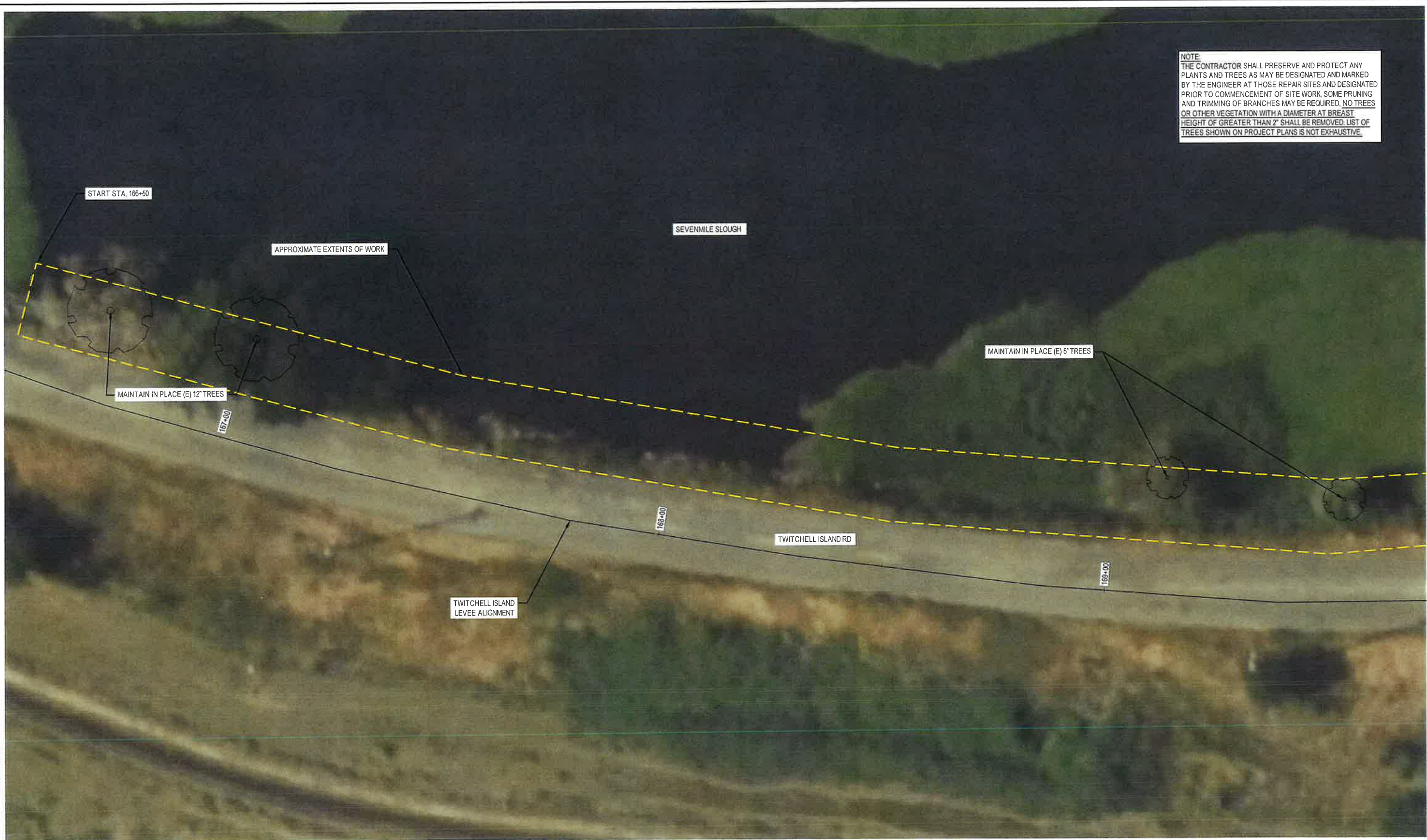
1550 Harbor Blvd., Suite 212
West Sacramento, CA 95691
916-403-5900

RECLAMATION DISTRICT NO. 1601
TWITCHELL ISLAND
SACRAMENTO COUNTY, CALIFORNIA

**2025 SEVENMILE SLOUGH EROSION REPAIRS
BASE MAP**

DATE	JUNE 2025
SHEET IDENTIFICATION	CS101
SHEET	03 OF 12
KSN PROJECT FILE NO.	1110-1061

FILE SPEC: P:\1110_Twitchell_Island\1061_ERP-7-mile slough\08_Civil\400_Plans\020_CAD\Sheets\C-201 Plan View Sheets.dwg
PLOT DATE: Jun 03, 2023 -- 2:36pm



NOTE:
THE CONTRACTOR SHALL PRESERVE AND PROTECT ANY PLANTS AND TREES AS MAY BE DESIGNATED AND MARKED BY THE ENGINEER AT THOSE REPAIR SITES AND DESIGNATED PRIOR TO COMMENCEMENT OF SITE WORK. SOME PRUNING AND TRIMMING OF BRANCHES MAY BE REQUIRED. NO TREES OR OTHER VEGETATION WITH A DIAMETER AT BREAST HEIGHT OF GREATER THAN 2\"/>



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%	Date
60%	6/3/2025



NORTH ORIENTATION



PROJECT ENGINEER
5/23/2025

NO.	DESCRIPTION	DATE	APPR.

DESIGN BY DAV
DRAWN BY BRH
CHECK BY DAV
HORIZONTAL DATUM
CCS83, ZONE 2
VERTICAL DATUM
NAVD88

DRAWING SCALE
1" = 10'
ORIGINAL DRAWING SCALE
0 1/2" 1"




KJELDSSEN SINNOCK NEUDECK
INC.
CIVIL ENGINEERS & LAND SURVEYORS
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209-946-0268
1550 Harbor Blvd., Suite 212
West Sacramento, CA 95691
916-403-5900

RECLAMATION DISTRICT NO. 1601
TWITCHELL ISLAND
SACRAMENTO COUNTY, CALIFORNIA

2025 SEVENMILE SLOUGH EROSION REPAIRS
FOCUSED PLAN VIEW
STA. 166+50 TO STA. 170+00

DATE
JUNE 2025

SHEET IDENTIFICATION
CS201
SHEET 04 OF 12
KSN PROJECT FILE NO.
1110-1061

FILE SPEC: P:\1110_Twitchell_Island\1081_ERP-7-mile_slough\08_Civil\400_Plans\020_CAD\Sheets\C-201_Plan View Sheets.dwg
PLOT DATE: Jun 03, 2025 - 2:39pm



NOTE:
THE CONTRACTOR SHALL PRESERVE AND PROTECT ANY PLANTS AND TREES AS MAY BE DESIGNATED AND MARKED BY THE ENGINEER AT THOSE REPAIR SITES AND DESIGNATED PRIOR TO COMMENCEMENT OF SITE WORK. SOME PRUNING AND TRIMMING OF BRANCHES MAY BE REQUIRED. NO TREES OR OTHER VEGETATION WITH A DIAMETER AT BREAST HEIGHT OF GREATER THAN 2\"/>



SUBMITTAL	
%	Date
60%	6/3/2025



NO.	DESCRIPTION	DATE	APPR.

DESIGN BY	DAV
DRAWN BY	BRH
CHECK BY	DAV
HORIZONTAL DATUM	CCS83, ZONE 2
VERTICAL DATUM	NAVD88

DRAWING SCALE	1" = 10'
ORIGINAL DRAWING SCALE	0 1/2" 1"



711 N. Pershing Avenue
Stockton, CA 95203
209-946-0268
1550 Harbor Blvd., Suite 212
West Sacramento, CA 95691
916-403-5500

RECLAMATION DISTRICT NO. 1601
TWITCHELL ISLAND
SACRAMENTO COUNTY, CALIFORNIA

2025 SEVENMILE SLOUGH EROSION REPAIRS
FOCUSED PLAN VIEW
STA. 170+00 TO STA. 173+00

DATE	JUNE 2025
SHEET IDENTIFICATION	CS202
SHEET 05 OF 12	
KSN PROJECT FILE NO	1110-1061

FILE SPEC: P:\1110_Twitchell_Island\1061_ERP-7-mile slough\08_Civil\400_Plans\020_CAD\Sheets\C-201 Plan View Sheets.dwg
PLOT DATE: Jun 03, 2025 2:38pm



NOTE:
THE CONTRACTOR SHALL PRESERVE AND PROTECT ANY PLANTS AND TREES AS MAY BE DESIGNATED AND MARKED BY THE ENGINEER AT THOSE REPAIR SITES AND DESIGNATED PRIOR TO COMMENCEMENT OF SITE WORK. SOME PRUNING AND TRIMMING OF BRANCHES MAY BE REQUIRED. NO TREES OR OTHER VEGETATION WITH A DIAMETER AT BREAST HEIGHT OF GREATER THAN 2" SHALL BE REMOVED. LIST OF TREES SHOWN ON PROJECT PLANS IS NOT EXHAUSTIVE.



811
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SUBMITTAL	
%	Date
60%	6/3/2025



NORTH ORIENTATION



PROJECT ENGINEER
5/23/2025

NO.	DESCRIPTION	DATE	APPR.

DESIGN BY	DAV
DRAWN BY	BRH
CHECK BY	DAV
HORIZONTAL DATUM	CCS83, ZONE 2
VERTICAL DATUM	NAVD88

DRAWING SCALE	1" = 10'
ORIGINAL DRAWING SCALE	0 1/2" 1"



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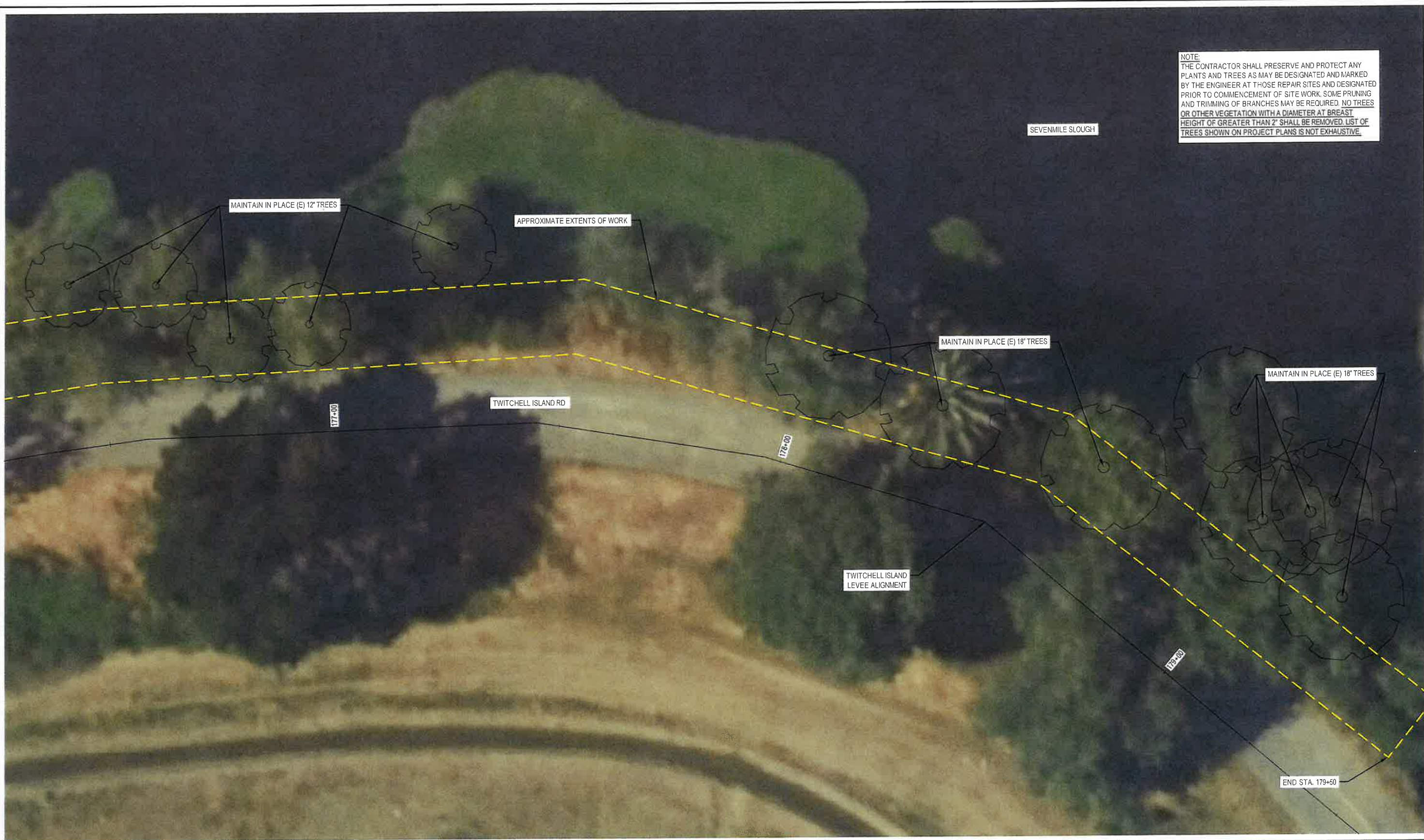
RECLAMATION DISTRICT NO. 1601
TWITCHELL ISLAND
SACRAMENTO COUNTY, CALIFORNIA

2025 SEVENMILE SLOUGH EROSION REPAIRS
FOCUSED PLAN VIEW
STA. 173+00 TO STA. 176+50

DATE
JUNE 2025

SHEET IDENTIFICATION
CS203
SHEET 06 OF 12
KSN PROJECT FILE NO.
1110-1061

FILE SPEC: P:\1110_Twitchell_Island\1081_ERP-7-mile slough\08_Civil\400_Plans\020_CAD\Sheets\C-201 Plan View Sheets.dwg
PLOT DATE: Jun 03, 2025 - 2:39pm



NOTE:
THE CONTRACTOR SHALL PRESERVE AND PROTECT ANY PLANTS AND TREES AS MAY BE DESIGNATED AND MARKED BY THE ENGINEER AT THOSE REPAIR SITES AND DESIGNATED PRIOR TO COMMENCEMENT OF SITE WORK. SOME PRUNING AND TRIMMING OF BRANCHES MAY BE REQUIRED. NO TREES OR OTHER VEGETATION WITH A DIAMETER AT BREAST HEIGHT OF GREATER THAN 2\"/>



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%	Date
60%	6/3/2025



NORTH ORIENTATION



5/23/2025

NO.	DESCRIPTION	DATE	APPR.

DESIGN BY	DAV	DRAWING SCALE	1" = 10'
DRAWN BY	BRH		
CHECK BY	DAV	ORIGINAL DRAWING SCALE	0 1/2" 1"
HORIZONTAL DATUM	CCS83, ZONE 2		
VERTICAL DATUM	NAVD88		



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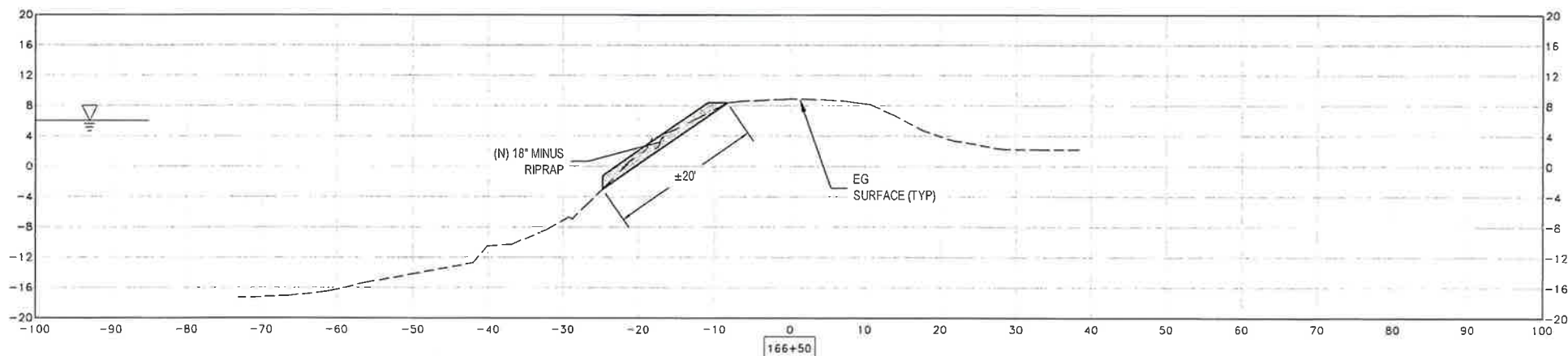
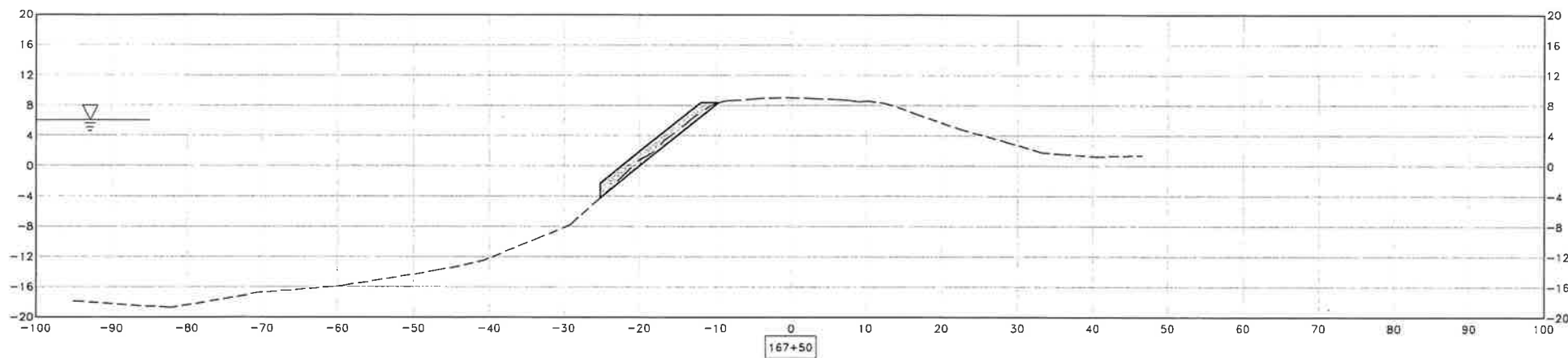
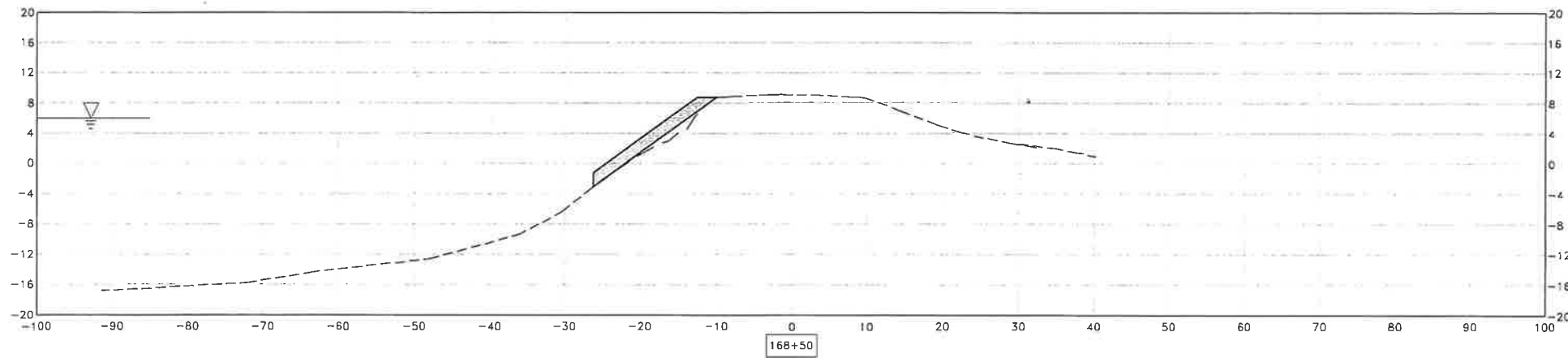
RECLAMATION DISTRICT NO. 1601
TWITCHELL ISLAND
SACRAMENTO COUNTY, CALIFORNIA

2025 SEVENMILE SLOUGH EROSION REPAIRS
FOCUSED PLAN VIEW
STA. 176+50 TO STA. 179+50

DATE
JUNE 2025

SHEET IDENTIFICATION
CS204
SHEET 07 OF 12
KSN PROJECT FILE NO.
1110-1061

FILE SPEC: P:\1110_Twitchell_Island\1061_ERP-7-mile_slough\08_Civil\400_Plans\020_CAD_Sheets\Cross Sections - 20ft slopes.dwg
PLOT DATE: Jun 03, 2025 - 2:39pm



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	%	Date
	60%	6/3/2025



NO.	DESCRIPTION	DATE	APPR.

DESIGN BY	DAV
DRAWN BY	BRH
CHECK BY	DAV
HORIZONTAL DATUM	CCS83, ZONE 2
VERTICAL DATUM	NAVD88

DRAWING SCALE	VERT: 1" = 10'
	HORZ: 1" = 10'
ORIGINAL DRAWING SCALE	0 1/2" 1"



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SACRAMENTO COUNTY, CALIFORNIA

2025 SEVENMILE SLOUGH EROSION REPAIRS
CROSS SECTIONS
STA. 166+50 - STA. 168+50

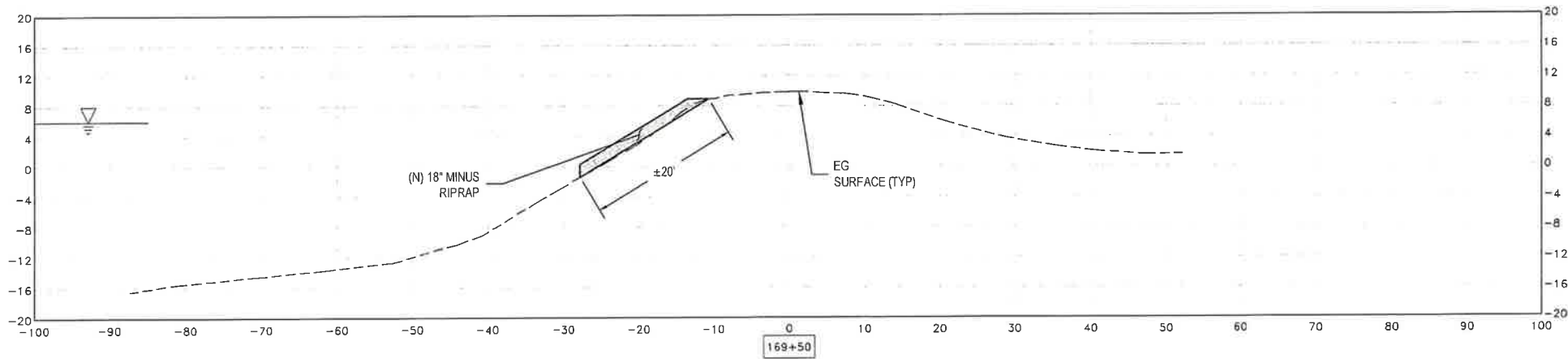
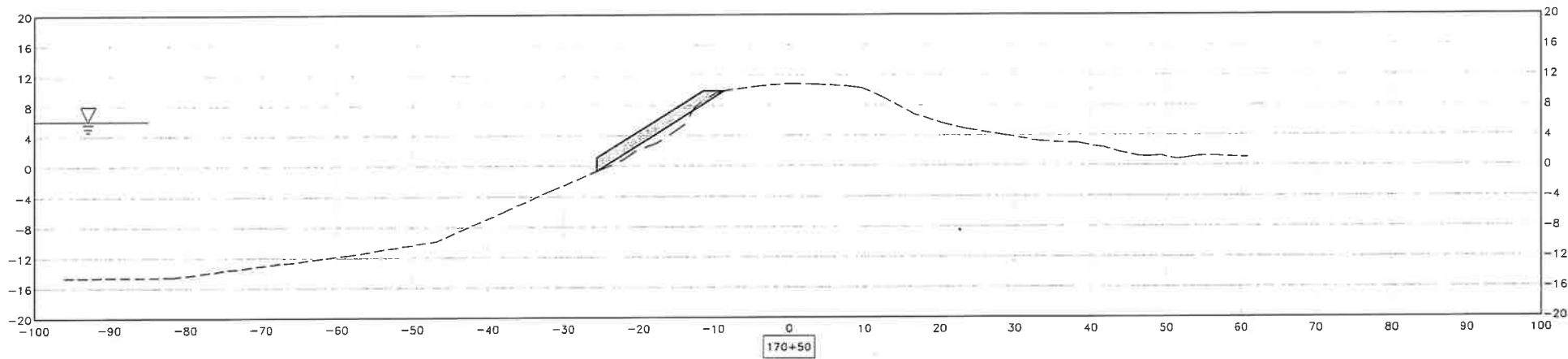
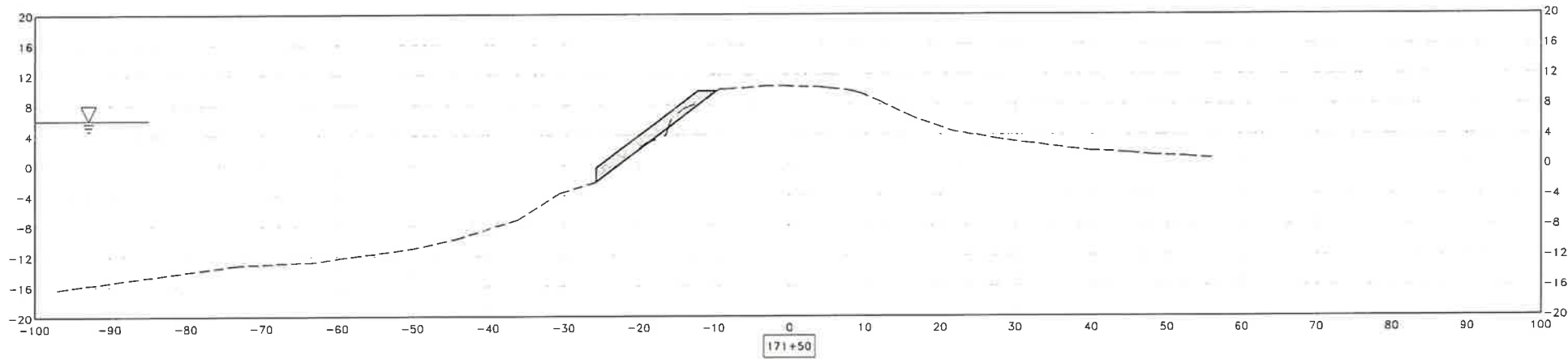
DATE	JUNE 2025
SHEET IDENTIFICATION	C-301
SHEET 08 OF 12	
KSN PROJECT FILE NO.	1110-1061

FILE SPEC: P:\1110_Twitchell_Island\1061_ERP-7-mile_slough\08_Civil\400_Plans\020_CAD_Sheets\Cross Sections - 20ft sloped.dwg
PLOT DATE: Jun 03, 2025 - 2:39pm

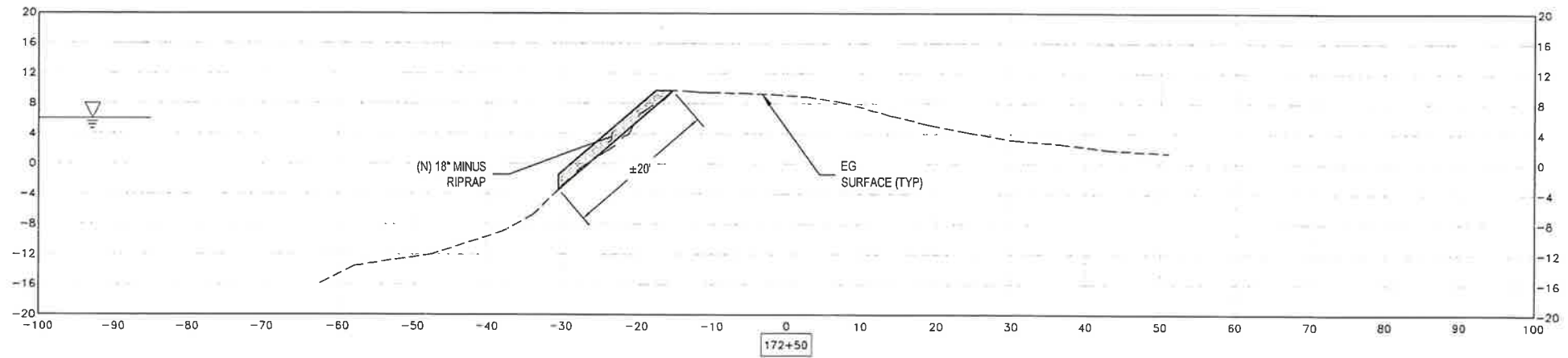
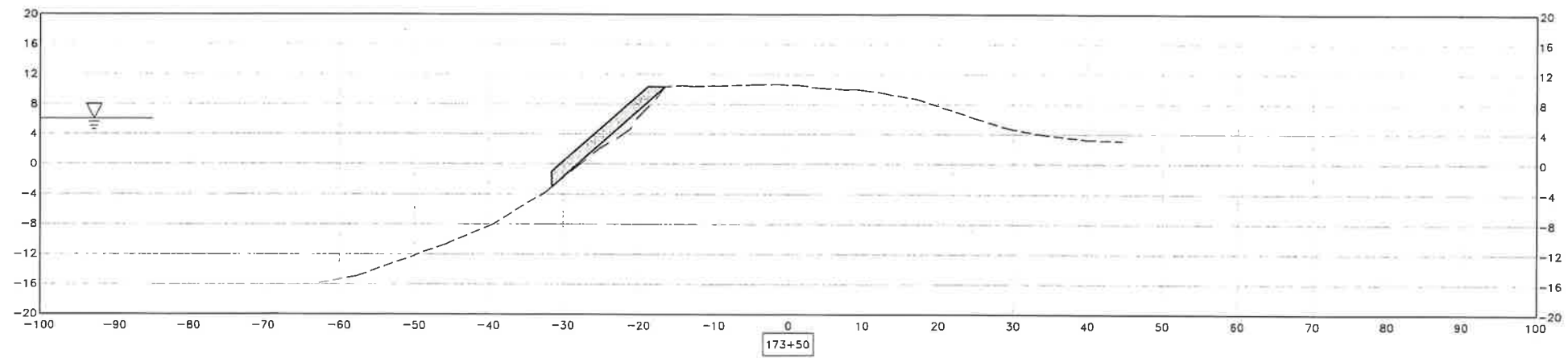
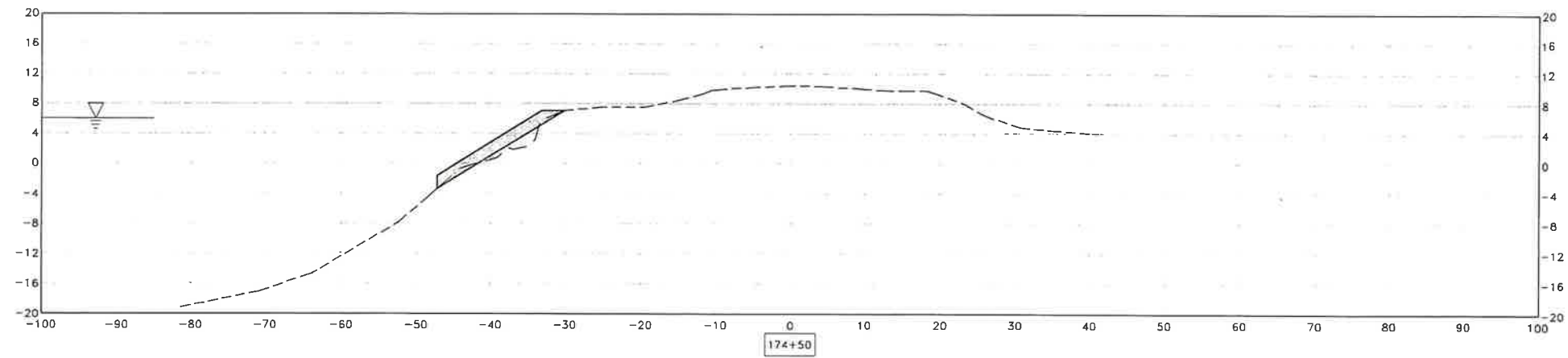


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60%	6/3/2025



 PROJECT ENGINEER MICHAEL A. KNEIB 5/23/2025	DESIGN BY DAV DRAWN BY BRH CHECK BY DAV HORIZONTAL DATUM CCS83, ZONE 2 VERTICAL DATUM NAVD88	DRAWING SCALE VERT: 1" = 10' HORZ: 1" = 10' ORIGINAL DRAWING SCALE 0 1/2" 1" 	 KJELDSEN SINNOCK NEUDECK inc. CIVIL ENGINEERS & LAND SURVEYORS www.ksninc.com	711 N. Pershing Avenue Stockton, CA 95203 209-946-0268 1550 Harbor Blvd., Suite 212 West Sacramento, CA 95691 916-403-5900	RECLAMATION DISTRICT NO. 1601 TWITCHELL ISLAND SACRAMENTO COUNTY, CALIFORNIA 2025 SEVENMILE SLOUGH EROSION REPAIRS CROSS SECTIONS STA. 169+50 - STA. 171+50	DATE JUNE 2025 SHEET IDENTIFICATION C-302 SHEET 09 OF 12 KSN PROJECT FILE NO. 1110-1061
	NO. DESCRIPTION	DATE	APPR.			



FILE SPEC: P:\1110_Twitchell_Island\1061_ERP-7-mile_slough\08_Civil\400_Plans\020_CAD_Sheets\Cross Sections - 20ft_slope.dwg
PLOT DATE: Jun 03, 2025 - 2:39pm

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	%	Date
	60%	6/3/2025

				
PROJECT ENGINEER	NO.	DESCRIPTION	DATE	APPR.
5/23/2025				

DESIGN BY	DAV
DRAWN BY	BRH
CHECK BY	DAV
HORIZONTAL DATUM	CCS83, ZONE 2
VERTICAL DATUM	NAVD88
DRAWING SCALE	
VERT: 1" = 10'	
HORZ: 1" = 10'	
ORIGINAL DRAWING SCALE	
0 1/2" 1"	
	

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RECLAMATION DISTRICT NO. 1601 TWITCHELL ISLAND SACRAMENTO COUNTY, CALIFORNIA		DATE JUNE 2025
2025 SEVENMILE SLOUGH EROSION REPAIRS CROSS SECTIONS STA. 172+50 - STA. 174+50		SHEET IDENTIFICATION C-303 SHEET 10 OF 12 KSN PROJECT FILE NO. 1110-1061

FILE SPEC: P:\1110_Twitchell_Island\1081_ERP-7-mile slough\08_Civil\400_Plans\020_CAD\Sheets\Cross Sections - 20ft slope.dwg
PLOT DATE: Jun 03, 2025 - 2:39pm



SUBMITTAL	
%	Date
60%	6/3/2025



NO.	DESCRIPTION	DATE	APPR.

DESIGN BY	DAV
DRAWN BY	BRH
CHECK BY	DAV
HORIZONTAL DATUM	CCS83, ZONE 2
VERTICAL DATUM	NAVD88

DRAWING SCALE	VERT: 1" = 10'
	HORZ: 1" = 10'
ORIGINAL DRAWING SCALE	0 1/2" 1"

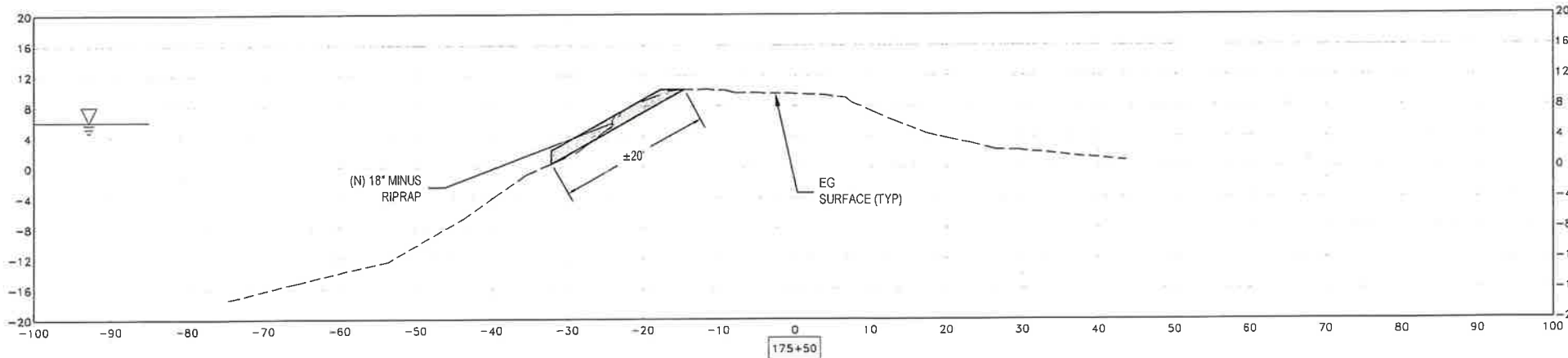
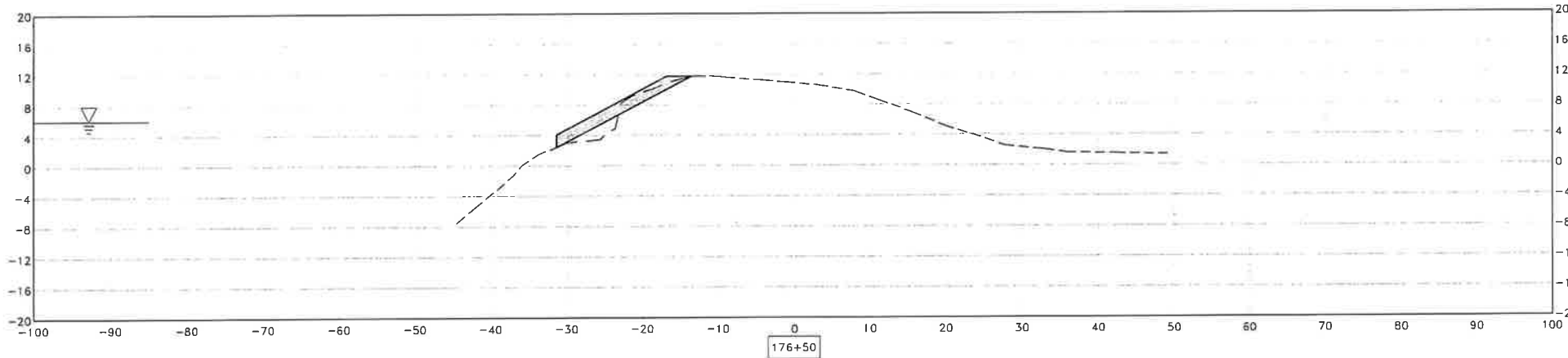
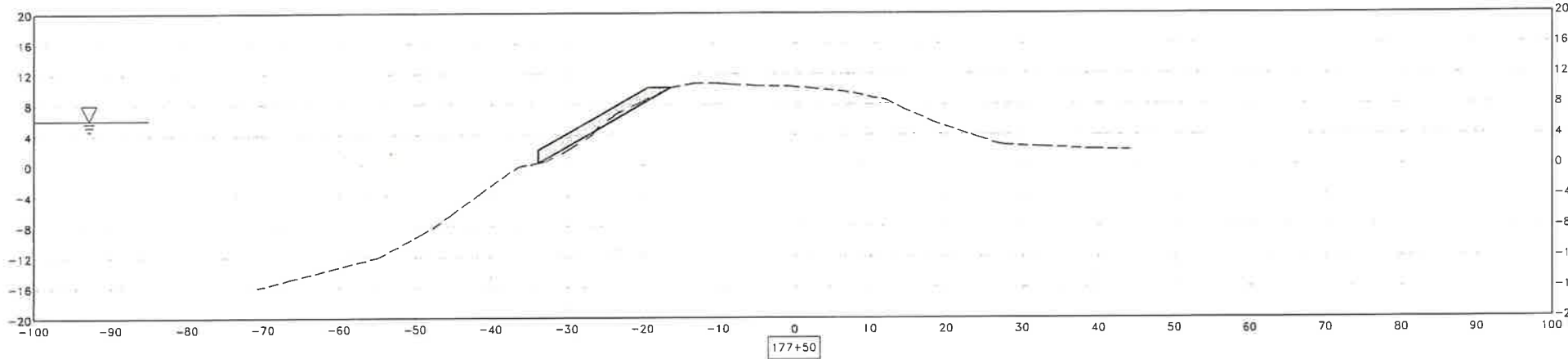


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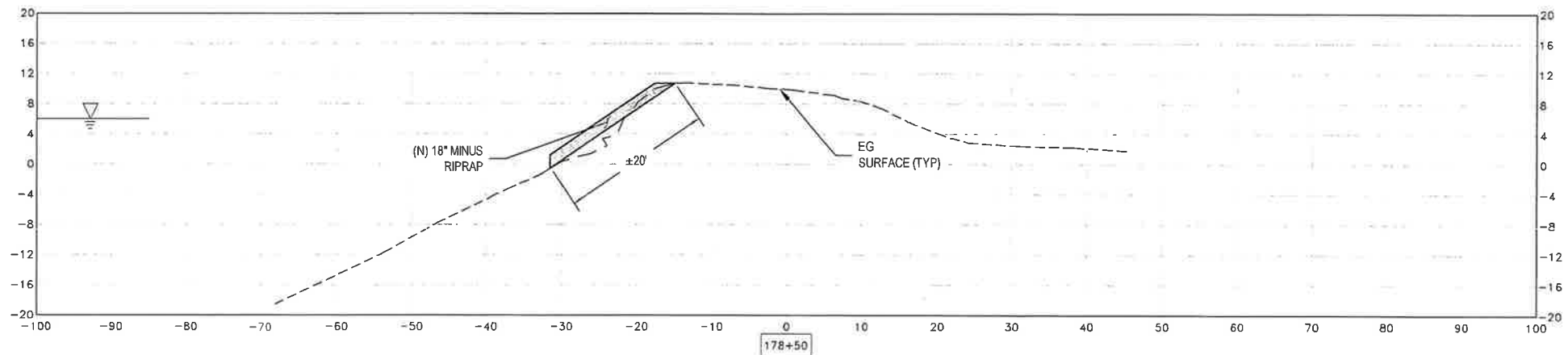
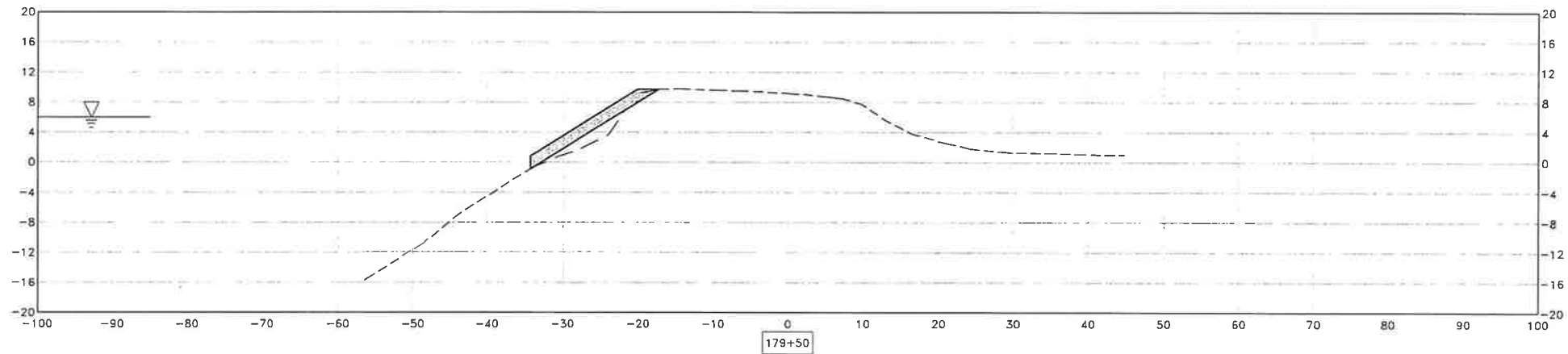
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2025 SEVENMILE SLOUGH EROSION REPAIRS
CROSS SECTIONS
STA. 175+50 - STA. 177+50

DATE	JUNE 2025
SHEET IDENTIFICATION	C-304
	SHEET 11 OF 12
KSN PROJECT FILE NO.	1110-1061



FILE SPEC: P:\1110_Twitchell_Island\1061_ERP-7-mile_slough\08_Civil\400_Plans\020_CAD_Sheets\Cross Sections - 20ft slopes.dwg
PLOT DATE: Jun 03, 2025 - 2:39pm



SUBMITTAL	
%	Date
60%	6/3/2025



NO.	DESCRIPTION	DATE	APPR.

DESIGN BY	DAV
DRAWN BY	BRH
CHECK BY	DAV
HORIZONTAL DATUM	CCS83, ZONE 2
VERTICAL DATUM	NAVD88

DRAWING SCALE	VERT: 1" = 10'
	HORZ: 1" = 10'
ORIGINAL DRAWING SCALE	0 1/2" 1"



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SACRAMENTO COUNTY, CALIFORNIA
2025 SEVENMILE SLOUGH EROSION REPAIRS
CROSS SECTIONS
STA. 178+50 - STA. 179+50

DATE	JUNE 2025
SHEET IDENTIFICATION	C-305
SHEET 12 OF 12	
KSN PROJECT FILE NO.	1110-1061

EXHIBIT E





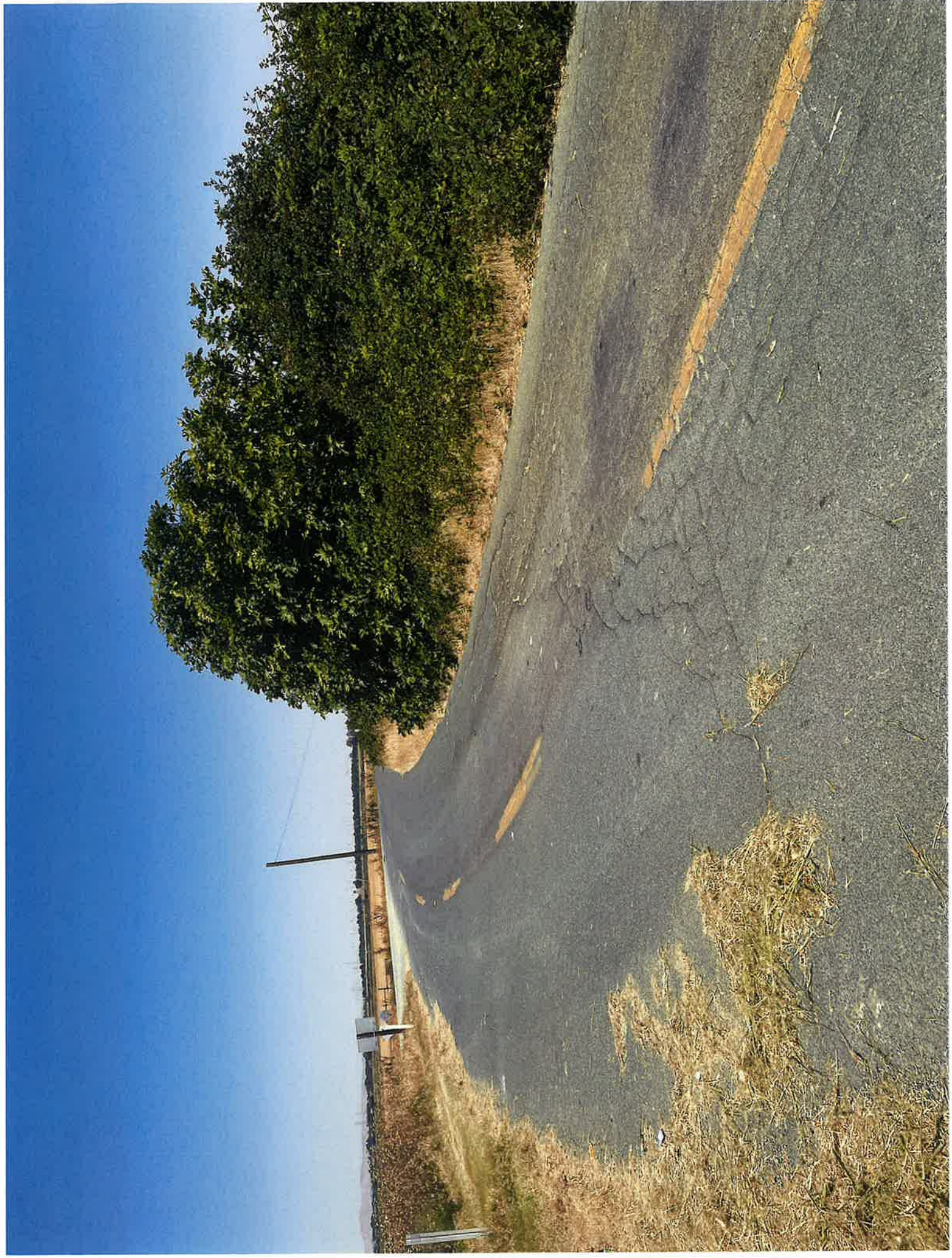












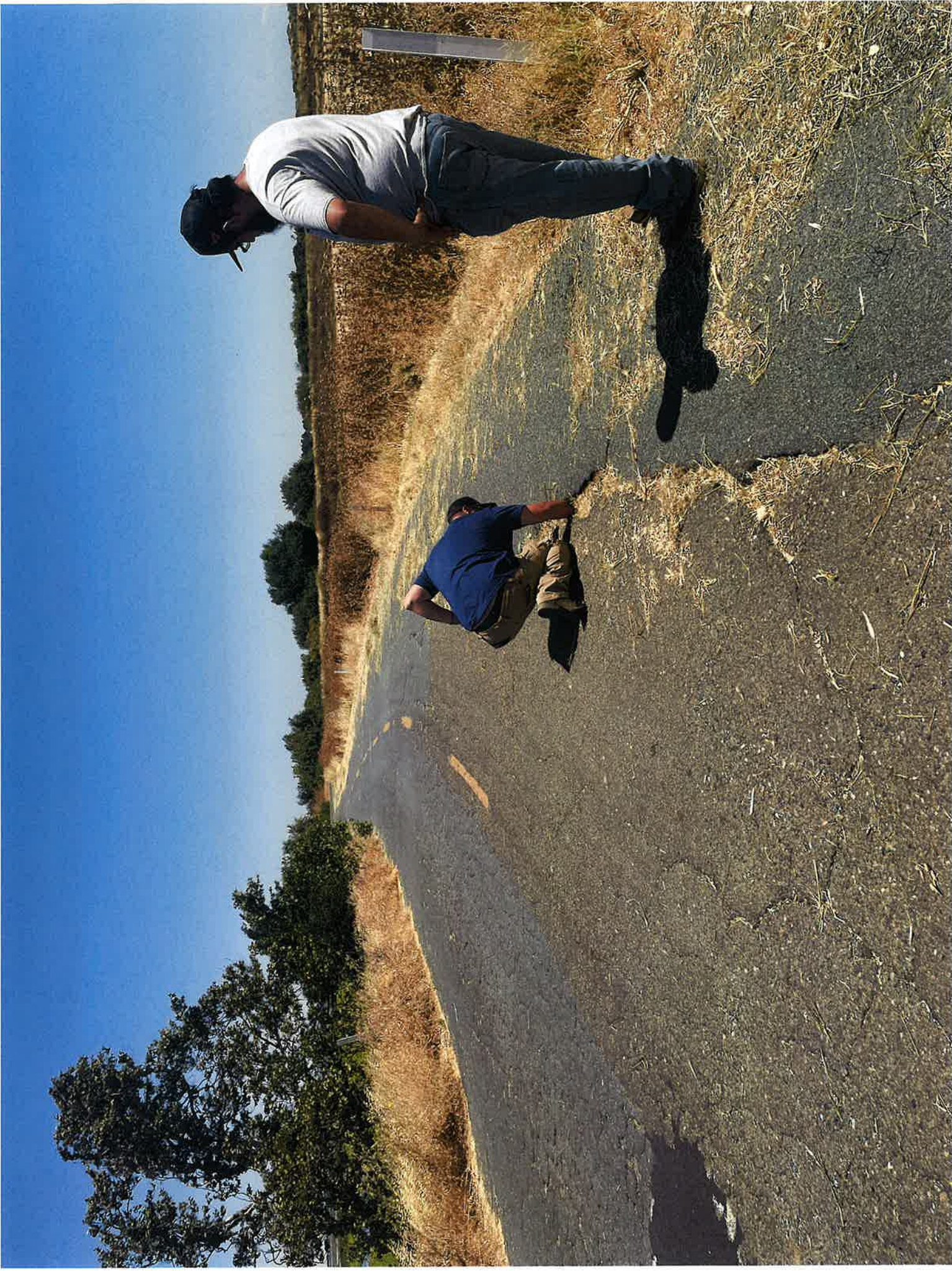


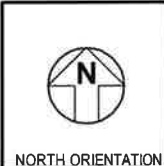






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FILE SPEC: P:\1110_Twitchell_Island\9000_Levee_Maintenance\Projects\9026_Levee_Maintenance_2025-2026\07_Other_Maintenance\0010_STA_235_Seepage\06_Civil\400_Plans\020_CAD_Sheets\C-301.dwg
PLOT DATE: 2025 - 7:37am



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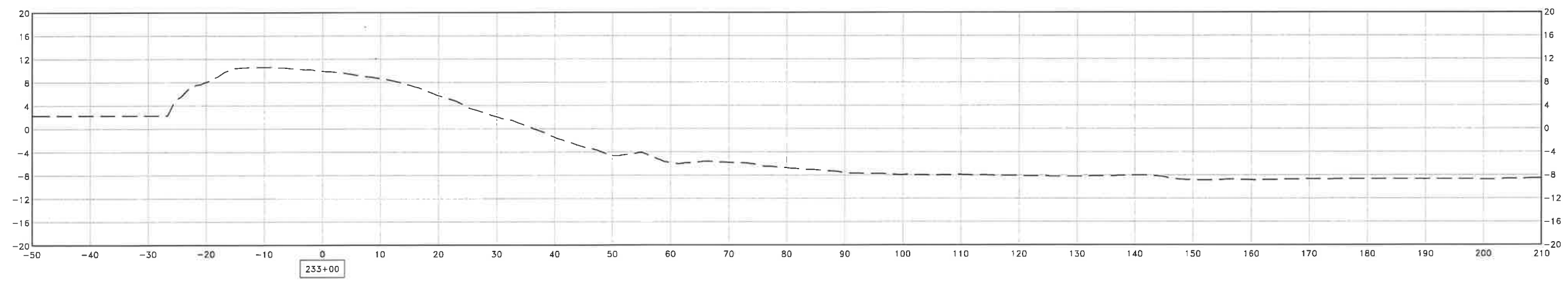
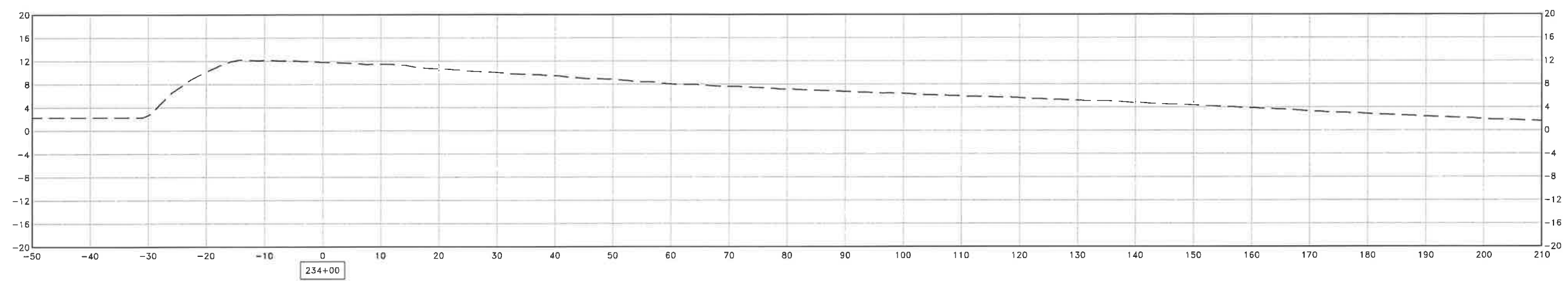
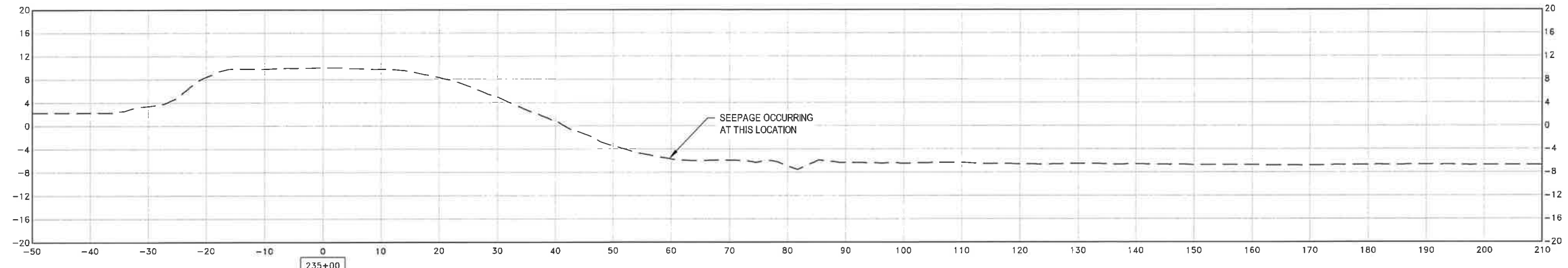
RECLAMATION DISTRICT NO. 1601
TWITCHELL ISLAND
2025 SEVENMILE SLOUGH SEEPAGE
PLAN VIEW

DRAWING SCALE
1" = 80'

ORIGINAL DRAWING SCALE
0 1/2" 1"

EXHIBIT NO.
A

PAGE NO.
1



FILE SPEC: P:\1110_Twitchell_Island\9000_Levee_Maintenance_Projects\9026_Levee_Maintenance_2025-2026\07_Other_Maintenance\0010_STA_235_Seepage\08_Civil\400_Plans\020_CAD_Sheets\C-301.dwg
 PLOT DATE: Jul 06, 2025 - 7:57am

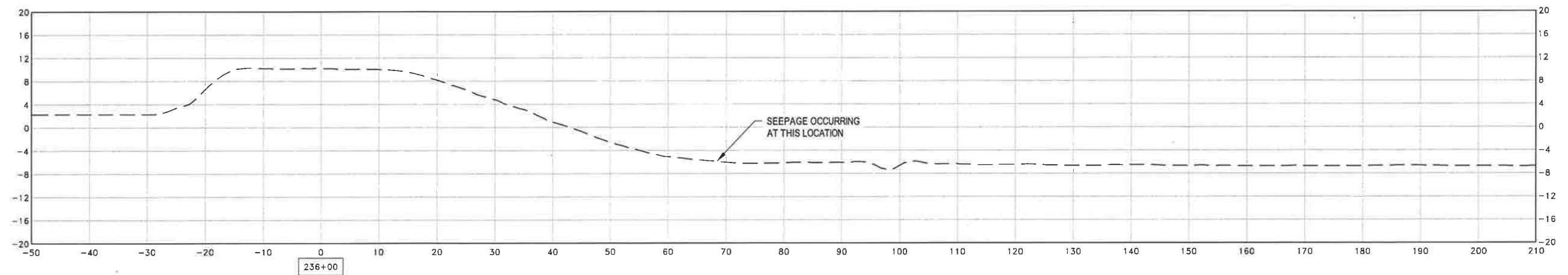
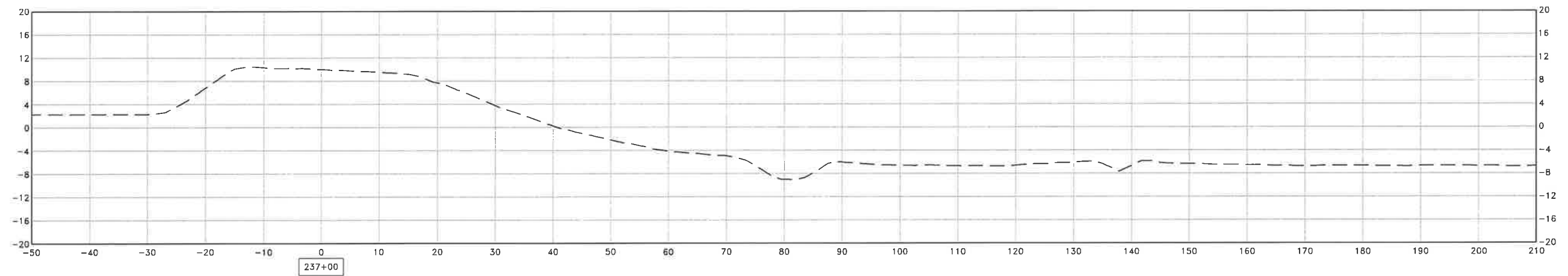
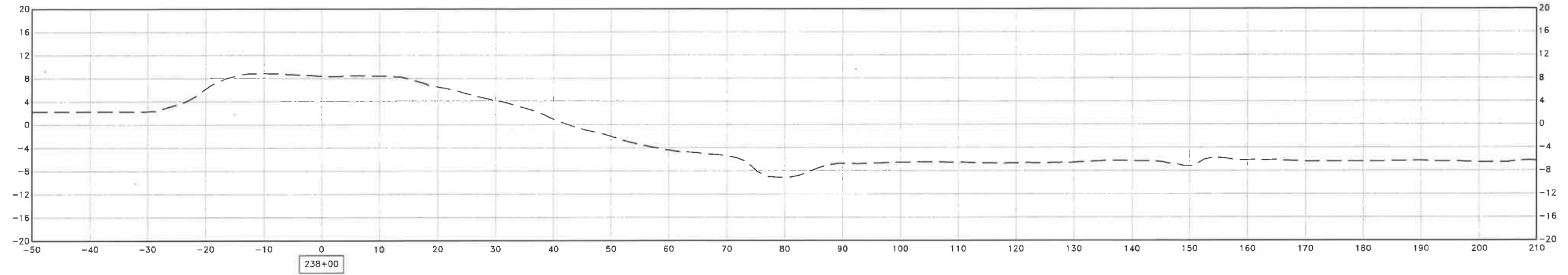


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 2025 SEVENMILE SLOUGH SEEPAGE
 CROSS SECTIONS

DRAWING SCALE
 1" = 10'
 ORIGINAL DRAWING SCALE
 0 1/8" 1"

EXHIBIT NO.
A
 PAGE NO.
2



FILE SPEC: P:\1110_Twitchell_Island\0000_Levee_Maintenance_Projects\0206_Levee_Maintenance_2025-2026\07_Other_Maintenance\0010_STA_235_Seepage\08_Civil\400_Plans\020_CAD_Sheets\C-301.dwg
 PLOT DATE: Jul 08, 2023 7:57 am



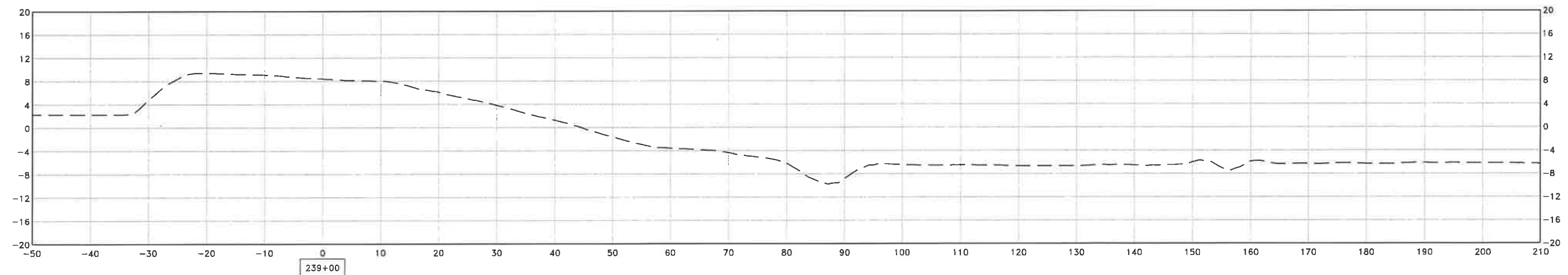
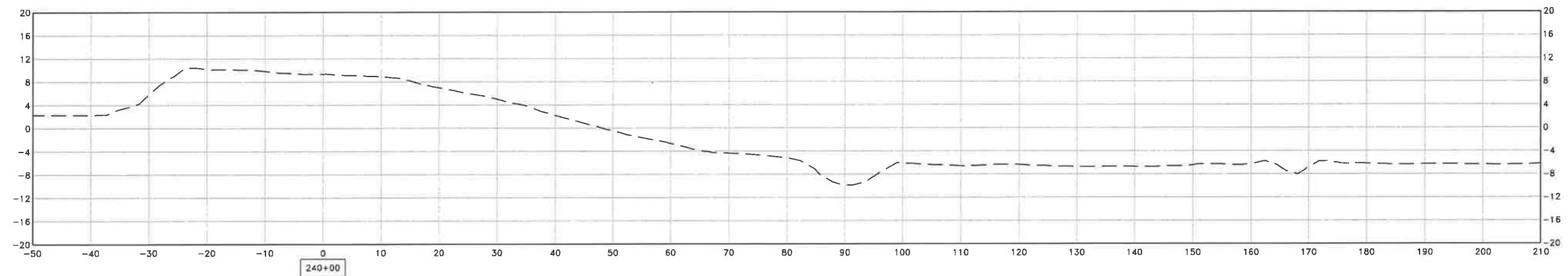
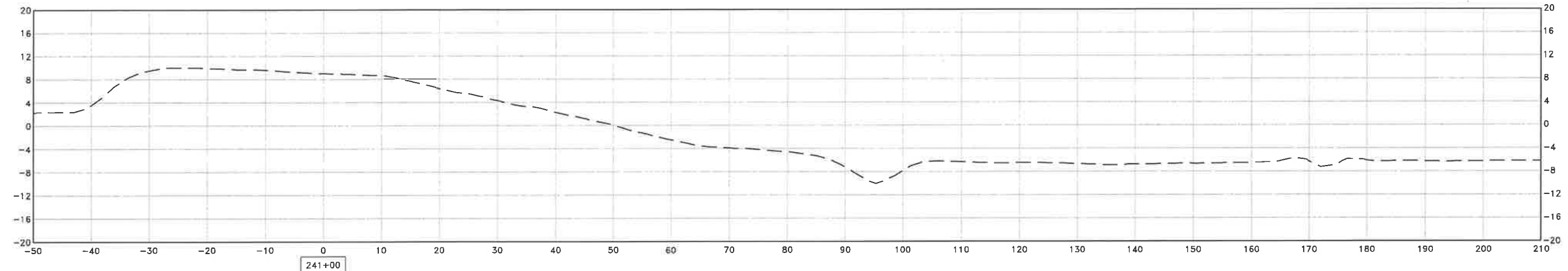
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 2025 SEVENMILE SLOUGH SEEPAGE
 CROSS SECTIONS

DRAWING SCALE
 1" = 10'
 ORIGINAL DRAWING SCALE
 0 1/2" 1"

EXHIBIT NO.
A
 PAGE NO.
3



FILE SPEC: P:\1110_Twitchell_Island\9000_Levee_Maintenance_Projects\9026_Levee_Maintenance_2025-2026\07_Other_Maintenance\0010_STA_235_Seepage\08_Civil\400_Plans\020_CAD_Sheets\C-301.dwg
 PLOT DATE: Jul 08, 2025 7:57 am



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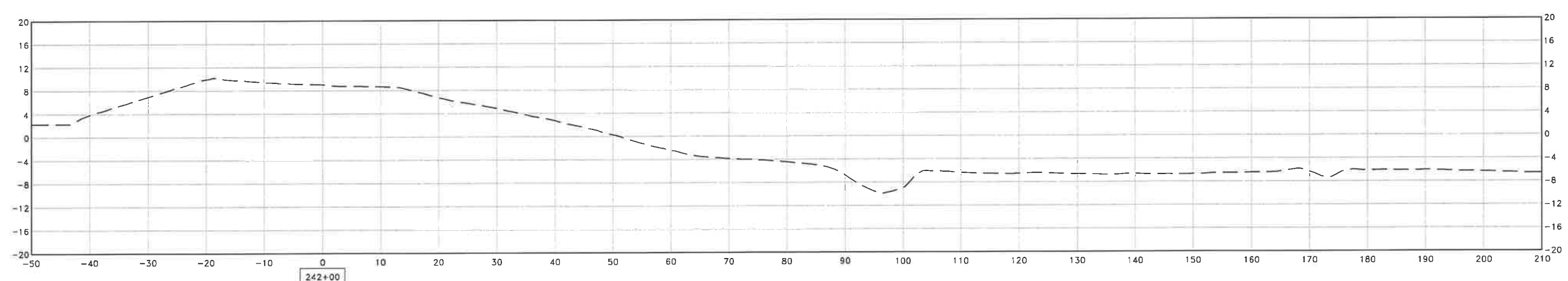
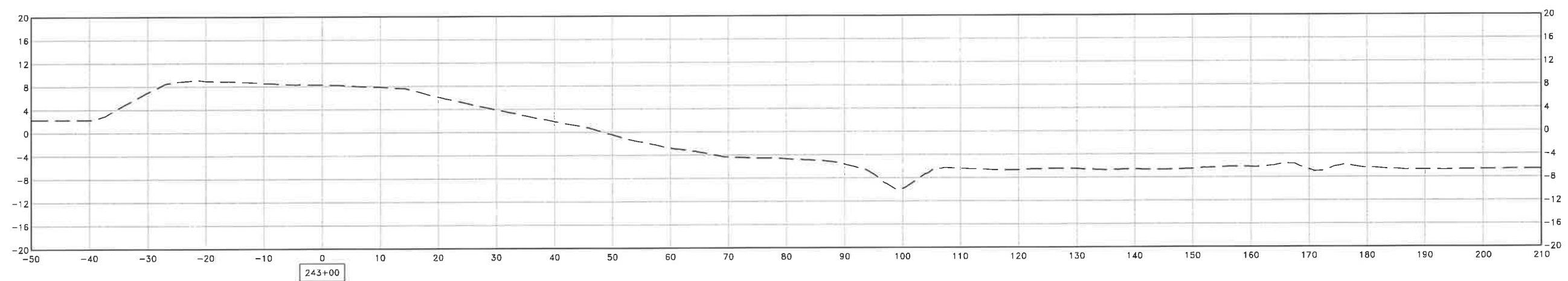
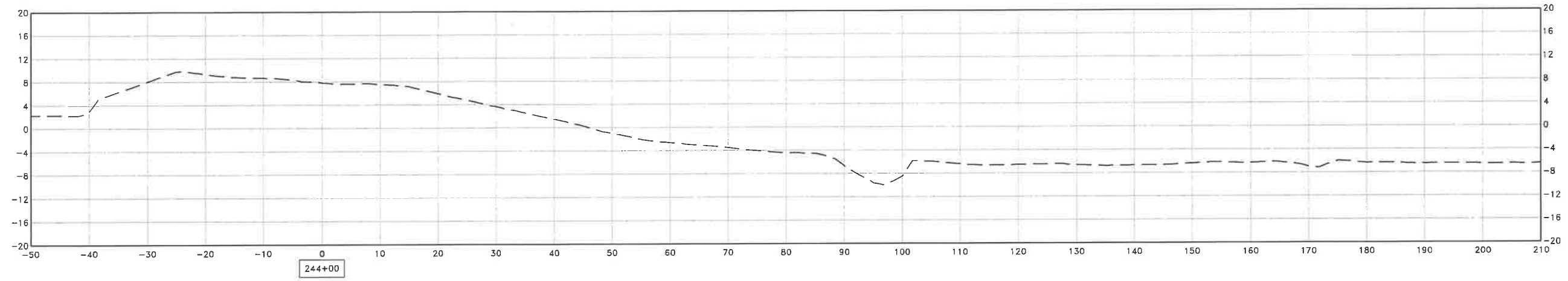


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 TWITCHELL ISLAND
 2025 SEVENMILE SLOUGH SEEPAGE
 CROSS SECTIONS**

DRAWING SCALE
 1" = 10'
ORIGINAL DRAWING SCALE
 0 1/2" 1"

EXHIBIT NO.
A
PAGE NO.
4



FILE SPEC: P:\1110_Twitchell_Island\9000_Levee_Maintenance_Projects\9026_Levee_Maintenance_2025-2026\07_Other_Maintenance\0010_STA_235_Seepage\08_Civil\400_Plans\020_CAD_Sheets\C-301.dwg
 PLOT DATE: Jul 08, 2025 - 7:37am



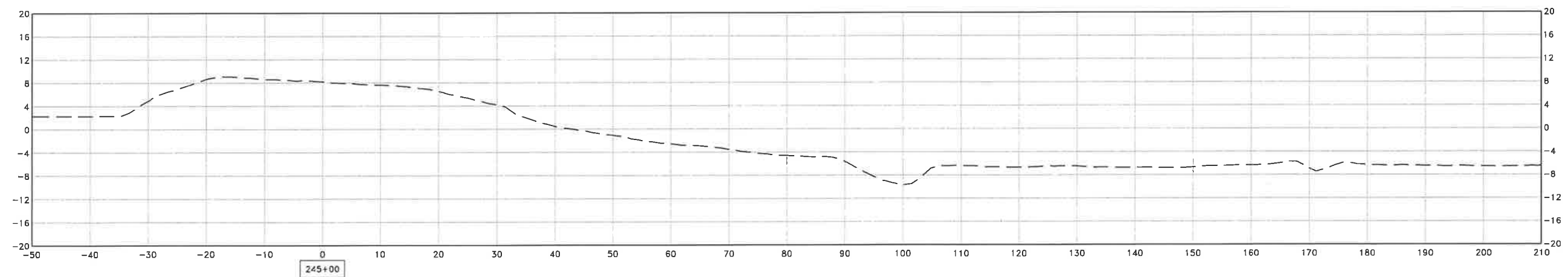
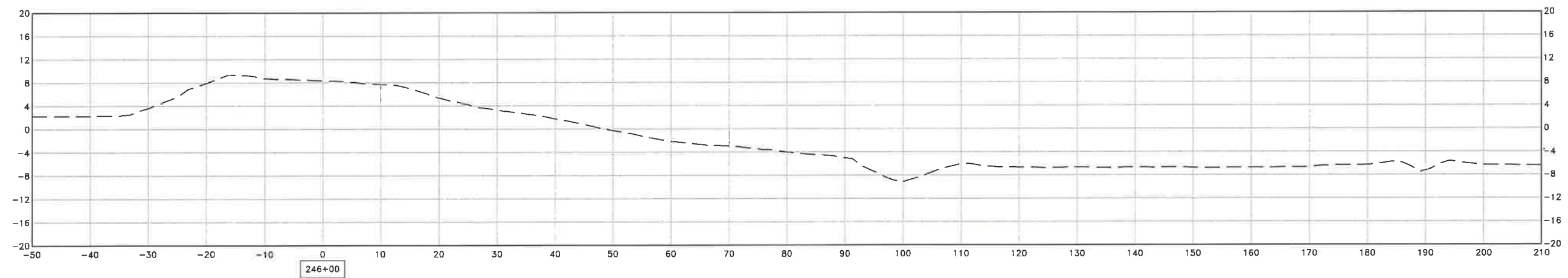
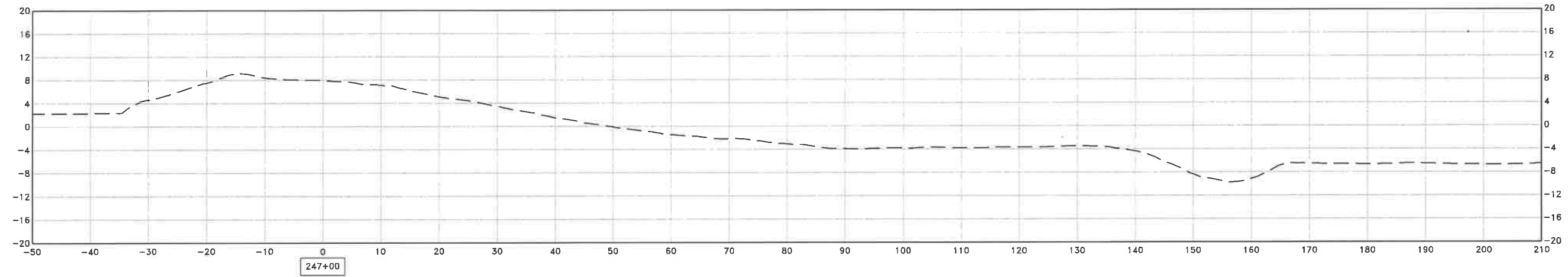
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 TWITCHELL ISLAND
 2025 SEVENMILE SLOUGH SEEPAGE
 CROSS SECTIONS

DRAWING SCALE 1" = 10'
ORIGINAL DRAWING SCALE 0 1/2" 1"

EXHIBIT NO. A
PAGE NO. 5



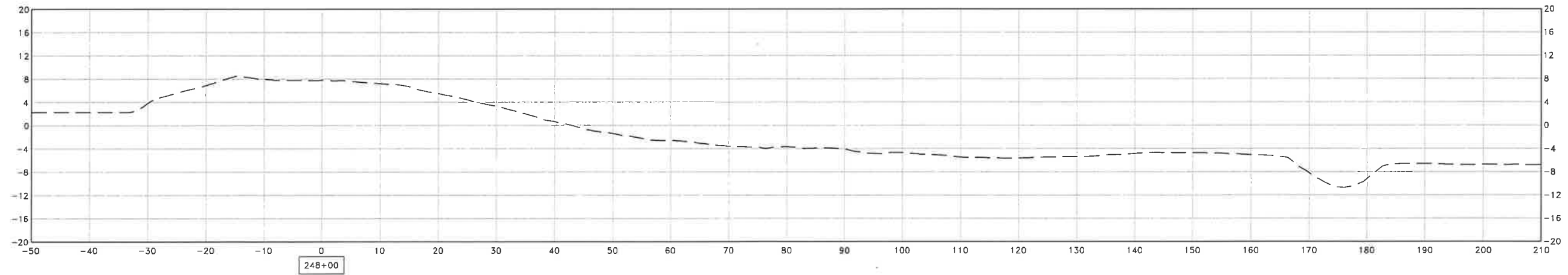
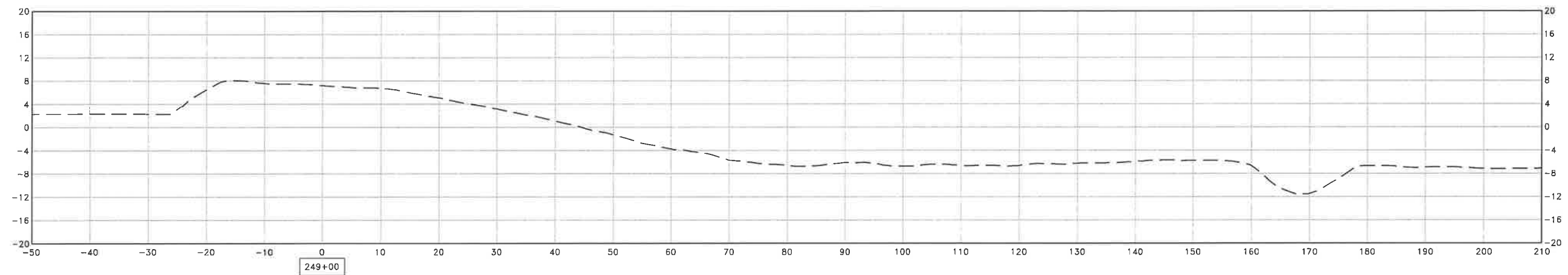
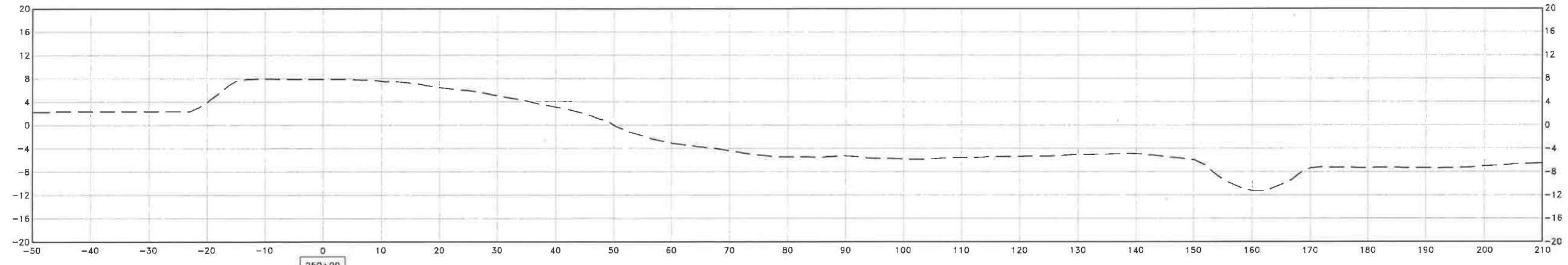
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 PLOT DATE: Jul 08, 2025 -- 7:57am



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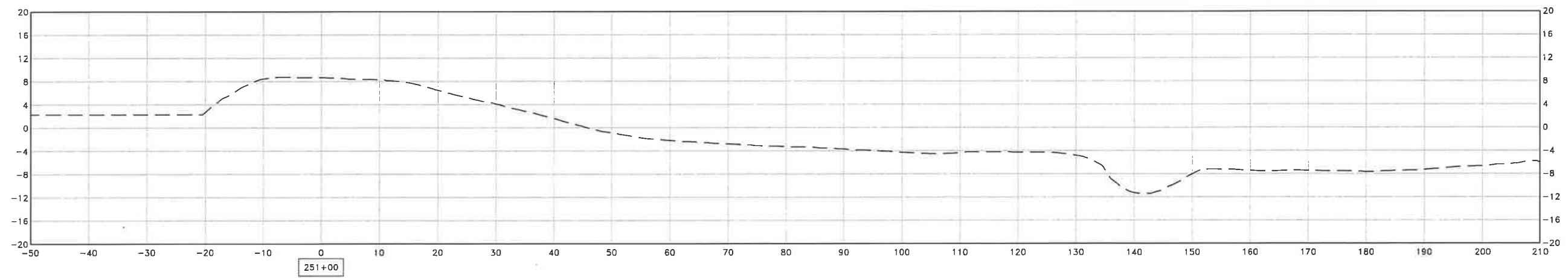


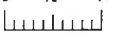
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 PLOT DATE: Jul 08, 2025 7:57am



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				ORIGINAL DRAWING SCALE 0 1/2" 1" 	PAGE NO. 7

FILE SPEC: P:\1110_Twitchell_Island\9000_Levee_Maintenance_Projects\9026_Levee_Maintenance_2025-2026\07_Other_Maintenance\0010_STA_235_Seepage\08_Civil\400_Plans\020_Sheets\C-301.dwg
PLOT DATE: Jul 08, 2025 7:57 am



 CIVIL ENGINEERS & LAND SURVEYORS www.ksninc.com	711 N. Pershing Avenue Stockton, CA 95203 209-946-0268 1550 Harbor Blvd., Suite 212 West Sacramento, CA 95691 916-403-5900	RECLAMATION DISTRICT NO. 1601 TWITCHELL ISLAND 2025 SEVENMILE SLOUGH SEEPAGE CROSS SECTIONS		DRAWING SCALE 1" = 10'	EXHIBIT NO. A
				ORIGINAL DRAWING SCALE 0 1/2" 1" 	PAGE NO. 8