

COLUMBIA RIVER ESTUARY STUDY TASK FORCE (CREST) DEEP RIVER CONNECTIVITY- PHASE 1

100% DESIGN

PROJECT LOCATION: DEEP RIVER, WASHINGTON



1615 SE 3RD AVENUE,
STE. 400
PORTLAND, OR 97214
OFFICE - 503.274.2010
WWW.ESASSOC.COM



CLIENT 03/08/2024



SHEET LIST

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PROJECT TEAM

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ROADWAY / RIGHT-OF-WAY OWNER:

CHUCK BEYER, PUBLIC WORKS DIRECTOR
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P.O. BOX 97
CATHLAMET, WA 98612

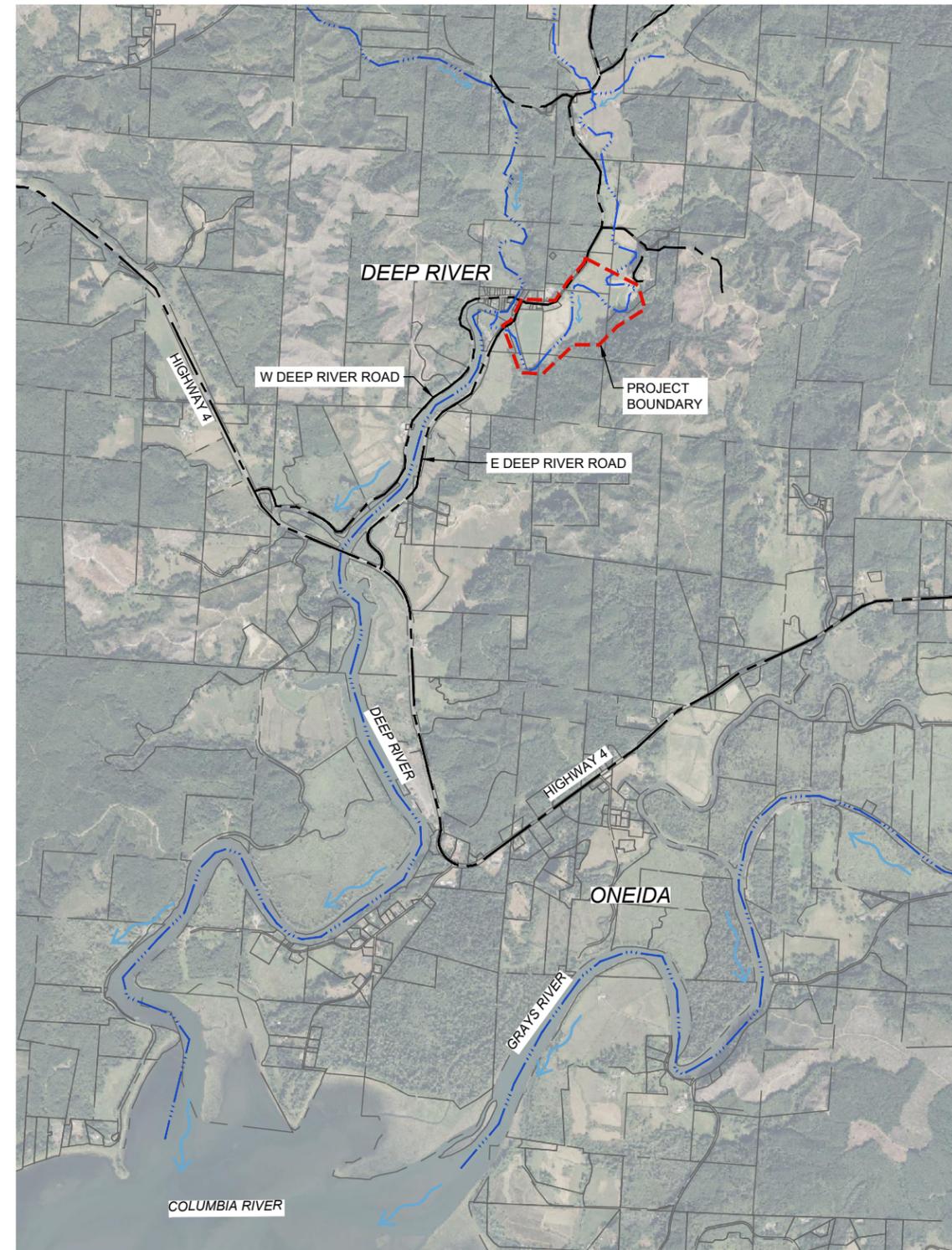
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VICINITY MAP

PLAN

SCALE: 1"=1500'



DEEP RIVER CONNECTIVITY
**DEEP RIVER CONNECTIVITY
- PHASE 1**
DEEP RIVER, WASHINGTON
WAHIAKUM COUNTY

REVISIONS

#	DATE	DESCRIPTION

DESIGNED	HLW
DRAWN	AMF
CHECKED	SM
IN CHARGE	HLW 49909

PROJECT NUMBER D202000092

ISSUE DATE 3/8/2024

SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

PHASE
100% CONSTRUCTION DOCUMENTATION

SHEET TITLE

COVER SHEET AND SHEET INDEX

SHEET NUMBER

G-01

SHEET 1 OF 25

GENERAL NOTES

1. THESE PLANS HAVE BEEN PREPARED FOR THE EXCLUSIVE USE OF THE COLUMBIA RIVER ESTUARY STUDY TASK FORCE AND THEIR AUTHORIZED AGENTS, HEREAFTER REFERRED TO AS "OWNER" OR "CONTRACTING OFFICER". THE "CONTRACTOR", OR THEIR SUBCONTRACTOR, IS THE PARTY SELECTED TO CONSTRUCT THE PROJECT.
2. ENVIRONMENTAL SCIENCE ASSOCIATES (ESA), HEREAFTER REFERRED TO AS "ENGINEER" IS RESPONSIBLE FOR THE PREPARATION OF THESE ORIGINAL PLANS AND ASSOCIATED SPECIFICATIONS; AND WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGE, OR USE, OF THESE PLANS WHICH INCLUDES ALTERATION, DELETION, OR EDITING OF THIS DOCUMENT WITHOUT EXPLICIT WRITTEN PERMISSION FROM THE ENGINEER. ANY OTHER UNAUTHORIZED USE OF THIS DOCUMENT IS PROHIBITED.
3. MINOR MODIFICATIONS ARE EXPECTED TO SUIT JOB SITE DIMENSIONS OR CONDITIONS. SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK. THE OWNER, ENGINEER, AND APPROPRIATE REGULATORY AGENCIES SHALL BE NOTIFIED OF ANY OWNER-AUTHORIZED CHANGE RESULTING IN MORE THAN A 10% DESIGN CHANGE OF PROPOSED FOOTPRINT OR THAT SIGNIFICANTLY AFFECTS THE INTENDED BENEFIT OR FUNCTION OF A PROJECT ELEMENT.
4. THE LOCATION OF ALL FEATURES SHOWN IS APPROXIMATE. FINAL LOCATIONS SHALL BE FLAGGED BY THE CONTRACTOR PRIOR TO CONSTRUCTION AND APPROVED BY THE OWNER OR ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION.
5. THE CONTRACTOR AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; AND FURTHER AGREES THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS IN ACCORDANCE WITH THE PROVISIONS OUTLINED BY THE PROJECT CONTRACT SPECIFICATIONS.
6. ALL IMPROVEMENTS SHALL BE ACCOMPLISHED UNDER THE APPROVAL, INSPECTION, AND TO THE SATISFACTION OF THE OWNER. IMPROVEMENT CONSTRUCTION SHALL COMPLY WITH THESE PLANS AND THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT) STANDARD PLANS, CURRENT EDITION UNLESS NOTED OTHERWISE. ALL REFERENCES TO THE "STANDARD SPECIFICATIONS" SHALL MEAN THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT) STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, CURRENT EDITION. CONSTRUCTION NOT SPECIFIED ON THESE PLANS SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR IS OBLIGATED TO BE FAMILIAR WITH APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS NOT DISCUSSED IN THE GENERAL NOTES. THE CONTRACT SPECIAL PROVISIONS SHALL SUPERSEDE THOSE OF THE STANDARD SPECIFICATIONS WHERE DISCREPANCIES OCCUR.
7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND SUBCONTRACTOR(S) TO EXAMINE THE PROJECT SITE PRIOR TO THE OPENING OF BID PROPOSALS. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED, SUCH AS THE NATURE AND LOCATION OF THE WORK; AND THE GENERAL AND LOCAL CONDITIONS, PARTICULARLY THOSE AFFECTING THE AVAILABILITY OF TRANSPORTATION, THE DISPOSAL, HANDLING, AND STORAGE OF MATERIALS, AVAILABILITY OF LABOR, WATER, ELECTRICITY, ROADS, THE UNCERTAINTIES OF WEATHER, THE CONDITIONS OF THE GROUND, SURFACE AND SUBSURFACE MATERIALS, GROUNDWATER, THE EQUIPMENT AND FACILITIES NEEDED FOR AND DURING THE PERFORMANCE OF THE WORK, AND THE COSTS THEREOF. ANY FAILURE BY THE CONTRACTOR AND SUBCONTRACTOR(S) TO ACQUAINT THEMSELVES WITH ALL THE AVAILABLE INFORMATION WILL NOT RELIEVE THE CONTRACTOR AND SUBCONTRACTOR(S) FROM RESPONSIBILITY FOR PROPERLY ESTIMATING THE DIFFICULTY AND COST OF SUCCESSFULLY PERFORMING THE WORK.
8. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING AND CONTRACT DOCUMENTS AND FOR ALL SUBMITTALS REQUIRED TO THE OWNER FOR REVIEW AND ACCEPTANCE.

SURVEY NOTES

1. UNLESS NOTED OTHERWISE ON THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING SURVEY MONUMENTS AND OTHER SURVEY MARKERS DURING CONSTRUCTION.
2. THE CONTRACTOR SHALL MAINTAIN A SET OF PLANS ON THE JOB SHOWING "AS-CONSTRUCTED" CHANGES MADE TO DATE. UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL SUPPLY TO OWNER A SET OF PLANS, MARKED UP TO THE SATISFACTION OF THE OWNER, REFLECTING THE AS-CONSTRUCTED MODIFICATIONS.
3. ELEVATIONS SHOWN ON THE PLANS FOR TOE OF SLOPE, TOPS OF BANKS, THALWEG, GRADE CONTROLS, ETC. ARE BASED UPON THE TOPOGRAPHIC INFORMATION SHOWN ON THE PLANS. THE CONTRACTOR SHALL VERIFY ALL NECESSARY SURFACE ELEVATIONS IN THE FIELD AND NOTIFY THE OWNER OF ANY DISCREPANCIES, WHICH MIGHT AFFECT PROPER ORIENTATION OF THE NEW FACILITIES BEFORE BREAKING GROUND AND PRIOR TO FACILITY INSTALLATION. THE OWNER SHALL BE CONTACTED IN THE EVENT ELEVATIONS ARE INCORRECT SO THAT THE PROPER ADJUSTMENTS CAN BE MADE BY ENGINEER PRIOR TO THE INSTALLATION OF THE FACILITIES, AS SET FORTH IN THE SPECIAL PROVISIONS.

TIMING FOR IN-WATER WORK

1. EVERY REASONABLE EFFORT SHALL BE MADE TO CONDUCT THE ACTIVITIES SHOWN IN THESE PLANS, IN A MANNER THAT MINIMIZES THE ADVERSE IMPACT ON WATER QUALITY, FISH AND WILDLIFE, AND THE NATURAL ENVIRONMENT.
2. ALL WORK SHALL BE IN COMPLIANCE WITH PERMIT CONDITIONS ISSUED BY PERTINENT REGULATORY AGENCIES IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE COPIES OF ALL PERMITS ON THE JOB SITE, UNDERSTAND AND COMPLY WITH ALL PERMIT CONDITIONS.
3. ALL WORK THAT DISTURBS THE SUBSTRATE, BANK, OR SHORE OF A WATERS OF THE STATE THAT CONTAINS FISH LIFE SHALL BE CONDUCTED ONLY DURING THE WORK PERIOD FOR THAT WATERBODY AS ALLOWED BY RELEVANT HYDRAULIC WORK PERMITS, JULY 16TH-SEPTEMBER 15TH. THOSE PORTIONS OF THE PROJECT WORK THAT OCCUR OUTSIDE OR ABOVE THE ORDINARY HIGH WATER MARK (ABOVE THE USACE JURISDICTIONAL LINE) ARE NOT SUBJECT TO THE WORK PERIODS DESCRIBED ABOVE UNLESS SPECIFIED IN THE RELEVANT PERMITS.
4. ALL ACTIVITIES THAT INVOLVE WORK ADJACENT TO, OR WITHIN THE WETTED CHANNEL SHALL AT ALL TIMES REMAIN CONSISTENT WITH ALL APPLICABLE WATER QUALITY STANDARDS AND MANAGEMENT PRACTICES ESTABLISHED PURSUANT TO THE CLEAN WATER ACT OR PURSUANT TO APPLICABLE STATE AND LOCAL LAW.
5. IF AT ANY TIME, AS A RESULT OF PROJECT ACTIVITIES, FISH ARE OBSERVED IN DISTRESS, A FISH KILL OCCURS, OR WATER QUALITY PROBLEMS DEVELOP (INCLUDING EQUIPMENT LEAKS OR SPILLS), OPERATIONS SHALL CEASE AND THE OWNER SHALL BE NOTIFIED IMMEDIATELY.

SITE WORK

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, FLAGGERS, AND ANY OTHER NEEDED ACTIONS TO PROTECT THE LIFE, HEALTH, AND SAFETY OF THE PUBLIC, AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACTOR.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY INCLUDING PROTECTION OF WORK AND SITE AGAINST VANDALISM, THEFT, AND UNAUTHORIZED ACCESS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE INTEGRITY OF ADJACENT UTILITIES WHICH MAY INCLUDE, BUT ARE NOT LIMITED TO, WATER, POWER, COMMUNICATIONS.
4. THE CONTRACTOR SHALL NOTIFY RESIDENTS AND BUSINESSES 48 HOURS IN ADVANCE OF ANY WORK AFFECTING ACCESS OR SERVICE AND SHALL MINIMIZE INTERRUPTIONS TO DRIVEWAYS FOR RESIDENTS AND BUSINESSES ADJACENT TO THE PROJECT.
5. ALL LAWN AND VEGETATED AREAS DISTURBED WILL BE RESTORED TO ORIGINAL CONDITION.
6. DISTURBANCE OR DAMAGE TO OTHER PROPERTY ON ADJACENT PARCELS OR IN THE PUBLIC RIGHT OF WAY SHALL ALSO BE REPAIRED OR RESTORED TO ORIGINAL CONDITION.
7. THE CONTRACTOR SHALL PERFORM, PROTECT, AND REPLACE (IF NECESSARY) ALL NECESSARY CONSTRUCTION STAKING.
8. TRENCH EXCAVATIONS SHALL NOT BE LEFT OPEN OVERNIGHT.
9. CONNECT NEW CONSTRUCTION TO EXISTING AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
10. PROTECT ALL TREES WITHIN THE WORK AREA THAT ARE NOT SHOWN AS BEING REMOVED ON THE PLANS.
11. MAXIMUM DENSITY AND OPTIMUM MOISTURE FOR ALL GRANULAR MATERIALS SHALL BE DETERMINED BY ASTM D-1557 TEST METHOD.

GENERAL CONSTRUCTION

1. ALL WORK SHALL CONFORM TO THE CURRENT VERSION OF WASHINGTON STATE CONSTRUCTION STANDARDS, THE WASHINGTON DEPARTMENT OF TRANSPORTATION (WASHDOT) STANDARD SPECIFICATIONS, AND ALL OTHER APPLICABLE CODES AND STANDARDS UNLESS SPECIFICALLY INDICATED OTHERWISE BY THESE PLANS. IN CASE OF A CONFLICT BETWEEN THE REGULATORY STANDARDS OR SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT SHALL PREVAIL.
2. A COPY OF THE APPROVED PLANS AND SPECIFICATIONS SHALL BE ONSITE DURING CONSTRUCTION AT ALL TIMES.
3. THE CONTRACTOR SHALL NOT COMMENCE WORK UNTIL WRITTEN AUTHORIZATION TO PROCEED HAS BEEN PROVIDED BY CONTRACTING AGENCY.
4. THE CONTRACTOR SHALL OBTAIN ANY AND ALL REQUIRED CONSTRUCTION EASEMENTS AND PERMITS PRIOR TO STARTING CONSTRUCTION.
5. APPROVAL OF THESE PLANS DOES NOT CONSTITUTE AN APPROVAL OF ANY OTHER CONSTRUCTION NOT SPECIFICALLY SHOWN. THESE PLANS ARE FOR STANDARD ROAD, BRIDGE, STREAM CHANNEL, DRAINAGE, AND UTILITY IMPROVEMENTS ONLY.
6. CONSTRUCTION NOISE SHALL BE LIMITED IN ACCORDANCE WITH LOCAL CODE.
7. ATTENTION EXCAVATORS: WASHINGTON LAW REQUIREMENTS YOU TO FOLLOW RULES ADOPTED BY THE WASHINGTON UTILITY NOTIFICATION CENTER. IF YOU HAVE ANY QUESTIONS ABOUT THE RULES, YOU MAY CONTACT THE CALL CENTER. YOU MUST NOTIFY THE CENTER AT LEAST 2 BUSINESS DAYS, BUT NOT MORE THAN 10 BUSINESS DAYS, BEFORE COMMENCING AN EXCAVATION. CALL 1.800.332.2344.

8. CONTACT THE OWNER IMMEDIATELY IF UNANTICIPATED CONTAMINATION IS ENCOUNTERED DURING CONSTRUCTION. THE CONTRACTOR OR IT'S AGENT SHALL PROVIDE THE OWNER WITH COPIES OF ALL DISPOSAL PERMITS FROM THE PERMITTED DISPOSAL FACILITY, ANALYTICAL RESULTS USED TO GAIN ACCEPTANCE OF THE CONTAMINATED MEDIA, AND DISPOSAL RECEIPTS/DAILY WEIGHT SLIPS. DAILY WEIGH SLIP AMOUNTS SHALL BE CHECKED AGAINST INSPECTOR'S DAILY REPORTS. THE CONTRACTOR MUST USE AN OREGON FACILITY FOR DISPOSAL OF THE CONTAMINATED MEDIA.
9. ALL UTILITIES SHOWN ARE APPROXIMATE AND SHOWN FOR REFERENCE ONLY. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL UTILITIES.
10. REMOVE ALL OTHERWISE UNUSED MATERIALS EXCAVATED FROM WORK AND DISPOSE OF IN A LEGAL MANNER.

ABBREVIATIONS

APPROX	APPROXIMATELY
ARD	AGREEMENT TO RECONSTRUCT DWY
AVE	AVENUE
BMP	BEST MANAGEMENT PRACTICE
BRG	BEARING
€	CENTERLINE
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
CPS	CONTROL POINT
CREST	COLUMBIA RIVER ESTUARY STUDY TASKFORCE
CSBC	CRUSHED SURFACING BASE COURSE
DEG	DEGREE
DIA/DIAM	DIAMETER
DWG	DRAWING
EA	EACH
ESM	ENGINEERED STREAMBED MATERIAL
EST	ESTIMATE
FT	FEET/FOOT
GB	GRADE BREAK
IE	INVERT ELEVATION
INV	INVERT
LF	LINEAR FOOT/FEET
MAX	MAXIMUM
MIN	MINIMUM
N	NORTH
NAVD88	NORTH AMERICAN VERTICAL DATUM OF 1988
NO	NUMBER
NTS	NOT TO SCALE
OHWM	ORDINARY HIGH WATER MARK
PC	POINT OF CURVATURE
PDSC	PUMP DISCHARGE SEDIMENT CONTROL
PI	POINT OF INTERSECTION
PL	PROPERTY LINE
PT	POINT OF TANGENT
QTY	QUANTITY
RD	ROAD
ROW	RIGHT-OF-WAY
SF	SQUARE FEET/FOOT
SHT	SHEET
SPEC	SPECIFICATION
SPECS	SPECIFICATIONS
STA	STATION
SWDM	STORM WATER DESIGN MANUAL
S/W	SIDEWALK
TCE	TEMPORARY CONSTRUCTION EASEMENT
TEMP	TEMPORARY
TYP	TYPICAL
VC	VERTICAL CURVE
WSDOT	WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
W/	WITH
&	AND



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CLIENT

03/08/2024



DEEP RIVER CONNECTIVITY
**DEEP RIVER CONNECTIVITY
- PHASE 1**
DEEP RIVER, WASHINGTON
WAHKIUM COUNTY

REVISIONS

#	DATE	DESCRIPTION

DESIGNED	AMF
DRAWN	AMF
CHECKED	HLW
IN CHARGE	HLW
	49909

PROJECT NUMBER D202000092
ISSUE DATE 3/8/2024

SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")
1" = 1'

PHASE
100% CONSTRUCTION DOCUMENTATION

SHEET TITLE

**LEGEND,
ABBREVIATIONS,
AND NOTES**

SHEET NUMBER

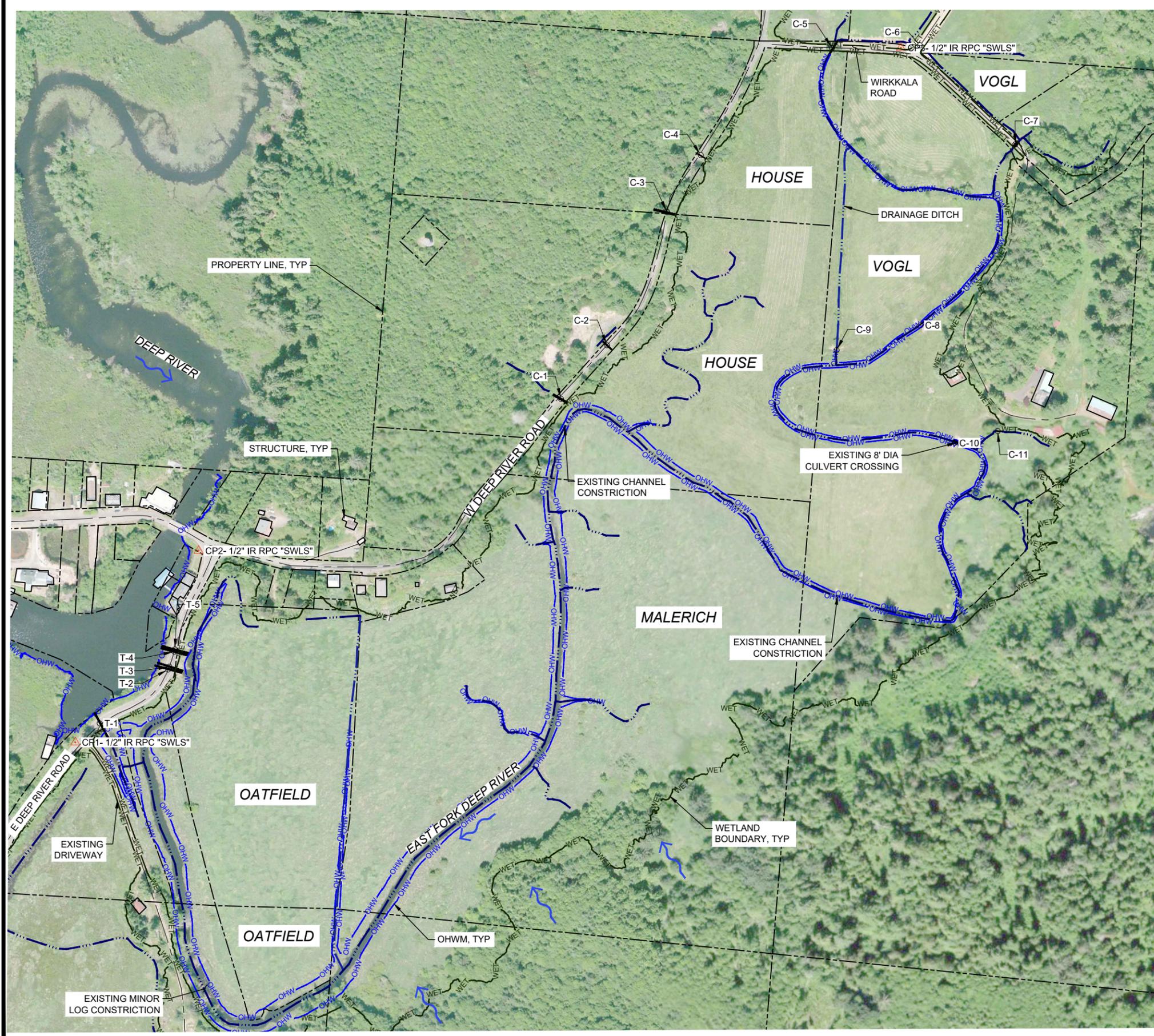
G-02

SHEET 2 OF 25

FILE: P:\01 CAD\2020\000092\00 Deep_River_Connectivity\DWG-Phase 1 Design\GENERAL NOTES.dwg PLOT DATE: 12/4/2025 2:27:42 PM PLOTTED BY: MIRANDA NELSON



FILE: P:\01 CAD\2020\000002\00 Deep River Connectivity\DWG-Phase 1 Design\EXISTING CONDITIONS.dwg PLOT DATE: 12/14/2025 2:28:05 PM PLOTTED BY: MIRANDA NELSON



LEGEND

- EXISTING CHANNEL CENTERLINE
- EXISTING ROAD CENTERLINE
- EXISTING CULVERT
- WETLAND BOUNDARY
- OHWM
- APPROXIMATE PROPERTY LINE

NOTES

1. EXISTING CONDITIONS MAPPING IS BASED ON LIDAR (USGS, 2017) WITH SUPPLEMENTAL SURVEY DATA COLLECTED BY CREST. DETAILED TOPO SURVEY OF THE E DEEP RIVER ROAD AREA PROVIDED BY SWLS JANUARY 2024, SEE SHEET G-04.
2. UTILITY LOCATIONS ALONG EAST DEEP RIVER ROAD ARE SHOWN ON SHEET C-01, BUT SHALL NOT BE RELIED UPON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS.
3. STREAMBED AND BANK CONDITIONS CHANGE FREQUENTLY. THE BATHYMETRIC AND TOPOGRAPHIC SURVEY IS REPRESENTATIVE OF CONDITIONS AS THEY EXISTED AT THE TIME OF THE SURVEY ONLY (OCTOBER 2021). THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY CHANGED CONDITIONS THAT IMPACT THE WORK SHOWN IN THESE PLANS.
4. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTION, COORDINATION AND TEMPORARY RELOCATION OF OVERHEAD POWER.
5. THE VERTICAL DATUM FOR THIS PROJECT IS NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
6. THE HORIZONTAL DATUM FOR THIS PROJECT IS WASHINGTON STATE PLANE (SOUTH ZONE) US SURVEY FOOT.
7. AERIAL PHOTO IS PROVIDED BY ESRI ONLINE SERVICES.
8. PROPERTY LINES ARE APPROXIMATE BASED ON WAHIAKUM COUNTY GIS ONLINE MAP SERVICES.
9. SITE CONTROL WAS ESTABLISHED BY STATEWIDE LAND SURVEYING INC. IN OCTOBER 2021.
10. THE WETLAND BOUNDARY IS AT ELEVATION 9.5 FT NAVD88, AS DETERMINED BY CREST STAFF IN NOVEMBER 2025.
11. OHWM WITHIN THE PHASE 1 PROJECT AREA IS AT ELEVATION 1.6 FT NAVD88, AS DETERMINED BY CREST STAFF IN NOVEMBER 2025.

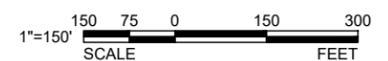
CONTROL POINT TABLE

NUMBER	DESCRIPTION	NORTHING	EASTING	ELEVATION
1000001	CP1- 1/2" IR RPC "SWLS"	385,951.03	835,504.68	12.16
1000002	CP2- 1/2" IR RPC "SWLS"	386,500.03	835,858.93	12.70
1000003	CP3- 1/2" IR RPC "SWLS"	387,941.40	837,876.14	7.78

EXISTING DRAINAGE STRUCTURE OVERVIEW*

DRAINAGE STRUCTURE	SIZE	MATERIAL	IE IN	IE OUT
T-1	48"	STEEL	-1.5	-2.2
T-2	48"	CORRUGATED METAL	-2.8	-2.8
T-3	48"	CORRUGATED METAL	-2.7	-3.1
T-4	48"	CORRUGATED METAL	-2.9	-3.5
T-5	48"	CORRUGATED METAL	-3.4	-3.6
C-1	60"	CORRUGATED METAL	7.28	13.63
C-2	36"	CORRUGATED METAL	22.37	20.79
C-3	60"	CORRUGATED METAL	30.19	9.32
C-4	18"	CORRUGATED METAL	26.85	14.62
C-5	84"	CORRUGATED METAL	3.42	4.42
C-6	24"	CORRUGATED METAL	4.23	2.96
C-7	84"	CORRUGATED METAL	1.88	1.86
C-8	N/A	RIVETED STEEL	N/A	N/A
C-9	24"	CORRUGATED METAL	2.88	1.68
C-10	96"	RIVETED STEEL	-2.32	-2.34
C-11	24"	CORRUGATED METAL	4.26	3.66

* CONTRACTOR TO VERIFY CONDITION AND SIZE OF ALL EXISTING PIPES TO BE REMOVED AND NOTIFY ENGINEER OF ANY DISCREPANCIES.



EXISTING CONDITIONS
PLAN SCALE: 1"=150'



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COLUMBIA RIVER ESTUARY
STUDY PARTNERS

DEEP RIVER CONNECTIVITY
**DEEP RIVER CONNECTIVITY
- PHASE 1**
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WAHIAKUM COUNTY

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SHEET TITLE

EXISTING CONDITIONS AND SURVEY CONTROL

SHEET NUMBER

G-03

SHEET 3 OF 25

VICINITY MAP

APPROXIMATE LOCATION OF SITE
46°20'52.56"N 123°41'13.71"W
NOT TO SCALE



HORIZONTAL DATUM

NAD 83/2011 EPOCH 2010.0000 WASHINGTON STATE PLANE COORDINATE SYSTEM
SOUTH ZONE 4602 WITH UNITS IN US SURVEY FEET.

VERTICAL DATUM

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) (GEOID 2018)

CONTROL POINTS

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
CP1	385951.028	835504.682	12.16	1/2" IR W/RPC 'SWLS'
CP2	386500.028	835858.933	12.70	1/2" IR W/RPC 'SWLS'
CP3	386072.232	835727.768	12.91	NAIL SPIKE
CP4	386337.524	835842.201	11.06	MAG NAIL

CONDITIONS SURVEY

ESA RIVER DEEP, WAHAKIUM, WASHINGTON

SITUATED IN THE SOUTHEAST QUARTER OF SECTION 17,
TOWNSHIP 10 NORTH, RANGE 8 WEST OF THE WILLAMETTE
MERIDIAN, COUNTY OF WAHAKIUM, STATE OF WASHINGTON.

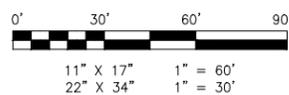
LEGEND

- CP CONTROL POINT
- CULV CULVERT
- IE INVERT ELEVATION
- IR IRON ROD
- W/RPC WITH RED PLASTIC CAP
- ☐ COMMUNICATION BOX
- ⊙ COMMUNICATION PEDESTAL
- △ CONTROL POINT
- ⊕ ELECTRIC METER
- ⊕ FIRE HYDRANT
- ↓ GUY ANCHOR
- ⊗ PILING
- ⊕ POWER POLE
- ⊕ VAULT COMMUNICATION BOX
- ⊗ WATER VALVE
- c— AS-PAINTED, COMMUNICATION UTILITY LINE
- w— AS-PAINTED, WATER UTILITY LINE
- - - CULVERT
- FENCE, CHAIN LINK
- GUARD RAIL
- OL— OVERHEAD UTILITY LINE
- ASPHALT
- CONCRETE
- GRAVEL
- XX" DECIDUOUS TREE, DIA NOTED
- XX" EVERGREEN TREE, DIA NOTED

NOTES

- 1) CONTOURS ARE AT 1' INTERVALS AND ARE COMPUTER GENERATED.
- 2) UTILITIES SHOWN ON THE SURVEY HEREON WERE BASED UPON GROUND/VISUAL OBSERVATIONS ONLY. THERE MAY BE UTILITIES ON THE SITE THAT WERE NOT VISIBLE THEREFORE, THEY ARE NOT SHOWN.
- 3) THIS IS NOT A BOUNDARY SURVEY, AND EXCLUDES MATTERS OF UNWRITTEN RIGHTS.
- 4) PRIVATE UTILITY LOCATES NOT REQUESTED FOR THIS SURVEY.

SCALE: 1" = 30'



JOB NUMBER: 2024-002	SCALE: AS NOTED	REV:
DRAWN: E.R.J.	DRAWN DATE: 01/09/2024	REV:
REVIEWED: E.P.H.	REVIEW DATE: 01/09/2024	REV:
SV: 1 OF 1	SURVEY DATE: 01/02/2024	REV:

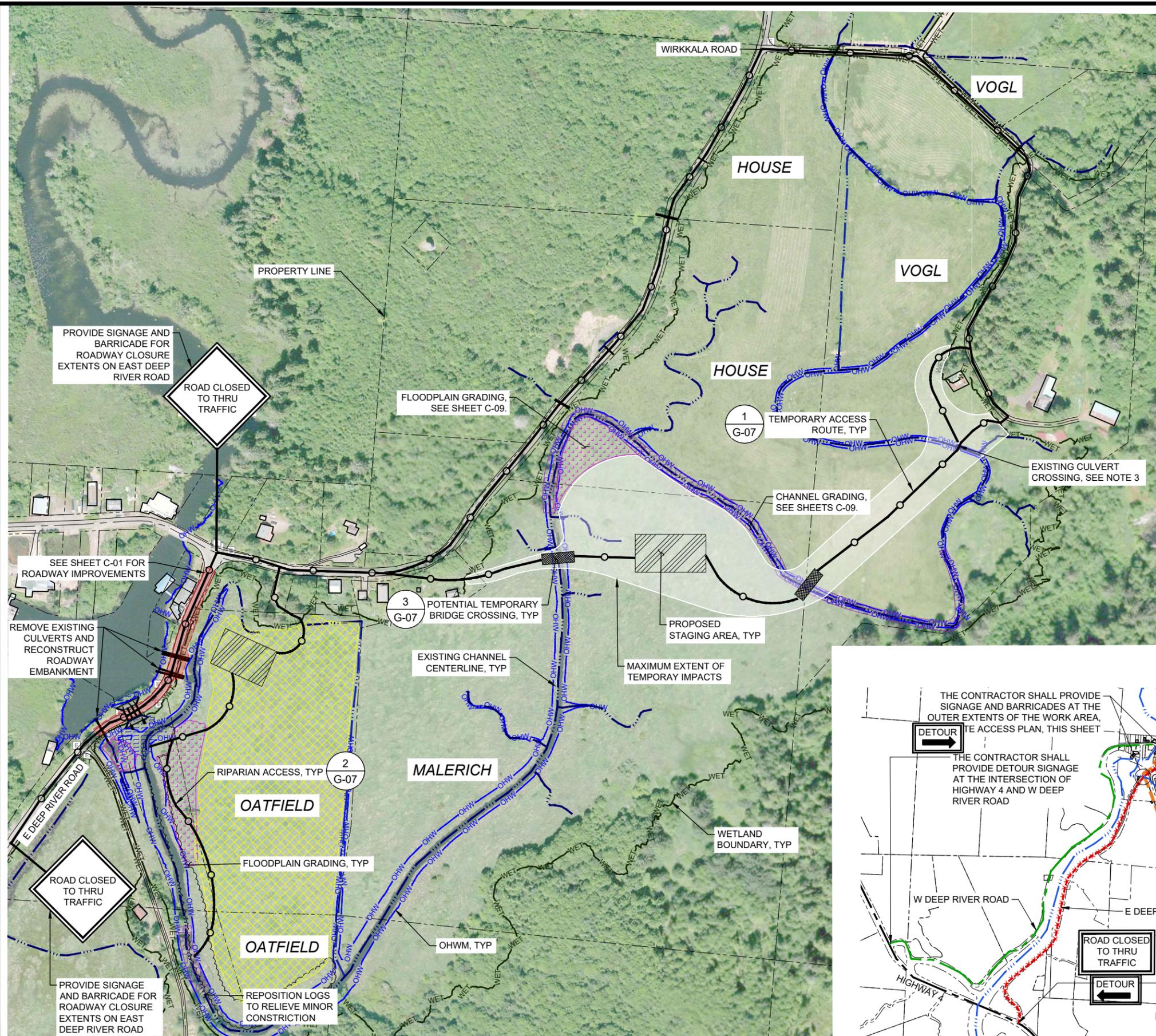
STATOWIDE LAND SURVEYING INC.
43 NW AVE. GRESHAM, OR 97030
O: 503-665-7777 F: 503-665-7988
EMAIL: SURVEY@STATEWIDESURVEYING.COM
WEB: WWW.STATEWIDESURVEYING.COM

SV01

REGISTERED PROFESSIONAL LAND SURVEYOR
Eric Hyatt
OREGON SEPTEMBER 13, 2022
ERIC HYATT 99516
EXPIRES: 06/30/25

Know what's below.
Call before you dig.

FILE: P:\01 CAD\2020\0092.00 Deep River Connectivity\DWG-Phase 1 Design\SITE ACCESS AND STAGING.dwg PLOT DATE: 12/12/2025 2:28:59 PM PLOTTED BY: MIRANDA NELSON



NOTES

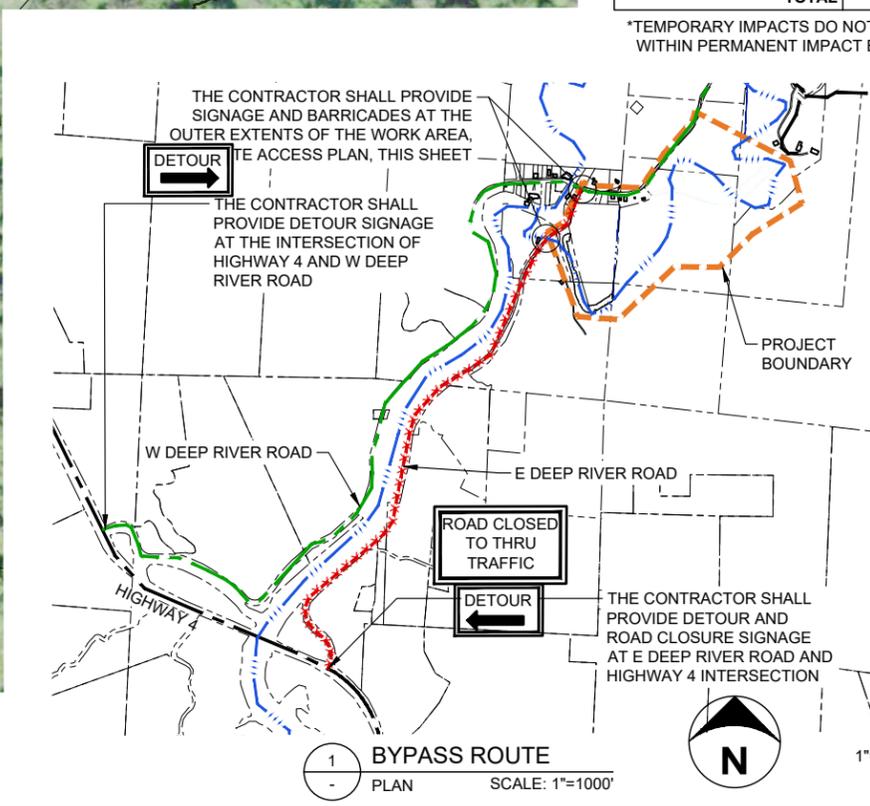
1. THIS PLAN PROVIDES AN OVERVIEW OF PROPOSED CONSTRUCTION ACCESS FOR PHASE 1 OF THE DEEP RIVER VALLEY CONNECTIVITY PROJECT.
2. ALL ACCESS ROUTES AND STAGING AREAS SHALL BE COORDINATED WITH THE LANDOWNER AND ENGINEER PRIOR TO CONSTRUCTION, PROTECT ALL PUBLIC AND PRIVATE INFRASTRUCTURE AND ALL TREES AND SHRUBS UNLESS APPROVED BY THE ENGINEER.
3. IF THE EXISTING CULVERT CROSSING IS NOT CAPABLE OF SUPPORTING THE CONSTRUCTION EQUIPMENTS LOADING, THE CONTRACTOR SHALL INSTALL A TEMPORARY BRIDGE CROSSING TO USE FOR SITE ACCESS PER DETAIL 3 ON SHEET G-07. IF THE CULVERT SUSTAINS DAMAGE AS A RESULT OF CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL REPLACE THE CULVERT IN-KIND AT THEIR EXPENSE.
4. CONTRACTOR TO PREPARE TRAFFIC CONTROL PLAN FOR COUNTY APPROVAL. ROADWAY WILL BE CLOSED THROUGH THE DURATION OF CONSTRUCTION AT THE LOCATION OF THE PROPOSED TIDE GATE AND ROADWAY IMPROVEMENTS. CONTRACTOR SHALL ACCOMMODATE PRIVATE ACCESS FOR ADJACENT LANDOWNERS.

LEGEND

- ROADWAY IMPROVEMENTS
- WIDEN CHANNEL IN CONSTRICTED AREAS
- PROPOSED FLOODPLAIN BENCH
- PASTURE RAISING
- PROPOSED CHANNEL CENTERLINE
- EXISTING PROPERTY LINE
- EXISTING CHANNEL CENTERLINE
- EXISTING ROAD CENTERLINE
- EXISTING CULVERT
- WETLAND BOUNDARY
- OHWM
- ACCESS ROUTE
- TEMPORARY BRIDGE
- PROPOSED STAGING AREA

TEMPORARY WETLAND IMPACTS*		
	SQUARE FEET	CUBIC YARDS
ACCESS ROUTES	34,680	NA
STAGING AREA (MALERICH)	21950	NA
BRIDGE CROSSING 1	2,820	5
BRIDGE CROSSING 2	2,820	5
OTHER	243,459	NA
TOTAL	305,729	10

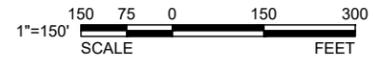
*TEMPORARY IMPACTS DO NOT INCLUDE AREAS ALREADY WITHIN PERMANENT IMPACT BOUNDARIES.



SITE ACCESS, STAGING, AND DEMO
PLAN SCALE: 1"=150'



1 BYPASS ROUTE
PLAN SCALE: 1"=1000'



CLIENT 03/08/2024



DEEP RIVER CONNECTIVITY - PHASE 1
 DEEP RIVER, WASHINGTON
 WAHKIAMUM COUNTY

REVISIONS

#	DATE	DESCRIPTION

DESIGNED	HLW
DRAWN	AMF
CHECKED	HLW
IN CHARGE	HLW
	49909

PROJECT NUMBER D20200092
ISSUE DATE 3/8/2024

SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")
1" = 150'

PHASE 100% CONSTRUCTION DOCUMENTATION
SHEET TITLE

SITE ACCESS, STAGING, DEMO, AND PROTECTION

SHEET NUMBER **G-06**
SHEET 6 OF 25

TEMPORARY SEEDING, MIX NO.1 - EROSION CONTROL

Deschampsia elongata - slender hairgrass	0.54	APPLICATION RATE: POUNDS PLS PER ACRE
Elymus glaucus - blue wildrye	7.80	
Hordeum brachyantherum - meadow barley	36.90	
Total	45.24	POUNDS PLS PER ACRE

NOTE: THIS MIX WILL BE APPLIED TO DISTURBED AREAS AT THE END OF CONSTRUCTION, EXCEPT WHERE PASTURE SEED MIX IS USED.

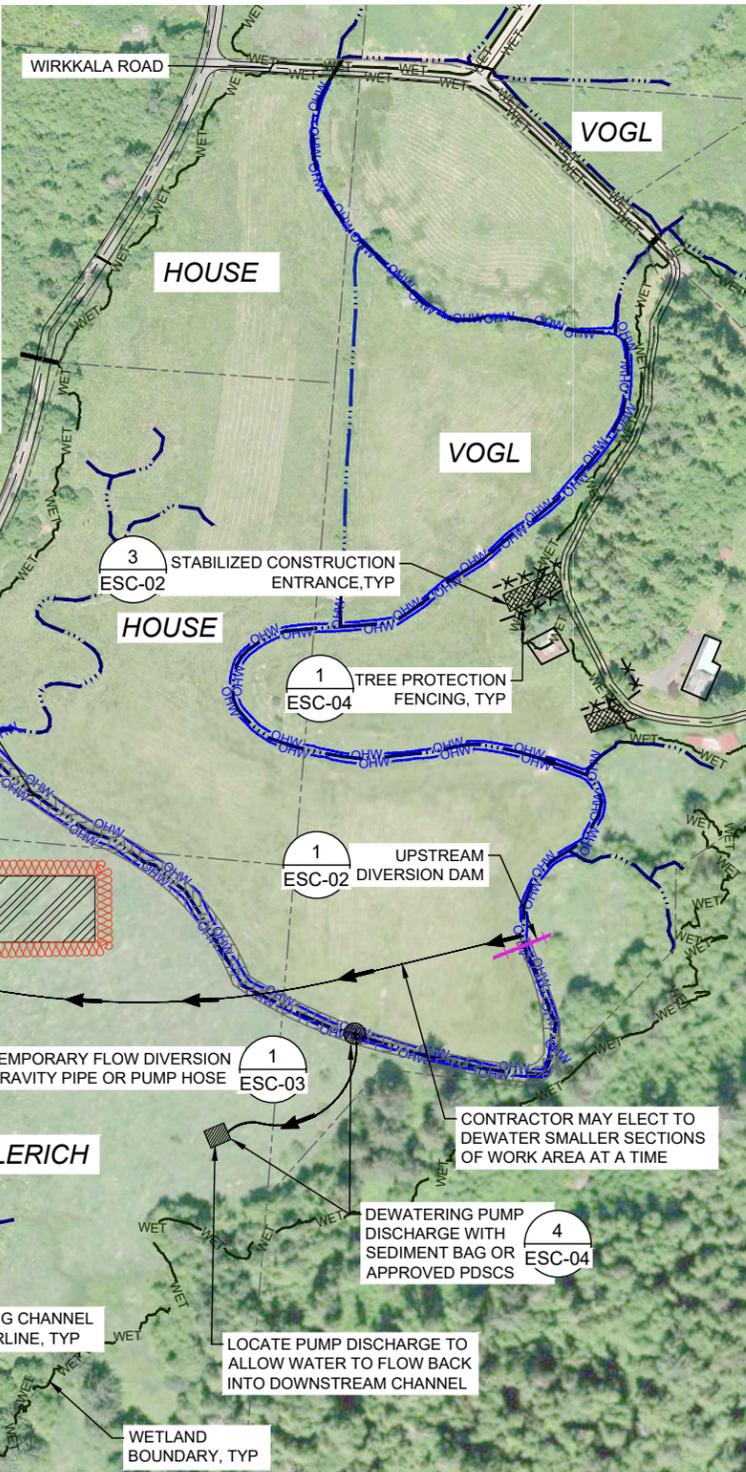
TEMPORARY OHWM IMPACTS

	SQUARE FEET	CUBIC YARDS
SHEET PILE COFFER DAM	9,944	NA
TOTAL	9,944	

PERMANENT SEEDING, MIX NO.3 - PASTURE SEED MIX

Lolium perenne - Perennial Rye Grass	APPLICATION RATE:	25 POUNDS PLS PER ACRE
	POUNDS PLS PER ACRE	

NOTE: THIS MIX WILL BE APPLIED TO ALL DISTURBED AREAS THAT ARE CURRENTLY PASTURE UNDER EXISTING CONDITIONS.



PROPERTY LINE

BENCH FLOODPLAIN AND WIDEN CHANNEL SEE SHEETS C-09.

3 STABILIZED CONSTRUCTION ENTRANCE, TYP ESC-02

PROTECT TREES AND SHRUBS UNLESS APPROVED BY THE ENGINEER

1 DOWNSTREAM DIVERSION DAM ESC-02

ADJUST BMPS TO ACCOMMODATE DRIVEWAY ACCESS

3 PLACE SEDIMENT FENCE ADJACENT TO ROAD GRADING ESC-04

2 PLACE TURBIDITY CURTAIN ADJACENT TO ROAD GRADING WHEN REMOVING EXISTING CULVERTS ESC-02

3 SHEET PILE WORK AREA ISOLATION ESC-0

DEWATER AREA SURROUNDING EXISTING TIDE GATE STRUCTURES AND PROVIDE TURBIDITY CURTAIN, SEE NOTE 16.

STRAW WATTLES, SILT FENCE, OR COMPOST SOCK, TYP. PLACE AS NEEDED AROUND PROPOSED STAGING AND STOCKPILING AND WORK AREAS

2 ESC-04

SEDIMENT BAG OR APPROVED PUMP DISCHARGE SEDIMENT CONTROL SYSTEM

4 ESC-04

TEMPORARY FLOW DIVERSION GRAVITY PIPE OR PUMP HOSE

1 ESC-04

TEMPORARY IMPACTS BELOW OHWM

OATFIELD

MANAGE TURBIDITY AND DEWATER FLOODPLAIN GRADING AREAS AS NEEDED, SEE NOTE 17

OATFIELD

OHWM, TYP

REMOVE CHANNEL SPANNING LOG TO ALLEVIATE FLOW CONSTRICTION, NO GROUND DISTURBANCE REQUIRED. SEE NOTE 17.

1 TREE PROTECTION FENCING, TYP ESC-04

1 UPSTREAM DIVERSION DAM ESC-02

1 TEMPORARY FLOW DIVERSION GRAVITY PIPE OR PUMP HOSE ESC-03

CONTRACTOR MAY ELECT TO DEWATER SMALLER SECTIONS OF WORK AREA AT A TIME

4 DEWATERING PUMP DISCHARGE WITH SEDIMENT BAG OR APPROVED PDSCS ESC-04

LOCATE PUMP DISCHARGE TO ALLOW WATER TO FLOW BACK INTO DOWNSTREAM CHANNEL

EXISTING CHANNEL CENTERLINE, TYP

WETLAND BOUNDARY, TYP

LEGEND

	ROADWAY IMPROVEMENTS
	WIDEN CHANNEL IN CONSTRICTED AREAS
	PROPOSED FLOODPLAIN BENCH
	PASTURE RAISING
	PROPOSED CHANNEL CENTERLINE
	EXISTING PROPERTY LINE
	EXISTING CHANNEL CENTERLINE
	EXISTING ROAD CENTERLINE
	EXISTING CULVERT
	WETLAND BOUNDARY
	OHWM

EROSION AND SEDIMENT CONTROL PLAN

PLAN SCALE: 1"=150'

NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING ALL TEMPORARY EROSION CONTROL MEASURES. THE EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND PERFORMANCE OF THE TEMPORARY EROSION CONTROL MEASURES THROUGHOUT THE DURATION OF THE PROJECT.
2. A SEDIMENT AND EROSION CONTROL PLAN SHALL BE DEVELOPED BY THE CONTRACTOR AND SUBMITTED FOR APPROVAL BY OWNER AND/OR THE ENGINEER BEFORE ANY CONSTRUCTION MAY BEGIN. THE SEDIMENT AND EROSION CONTROL PLAN WILL IDENTIFY BEST MANAGEMENT PRACTICES TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO SURFACE WATERS, DRAINAGE SYSTEMS, AND ADJACENT PROPERTIES IS MINIMIZED.
3. ACTIVITIES SHALL BE DESIGNED AND CONSTRUCTED TO AVOID AND MINIMIZE ADVERSE IMPACTS TO STATE AND FEDERAL WATERS TO THE MAXIMUM EXTENT PRACTICAL THROUGH THE USE OF PRACTICAL ALTERNATIVES. ALTERNATIVES THAT SHALL BE CONSIDERED INCLUDE THOSE THAT MINIMIZE THE NUMBER AND EXTENT OF IN-WATER WORK AND EQUIPMENT CROSSINGS OF WETTED CHANNELS.
4. AT NO TIME SHALL SEDIMENT-LADEN WATER BE DISCHARGED OR PUMPED DIRECTLY INTO THE SUBJECT RIVER, STREAM, OR WETLAND. WATER SHALL BE DISCHARGED IN ACCORDANCE WITH REQUIREMENTS SET FORTH IN THE PROJECT PERMITS AND/OR SPECIFICATIONS.
5. IF HIGH WATER LEVEL CONDITIONS THAT CAUSE SILTATION OR EROSION ARE ENCOUNTERED DURING CONSTRUCTION, WORK SHALL STOP UNTIL THE WATER LEVEL SUBSIDES.
6. PERMIT CONDITIONS CONTAIN SPECIFIC REQUIREMENTS FOR THE CONTROL OF EROSION AND TURBIDITY FROM PROJECT OPERATIONS. TURBIDITY WILL BE MONITORED ON A FREQUENT BASIS BY THE PROJECT MANAGEMENT AND INSPECTION STAFF ON-SITE. TURBIDITY AMOUNTS IN EXCESS OF THE PERMITTED CONCENTRATIONS AND/OR DURATIONS WILL CAUSE WORK TO BE STOPPED UNTIL IMPROVED PRACTICES ARE IN EFFECT AND THE PROBLEMS CONTROLLED. THE CONTRACTOR IS COMPLETELY RESPONSIBLE FOR ANY PROJECT DELAYS THAT OCCUR BY NATURE OF THIS FAILURE TO ADEQUATELY CONTAIN SEDIMENT ON-SITE.
7. CONTRACTOR SHALL LIMIT MACHINERY MOVEMENT TO CONSTRUCTION AREAS DEFINED ON SITE PLAN OR IDENTIFIED AS ACCEPTABLE BY THE ENGINEER OR OWNER.
8. ALL EXTERNAL GREASE AND OIL SHALL BE PRESSURE-WASHED OFF EQUIPMENT PRIOR TO MOBILIZATION TO THE SITE.
9. ALL EQUIPMENT OPERATING BELOW OHWM SHALL UTILIZE READILY BIODEGRADABLE VEGETABLE-BASED HYDRAULIC FLUIDS [8-01.3(1)C6].
10. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT NO PETROLEUM PRODUCTS, HYDRAULIC FLUID, SEDIMENTS, SEDIMENT-LADEN WATER, CHEMICALS, OR ANY OTHER TOXIC OR DELETERIOUS MATERIALS ARE ALLOWED TO ENTER OR LEACH INTO THE SUBJECT RIVER, STREAM, OR WETLAND.
11. THE CONTRACTOR SHALL HAVE AN EMERGENCY SPILL KIT ONSITE AT ALL TIMES.
12. NO TREES OR WETLAND VEGETATION SHALL BE REMOVED UNLESS THEY ARE DIRECTLY SPECIFIED ON-SITE BY THE CONTRACTING OFFICER. ALL TREES CONFLICTING WITH GRADING SHALL BE REMOVED. NO GRADING SHALL TAKE PLACE WITHIN THE DRIP LINE OF TREES NOT TO BE REMOVED UNLESS OTHERWISE APPROVED.
13. FOLLOWING CONSTRUCTION, SITE RESTORATION WILL INCLUDE SEEDING TO ESTABLISH LONG-TERM EROSION PROTECTION MEASURES. EQUIPMENT AND EXCESS SUPPLIES WILL BE REMOVED AND THE WORK AREA WILL BE CLEANED. MAINTENANCE ACTIVITIES FOR THE NEWLY CONSTRUCTED RESTORATION PROJECTS ARE ANTICIPATED TO OCCUR PERIODICALLY.
14. DEWATERING DISCHARGE SHALL BE DIRECTED TO A SEDIMENT BAG PER DETAIL 4 ON SHEET ESC-04 OR ANOTHER APPROVED PUMP DISCHARGE SEDIMENT CONTROL SYSTEM.
15. THE DEWATERING SCHEMATIC SHOWN HERE IS A MEANS OF DEWATERING DISCHARGE. THE FINAL METHODS ARE THE CONTRACTOR'S RESPONSIBILITY TO IMPLEMENT AND TO COMPLY WITH PERMIT CONDITIONS. CONTRACTOR SHALL MONITOR AREA PERMIT CONDITIONS. CONTRACTOR SHALL MONITOR AREAS DOWN-SLOPE OF DISCHARGE FOR TURBIDITY AND MAKE ADJUSTMENTS AS NEEDED TO COMPLY WITH TURBIDITY LIMITS.
16. REMOVAL OF EXISTING CULVERTS AND INSTALLATION OF THE PROPOSED TIDE GATE STRUCTURE WILL REQUIRE WORK BELOW TYPICAL WATER LEVELS. THE CONTRACTOR SHALL ISOLATE WORK AREA AND MANAGE TURBIDITY PER PERMIT CONDITIONS ALONG THE WEST SIDE OF E DEEP RIVER ROAD ON THE BANK OF DEEP RIVER. THE PROPOSED TIDE GATE STRUCTURE FOUNDATION WILL REQUIRE WORK BELOW THE LOWEST OBSERVED TIDE LEVEL, WITH TIDAL WATER LEVEL FLUCTUATIONS OF UP TO 12 FEET DEPENDING ON THE TIME OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR DESIGNING AND IMPLEMENTING WORK AREA ISOLATION AND DEWATERING SYSTEMS INCLUDING ANY SHEET PILE, SHORING, OR OTHER COFFER DAM SYSTEMS IN ACCORDANCE WITH ALL PERMIT CONDITIONS, LAWS, AND REGULATIONS.
17. WHEN WORKING BELOW OHW, THE CONTRACTOR SHALL ISOLATE WORK AREAS, MANAGE TURBIDITY, AND DEWATER AS NEEDED TO COMPLETE WORK AND COMPLY WITH PERMIT CONDITIONS. NOT ALL COFFERDAMS OR DEWATERING SYSTEMS ARE SHOWN ON THIS PLAN.

DEWATERING NOTES

ESA

1615 SE 3RD AVENUE,
STE. 400
PORTLAND, OR 97214
OFFICE - 503.274.2010
WWW.ESSASSOC.COM

STAMP

CLIENT 03/08/2024

crest

COLUMBIA RIVER ESTUARY
STUDY PARTNERS

DEEP RIVER CONNECTIVITY
- PHASE 1
DEEP RIVER, WASHINGTON
WAHIAKUM COUNTY

REVISIONS

#	DATE	DESCRIPTION

DESIGNED HLW
DRAWN AMF
CHECKED HLW
IN CHARGE HLW
49909

PROJECT NUMBER D20200092
ISSUE DATE 3/8/2024
SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")
1" = 150'

PHASE
100% CONSTRUCTION DOCUMENTATION

SHEET TITLE

EROSION AND SEDIMENT CONTROL PLAN

SHEET NUMBER
ESC-01
SHEET 8 OF 25

FILE: P:\01 CAD\2020\00092\00 Deep River Connectivity\DWG-Phase 1 Design\ESC-PLAN.dwg PLOT DATE: 12/16/2025 2:29:17 PM PLOTTED BY: MIRANDA NELSON

FILE: P:\01 CAD\2020\000001\2020000092.00 Deep River Connectivity\DWG-Phase 1 Design\ESC DETAILS.dwg PLOT DATE: 12/14/2025 2:29:25 PM PLOTTED BY: MIRANDA NELSON

REVISIONS		
#	DATE	DESCRIPTION

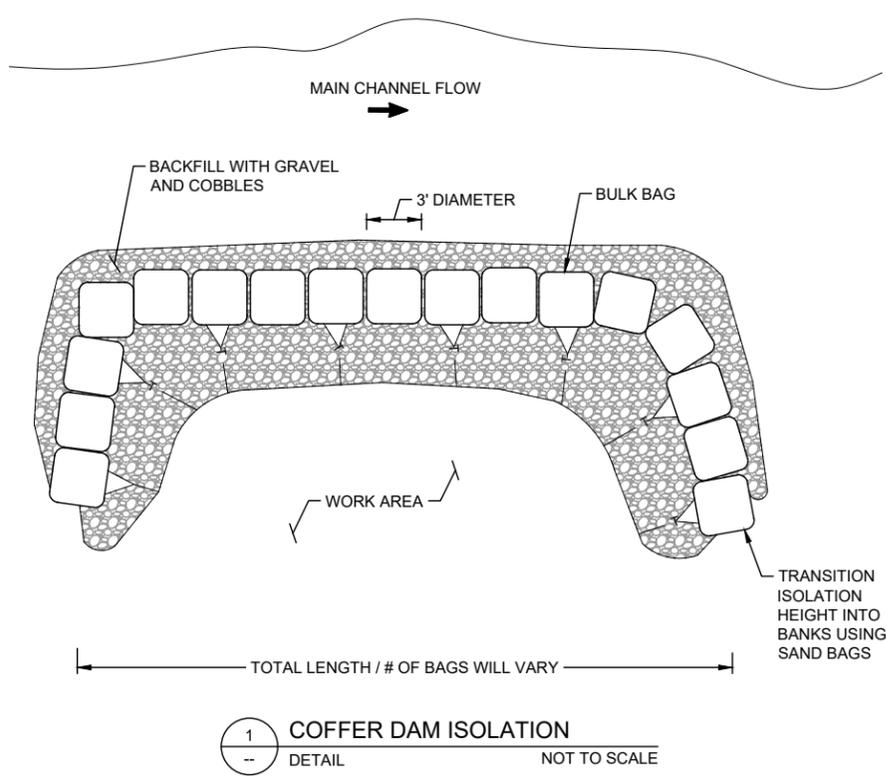
DESIGNED	AMF
DRAWN	AMF
CHECKED	HLW
IN CHARGE	HLW
	49909

PROJECT NUMBER D202000092
 ISSUE DATE 3/8/2024
 SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")
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PHASE
100% CONSTRUCTION DOCUMENTATION

SHEET TITLE

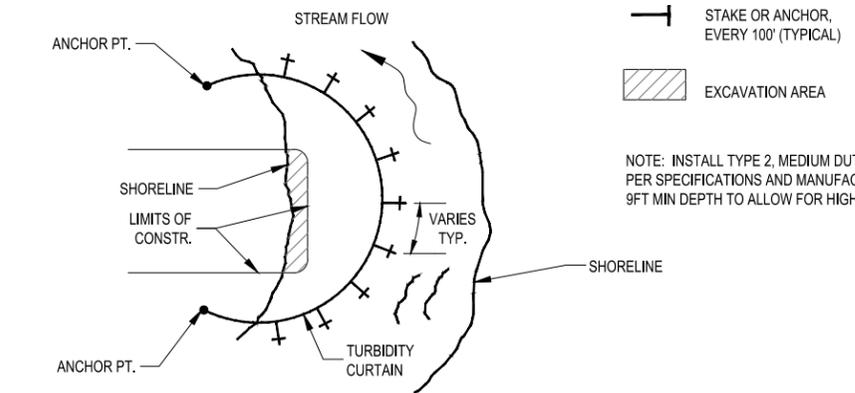
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 - 1 OF 3



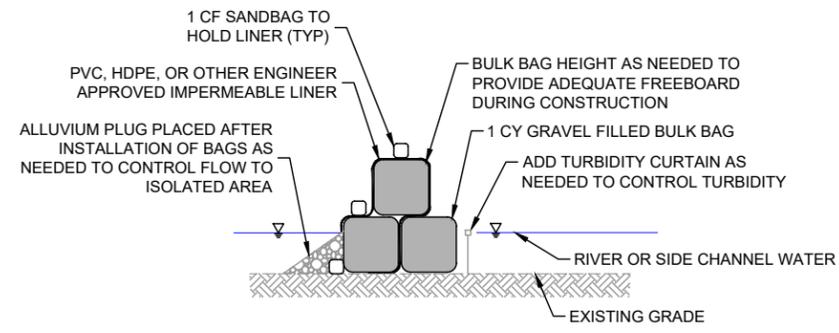
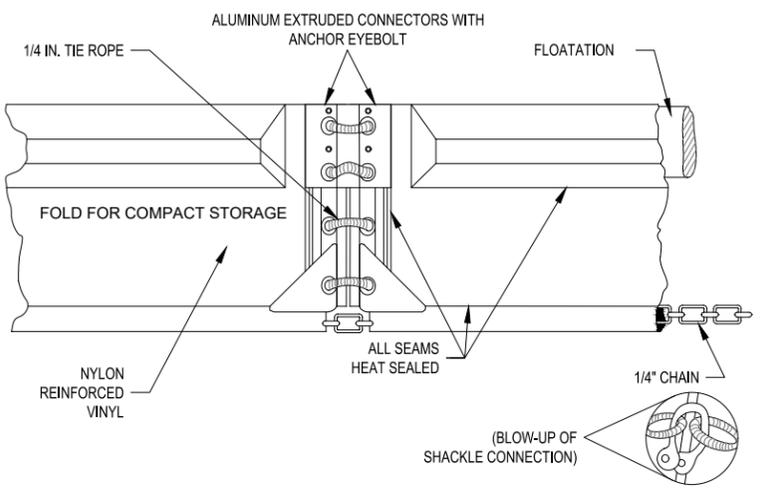
1 COFFER DAM ISOLATION
 -- DETAIL NOT TO SCALE

NOTES

1. SAMPLE SITE ISOLATION METHODS SHOWN ON THIS SHEET ARE BASED ON ESTIMATED CONDITIONS DURING CONSTRUCTION. RIVER CONDITIONS AND ARE SUBJECT TO CHANGE BASED ON SITE CONDITIONS AND FLOW AT THE TIME OF CONSTRUCTION. IT IS THE CONTRACTORS RESPONSIBILITY TO DESIGN AND MANAGE WATER MANAGEMENT METHODS TO MEET THE REQUIREMENTS OF ALL PERMITS AND STATE WATER QUALITY REQUIREMENTS.



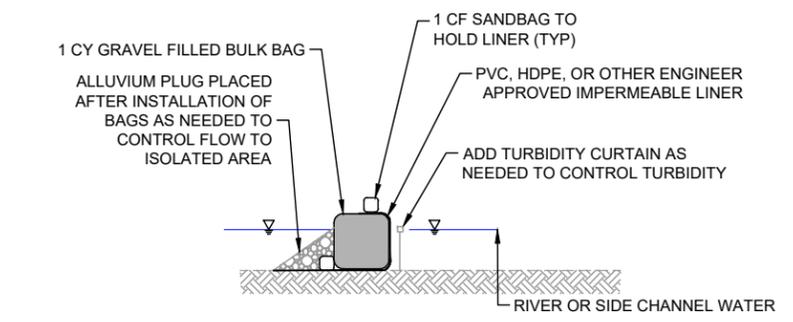
2 TURBIDITY CURTAIN
 -- DETAIL NOT TO SCALE



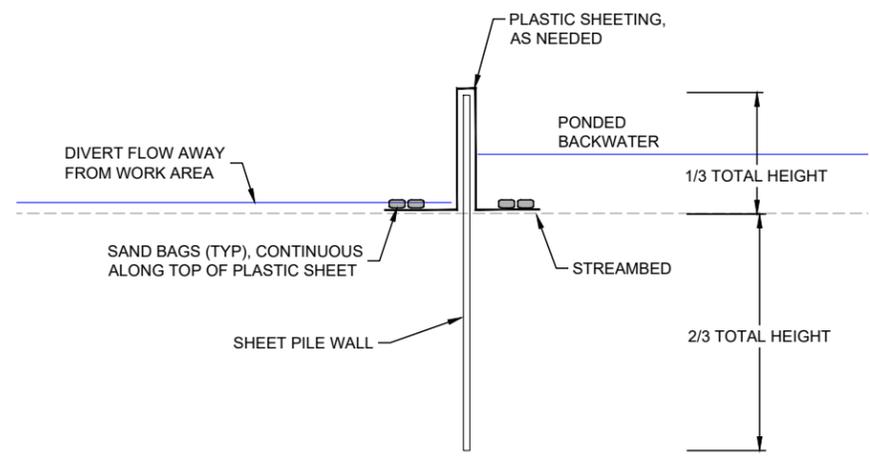
1A EXAMPLE BULK BAG COFFERDAM
 -- DETAIL NOT TO SCALE

NOTES

1. PLACE/REMOVE ALLUVIUM AS LAST/FIRST STEP OF BULK BAG ISOLATION SYSTEM INSTALLATION/REMOVAL.
2. ONLY INSTALL SINGLE BULK BAG ISOLATION WHERE WATER DEPTH EXPECTED TO BE LESS THAN 2 FT. IF GREATER THAN 2 FT, SEE DETAIL C.
3. TRANSITION LINER FROM EXTERIOR (UPSTREAM END) OF ISOLATION APPROXIMATELY 1/2 THE LENGTH OF THE ISOLATION WHERE RIVER WATER INFILTRATION INTO THE WORK AREA TRANSITIONS TO EXFILTRATION.



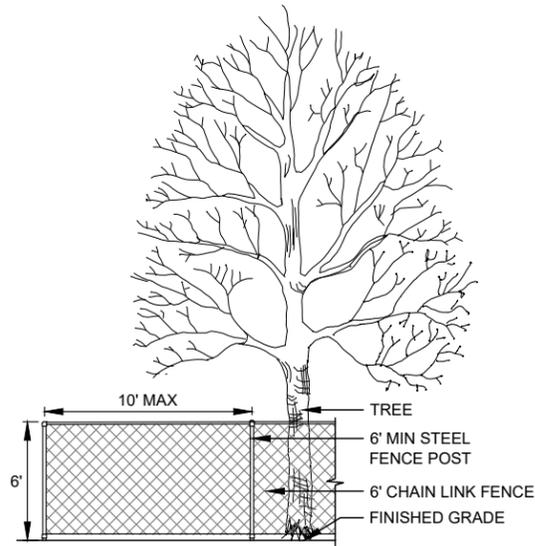
1B EXAMPLE SINGLE BULK BAG COFFERDAM
 -- DETAIL NOT TO SCALE



3 SHEET PILE WALL COFFER DAM
 -- DETAIL NOT TO SCALE

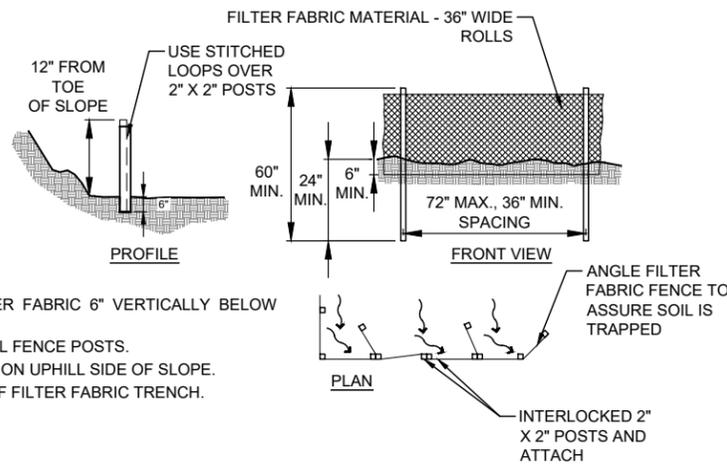
NOTES:

1. THIS DETAIL IS FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR IS RESPONSIBLE FOR DESIGN, INSTALLATION, AND MAINTENANCE OF WORK AREA ISOLATION AND DEWATERING SYSTEMS.



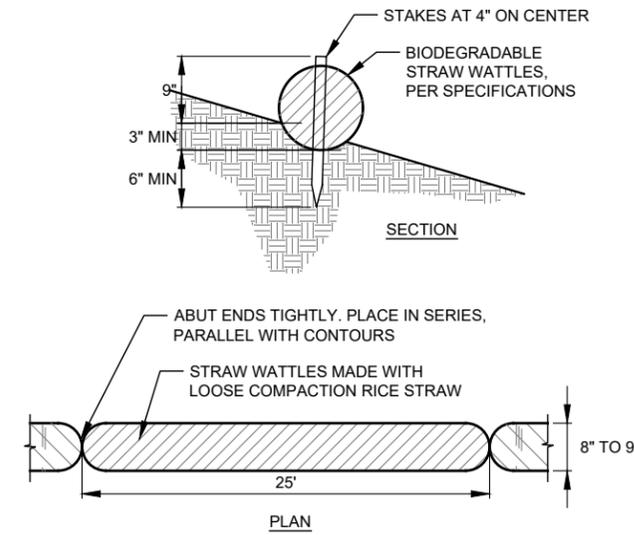
- NOTES:**
1. INSTALL FENCING IN LOCATIONS AS SHOWN ON PLANS.
 2. LOCATE POSTS TO AVOID SEVERING OR DAMAGING LARGE ROOTS.
 3. CONTRACTOR IS RESPONSIBLE TO MAINTAIN TREE PROTECTION FENCING THROUGH DURATION OF CONSTRUCTION AND MAKE NECESSARY REPAIRS AS NEEDED.

1 TREE PROTECTION FENCE
ESC-01 DETAIL SCALE: NOT TO SCALE

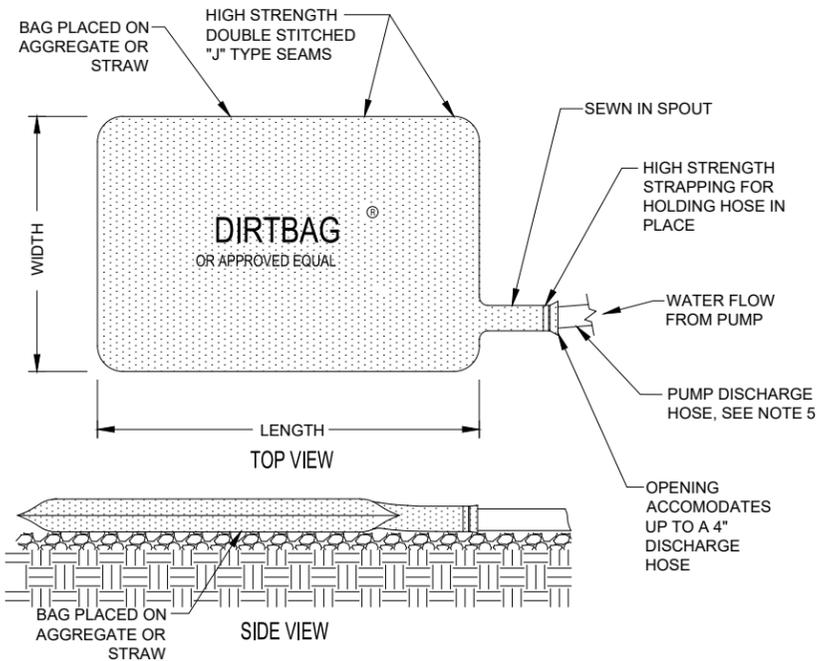


- NOTES:**
1. BURY BOTTOM OF FILTER FABRIC 6" VERTICALLY BELOW FINISHED GRADE.
 2. 2" X 2" FIR, PINE OR STEEL FENCE POSTS.
 3. POSTS TO BE INSTALLED ON UPHILL SIDE OF SLOPE.
 4. COMPACT BOTH SIDES OF FILTER FABRIC TRENCH.

2 SEDIMENT FENCE
ESC-01 DETAIL SCALE: NOT TO SCALE

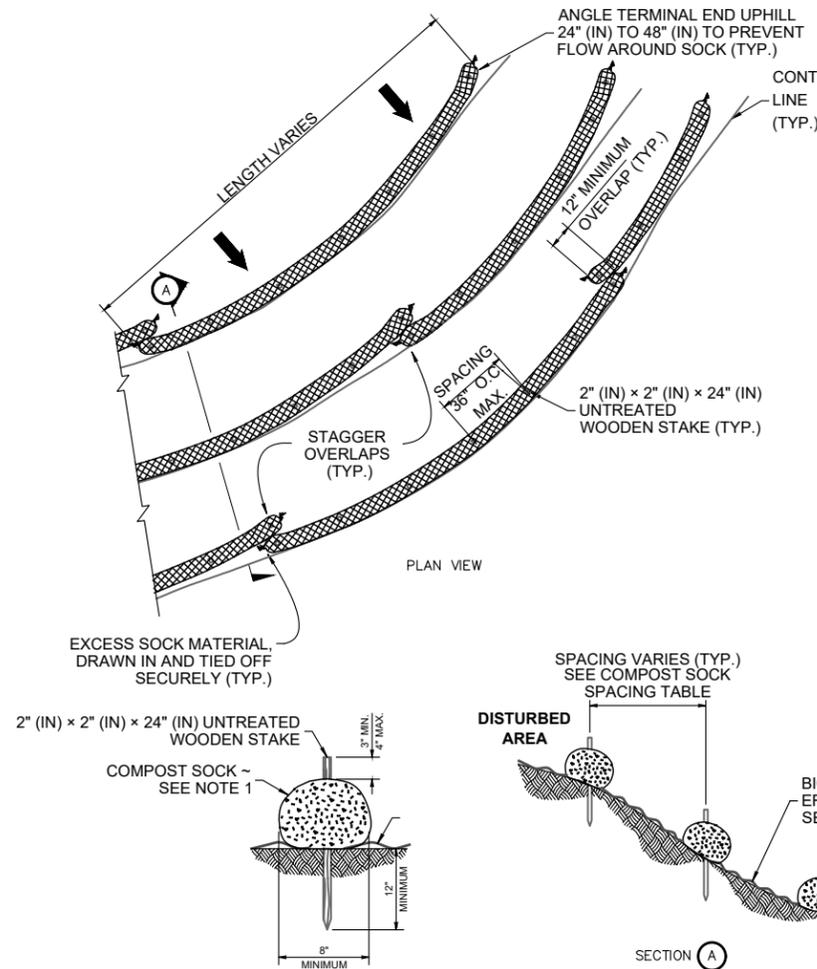


3 STRAW WATTLE
ESC-01 DETAIL SCALE: NOT TO SCALE



- NOTES:**
1. THE GEOTEXTILE BAG SHALL BE ATTACHED TO THE EFFLUENT PIPE FROM THE DEWATERING PUMP. THE PLACEMENT OF THE GEOTEXTILE BAG SHALL BE INCLUDED IN THE CONTRACTOR'S TEMPORARY STREAM DIVERSION PLAN.
 2. AVOID PLACEMENT OF THE GEOTEXTILE BAG ABOVE STEEP SLOPES OR WHERE SATURATED SOIL CONDITIONS MAY CAUSE SOIL INSTABILITY.
 3. INSTALL THE GEOTEXTILE BAG ON A MILD SLOPE SO INCOMING WATER FLOWS DOWNHILL THROUGH THE BAG. DISPOSE OF CAPTURED SEDIMENT OFFSITE.
 4. THE GEOTEXTILE BAG IS FULL WHEN IT NO LONGER CAN EFFICIENTLY FILTER SEDIMENT OR PASS WATER AT A REASONABLE RATE. DISPOSE OF THE GEOTEXTILE BAG AS DIRECTED BY THE ENGINEER.
 5. THE GEOTEXTILE BAG AND OUTLET SHALL NOT BE LOCATED IN THE EXCLUSION ZONE. HOWEVER THE CONTRACTOR MAY ENTER THE EXCLUSION ZONE ON FOOT IN ORDER TO ROUTE THE DEWATERING DISCHARGE HOSE THROUGH THE EXCLUDED AREA THE FINAL DISCHARGE LOCATION MUST BE SUBMITTED FOR REVIEW BY THE ENGINEER AS PART OF THE TEMPORARY STREAM DIVERSION PLAN.

4 SEDIMENT BAG
ESC-01 DETAIL SCALE: NOT TO SCALE



- NOTES:**
1. COMPOST SOCK SHALL BE IN ACCORDANCE WITH **STANDARD SPECIFICATION, SECTION 9-14.5(6)**.
 2. SECURELY KNOT EACH END OF COMPOST SOCK. OVERLAP ADJACENT COMPOST SOCK ENDS 12" (IN) BEHIND ONE ANOTHER AND SECURELY TIE TOGETHER.
 3. COMPOST TO BE DISPERSED ON SITE AS DETERMINED BY THE ENGINEER, WHEN VEGETATION COVERS THE SURFACE.
 4. IF EROSION CONTROL BLANKET IS SPECIFIED, PLACE COMPOST SOCK ON TOP OF BLANKET. SEE **STANDARD PLAN I-60.10**.
 5. INSTALL COMPOST SOCK PERPENDICULAR TO FLOW ALONG CONTOURS.
 6. REMOVE SEDIMENT FROM THE UP SLOPE SIDE OF THE COMPOST SOCK WHEN ACCUMULATION HAS REACHED 1/2 OF THE EFFECTIVE HEIGHT OF THE COMPOST SOCK WITHOUT COMPROMISING THE INTENDED FUNCTION OF THE COMPOST SOCK PER **STANDARD SPECIFICATION, SECTION 8-01.3(12)** AS DETERMINED BY THE ENGINEER.
 7. PERFORM MAINTENANCE IN ACCORDANCE WITH **STANDARD SPECIFICATION, SECTION 8-01.3(15)**.
 8. REFER TO **STANDARD SPECIFICATION, SECTION 8-01.3(16)** FOR REMOVAL.

8" DIAMETER MINIMUM COMPOST SOCK SPACING TABLE	
SLOPE	MAXIMUM SPACING
1H : 1V	5' - 0"
2H : 1V	10' - 0"
3H : 1V	15' - 0"
4H : 1V	20' - 0"

4 COMPOST SOCK
ESC-01 DETAIL SCALE: NOT TO SCALE

REVISIONS

#	DATE	DESCRIPTION

DESIGNED	AMF
DRAWN	AMF
CHECKED	HLW
IN CHARGE	HLW
	49909

PROJECT NUMBER D20200092
ISSUE DATE 3/8/2024

SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")
1" = 1'

PHASE
100% CONSTRUCTION DOCUMENTATION

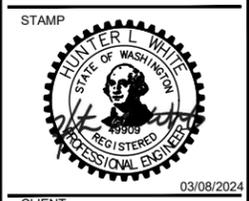
SHEET TITLE

ESC DETAILS - 3 OF 3

SHEET NUMBER
ESC-04

SHEET 11 OF 25

FILE: P:\01_CAD\2020\0000\02\00\02\00\092.00 Deep River Connectivity\DWG-Phase 1 Design\E DEEP RIVER ROAD SECTIONS.dwg PLOT DATE: 12/4/2025 2:30:32 PM PLOTTED BY: MIRANDA NELSON



CLIENT 03/08/2024



DEEP RIVER CONNECTIVITY
**DEEP RIVER CONNECTIVITY
 - PHASE 1**
 DEEP RIVER, WASHINGTON
 WAHIAKUM COUNTY

REVISIONS		
#	DATE	DESCRIPTION

DESIGNED	AMF
DRAWN	AMF
CHECKED	HLW
IN CHARGE	HLW
	49909

PROJECT NUMBER D202000092
 ISSUE DATE 3/8/2024

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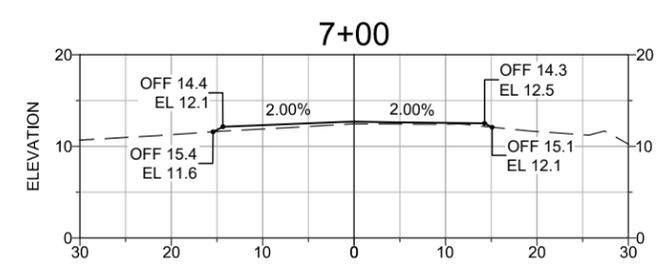
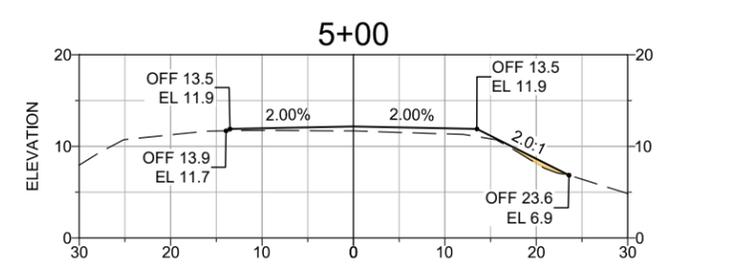
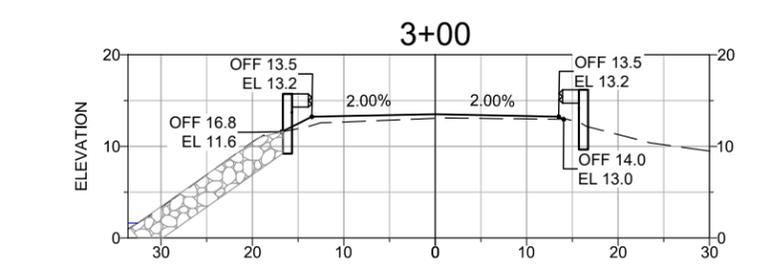
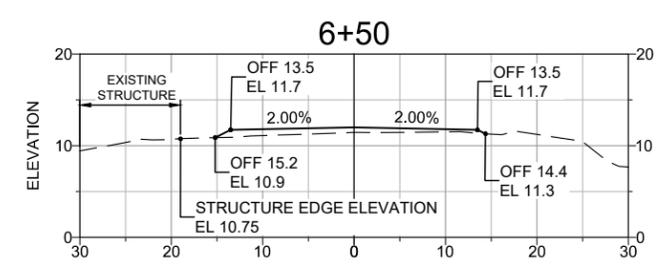
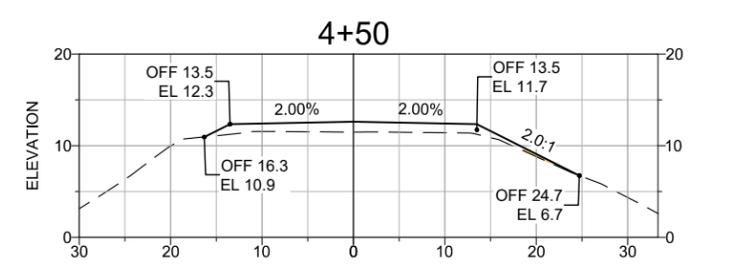
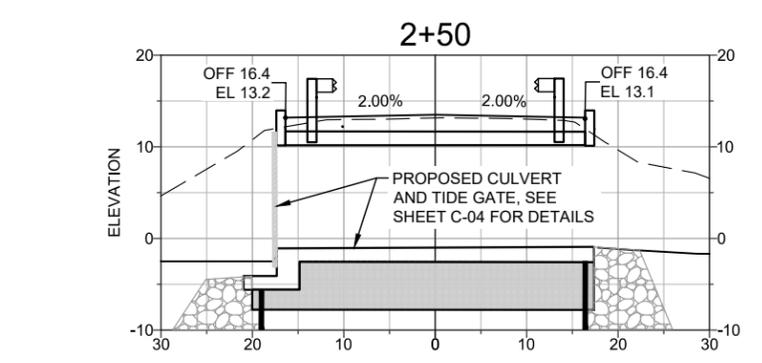
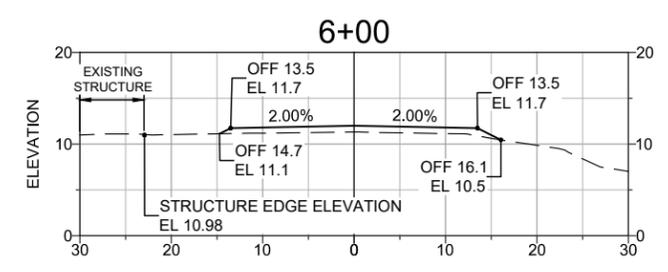
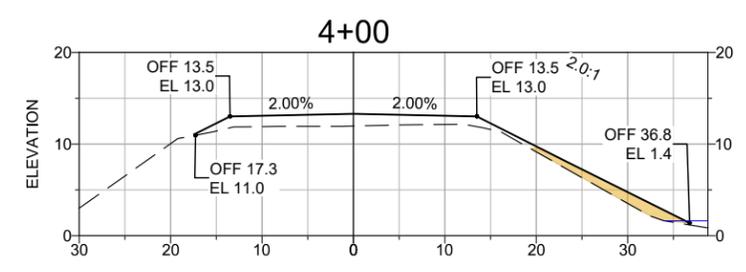
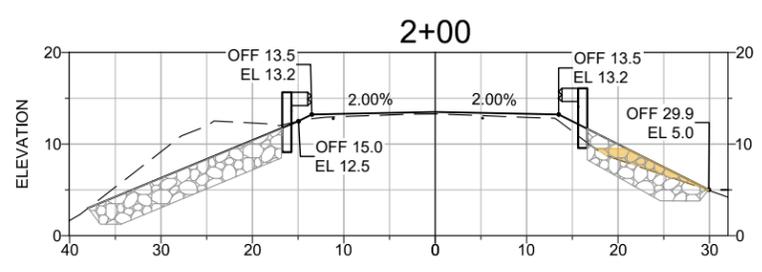
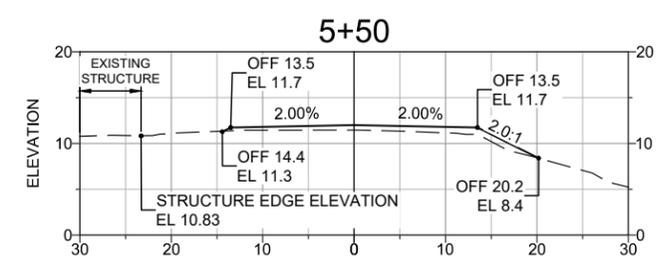
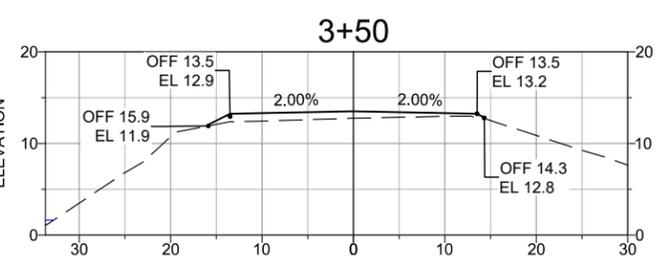
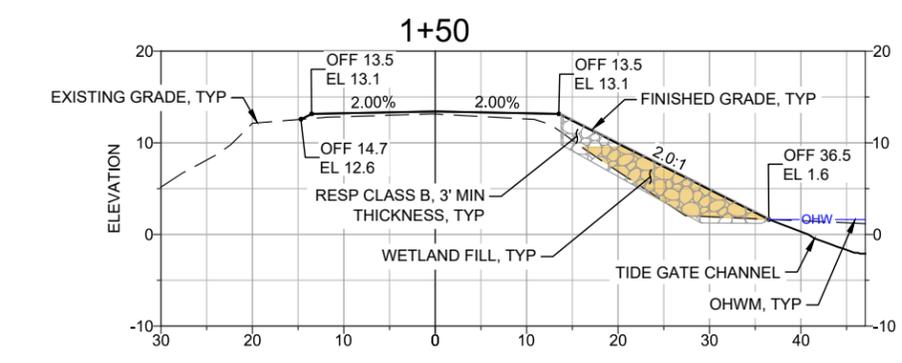
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 100% CONSTRUCTION DOCUMENTATION

SHEET TITLE

E DEEP RIVER ROAD SECTIONS

SHEET NUMBER
C-02

SHEET 13 OF 25

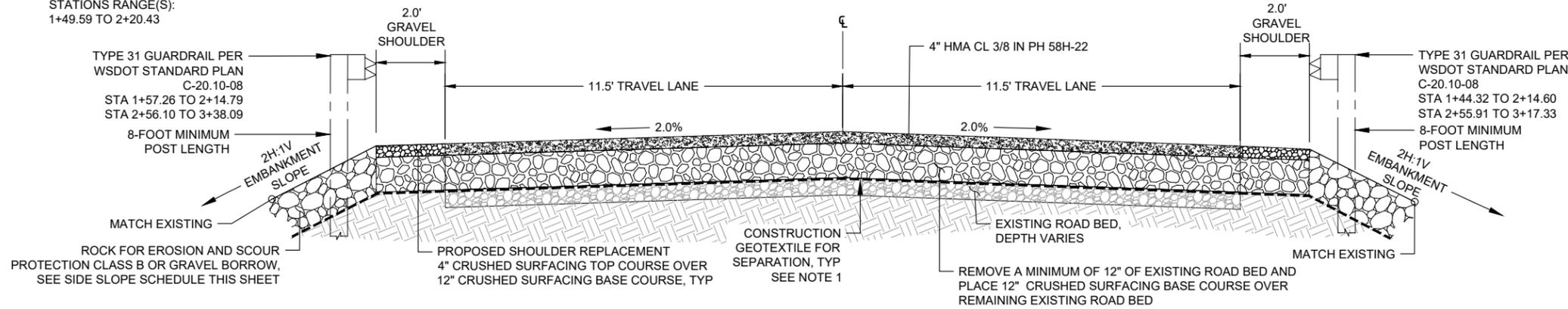


E DEEP RIVER ROAD SECTIONS
 SECTIONS SCALE: 1"=10'

NOTES

- SEE SHEET C-03 FOR TYPICAL ROADWAY SECTIONS AND GUARDRAIL DETAILS

STATIONS RANGE(S):
1+49.59 TO 2+20.43



NOTES

- SEPARATION GEOTEXTILE PLACEMENT MAY BE REMOVED WHERE THE SUBGRADE CONSISTS OF EXISTING BASE ROCK OR WHERE THE BASE ROCK WILL EXTEND OVER THE TIDE GATE.



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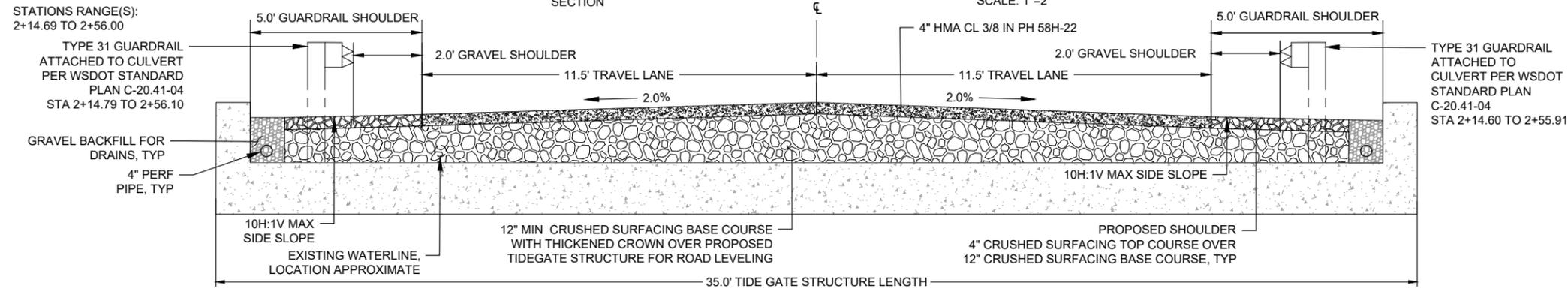


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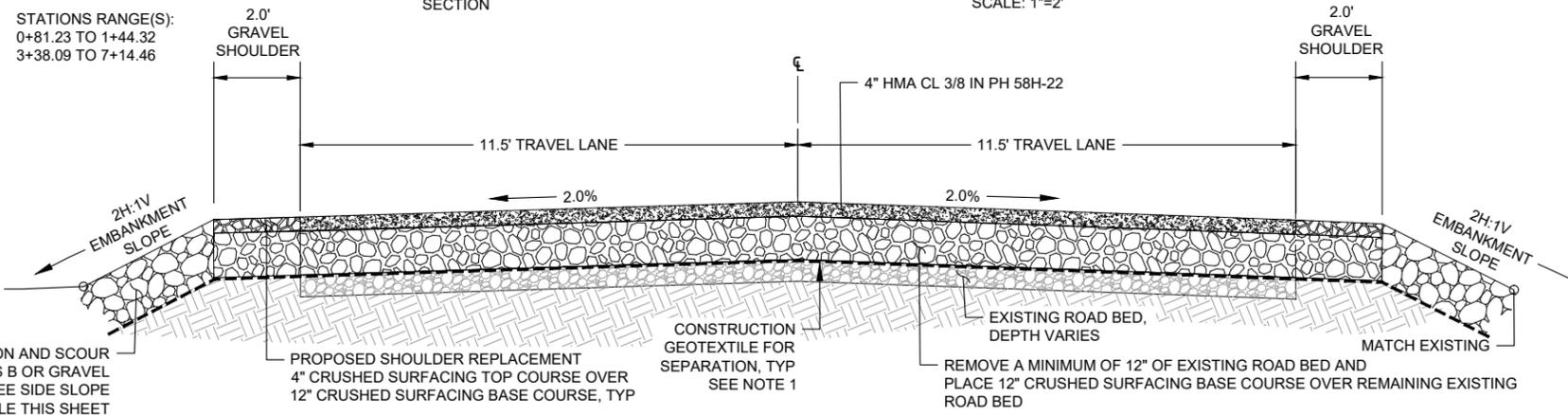
TYPICAL SECTION-EAST DEEP RIVER ROAD W/ GUARDRAIL

SECTION SCALE: 1"=2'



TYPICAL ROADWAY SECTION OVER TIDEGATE STRUCTURE

SECTION SCALE: 1"=2'

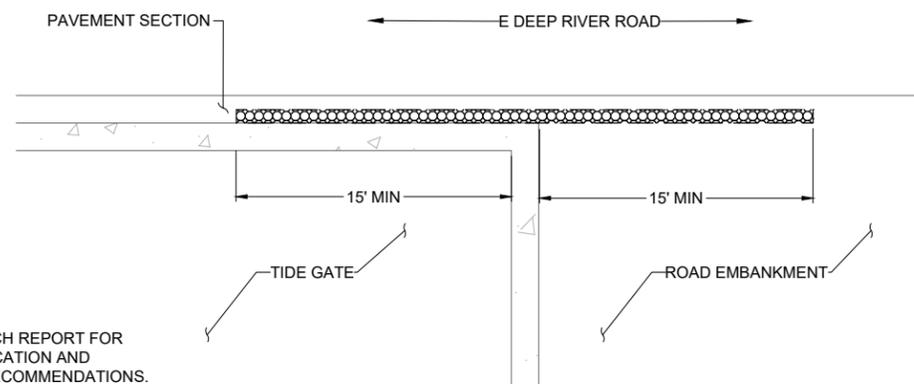
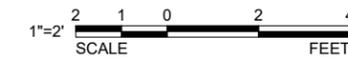


TYPICAL SECTION-EAST DEEP RIVER ROAD, NO GUARDRAIL

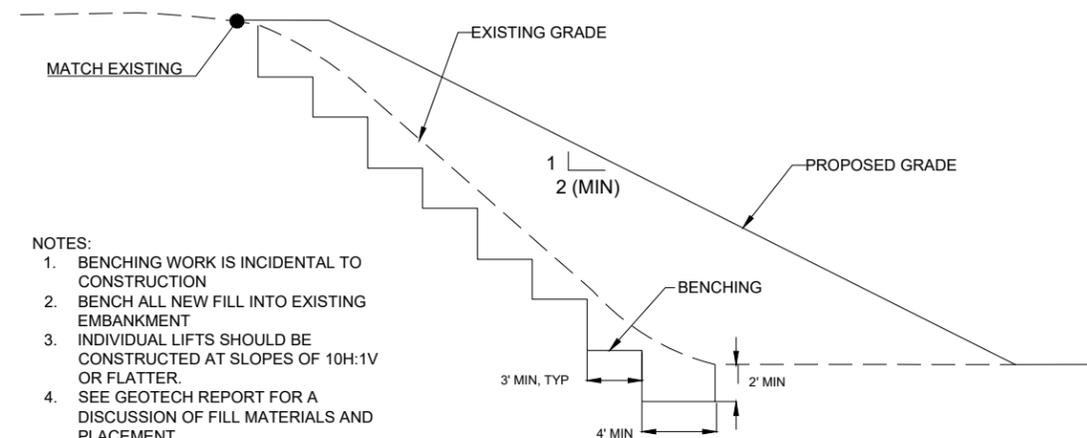
SECTION SCALE: 1"=2'

SIDE SLOPE TREATMENT SCHEDULE*	
ROCK FOR EROSION AND SCOUR PROTECTION CLASS B	
LEFT SIDE SLOPE	RIGHT SIDE SLOPE
STA 1+57.26 TO 3+12.28	STA 0+88.86 TO 3+17.33
GRAVEL BORROW	
LEFT SIDE SLOPE	RIGHT SIDE SLOPE
STA 0+81.23 TO 1+57.26	STA 0+81.23 TO 0+88.86
STA 3+12.28 TO 7+14.46	STA 3+17.33 TO 7+14.46

*NOTE: ADDITIONAL ROCK FOR EROSION AND SCOUR PROTECTION CLASS B WILL BE PLACED SURROUNDING THE PROPOSED CULVERT STRUCTURE. SEE SHEET C-04 FOR DETAILS.



1 GEOGRID PLACEMENT AT APPROACHES
SECTION SCALE: NTS



- NOTES:**
- BENCHING WORK IS INCIDENTAL TO CONSTRUCTION
 - BENCH ALL NEW FILL INTO EXISTING EMBANKMENT
 - INDIVIDUAL LIFTS SHOULD BE CONSTRUCTED AT SLOPES OF 10H:1V OR FLATTER.
 - SEE GEOTECH REPORT FOR A DISCUSSION OF FILL MATERIALS AND PLACEMENT.

2 EMBANKMENT BENCHING DETAIL
SECTION SCALE: NTS

NOTE: SEE GEOTECH REPORT FOR MATERIAL SPECIFICATION AND CONSTRUCTION RECOMMENDATIONS.

FILE: P:\01 CAD\2020\0000\0220200092.00 Deep River Connectivity\DWG-Phase 1 Design\TIDE GATE PLAN AND SECTIONS.dwg PLOT DATE: 12/4/2025 2:31:08 PM PLOTTED BY: MIRANDA NELSON

DEEP RIVER CONNECTIVITY
DEEP RIVER CONNECTIVITY - PHASE 1
DEEP RIVER, WASHINGTON
WAHIAKUM COUNTY

REVISIONS		
#	DATE	DESCRIPTION

DESIGNED	HLW
DRAWN	AMF
CHECKED	GLW
IN CHARGE	HLW 49909

PROJECT NUMBER D202000092
ISSUE DATE 3/8/2024

SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")
1" = 1'

PHASE
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SHEET TITLE

TYPICAL ROADWAY SECTIONS

SHEET NUMBER

C-03

SHEET 14 OF 25



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DEEP RIVER CONNECTIVITY
- PHASE 1
DEEP RIVER, WASHINGTON
WAHKIAKUM COUNTY

REVISIONS

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DESIGNED	HLW
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IN CHARGE	HLW
	49909

PROJECT NUMBER D20200092
ISSUE DATE 3/8/2024

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SHEET TITLE

TIDE GATE CHANNEL PLAN AND PROFILE

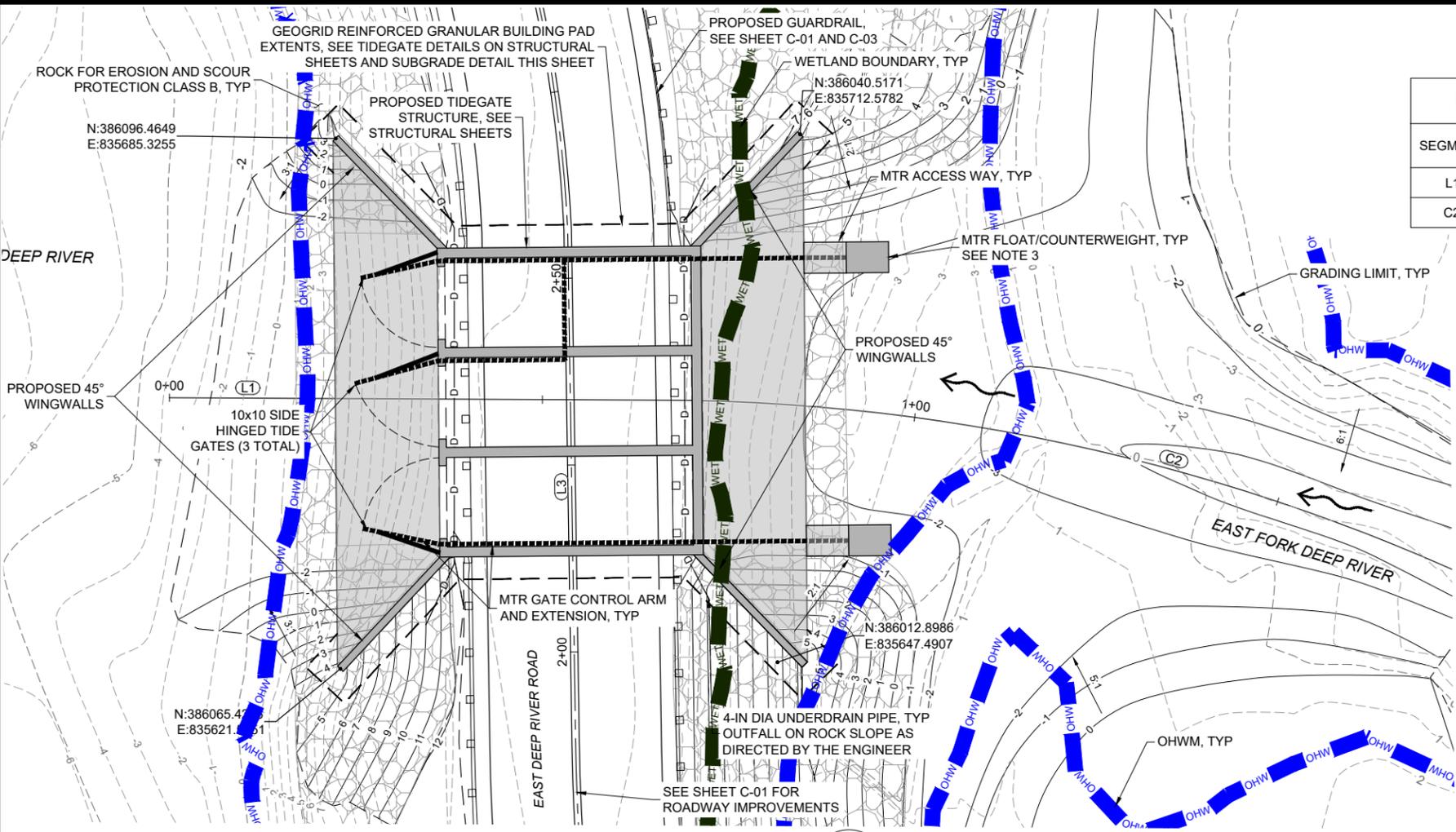
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C-04

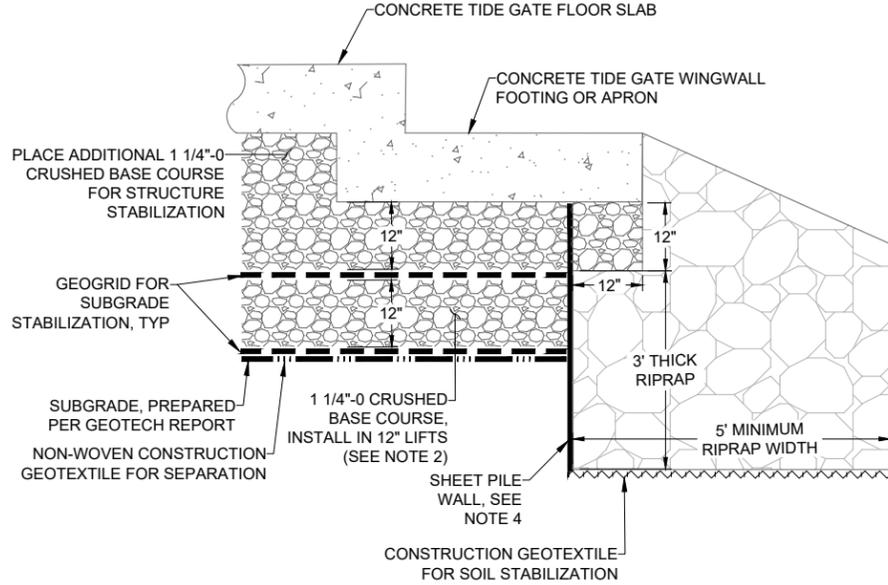
SHEET 15 OF 25

DEEP RIVER REALIGNMENT CHANNEL LAYOUT INFORMATION

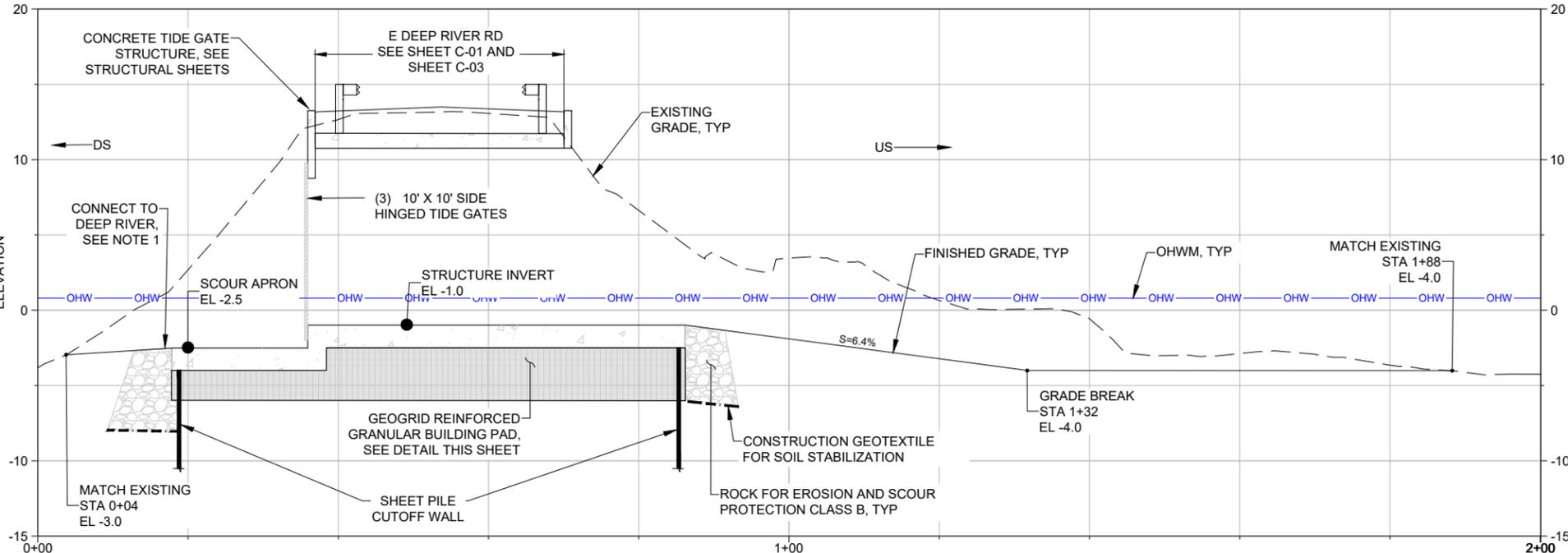
SEGMENT	BEGIN STATION	BEGIN EASTING	BEGIN NORTHING	LINE BEARING	LINE DISTANCE	CURVE DISTANCE	CURVE RADIUS	DELTA ANGLE
L1	0+00	835,644.4	386,101.7	S25° 09' 53"E	70.1	---	---	---
C2	0+70	835,674.2	386,038.3	---	---	130.0	264.00	28° 13' 05"



TIDE GATE CONNECTION CHANNEL PLAN
PLAN SCALE: 1"=10'



1 SECTION
SCALE: NTS



TIDE GATE CONNECTION CHANNEL PROFILE
PROFILE SCALE: H: 1"=10' V: 1"=5'

NOTES

- EXISTING GRADE CONTOURS AND PROFILES REFERENCED ON THIS SHEET ARE BASED ON LIDAR SUPPLIED BY THE WASHINGTON DEPARTMENT OF NATURAL RESOURCES AND SUPPLEMENTED WITH SURVEY PROVIDED BY THE COLUMBIA RIVER ESTUARY TASK FORCE AND STATEWIDE LAND SURVEYING IN 2023. IT IS ANTICIPATED THAT ELEVATIONS WITHIN THE CHANNEL WILL VARY SLIGHTLY TO THOSE SHOWN ON THE PLANS.
- THE CONTRACTOR MAY UTILIZE 3/4"-0 CRUSHED TOP COURSE FOR THE TOP 6" BENEATH THE TIDE GATE STRUCTURE TO ASSIST WITH FINE GRADING IF NECESSARY.
- MUTED TIDAL REGULATOR (MTR) ARE SHOWN HERE DIAGRAMMATICALLY FOR INFORMATIONAL PURPOSES ONLY. THE MTR SYSTEM DETAILS WILL BE DESIGNED, FABRICATED, AND INSTALLED BY THE MANUFACTURER, NEHALEM MARINE MANUFACTURING. THE TIDE GATE AND MTR SYSTEM WILL CONSIST OF 3 10x10 SIDE-HINGED TIDE GATES CONTROLLED BY A PROPRIETARY MUTED TIDAL REGULATOR CONTROL SYSTEM. PER THE MANUFACTURER, TWO SEPARATE MTR SYSTEMS WILL BE REQUIRED TO OPERATE THE THREE GATES.
- PROVIDE SEALANT ALONG THE SHEET PILE INTERLOCKS BETWEEN PANELS FOR AT LEAST THE UPPER 10 FEET OF THE SHEET PILE WALLS.





1 DOWNSTREAM VIEW OF MTR AND TIDE GATE DOOR
PHOTO NOT TO SCALE



2 UPSTREAM VIEW OF MTR COUNTER WEIGHT/FLOAT
PHOTO NOT TO SCALE



3 DOWNSTREAM TIDE GATE DOORS (LOOKING UPSTREAM)
PHOTO NOT TO SCALE



4 SIDE VIEW OF TIDEGATE STRUCTURE
PHOTO NOT TO SCALE



5 UPSTREAM VIEW OF CONCRETE CULVERT STRUCTURE WITH MTR
PHOTO NOT TO SCALE



6 INSTALLATION OF SIDE HINGED TIDE GATE DOORS
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DEEP RIVER CONNECTIVITY
- PHASE 1
DEEP RIVER, WASHINGTON
WAHKIUM COUNTY

DEEP RIVER CONNECTIVITY

REVISIONS

#	DATE	DESCRIPTION

DESIGNED	AMF
DRAWN	AMF
CHECKED	HLW
IN CHARGE	HLW 49909

PROJECT NUMBER D202000092
ISSUE DATE 3/8/2024

SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")
1" = 1'

PHASE
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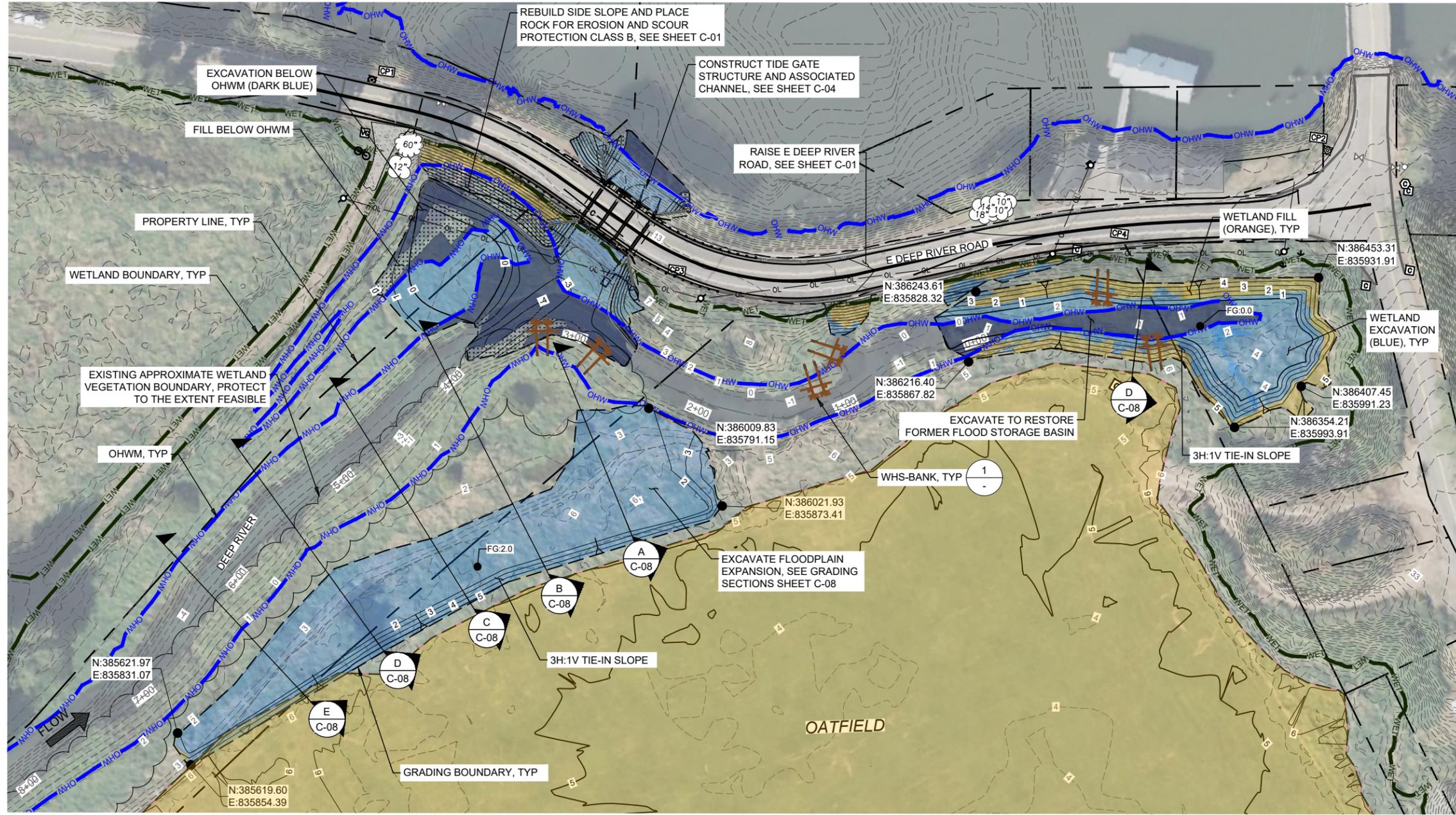
EXAMPLE
MTR IMAGES

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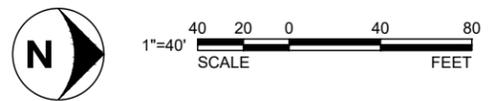
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SHEET 17 OF 25

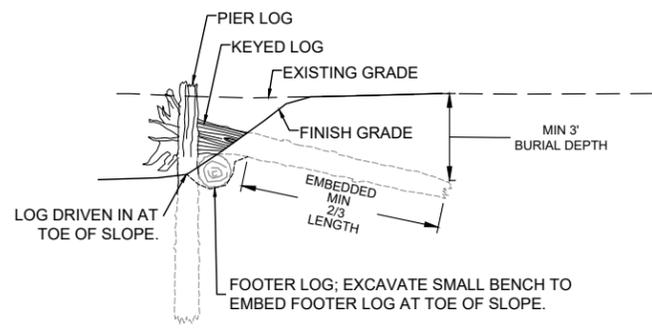
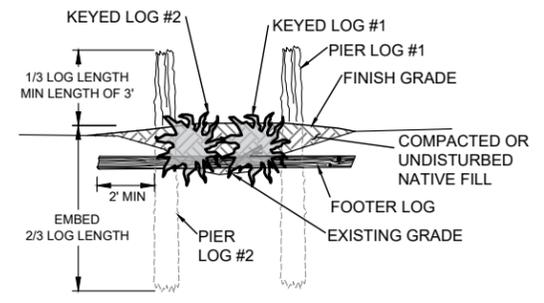
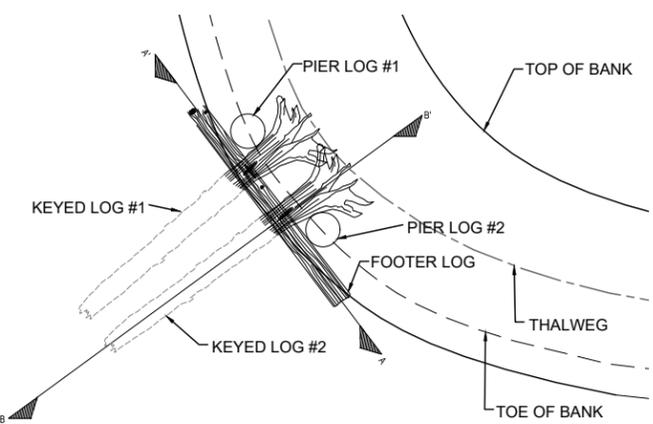
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LOWER VALLEY FLOODPLAIN GRADING
PLAN SCALE: 1"=40'



NOTES
1. SEE SHEET C-10 FOR DETAILED CHANNEL GRADING SECTIONS.



SECTION A
SECTION B
1
-
WHS-BANK
DETAIL SCALE: NTS

IMPACT	AREA (SQUARE FEET)	VOLUME (CY)
PERMANENT FILL IN WETLAND	9.34	8457
PERMANENT CUT IN WETLAND	2.15	7429
PERMANENT FILL BELOW OHWM	0.14	230
PERMANENT CUT BELOW OHWM	0.98	2400

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DEEP RIVER CONNECTIVITY
DEEP RIVER CONNECTIVITY - PHASE 1
DEEP RIVER, WASHINGTON
WAHIAKUM COUNTY

REVISIONS	#	DATE	DESCRIPTION

DESIGNED AMF
DRAWN AMF
CHECKED SM
IN CHARGE HLW
49909

PROJECT NUMBER D20200092

ISSUE DATE 3/8/2024

SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

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SHEET TITLE

LOWER VALLEY FLOODPLAIN GRADING - PLAN

SHEET NUMBER

C-07

SHEET 18 OF 25

