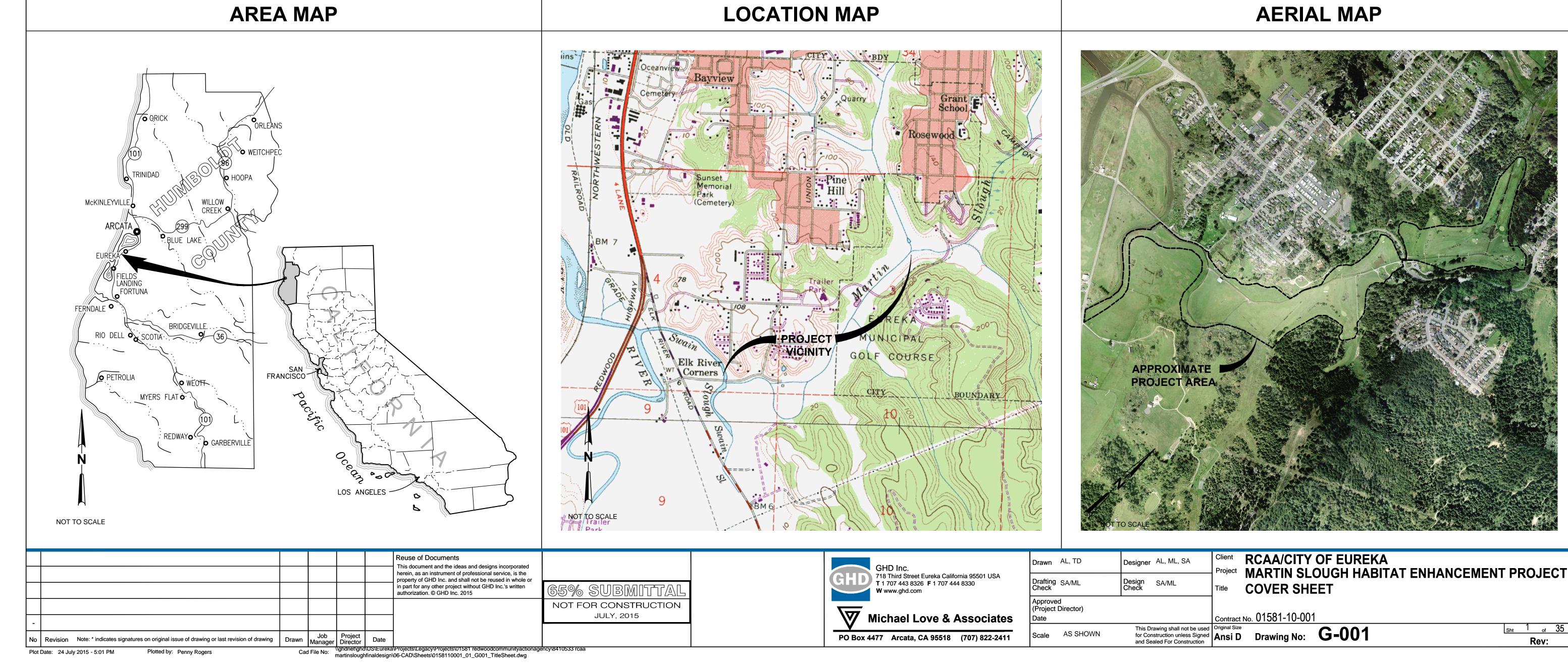
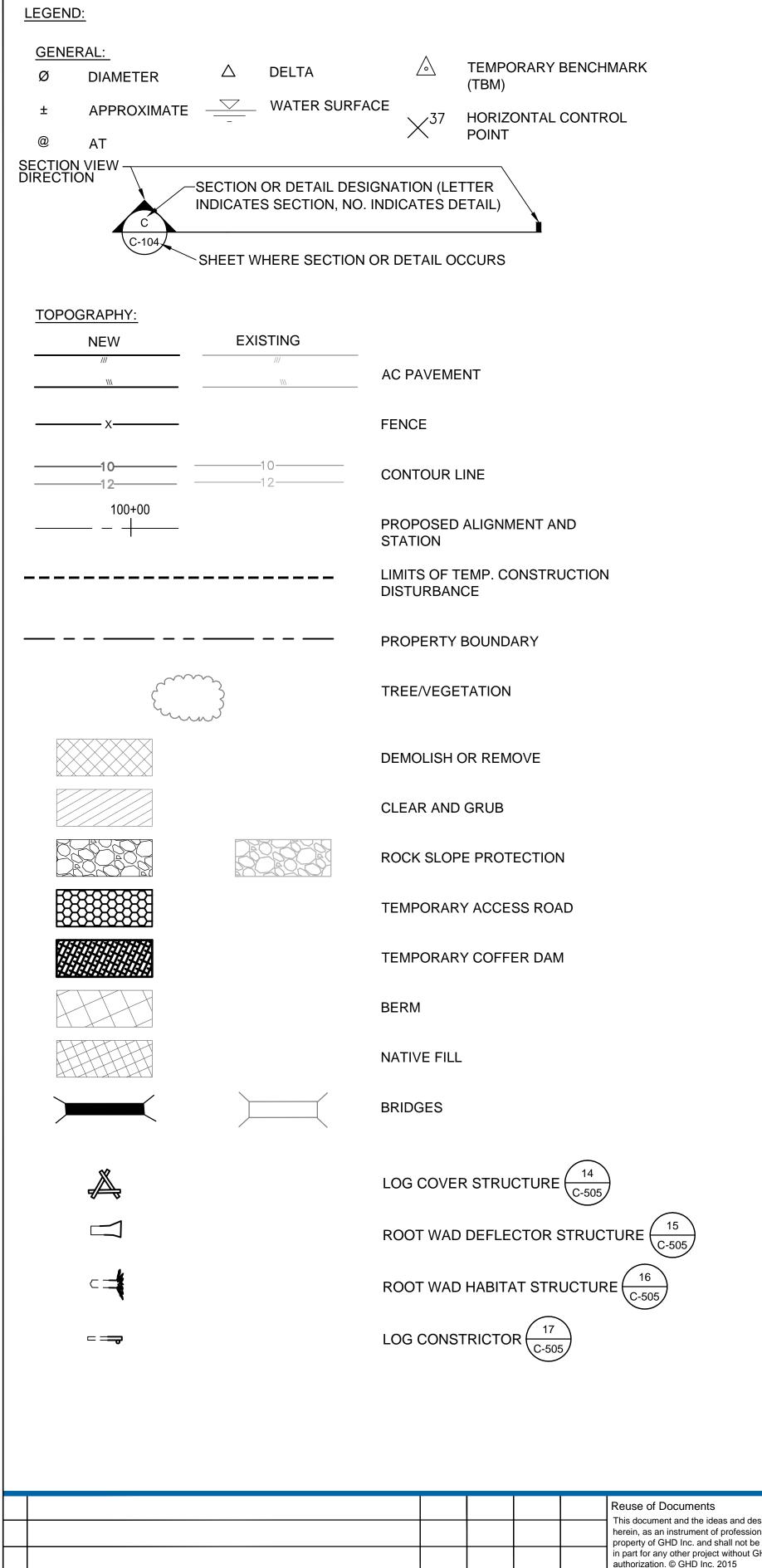
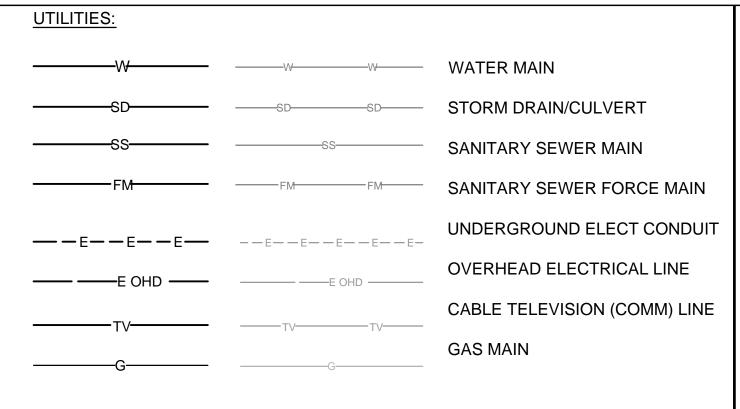
REDWOOD COMMUNITY ACTION AGENCY

MARTIN SLOUGH HABITAT ENHANCEMENT PROJECT JULY 2015









PLANTING ZONE LEGEND:

+ + + +

SEE RE-VEGETATION SHEETS V-101 AND V-102 FOR PLANT TYPES AND DENSITIES

+ + + +	RIPARIAN PLANTING AREA
	SHORT GRASS/SEDGE PLANTING AREA
	SALT MARSH PLANTING AREA
000000	BRACKISH PLANTING AREA
	EMERGENT FRESHWATER PLANTING AREA
	LOW SHRUBS PLANTING AREA

ABBREVIAT	IONS:		
AC APPROX	ASBESTOS CONCRETE APPROXIMATE	N (N) NTS	NORTHING NEW NOT TO SCALE
CL CMP CO	CENTER LINE CORRUGATED METAL PIPE CLEANOUT	OC OHE OHT	ON CENTER OVERHEAD ELECTRIC OVERHEAD TELEPHONE
CONC	CONCRETE	PP	POWER POLE
DIA	DIAMETER	PT	POINT
E (E) EL/ELEV	EASTING EXISTING ELEVATION	R REQ'D RCP	RIGHT REQUIRED REINFORCED CONCRETE PIPE
FL FG	FLOW LINE FINISHED GRADE	RSP	ROCK SLOPE PROTECTION
FT	FOOT/FEET	SD SF	STORM DRAIN SQUARE FOOT/FEET
G GALV	GAS GALVANIZED	SS SSFM	SANITARY SEWER SANITARY SEWER FORCE MAIN
HYD	FIRE HYDRANT	SST STA	STAINLESS STEEL STATION
INV/IE IR	INVERT ELEVATION IRRIGATION	STL	STEEL
L LF LWD	LEFT LINEAR FOOT/FEET LARGE WOODY DEBRIS	T TBD TBM TYP	TELEPHONE TO BE DETERMINED TEMPORARY BENCH MARK TYPICAL
MAX MH MIN	MAXIMUM MANHOLE MINIMUM	UNO	UNLESS NOTED OTHERWISE
MTR	MUTED TIDEGATE REGULATOR	W/ W	WITH WATER
		XS	CROSS SECTION

CONTACT ENGINEER FOR ABBREVIATIONS NOT LISTED.

GENERAL NOTES

- COFFER DAMS AND FISH SCREENS MUST BE INSTALLED AND FISH REMOVED FROM THE PROJECT AREA. CONTRACTOR SHALL COORDINATE WITH FISHERIES BIOLOGIST RESPONSIBLE FOR REMOVING FISH FOR SCHEDULING PLACEMENT OF FISH SCREENS, COFFER DAM AND DEWATERING PLAN. FISHERIES BIOLOGIST IS RESPONSIBLE FOR SITING THE BEST LOCATION FOR FISH SCREENS.
- EXISTING VEGETATION SHALL BE PROTECTED AND LEFT UNDISTURBED AS MUCH AS PRACTICAL. EXISTING NATIVE PLANTS IN AREAS TO BE DISTURBED WILL BE FLAGGED BY PROJECT BOTANIST FOR SALVAGE AND STORAGE IN TEMPORARY NURSERY TO BE REPLANTED AFTER FINAL GRADING HAS OCCURRED.
- ALL UTILITIES SHOWN WERE LOCATED FROM ABOVE GROUND VISUAL STRUCTURES, RECORD DRAWINGS, AND INFORMATION FROM UTILITY OWNERS. NOTIFY UNDERGROUND SERVICE ALERT PRIOR TO ANY GRADING OR EXCAVATION WITHIN THE SITE AT 1-800-227-2600.
- NATIVE TOPSOIL THAT IS EXCAVATED TO BE SEGREGATED AND STOCKPILED ON SITE FOR RE-USE. STOCKPILES TO BE LOCATED WITHIN THE STAGING AREA WHEN PRACTICAL AND COMPLETELY WITHIN THE LIMITS OF DISTURBANCE AT ALL TIMES.
- ANY MATERIAL NOT UTILIZED ON SITE SHALL BE REMOVED FROM SITE AND DISPOSED OF IN A LEGAL MANNER CONSISTENT WITH APPLICABLE REGULATIONS SUCH AS COUNTY GRADING ORDINANCES AND PROJECT PERMITS. CONTRACTOR IS RESPONSIBLE FOR PROPER LEGAL DISPOSAL OF ALL MATERIALS TAKEN FROM SITE.
- ANY PUMPS USED ON-SITE (DEWATERING ETC) SHALL BE PLACED ON ABSORBENT PADS. THE CONTRACTOR SHALL HAVE SPILL CONTAINMENT MATERIALS LOCATED AT THE SITE, WITH OPERATORS TRAINED IN SPILL CONTROL PROCEDURES. PUMPS SHALL BE SCREENED TO PREVENT INTAKE OF SALMON AND TIDEWATER GOBY,
- THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER UPON DISCOVERING DISCREPANCIES, ERRORS OR OMISSIONS IN THE PLANS. PRIOR TO PROCEEDING, THE DISCREPANCY SHALL BE RESOLVED TO THE SATISFACTION OF THE ENGINEER.
- PERFORM GRADING IN ACCORDANCE WITH THE LATEST EDITION OF APPENDIX CHAPTER 33 OF THE CALIFORNIA BUILDING CODE AND APPLICABLE HUMBOLDT COUNTY REGULATIONS.
- IN THE EVENT CULTURAL RESOURCES (I.E., HISTORICAL ARCHAEOLOGICAL, AND PALEONTOLOGICAL RESOURCES, AND HUMAN REMAINS) ARE DISCOVERED DURING GRADING OR OTHER CONSTRUCTION ACTIVITIES, WORK SHALL BE HALTED WITHIN A 100 FOOT RADIUS OF THE FIND. A QUALIFIED ARCHEOLOGIST SHALL BE CONSULTED FOR AN ON-SITE EVALUATION. ADDITIONAL MITIGATION MAY BE REQUIRED BY THE COUNTY PER THE ARCHEOLOGIST'S RECOMMENDATIONS. IF HUMAN BURIALS OR HUMAN REMAINS ARE ENCOUNTERED, THE CONTRACTOR SHALL ALSO NOTIFY THE COUNTY CORONER.
- SHOULD GRADING OPERATIONS ENCOUNTER HAZARDOUS MATERIALS. OR WHAT APPEAR TO BE HAZARDOUS MATERIALS, STOP WORK IN THE AFFECTED AREA IMMEDIATELY AND CONTACT 911 OR THE APPROPRIATE AGENCY FOR FURTHER INSTRUCTION.
- ALL CONSTRUCTION SITES AND HAUL ROADS SHALL BE MAINTAINED, AS NECESSARY, TO MINIMIZE THE EMISSION OF DUST AND PREVENT CREATION OF NUISANCE TO ADJACENT PROPERTIES.
- 12. THE CONTRACTOR SHALL SUBMIT A DUST CONTROL PLAN FOR REVIEW AND APPROVAL BY THE COUNTY OF HUMBOLDT AND THE CONSTRUCTION MANAGER. THE DUST CONTROL PLAN SHALL INCLUDE CASQA BMPS

DEWATERING NOTES

- ALL IN-STREAM CONSTRUCTION ACTIVITIES WITHIN THE MARTIN SLOUGH CHANNEL, SWAIN SLOUGH AND EAST AND NORTH FORK TRIBUTARIES, INCLUDING CHANNEL EXCAVATION AND DEWATERING, MAY BE CONDUCTED BETWEEN 15 JUNE AND 15 OCTOBER AND IN ACCORDANCE TO ALL PROJECT PERMITS AND RELATED CONDITIONS OF APPROVAL.
- 2. WHERE DEWATERING IS REQUIRED, A DEWATERING PLAN SHALL BE DEVELOPED BY THE CONTRACTOR AND SUBMITTED FOR APPROVAL BY THE CONSTRUCTION MANAGER TO MINIMIZE IMPACTS TO WATER QUALITY OF AQUATIC HABITATS IN THE PROJECT AREA. IN GENERAL, COFFER DAMS AND/OR SHEET PILING ARE REQUIRED IN AREAS WHERE FULL DEWATERING WILL BE CONDUCTED, WITH ADDITIONAL MEASURES TO REDUCE WATER QUALITY IMPACTS DURING CONSTRUCTION DEWATERING, INSTALLATION OF SILT FENCING AND TURBIDITY CURTAINS MAY ALSO BE REQUIRED TO CONTROL SEDIMENT. AT THE END OF CONSTRUCTION, THE CONTRACTOR SHALL REMOVE ALL BYPASSES, COFFER DAMS, SHEET PILING, TURBIDITY CURTAINS, AND SILT FENCING AND RESTORE THE SLOUGH CHANNEL BOTTOM TO ITS PRE-CONSTRUCTION CONTOURS UNLESS OTHERWISE DESIGNATED IN THE PLANS AND SPECIFICATIONS.
- 3. IN SCHEDULING DEWATERING ACTIVITIES, THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER A MINIMUM OF TEN (10) DAYS PRIOR TO PLANNED DEWATERING ACTIVITY TO ENSURE THAT THE ENVIRONMENTAL MONITOR CAN SCHEDULE THE APPROPRIATE STAFF FOR CLEARANCE SURVEYS, MONITORING, AND RELOCATION OF NATIVE AQUATIC VERTEBRATES AND LARGE INVERTEBRATES TO NEARBY SUITABLE HABITAT PRIOR TO IMPLEMENTATION OF CONSTRUCTION.

TRAFFIC CONTROL NOTES

- 1. CONTRACTOR TO SUBMIT TRAFFIC CONTROL PLAN TO BE APPROVED BY CONSTRUCTION MANAGER.
- TEMPORARY LANE CLOSURE TRAFFIC CONTROL TO BE CONSISTENT W/ LANE CLOSURE FOR LOW VOLUME, TWO LANE ROADS PER CURRENT EDITION OF CALTRANS MANUAL OF TRAFFIC CONTROLS AND IN CONFORMANCE WITH THE PROJECT SPECIFICATIONS.
- TO THE DEGREE FEASIBLE, HAUL TRUCKS SHALL USE HAUL ROUTES ALONG THE EXISTING CHANNEL EXCAVATION PATH, OR ALONG ROADWAYS DISTANT FROM SENSITIVE RECEPTORS.

TOPOGRAPHIC SURVEY NOTES

- TOPOGRAPHIC DATA IS BASED ON ACOE PHOTOGRAMMETRY PROVIDED BY CITY OF EUREKA.
- 2. HORIZONTAL DATUM NAV83. STATE PLANE ZONE 1
- 3. VERTICAL DATUM: NAVD88

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- No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date		



GHD Inc.		Drawn AL, TD	Designer AL, ML, SA	Client RCAA/CITY (Project MARTIN SLC		
G	718 Third Street Eureka California 95501 USA T 1 707 443 8326 F 1 707 444 8330 W www.ghd.com	Drafting SA/ML	Design SA/ML	,	LEGEND AN	
7	Michael Love & Associates	Approved (Project Director) Date			 o. 01581-10-001	
PO	Box 4477 Arcata, CA 95518 (707) 822-2411	Scale AS SHOWN	This Drawing shall not be used for Construction unless Signed and Sealed For Construction	Original Size Ansi D	Drawing No:	G-002

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RCAA/CITY OF EUREKA MARTIN SLOUGH HABITAT ENHANCEMENT PROJECT LEGEND AND NOTES

Sht 2 of 35 Rev:

EROSION, SEDIMENT, POLLUTION AND WASTE CONTROL NOTES

- THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES OF STORM WATER RUNOFF ASSOCIATED WITH CORRIDOR CONSTRUCTION ACTIVITY. THE SITE DISTURBANCE IS GREATER THAN 1 ACRE. THEREFORE THE CONTRACTOR IS RESPONSIBLE TO COMPLY WITH THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR THE PROJECT. THE SWPPP SHALL BE DEVELOPED BY A QUALIFIED SWPPP DEVELOPER (QSD) AND BMP MONITORING AND REPORTING SHALL BE OVERSEEN BY A QUALIFIED SWPPP PRACTITIONER
- 2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MINIMIZE EROSION AND PREVENT THE TRANSPORT OF SEDIMENT TO THE ADJACENT STREAM AND SENSITIVE AREAS.
- PERFORM EROSION PREVENTION AND SEDIMENT CONTROL IN ACCORDANCE WITH THE LATEST EDITION OF CHAPTER 33 OF THE CALIFORNIA BUILDING CODE, APPLICABLE HUMBOLDT COUNTY REGULATIONS, AND SECTION 20 OF THE CALTRANS STANDARD SPECIFICATIONS.
- 4. AT A MINIMUM, THE CONTRACTOR SHALL EMPLOY THE FOLLOWING BEST MANAGEMENT PRACTICES (BMPS) AS DESCRIBED IN THE CURRENT CALTRANS STORM WATER QUALITY HANDBOOK AS NEEDED:

SS-2 PRESERVATION OF EXISTING **VEGETATION** SS-10 OUTLET PROTECTION/VELOCITY WM-1 MATERIALS DELIVERY AND

DISSIPATION DEVICES SC-1 SILT FENCE NS-2 DEWATERING OPERATIONS NS-3 PAVING AND GRINDING **OPERATIONS** NS-5 CLEAR WATER DIVERSION

NS-9 VEHICLE EQUIPMENT AND FUELING

STORAGE WM-2 MATERIAL USE WM-4 SPILL PREVENTION AND CONTROL WM-8 CONCRETE WASTE

MANAGEMENT WM-9 SANITARY/SEPTIC WASTE MANAGEMENT

- 5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIX ANY EROSION. SEDIMENT, POLLUTION, & WASTE CONTROL DEFICIENCIES IDENTIFIED BY THE OWNER OR THE OWNERS REPRESENTATIVE.
- 6. PRIOR TO FINAL ACCEPTANCE ALL DISTURBED AREAS OF THE SITE WILL BE VEGETATED OR PERMANENTLY STABILIZED AND ALL TEMPORARY SEDIMENT CONTROL MEASURES SHALL BE REMOVED.
- ALL DISTURBED EARTH AREAS SHALL BE MULCHED AND SEEDED PER THE RE-VEGETATION AND PLANTING SPECIFICATIONS.
- 8. IF DISCREPANCIES OCCUR BETWEEN THESE NOTES, MATERIAL

REFERENCED HEREIN OR MANUFACTURERS RECOMMENDATIONS, THEN THE MOST PROTECTIVE SHALL APPLY.

- PRESERVATION OF EXISTING VEGETATION SHALL OCCUR TO THE MAXIMUM EXTENT PRACTICABLE.
- 10. DISCHARGES OF POTENTIAL POLLUTANTS FROM CONSTRUCTION SITES SHALL BE PREVENTED USING SOURCE CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE. POTENTIAL POLLUTANTS INCLUDE BUT ARE NOT LIMITED TO: SEDIMENT, TRASH, NUTRIENTS, PATHOGENS, PETROLEUM HYDROCARBONS, METALS, CONCRETE, CEMENT, ASPHALT, LIME, PAINT, STAINS, GLUES, WOOD PRODUCTS, PESTICIDES, HERBICIDES, CHEMICALS, HAZARDOUS WASTE, SANITARY WASTE, VEHICLE OR EQUIPMENT WASH WATER, CIGARETTE BUTS, AND CHLORINATED WATER.
- 11. WHENEVER IT IS NOT POSSIBLE TO UTILIZE EROSION PREVENTION MEASURES, EXPOSED SLOPES SHALL EMPLOY SEDIMENT CONTROL DEVICES, SUCH AS FIBER ROLLS AND SILT FENCES. FIBER ROLLS AND SILT FENCES SHALL BE TRENCHED AND KEYED INTO THE SOIL AND INSTALLED ON CONTOUR. SILT FENCES SHALL BE INSTALLED APPROXIMATELY 2 TO 5 FEET FROM TOE OF SLOPE.
- 12. THE CONTRACTOR SHALL PROTECT STORM DRAIN INLETS FROM POTENTIAL POLLUTANTS UNTIL DRAINAGE CONVEYANCE SYSTEMS ARE FUNCTIONAL, THE SITE IS STABILIZED. AND CONSTRUCTION HAS BEEN COMPLETED.
- 13. ENERGY DISSIPATERS SHALL BE INSTALLED AT STORM DRAIN OUTLETS WHICH MAY CONVEY STORM WATER FLOW LEADING TO SOIL EROSION.
- 14. SOIL AND MATERIAL STOCKPILES SHALL BE PROPERLY PROTECTED TO MINIMIZE SEDIMENT AND POLLUTANT TRANSPORT FROM THE CONSTRUCTION SITE.
- 15. SOLID WASTE, SUCH AS TRASH AND DEBRIS, SHALL BE PLACED IN DESIGNATED COLLECTION AREAS OR CONTAINERS. THE CONSTRUCTION SITE SHALL BE CLEARED OF SOLID WASTE DAILY, OR AS NECESSARY, AND REGULAR REMOVAL AND PROPER DISPOSAL SHALL BE ARRANGED.
- 16. PROPER APPLICATION, CLEANING AND STORAGE OF POTENTIALLY HAZARDOUS MATERIALS, SUCH AS PAINTS AND CHEMICALS, SHALL BE CONDUCTED TO PREVENT THE DISCHARGE OF POLLUTANTS.
- 17. WHEN UTILIZED, TEMPORARY RESTROOMS AND SANITARY FACILITIES SHALL BE LOCATED AND MAINTAINED TO PREVENT THE DISCHARGE OF POLLUTANTS.
- APPROPRIATE VEHICLE STORAGE, FUELING, MAINTENANCE AND CLEANING AREAS SHALL BE DESIGNATED AND MAINTAINED TO PREVENT DISCHARGE

OF POLLUTANTS.

- 19. ENTRANCE(S) TO THE CONSTRUCTION SITE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF POTENTIAL POLLUTANTS OFFSITE. POTENTIAL POLLUTANTS DEPOSITED ON PAVED AREAS WITHIN THE COUNTY RIGHT-OF-WAY, SUCH AS ROADWAYS AND SIDEWALKS, SHALL BE PROPERLY DISPOSED OF EACH WORKING DAY OR MORE FREQUENTLY AS NECESSARY.
- 20. CHANGES TO THE STORM WATER POLLUTION PREVENTION PLAN MAY BE MADE TO RESPOND TO FIELD CONDITIONS. CHANGES SHALL BE NOTED ON THE PLAN WHEN MADE.
- 21. BECAUSE COFFER DAMS WILL BE INSTALLED AND THE CHANNEL WILL BE DEWATERED PRIOR TO EXCAVATION, EQUIPMENT WILL NOT BE OPERATED DIRECTLY WITHIN TIDAL WATERS OR STREAM CHANNELS OF FLOWING STREAMS, PRIOR TO FISH REMOVAL EFFORTS BEING COMPLETED.
- 22. SILT FENCES AND OR SILT CURTAINS WILL BE DEPLOYED IN THE VICINITY OF THE COFFER DAMS AND AT EXCAVATION OF SLOUGHS AT CULVERT INSTALLATION AND REMOVAL AREAS TO PREVENT ANY SEDIMENT FROM FLOWING INTO THE CREEK OR WETTED CHANNELS. IF THE SILT FENCES ARE NOT ADEQUATELY CONTAINING SEDIMENT, CONSTRUCTION ACTIVITY WILL CEASE UNTIL REMEDIAL MEASURES ARE IMPLEMENTED THAT PREVENTS SEDIMENT FROM ENTERING THE ADJACENT WATERS.
- 23. SEDIMENT SOURCES SHALL BE CONTROLLED USING BMPS SUCH AS FIBER ROLLS. SEDIMENT BASINS, AND/OR CHECK DAMS THAT WILL BE INSTALLED PRIOR TO OR DURING GRADING ACTIVITIES AND REMOVED ONCE THE SITE HAS STABILIZED.
- 24. EROSION CONTROL MAY INCLUDE REUSE OF ONSITE NATIVE TOP SOIL AND ORGANIC MULCH, SEEDING, EROSION CONTROL BLANKETS, PLASTIC COVERINGS, AND GEOTEXTILES OR OTHER BMPS AS REQUIRED.
- 25. EXCESS NUISANCE WATER ENCOUNTERED DURING EXCAVATION WILL BE PUMPED INTO THE SURROUNDING FIELDS OR INTO TEMPORARY SETTLING BASINS WITHIN THE CORRIDOR TO PREVENT SEDIMENT-LADEN WATER FROM ENTERING THE DOWNSTREAM CHANNEL.
- 26. APPROPRIATE ENERGY DISSIPATION DEVISES WILL BE UTILIZED TO REDUCE OR PREVENT EROSION AT DISCHARGE END OF DEWATERING ACTIVITY.
- 27. CONSTRUCTION MATERIALS, DEBRIS, AND WASTE WILL NOT BE PLACED OR STORED WHERE IT CAN ENTER INTO OR BE WASHED BY RAINFALL INTO WATERS OF THE U.S./STATE.
- 28. OPERATORS OF HEAVY EQUIPMENT, VEHICLES, AND CONSTRUCTION WORK

WILL BE INSTRUCTED TO AVOID SENSITIVE HABITAT AREAS. TO ENSURE CONSTRUCTION OCCURS IN THE DESIGNATED AREAS AND DOES NOT IMPACT ENVIRONMENTALLY SENSITIVE AREAS, THE BOUNDARIES OF THE WORK AREA WILL BE FENCED OR MARKED WITH FLAGGING.

- 29. EQUIPMENT WHEN NOT IN USE WILL BE STORED OUTSIDE OF THE CHANNEL AND ABOVE HIGH TIDE ELEVATIONS.
- 30. ALL CONSTRUCTION EQUIPMENT WILL BE MAINTAINED TO PREVENT LEAKS OF FUELS, LUBRICANTS OR OTHER FLUIDS INTO THE CHANNEL. SERVICE AND REFUELING PROCEDURES WILL BE NOT CONDUCTED WHERE THERE IS POTENTIAL FOR FUEL SPILLS TO SEEP OR WASH INTO THE CHANNEL.
- 31. EXTREME CAUTION WILL BE USED WHEN HANDLING AND/OR STORING CHEMICALS AND HAZARDOUS WASTES (E.G., FUEL AND HYDRAULIC FLUID) NEAR WATERWAYS, AND ANY AND ALL APPLICABLE LAWS AND REGULATIONS WILL BE FOLLOWED. APPROPRIATE MATERIALS WILL BE ON SITE TO PREVENT AND MANAGE SPILLS.
- 32. THE CONTRACTOR SHALL TAKE PREVENTATIVE MEASURES TO AVOID ANY SPILLS OR LEAKS ON THE SITE FROM PETROLEUM PRODUCTS. THE CONTRACTOR SHALL PREPARE A SPILL PREVENTION AND RESPONSE PLAN THAT WILL BE APPROVED BY THE CONSTRUCTION MANAGER AND ENVIRONMENTAL MONITOR. THIS MUST BE IMPLEMENTED AND ADHERED TO BY THE CONTRACTOR. AT A MINIMUM, THIS PLAN SHALL REQUIRE THAT STAGING, STORAGE, AND REFUELING AREAS AND ANY EQUIPMENT REPAIR OR SIMILAR ACTIVITY TAKE PLACE WHEN EQUIPMENT IS AT LEAST 100-FEET FROM ANY ACTIVE CREEK CHANNEL, DITCH, POND, OR FENCED SENSITIVE AREA. REFUELING SHALL ONLY OCCUR IN AREAS APPROVED BY THE CONSTRUCTION MANAGER OR ENVIRONMENTAL MONITOR. THE CONTRACTOR SHALL INSPECT AND FULLY CLEAN UP ANY SUCH LEAKS OR SPILLS THAT OCCUR ON THE SITE.
- 33. AT THE CONCLUSION OF CONSTRUCTION OF CERTAIN TASK ELEMENTS, THE CONTRACTOR WILL BE REQUIRED TO IMPLEMENT ADDITIONAL POST-CONSTRUCTION EROSION CONTROL MEASURES WHERE SPECIFIED IN THE PLANS OR WHERE DIRECTED BY THE CONSTRUCTION MANAGER OR ENVIRONMENTAL MANAGER IN ORDER TO PROTECT NATURAL RESOURCES. THESE MEASURES INCLUDE, BUT ARE NOT LIMITED TO, INSTALLING WEED-FREE STRAW MULCH AND TACKIFIER, WEED-FREE STRAW WATTLES OR STRAW LOGS, AND EROSION CONTROL BLANKET AND CONSISTENT WITH THE SWPPP AND RE-VEGETATION PLANS.

MARTIN SLOUGH HABITAT ENHANCEMENT PROJECT CONSTRUCTION SEQUENCE

ITEM	PONDS C AND LOWER CHANNEL CONSTRUCTION ON NCLT PROPERTY	1-Jun	15-Jun	1-Jul	15-Jul	1-Aug	15-Aug	1-Sep	15-Sep	1-Oct	15-Oct	1-Nov	15-Nov	1-Dec
1	Establish site access and temporary haul routes													1
2	Identify and relocate or install temporary exclusions for sensitive species and temporary hotwire fencing for livestock													1
3	Install and maintain fish screens, coffer dams, temporarily divert Martin Slough flow to bypass project area													
4	Excavate Martin Slough Channel, adjacent marshplains, and ponds between approximately Station 1+00 and 31+00													
5	Construct sheet piles and agricultural bridge crossing near barn													
6	Raise existing berms to final grade													
7	Install culverts, log structures, gas line protection, and similar elements													
8	Intstall exclusion fencing													
	Seed, mulch and revegetate													
10	Site Clean-up/rehab temporary roads/final punch list items/demobilization													
ITEM	PONDS D, E, AND ASSOCIATED MARTIN SLOUGH CHANNEL CONSTRUCTION UP TO LOWER FAIRWAY DRIVE	1-Jun	15-Jun	1-Jul	15-Jul	1-Aug	15-Aug	1-Sep	15-Sep	1-Oct	15-Oct	1-Nov	15-Nov	1-Dec
1	Establish site access and temporary haul routes													1
2	Identify and relocate or install temporary exclusions for sensitive species													
3	Install and maintain fish screens, coffer dams, temporarily divert Martin Slough flow to bypass project area													1
4	Excavate Martin Slough Channel and ponds between approximately Station 31+00 to 47+00													1
5	Install culverts, log structures, gas line protection, and similar elements													1
6	Seed, mulch and revegetate													
7	Site clean-up/rehab temporary roads/final punch list items/demobilization													l
ITEM	ONDS F, G, AND ASSOCIATED MARTIN SLOUGH CHANNEL CONSTRUCTION UPSTREAM OF LOWER FAIRWAY DRIV	1-Jun	15-Jun	1-Jul	15-Jul	1-Aug	15-Aug	1-Sep	15-Sep	1-Oct	15-Oct	1-Nov	15-Nov	1-Dec
1	Establish site access and temporary haul routes													1
2	Identify and relocate or install temporary exclusions for sensitive species													1
3	Install and maintain fish screens, coffer dams, temporarily divert Martin Slough flow to bypass project area													1
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6	Seed, mulch and revegetate													
7	Site clean-up/rehab temporary roads/final punch list items/demobilization													-

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Drawing No: G-003

GENERAL

SHEET#	DRAWING	DRAWING TITLE
1	G-001	COVER SHEET
2	G-002	LEGEND & NOTES
3	G-003	EROSION CONTROL NOTES
4	G-004	INDEX OF DRAWINGS

SITE PLAN

SHEET#	DRAWING	DRAWING TITLE
5	C-100	SITE PLAN SHEET INDEX
6	C-101	SITE PLAN SHEET 1 OF 9
7	C-102	SITE PLAN SHEET 2 OF 9
8	C-103	SITE PLAN SHEET 3 OF 9
9	C-104	SITE PLAN SHEET 4 OF 9
10	C-105	SITE PLAN SHEET 5 OF 9
11	C-106	SITE PLAN SHEET 6 OF 9
12	C-107	SITE PLAN SHEET 7 OF 9
13	C-108	SITE PLAN SHEET 8 OF 9
14	C-109	SITE PLAN SHEET 9 OF 9
15	C-110	SITE PLAN - BARN

PROFILE

SHEET#	DRAWING	DRAWING TITLE
16	C-201	PROFILE SHEET 1 OF 3 MARTIN SLOUGH MAIN STEM
17	C-202	PROFILE SHEET 2 OF 3 SOUTH EAST TRIBUTARY & NORTH FORK
18	C-203	PROFILE SHEET 3 OF 3 PONDS

CROSS-SECTIONS

SHEET#	DRAWING	DRAWING TITLE
19	C-301	CROSS SECTIONS SHEET 1 OF 6 MARTIN SLOUGH MAIN STEM
20	C-302	CROSS SECTIONS SHEET 2 OF 6 MARTIN SLOUGH MAIN STEM
21	C-303	CROSS SECTIONS SHEET 3 OF 6 SOUTH EAST TRIB, NORTH FORK & MEANDER
22	C-304	CROSS SECTIONS SHEET 4 OF 6 POND C & POND D
23	C-305	CROSS SECTIONS SHEET 5 OF 6 POND E & POND F
24	C-306	CROSS SECTIONS SHEET 6 OF 6 POND F & BERM

TYPICAL DETAILS

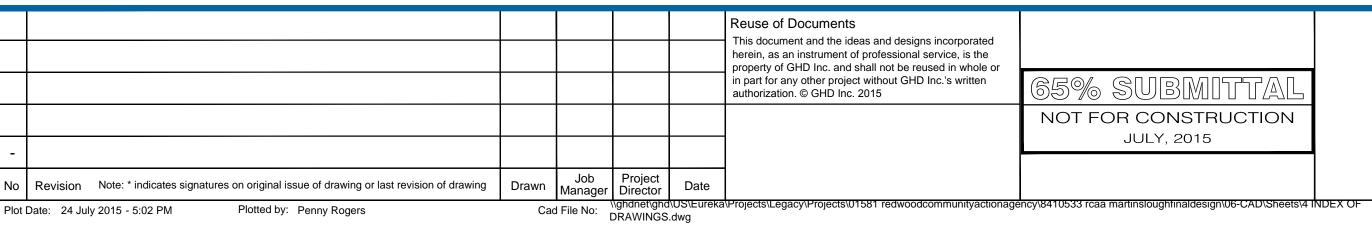
SHEET#	DRAWING	DRAWING TITLE
25	C-501	TYPICAL DETAILS 1 OF 6
26	C-502	TYPICAL DETAILS 2 OF 6
27	C-503	TYPICAL DETAILS 3 OF 6
28	C-504	TYPICAL DETAILS 4 OF 6
29	C-505	TYPICAL DETAILS 5 OF 6
30	C-506	TYPICAL DETAILS 6 OF 6

REVEGETATION

SHEET#	DRAWING	DRAWING TITLE
31	V-101	REVEGETATION PLAN SHEET 1 OF 2
32	V-102	REVEGETATION PLAN SHEET 2 OF 2

STRUCTURAL

SHEET#	DRAWING	DRAWING TITLE
33	S-501	BRIDGE CROSSING PLAN AND PROFILE
34	S-502	STRUCTURAL DETAILS SHEET 1 OF 2
35	S-503	STRUCTURAL DETAILS SHEET 2 OF 2

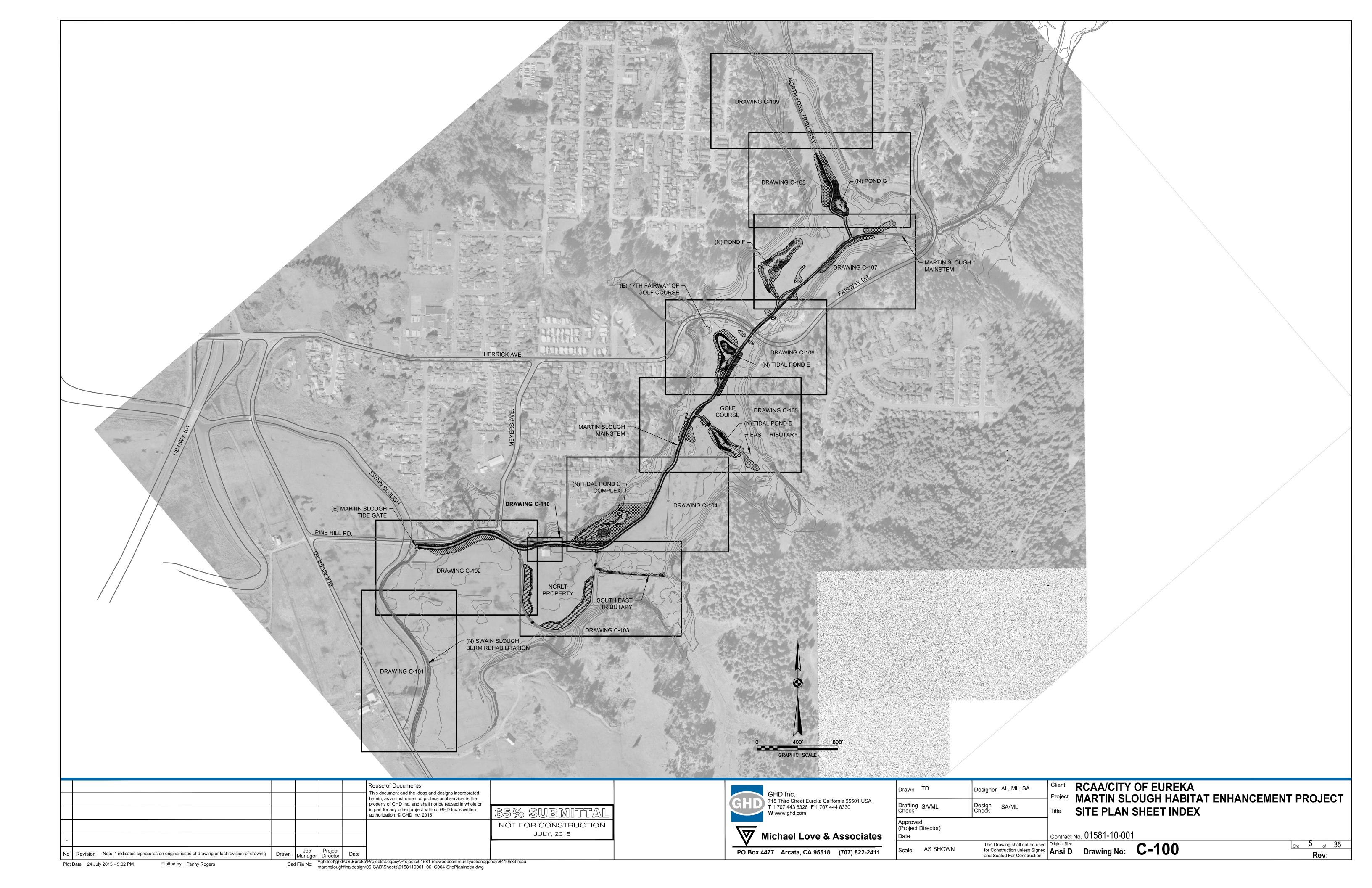


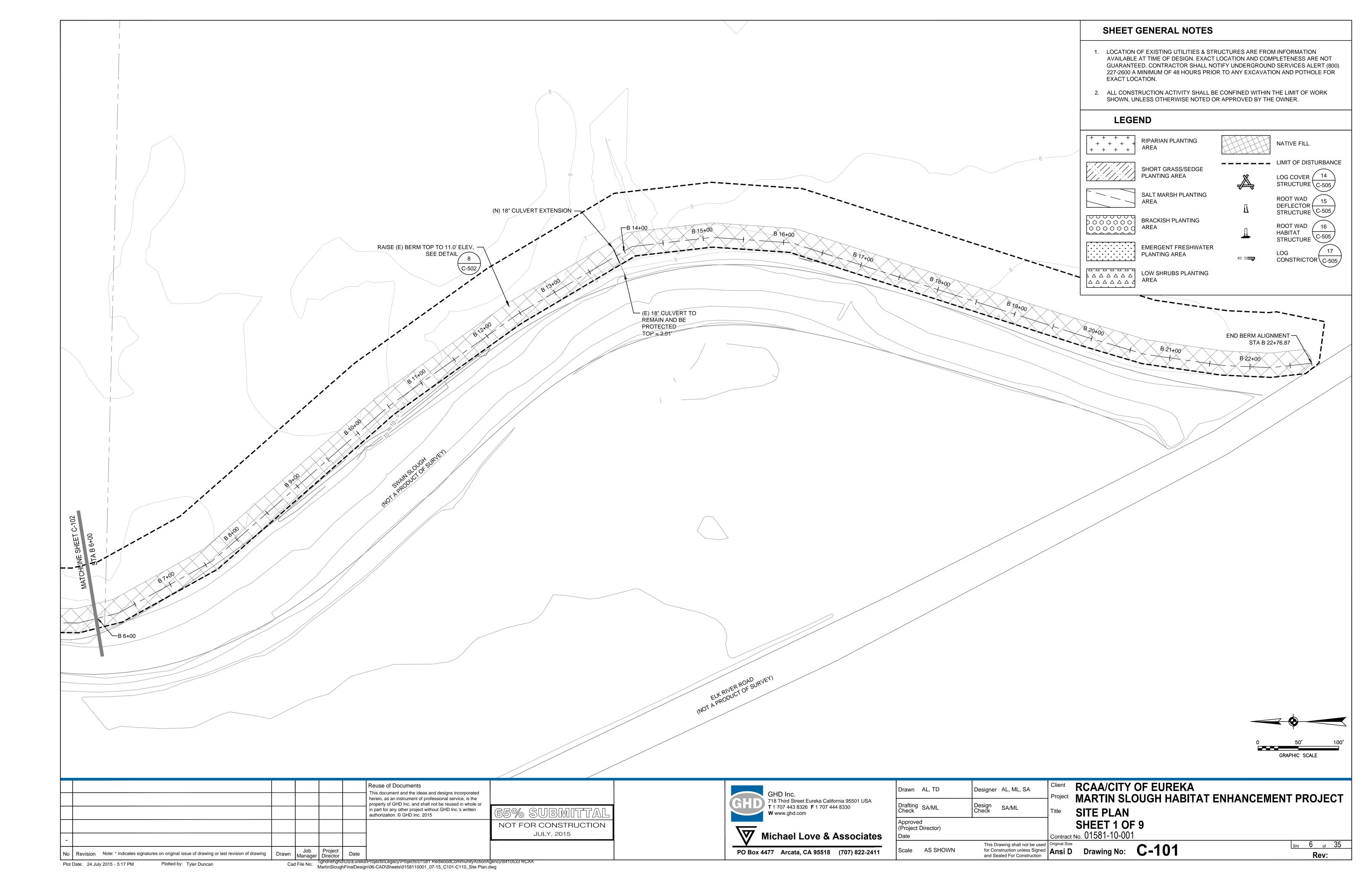


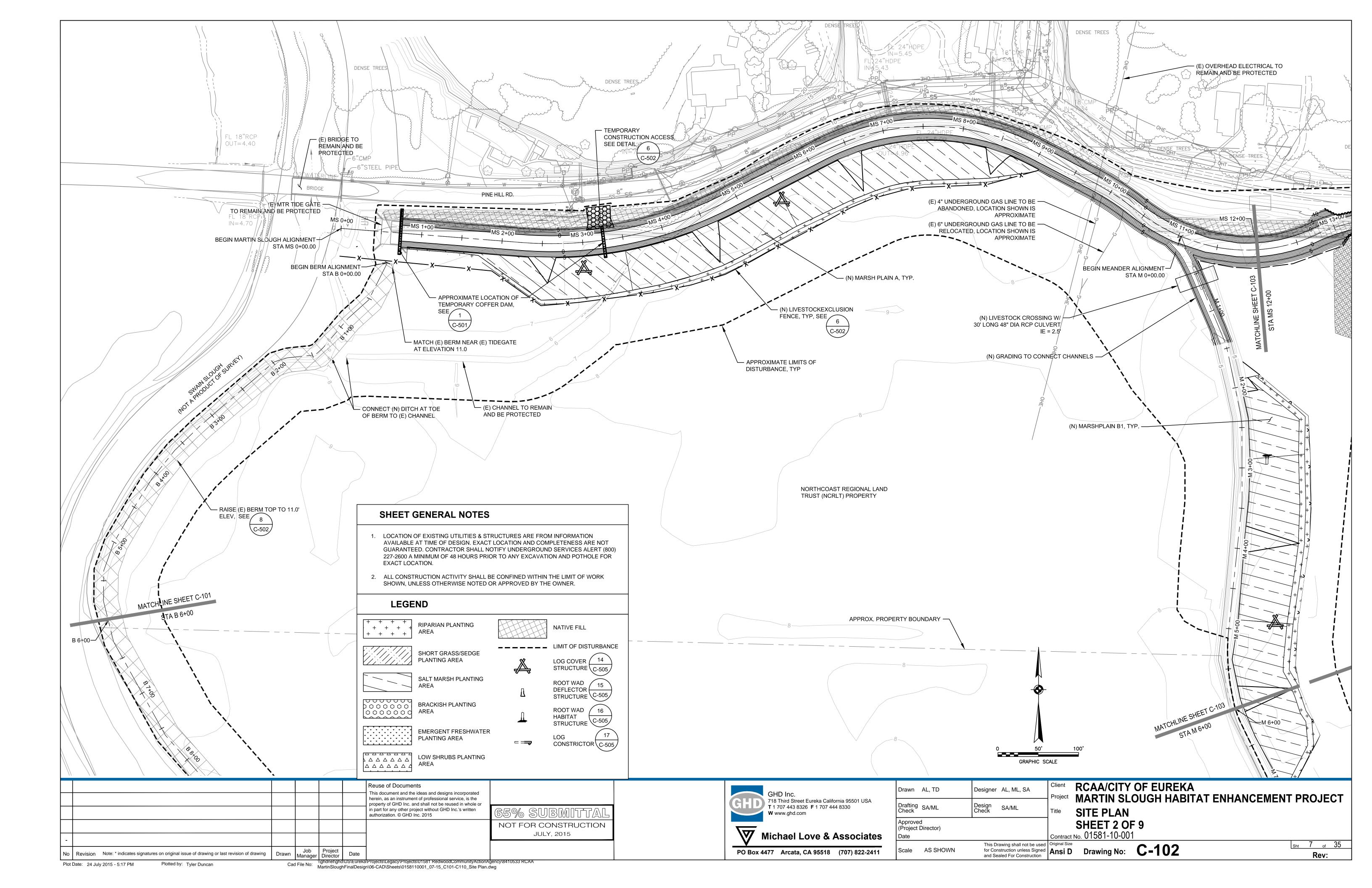
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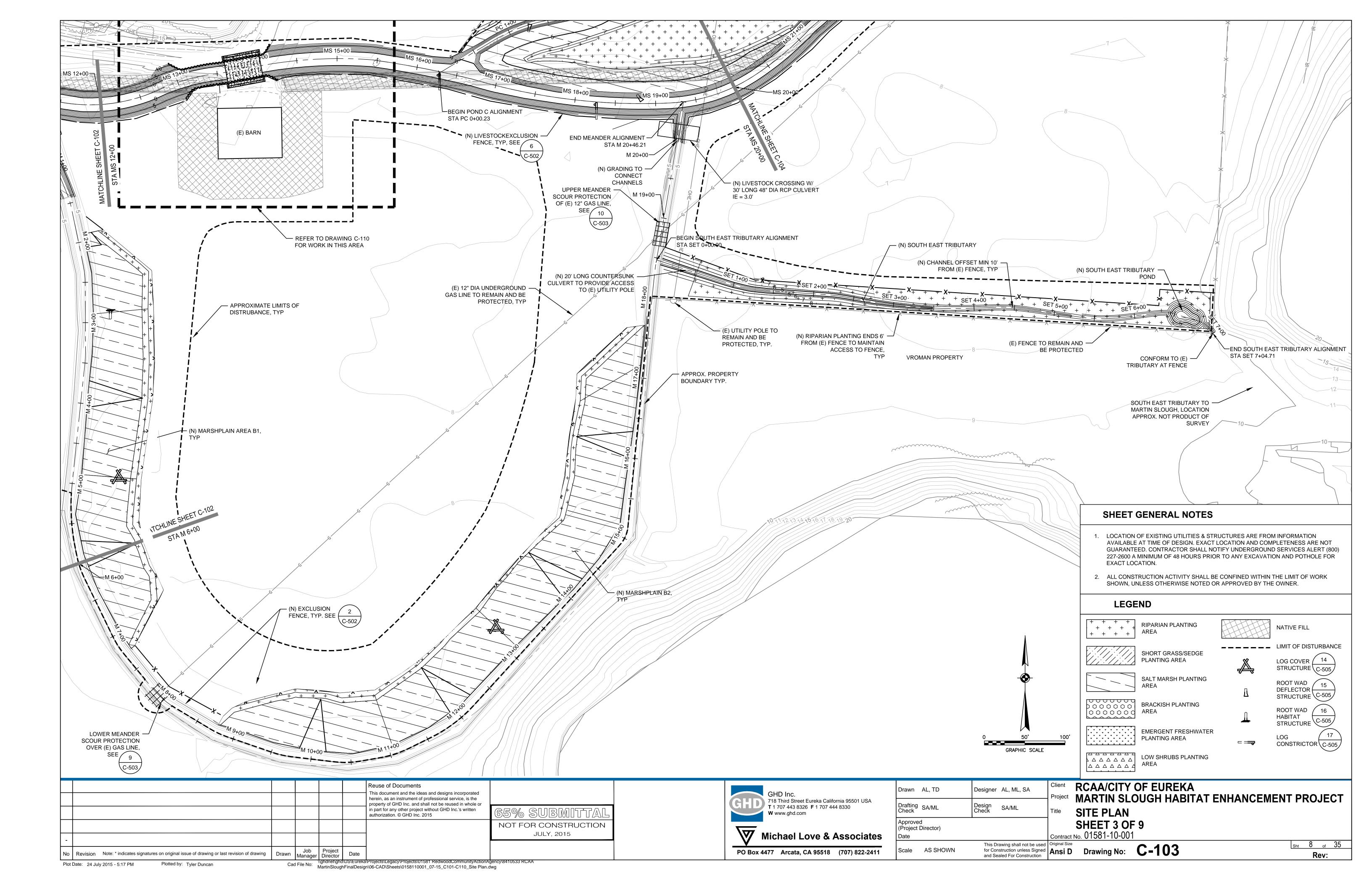
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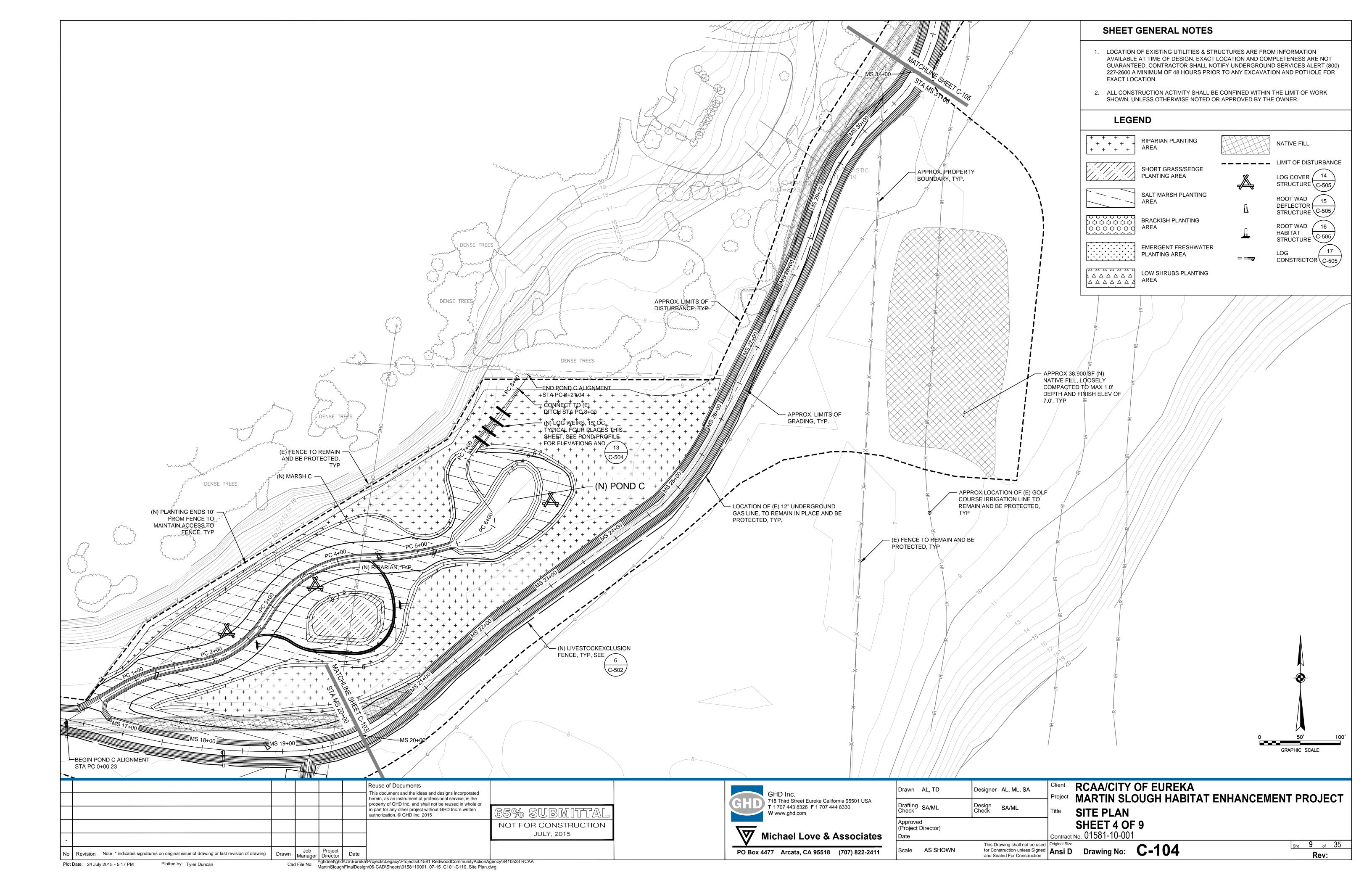
Client RCAA/CITY OF EUREKA
Project MARTIN SLOUGH HABITAT ENHANCEMENT PROJECT **INDEX OF DRAWINGS**

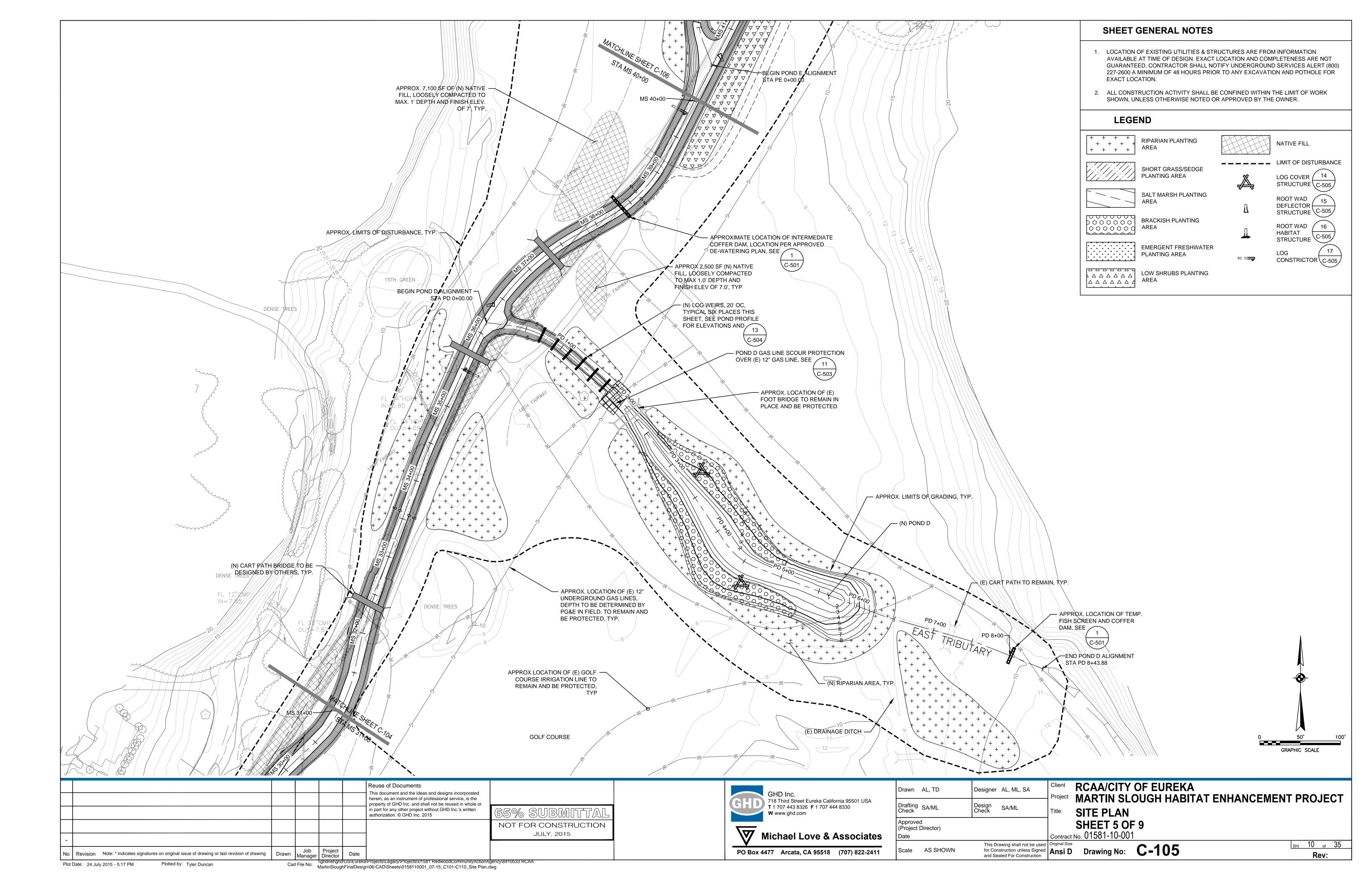


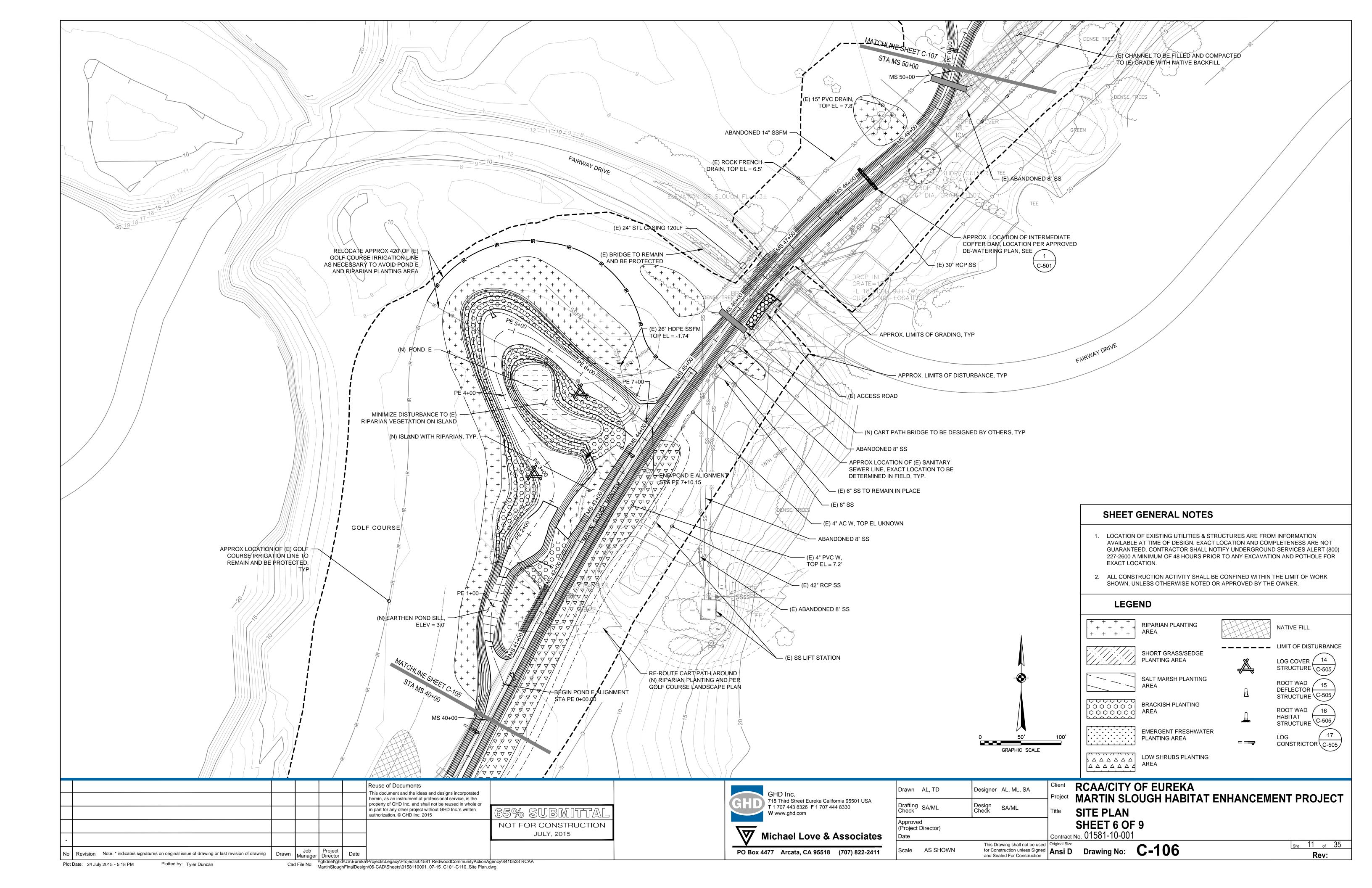


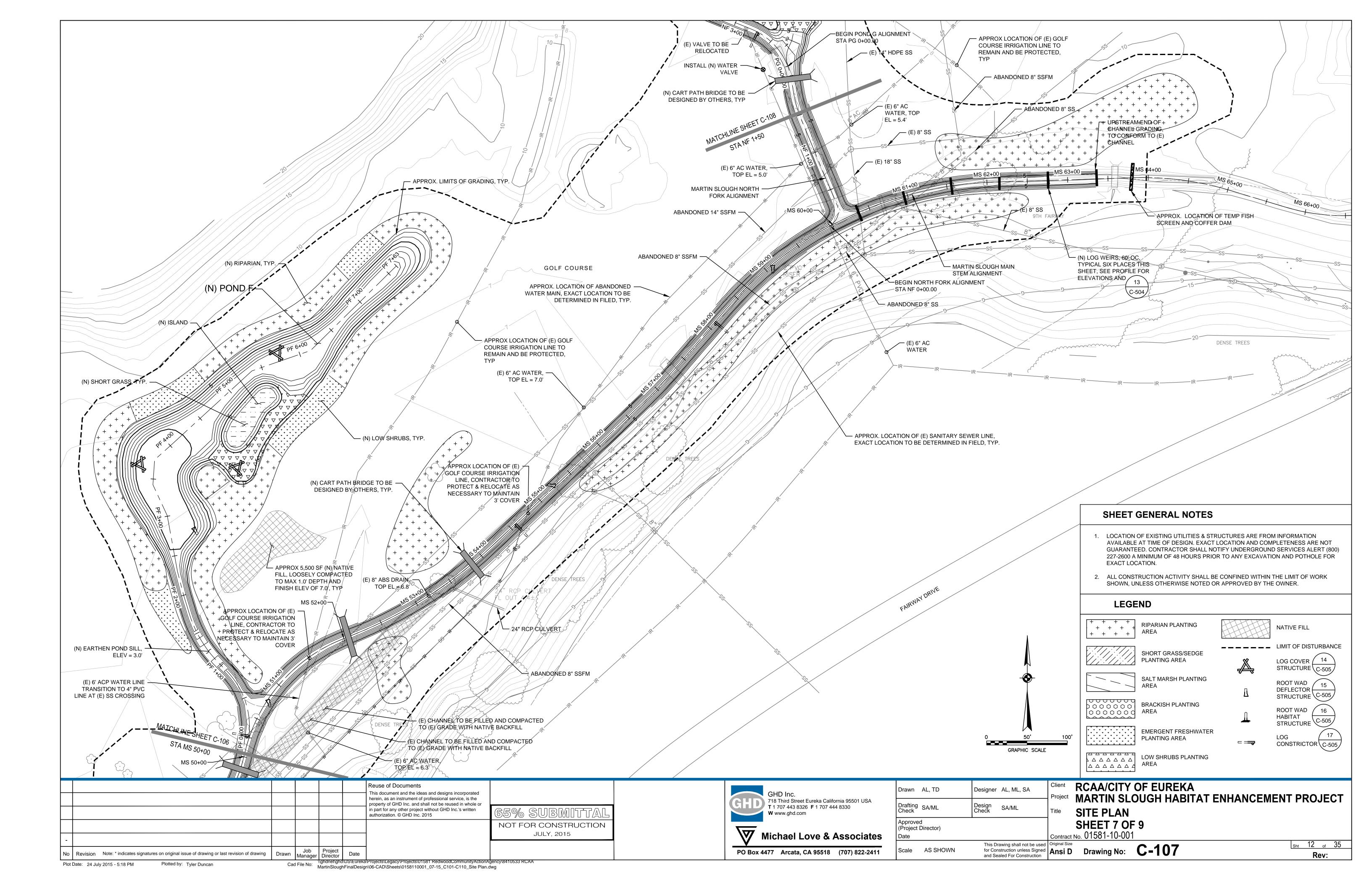


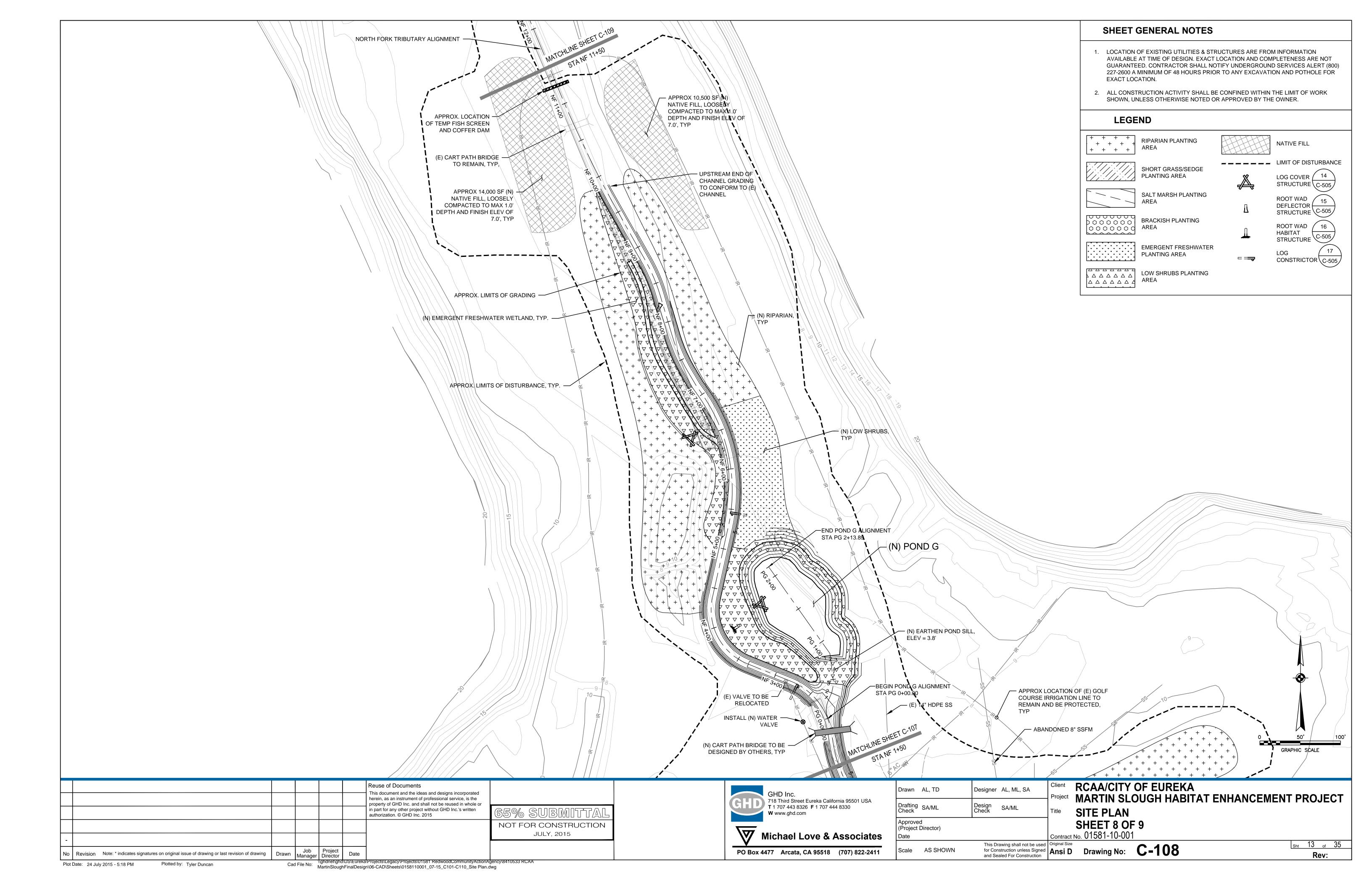


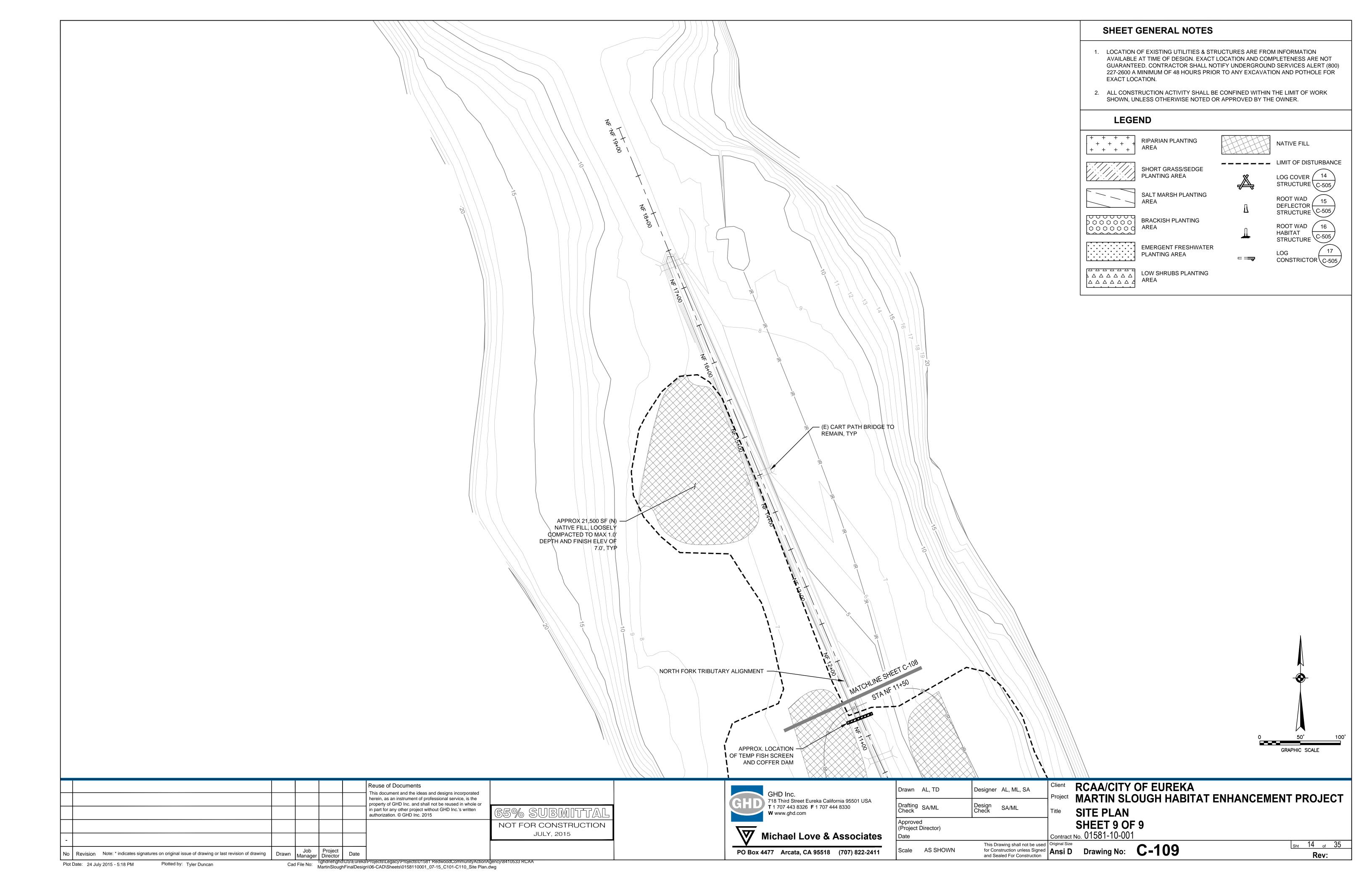


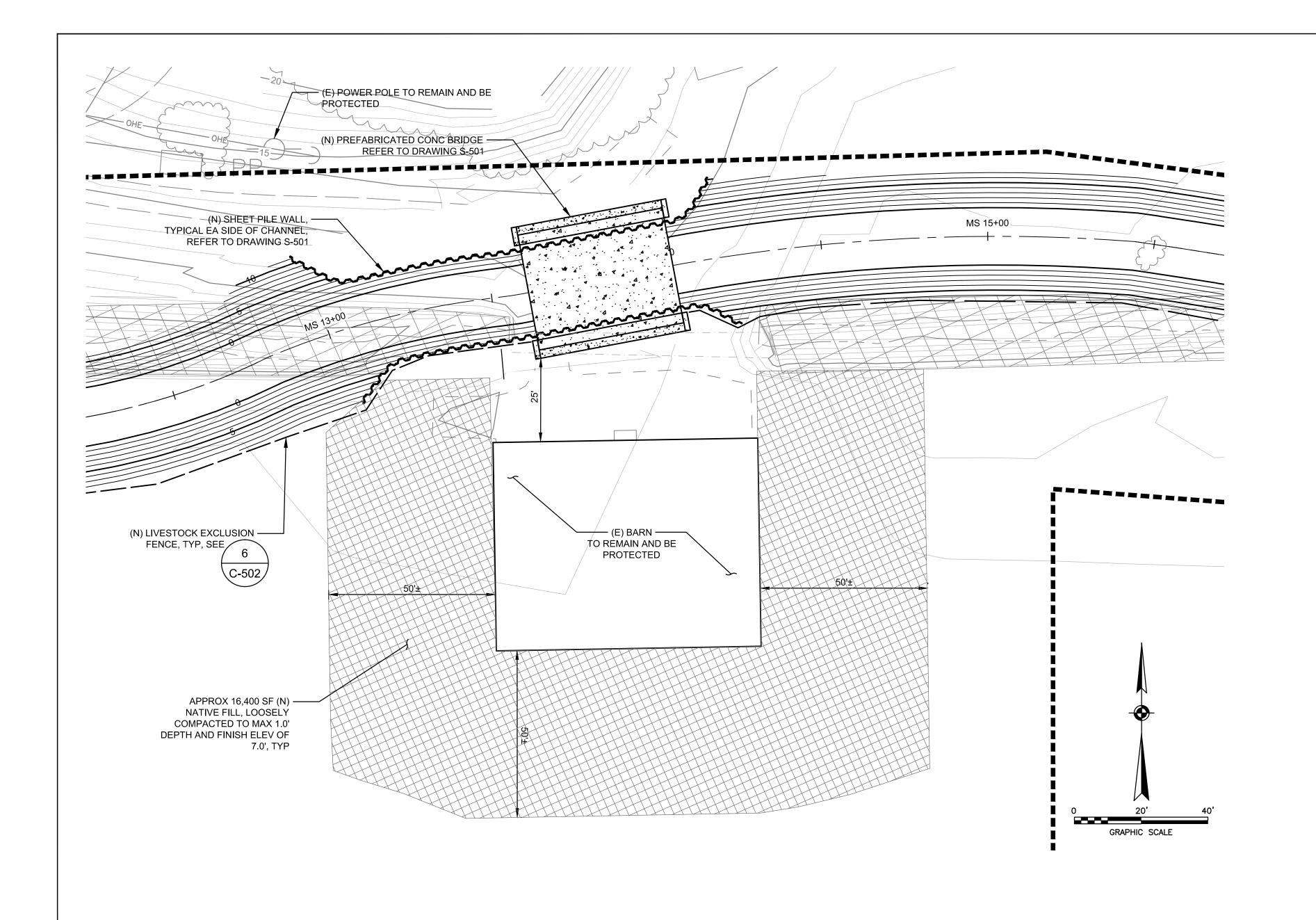








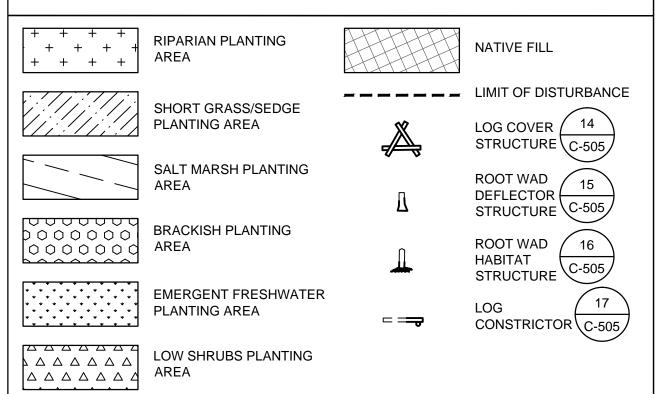


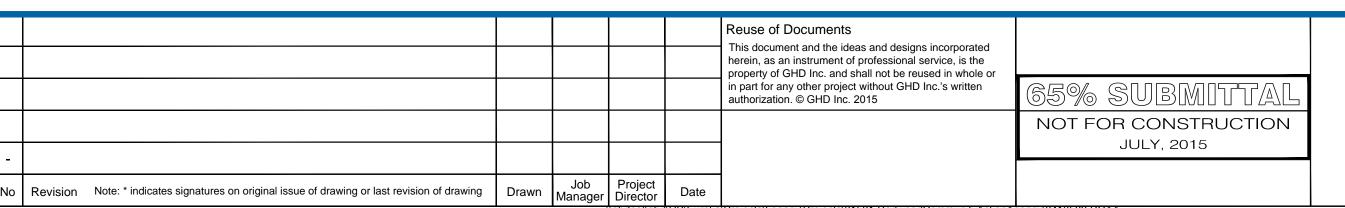




- 1. LOCATION OF EXISTING UTILITIES & STRUCTURES ARE FROM INFORMATION AVAILABLE AT TIME OF DESIGN. EXACT LOCATION AND COMPLETENESS ARE NOT GUARANTEED. CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICES ALERT (800) 227-2600 A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION AND POTHOLE FOR EXACT LOCATION.
- 2. ALL CONSTRUCTION ACTIVITY SHALL BE CONFINED WITHIN THE LIMIT OF WORK SHOWN, UNLESS OTHERWISE NOTED OR APPROVED BY THE OWNER.

LEGEND



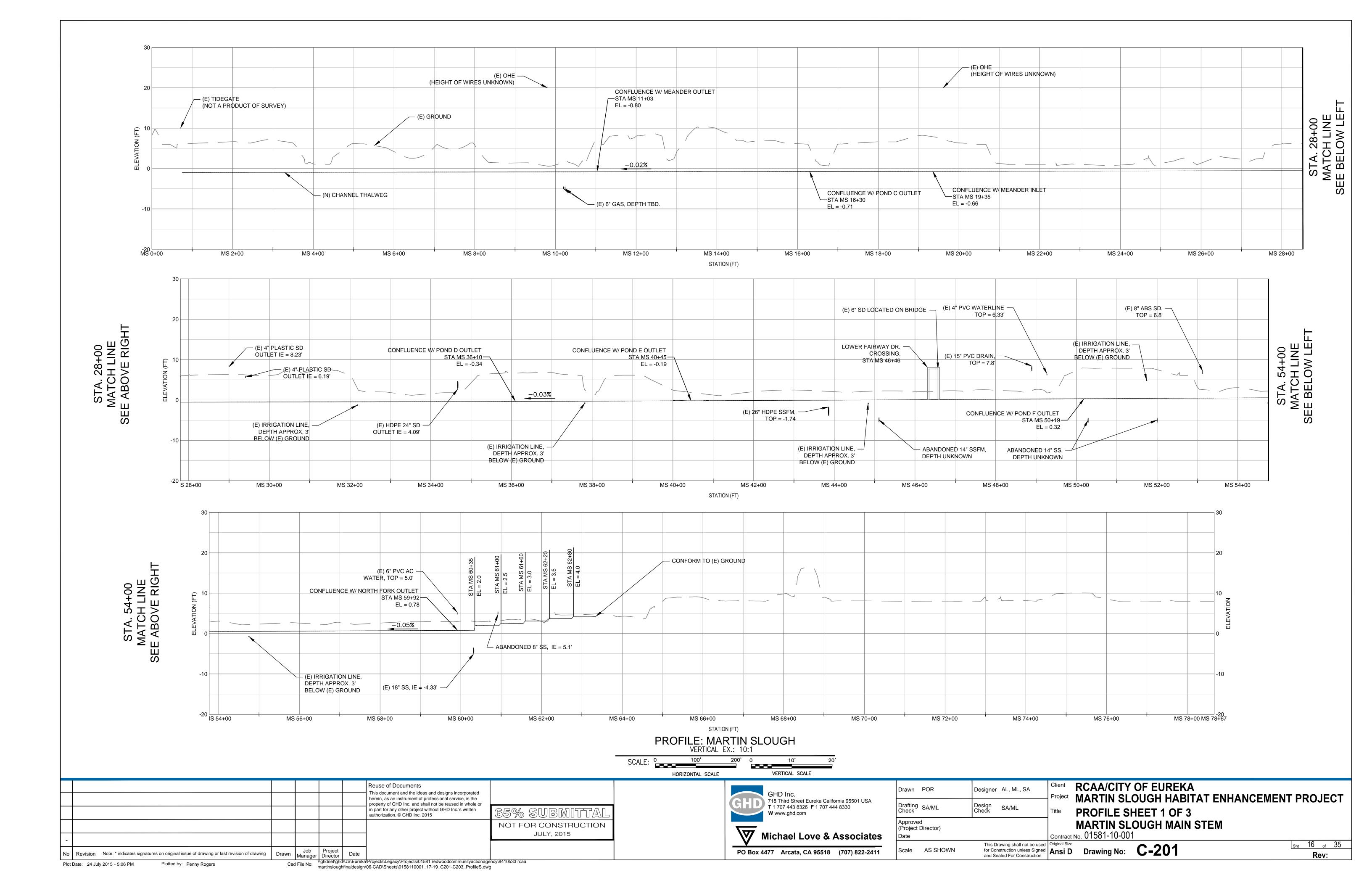


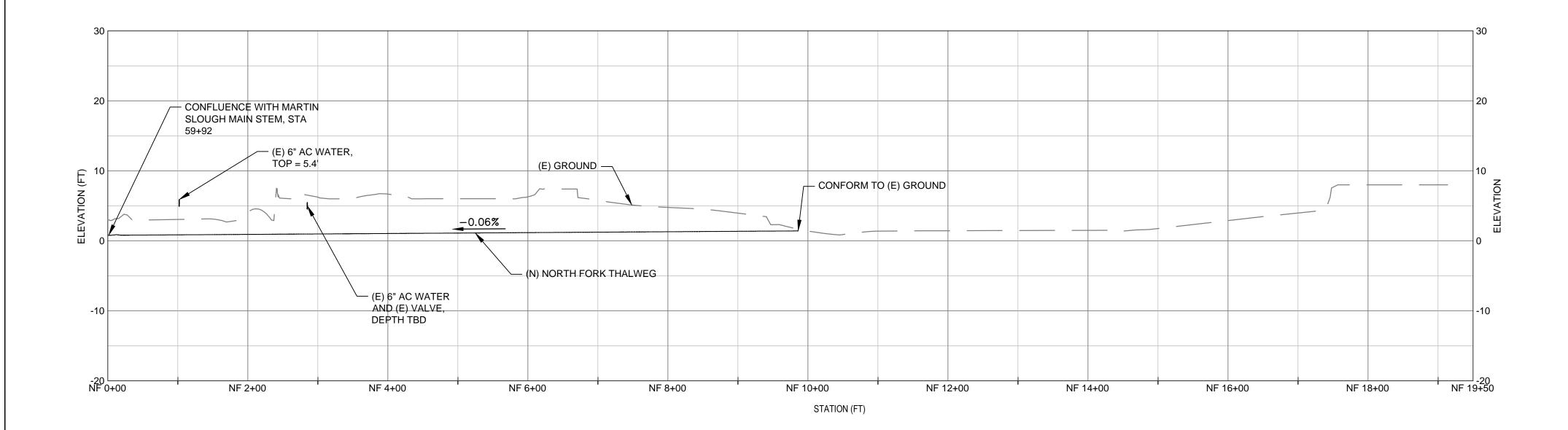


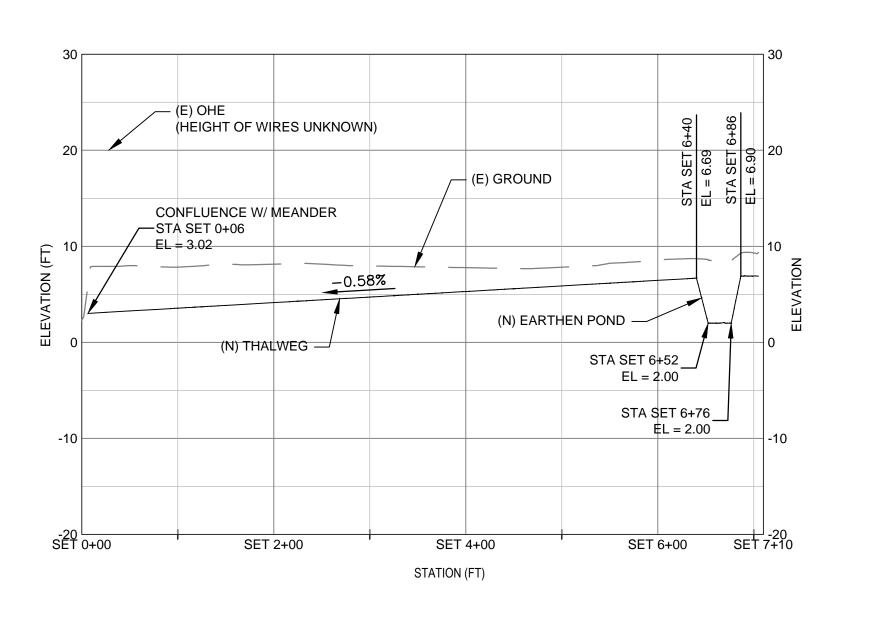
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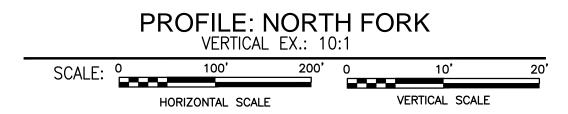
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Project MARTIN SLOUGH HABITAT ENHANCEMENT PROJECT SITE PLAN BARN

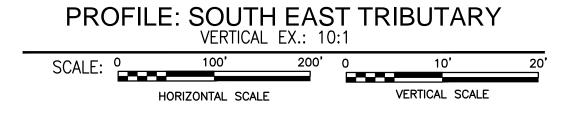
Contract No. 01581-10-001 Sht 15 of 35









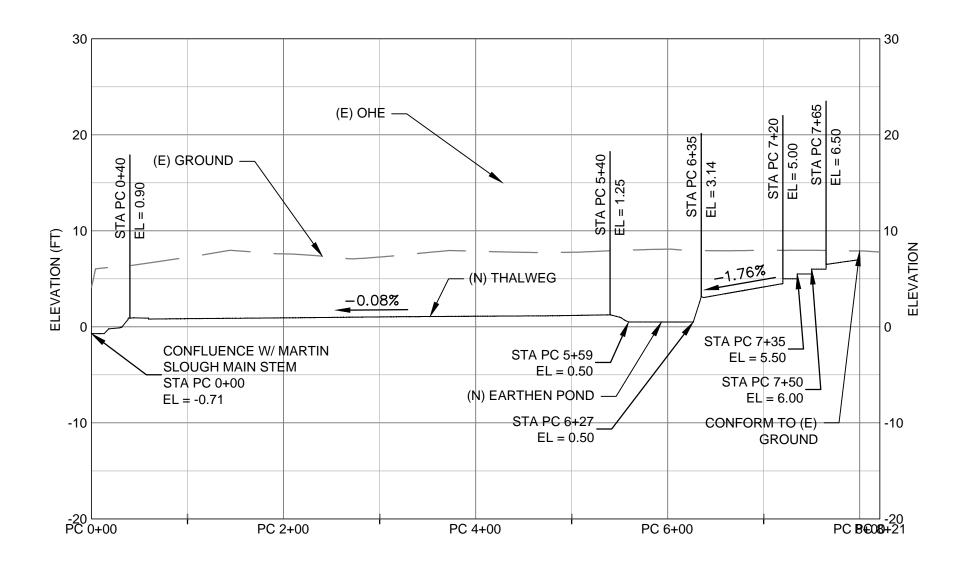


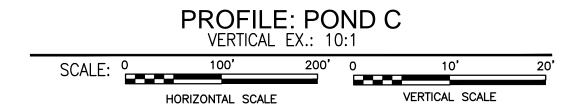
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No	Revision Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date			
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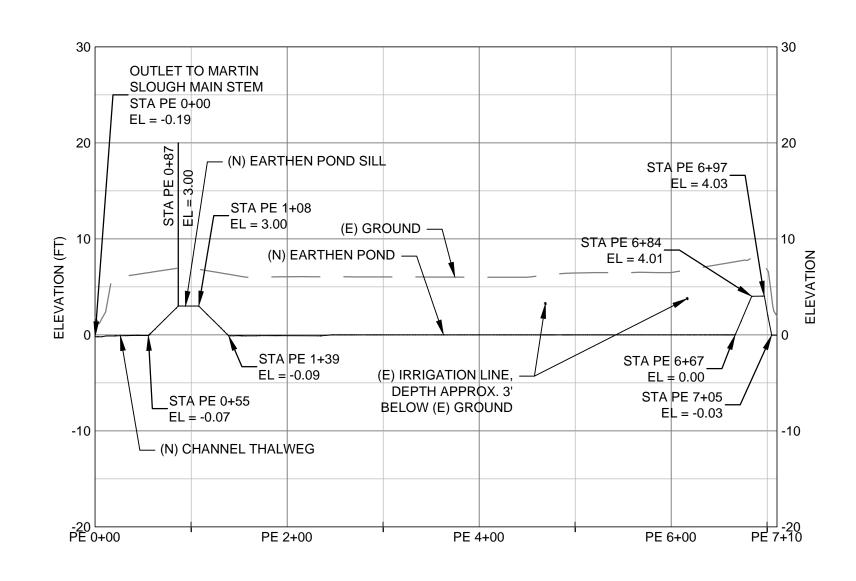


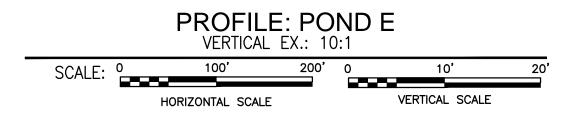
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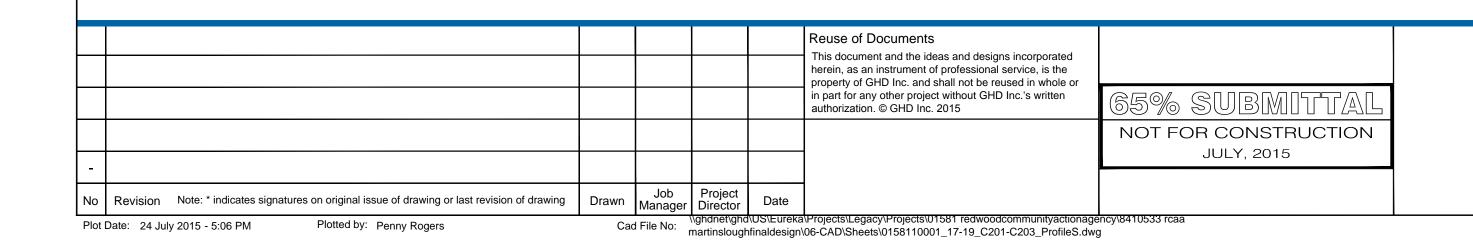
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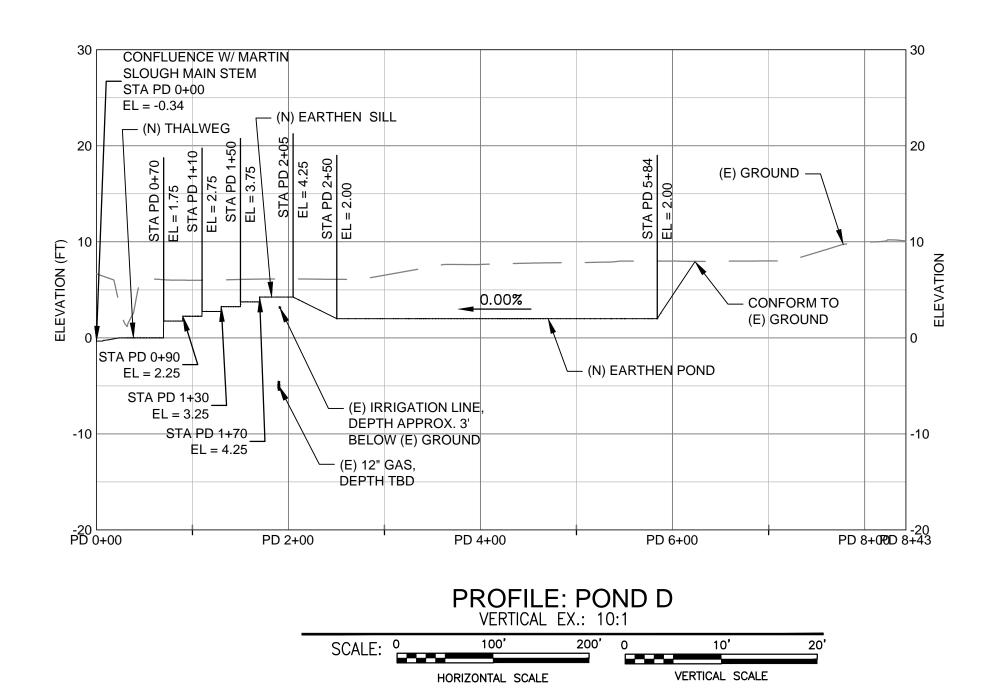


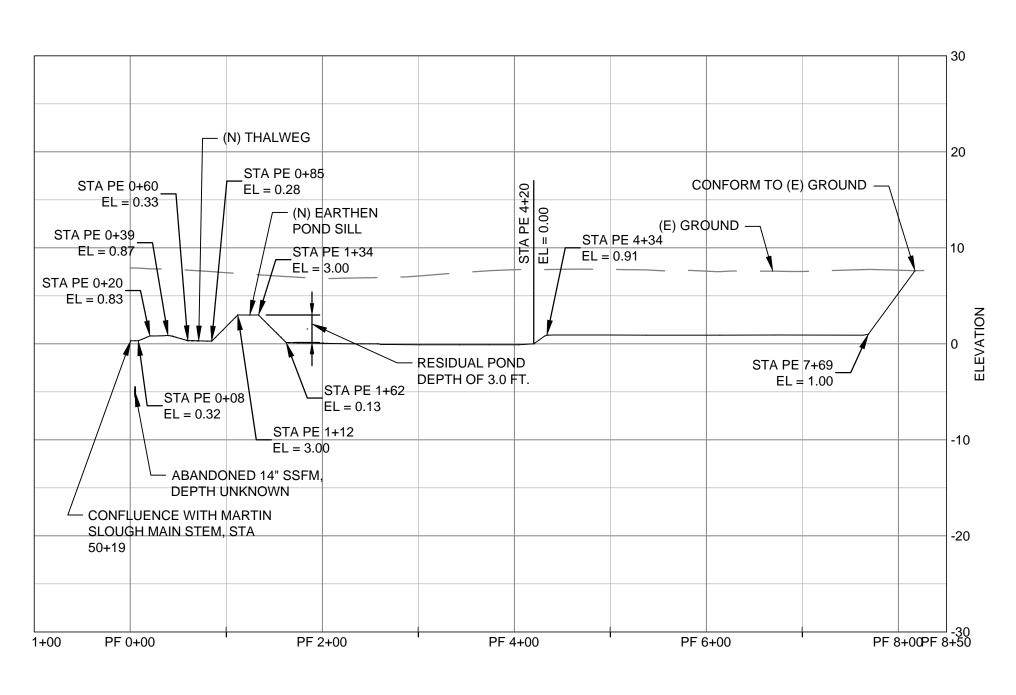


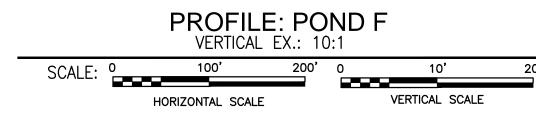




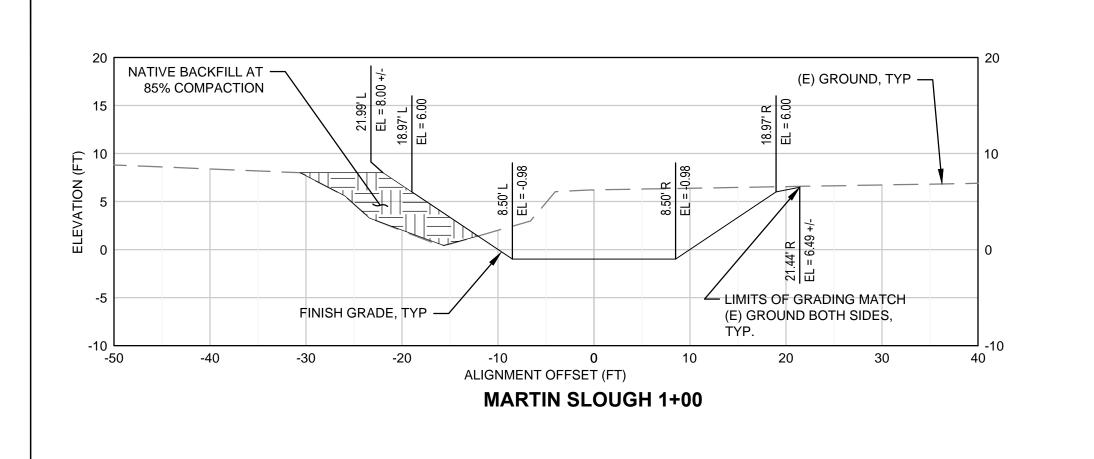


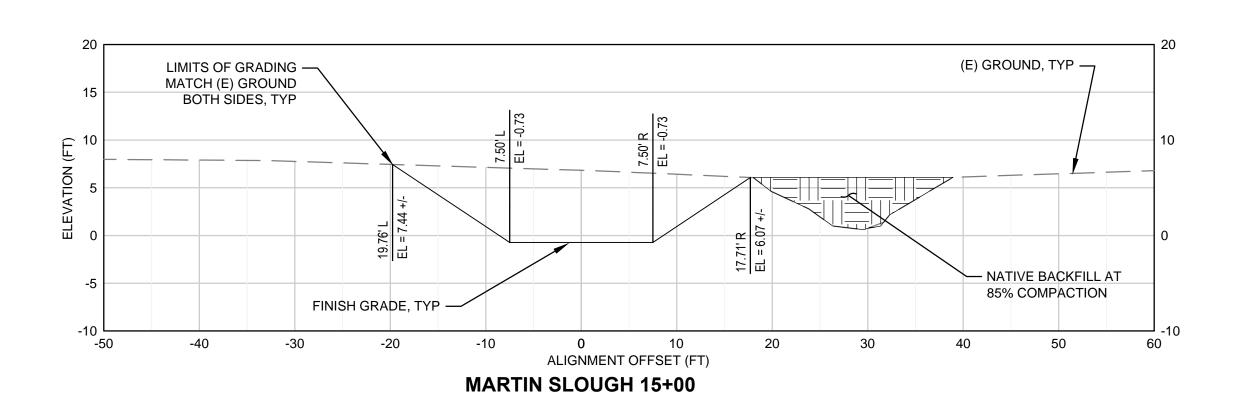


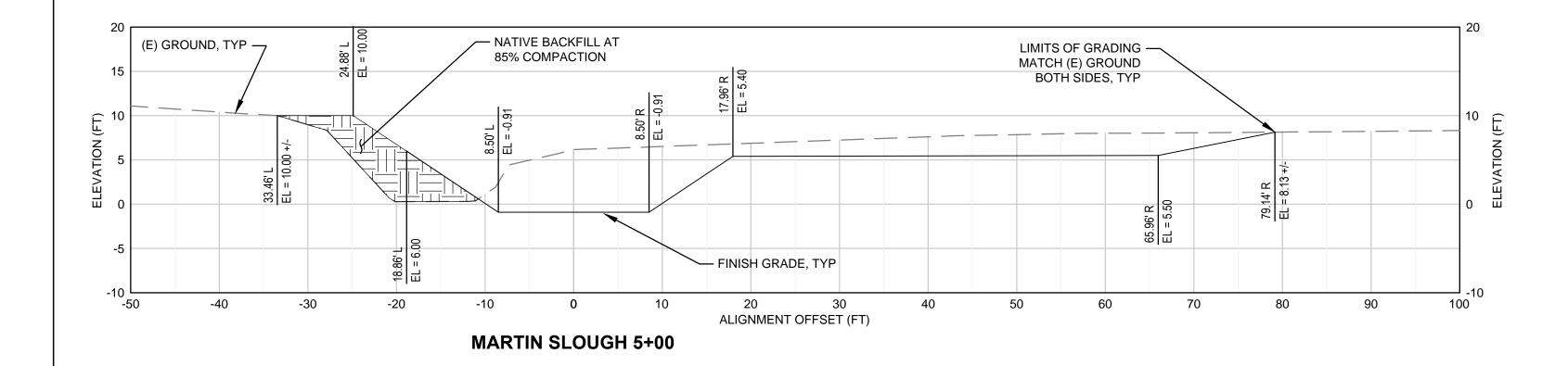


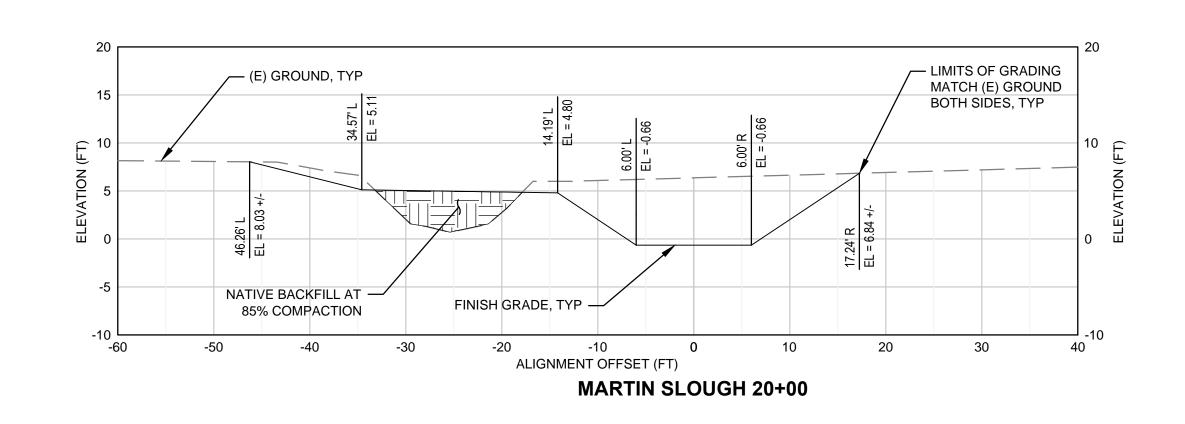


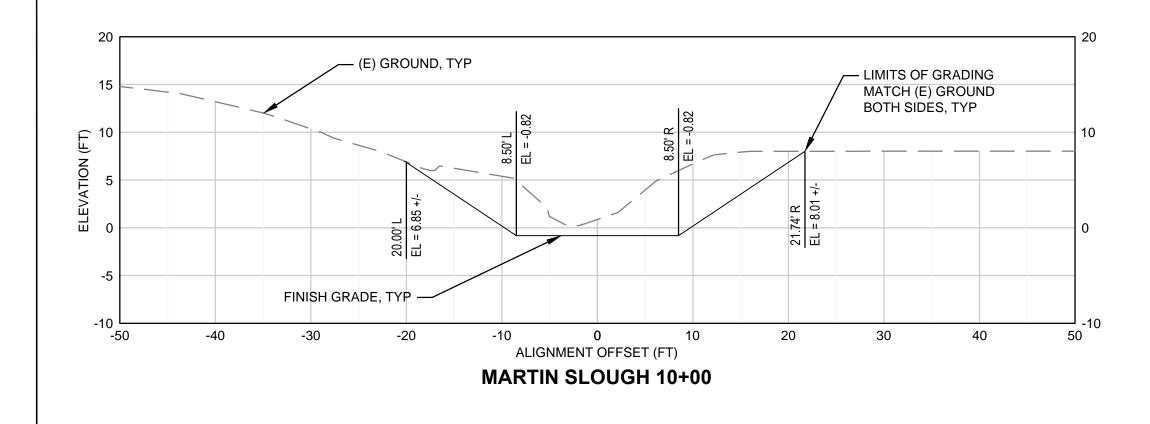
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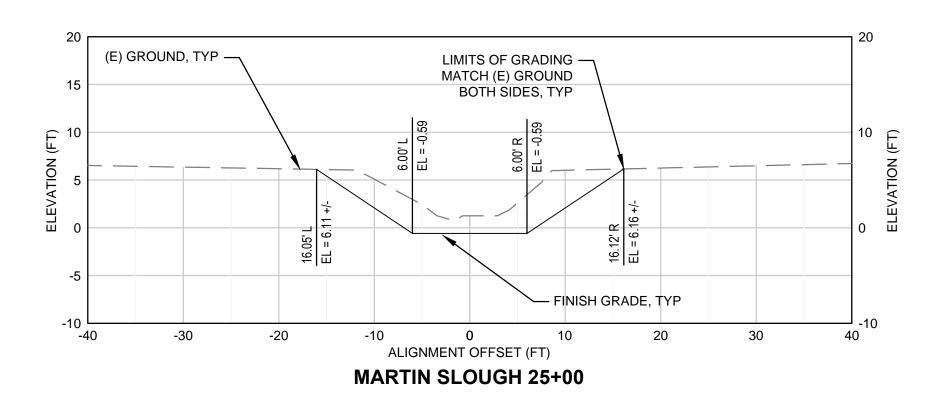


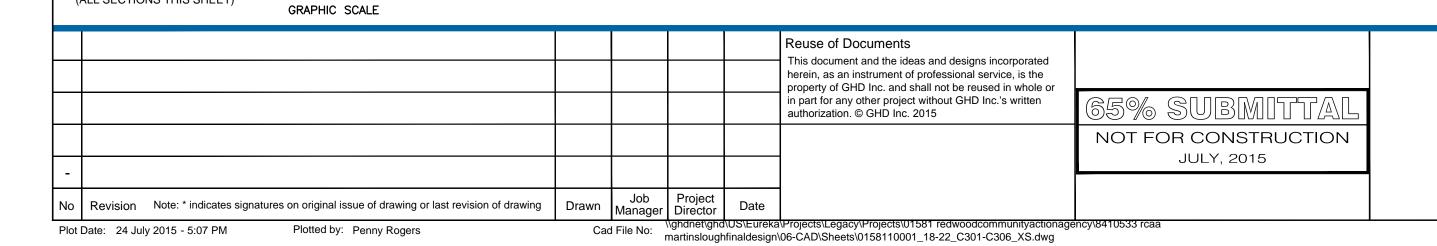




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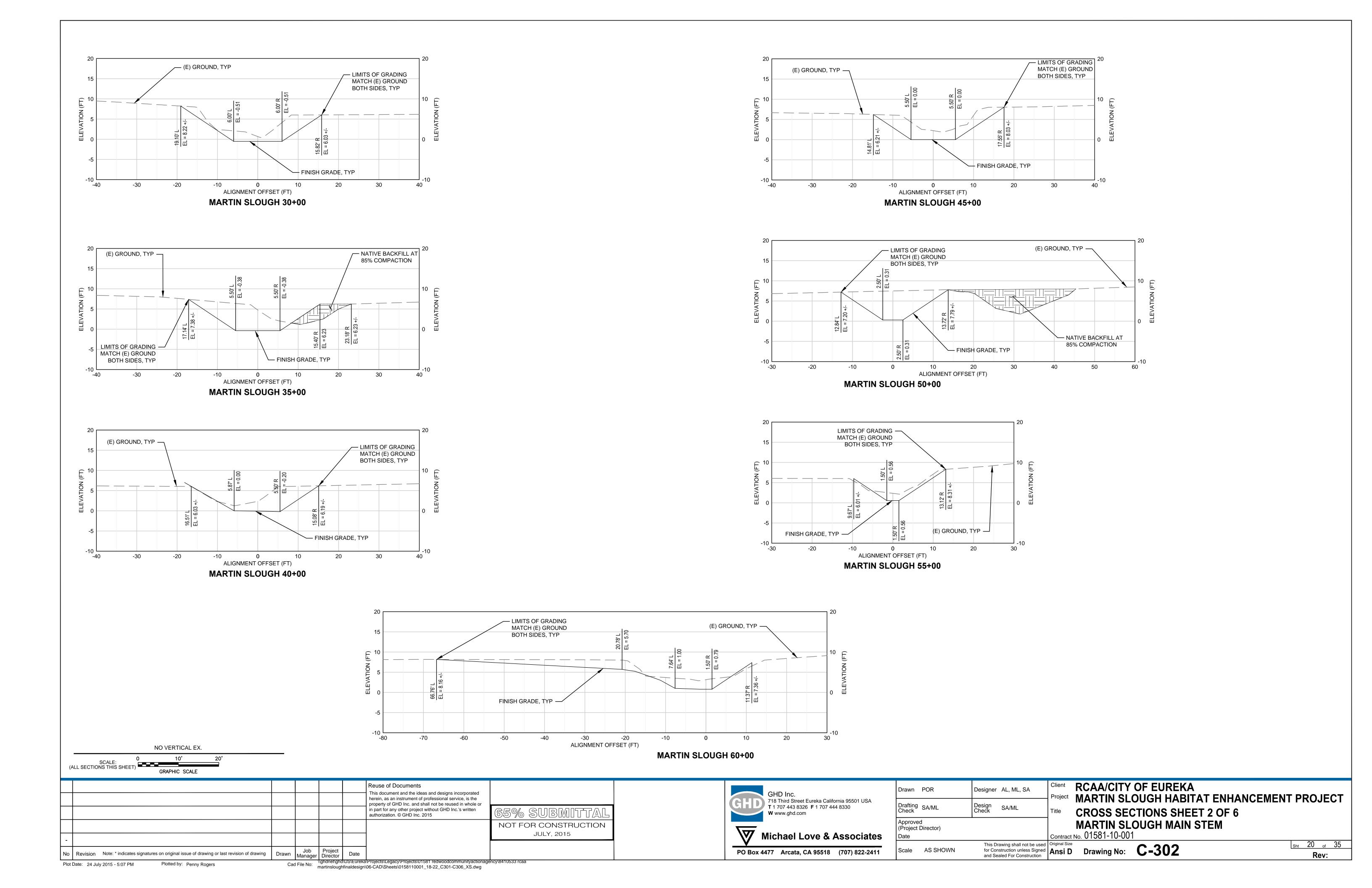
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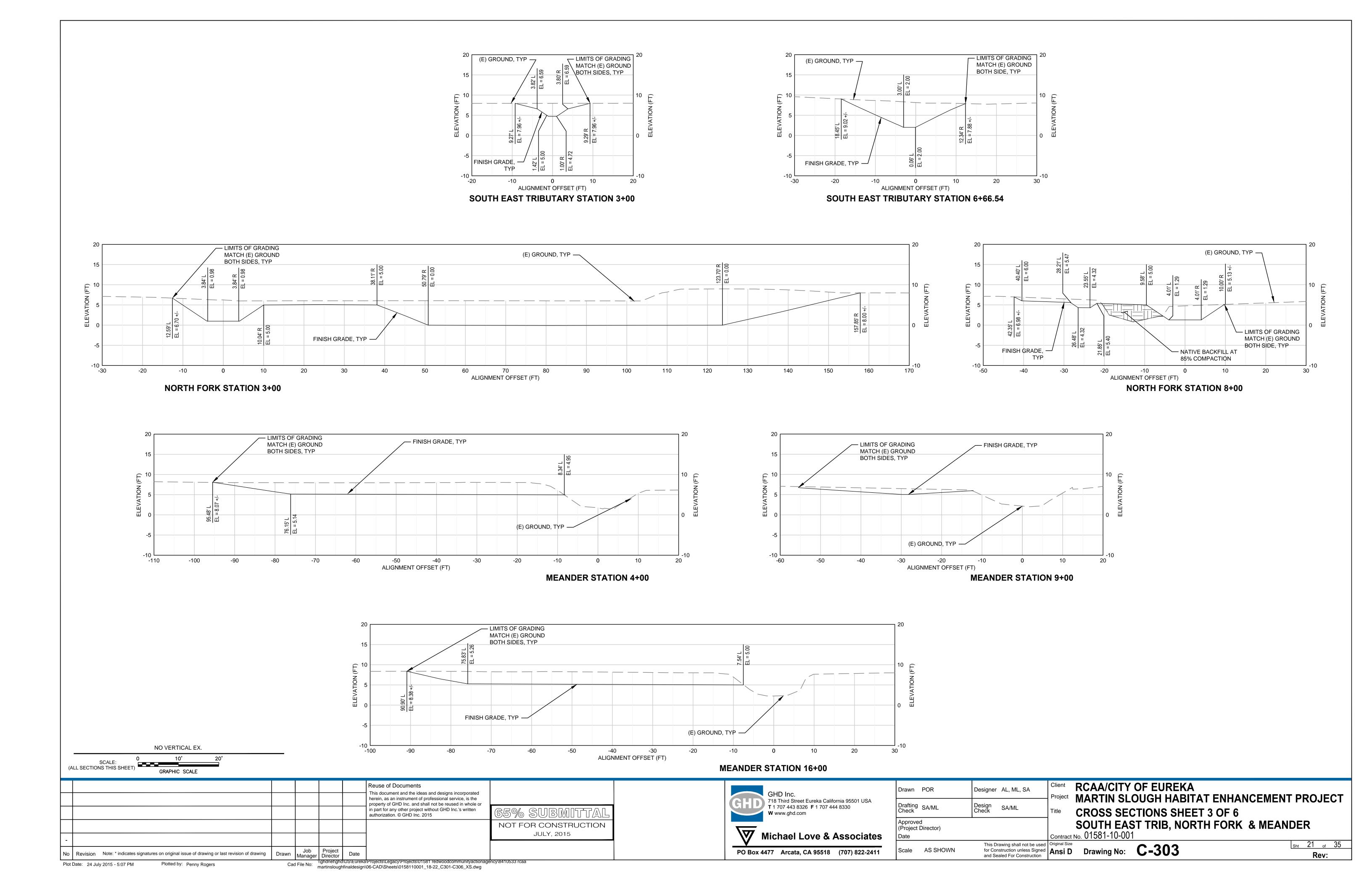


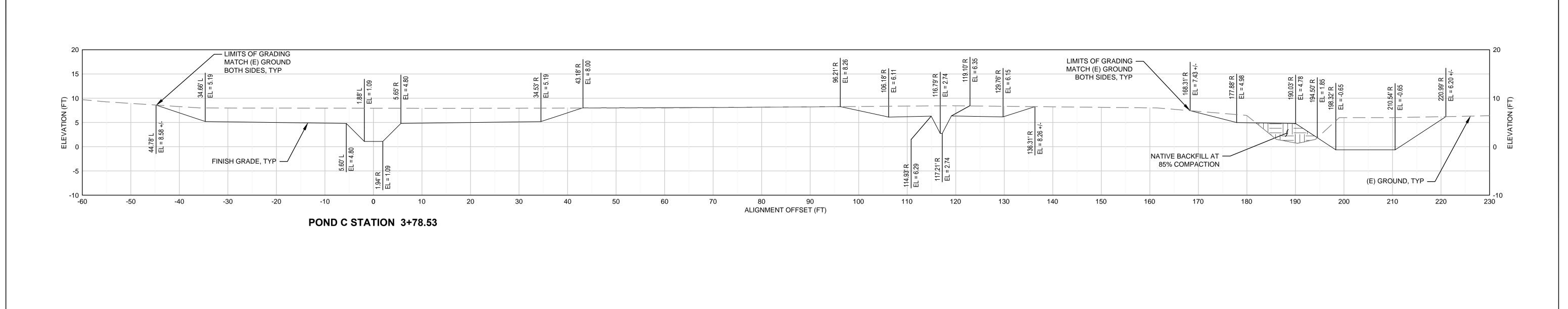


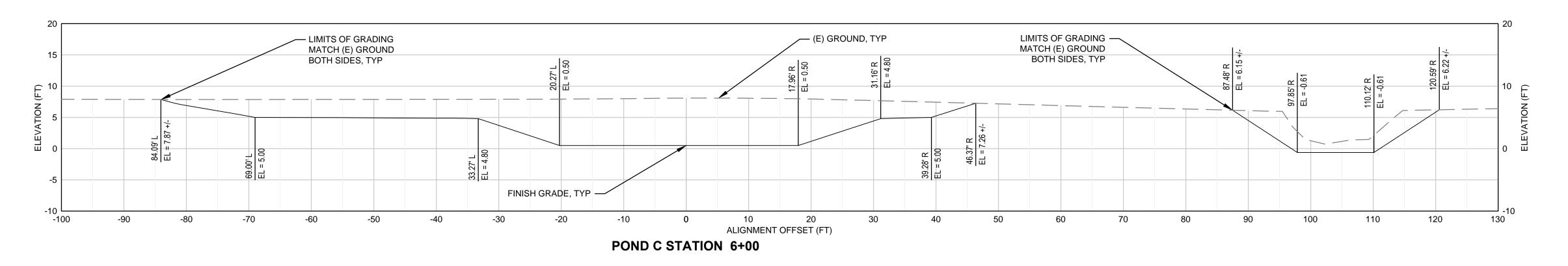


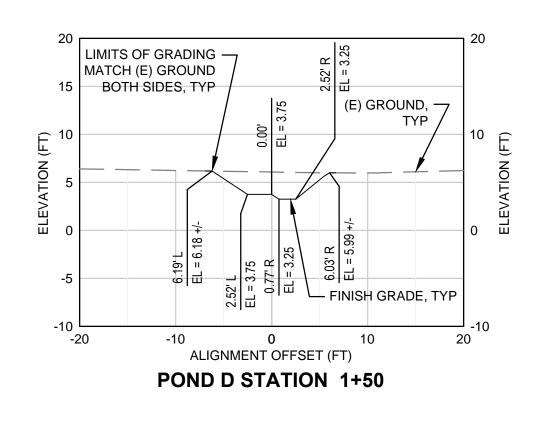
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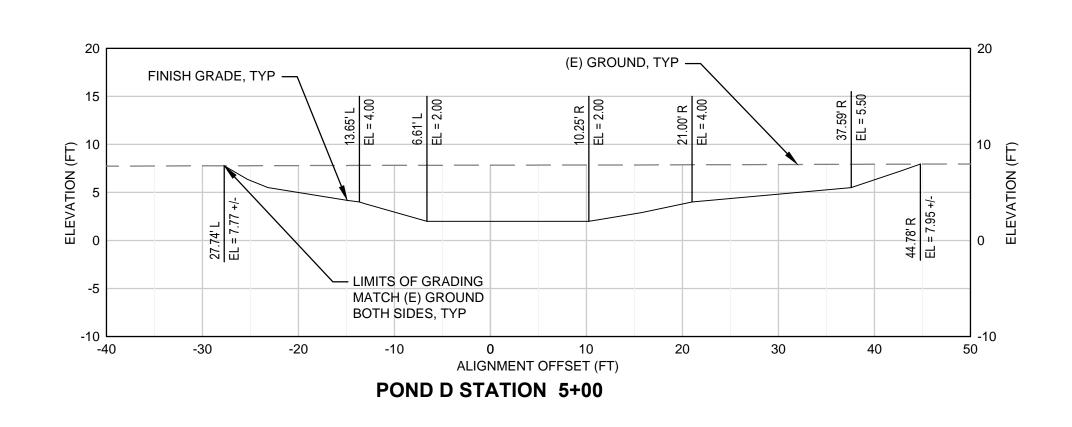


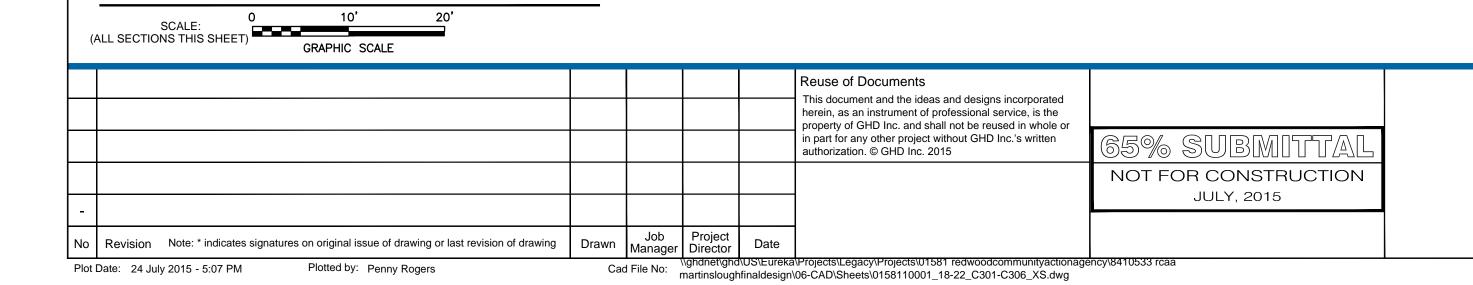








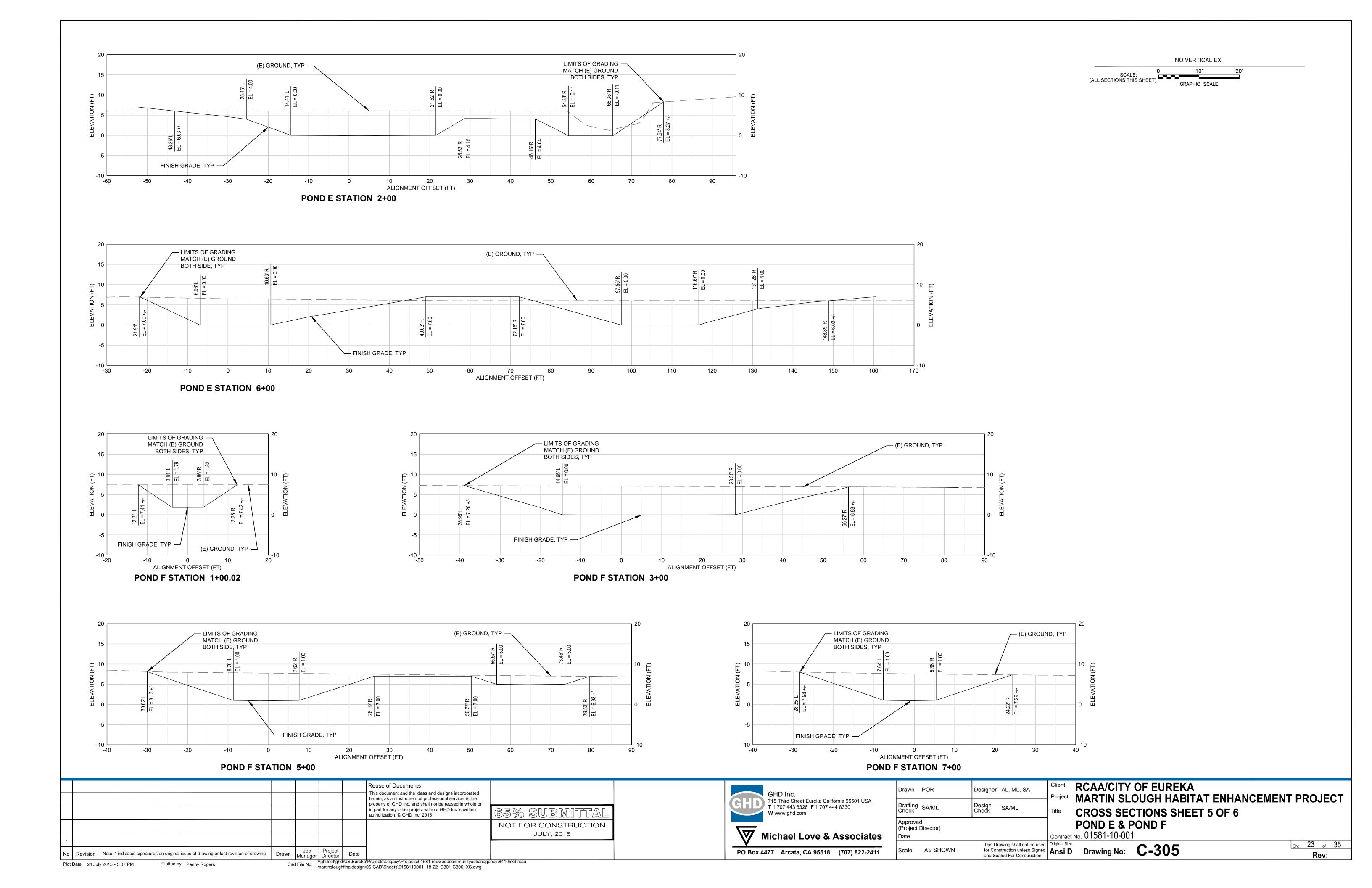


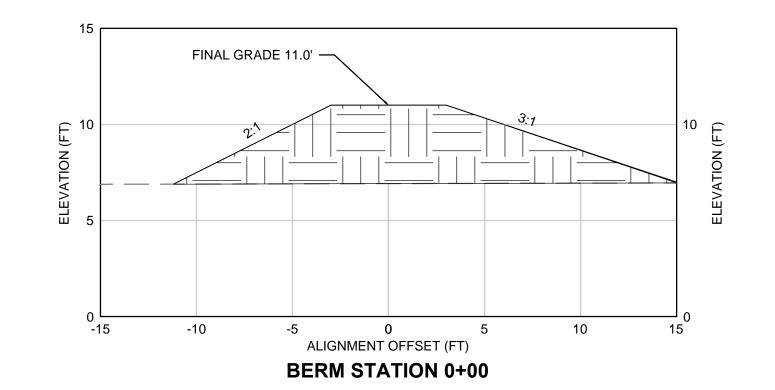


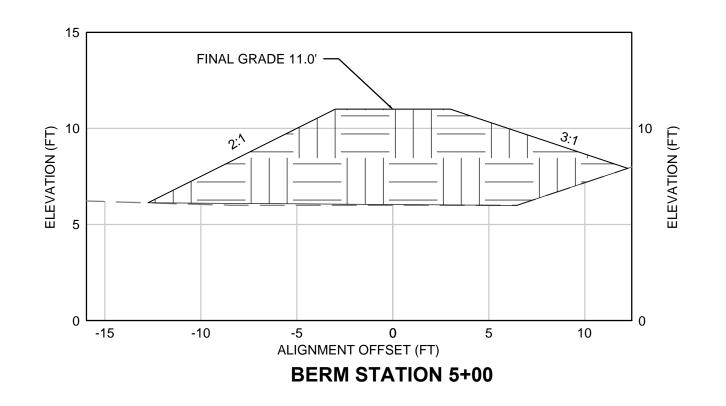
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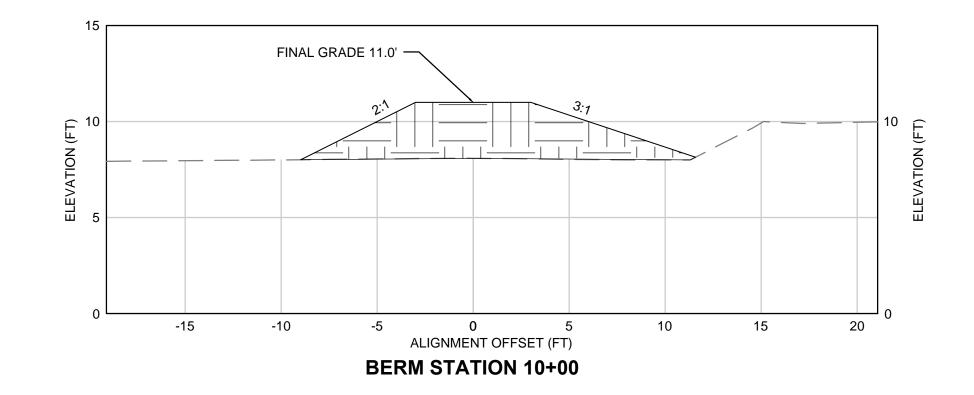


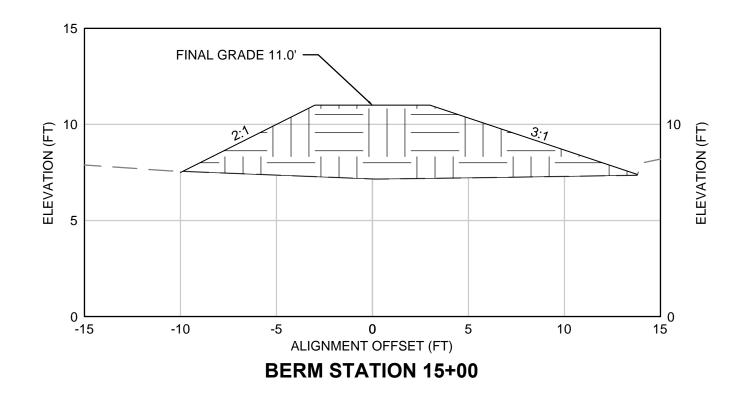
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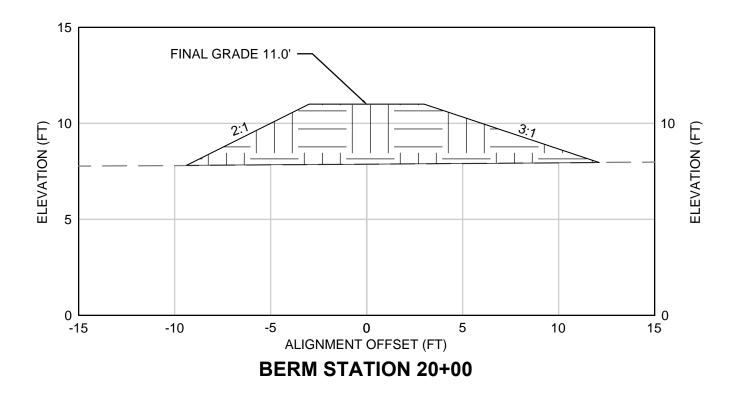












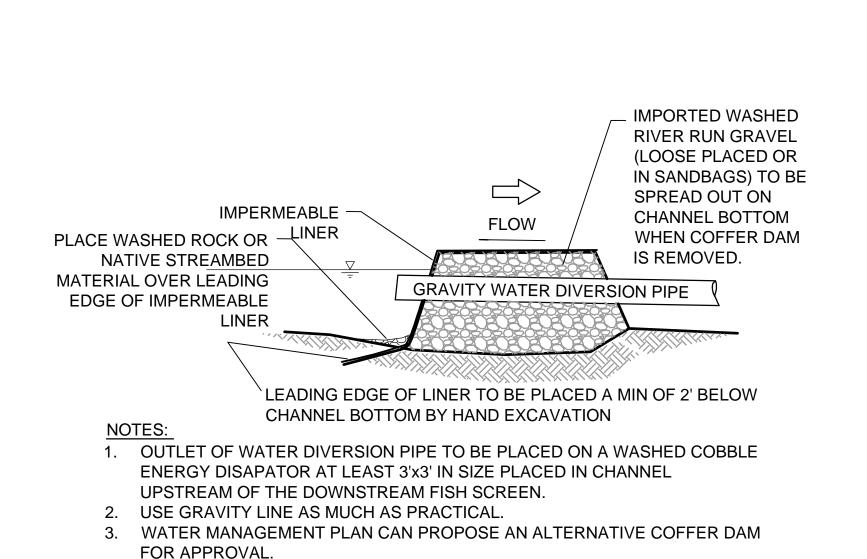
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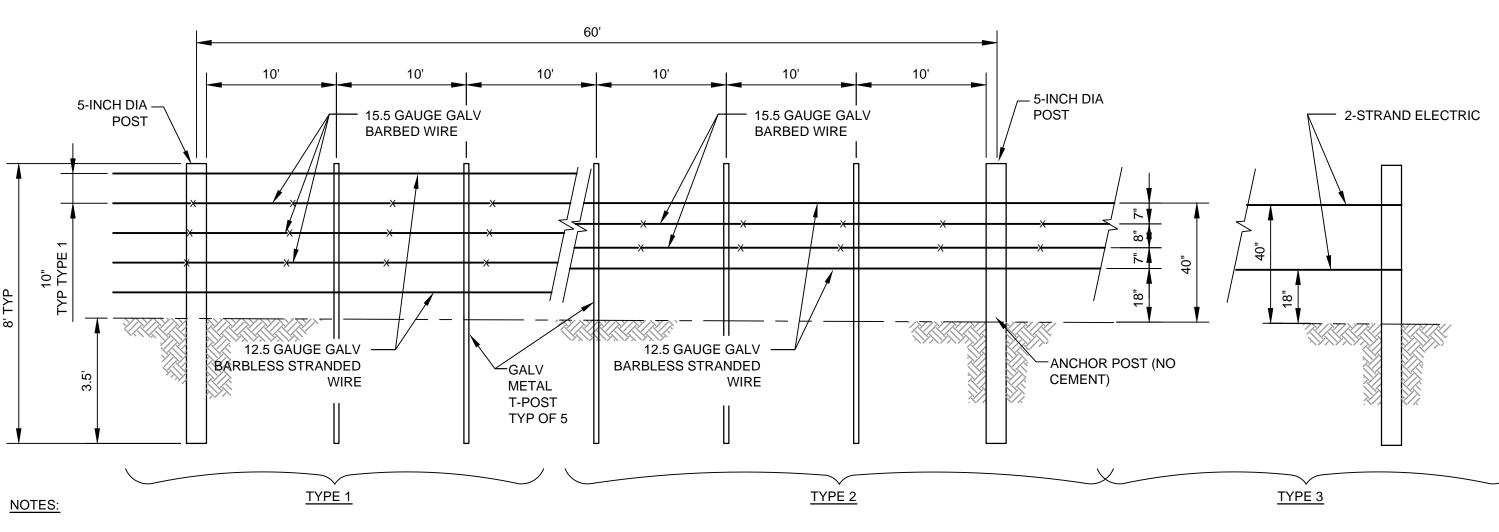
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- 1. TEMPORARY FENCE INSTALLATION ENTAILS CONSTRUCTING A HIGH TENSILE BARBED WIRE FENCE, FIVE WIRE, FOUR AND ONE-HALF FEET HIGH, USING METAL T-POSTS AT 10-FOOT SPACING WITH A WOODEN POST EVERY SIXTH POST (INLINE POSTS).
- 2. THE TOP AND BOTTOM WIRE SHALL BE 12.5 GAUGE GALVANIZED BARBLESS STRANDED WIRE.
- 3. THE MIDDLE THREE WIRES SHALL BE 15.5 GAUGE GALVANIZED BARBED WIRE.
- 4 THE HEIGHT TO THE TOP WIRE SHALL BE 50 INCHES AND WIRE SPACING FROM THE GROUND UP SHALL BE IN INCHES: 10",10", 10", 10", AND 10".
- 5. WIRE GATES NEED TO BE INSTALLED TO ALLOW ACCESS THROUGH THE FENCED AREA. WIRE GATES ARE COMPRISED OF FIVE STRANDS OF BARBED WIRE CONNECTING TO WOODEN ENDPOSTS (4 FOOT LENGTH) WITH WOODEN POSTS A MINIMUM OF EVERY FOUR FEET BETWEEN THE ENDPOSTS. AT LEAST ONE WIRE GATE PER FENCELINE SHALL BE INSTALLED IN MOST INSTANCES. THE WIDTH OF THE GATE IS PROJECT DEPENDENT BUT SHALL TYPICALLY BE 10'.
- 6 THE FOLLOWING MATERIALS SHALL BE USED IN ALL FENCE CONSTRUCTION:
- 5-INCH (DIAMETER) BY 8-FOOT (LENGTH) POSTS (FOR H BRACE, IN-LINE, AND RISE AND DIP POSTS)
- 4 INCH (DIAMETER) BY 8-FOOT (LENGTH) JUNIPER POSTS
- (FOR HORIZONTAL BRACES)
- 6.5-FOOT GALVANIZED T-POSTS #133
- 15.5 GAUGE GALVANIZED 4 PT. BARBED WIRE
- 12.5 GAUGE GALVANIZED BARBLESS STRANDED WIRE • 1.5-INCH DOUBLE HOT DIPPED GALVANIZED FENCE STAPLES
- DOUBLE HOT DIPPED T-POST WIRE CLIPS

SILT FENCE DETAIL

SCALE: NTS

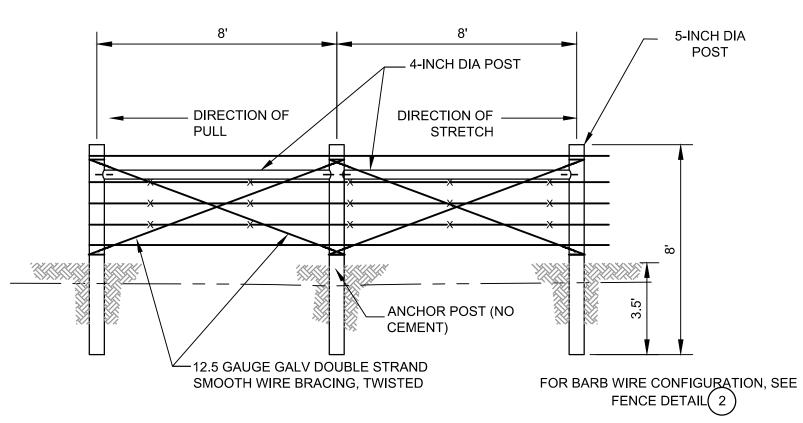
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BARB WIRE FENCE INSTALLATION DETAIL

SCALE: NTS



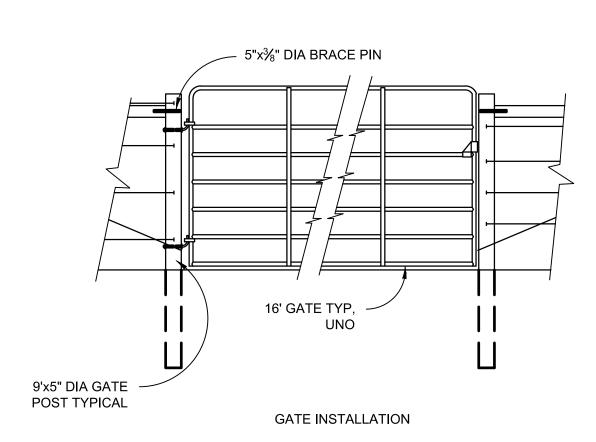
DETAIL: DOUBLE H LINE BRACE

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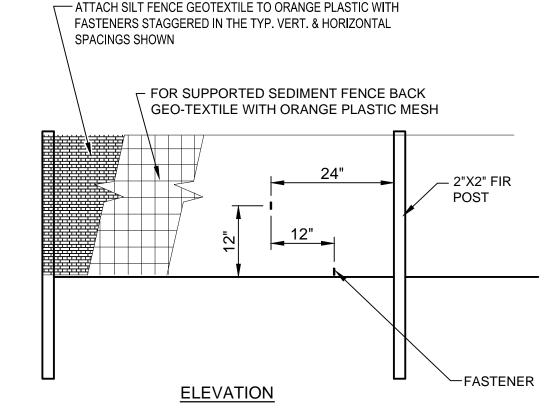
- 1. SINGLE H BRACES SHALL BE INSTALLED AT ENDS, BOTH SIDES OF GATES, AND AT A MAXIMUM OF 300-FOOT INTERVALS.
- 2. DOUBLE H BRACES SHALL BE INSTALLED AT DIRECTION CHANGES AND MAJOR SLOPE CHANGES.
- 3. WOODEN RISE AND DIP POSTS SHALL BE INSTALLED AS NEEDED.
- 4. ALL WOODEN POSTS (H BRACE POST, INLINE POST, AND RISE AND DIP POSTS) SHALL BE SOLIDLY SET OR DRIVEN IN COMPACTED SOIL TO A DEPTH OF 3.5 FEET. THE HEIGHT OF ALL POSTS AFTER INSTALLATION SHALL BE 4.5 FEET.

SCALE: NTS

5. WHEN CONSTRUCTING H BRACES, HORIZONTAL BRACES SHALL BE INSTALLED AT A MINIMUM OF 3.5 FEET FROM THE GROUND. A TENSION MEMBER COMPOSED OF TWO COMPLETE LOOPS OF NUMBER 12.5 GAUGE GALVANIZED DOUBLE STRAND SMOOTH WIRE SHALL EXTEND FROM A POINT APPROXIMATELY SIX INCHES BELOW THE TOP OF THE BRACE POST TO GROUND LEVEL OF THE POST BEING BRACED. THE BRACE WIRE SHALL BE TWISTED TO SECURE THE BRACE AND PROVIDE NEEDED RIGIDITY. IN-LINE H BRACES SHALL BE CONSTRUCTED WITH 2 TENSION WIRES PER BRACE.





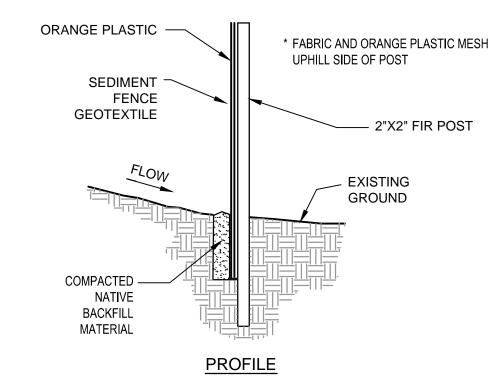


NOTES:

- 1. FILTER FABRIC SHALL BE INSTALLED IN A CONTINUOUS ROLL TO AVOID THE USE OF JOINTS. WHERE JOINTS ARE NECESSARY SPLICE FABRIC TOGETHER ONLY AT A SUPPORT POST WITH A MINIMUM 6" OVERLAP. SECURELY FASTEN BOTH ENDS TO THE
- 2. POSTS SHALL BE SPACED A MAXIMUM OF 6' APART AND DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 12".
- 3. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4" WIDE AND 6" DEEP ALONG THE LINE

OF POSTS UPHILL FROM THE BARRIER. TRENCH SHALL FOLLOW THE CONTOUR.

Scale AS SHOWN



- 4. TRENCH SHALL BE BACKFILLED WITH NATIVE MATERIAL
- 5. INSPECT AND REPAIR AFTER EACH RAINFALL. INSPECT DAILY DURING PROLONGED RAINFALL.
- 6. REMOVE SEDIMENT WHEN IT REACHES APPROXIMATELY ONE THIRD THE HEIGHT ABOVE GROUND PORTION OF THE FENCE.
- 7. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE FILTER FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE AND SEEDED.

SINGLE/DOUBLE BARB WIRE FENCE **H GATE & LINE BRACE DETAIL**

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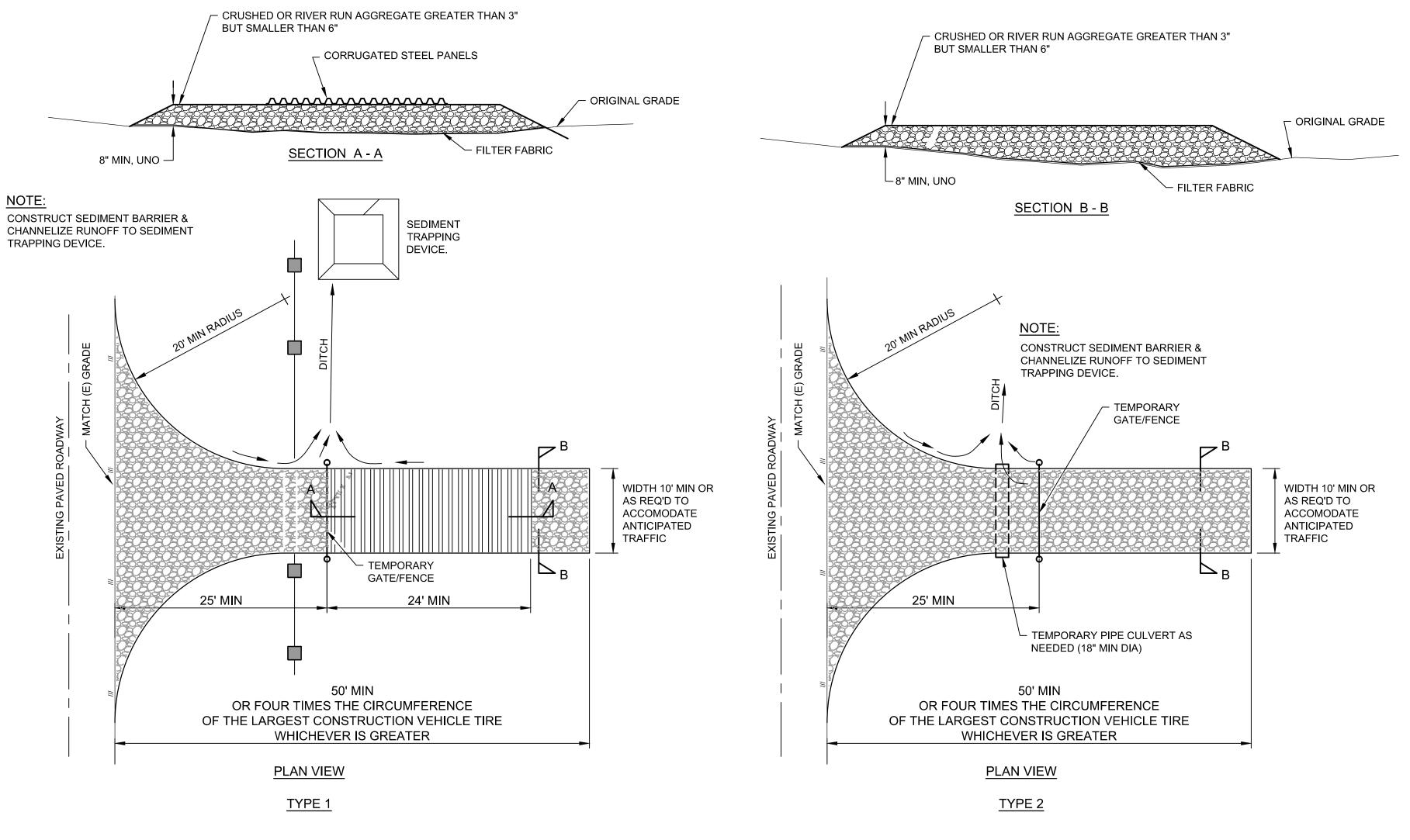
RCAA/CITY OF EUREKA MARTIN SLOUGH HABITAT ENHANCEMENT PROJECT **TYPICAL DETAILS** SHEET 1 OF 6 Contract No. 01581-10-001

for Construction unless Signed and Sealed For Construction Ansi D Drawing No: C-501

Sht 25 of 35 Rev:

Revision Note: * indicates signatures on original issue of drawing or last revision of drawing Plot Date: 24 July 2015 - 5:08 PM

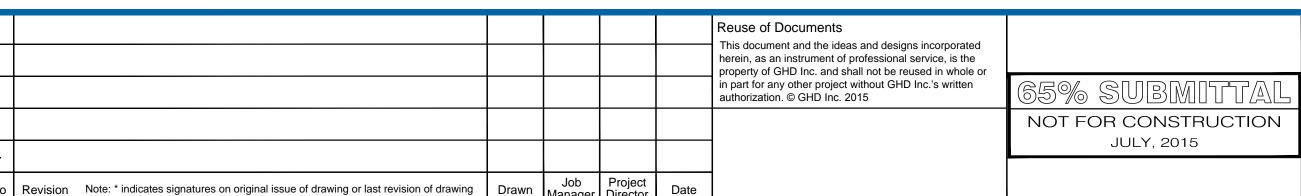
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NOTES:

- 1. ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC ROADWAY.
- 2. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO ROADWAYS MUST BE REMOVED IMMEDIATELY.
- 3. ACCESSES SHALL BE INSPECTED MONTHLY AND AFTER EACH RAINFALL WITH MAINTENANCE PROVIDED AS NECESSARY.
- 4. ALL TEMPOTRARY CONSTRUCTION ENTRANCES SHALL BE REMOVED AND FENCES RESTORED TO PRE-PROJECT CONDITIONS. THE LAND SHALL BE NATURALIZED/DE-COMPACTED TO PRE-PROJECT CONDITIONS.

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE SCALE: NTS





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Drafting SA/ML Approved (Project Director) Michael Love & Associates

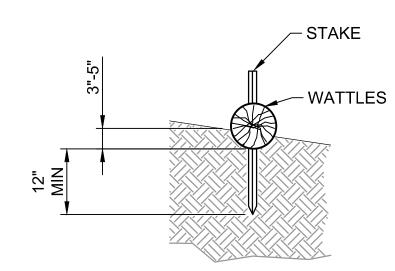
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RCAA/CITY OF EUREKA MARTIN SLOUGH HABITAT ENHANCEMENT PROJECT **TYPICAL DETAILS** SHEET 2 OF 6 Contract No. 01581-10-001

Sht 26 of 35

Rev:

This Drawing shall not be used Original Size for Construction unless Signed and Sealed For Construction Ansi D Drawing No: C-502 Scale AS SHOWN



1. CONTRACTOR SHALL INSPECT WATTLES WEEKLY AND AFTER EACH RAINFALL. REPLACE WATTLES WHEN THEY HAVE DECOMPOSED,

WATTLE WHEN IT REACHES ONE INCH OF DEPTH.

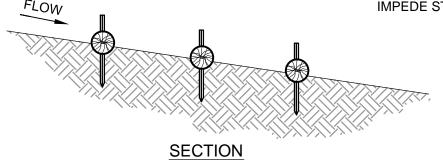
2. WATTLES SHOULD BE PLACED ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT WATTLE.

COLLAPSED, OR BEEN DAMAGED. REMOVE SEDIMENT FROM BEHIND THE

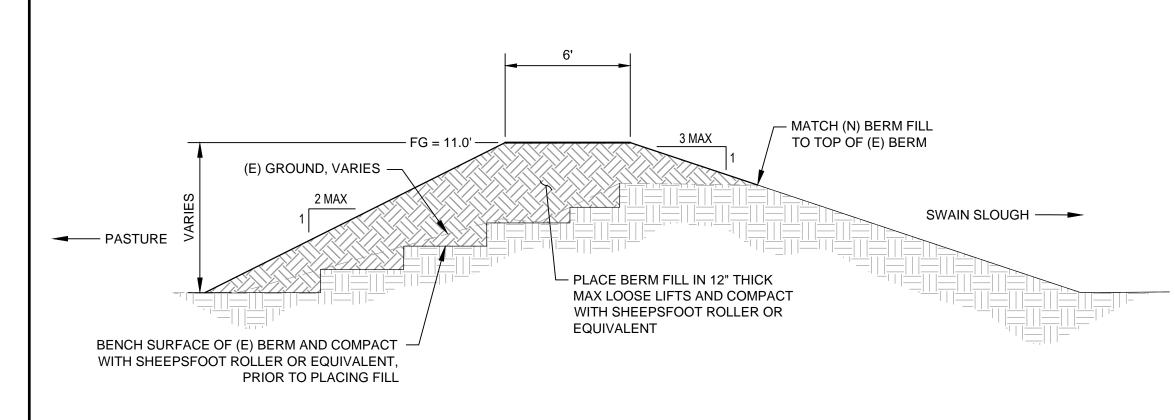
ENLARGEMENT

3. THE DIRECTION OF RUNOFF FLOW TO THE WATTLES SHOULD BE PERPENDICULAR TO THE STAKED WATTLE LOCATION.

4. REMOVE UPON COMPLETION OF CONSTRUCTION SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.



STRAW WATTLES/FIBER ROLL SEDIMENT BARRIER

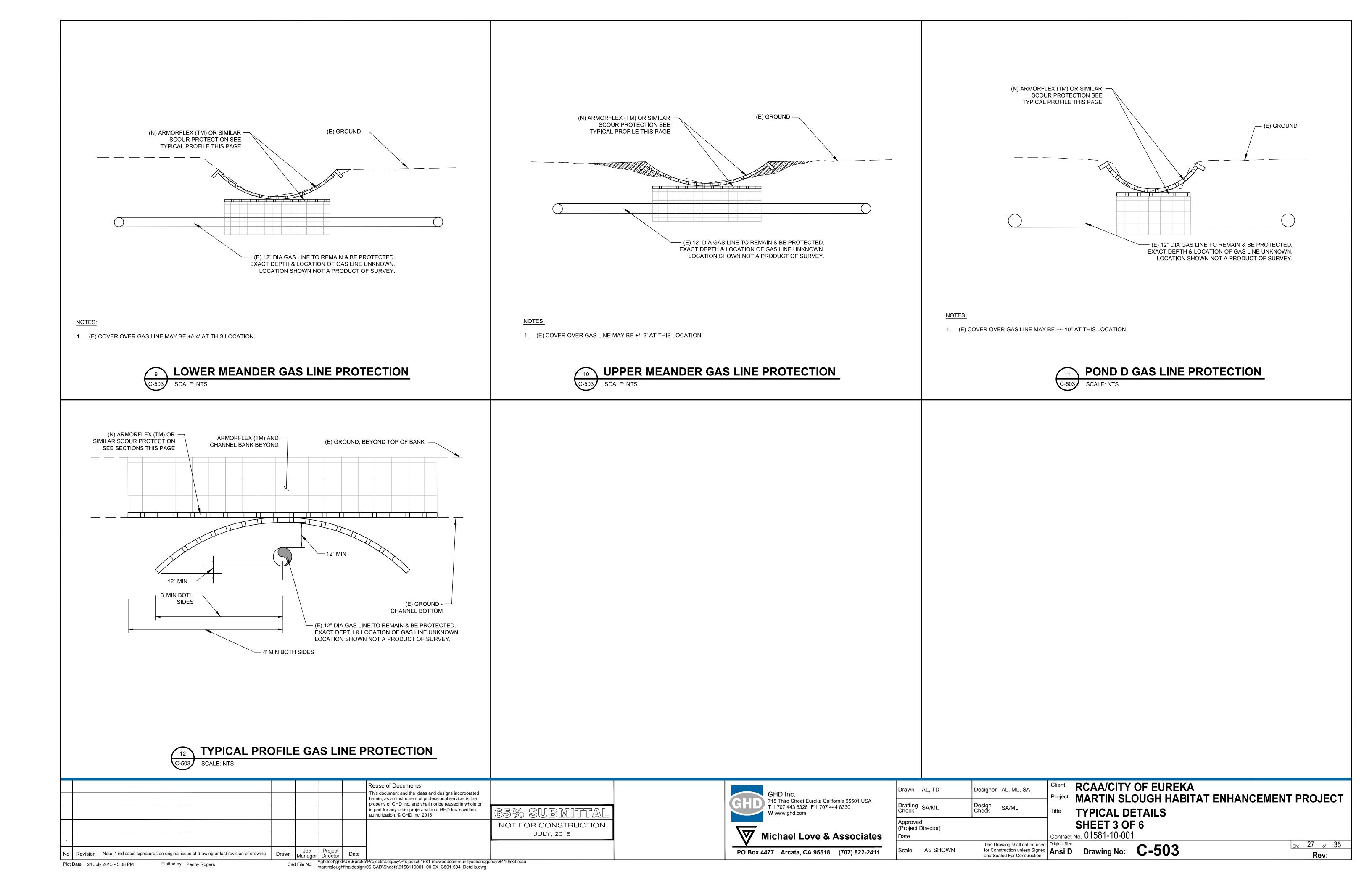


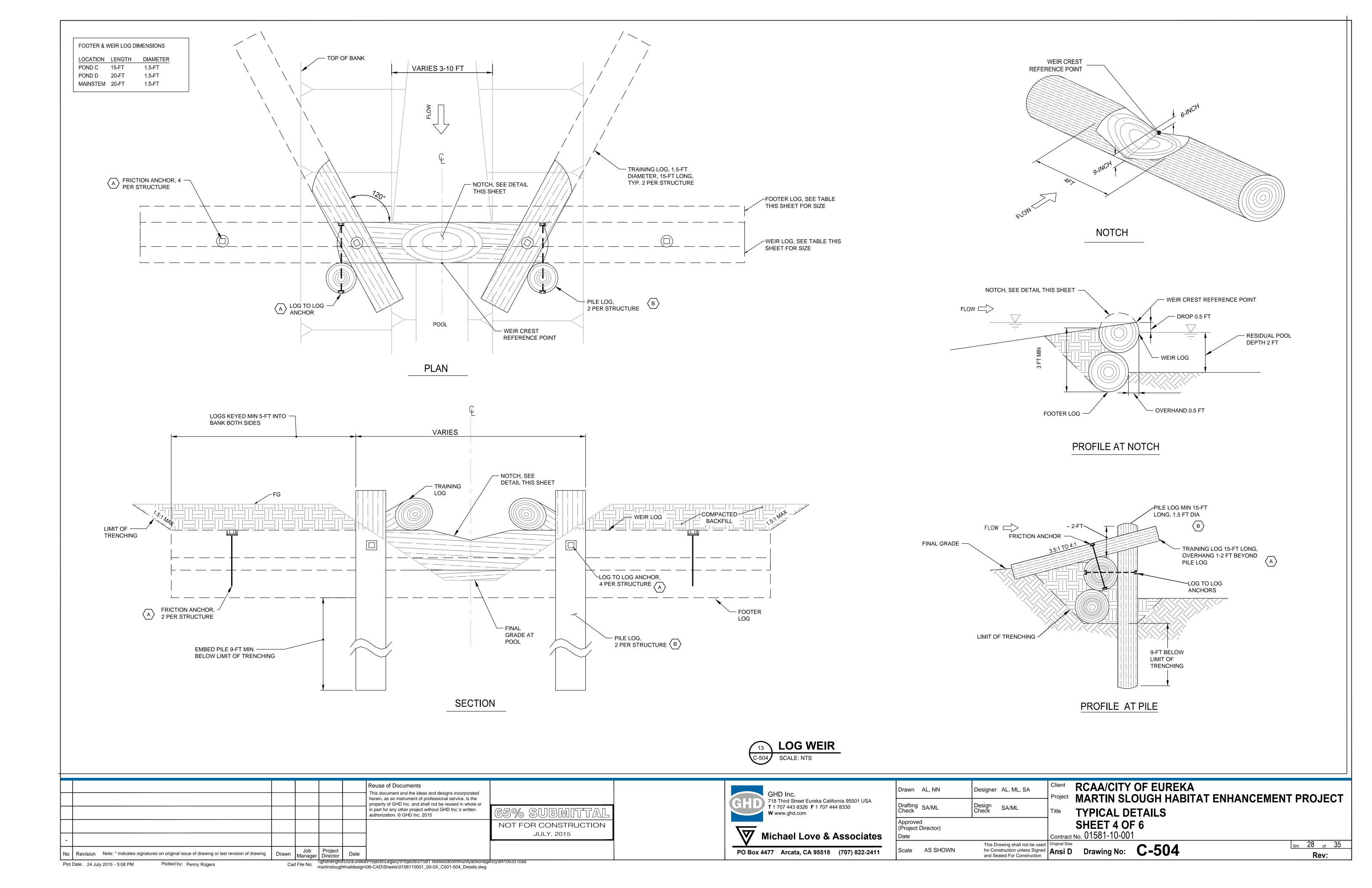
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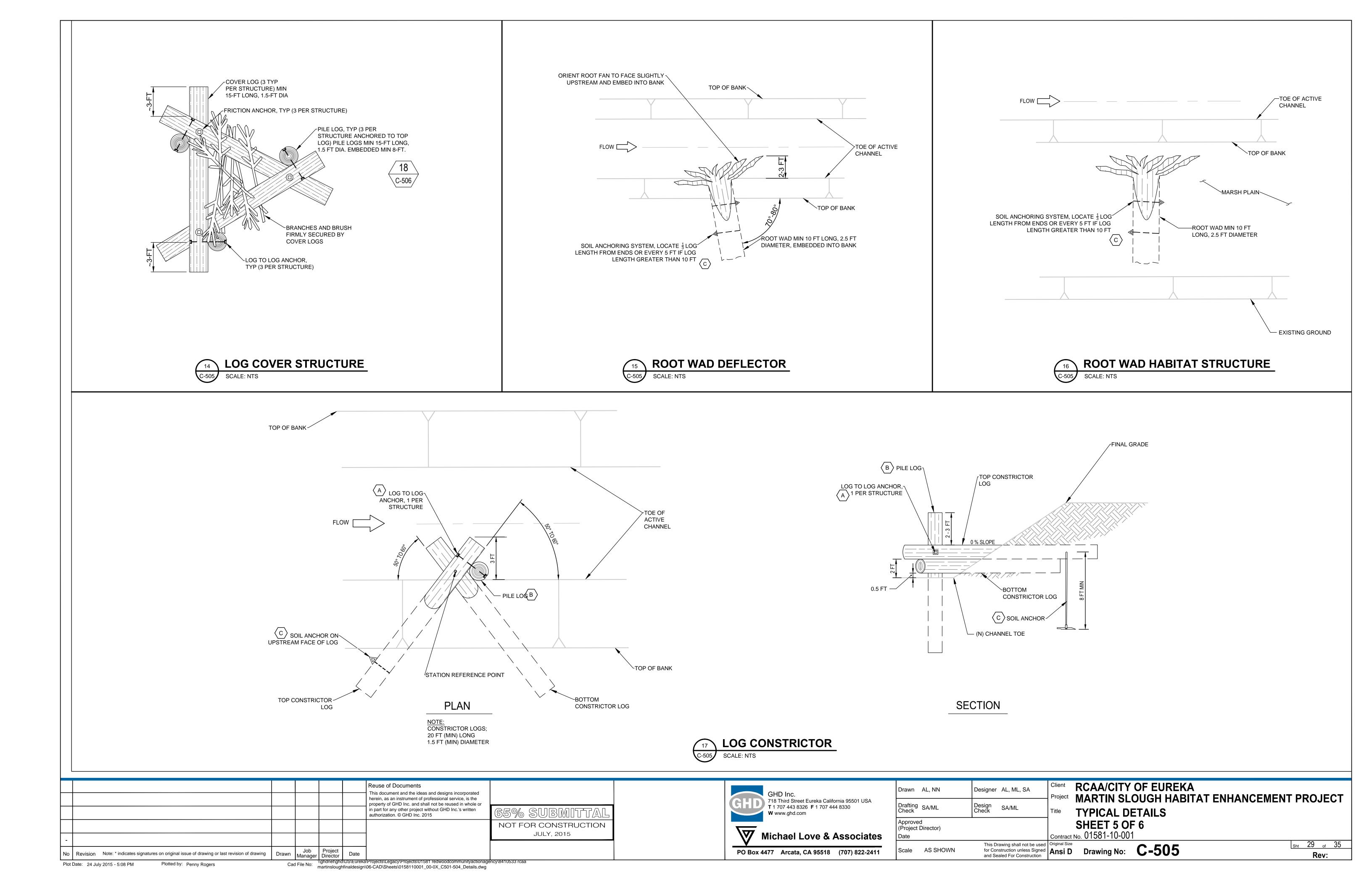
- 1. REMOVE (E) VEGETATION AND ANY DEBRIS OR DELETERIOUS MATERIAL ENCOUNTERED WITHIN FOOTPRINT OF NEW BERM.
- 2. LEVEL (E) GROUND SURFACE AS NECESSARY, ROLL SURFACE WITH SHEEPS FOOT ROLLER OR EQUIVALENT TO PREPARE SUB GRADE.

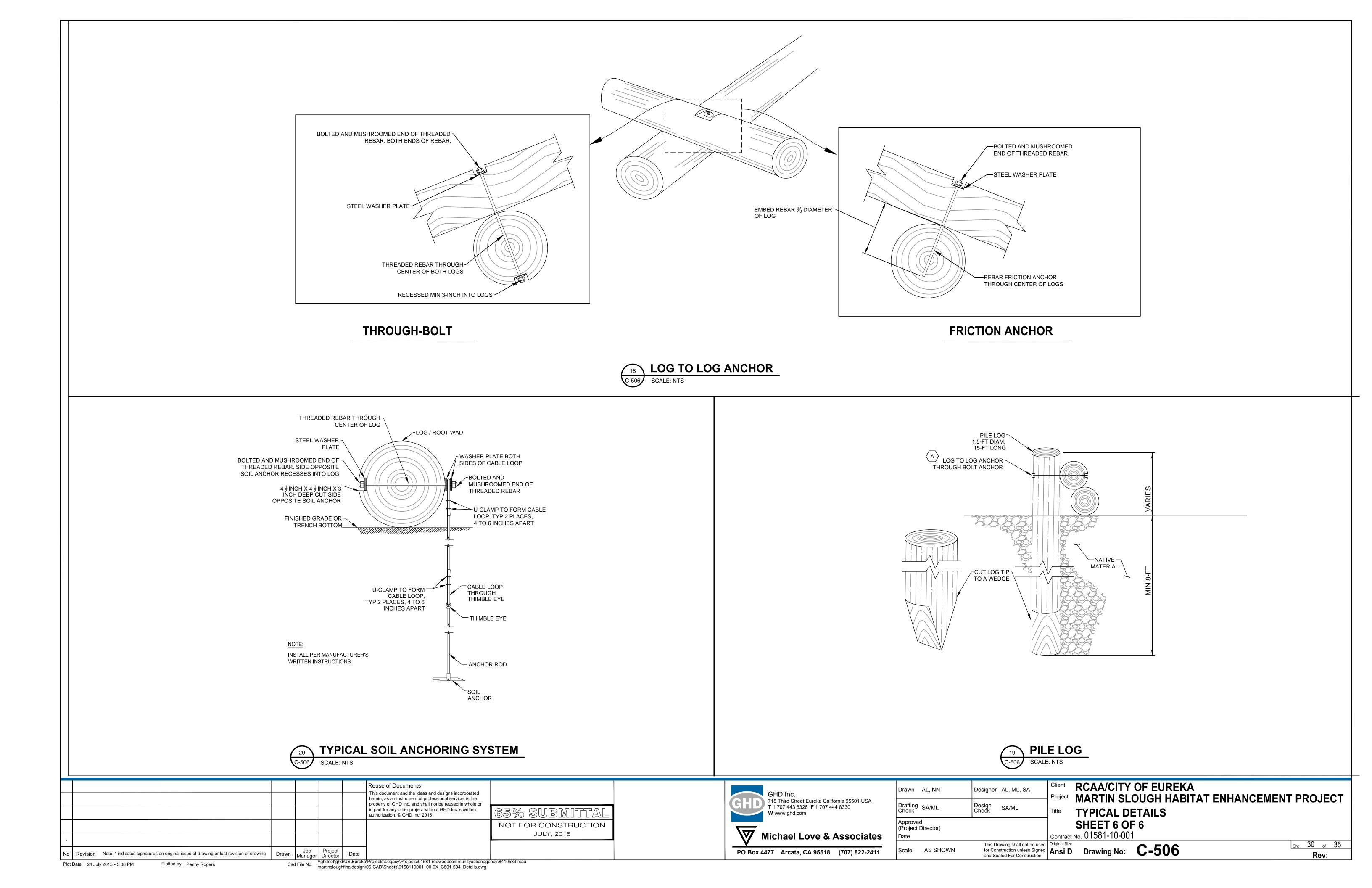
TYPICAL BERM CONSTRUCTION DETAIL SCALE: NTS

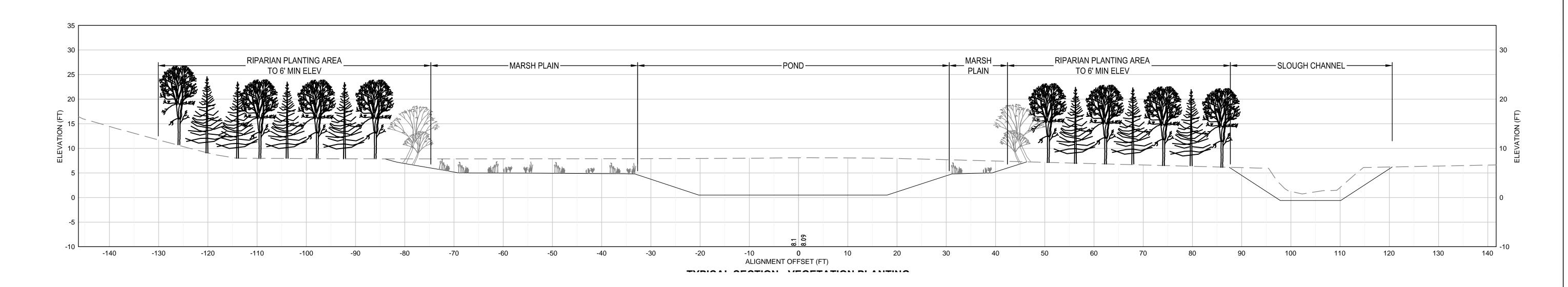
Drawn Manager Director \\ghdnet\ghd\US\Eureka\Projects\Legacy\Projects\01581 redwoodcommunityactionagency\8410533 rcaa Plot Date: 24 July 2015 - 5:08 PM martinsloughfinaldesign\06-CAD\Sheets\0158110001_00-0X_C501-504_Details.dwg











HATCH	Table 1. Tidal and Brad	ckish Marsh F	Plant Associatio	n for Ma	rtin Slough		
00000	Vegetation Type	Common Name	Scientific Name	% Cover Goal	On-Center Spacing (ft.)	Planting Location	Propagule Type/Size
00000	Salt Marsh						
		Pickleweed	Salicornia virginica	50	in stands of 10-15 plants at 1-2 ft apart	Lowest portions of excavated benches from upstream of tidegate (Station 0+00) to Complex C (Station 32+00 tributary), and in lower portions of tidal Ponds D and E between Elev. 3 (MLLW) and Elev.6	Cuttings rooted in Tree Bands (TB)
	(30%)	Saltgrass	Distichlis spicata	25	in bands of plants at 1 foot apart	Middle portions of excavataed benches from upstream of tidegate (Station 0+00) to Complex C (Station 32+00 tributary) and in mid emergent portions of Ponds D and E between Elev 5. and Elev.7 (MHHW)	transplant plant plugs or clumps
00000	Transition/High Marsh (30%)	Coastal tufted hairgrass	Deschampsia caespitosa	20	groupings 5-10 plants at 2 feet apart	In wide band on upper portions of interior benches and upper margins of tidal ponds Elevation 6-8	transplant whole plant or plant divisions
00000		Gumplant	Jaumea carnosa	5	groupings of 5 to 7 plants at 3-4 foot spacing	same as above	Rooted cuttings in D- pots to 1-gallon
00000	Brackish Marsh						
00000 00000 00000 00000 00000	(40%)	pale spikerush	Eleocharis macrostachy a	5	in stands of 15-25 at 1 foot apart	Intergrading with salt marsh terraces, Complex C wetland, and Tidal Ponds C and D from Senestraro property to Fairway Dr then dominant upstream of salinity break at North Fork Tributary	transplant divisions or plant plugs
00000		Slender arrowgrass	Triglochlin concinna	5	same as above	same as above	same as above
00000		Alkali bulrush	Scirpus maritimus	5	same as above	same as above	Transplant rhizome divisions
00000	Facultative Wetland (30%)	Lyngbye's sedge	Carex lyngbyei,	30	same as above	same as above	same as above
00000		Slough sedge	Carex obnupta	30	same as above	same as above	transplant divisions or plant plugs
00000		water parsley	Oenanthe sarmentosa	10	groupings 3-7 at 2 feet apart	same as above	transplant rhizomes
00000	Wetland Transition (30%)	Soft rush	Juncus effuses	5	in stands of 15-25 at 1 foot apart	same as above except extending to elevation 10 where applicable.	transplant divisions or plant plugs
00000		Spreading rush	Juncus patens	5	same as above	same as above	

HATCH	Table 2. Raised Gro	able 2. Raised Ground Herbaceous Plant Association								
	vegetation Type	Common Name	Scientific Name	% Cover Goal	Lbs. live seed per acre	Planting Location	Propagule Type (# needed)			
	△ △ △ ₄ Fairway and Rough Fill Areas									
	Sod and mat-forming	Seed mix to	TBD	100	TBD	Fill areas in both "fairway" and "rough"	Direct seed for drill			
		be selected				sections of golf course where elevation	seeder, hydroseeder,			
		by golf				is raised to 7.0-7.5 NAVD88	or other per			
		course					landscape architect			
		landscape								
		architect								
			TOTAL	X	LBS SEED per/acre	TOTAL LBS Pure Live Seed				
			ACRES							

* * * * * * * * * * * * * * * * * * * *	Vegetation Type	Common Name	Scientific Name	% Cover Goal	On-Center Spacing (ft.)	Planting Location	Propagule Type (# needed)
* * * * * * *	Fresh Emergent Wet	lands	•	•			
	Obligate Wetland (40%)	American bulrush	Scirpus americanus,	10	in stands of 7-15 at 4-6 feet apart	At emergent zone fringe of tidal Ponds D, E, and F upstream of weir structures and in and freshwater Pond G in seasonally deepest waters and in sunniest areas further away from existing trees	
* * * * * * * * * * * * * * * * * * * *		Hardstem bulrush	Scirpus acutus	10	same as above	same as above	same as above
* * * * * * * * * * * * * * * * * * * *		Alkali bulrush	Scirpus microcarpus	10	same as above	same as above	same as above
* * * * * * * * * * * * * * * * * * * *		pale spikerush	Eleocharis macrostachy a	10	in stands of 15 to 25 at 2-3 ft. apart	Same as above but in seasonally inundated areas from 6 to 12 inches in depth	transplant divisions
* * * * * * * * * * * * * * * * * * * *	Facultative Wetland (30%)	sedge	Carex obnupta	10	in groupings of 7-15 at 4-6 feet apart	Same as above in wide band at inner margin of pond in seasonally shallower waters less than 6 inches in depth	•
* * * * * * * * * * * * * * * * * * *		willow-leaf dock	Rumex salicifolius	10	in groupings of 7-15 at 3-4 feet apart	same as above	seed or plant plugs
		water parsley	Oenanthe sarmentosa	10	in groupings of 7-15 at 4-6 feet apart		Transplant rhizomes or whole plants
	Wetland/Riparian transition (30%)	rush	Juncus balticus, J. effuses, J. patens	15	in stands of 15-25 at 1-2 feet apart	In narrow band at outer margin of ponds and channel in seasonally saturated soils	
* * * * * * * * * * * * * * * * * * * *		False nutsedge	Cyperus strigosis	15	in standsof 7-15 at 2-3 feet apart		seed or plant plugs
						TOTAL PLANTS	

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Drawn TD	Designer AL, ML, SA	1	RCAA/CITY OF EUREKA MARTIN SLOUGH HABITAT ENHANCEMEN	T DDO IECT
Drafting SA/ML Check	Design Check SA/ML		REVEGETATION PLAN	I PROJECT
Approved (Project Director) Date		I	SHEET 1 OF 2 No. 01581-10-001	
Scale AS SHOWN	This Drawing shall not be used for Construction unless Signed and Sealed For Construction	Original Size Ansi D	Drawing No: V-101	Sht 31 of 35 Rev:

+ - + -	+ + + + + +	Vegetation Type	Common Name	Scientific Name	% Cover Goal	On-Center Spacing (ft.)	Planting Location	Propagule Type
+ 	+	Trees (35% cover)			Cour			
' + -	' + ' + +	Upper Riparian (Elevation 8 to 10 ft.)	Redwood	Sequoia sempervirens	2.5	30 feet apart groupings of 2-3	Northern tributary upstream end of channel bench 8+00 to 10+00 above elevation 8	15-gallon: 6-8 feet tall
+ - + - + - + -	+ + + + + + + +		Sitka spruce	Picea sitchensis	10	25 feet apart groupings of 2-3	Intermittent groupings throughout upper riparian zone from stations 60+00 to 80+00 and at north side of ponds E and F above elev. 8	15-gallon: 6-8 feet tall
+ - + - + -	. + . + + + + + +		Shore pine	Pinus contorta var. contorta	5	20 feet apart groupings of 2-3	Intermittent groupings throughout upper riparian zone from stations 45+00 to 58+00 and at north side of ponds D and E above elev. 8.	15-gallon: 6-8 feet tall
+ - + - + - + - + - + -	+ + + + + + + + + + + +		Pacific wax myrtle	Myrica californica	2.5	16 feet apart in groupings of 3-5	Intermittent thickets from stations 00+00 to 42+00 above top of bank within fence and at outer edges of Complex C wetland on Senestraro parcel; also in intermittent thickets from 45+00 to 60+00 and along interior perimeter of pond D and complex C between elev. 6-8.	5-gallon: 2-4 feet tall with plant protection in Senestraro
+ - + - + - + -	+ + + + + + + +	Lower Riparian (Elevation 6 to 8 ft.)	Red alder	Alnus rubra	5	same as above	Intermittent groupings throughout lower riparian zone from stations 32+00 to 80+00 and at far perimeter of ponds D, E and F above elev. 7 (MHHW)	15-gallon: 6-8 feet tall
+ + - . +	+ + + . +		Red twig dogwood	Cornus sericea	5	12 feet apart in groupings of 5-7	same as above	5-gallon: 2-4 feet tall
+ - + - + - + -	+ + + + + + + +		Red willow	Salix laevigata	2.5	same as above	Intermittent thickets throughout lower riparian zone from stations 60+00 to 80+00 and along interior perimeter of ponds E and F above elev. 7	5-gallon: 2-4 feet tall in golf course or live stakes on Senestraro parcel
+ - + - + - + - + - + - + -	+ + + + + + + + + + + + + +	Shrubs (30% cover)	Coastal willow	Salix hookeriana	2.5	same as above	Intermittent thickets at upstream & downstream edges of marsh benches from stations 00+00 to 35+00 within fence and at outer edges of Complex C wetland; also from 45+00 to 60+00 and along interior perimeter of pond D and complex C between elev. 6-8	same as above
+ + - + -	+ + + + + +	(Mexican elderberry	Sambucus mexicana	2.5	Singly or 10 feet apart in pairs	Intermittently in riparian thickets understory from stations 00+00 to 80+00 and above wetted perimeter of all ponds above elev. 8	5-gallon on golf course, tree- pot or D-pot on Senestraro parcel
+ -	+ +		Blue blossom ceanothus	Ceanothus thyrsiflorus	2.5	10 feet apart in groupings of 2-3	same as above but between stations 33+00 and 80+00	same as above
+	+		Coffeeberry	Rhamnus californica	2.5	same as above	Intermittently in riparian understory from stations 00+00 to 80+00 and along above wetted perimeter of all ponds above elev. 8	same as above
+ - + + + -	+ + + + +		Pacific rhododendron	Rhododendron macrophyllum	2.5	same as above	In stands at outside edge of riparian zones and in small shrub islands on holes 1, 6, and 17.	5-gallon, burlap-wrapped bare root wad
+ - + + + -	+ + + + + + +		Western azalea	Rhododendron occidentale	2.5	same as above	In stands at outside edge of riparian zones and in small shrub islands on holes 1, 6, and 17.	5-gallon
+ - + - + -	- + + + + +		Twinberry	Lonicera involucrata	2.5	10 feet apart in groupings of 2-3	Intermittently in riparian understory from stations 00+00 to 80+00 and along above wetted perimeter of all ponds above elev. 8	5-gallon on golf course, tree- pot or D-pot on Senestraro parcel
' + - + -	' + ' + + + +		Red flowering currant	Ribes sanguineum	2.5	same as above	same as above	same as above
' + - +	' + ' + + + +		Evergreen huckleberry	Vaccinium ovatum	2.5	same as above	same as above	same as above
+ - + - + - + - + -	+ + + + + + + + + +		Spirea	Spirea densiflora	2.5	6 feet apart in groupings of 5-7	Between salt marsh and uplands throughout lower riparian zone from stations 00+00 to 35+00 within fence and at outer edges of Complex C wetland; also from 45+00 to 60+00 and along interior perimeter of pond D and complex C between elev. 7-8	same as above
+ - + - + - + -	+ + + + + + + +		California rose	Rosa californica	2.5	same as above	Between intermittent tree stands throughout lower riparian zone from stations 00+00 to 35+00 within fence and in stands at outer edges of Complex C wetland;	same as above
+ + - +	+ + + +		Salmonberry	Rubus spectabilis	2.5	same as above	same as above	same as above
+	+ +		Thimbleberry	Rubus parviflorus	2.5	same as above	same as above	same as above

HATCH	Table 5. Short Grass	Planting					
	Vegeta-tion Type		Scientific Name	% Cover Goal	Lbs. live seed per acre	Planting Location	Propagule Type (# needed)
	Fairway and Rough	Fill Areas					
/////	Low-growing sod and	Seed mix to	TBD	100	TBD	Raised short grass areas adjacent to	Direct seed for drill
	mat-forming grasses	be selected				fairway on Holes 2, 4, and 6, as well as	seeder, hydroseeder,
		by golf				the Pond E island on Hole 18	or other
	1	course					
		landscape					
		architect					
			TOTAL	Х	LBS SEED per/acre	TOTAL LBS Pure Live Seed	
//:///			ACRES				

Table 6. Dike/Berm Pla	nt Association	າ for Martin Slouເ	jh			
Vegetation Type	Common Name	Scientific Name	% Cover Goal	On-Center Spacing (ft.)	Planting Location	Propagule Type (#
Fresh Meadow Grasses	(50 lbs p/ac)	•				
Perennial grass pH up to 7.5	CA coastal brome	Bromus carinatus var. maritimus	50	N/A	Outboard side (field side) of Pine Hill/elk River berm spoils disposal area from top to bottom of berm	
pH up to 7.0	Meadow barley	Hordeum brachyantheru m	30		same as above	same as above (15 lbs p/ac)
pH up to 7.0	Red fescue	Festuca rubra	20		same as above	same as above (10 lbs p/ac)
Salt-tolerant Grasses (5	0 lbs p/ac)	•		•		,
Perennial pH up to 9.0	Salt grass	Distichlis spicata	40		Inboard side (slough side) of Pine Hill/Elk River berm (spoils disposal area) down to MHHW	same as above (20 lbs p/ac)
pH up to 8.5	Coastal tufted	Deschampsia caespitosa	40		same as above	(20 lbs p/ac)
pH up to 8.0	Blue wild rye	Elymus glaucus	20		same as above	(10 lbs p/ac)
		TOTAL ACRES	Х	LBS SEED per/acre	TOTAL LBS Pure Live Seed	

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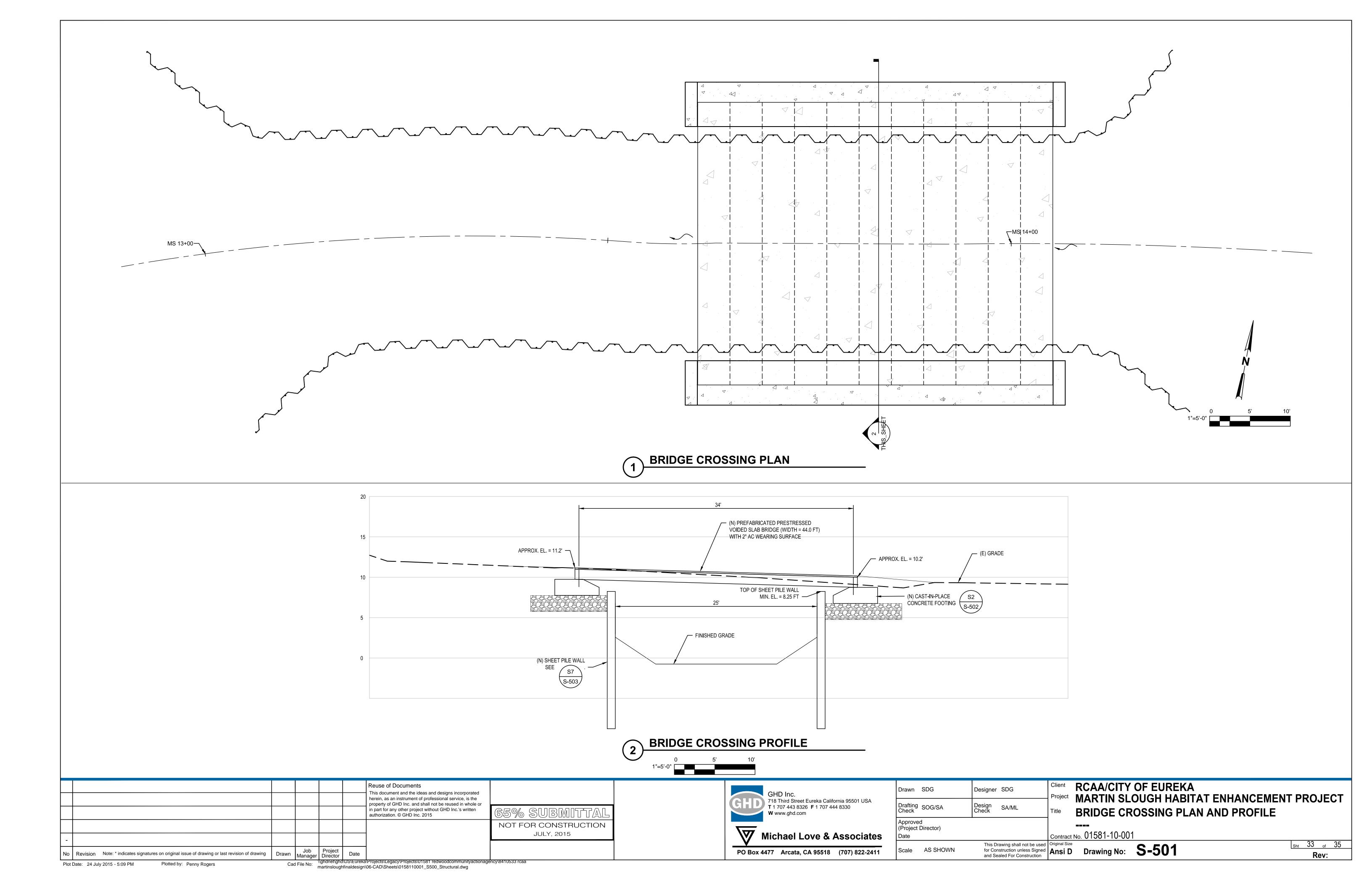
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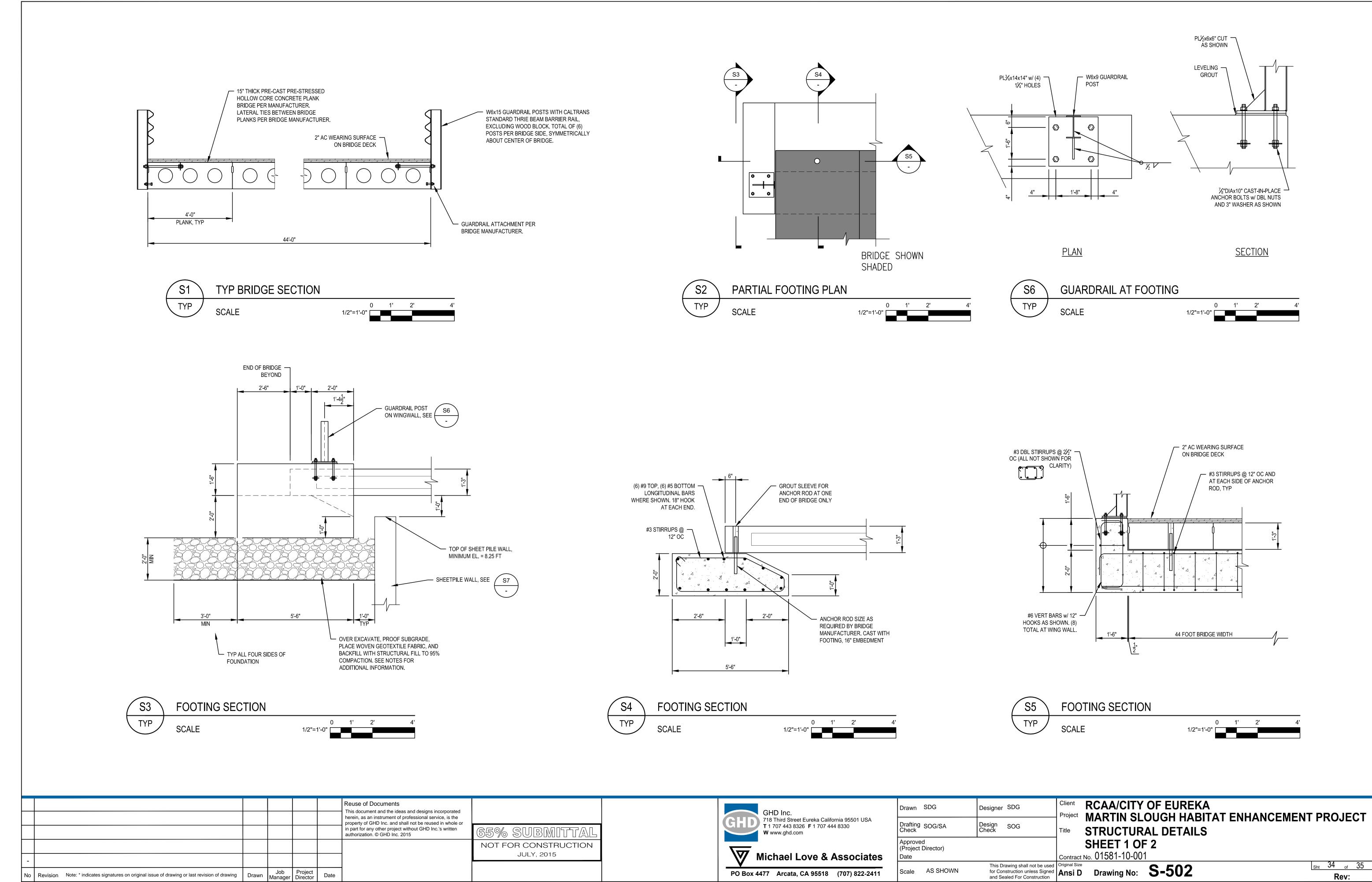
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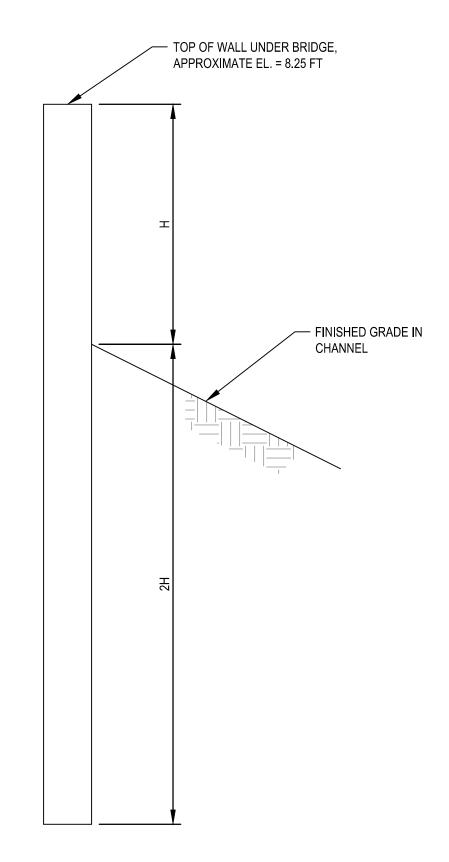
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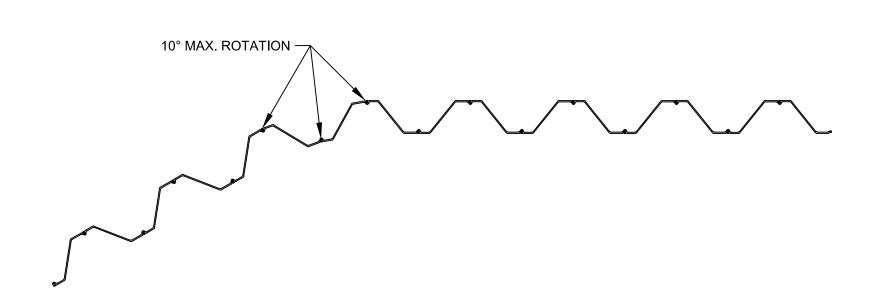
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SHEETPILE SECTION DETAIL



SHEETPILE BEND DETAIL

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