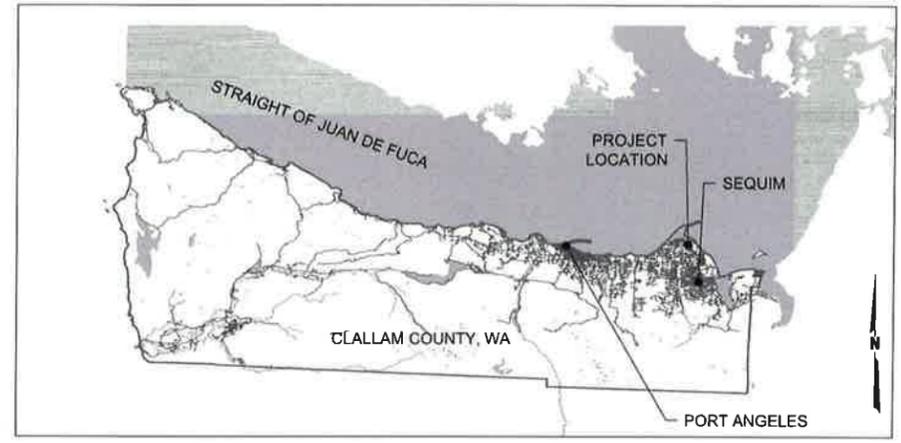




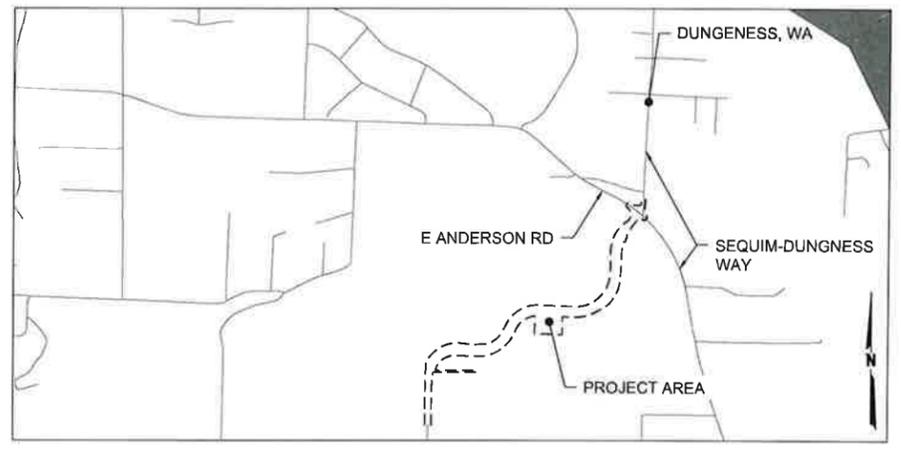
# DUNGENESS, WASHINGTON

## LOWER DUNGENESS RIVER FLOODPLAIN RESTORATION & LEVEE/ROAD REALIGNMENT PROJECT

### PHASE 3 - 2024 CONSTRUCTION



**LOCATION MAP**  
(NOT TO SCALE)



**VICINITY MAP**  
(NOT TO SCALE)

SHEET NUMBER	SHEET TITLE
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C-103	SURVEY CONTROL
C-104	EXISTING CONDITIONS
C-105	SITE PLAN
C-106	TRAFFIC CONTROL PLAN
C-107	TESC PLAN
C-108	DEMOLITION PLAN
C-109	EXISTING CONDITION TYPICAL SECTIONS
C-110	TOWNE ROAD AND LEVEE DRAINAGE AND GUARDRAIL PLAN SHEET 1
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C-112	TOWNE ROAD AND LEVEE DRAINAGE AND GUARDRAIL PLAN SHEET 3
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C-114	TOWNE ROAD AND LEVEE DRAINAGE AND GUARDRAIL PLAN SHEET 5
C-115	TOWNE ROAD AND LEVEE DRAINAGE AND GUARDRAIL PLAN SHEET 6
C-116	TOWNE ROAD AND LEVEE DRAINAGE AND GUARDRAIL PLAN SHEET 7
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C-118	TOWNE ROAD AND LEVEE DRAINAGE AND GUARDRAIL PLAN SHEET 9
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C-140	DRAINAGE DETAILS SHEET 2
C-141	SEEDING PLAN
C-142	MISC DETAILS (1)
C-143	MISC DETAILS (2)

CLALLAM COUNTY

*Joe Donisi*  
 JOE DONISI PE, COUNTY ENGINEER

BOARD OF CLALLAM COUNTY COMMISSIONERS

*Mike French*  
 MIKE FRENCH, CHAIR

*Randy Johnson*  
 RANDY JOHNSON, MEMBER

*Mark Ozias*  
 MARK OZIAS, MEMBER

*voted NO*

REV	DATE	DESCRIPTION
REV 1	04/05/24	ROAD & CANVS DETAILS



ISSUE DATE:	MARCH 2024
DESIGNED BY:	G. KAYS
DRAWN BY:	A. PICCINI
CHECKED BY:	J. RANDOLPH
SCALE:	AS SHOWN
CONTRACT NO.:	32220-01
PHASE NO.:	PHASE 3
ANSI/D	

CLALLAM COUNTY, WASHINGTON  
 223 EAST 4TH STREET, SUITE 400  
 PORT ANGELES, WA 98182

SHANNON & WILSON, INC.  
 400 NORTH 34TH STREET, SUITE 100  
 SEATTLE, WA 98103

DUNGENESS, WASHINGTON  
 LOWER DUNGENESS RIVER FLOODPLAIN  
 RESTORATION & LEVEE/ROAD REALIGNMENT PROJECT

COVER SHEET

SHEET ID

**C-101**

**GENERAL NOTES**

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS LISTED IN ORDER OF PRECEDENCE: 1) APPLICABLE FEDERAL, STATE, AND LOCAL LAWS AND PERMITS, 2) THE CONTRACT GENERAL CONDITIONS AND SPECIAL PROVISIONS (SPECIFICATIONS), 3) THE CONTRACT PLANS (PLANS), AND 4) THE WSDOT STANDARD PLANS FOR CONSTRUCTION OF ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, CURRENT EDITION (STANDARD PLANS). ALL WORK SHALL BE ACCOMPLISHED UNDER THE APPROVAL, INSPECTION, AND TO THE SATISFACTION OF CLALLAM COUNTY (COUNTY).
- THE ENGINEER RESPONSIBLE FOR PREPARATION OF THE PLANS AND SPECIFICATIONS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR UNAUTHORIZED CHANGES TO OR USES OF THESE DOCUMENTS. ALL CHANGES TO THE PLANS AND SPECIFICATIONS MUST BE IN WRITING AND MUST BE APPROVED BY THE ENGINEER RESPONSIBLE FOR THEIR PREPARATION.
- 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.
- THE CONTRACTOR SHALL MAKE ALL NECESSARY PROVISIONS TO PROTECT AND REPAIR IMPACTS TO EXISTING STRUCTURES INCLUDING ROADWAYS, DRAINAGES, FARM STRUCTURES, AND VEGETATION UNLESS SUCH ITEMS ARE TO BE DISTURBED OR REMOVED AS INDICATED IN THE PLANS AND SPECIFICATIONS.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EXAMINE THE PROJECT SITE PRIOR TO SUBMITTING A BID PROPOSAL. 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, THE EQUIPMENT AND FACILITIES NEEDED PRIMARILY 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 THEM FROM RESPONSIBILITY FOR PROPERLY ESTIMATING THE DIFFICULTY AND COST OF SUCCESSFULLY PERFORMING THE WORK.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THEIR OWN ELECTRICITY, COMMUNICATIONS, WATER, WASTE HANDLING, AND SANITARY FACILITIES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SECURITY OF ALL EQUIPMENT AND MATERIALS.
- CONSTRUCTION LIMITS SHOWN ON THE PLANS DELINEATE BOUNDARIES FOR THE CONTRACTOR'S OPERATIONS. WITHIN THE CONSTRUCTION LIMITS, EXISTING VEGETATION SHALL BE PROTECTED TO THE EXTENT FEASIBLE. ALL EXISTING TREES LARGER THAN 6" DBH SHALL BE PROTECTED UNLESS SHOWN ON THE PLANS TO BE REMOVED.
- THE CONTRACTOR SHALL PERFORM EXCAVATION IN A SAFE CONDITION. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR SHORING, SHEETING, BRACING, BENCHING, DEWATERING AND ALL NECESSARY PROTECTIVE MEASURES TO PREVENT DAMAGE TO ADJACENT PROPERTIES, STRUCTURES OR UTILITIES.
- PLANS ARE INTENDED TO SHOW FINAL SITE CONDITIONS. MODIFICATIONS MAY BE REQUIRED. IF UNANTICIPATED CONDITIONS ARE ENCOUNTERED, THE CONTRACTOR SHALL IMMEDIATELY BRING THE CONDITION TO THE ATTENTION OF THE ENGINEER SO THAT PROPER ADJUSTMENTS CAN BE MADE PRIOR TO THE INSTALLATION OF THE FACILITIES.
- THE CONTRACTOR SHALL ADHERE TO ALL TERMS AND CONDITIONS OF PROJECT PERMITS. THE CONTRACTOR IS RESPONSIBLE TO SECURE APPLICABLE PERMITS AND LICENSES THAT HAVE NOT BEEN PROVIDED BY THE OWNER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING TEMPORARY EROSION CONTROL AND POLLUTION PREVENTION MEASURES. THE EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF FEDERAL, STATE, AND LOCAL REGULATIONS, PROJECT PERMITS, AND THE CONTRACT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND PERFORMANCE OF THE TEMPORARY EROSION CONTROL MEASURES THROUGHOUT THE DURATION OF THE PROJECT. THE CONTRACTOR SHALL HAVE AN EMERGENCY SPILL KIT ONSITE AT ALL TIMES.
- THE CONTRACTOR SHALL WATER THE SITE, AS NECESSARY, TO REDUCE DUST EMISSIONS FROM CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL ALSO SWEEP ALL AFFECTED PUBLIC ROADS, AS NECESSARY, TO REMOVE DIRT, DUST, OR OTHER DEBRIS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY TRAFFIC CONTROL AS REQUIRED THROUGHOUT THE DURATION OF THE PROJECT IN ACCORDANCE WITH THE APPROVED TRAFFIC CONTROL PLAN.
- ALL TRASH, RUBBLE, ASPHALT, CONCRETE, DEBRIS AND BURIED DEBRIS, WITHIN THE PROJECT CONSTRUCTION LIMITS SHALL BE REMOVED AND DISPOSED OF OFFSITE BY THE CONTRACTOR.
- ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITIONS, OR AS SHOWN ON THE PLANS.

**SURVEY NOTES**

- SURVEY AND BASEMAPPING WAS PERFORMED BY JOHNSTON LAND SURVEYING OF PORT ANGELES, WA.
- HORIZONTAL DATUM IS WASHINGTON STATE PLANE, NORTH ZONE, NAD83/11 (U.S. FEET).
- VERTICAL DATUM IS NAVD88 (U.S. FEET)
- 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. ANY DAMAGE TO SURVEY MARKERS AND MONUMENTS IS THE RESPONSIBILITY OF CONTRACTOR TO REPAIR.



**UTILITY NOTES**

- CONTRACTOR SHALL COORDINATE WITH UTILITIES TO PROVIDE POLE HOLDS AND ENACT PROTECTION MEASURES FOR WORKING AROUND EXISTING FACILITIES.
- THE LOCATIONS AND EXTENTS OF EXISTING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND ARE NOT NECESSARILY COMPLETE. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE EXISTING UTILITIES BASED UPON AVAILABLE RECORDS & SURVEYS. THE CONTRACTOR SHALL DETERMINE THE TYPE, LOCATION, SIZE, AND/OR DEPTH OF THE EXISTING UTILITIES WITHIN THE WORK AREA BEFORE COMMENCING WORK. THE CONTRACTOR SHALL CONTACT THE UTILITIES UNDERGROUND LOCATION CENTER AT (800) 424-5555 OR 811 AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION. THE CONTRACTOR SHALL ASSUME COMPLETE RESPONSIBILITY FOR DAMAGED UTILITIES.
- AT NO TIME SHALL THE CONTRACTOR INTERRUPT THE OPERATION OF ANY UTILITIES WITHOUT PRIOR APPROVAL FROM THE UTILITY OWNERS. APPROVAL SHALL BE REQUESTED AT LEAST 48 HOURS IN ADVANCE OF THE TIME THAT THE INTERRUPTION OF THE SYSTEM IS REQUIRED.
- ELECTRIC: CLALLAM COUNTY PUD (360)-565-357
- COMMUNICATIONS: CENTURY LINK (360)-417-2174



**GEOTECHNICAL NOTES**

- FOR GEOTECHNICAL EXPLORATION INFORMATION REFER TO THE GEOTECHNICAL AND HYDROGEOLOGIC DATA REPORT PREPARED BY SHANNON & WILSON, INC. FOR CLALLAM COUNTY, MARCH 22, 2022.

**ABBREVIATIONS**

ABV	ABOVE	EC	EROSION CONTROL	PREFAB	PREFABRICATE(D)
AC	ACRE	EG	EXISTING GRADE	PRKG	PARKING
ADJ	ADJACENT, ADJOINING, ADJUSTABLE	ELI OR ELEV	ELEVATION - GRADE OR BUILDING	PROJ	PROJECT
AGGR	AGGREGATE	ELEC	ELECTRIC	PROP	PROPOSED
ALT	ALTERNATE	EQ	EQUAL	PSF	POUNDS PER SQUARE FOOT
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	EQUIP	EQUIPMENT	PSI	POUNDS PER SQUARE INCH
APPD	APPROVED	ELJ	ENGINEERED LOG JAM	PT	POINT OF TANGENCY
APPROX	APPROXIMATE	EST	ESTIMATE(D)	PV	PAVED
APN	ASSESSOR'S PARCEL NUMBER	EVC	END VERTICAL CURVE	PVC	POLYVINYL CHLORIDE
ASPH	ASPHALT	EXC	EXCAVATE	PVG	PAVING
AUTO	AUTOMATIC	EXST	EXISTING	PVI	POINT OF VERTICAL INTERSECTION
AVG	AVERAGE	FDTN	FOUNDATION	QTY	QUANTITY
BDRY	BOUNDARY	FF	FILTER FENCE	R	RADIUS
BITUM	BITUMINOUS	FG	FINISHED GRADE	RCP	REINFORCED CONCRETE PIPE
BLDG	BUILDING	FIG	FIGURE	RD	ROAD
BLDR	BOULDER	FIN	FINISH	REF	REFERENCE
BLW	BELLOW	FIN FLR	FINISH FLOOR	REINF	REINFORCE
BM	BENCHMARK	FL	FLOWLINE	REQD	REQUIRED
BMP	BEST MANAGEMENT PRACTICE	FN	FENCE	REV	REVISION
BOT	BOTTOM	FT OR 'G	FEET	ROW	RIGHT OF WAY
BTWN	BETWEEN	G	GROUND	RT	RIGHT
BVC	BEGIN VERTICAL CURVE	GOVT	GOVERNMENT	RW	ROOTWAD
BW	BOTH WAYS	HMA	HOT MIX ASPHALT	S	SOUTH
CAVFS	COMPOST AMENDMENT VEGETATED FILTER STRIP	HORIZ	HORIZONTAL	SCHED	SCHEDULE
CAP	CAPACITY	HP	HORSEPOWER	SD	STORM DRAIN
CB	CATCH BASIN	HR	HOURLY	SECT	SECTION
CEM	CEMENT	HT	HEIGHT	SEQ	SEQUENCE
CFS	CUBIC FEET PER SECOND	HVF	HIGH VISIBILITY FENCE	SEW	STRUCTURAL EARTH WALL
CHK	CHECK	ID	INSIDE DIAMETER	SF	SQUARE FEET
CIP	CAST-IN-PLACE	IE	INVERT ELEVATION	SHLDR	SHOULDER
CIRC	CIRCULAR	IN OR "	INCH	SH	SHOULDER
CL	CENTER LINE	INCL	INCLUDED	SIM	SIMILAR
CLF	CONSTRUCTION LIMIT FENCE	J-BOX	JUNCTION BOX	SP	SETTLEMENT PLATE
CLL	CONSTRUCTION LIMIT LINE	KIP	KILOPOUND (1000 POUNDS)	SPCL	SPECIAL
CLR	CLEAR(ANCE)	LB	POUND	SPEC	SPECIFICATION
CMP	CORRUGATED METAL PIPE	LBL	LABEL	STA	STATION
CMU	CONCRETE MASONRY UNIT	LF	LINEAR FEET	STD	STANDARD
CND	CONDUIT	LVC	LENGTH VERTICAL CURVE	STL	STEEL
CNR	CORNER	LWD	LARGE WOODY DEBRIS	STOR	STORAGE
CO	COUNTY	LWM	LARGE WOODY MATERIAL	STRUCT	STRUCTURAL
COM	COMMON	LT	LEFT	SWPPP	STORMWATER POLLUTION PREVENTION PLAN
COMM	COMMUNICATIONS	MATL	MATERIAL(S)	SY	SYMMETRIC
CONC	CONCRETE	MAX	MAXIMUM	SYMM	SYMMETRICAL
CONSTR	CONSTRUCTION	MED	MEDIUM	TBR	TO BE REMOVED
CONT	CONTINUE	MH	MANHOLE	TOP	TRAFFIC CONTROL PLAN
CONTR	CONTRACTOR	MIN	MINIMUM	TEL	TELEPHONE
COV	COVER	MISC	MISCELLANEOUS	TEMP	TEMPORARY
CPE	CORRUGATED POLYETHYLENE PIPE	MOD.	MODIFIED	TESC	TEMPORARY EROSION & SEDIMENT CONTROL
CRCMF	CIRCUMFERENCE	N	NORTH	THK	THICK(NESS)
CSBC	CRUSHED SURFACE BASE COURSE	NAT	NATURAL	TOL	TOLERANCE
CSTC	CRUSHED SURFACE TOP COURSE	NO	NUMBER	TOPO	TOPOGRAPHY
CTR	CENTER	NOM	NOMINAL	TYP	TYPICAL
CF	CUBIC FEET	NTS	NOT TO SCALE	U	UNKNOWN
CY	CUBIC YARDS	OC	ON CENTER	UG	UNDERGROUND
DAT	DATUM	OD	OUTSIDE DIAMETER	USACE	U.S. ARMY CORPS OF ENGINEERS
DBH	DIAMETER BREAST HEIGHT	OH	OVERHEAD	UTIL	UTILITY
DBL	DOUBLE	OHWM	ORDINARY HIGH WATER MARK	VERT	VERTICAL
DEG	DEGREE	P1	PHASE 1	VOL	VOLUME
DEMO	DEMOLITION	P2	PHASE 2	W	WEST
DEPR	DEPRESSION	P	POWER/UTILITY POLE	W/	WITH
DEPT	DEPARTMENT	PC	PIECE	WA	WASHINGTON
DET	DETAIL	PCC	POINT OF COMPOUND CURVATURE	WD	WOOD
DI	DRAINAGE INLET	PCF	POUNDS PER CUBIC FOOT	WDFW	WASHINGTON STATE DEPARTMENT OF FISH & WILDLIFE
DIAM OR Ø	DIAMETER	PE	POLYETHYLENE	WDOE	WASHINGTON STATE DEPARTMENT OF ECOLOGY
DIAG	DIAGONAL	PERIM	PERIMETER	WL	WETLAND
DIM	DIMENSION	P1	POINT OF INTERSECTION	W/O	WITHOUT
DIV	DIVISION	PL	PROPERTY LINE	WSDOT	WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
DN	DOWN	PLF	POUNDS PER LINEAR FOOT	WT	WEIGHT
DR	DRIVE	PRC	POINT OF REVERSE CURVATURE	WTH	WIDTH
DWG	DRAWING			YD	YARD
E	EAST				
EA	EACH				

**LEGEND**

\*NOTE: LEGEND PROVIDED ON SHEETS SUPERCEDES THIS LEGEND

<b>EXISTING</b>	<b>PROPOSED</b>	<b>SHEET SYMBOLS</b>
MAJOR CONTOUR	MAJOR CONTOUR	S1 1 REFERENCE TO KEY NOTE APPEARING ON SAME SHEET
MINOR CONTOUR	MINOR CONTOUR	1 C-524 DETAIL DESIGNATION SHEET DETAIL IS LOCATED ON
PROJECT BOUNDARY	CONSTRUCTION LIMIT LINE	1 C-524 SECTION DESIGNATION SHEET SECTION IS LOCATED ON
PROPERTY/RIGHT OF WAY BOUNDARY	STRAW WATTLE	
EASEMENT BOUNDARY	GUARDRAIL	
ORDINARY HIGH WATER MARK	GATE	
WETLAND	SIGN	
EDGE OF WATER	EROSION CONTROL SEEDING	
ELECTRIC	WETLAND EMERGENT SEEDING	
COMMUNICATIONS	COMPOST AMENDED VEGETATED FILTER STRIP (CAVFS)	
FENCE	PROPOSED CSTC SURFACING	
BUILDING		
CULVERT		
ACCESS GATE		
	CRUSHED SURFACING BASE COURSE (CSBC)	
	EXISTING RIPRAP	
	COUNTY PLANTED AREA	
	EXISTING QUARRY SPALLS	



REV	DATE	DESCRIPTION
REV.1	04/05/24	ROAD & CAVES DETAILS



ISSUE DATE: MARCH 2024	DESIGNED BY: G. KAYS	CONTRACT NO.:S2220-3
	DRAWN BY: A. PICCOLI	PHASE NO.:PHASE 3
	CHECKED BY: J. RANDOLPH	
	SUBMITTED BY: G. KAYS	
	SCALE:	
	ANSI:	

CLALLAM COUNTY, WASHINGTON  
223 EAST 4TH STREET, SUITE #6  
PORT ANGELES, WA 98362

SHANNON & WILSON, INC.  
400 NORTH 34TH STREET, SUITE 100  
SEATTLE, WA 98103

DUNGENESS, WASHINGTON  
LOWER DUNGENESS RIVER FLOODPLAIN  
RESTORATION & LEVEE/ROND REALIGNMENT PROJECT

**GENERAL NOTES ABBREVIATIONS & LEGEND**

SHEET ID  
**C-102**

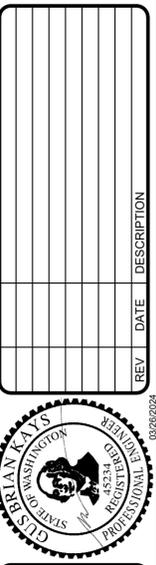
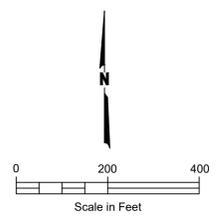
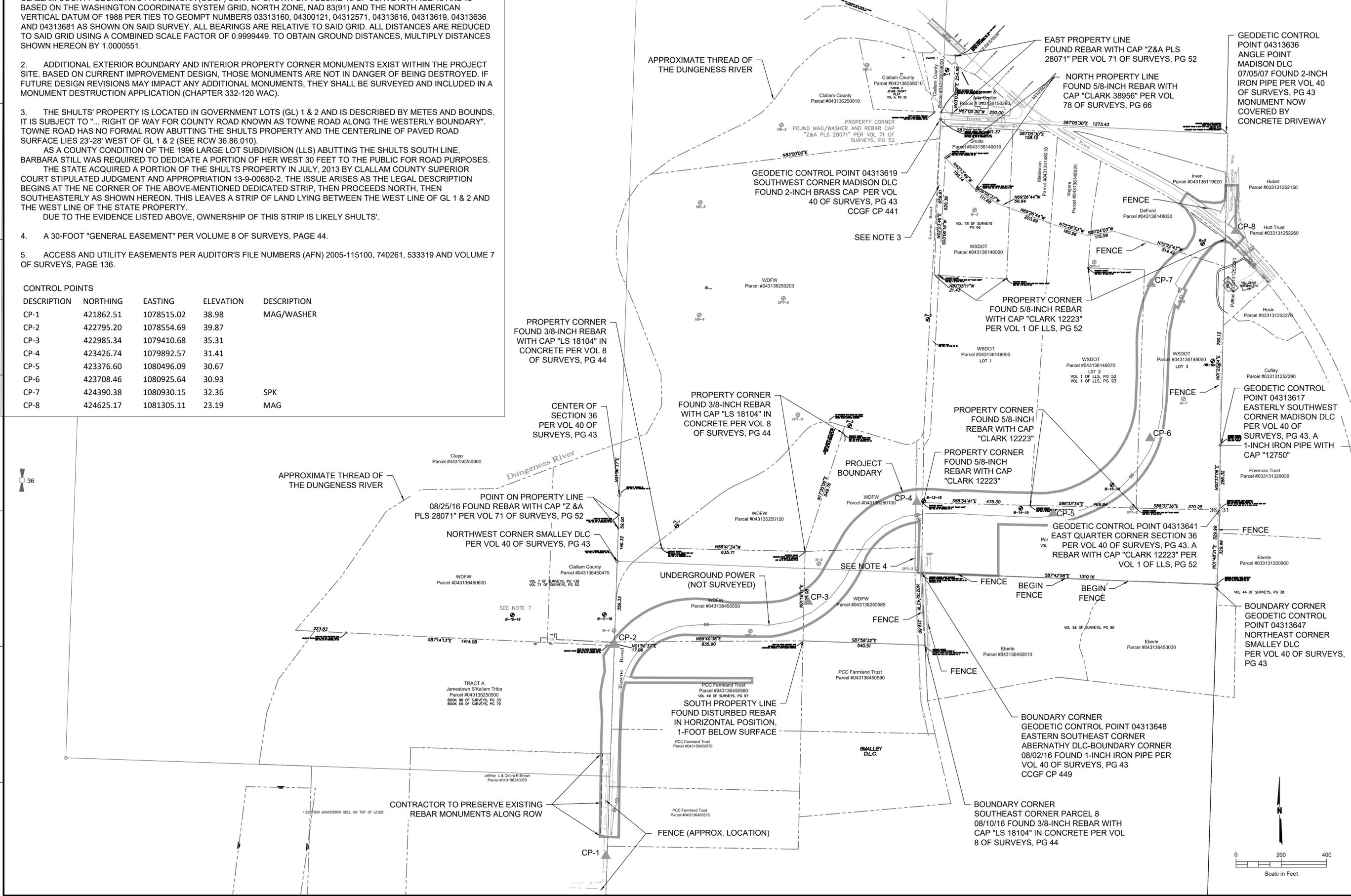
NOTES

- SURVEY INFORMATION PROVIDED BY ROB JOHNSTON. THIS SURVEY USES THE SECTION SUBDIVISION PER THE CLALLAM COUNTY GEOMETRIC FRAMEWORK (CCGF) SURVEY SHOWN ON VOLUME 40 OF SURVEYS, PAGE 43 AND IS BASED ON THE WASHINGTON COORDINATE SYSTEM GRID, NORTH ZONE, NAD 83(91) AND THE NORTH AMERICAN VERTICAL DATUM OF 1988 PER TIES TO GEOMPT NUMBERS 03313160, 04300121, 04312571, 04313616, 04313619, 04313636 AND 04313681 AS SHOWN ON SAID SURVEY. ALL BEARINGS ARE RELATIVE TO SAID GRID. ALL DISTANCES ARE REDUCED TO SAID GRID USING A COMBINED SCALE FACTOR OF 0.9999449. TO OBTAIN GROUND DISTANCES, MULTIPLY DISTANCES SHOWN HEREON BY 1.0000551.
- ADDITIONAL EXTERIOR BOUNDARY AND INTERIOR PROPERTY CORNER MONUMENTS EXIST WITHIN THE PROJECT SITE. BASED ON CURRENT IMPROVEMENT DESIGN, THOSE MONUMENTS ARE NOT IN DANGER OF BEING DESTROYED. IF FUTURE DESIGN REVISIONS MAY IMPACT ANY ADDITIONAL MONUMENTS, THEY SHALL BE SURVEYED AND INCLUDED IN A MONUMENT DESTRUCTION APPLICATION (CHAPTER 332-120 WAC).
- THE SHULTS' PROPERTY IS LOCATED IN GOVERNMENT LOTS (GL) 1 & 2 AND IS DESCRIBED BY METES AND BOUNDS. IT IS SUBJECT TO "... RIGHT OF WAY FOR COUNTY ROAD KNOWN AS TOWNE ROAD ALONG THE WESTERLY BOUNDARY". TOWNE ROAD HAS NO FORMAL ROW ABUTTING THE SHULTS PROPERTY AND THE CENTERLINE OF PAVED ROAD SURFACE LIES 23'-28" WEST OF GL 1 & 2 (SEE RCW 36.86.010).  
AS A COUNTY CONDITION OF THE 1996 LARGE LOT SUBDIVISION (LLS) ABUTTING THE SHULTS SOUTH LINE, BARBARA STILL WAS REQUIRED TO DEDICATE A PORTION OF HER WEST 30 FEET TO THE PUBLIC FOR ROAD PURPOSES. THE STATE ACQUIRED A PORTION OF THE SHULTS PROPERTY IN JULY, 2013 BY CLALLAM COUNTY SUPERIOR COURT STIPULATED JUDGMENT AND APPROPRIATION 13-9-00680-2. THE ISSUE ARISES AS THE LEGAL DESCRIPTION BEGINS AT THE NE CORNER OF THE ABOVE-MENTIONED DEDICATED STRIP, THEN PROCEEDS NORTH, THEN SOUTHEASTERLY AS SHOWN HEREON. THIS LEAVES A STRIP OF LAND LYING BETWEEN THE WEST LINE OF GL 1 & 2 AND THE WEST LINE OF THE STATE PROPERTY.  
DUE TO THE EVIDENCE LISTED ABOVE, OWNERSHIP OF THIS STRIP IS LIKELY SHULTS'.
- A 30-FOOT "GENERAL EASEMENT" PER VOLUME 8 OF SURVEYS, PAGE 44.
- ACCESS AND UTILITY EASEMENTS PER AUDITOR'S FILE NUMBERS (AFN) 2005-115100, 740261, 533319 AND VOLUME 7 OF SURVEYS, PAGE 136.

CONTROL POINTS

DESCRIPTION	NORTHING	EASTING	ELEVATION	DESCRIPTION
CP-1	421862.51	1078515.02	38.98	MAG/WASHER
CP-2	422795.20	1078554.69	39.87	
CP-3	422985.34	1079410.68	35.31	
CP-4	423426.74	1079892.57	31.41	
CP-5	423376.60	1080496.09	30.67	
CP-6	423708.46	1080925.64	30.93	
CP-7	424390.38	1080930.15	32.36	SPK
CP-8	424625.17	1081305.11	23.19	MAG

SECTION 36, TOWNSHIP 31 NORTH, RANGE 4 WEST, W.M.,  
CLALLAM COUNTY, WASHINGTON



ISSUE DATE:	MARCH 2024
DESIGNED BY:	R. JOHNSTON
DRAWN BY:	A. PICCINI
CHECKED BY:	J. RANDOLPH
SUBMITTED BY:	G. KAYS
CONTRACT NO.:	52220-3
PHASE NO.:	PHASE 3
SIZE:	ANSI D

CLALLAM COUNTY, WASHINGTON  
223 EAST 4TH STREET, SUITE #6  
PORT ANGELES, WA 98162

SHANNON & WILSON, INC.  
400 NORTH 34TH STREET, SUITE 100  
SEATTLE, WA 98103

DUNGENESS, WASHINGTON  
LOWER DUNGENESS RIVER FLOODPLAIN  
RESTORATION & LEVEE ROAD REALIGNMENT PROJECT

SURVEY CONTROL

SHEET ID  
**C-103**

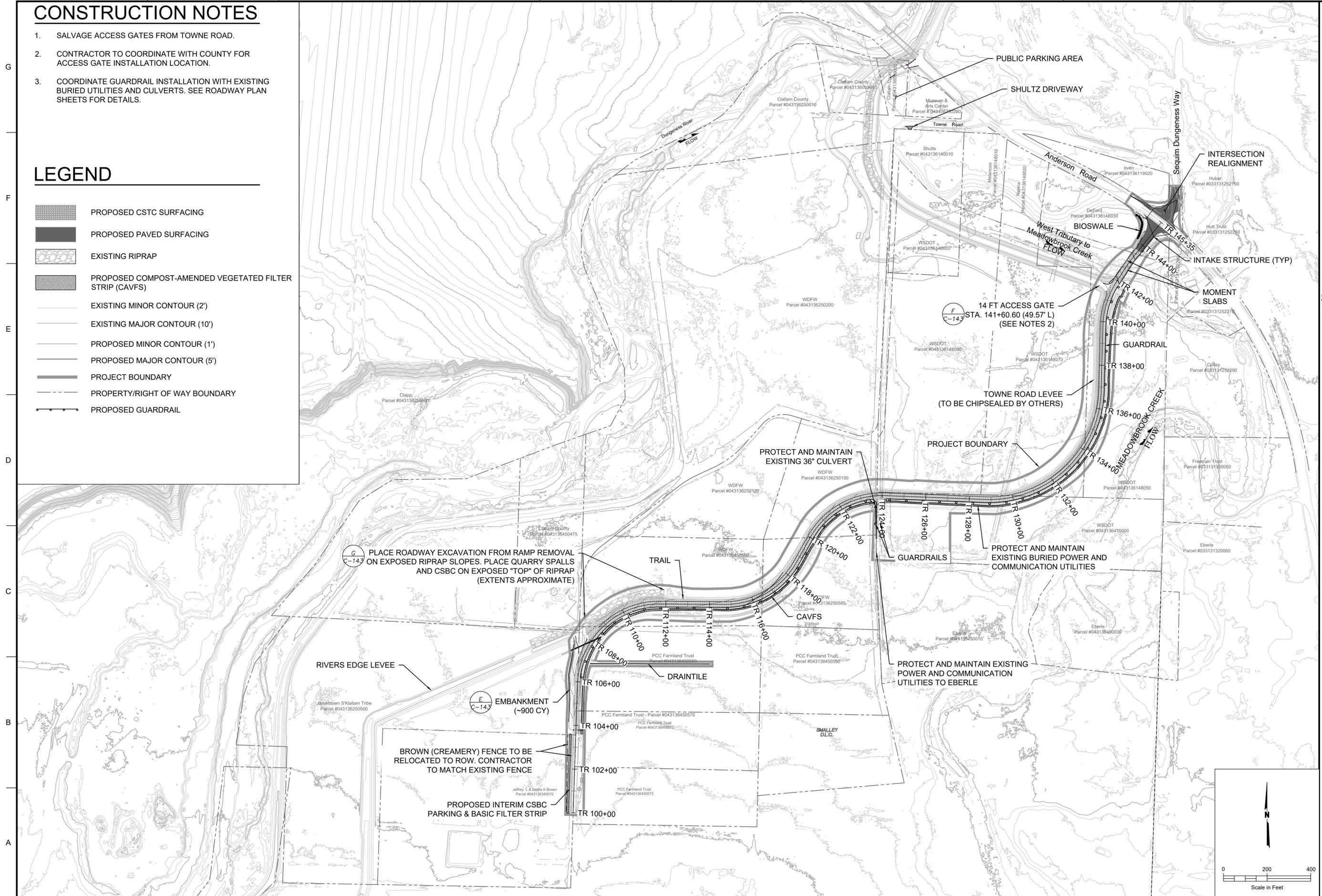


# CONSTRUCTION NOTES

- SALVAGE ACCESS GATES FROM TOWNE ROAD.
- CONTRACTOR TO COORDINATE WITH COUNTY FOR ACCESS GATE INSTALLATION LOCATION.
- COORDINATE GUARDRAIL INSTALLATION WITH EXISTING BURIED UTILITIES AND CULVERTS. SEE ROADWAY PLAN SHEETS FOR DETAILS.

## LEGEND

-  PROPOSED CSTC SURFACING
-  PROPOSED PAVED SURFACING
-  EXISTING RIPRAP
-  PROPOSED COMPOST-AMENDED VEGETATED FILTER STRIP (CAVFS)
-  EXISTING MINOR CONTOUR (2')
-  EXISTING MAJOR CONTOUR (10')
-  PROPOSED MINOR CONTOUR (1')
-  PROPOSED MAJOR CONTOUR (5')
-  PROJECT BOUNDARY
-  PROPERTY/RIGHT OF WAY BOUNDARY
-  PROPOSED GUARDRAIL



REV	DATE	DESCRIPTION
REV 1	04/05/24	ROAD & CAVFS DETAILS



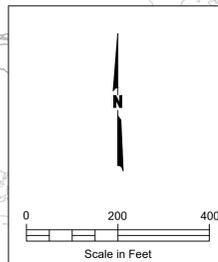
DESIGNED BY: G. KAYS	ISSUE DATE: MARCH 2024
CHECKED BY: A. PICONI	CONTRACT NO.: 52220-3
SUBMITTED BY: G. KAYS	PHASE NO.: PHASE 3
SIZE: ANSI D	

CLALLAM COUNTY, WASHINGTON  
223 EAST 4TH STREET, SUITE #6  
PORT ANGELES, WA 98362

SHANNON & WILSON, INC.  
400 NORTH 34TH STREET, SUITE 100  
SEATTLE, WA 98103

SITE PLAN  
DUNGENESS, WASHINGTON  
LOWER DUNGENESS RIVER FLOODPLAIN  
RESTORATION & LEVEE/ROAD REALIGNMENT PROJECT

SHEET ID  
**C-105**

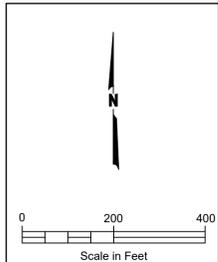
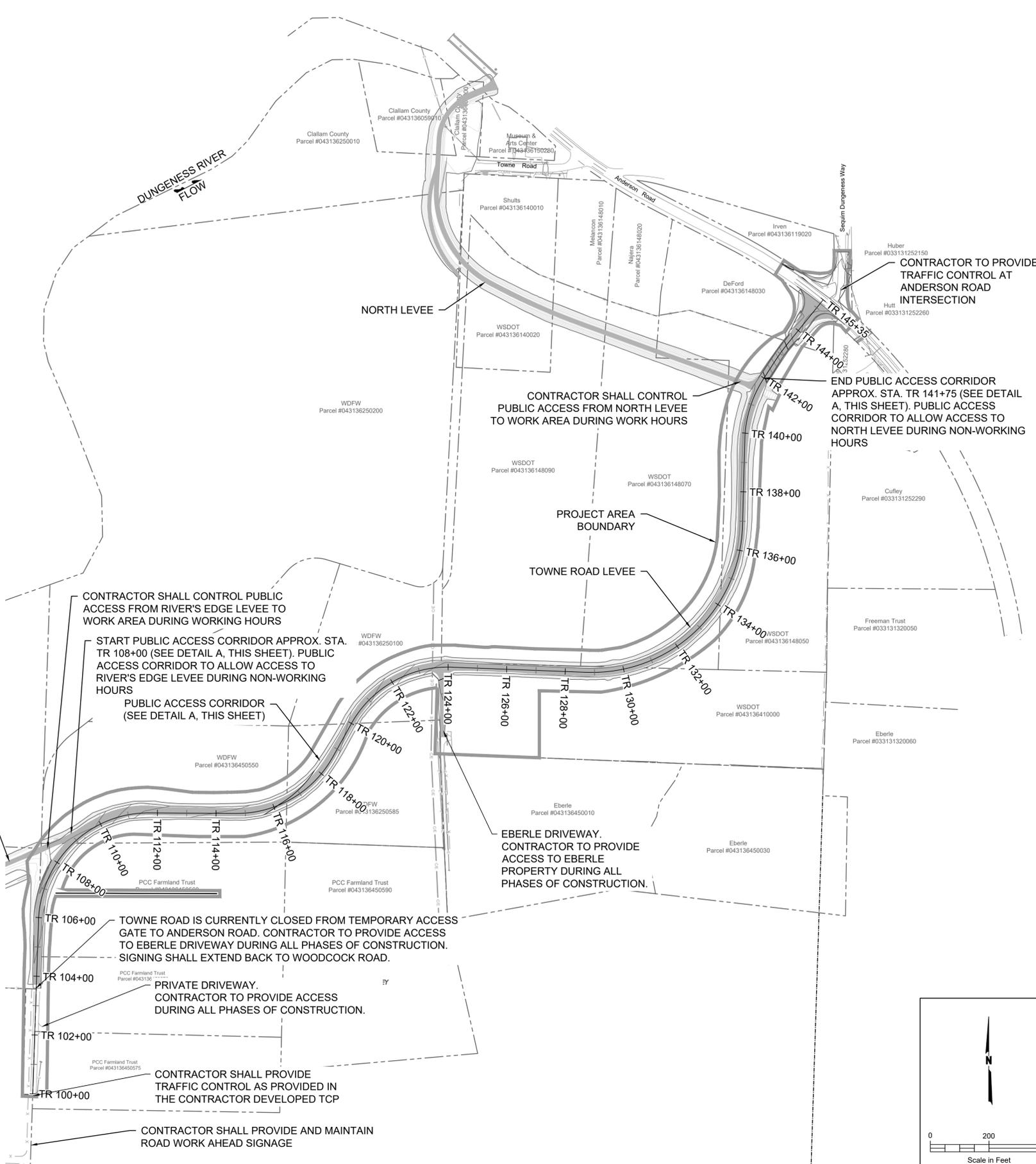
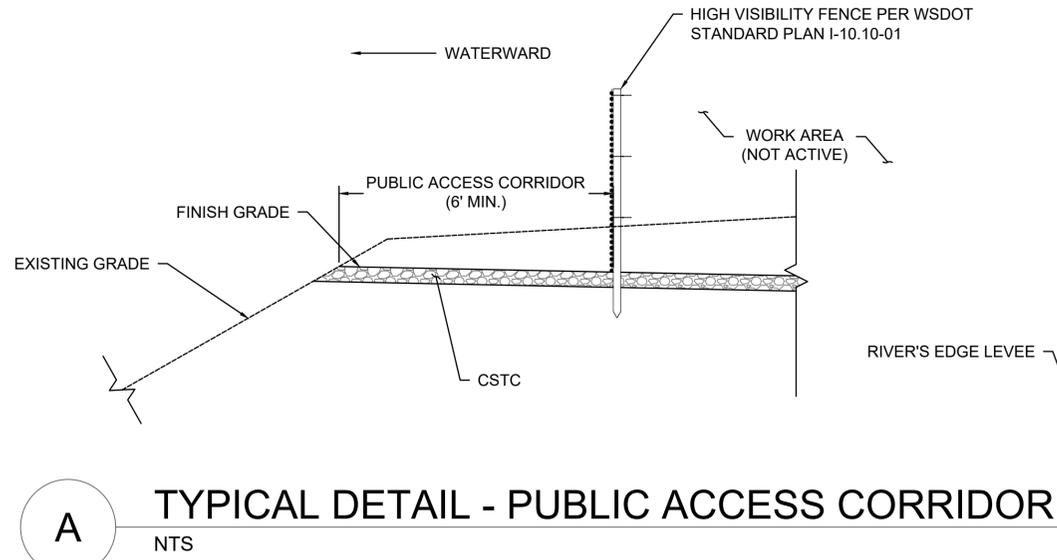


# GENERAL NOTES:

1. CONTRACTOR TO SUBMIT TRAFFIC CONTROL PLAN.
2. CONTRACTOR TO PROVIDE ALL TRAFFIC CONTROL AS DESCRIBED IN TRAFFIC CONTROL PLAN (TCP) SUBMITTAL.
3. CONTRACTOR SHALL MAINTAIN AND COORDINATE ACCESS DURING CONSTRUCTION TO THE EBERLE DRIVEWAY, PCC FARMLAND TRUST DRIVEWAY, RIVER'S EDGE LEVEE, DUNGENESS CREAMERY DRIVEWAY, FOR UTILITY OWNERS, AND SHALL NOT BLOCK ACCESS WITHOUT PRIOR APPROVAL. APPROVAL FOR BLOCKED ACCESS IS NOT GUARANTEED.
4. CONTRACTOR SHALL SUBMIT TRAFFIC CONTROL PLANS AND SHALL SUBMIT TRAFFIC CONTROL PLANS IF, DURING CONSTRUCTION, THE PLAN CHANGES. ALL PLANS SHALL BE ACCEPTED PRIOR TO IMPLEMENTATION.
5. TEMPORARY PUBLIC PEDESTRIAN ACCESS CORRIDOR (PUBLIC ACCESS CORRIDOR) TO BE CLOSED TO PUBLIC DURING WORKING HOURS. CONTRACTOR TO OPEN PUBLIC ACCESS CORRIDOR AT THE END OF EACH WORKING DAY. SEE SPEC 1-07.23(4).

# LEGEND

-  EXISTING CRUSHED SURFACING BASE COURSE
-  PROPOSED CRUSHED SURFACING TOP COURSE (CSTC)
-  PROPOSED MAJOR CONTOUR (5')
-  PROPOSED MINOR CONTOUR (1')
-  EXISTING MAJOR CONTOUR (10')
-  EXISTING MINOR CONTOUR (2')
-  PROJECT BOUNDARY
-  PROPERTY/RIGHT OF WAY BOUNDARY





REV	DATE	DESCRIPTION



ISSUE DATE: MARCH 2024	CONTRACT NO.: 52220-3
DESIGNED BY: G. KAYS	CHECKED BY: J. RANDOLPH
DRAWN BY: A. PICCINI	SUBMITTED BY: G. KAYS
PHASE NO.: PHASE 3	SHEET: ANSI D

CLALLAM COUNTY, WASHINGTON 223 EAST 4TH STREET, SUITE #6 PORT ANGELES, WA 98162	SHANNON & WILSON, INC. 400 NORTH 34TH STREET, SUITE 100 SEATTLE, WA 98103
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DUNGENESS, WASHINGTON  
LOWER DUNGENESS RIVER FLOODPLAIN  
RESTORATION & LEVEE/ROAD REALIGNMENT PROJECT

TRAFFIC CONTROL PLAN

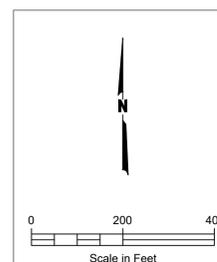
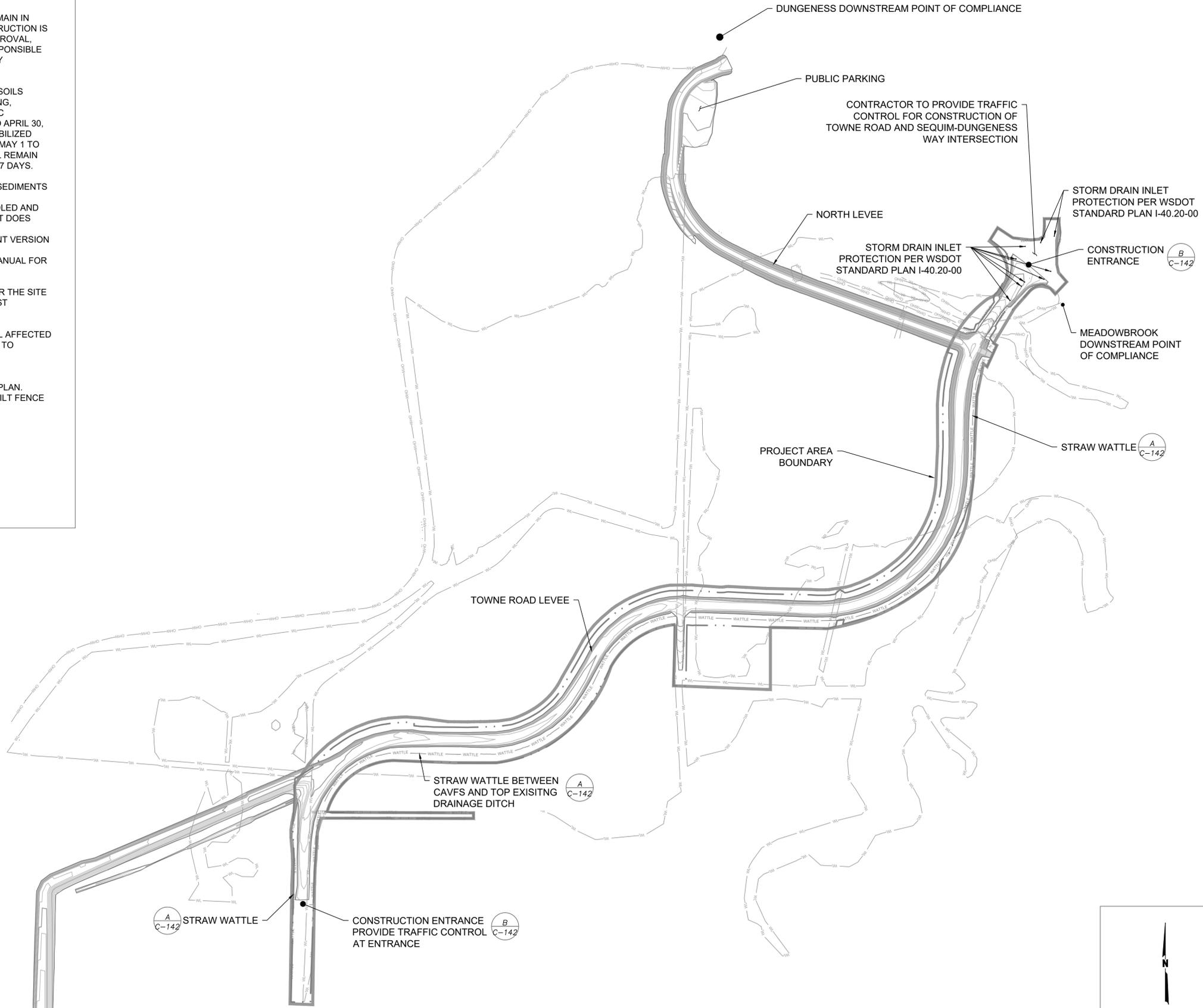
SHEET ID  
**C-106**

# NOTES:

1. ALL WORK IS TO OCCUR WITHIN THE CONSTRUCTION LIMITS.
2. CONTRACTOR WILL BE ASSIGNED LEAD FOR TESC AND SWPPP UPON AWARD OF CONTRACT.
3. CONTRACTOR TO PROVIDE WATER QUALITY MONITORING AT COMPLIANCE POINTS SHOWN OR ADDED BY PERMITS AS REQUIRED BY SWPPP AND PERMITS.
4. CONTRACTOR TO UPDATE TEMPORARY EROSION CONTROL AND SEDIMENT CONTROL PLAN FOR THEIR SWPPP.
5. SILT FENCE FROM PREVIOUS CONSTRUCTION WILL REMAIN ON SITE. CONTRACTOR TO ASSUME RESPONSIBILITY FOR SILT FENCE.
6. TESC FACILITIES SHOWN MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING SO AS TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO SURFACE WATER, DRAINAGE SYSTEMS, AND ADJACENT PROPERTIES IS MINIMIZED.
7. THE TESC FACILITIES SHOWN ARE THE MINIMUM REQUIREMENTS FOR THE ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD THESE TESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND MODIFIED TO ACCOUNT FOR CHANGING SITE CONDITIONS.
8. PRIOR TO CONSTRUCTION, CLEARING LIMITS SHALL BE APPROVED BY THE ENGINEER. ALL CLEARING, GRUBBING AND GRADING SHALL BE CONSTRAINED WITHIN THE ESTABLISHED LIMITS. ALL VEGETATION OUTSIDE DESIGNATED LIMITS SHALL REMAIN UNDISTURBED.
9. ALL STOCKPILES ARE TO BE PROTECTED FROM EROSION BY MECHANICAL OR VEGETATIVE MEANS.
10. THE TESC FACILITIES SHALL REMAIN IN PLACE UNTIL FINAL SITE CONSTRUCTION IS COMPLETE. AFTER COUNTY APPROVAL, THE CONTRACTOR WILL BE RESPONSIBLE FOR REMOVING ALL TEMPORARY FACILITIES.
11. ALL EXPOSED AND UNWORKED SOILS SHALL BE STABILIZED BY SEEDING, MULCHING, MATTING OR PLASTIC COVERING FROM OCTOBER 1 TO APRIL 30, NO SOILS SHALL REMAIN UNSTABILIZED FOR MORE THAN 2 DAYS. FROM MAY 1 TO SEPTEMBER 30, NO SOILS SHALL REMAIN UNSTABILIZED FOR MORE THAN 7 DAYS.
12. ALL POLLUTANTS OTHER THAN SEDIMENTS THAT OCCUR ON-SITE DURING CONSTRUCTION SHALL BE HANDLED AND DISPOSED OF IN A MANNER THAT DOES NOT CAUSE CONTAMINATION OF STORMWATER PER THE CURRENT VERSION OF DEPARTMENT OF ECOLOGY STORMWATER MANAGEMENT MANUAL FOR PUGET SOUND BASIN.
13. THE CONTRACTOR SHALL WATER THE SITE AS NECESSARY TO REDUCE DUST EMISSIONS AS A RESULT OF CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL SWEEP ALL AFFECTED PUBLIC ROADS, AS NECESSARY, TO REMOVE DUST RELATED TO CONSTRUCTION ACTIVITIES.
14. SEED ALL AREAS PER SEEDING PLAN. REMOVE AND DISPOSE OF ALL SILT FENCE & TESC BMPS AT THE END OF CONSTRUCTION.

# LEGEND

- PROJECT BOUNDARY
- STRAW WATTLE
- CONSTRUCTION LIMIT LINE
- WETLANDS
- ORDINARY HIGH WATER (OHW)
- MAJOR CONTOUR (5')
- MINOR CONTOUR (1')



REV	DATE	DESCRIPTION



ISSUE DATE: MARCH 2024	CONTRACT NO.: S22263
DESIGNED BY: G. KAYS	APPROVED BY: G. KAYS
DRAWN BY: A. PICCINI	PHASE NO.: PHASE 3
CHECKED BY: J. RANDOLPH	ANSI D
SUBMITTED BY: G. KAYS	

CLALLAM COUNTY WASHINGTON  
 222 EAST STREET, 4TH FLOOR  
 PORT ANGELES, WA 98102

SHANNON & WILSON, INC.  
 400 NORTH 34TH STREET, SUITE 100  
 SEATTLE, WA 98103

DUNGENESS, WASHINGTON  
 LOWER DUNGENESS RIVER FLOODPLAIN  
 RESTORATION & LEVEE/ROAD REALIGNMENT PROJECT

TESC PLAN

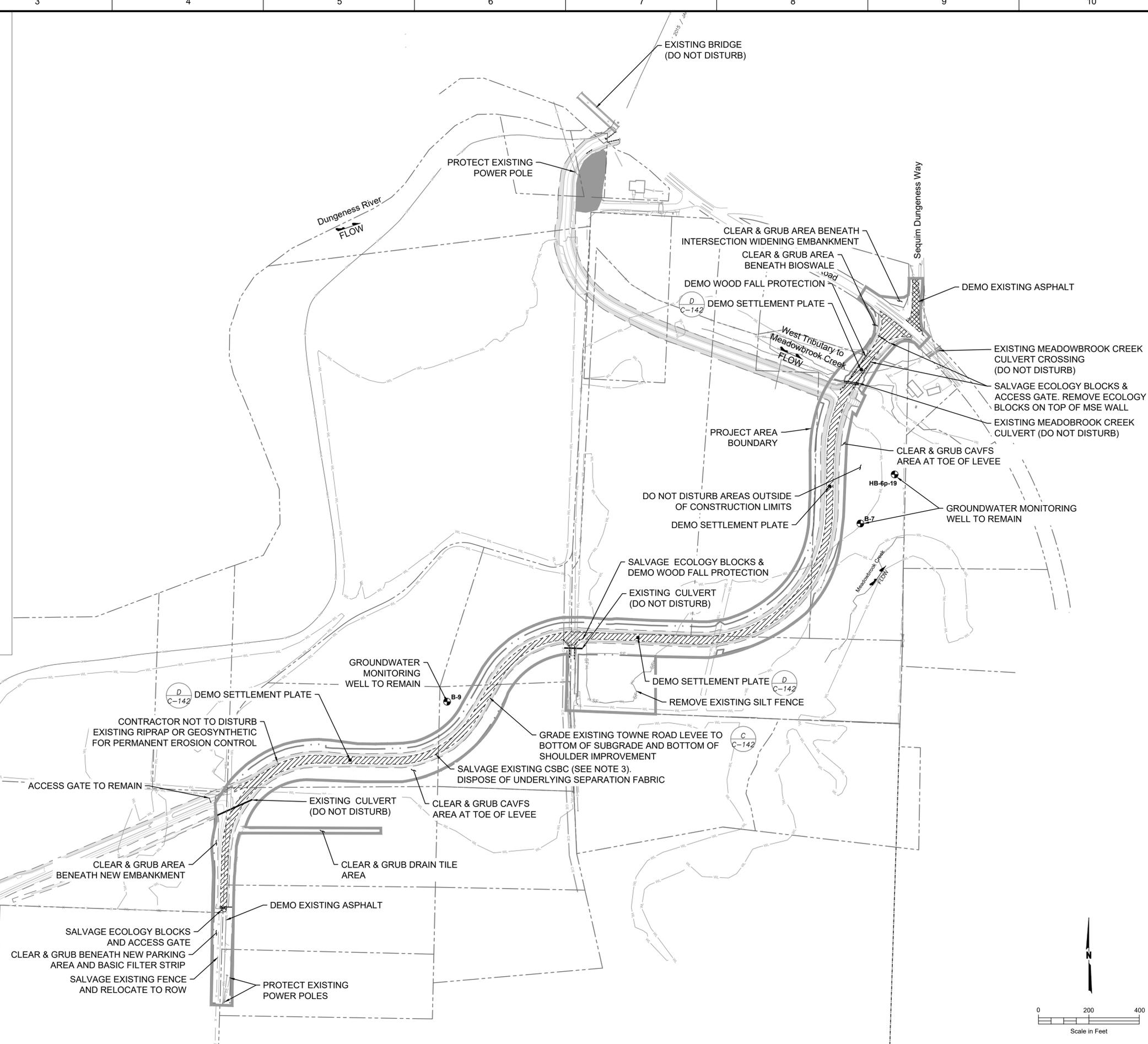
SHEET ID  
**C-107**

# GENERAL NOTES:

1. ALL DEBRIS AND WASTE SHALL BE DISPOSED AT AN APPROVED DISPOSAL LOCATION.
2. CONTRACTOR RESPONSIBLE TO PROTECT AND REPAIR DAMAGE CAUSED TO ANY FACILITIES WHICH ARE NOT DESIGNATED FOR REMOVAL.
3. CONTRACTOR TO SALVAGE EXISTING CSBC SURFACING FROM TOWNE ROAD LEVEE. SALVAGE CSBC TO BE USED IN SHOULDER IMPROVEMENT. REMAINING SALVAGE CSBC (1110 CY) TO BE PLACED ON LEVEE SIDE SLOPES PER DIRECTION OF ENGINEER.

# LEGEND

- ORDINARY HIGH WATER MARK (OHW)
- WETLANDS
- CONSTRUCTION LIMIT LINE
- PROJECT BOUNDARY
- PROPERTY/RIGHT OF WAY BOUNDARY
- SILT FENCE
- MONITORING WELL
- SCRAPE EXISTING LEVEE (SALVAGE CSBC, REUSE/DISPOSE LEVEE FILL)
- DEMO EXISTING PAVEMENT
- DEMO SETTLEMENT PLATE



REV	DATE	DESCRIPTION
REV 1	04/05/24	ROAD & CAVFS DETAILS



DESIGNED BY: G. KAYS	ISSUE DATE: MARCH 2024
DRAWN BY: A. PICCOLI	CONTRACT NO.:
CHECKED BY: J. RANDOLPH	PROJECT NO.:
SCALE:	PHASE:
DATE:	ANSI D

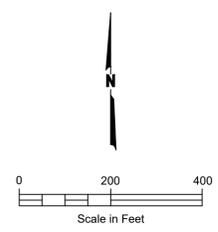
CLALLAM COUNTY, WASHINGTON  
223 EAST 4TH STREET, SUITE #6  
PORT ANGELES, WA 98362

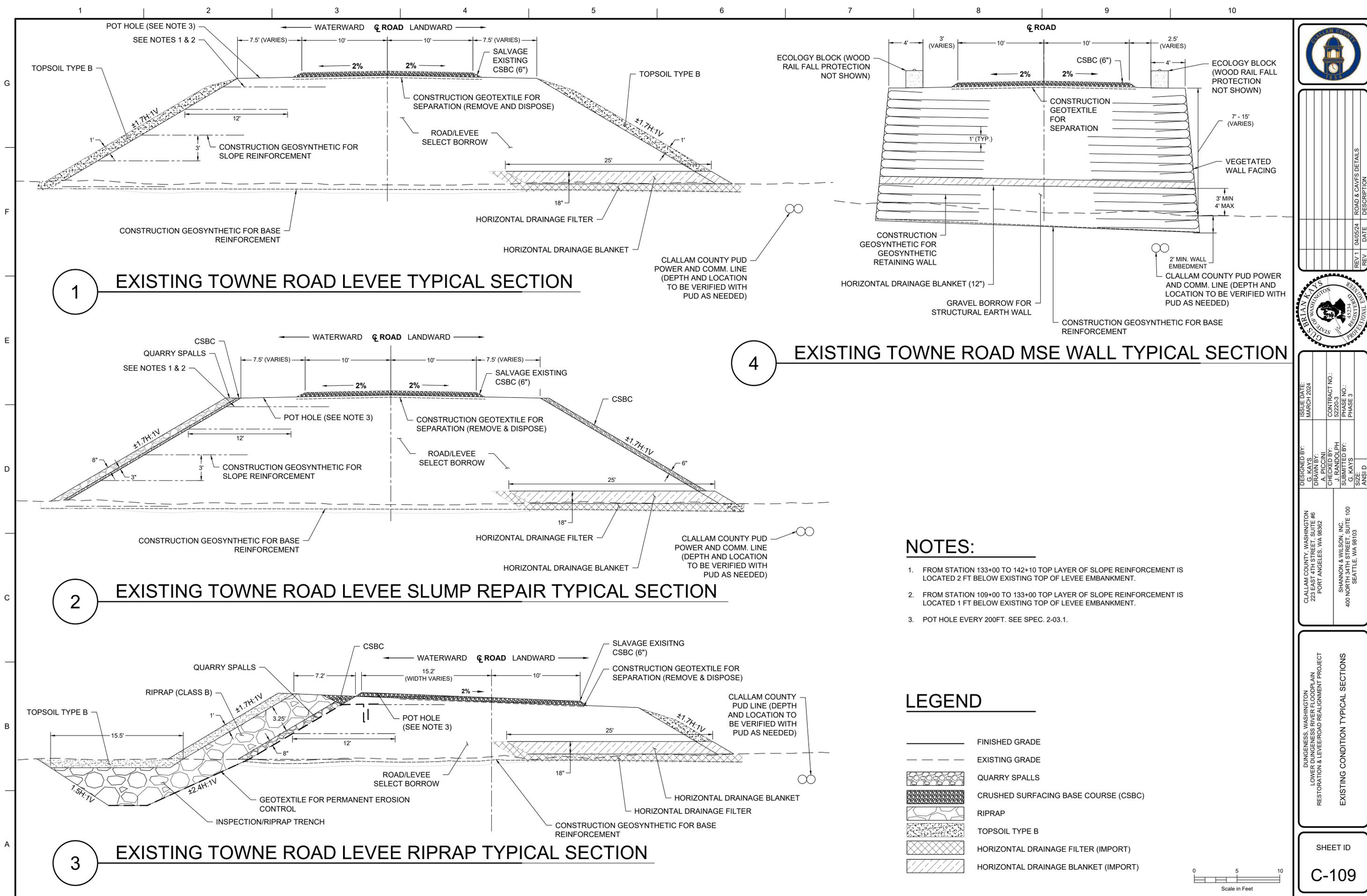
SHANNON & WILSON, INC.  
400 NORTH 34TH STREET, SUITE 100  
SEATTLE, WA 98103

DUNGENESS, WASHINGTON  
LOWER DUNGENESS RIVER FLOODPLAIN  
RESTORATION & LEVEE/ROAD REALIGNMENT PROJECT

DEMOLITION PLAN

SHEET ID  
**C-108**





1

**EXISTING TOWNE ROAD LEVEE TYPICAL SECTION**

4

**EXISTING TOWNE ROAD MSE WALL TYPICAL SECTION**

2

**EXISTING TOWNE ROAD LEVEE SLUMP REPAIR TYPICAL SECTION**

3

**EXISTING TOWNE ROAD LEVEE RIPRAP TYPICAL SECTION**

**NOTES:**

- FROM STATION 133+00 TO 142+10 TOP LAYER OF SLOPE REINFORCEMENT IS LOCATED 2 FT BELOW EXISTING TOP OF LEVEE EMBANKMENT.
- FROM STATION 109+00 TO 133+00 TOP LAYER OF SLOPE REINFORCEMENT IS LOCATED 1 FT BELOW EXISTING TOP OF LEVEE EMBANKMENT.
- POT HOLE EVERY 200FT. SEE SPEC. 2-03.1.

**LEGEND**

- FINISHED GRADE
- EXISTING GRADE
- QUARRY SPALLS
- CRUSHED SURFACING BASE COURSE (CSBC)
- RIPRAP
- TOPSOIL TYPE B
- HORIZONTAL DRAINAGE FILTER (IMPORT)
- HORIZONTAL DRAINAGE BLANKET (IMPORT)



REV	DATE	DESCRIPTION
REV 1	04/05/24	ROAD & CAVES DETAILS



ISSUE DATE: MARCH 2024	CONTRACT NO.:
DESIGNED BY: G. KAYS	PHASE 3
DRAWN BY: A. PICCOLI	SIZE:
CHECKED BY: J. RANDOLPH	ANSI D
SCALE:	
CLALLAM COUNTY, WASHINGTON 222 EAST 4TH STREET, SUITE #6 PORT ANGELES, WA 98362	SHANNON & WILSON, INC. 400 NORTH 34TH STREET, SUITE 100 SEATTLE, WA 98103

EXISTING CONDITION TYPICAL SECTIONS

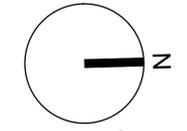
SHEET ID  
**C-109**

# KEY NOTES:

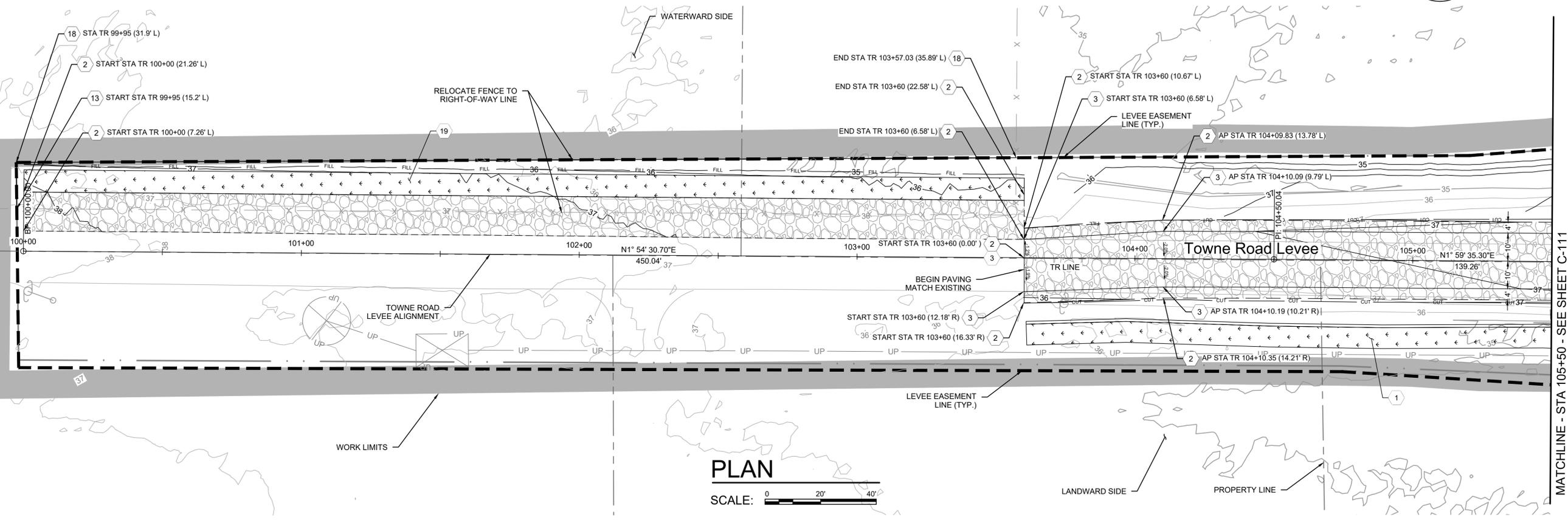
- 1 COMPOST AMENDED VEGETATED FILTER STRIPS. SEE DRAINAGE DETAILS.
- 2 CRUSHED SURFACING TOP COURSE (CSTC)
- 3 CHIP SEAL SURFACING (BY OTHERS)
- 4 BEAM GUARDRAIL TYPE 31 PER WSDOT STD PLAN C-20.10
- 5 BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL PER WSDOT STD PLAN C-22.45
- 6 BEAM GUARDRAIL TYPE 31 ANCHOR TYPE 11 PER WSDOT STD PLAN C-23.70
- 7 GUARDRAIL PLACEMENT STRONG POST - TYPE 31 INTERSECTION DESIGN PER WSDOT STD PLAN C-20.42
- 8 BEAM GUARDRAIL TYPE 31 TRANSITION SECTION TYPE 24 PER WSDOT STD PLAN C-25.30
- 9 GUARDRAIL D CONNECTION TO CONCRETE BARRIER PER WSDOT STD PLAN C-24.10
- 10 CEMENT CONCRETE TRAFFIC CURB PER WSDOT STD PLAN F-10.12-04
- 11 HMA PAVEMENT SECTION - SEE TYPICAL SECTIONS
- 12 ACCESS GATE
- 13 HMA WEDGE CURB
- 14 YELLOW DOUBLE CENTER LINE PER WSDOT STD PLAN M-20.10
- 15 STOP LINE PER WSDOT STD PLAN M-24.60
- 16 WHITE EDGE LINE PER WSDOT STD PLAN M-20.10
- 17 STOP SIGN - TYPE R1-1, PER WSDOT STD PLAN G-20.10
- 18 RELOCATE EXISTING FENCE TO RIGHT-OF-WAY LINE
- 19 FILTER STRIP. SEE DRAINAGE DETAILS.

# LEGEND

-  CRUSHED SURFACING TOP COURSE
-  COMPOST AMENDED VEGETATED FILTER STRIP

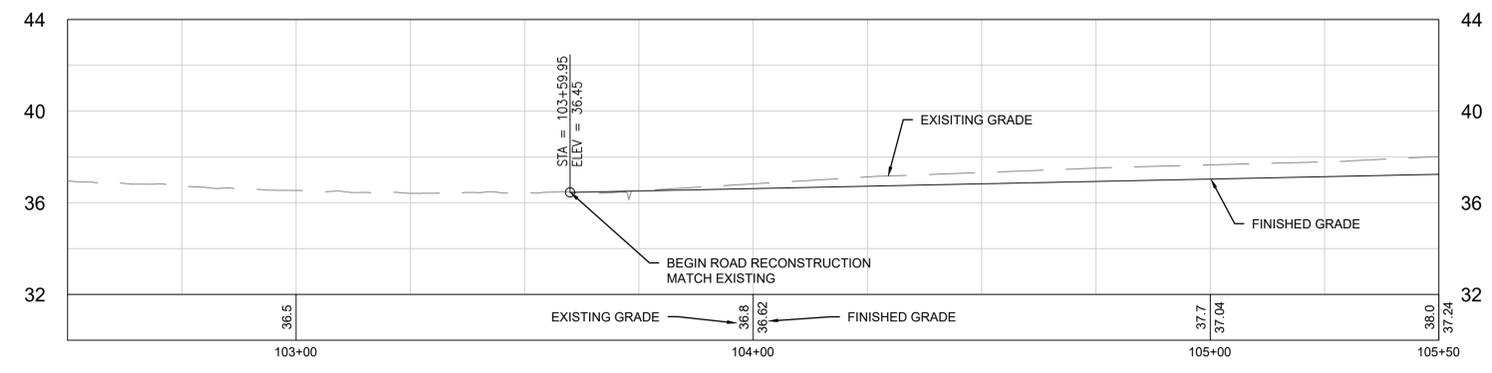


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# PROFILE

HORIZONTAL SCALE: 0 20' 40'  
 VERTICAL SCALE: 0 4' 8'



MATCHLINE - STA 105+50 - SEE SHEET C-111



REV	DATE	DESCRIPTION
REV1	04/05/24	ROAD & CAVES DETAILS



ISSUE DATE:	MARCH 2024
DESIGNED BY:	M. SKINNER
CHECKED BY:	J. KEYS
SUBMITTED BY:	HOR
SIZE:	ANSI D

CLALLAM COUNTY, WASHINGTON  
 223 EAST 4TH STREET, SUITE #6  
 PORT ANGELES, WA 98382  
 HOR ENGINEERING  
 929 108TH AVE NE, SUITE 1300  
 BELLEVUE, WA 98004

DUNGENESS, WASHINGTON  
 LOWER DUNGENESS RIVER FLOODPLAIN  
 RESTORATION & LEVEE/ROAD REALIGNMENT PROJECT  
 TOWNE ROAD AND LEVEE DRAINAGE  
 AND GUARDRAIL  
 PLAN SHEET 1

SHEET ID  
**C-110**

# KEY NOTES:

- 1 COMPOST AMENDED VEGETATED FILTER STRIPS. SEE DRAINAGE DETAILS.
- 2 CRUSHED SURFACING TOP COURSE (CSTC)
- 3 CHIP SEAL SURFACING (BY OTHERS)
- 4 BEAM GUARDRAIL TYPE 31 PER WSDOT STD PLAN C-20.10
- 5 BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL PER WSDOT STD PLAN C-22.45
- 6 BEAM GUARDRAIL TYPE 31 ANCHOR TYPE 11 PER WSDOT STD PLAN C-23.70
- 7 GUARDRAIL PLACEMENT STRONG POST - TYPE 31 INTERSECTION DESIGN PER WSDOT STD PLAN C-20.42
- 8 BEAM GUARDRAIL TYPE 31 TRANSITION SECTION TYPE 24 PER WSDOT STD PLAN C-25.30
- 9 GUARDRAIL D CONNECTION TO CONCRETE BARRIER PER WSDOT STD PLAN C-24.10
- 10 CEMENT CONCRETE TRAFFIC CURB PER WSDOT STD PLAN F-10.12-04
- 11 HMA PAVEMENT SECTION - SEE TYPICAL SECTIONS
- 12 ACCESS GATE
- 13 HMA WEDGE CURB
- 14 YELLOW DOUBLE CENTER LINE PER WSDOT STD PLAN M-20.10
- 15 STOP LINE PER WSDOT STD PLAN M-24.60
- 16 WHITE EDGE LINE PER WSDOT STD PLAN M-20.10
- 17 STOP SIGN - TYPE R1-1, PER WSDOT STD PLAN G-20.10
- 18 RELOCATE EXISTING FENCE TO RIGHT-OF-WAY LINE
- 19 FILTER STRIP. SEE DRAINAGE DETAILS.

# LEGEND

-  CRUSHED SURFACING TOP COURSE
-  COMPOST AMENDED VEGETATED FILTER STRIP



REV	DATE	DESCRIPTION
REV1	04/05/24	ROAD & CANVFS DETAILS



ISSUE DATE: MARCH 2024	SOLICITATION NO.:	CONTRACT NO.:
DESIGNED BY: M. SKINNER	CHECKED BY: J. KEYS	SUBMITTED BY: HOR
CLALLAM COUNTY, WASHINGTON 223 EAST 4TH STREET, SUITE #6 PORT ANGELES, WA 98382	HOR ENGINEERING 929 108TH AVE NE, SUITE 1300 BELLEVUE, WA 98004	

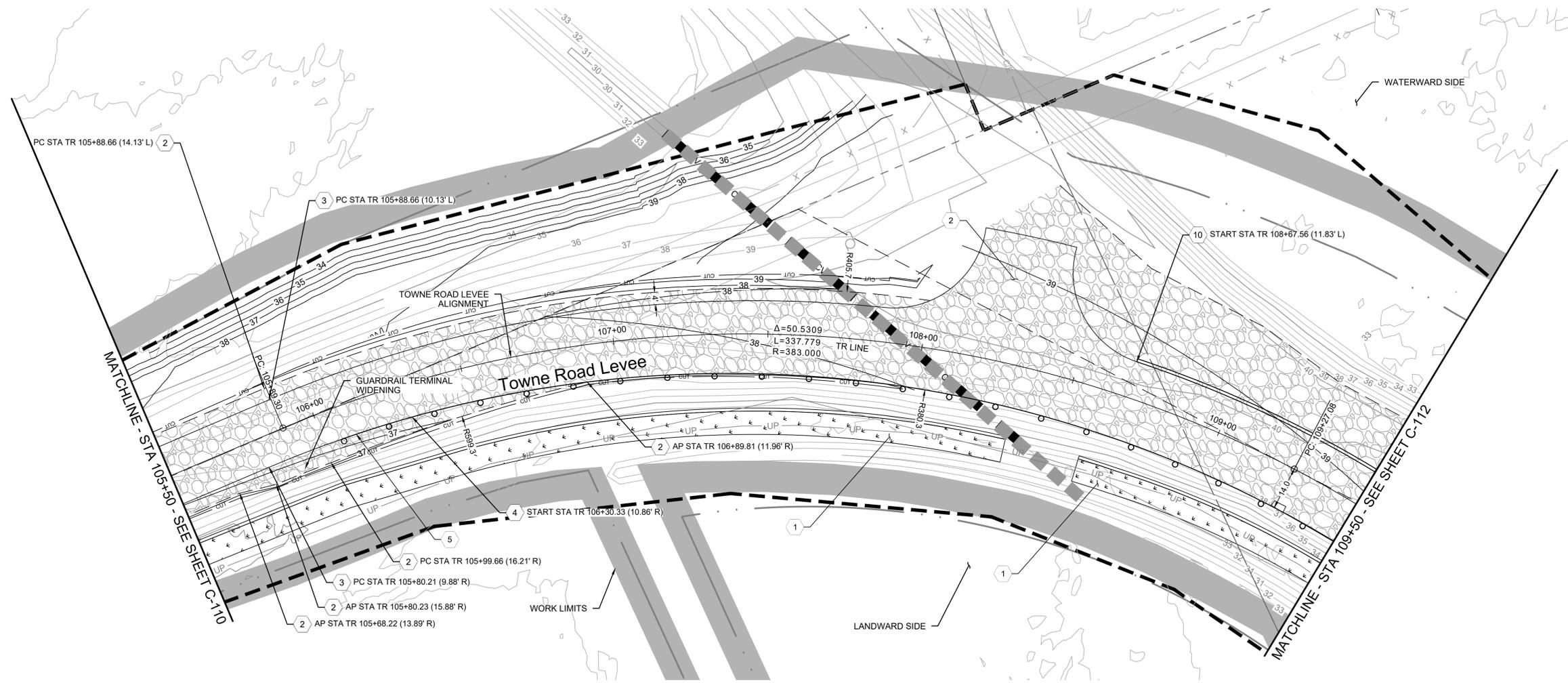
CLALLAM COUNTY, WASHINGTON 223 EAST 4TH STREET, SUITE #6 PORT ANGELES, WA 98382	HOR ENGINEERING 929 108TH AVE NE, SUITE 1300 BELLEVUE, WA 98004
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DUNGENESS, WASHINGTON  
LOWER DUNGENESS RIVER FLOODPLAIN  
RESTORATION & LEVEE/ROAD REALIGNMENT PROJECT  
TOWNE ROAD AND LEVEE DRAINAGE  
AND GUARDRAIL  
PLAN SHEET 2

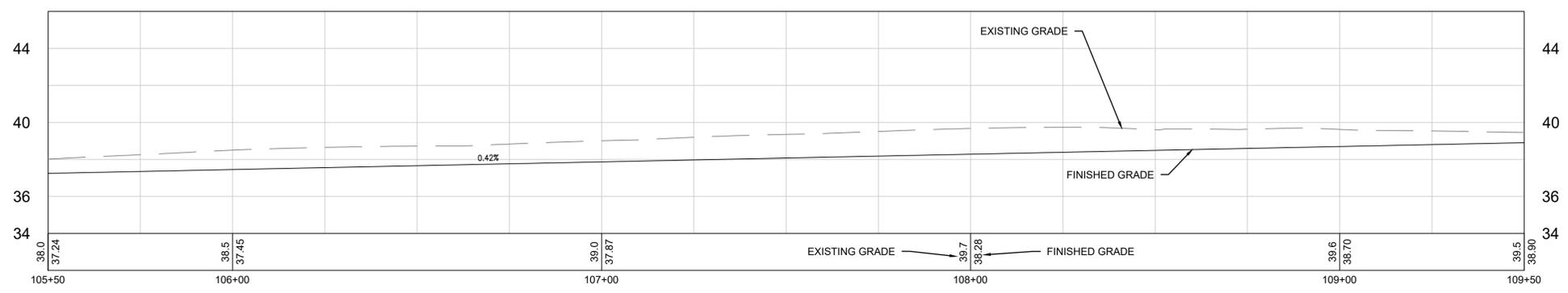
SHEET ID  
**C-111**

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**PLAN**  
SCALE: 0 20' 40'



# PROFILE

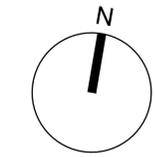
HORIZONTAL SCALE: 0 20' 40'  
VERTICAL SCALE: 0 4' 8'

# KEY NOTES:

- |   |  |   |  |
|---|--|---|--|
| 1 COMPOST AMENDED VEGETATED FILTER STRIPS. SEE DRAINAGE DETAILS.        | 6 BEAM GUARDRAIL TYPE 31 ANCHOR TYPE 11 PER WSDOT STD PLAN C-23.70                         | 11 HMA PAVEMENT SECTION - SEE TYPICAL SECTIONS          | 16 WHITE EDGE LINE PER WSDOT STD PLAN M-20.10        |
| 2 CRUSHED SURFACING TOP COURSE (CSTC)                                   | 7 GUARDRAIL PLACEMENT STRONG POST - TYPE 31 INTERSECTION DESIGN PER WSDOT STD PLAN C-20.42 | 12 ACCESS GATE  | 17 STOP SIGN - TYPE R1-1, PER WSDOT STD PLAN G-20.10 |
| 3 CHIP SEAL SURFACING (BY OTHERS)                                       | 8 BEAM GUARDRAIL TYPE 31 TRANSITION SECTION TYPE 24 PER WSDOT STD PLAN C-25.30             | 13 HMA WEDGE CURB                                       | 18 RELOCATE EXISTING FENCE TO RIGHT-OF-WAY LINE      |
| 4 BEAM GUARDRAIL TYPE 31 PER WSDOT STD PLAN C-20.10                     | 9 GUARDRAIL D CONNECTION TO CONCRETE BARRIER PER WSDOT STD PLAN C-24.10                    | 14 YELLOW DOUBLE CENTER LINE PER WSDOT STD PLAN M-20.10 | 19 FILTER STRIP. SEE DRAINAGE DETAILS.               |
| 5 BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL PER WSDOT STD PLAN C-22.45 | 10 CEMENT CONCRETE TRAFFIC CURB PER WSDOT STD PLAN F-10.12-04                              | 15 STOP LINE PER WSDOT STD PLAN M-24.60                 |  |

# LEGEND

-  CRUSHED SURFACING TOP COURSE
-  COMPOST AMENDED VEGETATED FILTER STRIP



REV	DATE	DESCRIPTION
REV1	04/05/24	ROAD & CAVES DETAILS

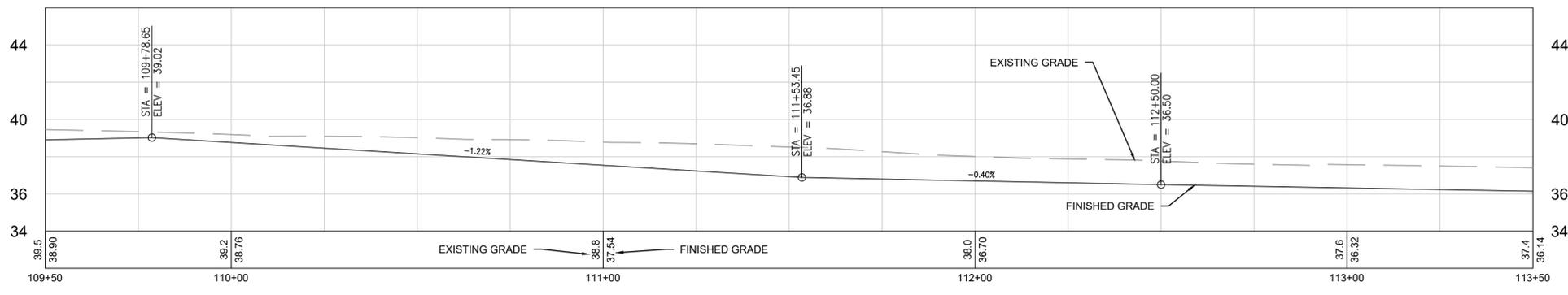
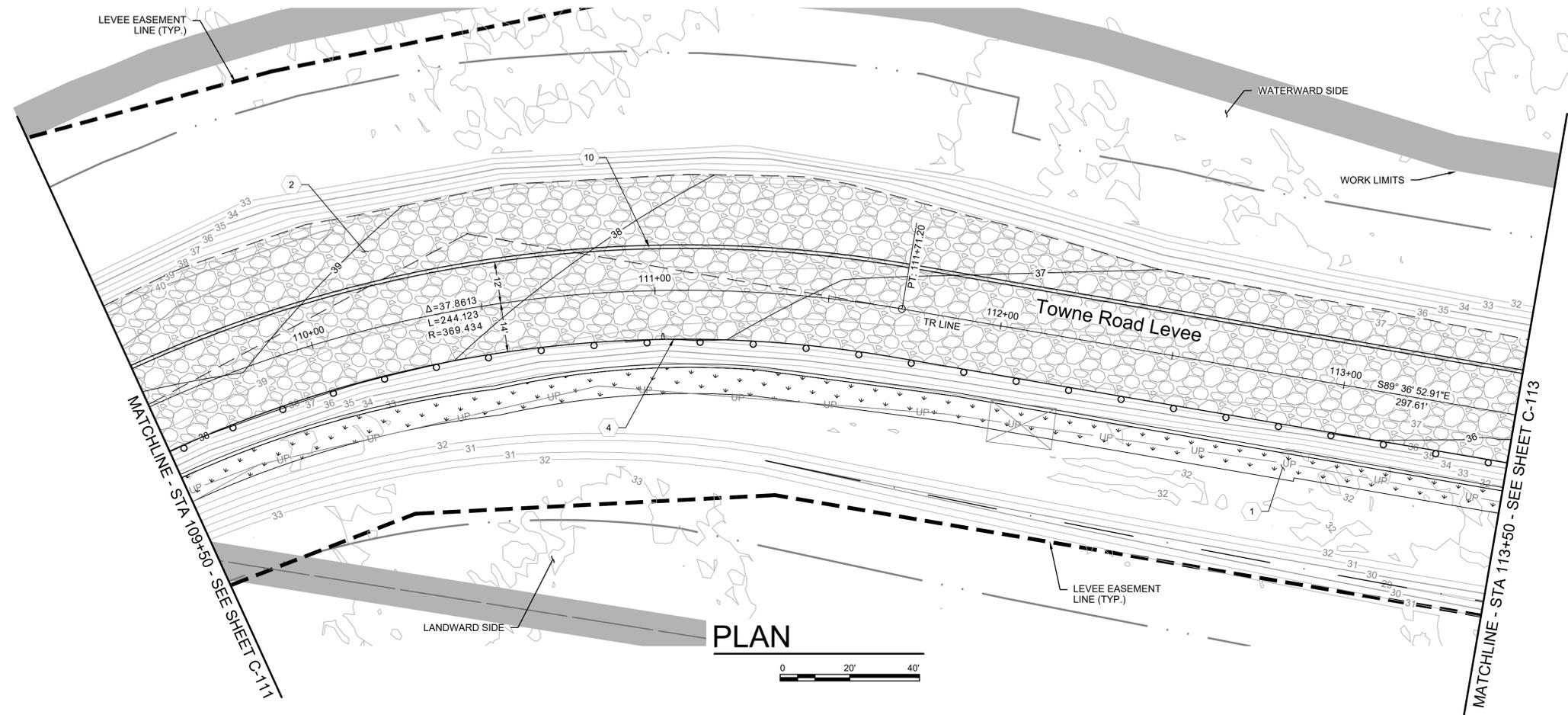


DESIGNED BY: M. SKINNER	ISSUE DATE: MARCH 2024
CHECKED BY: J. KEYES	SOLICITATION NO.:
SUBMITTED BY: HOR	CONTRACT NO.:
SIZE: ANSI D	

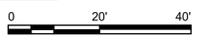
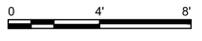
CLALLAM COUNTY, WASHINGTON 223 EAST 4TH STREET, SUITE #6 PORT ANGELES, WA 98362	HOR ENGINEERING 929 108TH AVE NE, SUITE 1300 BELLEVUE, WA 98004
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DUNGENESS, WASHINGTON  
LOWER DUNGENESS RIVER FLOODPLAIN  
RESTORATION & LEVEE/ROAD REALIGNMENT PROJECT  
TOWNE ROAD AND LEVEE DRAINAGE  
AND GUARDRAIL  
PLAN SHEET 3

SHEET ID  
**C-112**



# PROFILE

HORIZONTAL SCALE:   
 VERTICAL SCALE: 

# KEY NOTES:

- 1 COMPOST AMENDED VEGETATED FILTER STRIPS. SEE DRAINAGE DETAILS.
- 2 CRUSHED SURFACING TOP COURSE (CSTC)
- 3 CHIP SEAL SURFACING (BY OTHERS)
- 4 BEAM GUARDRAIL TYPE 31 PER WSDOT STD PLAN C-20.10
- 5 BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL PER WSDOT STD PLAN C-22.45
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- 11 HMA PAVEMENT SECTION - SEE TYPICAL SECTIONS
- 12 ACCESS GATE
- 13 HMA WEDGE CURB
- 14 YELLOW DOUBLE CENTER LINE PER WSDOT STD PLAN M-20.10
- 15 STOP LINE PER WSDOT STD PLAN M-24.60
- 16 WHITE EDGE LINE PER WSDOT STD PLAN M-20.10
- 17 STOP SIGN - TYPE R1-1, PER WSDOT STD PLAN G-20.10
- 18 RELOCATE EXISTING FENCE TO RIGHT-OF-WAY LINE
- 19 FILTER STRIP. SEE DRAINAGE DETAILS.

# LEGEND

-  CRUSHED SURFACING TOP COURSE
-  COMPOST AMENDED VEGETATED FILTER STRIP

N




REV	DATE	DESCRIPTION
REV1	04/05/24	ROAD & CAVES DETAILS



ISSUE DATE: MARCH 2024	SOLICITATION NO.:
DESIGNED BY: M. SKINNER	CONTRACT NO.:
CHECKED BY: J. KEYES	52220-3
SUBMITTED BY:	
SIZE:	ANSI D

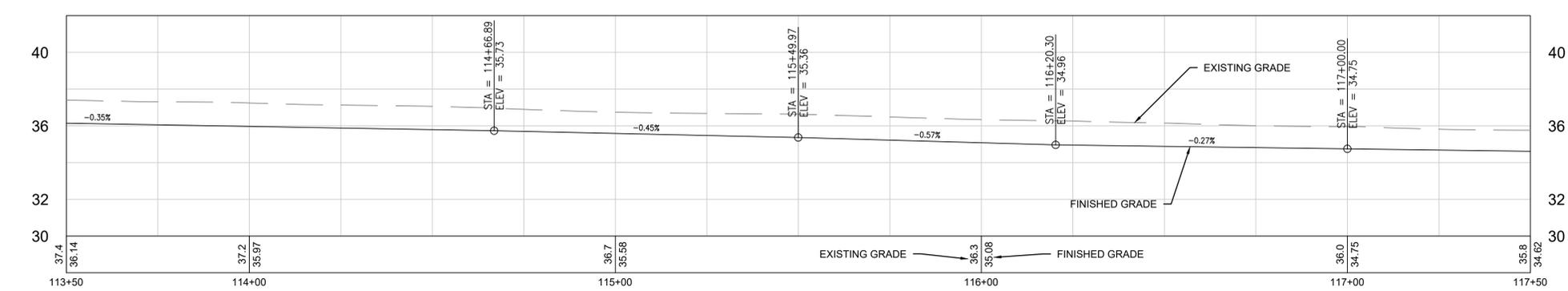
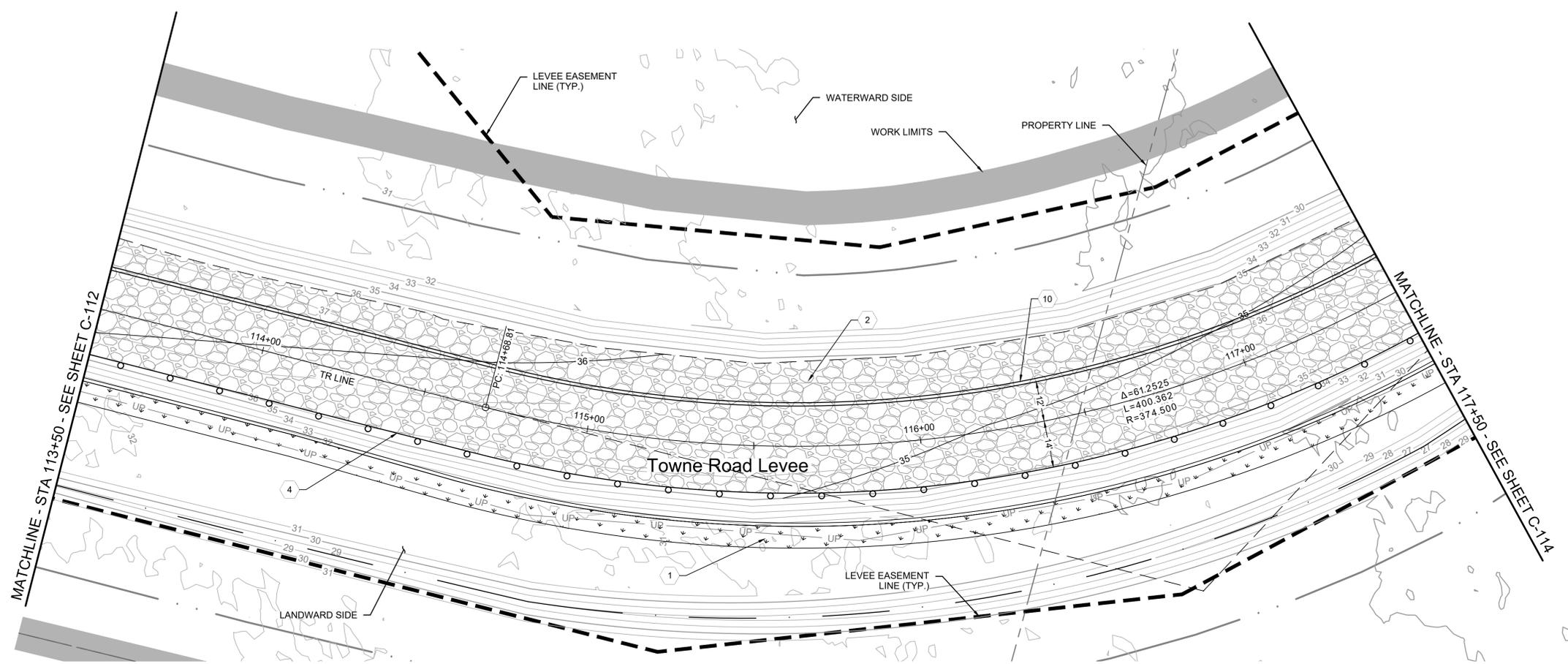
CLALLAM COUNTY, WASHINGTON  
223 EAST 4TH STREET, SUITE #6  
PORT ANGELES, WA 98382

HOR ENGINEERING  
929 08TH AVE NE, SUITE 1300  
BELLEVUE, WA 98004

DUNGENESS, WASHINGTON  
LOWER DUNGENESS RIVER FLOODPLAIN  
RESTORATION & LEVEE/ROAD REALIGNMENT PROJECT

TOWNE ROAD AND LEVEE DRAINAGE  
AND GUARDRAIL  
PLAN SHEET 4

SHEET ID  
**C-113**



# PROFILE

HORIZONTAL SCALE: 0 20' 40'

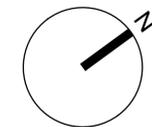
VERTICAL SCALE: 0 4' 8'

# KEY NOTES:

- 1 COMPOST AMENDED VEGETATED FILTER STRIPS. SEE DRAINAGE DETAILS.
- 2 CRUSHED SURFACING TOP COURSE (CSTC)
- 3 CHIP SEAL SURFACING (BY OTHERS)
- 4 BEAM GUARDRAIL TYPE 31 PER WSDOT STD PLAN C-20.10
- 5 BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL PER WSDOT STD PLAN C-22.45
- 6 BEAM GUARDRAIL TYPE 31 ANCHOR TYPE 11 PER WSDOT STD PLAN C-23.70
- 7 GUARDRAIL PLACEMENT STRONG POST - TYPE 31 INTERSECTION DESIGN PER WSDOT STD PLAN C-20.42
- 8 BEAM GUARDRAIL TYPE 31 TRANSITION SECTION TYPE 24 PER WSDOT STD PLAN C-25.30
- 9 GUARDRAIL D CONNECTION TO CONCRETE BARRIER PER WSDOT STD PLAN C-24.10
- 10 CEMENT CONCRETE TRAFFIC CURB PER WSDOT STD PLAN F-10.12-04
- 11 HMA PAVEMENT SECTION - SEE TYPICAL SECTIONS
- 12 ACCESS GATE
- 13 HMA WEDGE CURB
- 14 YELLOW DOUBLE CENTER LINE PER WSDOT STD PLAN M-20.10
- 15 STOP LINE PER WSDOT STD PLAN M-24.60
- 16 WHITE EDGE LINE PER WSDOT STD PLAN M-20.10
- 17 STOP SIGN - TYPE R1-1, PER WSDOT STD PLAN G-20.10
- 18 RELOCATE EXISTING FENCE TO RIGHT-OF-WAY LINE
- 19 FILTER STRIP. SEE DRAINAGE DETAILS.

# LEGEND

-  CRUSHED SURFACING TOP COURSE
-  COMPOST AMENDED VEGETATED FILTER STRIP



REV	DATE	DESCRIPTION
REV1	04/05/24	ROAD & CAVES DETAILS



DESIGNED BY: M. SKINNER	ISSUE DATE: MARCH 2024
CHECKED BY: J. KEYS	SOLICITATION NO.:
SUBMITTED BY: HOR	CONTRACT NO.:
SIZE: ANSI D	52220-3

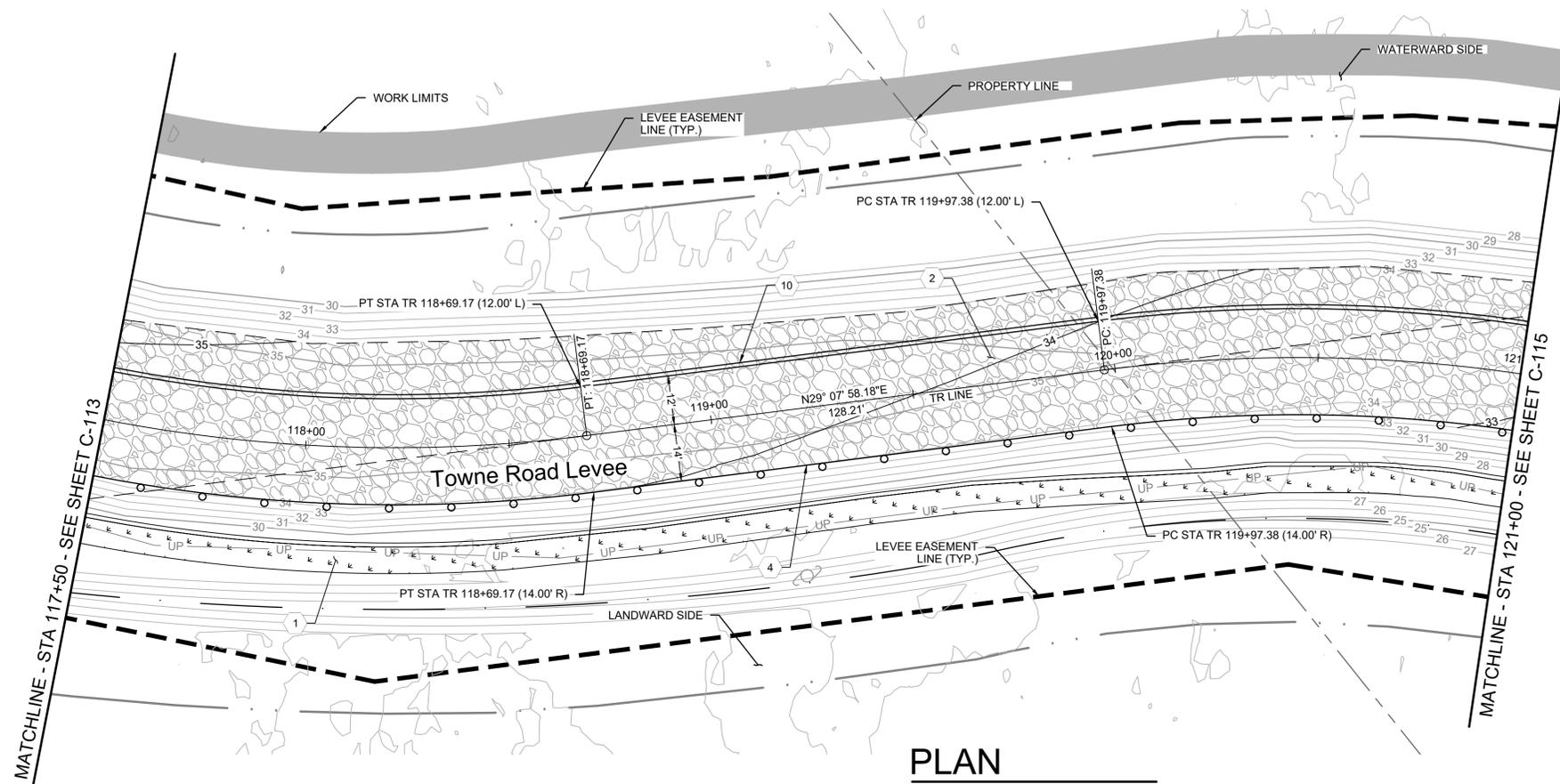
CLALLAM COUNTY, WASHINGTON  
223 EAST 4TH STREET, SUITE #6  
PORT ANGELES, WA 98362

HOR ENGINEERING  
929 08TH AVE NE, SUITE 1300  
BELLEVUE, WA 98004

DUNGENESS, WASHINGTON  
LOWER DUNGENESS RIVER FLOODPLAIN  
RESTORATION & LEVEE/ROAD REALIGNMENT PROJECT

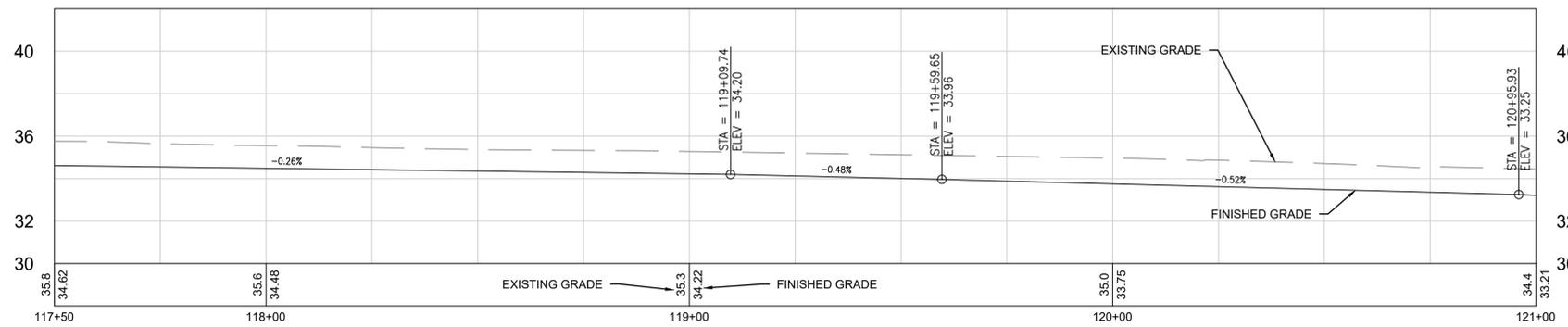
TOWNE ROAD AND LEVEE DRAINAGE  
AND GUARDRAIL  
PLAN SHEET 5

SHEET ID  
**C-114**



## PLAN

SCALE: 0 20' 40'



## PROFILE

HORIZONTAL SCALE: 0 20' 40'

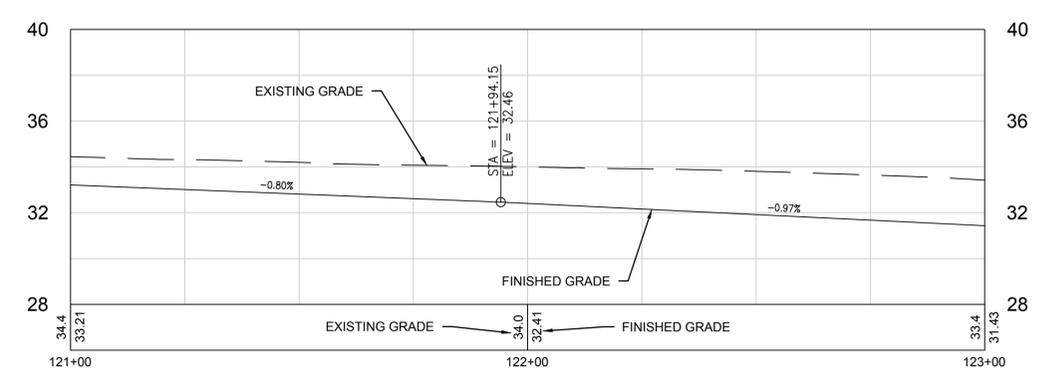
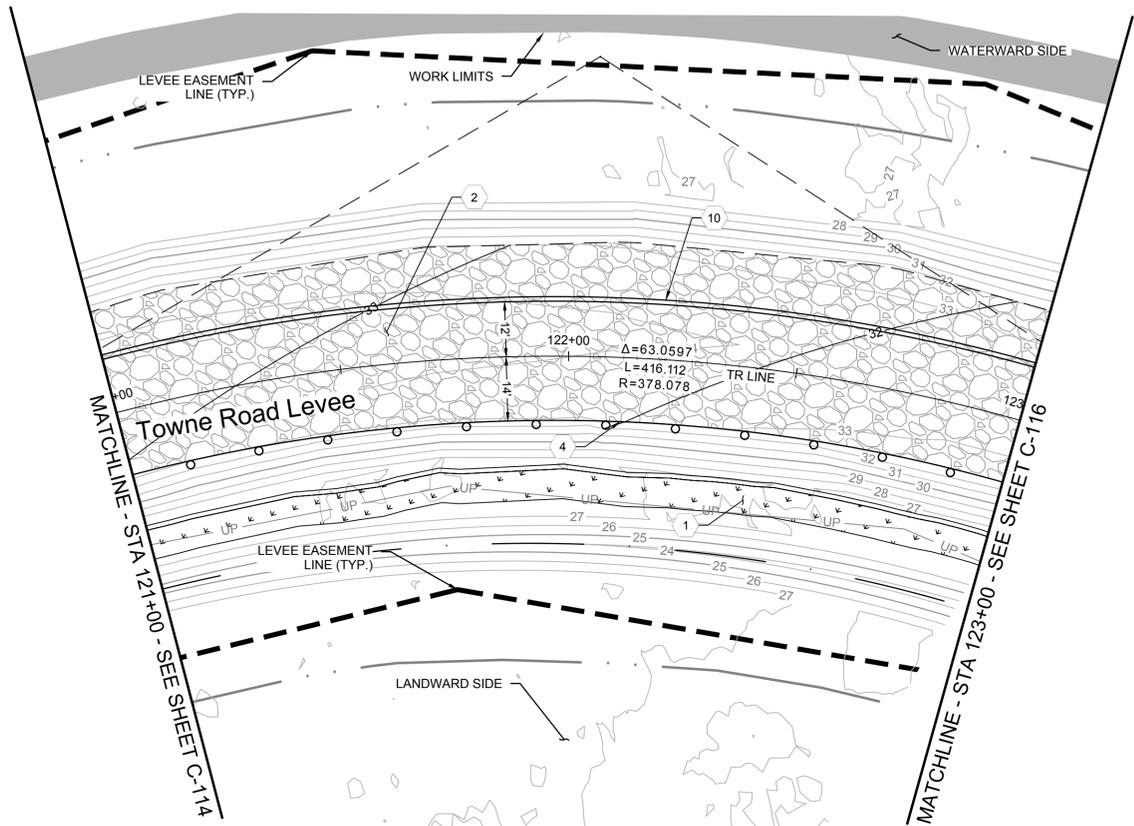
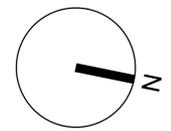
VERTICAL SCALE: 0 4' 8'

# KEY NOTES:

- 1 COMPOST AMENDED VEGETATED FILTER STRIPS. SEE DRAINAGE DETAILS.
- 2 CRUSHED SURFACING TOP COURSE (CSTC)
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- 18 RELOCATE EXISTING FENCE TO RIGHT-OF-WAY LINE
- 19 FILTER STRIP. SEE DRAINAGE DETAILS.

# LEGEND

-  CRUSHED SURFACING TOP COURSE
-  COMPOST AMENDED VEGETATED FILTER STRIP



REV	DATE	DESCRIPTION
REV1	04/05/24	ROAD & CAVES DETAILS



DESIGNED BY: M. SKINNER	ISSUE DATE: MARCH 2024
CHECKED BY: J. KEYES	SOLICITATION NO.:
SUBMITTED BY: HDR	CONTRACT NO.:
SIZE: ANSI D	52220-3
CLALLAM COUNTY, WASHINGTON 223 EAST 4TH STREET, SUITE #6 PORT ANGELES, WA 98362	
HDR ENGINEERING 929 108TH AVE NE, SUITE 1300 BELLEVUE, WA 98004	

DUNGENESS, WASHINGTON  
LOWER DUNGENESS RIVER FLOODPLAIN  
RESTORATION & LEVEE/ROAD REALIGNMENT PROJECT  
TOWNE ROAD AND LEVEE DRAINAGE  
AND GUARDRAIL  
PLAN SHEET 6

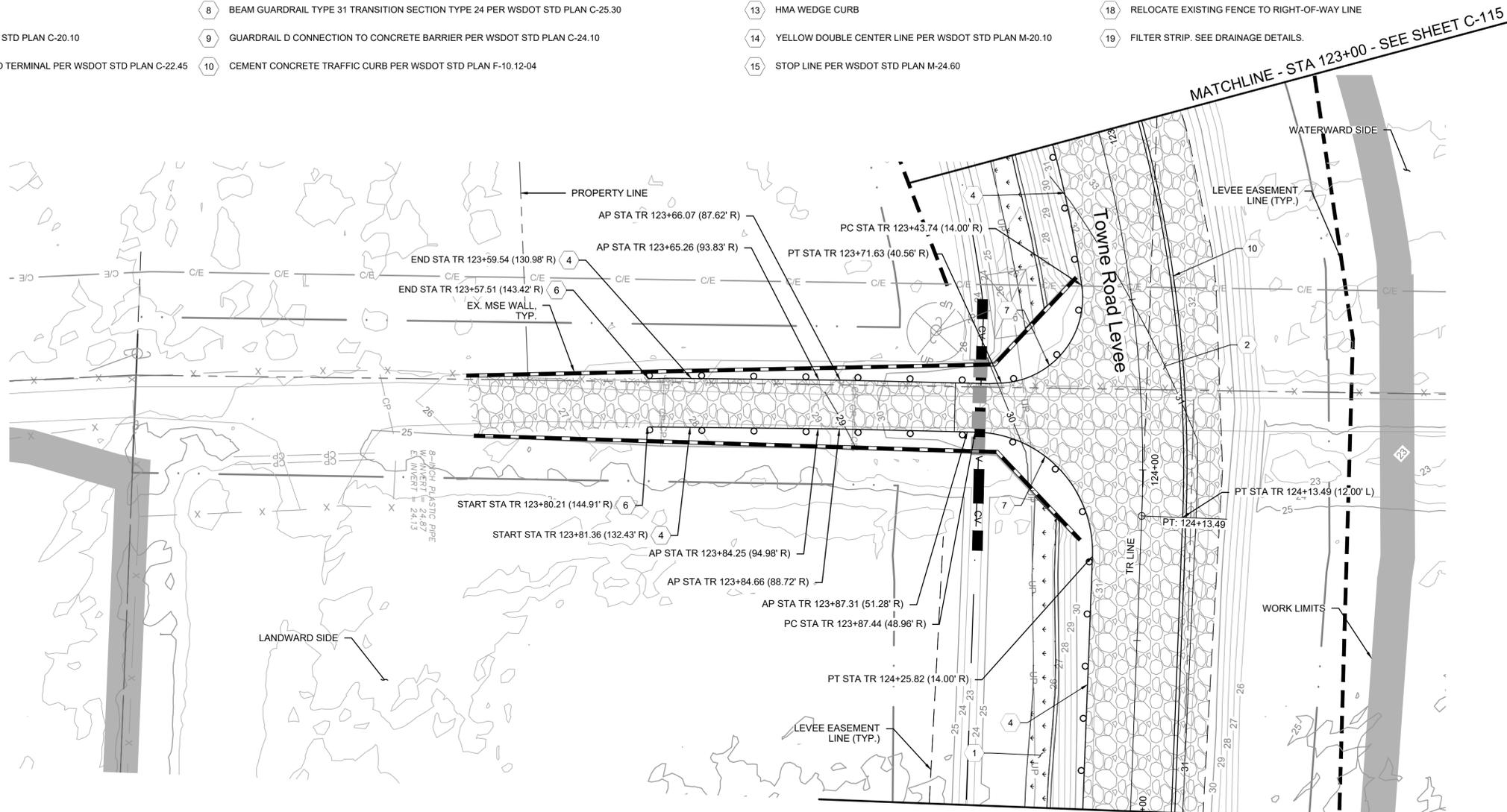
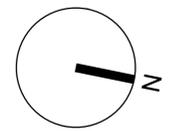
SHEET ID  
**C-115**

# KEY NOTES:

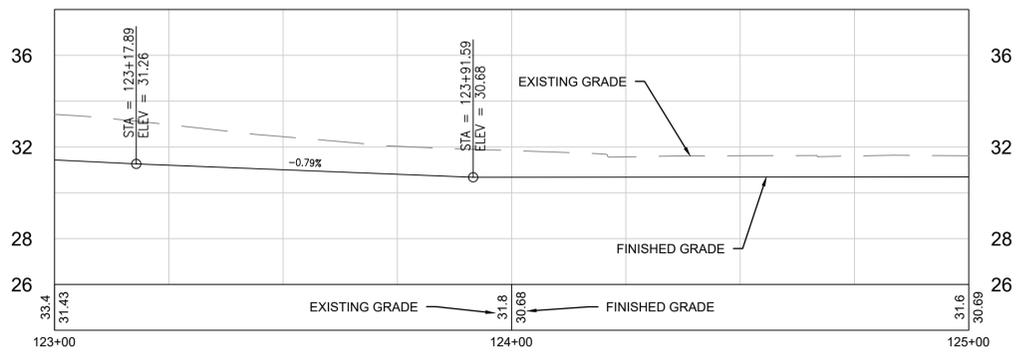
- 1 COMPOST AMENDED VEGETATED FILTER STRIPS. SEE DRAINAGE DETAILS.
- 2 CRUSHED SURFACING TOP COURSE (CSTC)
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- 11 HMA PAVEMENT SECTION - SEE TYPICAL SECTIONS
- 12 ACCESS GATE
- 13 HMA WEDGE CURB
- 14 YELLOW DOUBLE CENTER LINE PER WSDOT STD PLAN M-20.10
- 15 STOP LINE PER WSDOT STD PLAN M-24.60
- 16 WHITE EDGE LINE PER WSDOT STD PLAN M-20.10
- 17 STOP SIGN - TYPE R1-1, PER WSDOT STD PLAN G-20.10
- 18 RELOCATE EXISTING FENCE TO RIGHT-OF-WAY LINE
- 19 FILTER STRIP. SEE DRAINAGE DETAILS.

# LEGEND

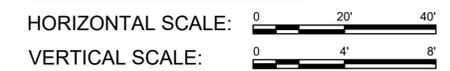
-  CRUSHED SURFACING TOP COURSE
-  COMPOST AMENDED VEGETATED FILTER STRIP



## PLAN



## PROFILE



REV	DATE	DESCRIPTION
REV1	04/05/24	ROAD & CAVES DETAILS



ISSUE DATE: MARCH 2024	SOLICITATION NO.:
DESIGNED BY: M. SKINNER	CONTRACT NO.:
CHECKED BY: J. KEYES	52220-3
SUBMITTED BY: HOR	
SIZE: ANSI D	
CLALLAM COUNTY, WASHINGTON 223 EAST 4TH STREET, SUITE #6 PORT ANGELES, WA 98362	
HOR ENGINEERING 929 108TH AVE NE, SUITE 1300 BELLEVUE, WA 98004	

DUNGENESS, WASHINGTON  
LOWER DUNGENESS RIVER FLOODPLAIN  
RESTORATION & LEVEE/ROAD REALIGNMENT PROJECT  
TOWNE ROAD AND LEVEE DRAINAGE  
AND GUARDRAIL  
PLAN SHEET 7

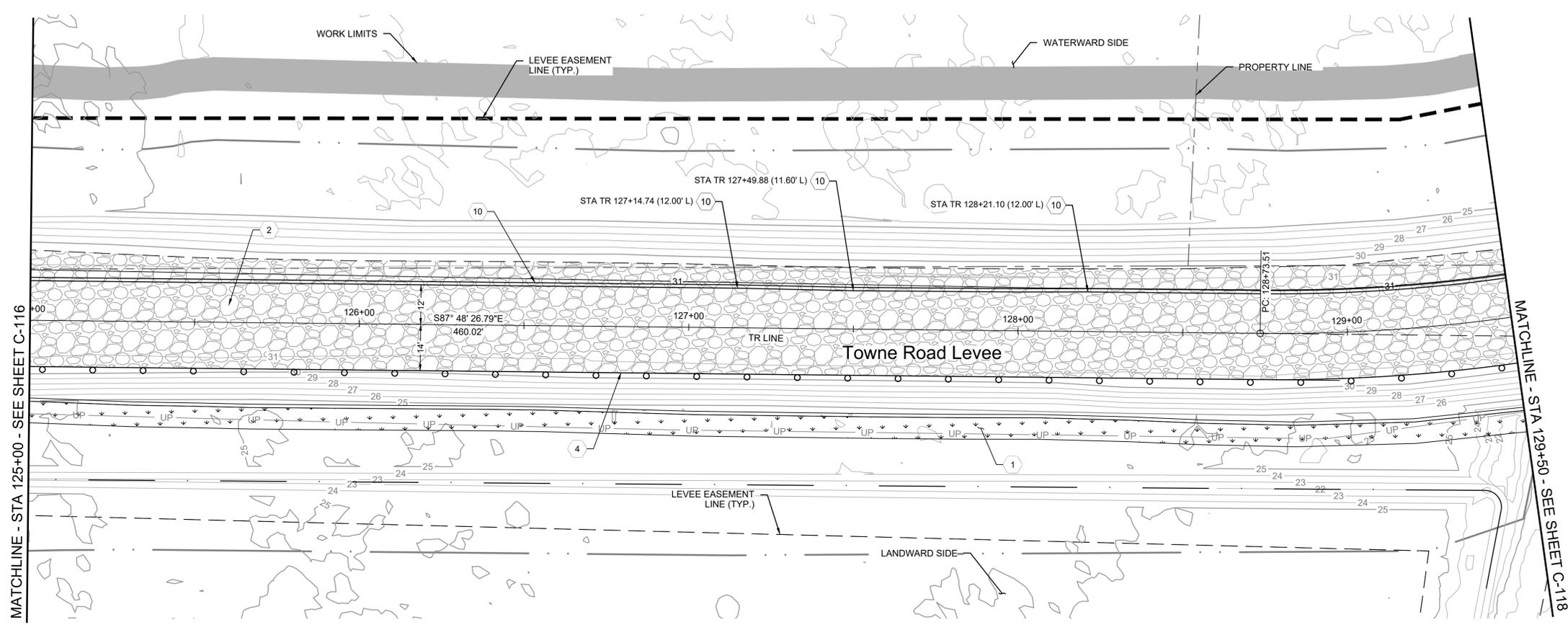
SHEET ID  
**C-116**

# KEY NOTES:

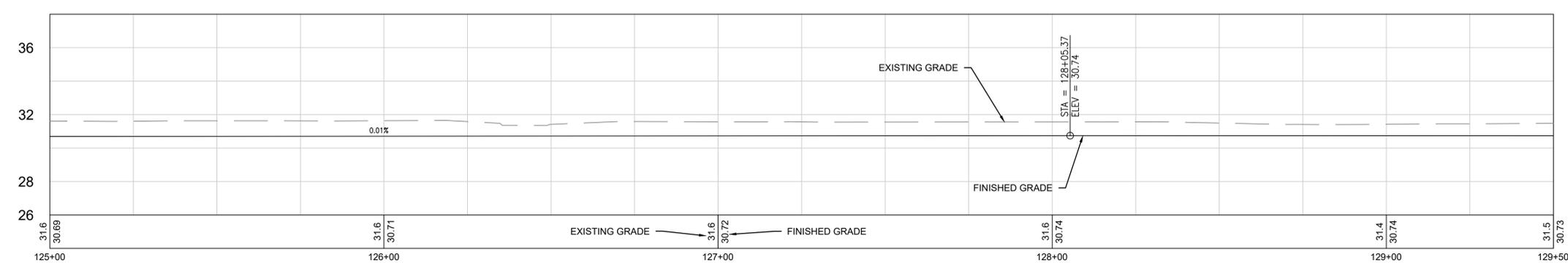
- 1 COMPOST AMENDED VEGETATED FILTER STRIPS. SEE DRAINAGE DETAILS.
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- 12 ACCESS GATE
- 13 HMA WEDGE CURB
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- 17 STOP SIGN - TYPE R1-1, PER WSDOT STD PLAN G-20.10
- 18 RELOCATE EXISTING FENCE TO RIGHT-OF-WAY LINE
- 19 FILTER STRIP. SEE DRAINAGE DETAILS.

# LEGEND

-  CRUSHED SURFACING TOP COURSE
-  COMPOST AMENDED VEGETATED FILTER STRIP



**PLAN**  
SCALE: 0 20' 40'



**PROFILE**  
HORIZONTAL SCALE: 0 20' 40'  
VERTICAL SCALE: 0 4' 8'



REV	DATE	DESCRIPTION
REV1	04/05/24	ROAD & CAVES DETAILS



DESIGNED BY: M. SKINNER	ISSUE DATE: MARCH 2024
CHECKED BY: J. KEYES	SOLICITATION NO.:
SUBMITTED BY: HOR	CONTRACT NO.:
SIZE: ANSI D	52220-3
CLALLAM COUNTY, WASHINGTON 223 EAST 4TH STREET, SUITE #6 PORT ANGELES, WA 98362	
HDR ENGINEERING 929 108TH AVE NE, SUITE 1300 BELLEVUE, WA 98004	

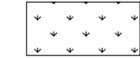
DUNGENESS, WASHINGTON  
LOWER DUNGENESS RIVER FLOODPLAIN  
RESTORATION & LEVEE/ROAD REALIGNMENT PROJECT  
TOWNE ROAD AND LEVEE DRAINAGE  
AND GUARDRAIL  
PLAN SHEET 8

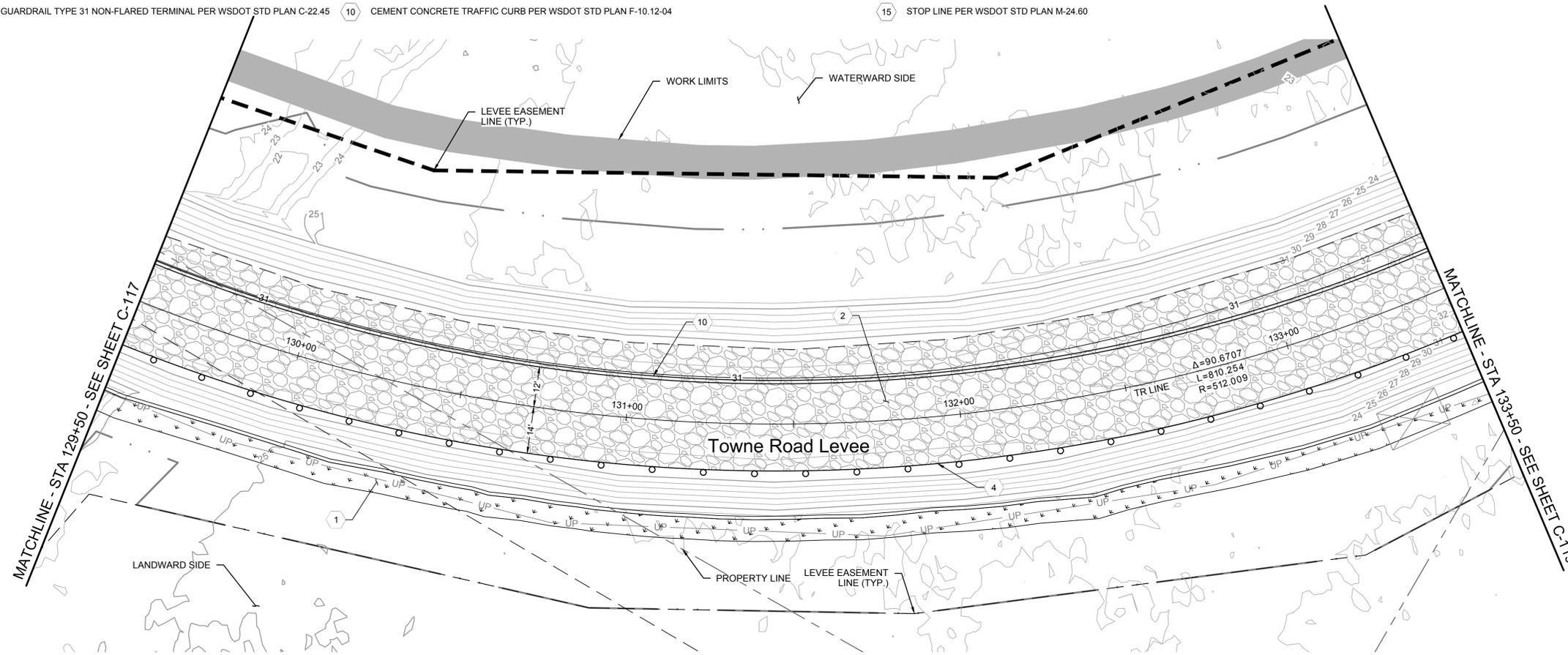
SHEET ID  
**C-117**

# KEY NOTES:

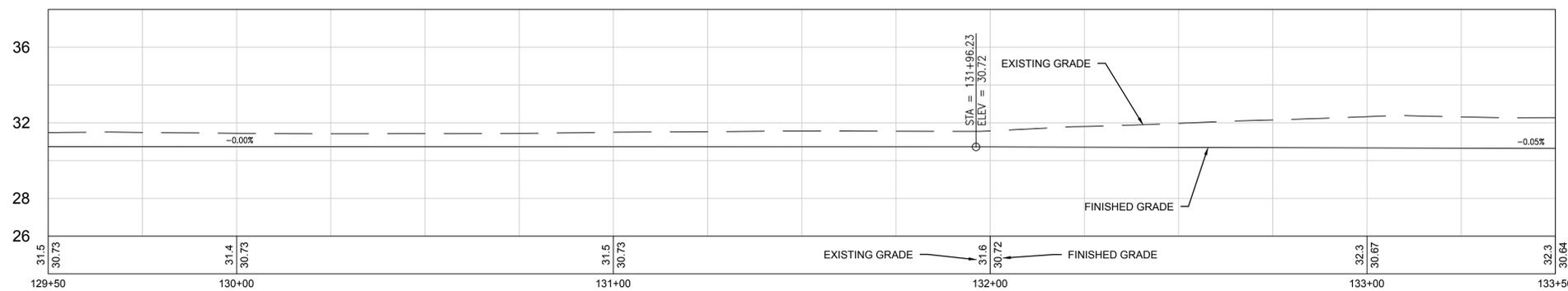
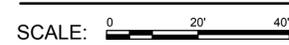
- 1 COMPOST AMENDED VEGETATED FILTER STRIPS. SEE DRAINAGE DETAILS.
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- 19 FILTER STRIP. SEE DRAINAGE DETAILS.

# LEGEND

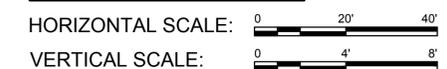
-  CRUSHED SURFACING TOP COURSE
-  COMPOST AMENDED VEGETATED FILTER STRIP



## PLAN



## PROFILE



REV	DATE	DESCRIPTION
REV1	04/05/24	ROAD & CAVFS DETAILS



ISSUE DATE: MARCH 2024	SOLICITATION NO.:
DESIGNED BY: M. SKINNER	CONTRACT NO.:
CHECKED BY: M. SKINNER	52220-3
SUBMITTED BY: J. KEYES	
SIZE: ANSI D	

CLALLAM COUNTY, WASHINGTON  
223 EAST 4TH STREET, SUITE #6  
PORT ANGELES, WA 98362

HDR ENGINEERING  
929 08TH AVE NE, SUITE 1300  
BELLEVUE, WA 98004

DUNGENESS, WASHINGTON  
LOWER DUNGENESS RIVER FLOODPLAIN  
RESTORATION & LEVEE/ROAD REALIGNMENT PROJECT

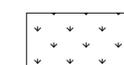
TOWNE ROAD AND LEVEE DRAINAGE  
AND GUARDRAIL  
PLAN SHEET 9

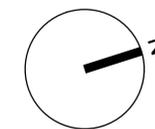
SHEET ID  
**C-118**

# KEY NOTES:

- 1 COMPOST AMENDED VEGETATED FILTER STRIPS. SEE DRAINAGE DETAILS.
- 2 CRUSHED SURFACING TOP COURSE (CSTC)
- 3 CHIP SEAL SURFACING (BY OTHERS)
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# LEGEND

-  CRUSHED SURFACING TOP COURSE
-  COMPOST AMENDED VEGETATED FILTER STRIP



REV	DATE	DESCRIPTION
REV1	04/05/24	ROAD & CAVES DETAILS



DESIGNED BY: M. SKINNER	ISSUE DATE: MARCH 2024
CHECKED BY: J. KEYS	SOLICITATION NO.:
SUBMITTED BY: HOR	CONTRACT NO.:
SIZE: ANSI D	52220-3

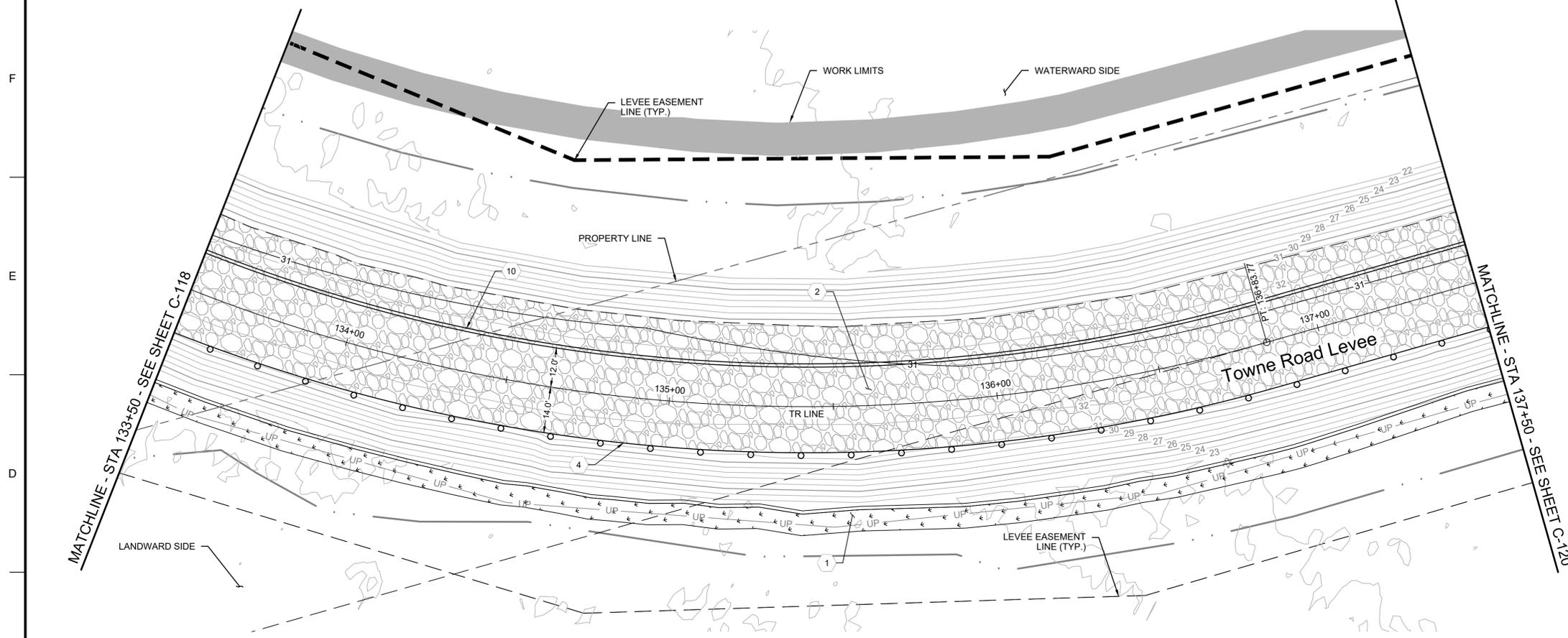
CLALLAM COUNTY, WASHINGTON  
223 EAST 4TH STREET, SUITE #6  
PORT ANGELES, WA 98362

HOR ENGINEERING  
929 108TH AVE NE, SUITE 1300  
BELLEVUE, WA 98004

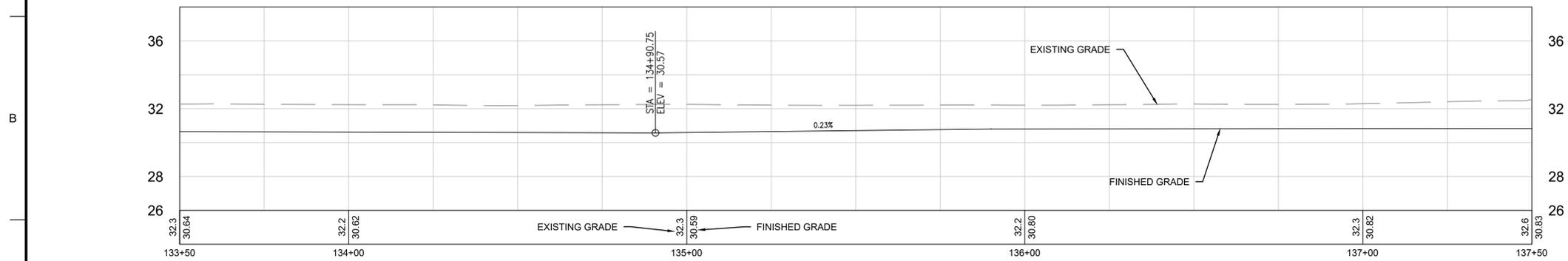
DUNGENESS, WASHINGTON  
LOWER DUNGENESS RIVER FLOODPLAIN  
RESTORATION & LEVEE/ROAD REALIGNMENT PROJECT

TOWNE ROAD AND LEVEE DRAINAGE  
AND GUARDRAIL  
PLAN SHEET 10

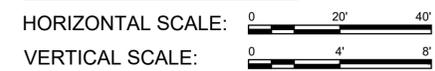
SHEET ID  
**C-119**



## PLAN



## PROFILE

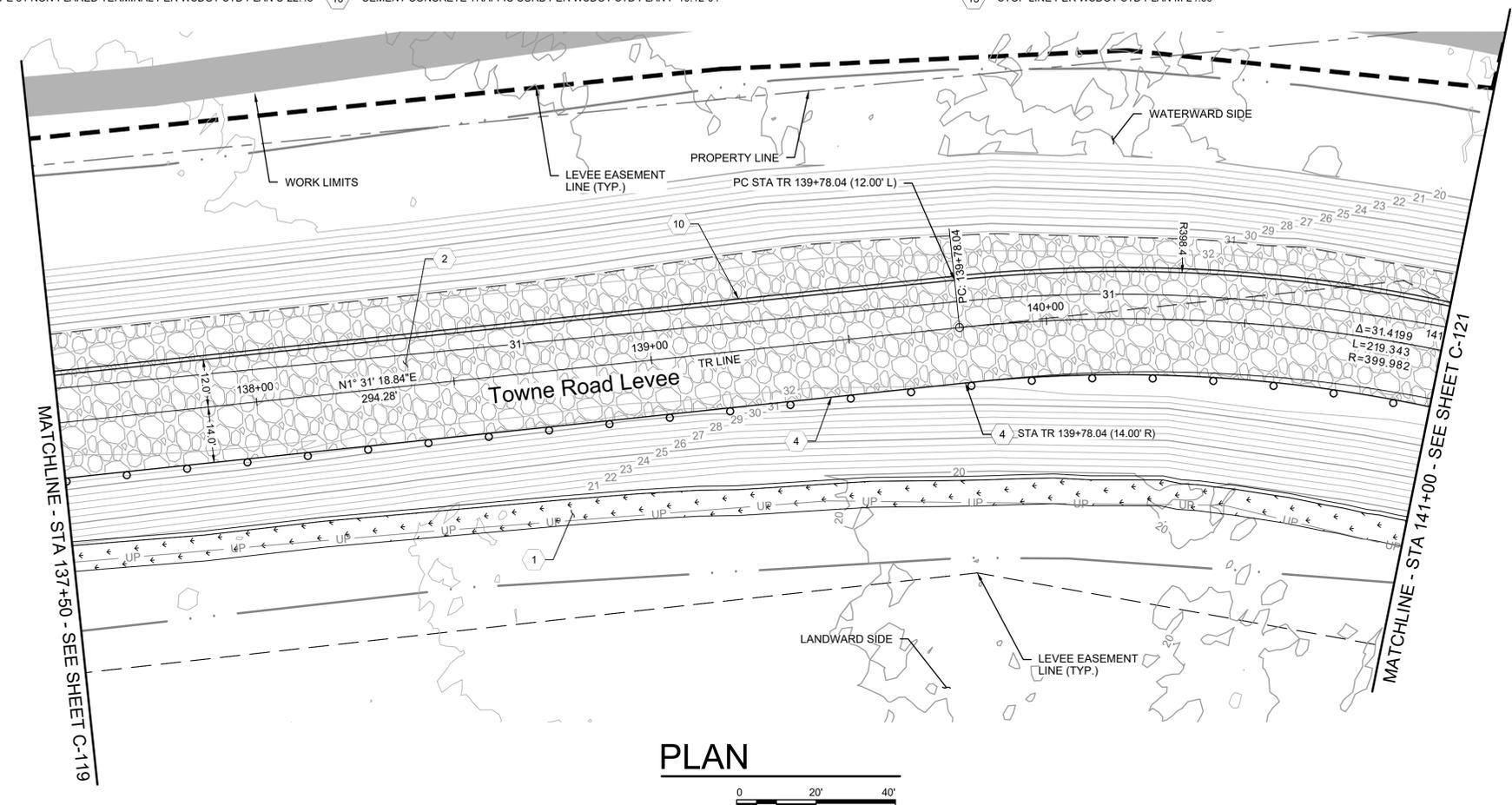
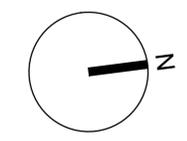


# KEY NOTES:

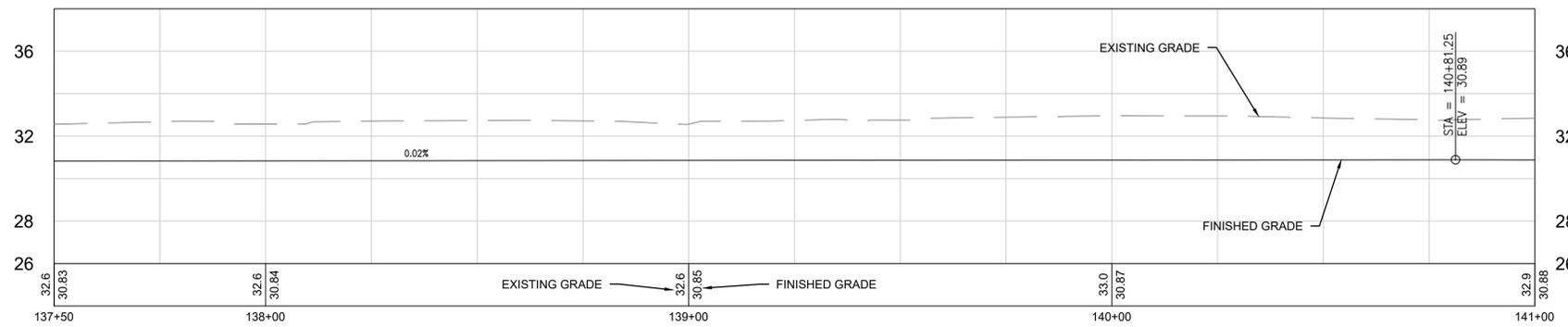
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- 18 RELOCATE EXISTING FENCE TO RIGHT-OF-WAY LINE
- 19 FILTER STRIP. SEE DRAINAGE DETAILS.

# LEGEND

-  CRUSHED SURFACING TOP COURSE
-  COMPOST AMENDED VEGETATED FILTER STRIP



**PLAN**  
0 20' 40'



# PROFILE

HORIZONTAL SCALE: 0 20' 40'  
VERTICAL SCALE: 0 4' 8'



REV	DATE	DESCRIPTION
REV1	04/05/24	ROAD & CAVES DETAILS



DESIGNED BY: M. SKINNER	ISSUE DATE: MARCH 2024
CHECKED BY: J. KEYES	SOLICITATION NO.:
SUBMITTED BY: HDR	CONTRACT NO.:
SIZE: ANSI D	52220-3
CLALLAM COUNTY, WASHINGTON 223 EAST 4TH STREET, SUITE #6 PORT ANGELES, WA 98362	
HDR ENGINEERING 929 108TH AVE NE, SUITE 1300 BELLEVUE, WA 98004	

DUNGENESS, WASHINGTON  
LOWER DUNGENESS RIVER FLOODPLAIN  
RESTORATION & LEVEE/ROAD REALIGNMENT PROJECT  
TOWNE ROAD AND LEVEE DRAINAGE  
AND GUARDRAIL  
PLAN SHEET 11

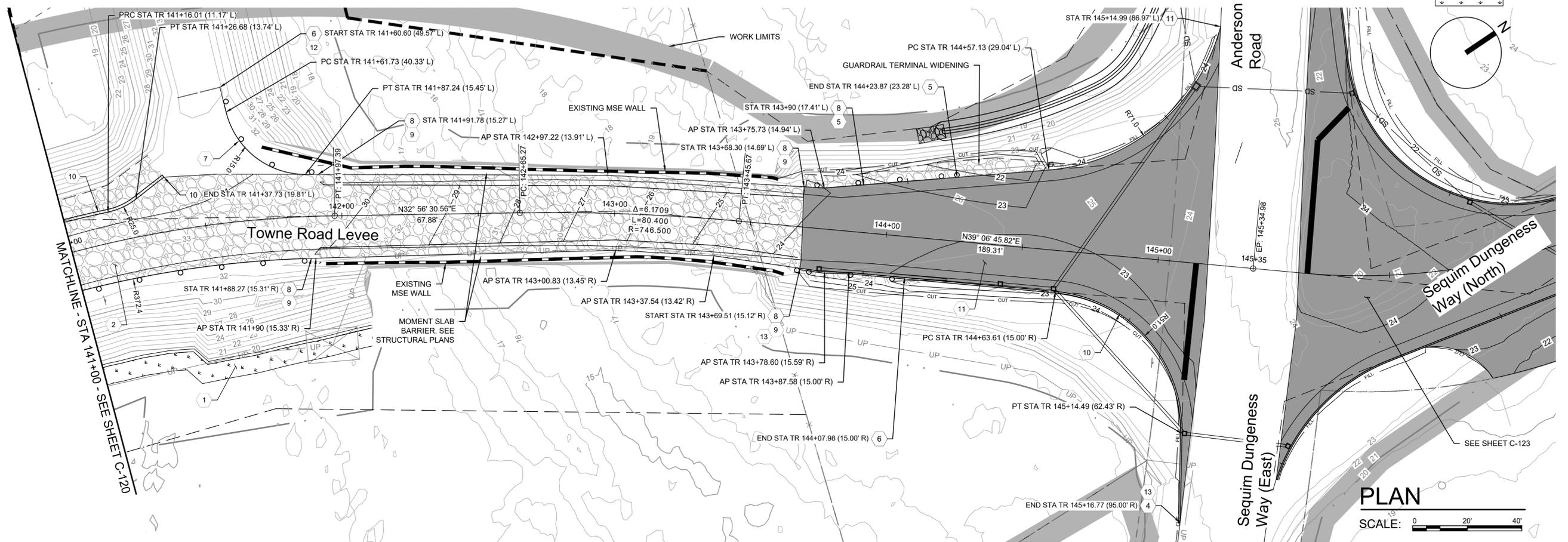
SHEET ID  
**C-120**

# KEY NOTES:

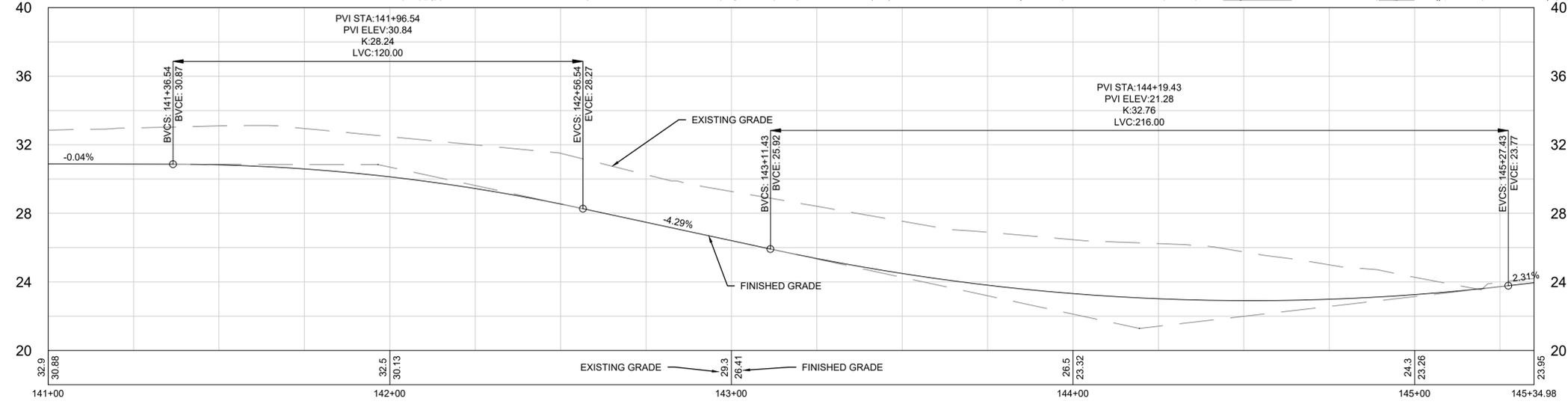
- 1 COMPOST AMENDED VEGETATED FILTER STRIPS. SEE DRAINAGE DETAILS.
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- 13 HMA WEDGE CURB
- 14 YELLOW DOUBLE CENTER LINE PER WSDOT STD PLAN M-20.10
- 15 STOP LINE PER WSDOT STD PLAN M-24.60
- 16 WHITE EDGE LINE PER WSDOT STD PLAN M-20.10
- 17 STOP SIGN - TYPE R1-1, PER WSDOT STD PLAN G-20.10
- 18 RELOCATE EXISTING FENCE TO RIGHT-OF-WAY LINE
- 19 FILTER STRIP. SEE DRAINAGE DETAILS.

# LEGEND

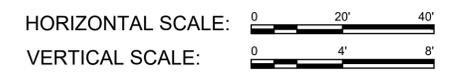
-  CRUSHED SURFACING TOP COURSE
-  0.25' HMA PAVEMENT SURFACING OVER 0.33' CSTC
-  COMPOST AMENDED VEGETATED FILTER STRIP



## PLAN



## PROFILE



REV	DATE	DESCRIPTION
REV1	04/05/24	ROAD & CANV DETAILS



ISSUE DATE: MARCH 2024	SOLICITATION NO.:
DESIGNED BY: M. SKINNER	CONTRACT NO.:
CHECKED BY: J. KEYS	52220-3
SUBMITTED BY: HOR	
SIZE: ANSI D	

CLALLAM COUNTY, WASHINGTON  
223 EAST 4TH STREET, SUITE #6  
PORT ANGELES, WA 98362

HOR ENGINEERING  
929 108TH AVE NE, SUITE 1300  
BELLEVUE, WA 98004

DUNGENESS, WASHINGTON  
LOWER DUNGENESS RIVER FLOODPLAIN  
RESTORATION & LEVEE/ROAD REALIGNMENT PROJECT

TOWNE ROAD AND LEVEE DRAINAGE  
AND GUARDRAIL  
PLAN SHEET 12

SHEET ID  
**C-121**

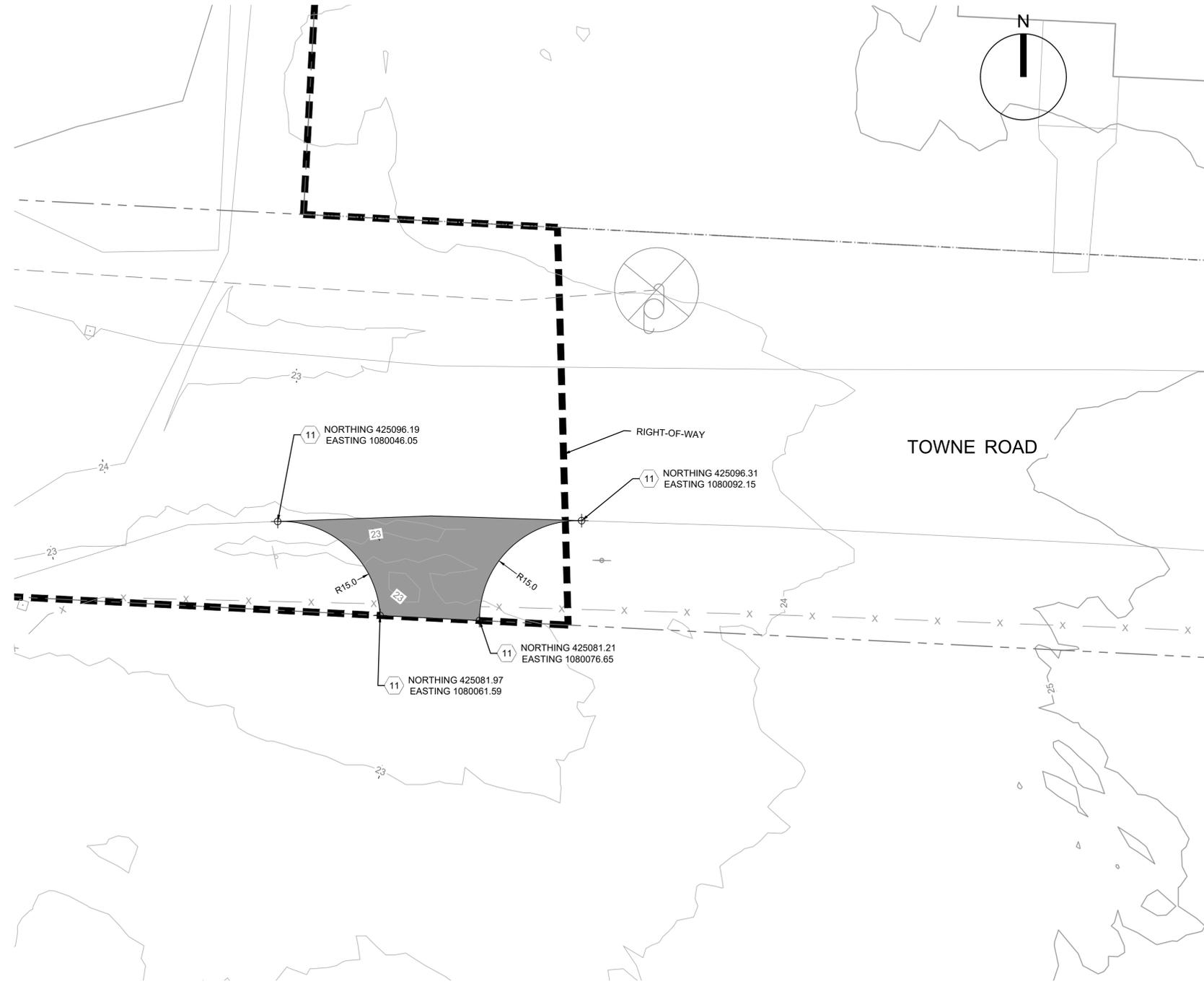
# KEY NOTES:

- 1 COMPOST AMENDED VEGETATED FILTER STRIPS. SEE DRAINAGE DETAILS.
- 2 CRUSHED SURFACING TOP COURSE (CSTC)
- 3 CHIP SEAL SURFACING (BY OTHERS)
- 4 BEAM GUARDRAIL TYPE 31 PER WSDOT STD PLAN C-20.10
- 5 BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL PER WSDOT STD PLAN C-22.45
- 6 BEAM GUARDRAIL TYPE 31 ANCHOR TYPE 11 PER WSDOT STD PLAN C-23.70
- 7 GUARDRAIL PLACEMENT STRONG POST - TYPE 31 INTERSECTION DESIGN PER WSDOT STD PLAN C-20.42
- 8 BEAM GUARDRAIL TYPE 31 TRANSITION SECTION TYPE 24 PER WSDOT STD PLAN C-25.30
- 9 GUARDRAIL D CONNECTION TO CONCRETE BARRIER PER WSDOT STD PLAN C-24.10
- 10 CEMENT CONCRETE TRAFFIC CURB PER WSDOT STD PLAN F-10.12-04
- 11 HMA PAVEMENT SECTION - SEE TYPICAL SECTIONS
- 12 ACCESS GATE
- 13 HMA WEDGE CURB
- 14 YELLOW DOUBLE CENTER LINE PER WSDOT STD PLAN M-20.10
- 15 STOP LINE PER WSDOT STD PLAN M-24.60
- 16 WHITE EDGE LINE PER WSDOT STD PLAN M-20.10
- 17 STOP SIGN - TYPE R1-1, PER WSDOT STD PLAN G-20.10
- 18 RELOCATE EXISTING FENCE TO RIGHT-OF-WAY LINE
- 19 FILTER STRIP. SEE DRAINAGE DETAILS.

# LEGEND

HMA DRIVEWAY - .017'  
HMA PG 58H-22 OVER  
0.5' CSTC

G  
F  
E  
D  
C  
B  
A



# PLAN

SCALE: 0 20' 40'



REV	DATE	DESCRIPTION
REV1	04/05/24	ROAD & CAVES DETAILS



DESIGNED BY: M. SKINNER	ISSUE DATE: MARCH 2024
CHECKED BY: J. KEYES	SOLICITATION NO.:
CONTRACT NO.:	52220-3
SUBMITTED BY:	
SIZE:	ANSI D
CLALLAM COUNTY, WASHINGTON 223 EAST 4TH STREET, SUITE #6 PORT ANGELES, WA 98362	
HDR ENGINEERING 929 108TH AVE NE, SUITE 1300 BELLEVUE, WA 98004	

DUNGENESS, WASHINGTON  
LOWER DUNGENESS RIVER FLOODPLAIN  
RESTORATION & LEVEE/ROAD REALIGNMENT PROJECT  
SHULTS DRIVEWAY ENTRANCE  
PAVING PLAN

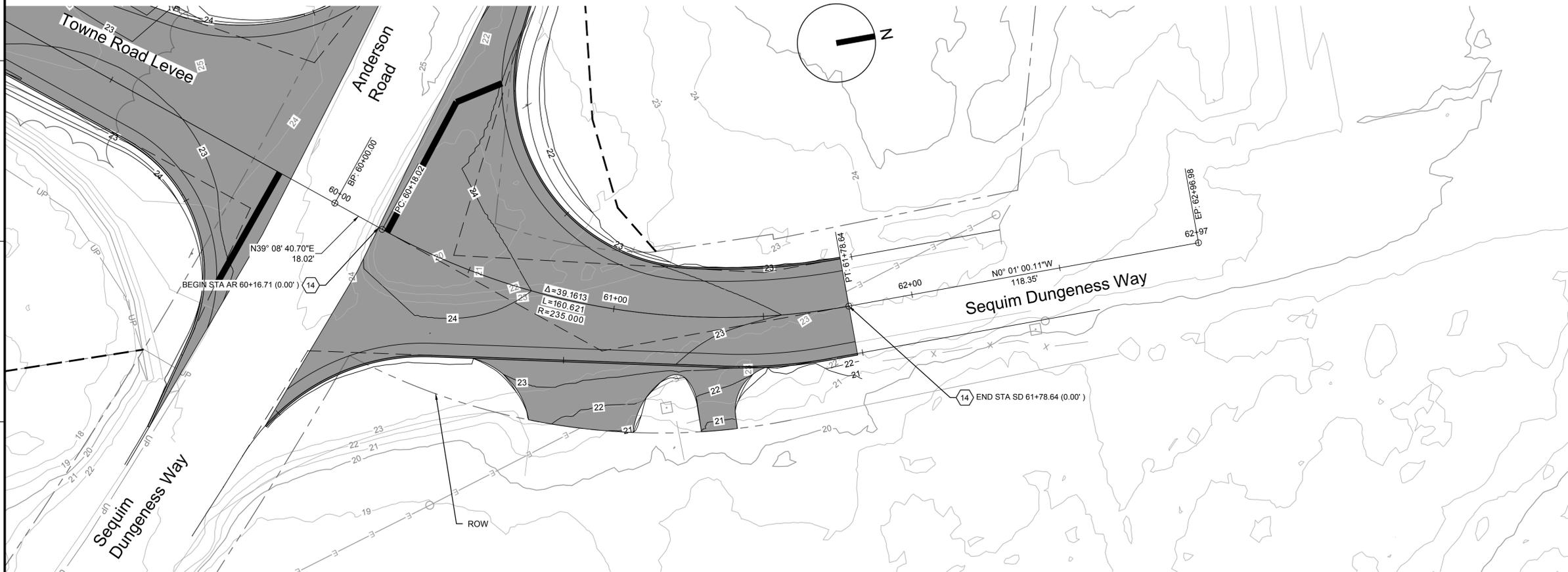
SHEET ID  
**C-122**

# KEY NOTES:

- |  |  |  |
|--|--|--|
| 1 COMPOST AMENDED VEGETATED FILTER STRIPS. SEE DRAINAGE DETAILS.                           | 8 BEAM GUARDRAIL TYPE 31 TRANSITION SECTION TYPE 24 PER WSDOT STD PLAN C-25.30 | 15 STOP LINE PER WSDOT STD PLAN M-24.60              |
| 2 CRUSHED SURFACING TOP COURSE (CSTC)  | 9 GUARDRAIL D CONNECTION TO CONCRETE BARRIER PER WSDOT STD PLAN C-24.10        | 16 WHITE EDGE LINE PER WSDOT STD PLAN M-20.10        |
| 3 CHIP SEAL SURFACING (BY OTHERS)  | 10 CEMENT CONCRETE TRAFFIC CURB PER WSDOT STD PLAN F-10.12-04                  | 17 STOP SIGN - TYPE R1-1, PER WSDOT STD PLAN G-20.10 |
| 4 BEAM GUARDRAIL TYPE 31 PER WSDOT STD PLAN C-20.10  | 11 HMA PAVEMENT SECTION - 0.25' HMA PG 58H-22 OVER 0.33' CSTC                  | 18 RELOCATE EXISTING FENCE TO RIGHT-OF-WAY LINE      |
| 5 BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL PER WSDOT STD PLAN C-22.45                    | 12 ACCESS GATE   | 19 FILTER STRIP. SEE DRAINAGE DETAILS.               |
| 6 BEAM GUARDRAIL TYPE 31 ANCHOR TYPE 11 PER WSDOT STD PLAN C-23.70                         | 13 HMA WEDGE CURB  |  |
| 7 GUARDRAIL PLACEMENT STRONG POST - TYPE 31 INTERSECTION DESIGN PER WSDOT STD PLAN C-20.42 | 14 YELLOW DOUBLE CENTER LINE PER WSDOT STD PLAN M-20.10                        |  |

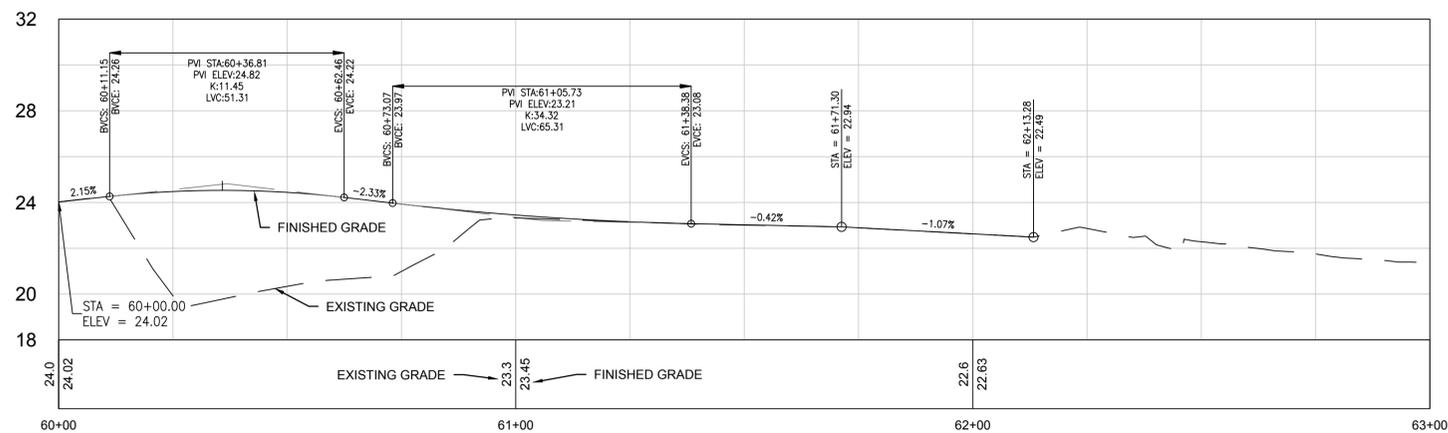
# LEGEND

-  CRUSHED SURFACING TOP COURSE
-  0.25' HMA PAVEMENT SURFACING OVER 0.33' CSTC
-  COMPOST AMENDED VEGETATED FILTER STRIP



## PLAN

SCALE: 0 20' 40'



## PROFILE

HORIZONTAL SCALE: 0 20' 40'  
 VERTICAL SCALE: 0 4' 8'



REV	DATE	DESCRIPTION
REV1	04/05/24	ROAD & CANALS DETAILS



DESIGNED BY: M. SKINNER	ISSUE DATE: MARCH 2024
CHECKED BY: J. KEYES	SOLICITATION NO.:
SUBMITTED BY:	CONTRACT NO.:
SIZE:	52220-3

CLALLAM COUNTY, WASHINGTON  
 223 EAST 4TH STREET, SUITE #6  
 PORT ANGELES, WA 98362

HOR ENGINEERING  
 929 08TH AVE NE, SUITE 1300  
 BELLEVUE, WA 98004

DUNGENESS, WASHINGTON  
 LOWER DUNGENESS RIVER FLOODPLAIN  
 RESTORATION & LEVEE/ROAD REALIGNMENT PROJECT

SEQUIM-DUNGENESS ROAD  
 PLAN AND PROFILE SHEET

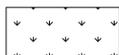
SHEET ID  
**C-123**



# KEY NOTES:

- 1 COMPOST AMENDED VEGETATED FILTER STRIPS. SEE DRAINAGE DETAILS.
- 2 CRUSHED SURFACING TOP COURSE (CSTC)
- 3 CHIP SEAL SURFACING (BY OTHERS)
- 4 BEAM GUARDRAIL TYPE 31 PER WSDOT STD PLAN C-20.10
- 5 BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL PER WSDOT STD PLAN C-22.45
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- 10 CEMENT CONCRETE TRAFFIC CURB PER WSDOT STD PLAN F-10.12-04
- 11 HMA PAVEMENT SECTION - 0.25' HMA PG 58H-22 OVER 0.33' CSTC
- 12 ACCESS GATE
- 13 HMA WEDGE CURB
- 14 YELLOW DOUBLE CENTER LINE PER WSDOT STD PLAN M-20.10
- 15 STOP LINE PER WSDOT STD PLAN M-24.60
- 16 WHITE EDGE LINE PER WSDOT STD PLAN M-20.10
- 17 STOP SIGN - TYPE R1-1, PER WSDOT STD PLAN G-20.10
- 18 RELOCATE EXISTING FENCE TO RIGHT-OF-WAY LINE
- 19 FILTER STRIP. SEE DRAINAGE DETAILS.

# LEGEND

-  CRUSHED SURFACING TOP COURSE
-  0.25' HMA PAVEMENT SURFACING OVER 0.33' CSTC
-  COMPOST AMENDED VEGETATED FILTER STRIP



REV	DATE	DESCRIPTION
REV1	04/05/24	ROAD & CAVFS DETAILS

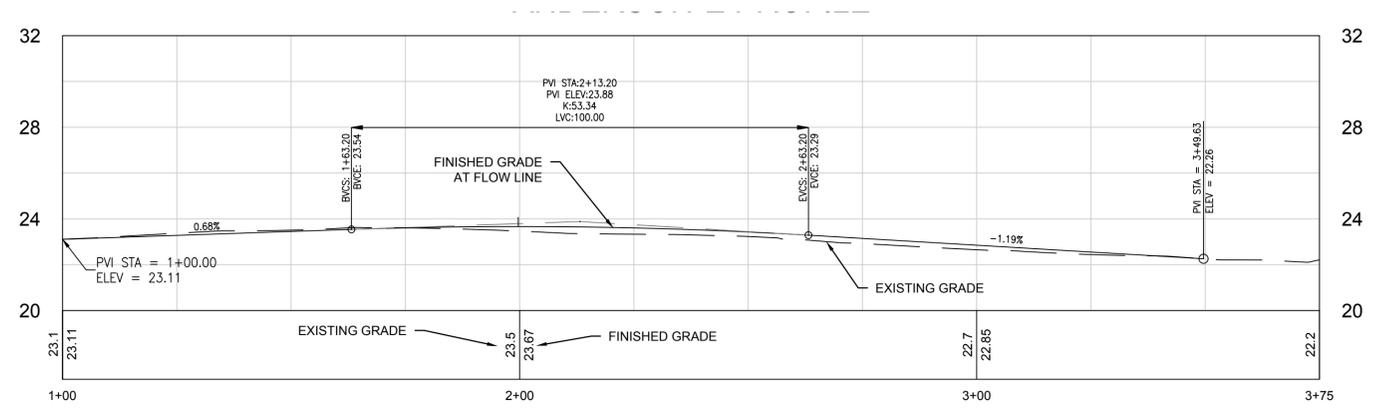
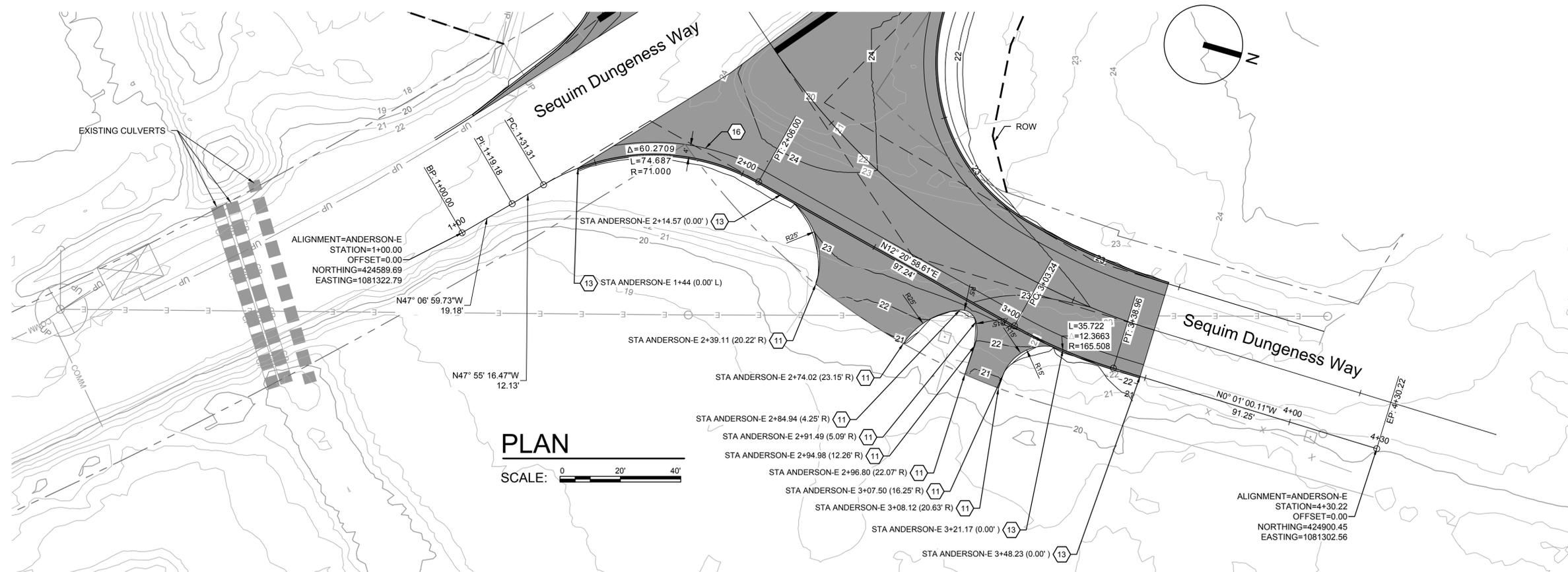


ISSUE DATE:	MARCH 2024
DESIGNED BY:	M. SKINNER
CHECKED BY:	J. KEYS
SUBMITTED BY:	J. KEYS
SIZE:	ANSI D

CLALLAM COUNTY, WASHINGTON 223 EAST 4TH STREET, SUITE #6 PORT ANGELES, WA 98362	HDR ENGINEERING 929 108TH AVE NE, SUITE 1300 BELLEVUE, WA 98004
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DUNGENESS, WASHINGTON  
LOWER DUNGENESS RIVER FLOODPLAIN RESTORATION  
& LEVEE ROAD REALIGNMENT PROJECT  
INTERSECTION EAST CURB RETURN  
PLAN AND PROFILE

SHEET ID  
**C-125**

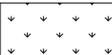




# KEY NOTES:

- |  |  |  |
|--|--|--|
| 1 COMPOST AMENDED VEGETATED FILTER STRIPS. SEE DRAINAGE DETAILS.                           | 8 BEAM GUARDRAIL TYPE 31 TRANSITION SECTION TYPE 24 PER WSDOT STD PLAN C-25.30 | 15 STOP LINE PER WSDOT STD PLAN M-24.60              |
| 2 CRUSHED SURFACING TOP COURSE (CSTC)  | 9 GUARDRAIL D CONNECTION TO CONCRETE BARRIER PER WSDOT STD PLAN C-24.10        | 16 WHITE EDGE LINE PER WSDOT STD PLAN M-20.10        |
| 3 CHIP SEAL SURFACING (BY OTHERS)  | 10 CEMENT CONCRETE TRAFFIC CURB PER WSDOT STD PLAN F-10.12-04                  | 17 STOP SIGN - TYPE R1-1, PER WSDOT STD PLAN G-20.10 |
| 4 BEAM GUARDRAIL TYPE 31 PER WSDOT STD PLAN C-20.10  | 11 HMA PAVEMENT SECTION - 0.25' HMA PG 58H-22 OVER 0.33' CSTC                  | 18 RELOCATE EXISTING FENCE TO RIGHT-OF-WAY LINE      |
| 5 BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL PER WSDOT STD PLAN C-22.45                    | 12 ACCESS GATE   | 19 FILTER STRIP. SEE DRAINAGE DETAILS.               |
| 6 BEAM GUARDRAIL TYPE 31 ANCHOR TYPE 11 PER WSDOT STD PLAN C-23.70                         | 13 HMA WEDGE CURB  |  |
| 7 GUARDRAIL PLACEMENT STRONG POST - TYPE 31 INTERSECTION DESIGN PER WSDOT STD PLAN C-20.42 | 14 YELLOW DOUBLE CENTER LINE PER WSDOT STD PLAN M-20.10                        |  |

# LEGEND

-  CRUSHED SURFACING TOP COURSE
-  0.25' HMA PAVEMENT SURFACING OVER 0.33' CSTC
-  COMPOST AMENDED VEGETATED FILTER STRIP



REV	DATE	DESCRIPTION
REV1	04/05/24	ROAD & CAVFS DETAILS



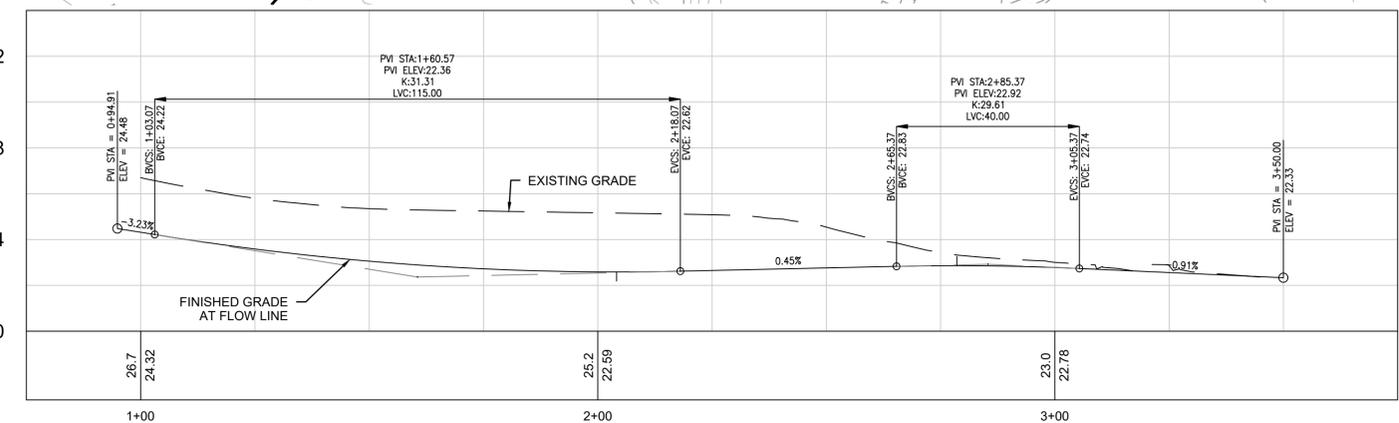
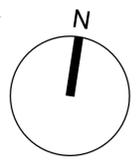
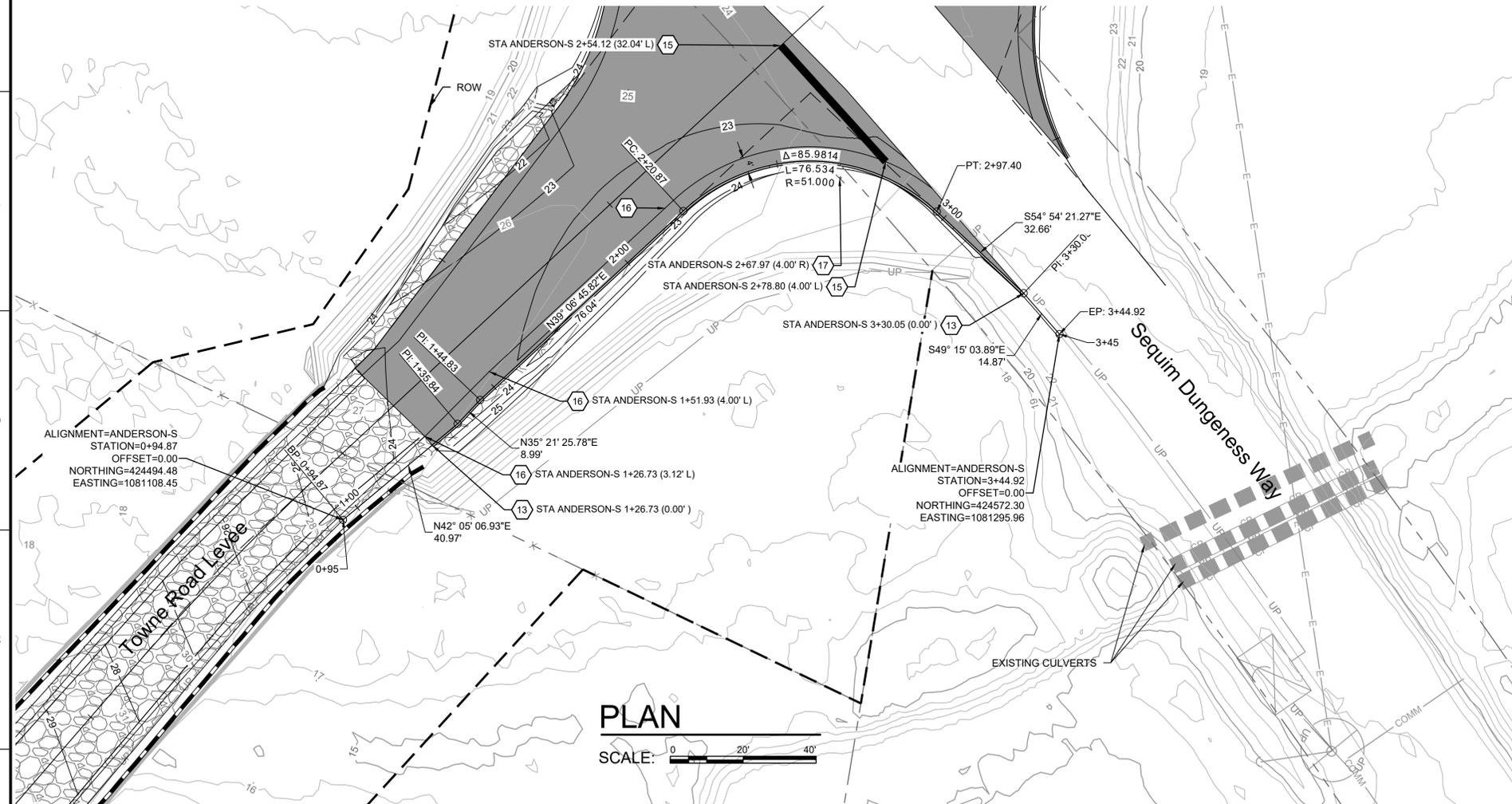
ISSUE DATE: MARCH 2024	SOLICITATION NO.:
DESIGNED BY: M. SKINNER	CONTRACT NO.:
CHECKED BY: M. SKINNER	52220-3
SUBMITTED BY: J. KEYES	
HDR:	ANSI D

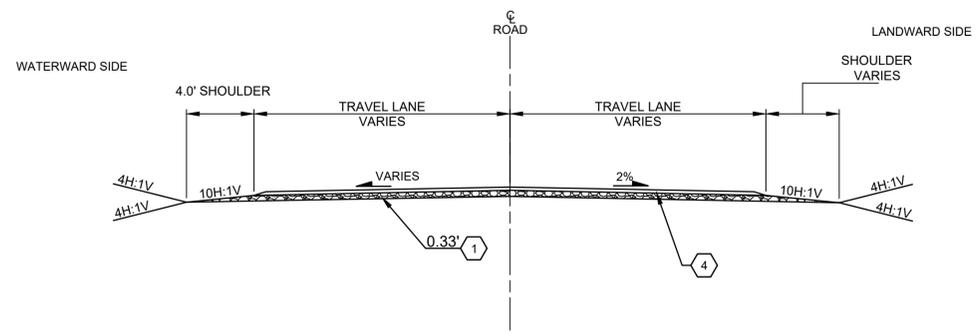
CLALLAM COUNTY, WASHINGTON 223 EAST 4TH STREET, SUITE #6 PORT ANGELES, WA 98362	HDR ENGINEERING 929 108TH AVE NE, SUITE 1300 BELLEVUE, WA 98004
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DUNGENESS, WASHINGTON  
LOWER DUNGENESS RIVER FLOODPLAIN RESTORATION  
& LEVEEROAD REALIGNMENT PROJECT

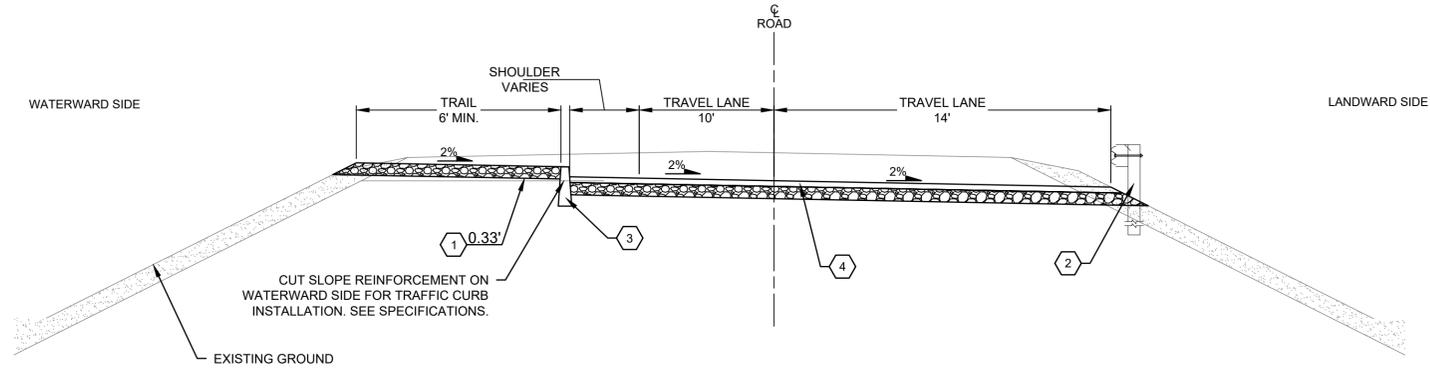
INTERSECTION SOUTH CURB RETURN  
PLAN AND PROFILE

SHEET ID  
**C-127**

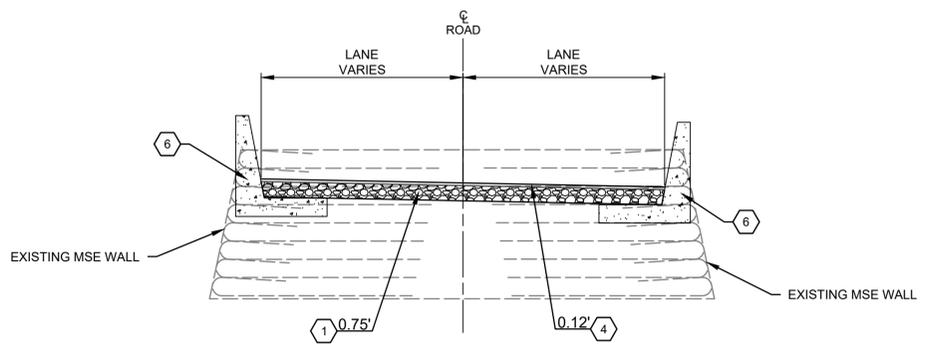




**1 TOWNE RD TYPICAL CROSS SECTION 1**  
 SCALE: 0 5' 10'  
 STA. TR 103+60.00 TO STA. TR 108+67.56 TRANSITION TO TYP. 2

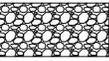


**2 TOWNE RD TYPICAL CROSS SECTION 2**  
 SCALE: 0 5' 10'  
 STA. TR 108+67.56 TO STA. TR 141+87.24 TRANSITION TO TYP. 3



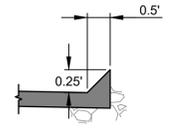
**3 TOWNE RD CAUSEWAY TYPICAL CROSS SECTION**  
 SCALE: 0 5' 10'  
 STA. TR 141+87.24 TO STA. TR 143+69.51 TRANSITION TO TYP. 4

**LEGEND**

-  CRUSHED SURFACING TOP COURSE
-  HOT MIX ASPHALT

- KEY NOTES:**
- 1 CRUSHED SURFACING TOP COURSE
  - 2 GUARDRAIL TYPE 31
  - 3 CEMENT CONCRETE TRAFFIC CURB PER WSDOT STD PLAN F-10.12-04
  - 4 CHIP SEAL SURFACING (BY OTHERS)
  - 5 HMA WEDGE CURB - SEE DETAIL A
  - 6 MOMENT SLAB BARRIER - SEE STRUCTURAL PLANS
  - 7 HMA CL 1/2 IN. PG 58H-22

**A HMA WEDGE CURB**  
 SCALE: NTS



REV	DATE	DESCRIPTION
REV1	04/05/24	ROAD & CAVFS DETAILS

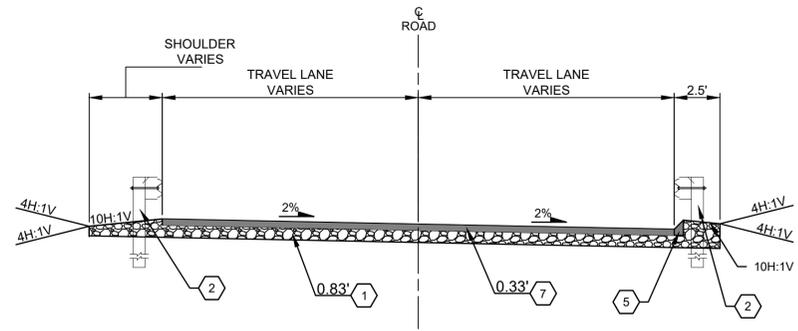


ISSUE DATE: MARCH 2024	SOLICITATION NO.:
DESIGNED BY: M. SKINNER	CONTRACT NO.:
CHECKED BY: J. KEYES	52220-3
SUBMITTED BY: HOR	
SIZE: ANSI D	

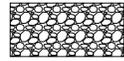
DUNGENESS, WASHINGTON  
 LOWER DUNGENESS RIVER FLOODPLAIN RESTORATION  
 & LEVEE/ROAD REALIGNMENT PROJECT  
 TOWNE ROAD TYPICAL SECTIONS SHEET

SHEET ID  
**C-128**

G  
F  
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C  
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A



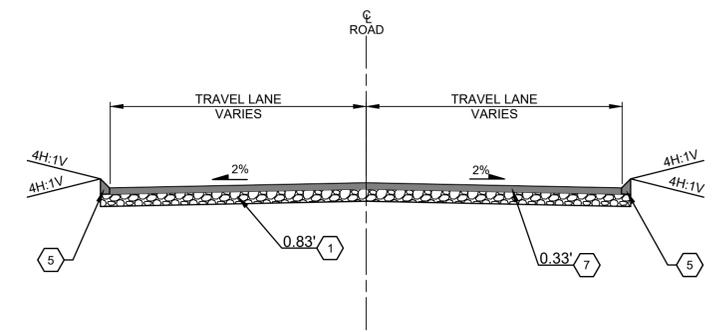
**LEGEND**

-  CRUSHED SURFACING TOP COURSE
-  HOT MIX ASPHALT

**KEY NOTES:**

- 1 CRUSHED SURFACING TOP COURSE
- 2 GUARDRAIL TYPE 31
- 3 CEMENT CONCRETE TRAFFIC CURB PER WSDOT STD PLAN F-10.12-04
- 4 CHIP SEAL SURFACING (BY OTHERS)
- 5 HMA WEDGE CURB - SEE DETAIL A
- 6 MOMENT SLAB BARRIER - SEE STRUCTURAL PLANS
- 7 HMA CL 1/2 IN. PG 58H-22

**4 TOWNE RD HMA TYPICAL CROSS SECTION**  
 SCALE: 0 5' 10' STA. TR 143+69.51 TO STA. TR 145+17



**5 SEQUIM-DUNGENESS RD TYPICAL CROSS SECTION**  
 SCALE: 0 5' 10' STA. TR 60+16.71 TO STA. TR 61+78.64



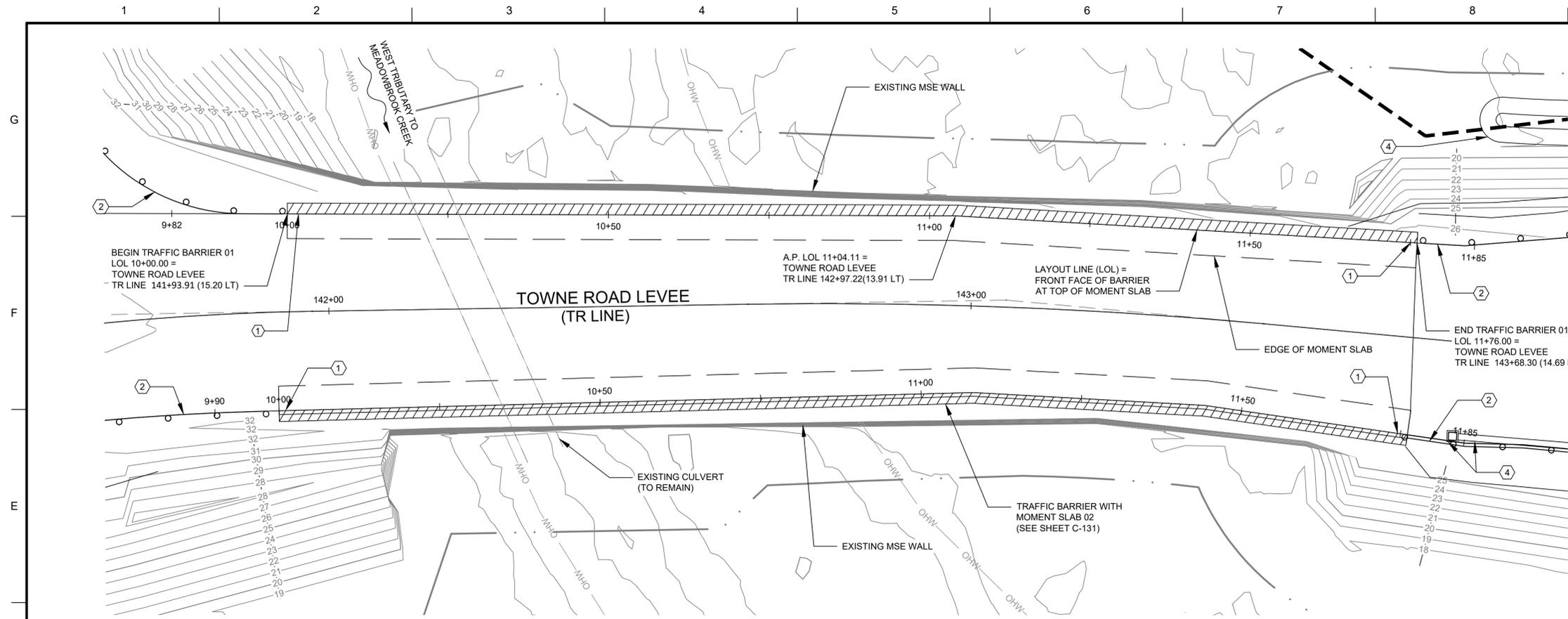
REV	DATE	DESCRIPTION
REV1	04/05/24	ROAD & CAVES DETAILS



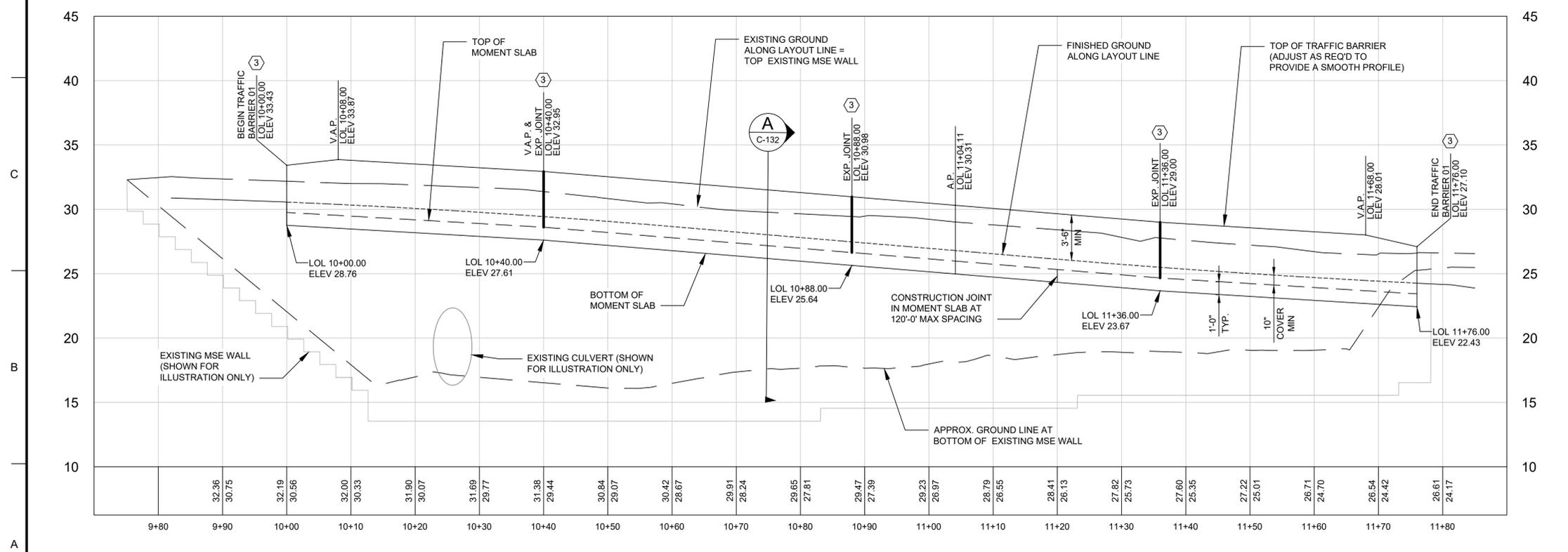
DESIGNED BY: M. SKINNER	ISSUE DATE: APRIL 2024
CHECKED BY: J. KEYES	CONTRACT NO.: 21-1-12559-100
SUBMITTED BY: HDR	SECTION NO.:
SIZE: ANSI D	
CLALLAM COUNTY, WASHINGTON 223 EAST 4TH STREET, SUITE #6 PORT ANGELES, WA 98362	
HDR ENGINEERING 929 108TH AVE NE, SUITE 1300 BELLEVUE, WA 98004	

DUNGENESS, WASHINGTON  
 LOWER DUNGENESS RIVER FLOODPLAIN RESTORATION  
 & LEVEE/ROAD REALIGNMENT PROJECT  
 TOWNE ROAD TYPICAL SECTIONS SHEET

SHEET ID  
**C-129**



**TRAFFIC BARRIER WITH MOMENT SLAB 01 - PLAN**



**TRAFFIC BARRIER WITH MOMENT SLAB 01 - REFLECTED DEVELOPED ELEVATION**

- GENERAL NOTES**
- STRUCTURES HAVE BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS 9TH EDITION 2020 & THE WSDOT BRIDGE DESIGN MANUAL (BDM) SEPT 2023 EDITION.
  - ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION DATED 2024, AND THE SPECIAL PROVISIONS.
  - REINFORCING STEEL SHALL BE DEFORMED BARS AND SHALL CONFORM TO THE REQUIREMENTS OF ASTM A706 (Fy=60 KSI)
  - ALL CAST-IN-PLACE CONCRETE SHALL CONFORM TO REQUIREMENTS OF CONCRETE CL 4000.
  - EXISTING GROUND LINES AND CONTOURS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD PRIOR TO CONSTRUCTION.
  - EXISTING MSE WALL AND CULVERT IS SHOWN FOR ILLUSTRATIONS PURPOSES ONLY AND IS NOT GUARANTEED TO BE ACCURATE. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING CONSTRUCTION.

- KEY NOTES**
- GUARDRAIL TRANSITION CONNECTION TYPE F SEE WSDOT STD PLANS C-7 AND C-24.10-04 FOR DETAILS
  - BEAM GUARDRAIL TYPE 31 PER WSDOT STD PLAN C-20.10-09
  - TRAFFIC BARRIER END SEGMENT. TYPICAL EACH SIDE OF EXPANSION JOINT AND AT ENDS OF BARRIER.
  - STORM DRAIN STRUCTURE, PIPE, OUTFALL PROTECTION SYSTEM, OR BIORETENTION SWALE. SEE DRAINAGE SHEETS FOR DETAILS.

- LEGEND**
- TRAFFIC BARRIER W/ MOMENT SLAB
  - PROJECT CONSTRUCTION LIMITS
  - RIGHT OF WAY LINE

- ABBREVIATIONS**
- A.P. - ANGLE POINT
  - EXP - EXPANSION
  - LOL - LAYOUT LINE
  - MSE - MECHANICALLY STABILIZED EARTH
  - NTS - NOT TO SCALE
  - UNO - UNLESS NOTED OTHERWISE
  - V.A.P. - VERTICAL ANGLE POINT



REV	DATE	DESCRIPTION

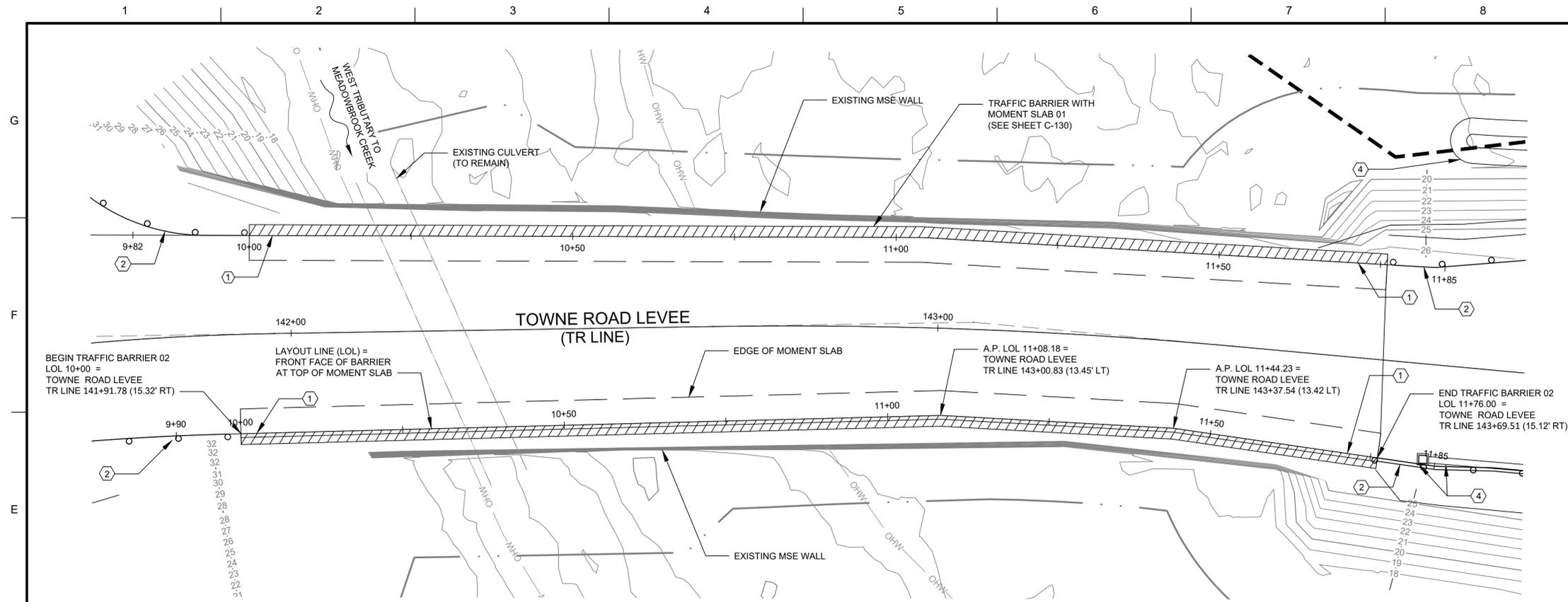


ISSUE DATE: MARCH 2024	SOLICITATION NO.:
DESIGNED BY: S. KHINVASARA	CONTRACT NO.:
CHECKED BY: J. V. O.	SUBMITTED BY: HDR
SIZE: ANSI D	

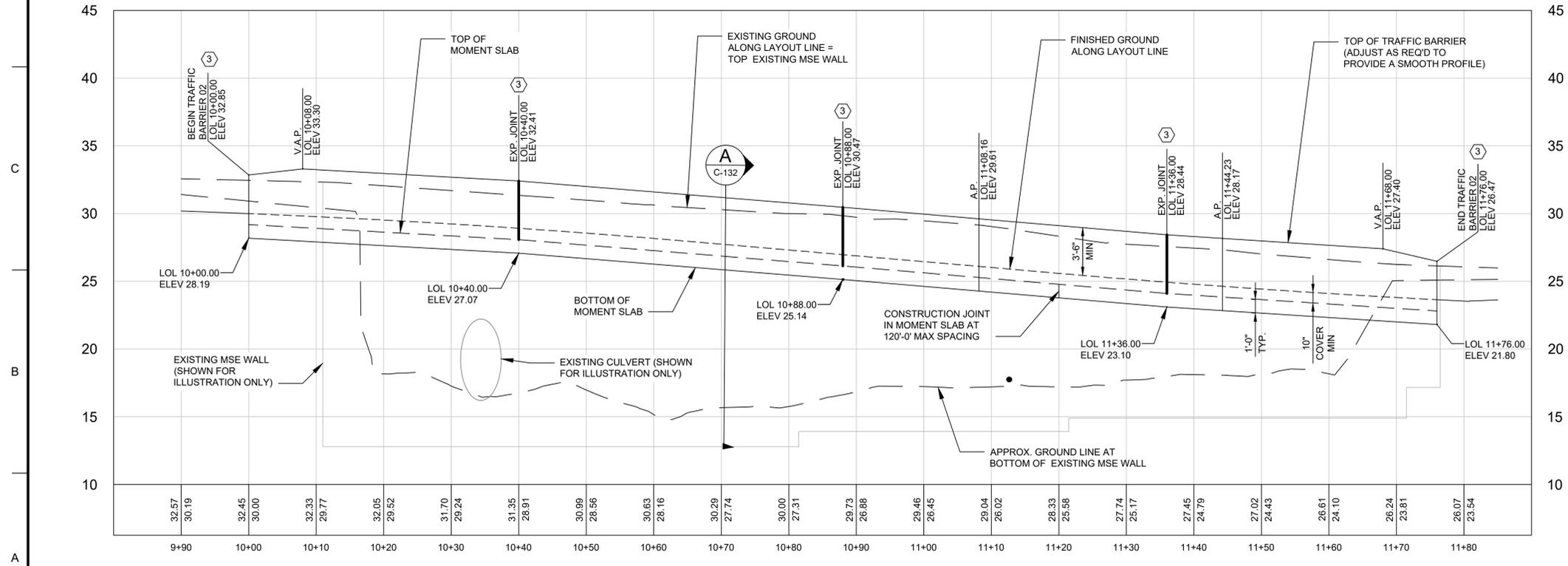
CLALLAM COUNTY, WASHINGTON 223 EAST 4TH STREET, SUITE #6 PORT ANGELES, WA 98362	HDR ENGINEERING 929 108TH AVE NE, SUITE 1300 BELLEVUE, WA 98004
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DUNGENESS, WASHINGTON  
LOWER DUNGENESS RIVER FLOODPLAIN  
RESTORATION & LEVEE/ROAD REALIGNMENT PROJECT  
TRAFFIC BARRIER WITH MOMENT SLAB 01  
PLAN AND ELEVATION

SHEET ID  
**C-130**



**TRAFFIC BARRIER WITH MOMENT SLAB 02 - PLAN**



**TRAFFIC BARRIER WITH MOMENT SLAB 02- DEVELOPED ELEVATION**

**GENERAL NOTES**

- STRUCTURES HAVE BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS 9TH EDITION 2020 & THE WSDOT BRIDGE DESIGN MANUAL (BDM) SEPT 2023 EDITION.
- ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION DATED 2024, AND THE SPECIAL PROVISIONS.
- REINFORCING STEEL SHALL BE DEFORMED BARS AND SHALL CONFORM TO THE REQUIREMENTS OF ASTM A706 (Fy=60 KSI)
- ALL CAST-IN-PLACE CONCRETE SHALL CONFORM TO REQUIREMENTS OF CONCRETE CL 4000.
- EXISTING GROUND LINES AND CONTOURS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD PRIOR TO CONSTRUCTION.
- EXISTING MSE WALL AND CULVERT IS SHOWN FOR ILLUSTRATIONS PURPOSES ONLY AND IS NOT GUARANTEED TO BE ACCURATE. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING CONSTRUCTION.

**KEY NOTES**

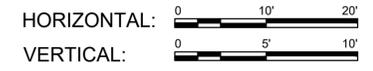
- GUARDRAIL TRANSITION CONNECTION TYPE F SEE WSDOT STD PLANS C-7 AND C-24.10-04 FOR DETAILS.
- BEAM GUARDRAIL TYPE 31 PER WSDOT STD PLAN C-20.10-09
- TRAFFIC BARRIER END SEGMENT. TYPICAL EACH SIDE OF EXPANSION JOINT AND AT ENDS OF BARRIER.
- STORM DRAIN STRUCTURE, PIPE, OUTFALL PROTECTION SYSTEM, OR BIORETENTION SWALE. SEE DRAINAGE SHEETS FOR DETAILS.

**LEGEND**

- TRAFFIC BARRIER W/ MOMENT SLAB
- PROJECT CONSTRUCTION LIMITS
- RIGHT OF WAY LINE

**ABBREVIATIONS**

- A.P. - ANGLE POINT
- EXP - EXPANSION
- LOL - LAYOUT LINE
- MSE - MECHANICALLY STABILIZED EARTH
- NTS - NOT TO SCALE
- UNO - UNLESS NOTED OTHERWISE
- V.A.P. - VERTICAL ANGLE POINT



REV	DATE	DESCRIPTION



ISSUE DATE: MARCH 2024	SOLICITATION NO.:
DESIGNED BY: S. KHINVASARA	CONTRACT NO.:
CHECKED BY: J. VO	SUBMITTED BY:
HDR:	SIZE:
ANSI D	

CLALLAM COUNTY, WASHINGTON 223 EAST 4TH STREET, SUITE #6 PORT ANGELES, WA 98362	HDR ENGINEERING 929 108TH AVE NE, SUITE 1300 BELLEVUE, WA 98004
---	---

DUNGENESS, WASHINGTON  
LOWER DUNGENESS RIVER FLOODPLAIN  
RESTORATION & LEVEE/ROAD REALIGNMENT PROJECT  
TRAFFIC BARRIER WITH MOMENT SLAB 02  
PLAN AND ELEVATION

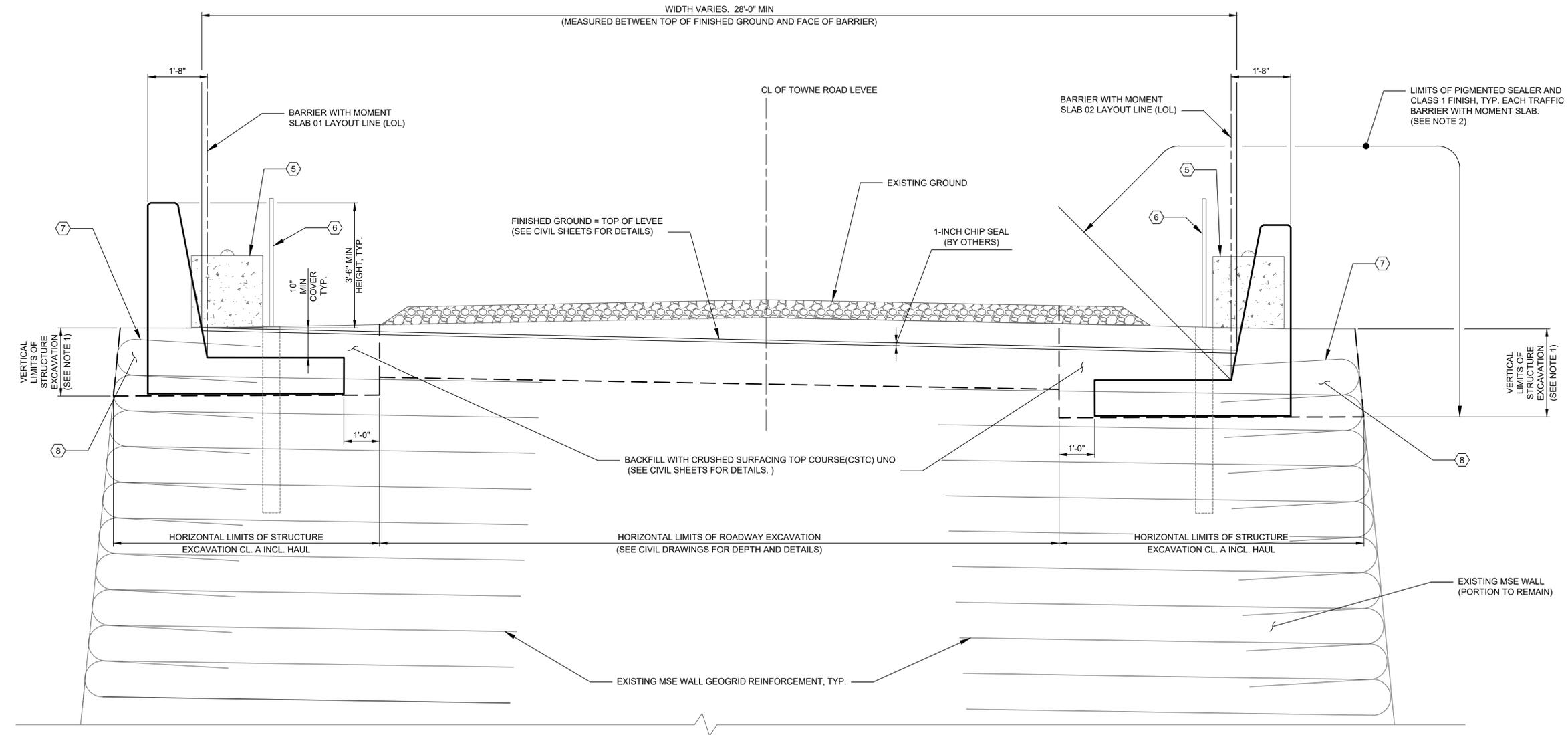
SHEET ID  
**C-131**

**KEY NOTES**

- ① THRU ④ NOT USED ON THIS SHEET
- REMOVAL OF STRUCTURES AND OBSTRUCTIONS (SEE NOTE 4):
- ⑤ REMOVE EXISTING GRAVITY BLOCKS
- ⑥ REMOVE EXISTING PEDESTRIAN RAILING AND FOOTERS. REMOVE RAILING FOOTERS 1-FT MIN BELOW MOMENT SLAB. BACKFILL ALL VOIDS.
- ⑦ REMOVE EXISTING MSE WALL GEOGRID REINFORCEMENT AND GEOTEXTILE WALL FACING FABRIC
- ⑧ REMOVE EXISTING GRAVEL BORROW FOR STRUCTURAL EARTH WALLS

**GENERAL NOTES**

1. STRUCTURE EXCAVATION CLASS A HORIZONTAL AND VERTICAL LIMITS ARE SHOWN FOR REFERENCE ONLY. ALL COSTS ASSOCIATED WITH THE WORK TO REMOVE THE EXISTING MSE WALL SHALL BE CONSIDERED INCIDENTAL TO THE TRAFFIC BARRIER WITH MOMENT SLAB LUMP SUM COST. SEE SPECIAL PROVISIONS FOR DETAILS.
2. TRAFFIC BARRIERS WITH MOMENT SLABS SHALL RECEIVE A CLASS 1 FINISH AND BE PAINTED WITH A PIGMENTED SEALER TO THE LIMITS SHOWN. PIGMENTED SEALER COLOR SHALL BE WASHINGTON GRAY. SUBMIT PIGMENTED SEALER PRODUCT DATA AND COLOR DRAWDOWN SAMPLES IN ACCORDANCE WITH SECTION 9-08.3(1) OF THE STD SPECIFICATIONS.
3. CONTRACTOR SHALL ONLY REMOVE AS MUCH OF THE EXISTING MSE WALL AS REQUIRED TO COMPLETE THE WORK. ANY ADDITIONAL REMOVAL BEYOND THE LIMITS OR DAMAGE TO THE EXISTING MSE WALL SHALL BE REPAIRED. SUBMIT REPAIR PROCEDURE TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION TRAFFIC BARRIERS WITH MOMENT SLABS.
4. ALL WORK AND ASSOCIATED COSTS TO REMOVE STRUCTURES AND OBSTRUCTIONS SHALL BE CONSIDERED INCIDENTAL TO THE ADJACENT TRAFFIC BARRIER WITH MOMENT SLAB LUMP SUM COST U.N.O.



**A**  
**C-130**  
**C-131**  
**TRAFFIC BARRIER WITH MOMENT SLAB - TYPICAL SECTION**  
 SCALE: NTS  
 (LOOKING AHEAD ON STATION)  
 (EXISTING MSE WALL NOT ALL SHOWN FOR CLARITY)  
 (U.N.O. ALL HORIZONTAL DIMENSIONS ARE TAKEN NORMAL TO TOWNE ROAD LEVEE CENTER LINE)



REV	DATE	DESCRIPTION



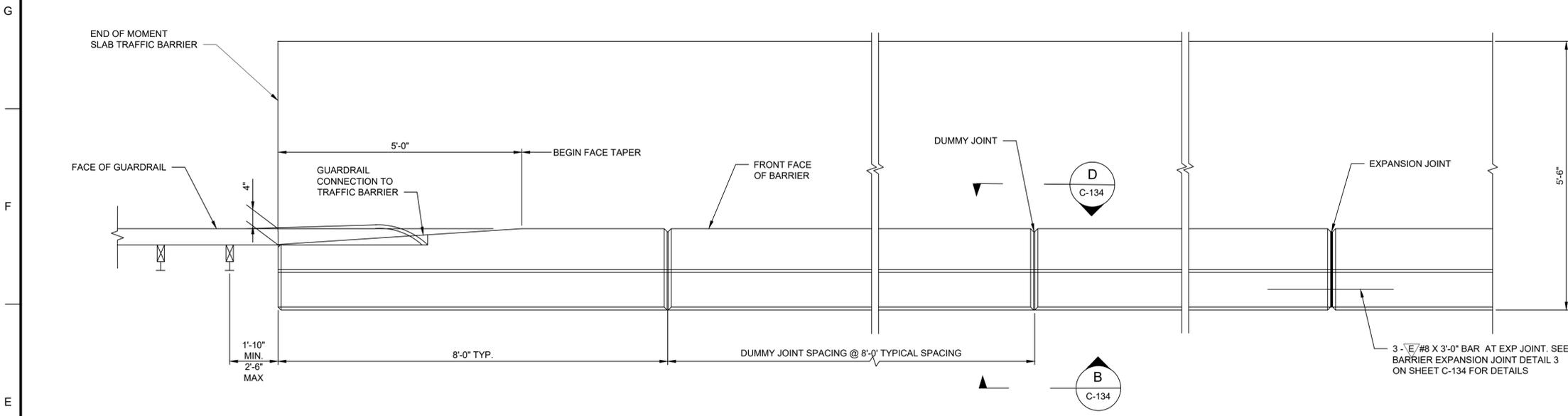
DESIGNED BY: SKHINVASARA	ISSUE DATE: MARCH 2024
CHECKED BY: J. VO	SOLICITATION NO.:
SUBMITTED BY: HDR	CONTRACT NO.:
SIZE: ANSI D	52220-3
CLALLAM COUNTY, WASHINGTON 223 EAST 4TH STREET, SUITE #6 PORT ANGELES, WA 98362	
HDR ENGINEERING 929 108TH AVE NE, SUITE 1300 BELLEVUE, WA 98004	

DUNGENESS, WASHINGTON  
 LOWER DUNGENESS RIVER FLOODPLAIN  
 RESTORATION & LEVEE/ROAD REALIGNMENT PROJECT  
 TRAFFIC BARRIER WITH MOMENT SLAB  
 TYPICAL SECTION

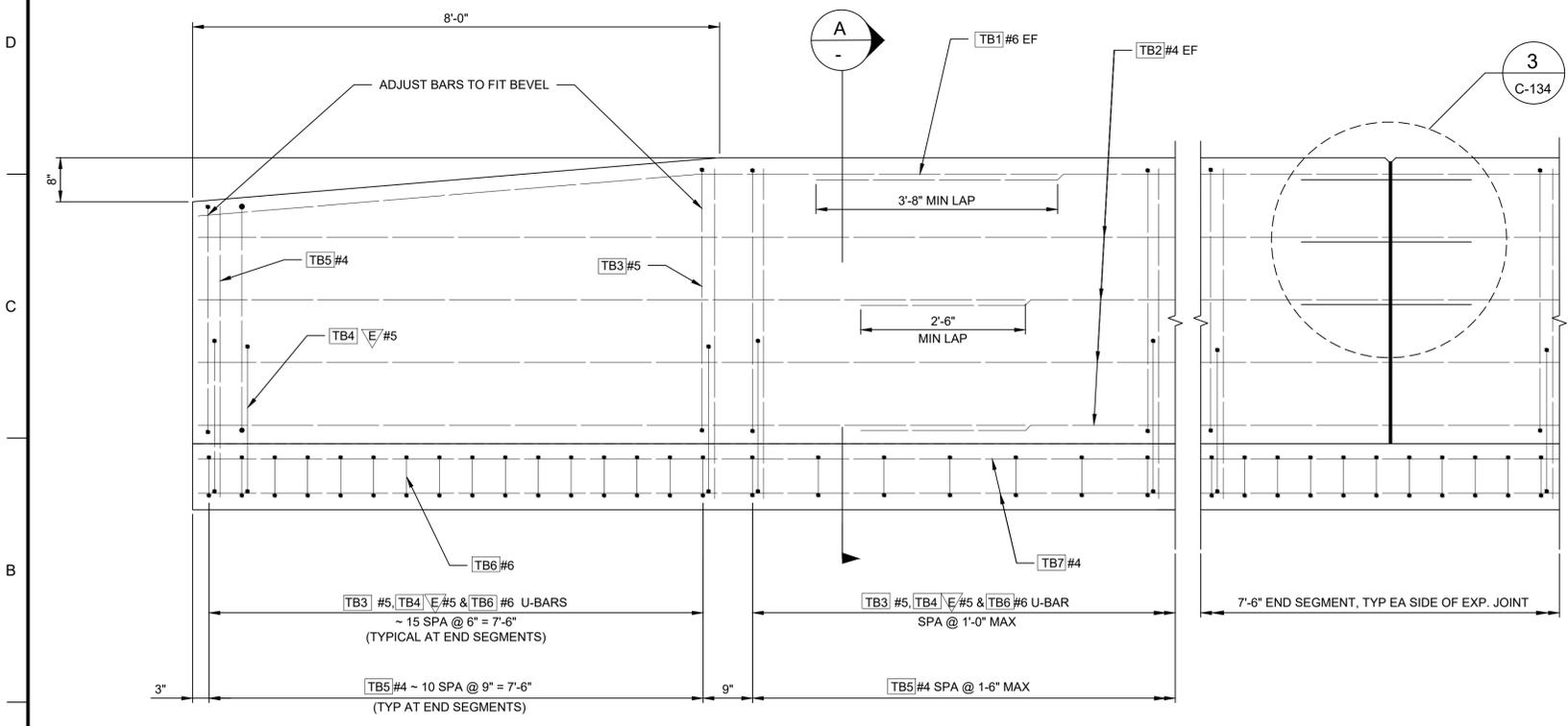
SHEET ID  
**C-132**

### KEY NOTES

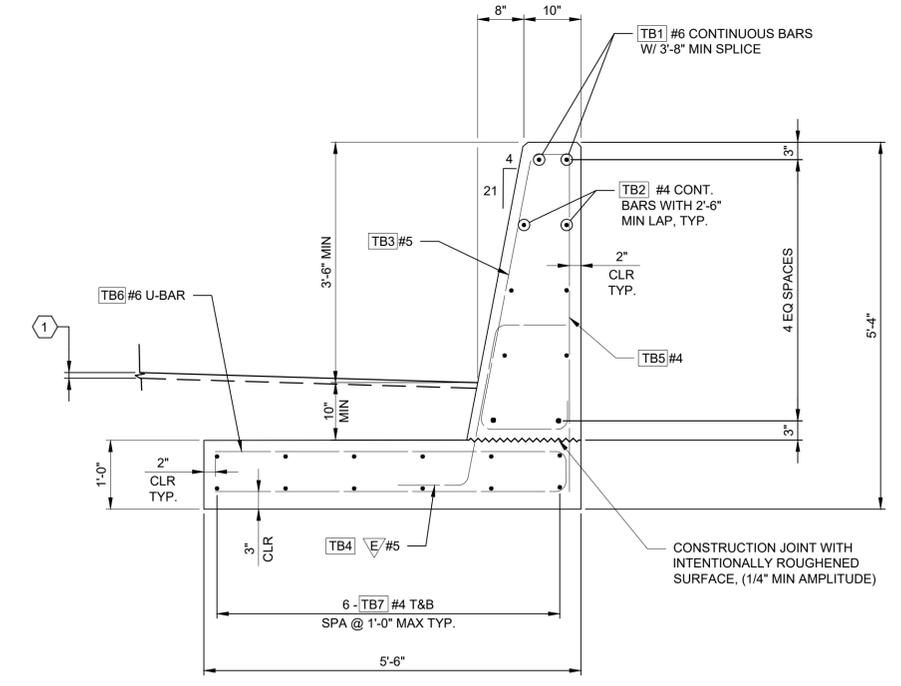
1 FUTURE 1-INCH CHIPSEAL (BY OTHERS)



1 TRAFFIC BARRIER WITH MOMENT SLAB - PARTIAL PLAN  
NTS



2 TRAFFIC BARRIER WITH MOMENT SLAB REINF LAYOUT - PARTIAL ELEVATION  
NTS



A REINF. - TYPICAL SECTION  
NTS



REV	DATE	DESCRIPTION



ISSUE DATE: MARCH 2024	SOLICITATION NO.:	CONTRACT NO.:	52220-3
DESIGNED BY: S. KHINVASARA	CHECKED BY: J. VO	SUBMITTED BY: HOR	ANSI D
CLALLAM COUNTY, WASHINGTON 223 EAST 4TH STREET, SUITE #6 PORT ANGELES, WA 98382	HOR ENGINEERING 929 108TH AVE NE, SUITE 1300 BELLEVUE, WA 98004		

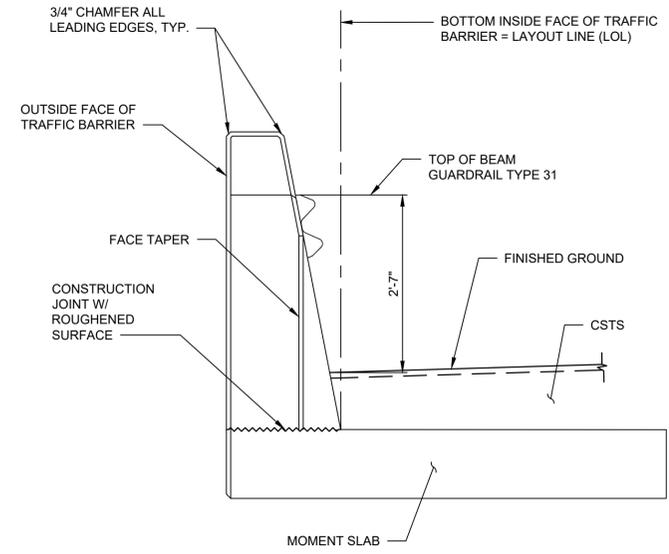
DUNGENESS, WASHINGTON  
LOWER DUNGENESS RIVER LEVEE FLOODPLAIN  
RESTORATION & LEVEE/ROAD REALIGNMENT PROJECT  
TRAFFIC BARRIER AND MOMENT SLAB  
DETAILS SHEET 1

SHEET ID  
**C-133**

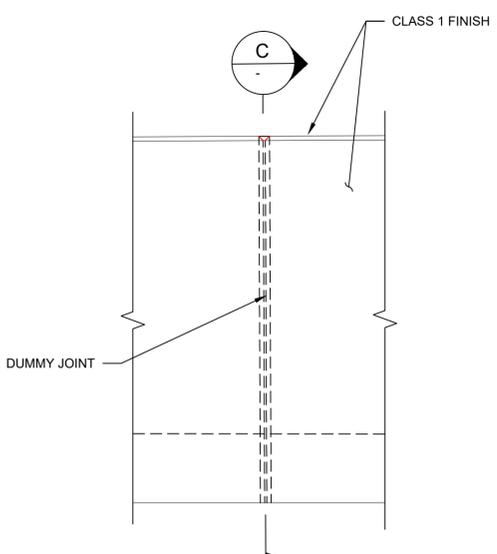
### KEY NOTES

- ① FUTURE 1-INCH CHIPSEAL (BY OTHERS)
- ② 7/8" Ø ROCKET/KOHLER F-50, LANCASTER MALLEABLE, OR DAYTON/RICHMOND F 62 FLARED THIN SLAB FERRULE INSERTS OR APPROVED EQUAL (TYP.). RESIN BONDED ANCHORS IN ACCORDANCE WITH STANDARD SPECIFICATIONS 6-02.3(18)A AND 9-06.4 MAY BE SUBSTITUTED.

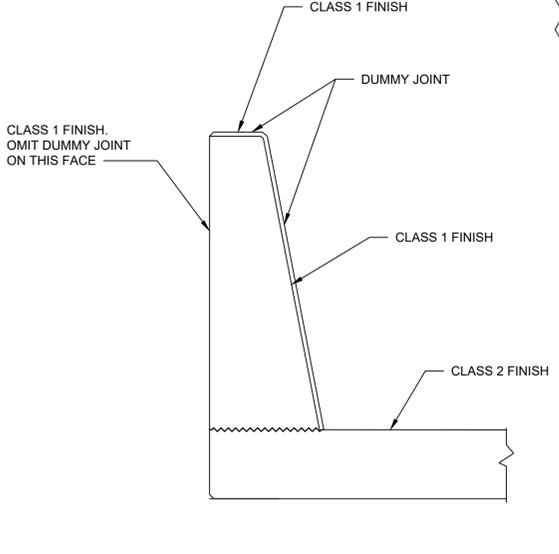
G  
F  
E  
D  
C  
B  
A



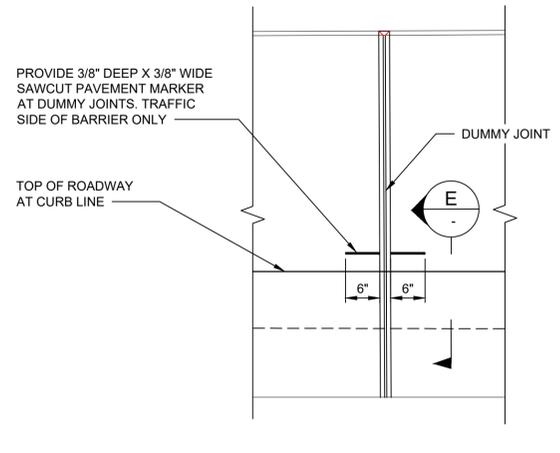
**END VIEW**  
NTS



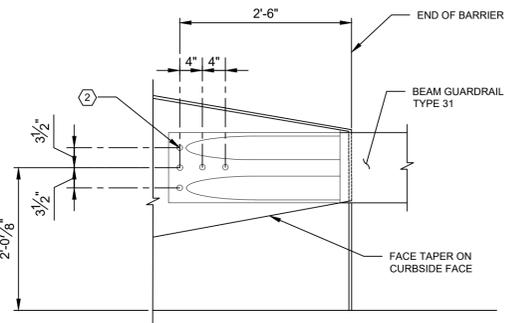
**VIEW B**  
C-133 NTS



**SECTION C**  
NTS

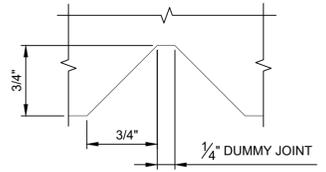


**VIEW D**  
C-133 NTS

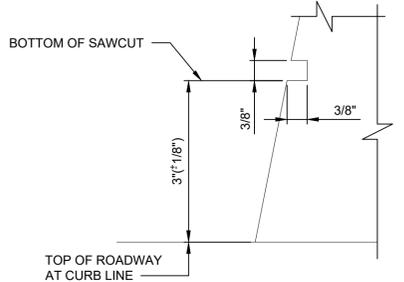


**ELEVATION - TRAFFIC BARRIER GUARDRAIL CONNECTION**  
NTS

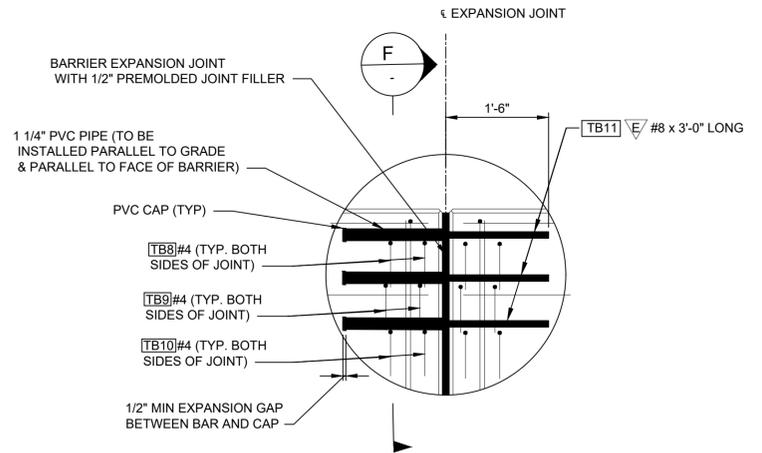
BEAM GUARDRAIL END SECTION DESIGN "F" SHOWN (SEE STD. PLAN C-7)



**DUMMY JOINT DETAIL**  
NTS



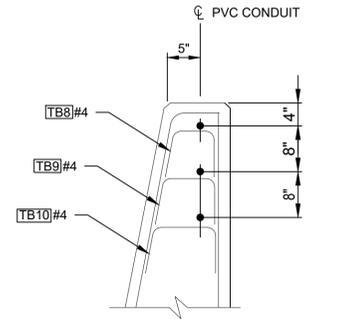
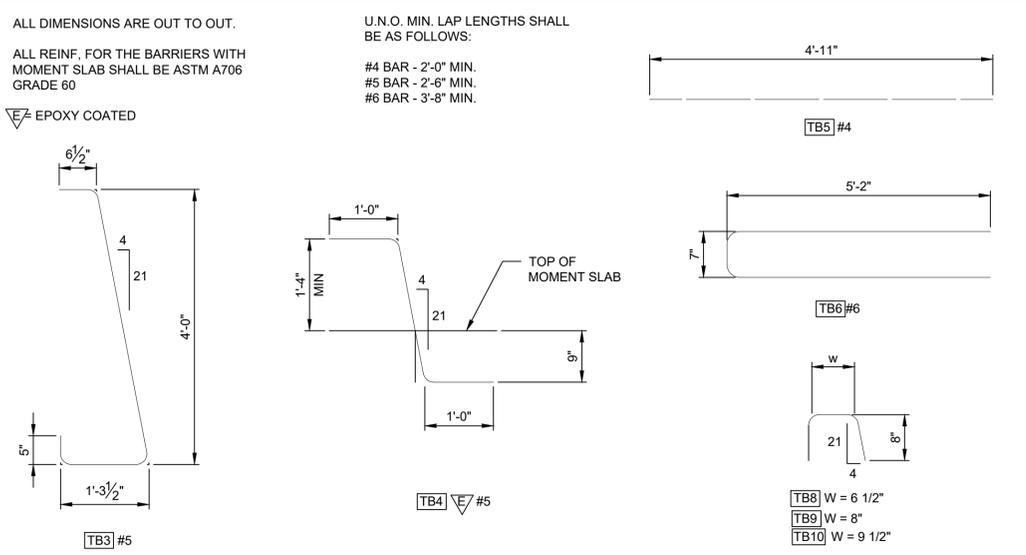
**SECTION E**  
NTS



**BARRIER EXPANSION JOINT DETAIL**  
C-133 NTS

ENSURE THAT NO CONCRETE ENTERS PVC PIPE DURING CONCRETE PLACEMENT

**TRAFFIC BARRIER WITH MOMENT SLAB - BAR BEND DIAGRAM**



**BARRIER EXPANSION JOINT SECTION F**  
NTS



REV	DATE	DESCRIPTION



DESIGNED BY: S. KHINVASARA	ISSUE DATE: MARCH 2024
CHECKED BY: J. VO	SOLICITATION NO.:
SUBMITTED BY: HDR	CONTRACT NO.:
SIZE: ANSI D	52220-3

CLALLAM COUNTY, WASHINGTON  
 223 EAST 4TH STREET, SUITE #6  
 PORT ANGELES, WA 98382

HDR ENGINEERING  
 929 108TH AVE NE, SUITE 1300  
 BELLEVUE, WA 98004

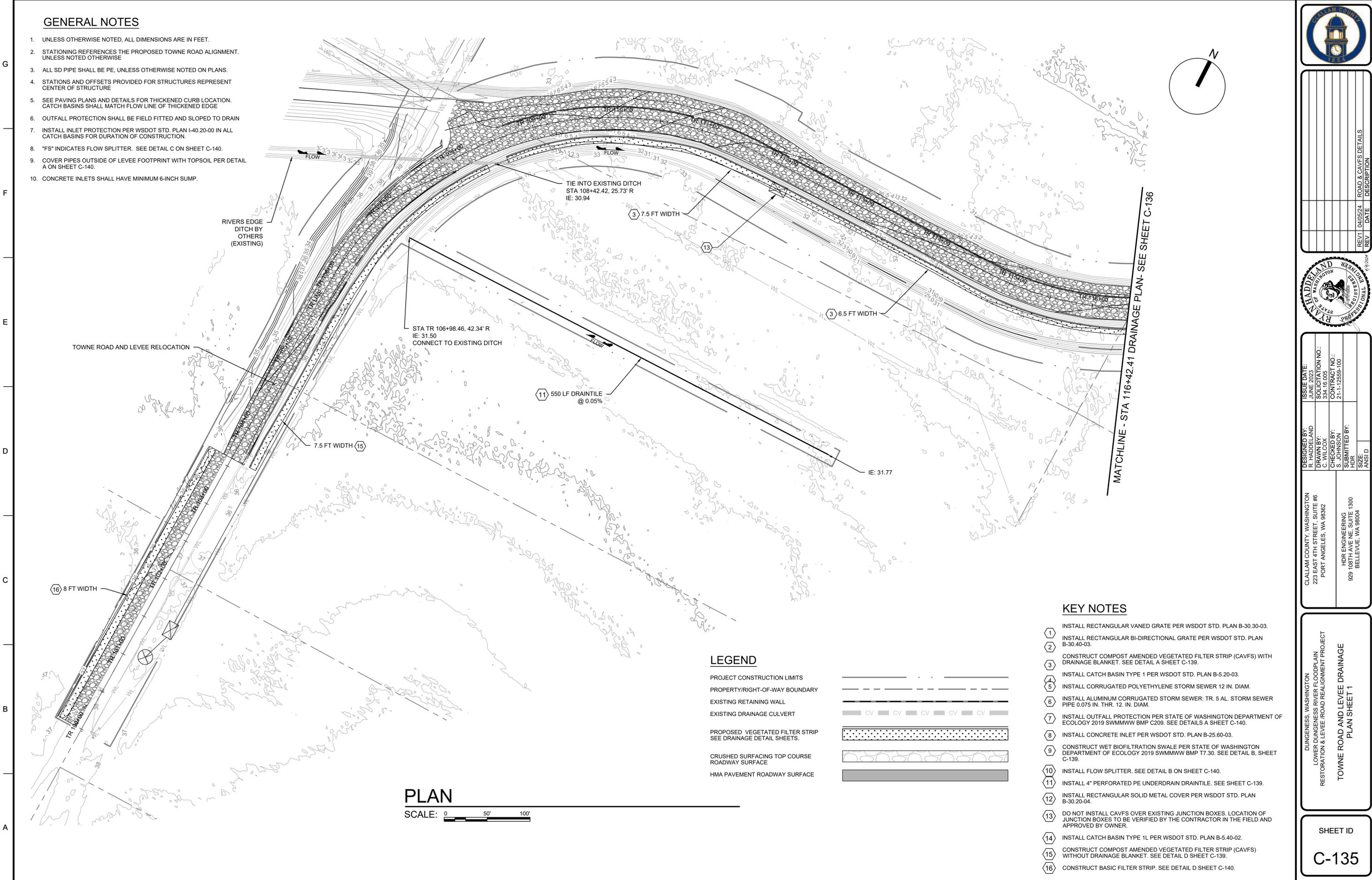
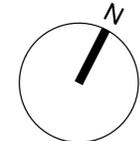
DUNGENESS, WASHINGTON  
 LOWER DUNGENESS RIVER LEVEE FLOODPLAIN  
 RESTORATION & LEVEE/ROAD REALIGNMENT PROJECT

TRAFFIC BARRIER WITH MOMENT SLAB  
 DETAILS SHEET 2

SHEET ID  
**C-134**

**GENERAL NOTES**

- UNLESS OTHERWISE NOTED, ALL DIMENSIONS ARE IN FEET.
- STATIONING REFERENCES THE PROPOSED TOWNE ROAD ALIGNMENT, UNLESS NOTED OTHERWISE
- ALL SD PIPE SHALL BE PE, UNLESS OTHERWISE NOTED ON PLANS.
- STATIONS AND OFFSETS PROVIDED FOR STRUCTURES REPRESENT CENTER OF STRUCTURE
- SEE PAVING PLANS AND DETAILS FOR THICKENED CURB LOCATION. CATCH BASINS SHALL MATCH FLOW LINE OF THICKENED EDGE
- OUTFALL PROTECTION SHALL BE FIELD FITTED AND SLOPED TO DRAIN
- INSTALL INLET PROTECTION PER WSDOT STD. PLAN I-40.20-00 IN ALL CATCH BASINS FOR DURATION OF CONSTRUCTION.
- "FS" INDICATES FLOW SPLITTER. SEE DETAIL C ON SHEET C-140.
- COVER PIPES OUTSIDE OF LEVEE FOOTPRINT WITH TOPSOIL PER DETAIL A ON SHEET C-140.
- CONCRETE INLETS SHALL HAVE MINIMUM 6-INCH SUMP.



MATCHLINE - STA 116+42.41 DRAINAGE PLAN- SEE SHEET C-136

**LEGEND**

- PROJECT CONSTRUCTION LIMITS
- PROPERTY/RIGHT-OF-WAY BOUNDARY
- EXISTING RETAINING WALL
- EXISTING DRAINAGE CULVERT
- PROPOSED VEGETATED FILTER STRIP  
SEE DRAINAGE DETAIL SHEETS.
- CRUSHED SURFACING TOP COURSE  
ROADWAY SURFACE
- HMA PAVEMENT ROADWAY SURFACE

**KEY NOTES**

- INSTALL RECTANGULAR VANED GRATE PER WSDOT STD. PLAN B-30.30-03.
- INSTALL RECTANGULAR BI-DIRECTIONAL GRATE PER WSDOT STD. PLAN B-30.40-03.
- CONSTRUCT COMPOST AMENDED VEGETATED FILTER STRIP (CAVFS) WITH DRAINAGE BLANKET. SEE DETAIL A SHEET C-139.
- INSTALL CATCH BASIN TYPE 1 PER WSDOT STD. PLAN B-5.20-03.
- INSTALL CORRUGATED POLYETHYLENE STORM SEWER 12 IN. DIAM.
- INSTALL ALUMINUM CORRUGATED STORM SEWER: TR. 5 AL. STORM SEWER PIPE 0.075 IN. THR. 12. IN. DIAM.
- INSTALL OUTFALL PROTECTION PER STATE OF WASHINGTON DEPARTMENT OF ECOLOGY 2019 SWMMWW BMP C209. SEE DETAILS A SHEET C-140.
- INSTALL CONCRETE INLET PER WSDOT STD. PLAN B-25.60-03.
- CONSTRUCT WET BIOFILTRATION SWALE PER STATE OF WASHINGTON DEPARTMENT OF ECOLOGY 2019 SWMMWW BMP T7.30. SEE DETAIL B, SHEET C-139.
- INSTALL FLOW SPLITTER. SEE DETAIL B ON SHEET C-140.
- INSTALL 4" PERFORATED PE UNDERDRAIN DRAINTILE. SEE SHEET C-139.
- INSTALL RECTANGULAR SOLID METAL COVER PER WSDOT STD. PLAN B-30.20-04.
- DO NOT INSTALL CAVFS OVER EXISTING JUNCTION BOXES. LOCATION OF JUNCTION BOXES TO BE VERIFIED BY THE CONTRACTOR IN THE FIELD AND APPROVED BY OWNER.
- INSTALL CATCH BASIN TYPE 1L PER WSDOT STD. PLAN B-5.40-02.
- CONSTRUCT COMPOST AMENDED VEGETATED FILTER STRIP (CAVFS) WITHOUT DRAINAGE BLANKET. SEE DETAIL D SHEET C-139.
- CONSTRUCT BASIC FILTER STRIP. SEE DETAIL D SHEET C-140.

**PLAN**

SCALE: 0 50' 100'



REV	DATE	DESCRIPTION
REV1	04/05/24	ROAD & CAVFS DETAILS



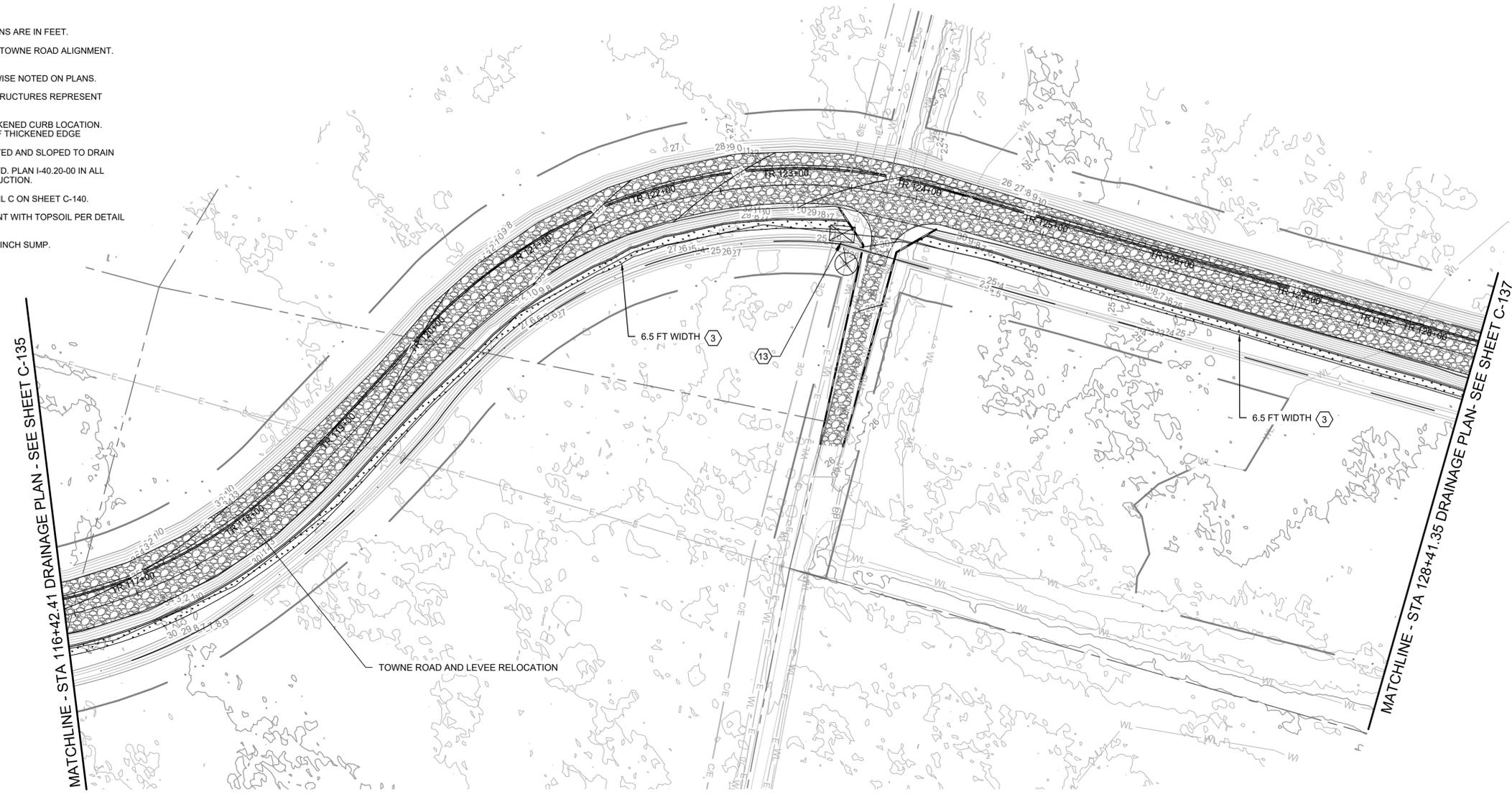
DESIGNED BY: R. HADJILANDELAND	ISSUE DATE: JUNE 2023
DRAWN BY: C. WILCOX	PROJECTION NO.:
CHECKED BY: S. JOHNSON	CONTRACT NO.:
SUBMITTED BY: HDR	21-1-12559-100
SIZE: ANSI D	

DUNGENESS, WASHINGTON  
 LOWER DUNGENESS RIVER FLOODPLAIN  
 RESTORATION & LEVEE ROAD REALIGNMENT PROJECT  
 TOWNE ROAD AND LEVEE DRAINAGE  
 PLAN SHEET 1

SHEET ID  
**C-135**

**GENERAL NOTES**

1. UNLESS OTHERWISE NOTED, ALL DIMENSIONS ARE IN FEET.
2. STATIONING REFERENCES THE PROPOSED TOWNE ROAD ALIGNMENT, UNLESS NOTED OTHERWISE
3. ALL SD PIPE SHALL BE PE, UNLESS OTHERWISE NOTED ON PLANS.
4. STATIONS AND OFFSETS PROVIDED FOR STRUCTURES REPRESENT CENTER OF STRUCTURE
5. SEE PAVING PLANS AND DETAILS FOR THICKENED CURB LOCATION. CATCH BASINS SHALL MATCH FLOW LINE OF THICKENED EDGE
6. OUTFALL PROTECTION SHALL BE FIELD FITTED AND SLOPED TO DRAIN
7. INSTALL INLET PROTECTION PER WSDOT STD. PLAN I-40.20-00 IN ALL CATCH BASINS FOR DURATION OF CONSTRUCTION.
8. "FS" INDICATES FLOW SPLITTER. SEE DETAIL C ON SHEET C-140.
9. COVER PIPES OUTSIDE OF LEVEE FOOTPRINT WITH TOPSOIL PER DETAIL A ON SHEET C-140.
10. CONCRETE INLETS SHALL HAVE MINIMUM 6-INCH SUMP.



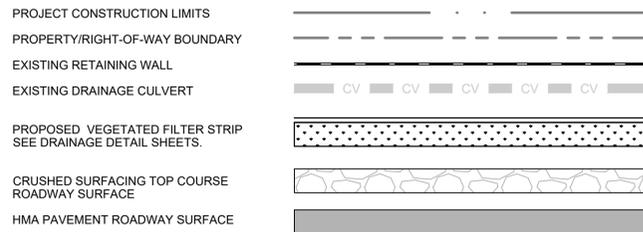
**KEY NOTES**

1. INSTALL RECTANGULAR VANED GRATE PER WSDOT STD. PLAN B-30.30-03.
2. INSTALL RECTANGULAR BI-DIRECTIONAL GRATE PER WSDOT STD. PLAN B-30.40-03.
3. CONSTRUCT COMPOST AMENDED VEGETATED FILTER STRIP (CAVFS) WITH DRAINAGE BLANKET. SEE DETAIL A SHEET C-139.
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5. INSTALL CORRUGATED POLYETHYLENE STORM SEWER 12 IN. DIAM.
6. INSTALL ALUMINUM CORRUGATED STORM SEWER: TR. 5 AL. STORM SEWER PIPE 0.075 IN. THR. 12. IN. DIAM.
7. INSTALL OUTFALL PROTECTION PER STATE OF WASHINGTON DEPARTMENT OF ECOLOGY 2019 SWMMWW BMP C209. SEE DETAILS A SHEET C-140.
8. INSTALL CONCRETE INLET PER WSDOT STD. PLAN B-25.60-03.
9. CONSTRUCT WET BIOFILTRATION SWALE PER STATE OF WASHINGTON DEPARTMENT OF ECOLOGY 2019 SWMMWW BMP T7.30. SEE DETAIL B, SHEET C-139.
10. INSTALL FLOW SPLITTER. SEE DETAIL B ON SHEET C-140.
11. INSTALL 4" PERFORATED PE UNDERDRAIN DRAINTILE. SEE SHEET C-139.
12. INSTALL RECTANGULAR SOLID METAL COVER PER WSDOT STD. PLAN B-30.20-04.
13. DO NOT INSTALL CAVFS OVER EXISTING JUNCTION BOXES. LOCATION OF JUNCTION BOXES TO BE VERIFIED BY THE CONTRACTOR IN THE FIELD AND APPROVED BY OWNER.
14. INSTALL CATCH BASIN TYPE 1L PER WSDOT STD. PLAN B-5.40-02.
15. CONSTRUCT COMPOST AMENDED VEGETATED FILTER STRIP (CAVFS) WITHOUT DRAINAGE BLANKET. SEE DETAIL D SHEET C-139.
16. CONSTRUCT BASIC FILTER STRIP. SEE DETAIL D SHEET C-140.

**PLAN**

SCALE: 0 50' 100'

**LEGEND**



G  
F  
E  
D  
C  
B  
A



REV	DATE	DESCRIPTION
REV1	04/05/24	ROAD & CAVFS DETAILS



DESIGNED BY: RHADDELAND	ISSUE DATE: MARCH 2023
CHECKED BY: S. JOHNSON	PROJECT NO.:334.16.008
CONTRACT NO.:21-1-12559-100	CONTRACT NO.:21-1-12559-100
DATE: ANSI D	

CLALLAM COUNTY, WASHINGTON  
223 EAST 4TH STREET, SUITE #6  
PORT ANGELES, WA 98382

HDR ENGINEERING  
929 108TH AVE NE, SUITE 1300  
BELLEVUE, WA 98004

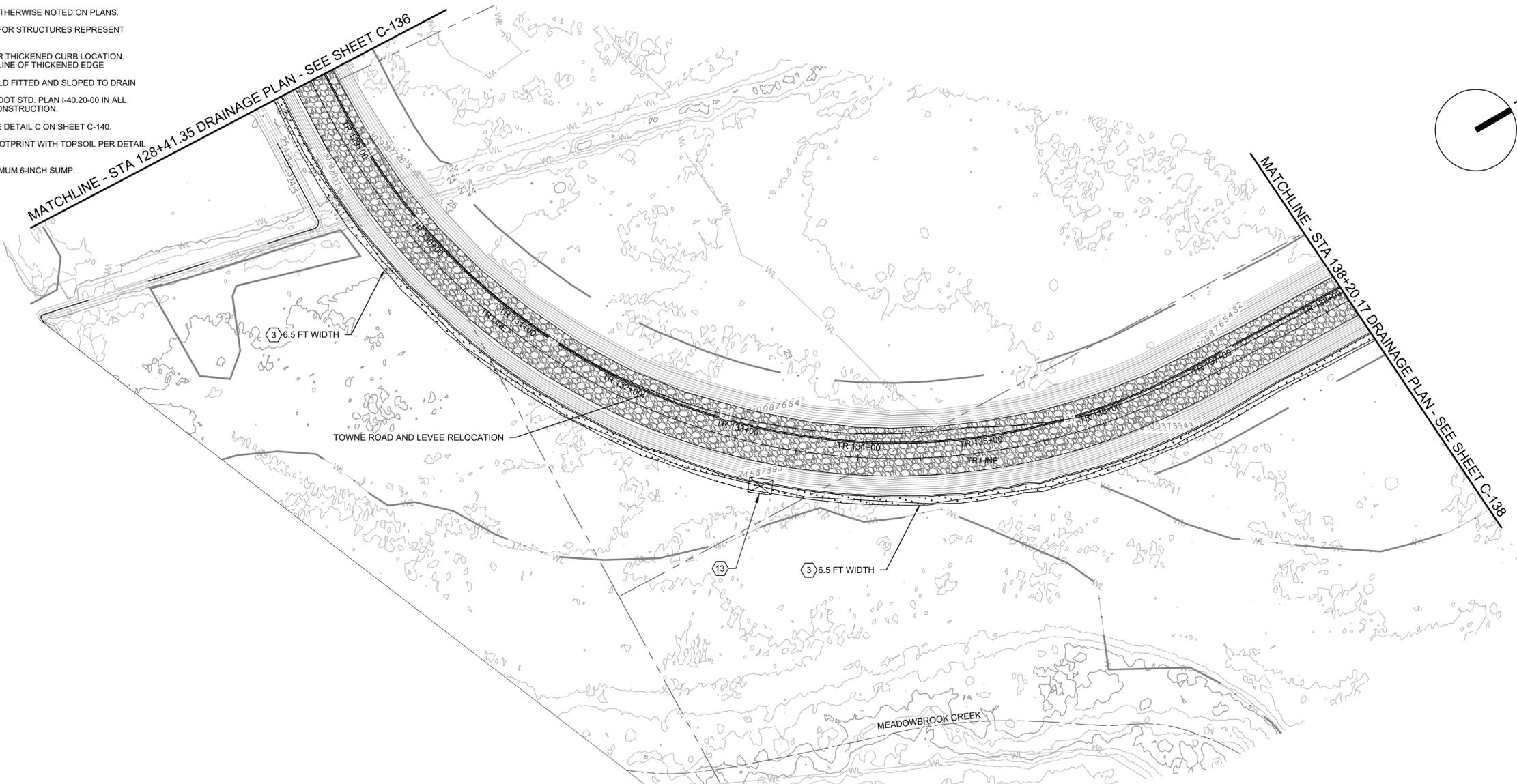
DUNGENESS, WASHINGTON  
LOWER DUNGENESS RIVER FLOODPLAIN  
RESTORATION & LEVEE / ROAD REALIGNMENT PROJECT

TOWNE ROAD LEVEE DRAINAGE  
PLAN SHEET 2

SHEET ID  
**C-136**

**GENERAL NOTES**

1. UNLESS OTHERWISE NOTED, ALL DIMENSIONS ARE IN FEET.
2. STATIONING REFERENCES THE PROPOSED TOWNE ROAD ALIGNMENT, UNLESS NOTED OTHERWISE
3. ALL SD PIPE SHALL BE PE, UNLESS OTHERWISE NOTED ON PLANS.
4. STATIONS AND OFFSETS PROVIDED FOR STRUCTURES REPRESENT CENTER OF STRUCTURE
5. SEE PAVING PLANS AND DETAILS FOR THICKENED CURB LOCATION. CATCH BASINS SHALL MATCH FLOW LINE OF THICKENED EDGE
6. OUTFALL PROTECTION SHALL BE FIELD FITTED AND SLOPED TO DRAIN
7. INSTALL INLET PROTECTION PER WSDOT STD. PLAN I-40.20-00 IN ALL CATCH BASINS FOR DURATION OF CONSTRUCTION.
8. \*FS\* INDICATES FLOW SPLITTER. SEE DETAIL C ON SHEET C-140.
9. COVER PIPES OUTSIDE OF LEVEE FOOTPRINT WITH TOPSOIL PER DETAIL A ON SHEET C-140.
10. CONCRETE INLETS SHALL HAVE MINIMUM 6-INCH SUMP.



**KEY NOTES**

1. INSTALL RECTANGULAR VANED GRATE PER WSDOT STD. PLAN B-30.30-03.
2. INSTALL RECTANGULAR BI-DIRECTIONAL GRATE PER WSDOT STD. PLAN B-30.40-03.
3. CONSTRUCT COMPOST AMENDED VEGETATED FILTER STRIP (CAVFS) WITH DRAINAGE BLANKET. SEE DETAIL A SHEET C-139.
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10. INSTALL FLOW SPLITTER. SEE DETAIL B ON SHEET C-140.
11. INSTALL 4" PERFORATED PE UNDERDRAIN DRAINTILE. SEE SHEET C-139.
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16. CONSTRUCT BASIC FILTER STRIP. SEE DETAIL D SHEET C-140.

**PLAN**

SCALE: 0 50' 100'

**LEGEND**

- PROJECT CONSTRUCTION LIMITS
- PROPERTY/RIGHT-OF-WAY BOUNDARY
- EXISTING RETAINING WALL
- EXISTING DRAINAGE CULVERT
- PROPOSED VEGETATED FILTER STRIP  
SEE DRAINAGE DETAIL SHEETS.
- CRUSHED SURFACING TOP COURSE  
ROADWAY SURFACE
- HMA PAVEMENT ROADWAY SURFACE



REV	DATE	DESCRIPTION
REV1	04/05/24	ROAD & CAVFS DETAILS



DESIGNED BY: RYAN HADJILAND	ISSUE DATE: MARCH 2023
DRAWN BY: C. WILCOX	PROJECT NO.:
CHECKED BY: S. JOHNSON	CONTRACT NO.:
SUBMITTED BY: HDR	21-1-12559-100
SIZE: ANSI D	

CLALLAM COUNTY, WASHINGTON  
223 EAST 4TH STREET, SUITE #6  
PORT ANGELES, WA 98362

HDR ENGINEERING  
929 108TH AVE NE, SUITE 1300  
BELLEVUE, WA 98004

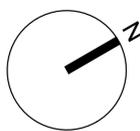
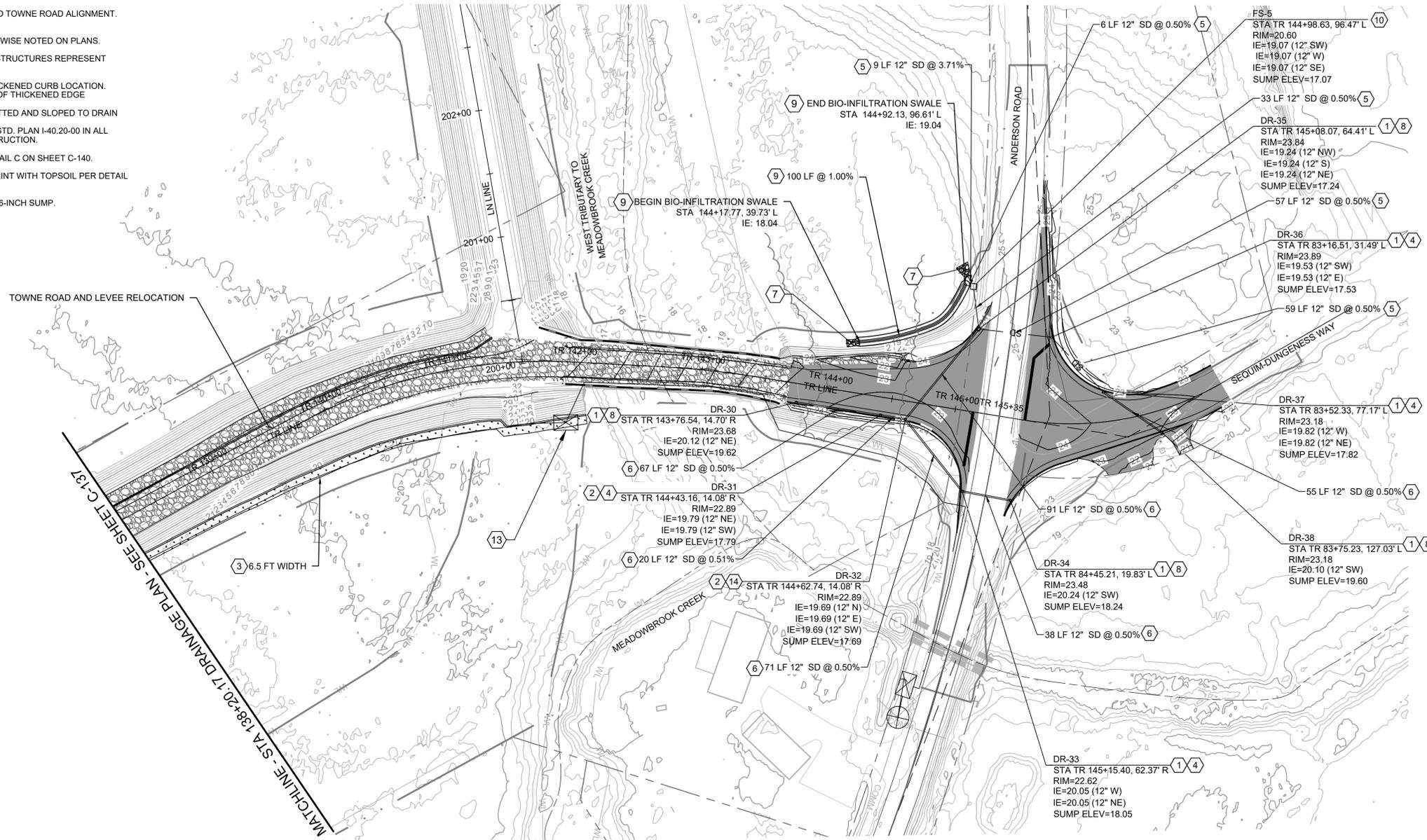
DUNGENESS, WASHINGTON  
LOWER DUNGENESS RIVER FLOODPLAIN  
RESTORATION & LEVEE / ROAD REALIGNMENT PROJECT

TOWNE ROAD LEVEE DRAINAGE  
PLAN SHEET 3

SHEET ID  
**C-137**

# GENERAL NOTES

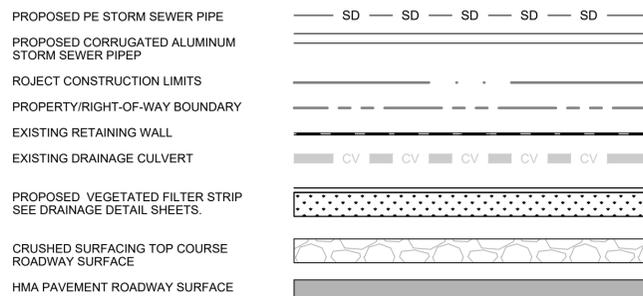
- UNLESS OTHERWISE NOTED, ALL DIMENSIONS ARE IN FEET.
- STATIONING REFERENCES THE PROPOSED TOWNE ROAD ALIGNMENT, UNLESS NOTED OTHERWISE
- ALL SD PIPE SHALL BE PE, UNLESS OTHERWISE NOTED ON PLANS.
- STATIONS AND OFFSETS PROVIDED FOR STRUCTURES REPRESENT CENTER OF STRUCTURE
- SEE PAVING PLANS AND DETAILS FOR THICKENED CURB LOCATION. CATCH BASINS SHALL MATCH FLOW LINE OF THICKENED EDGE
- OUTFALL PROTECTION SHALL BE FIELD FITTED AND SLOPED TO DRAIN
- INSTALL INLET PROTECTION PER WSDOT STD. PLAN I-40.20-00 IN ALL CATCH BASINS FOR DURATION OF CONSTRUCTION.
- "FS" INDICATES FLOW SPLITTER. SEE DETAIL C ON SHEET C-140.
- COVER PIPES OUTSIDE OF LEVEE FOOTPRINT WITH TOPSOIL PER DETAIL A ON SHEET C-140.
- CONCRETE INLETS SHALL HAVE MINIMUM 6-INCH SUMP.



# KEY NOTES

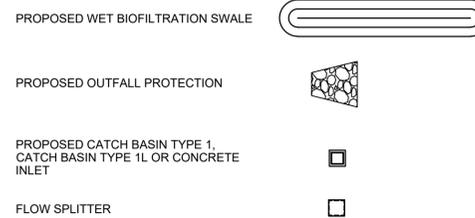
- INSTALL RECTANGULAR VANED GRATE PER WSDOT STD. PLAN B-30.30-03.
- INSTALL RECTANGULAR BI-DIRECTIONAL GRATE PER WSDOT STD. PLAN B-30.40-03.
- CONSTRUCT COMPOST AMENDED VEGETATED FILTER STRIP (CAVFS) WITH DRAINAGE BLANKET. SEE DETAIL A SHEET C-139.
- INSTALL CATCH BASIN TYPE 1 PER WSDOT STD. PLAN B-5.20-03.
- INSTALL CORRUGATED POLYETHYLENE STORM SEWER 12 IN. DIAM.
- INSTALL ALUMINUM CORRUGATED STORM SEWER: TR. 5 AL. STORM SEWER PIPE 0.075 IN. THR. 12 IN. DIAM.
- INSTALL OUTFALL PROTECTION PER STATE OF WASHINGTON DEPARTMENT OF ECOLOGY 2019 SWMMWW BMP C209. SEE DETAILS A SHEET C-140.
- INSTALL CONCRETE INLET PER WSDOT STD. PLAN B-25.60-03.
- CONSTRUCT WET BIOFILTRATION SWALE PER STATE OF WASHINGTON DEPARTMENT OF ECOLOGY 2019 SWMMWW BMP T7.30. SEE DETAIL B, SHEET C-139.
- INSTALL FLOW SPLITTER. SEE DETAIL B ON SHEET C-140.
- INSTALL 4" PERFORATED PE UNDERDRAIN DRAINTILE. SEE SHEET C-139.
- INSTALL RECTANGULAR SOLID METAL COVER PER WSDOT STD. PLAN B-30.20-04.
- DO NOT INSTALL CAVFS OVER EXISTING JUNCTION BOXES. LOCATION OF JUNCTION BOXES TO BE VERIFIED BY THE CONTRACTOR IN THE FIELD AND APPROVED BY OWNER.
- INSTALL CATCH BASIN TYPE 1L PER WSDOT STD. PLAN B-5.40-02.
- CONSTRUCT COMPOST AMENDED VEGETATED FILTER STRIP (CAVFS) WITHOUT DRAINAGE BLANKET. SEE DETAIL D SHEET C-139.
- CONSTRUCT BASIC FILTER STRIP. SEE DETAIL D SHEET C-140.

# LEGEND



# PLAN

SCALE: 0 50' 100'



REV	DATE	DESCRIPTION
REV1	04/05/24	ROAD & CAVFS DETAILS



DESIGNED BY: RYAN HADJILAND	ISSUE DATE: MARCH 2023
DRAWN BY: C. WILCOX	PROJECT NO.:
CHECKED BY: S. JOHNSON	CONTRACT NO.:
SUBMITTED BY: HDR	21-1-12559-100
SIZE: ANSI D	

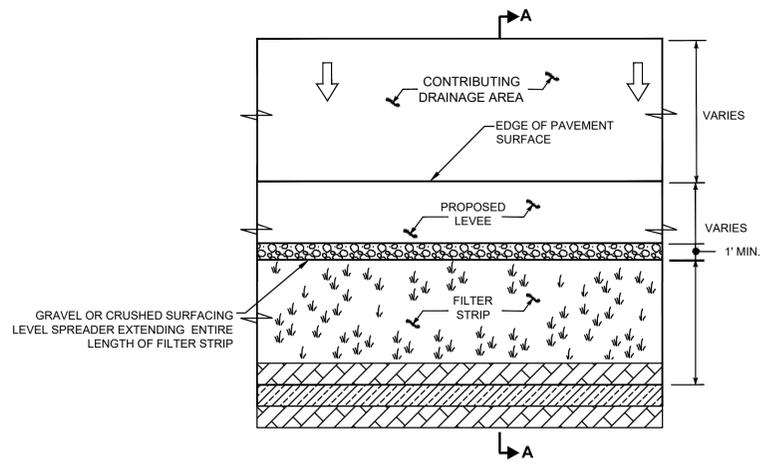
CLALLAM COUNTY, WASHINGTON  
223 EAST 4TH STREET, SUITE #6  
PORT ANGELES, WA 98362

HDR ENGINEERING  
929 108TH AVE NE, SUITE 1300  
BELLEVUE, WA 98004

DUNGENESS, WASHINGTON  
LOWER DUNGENESS RIVER FLOODPLAIN  
RESTORATION & LEVEE / ROAD REALIGNMENT PROJECT

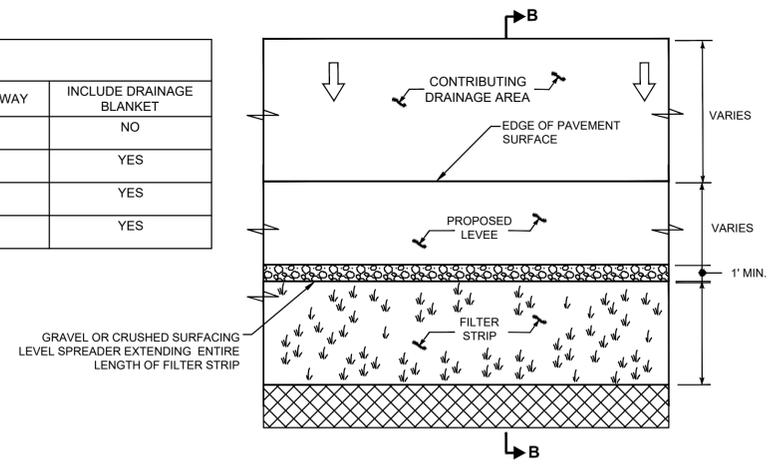
TOWNE ROAD LEVEE DRAINAGE  
PLAN SHEET 4

SHEET ID  
**C-138**

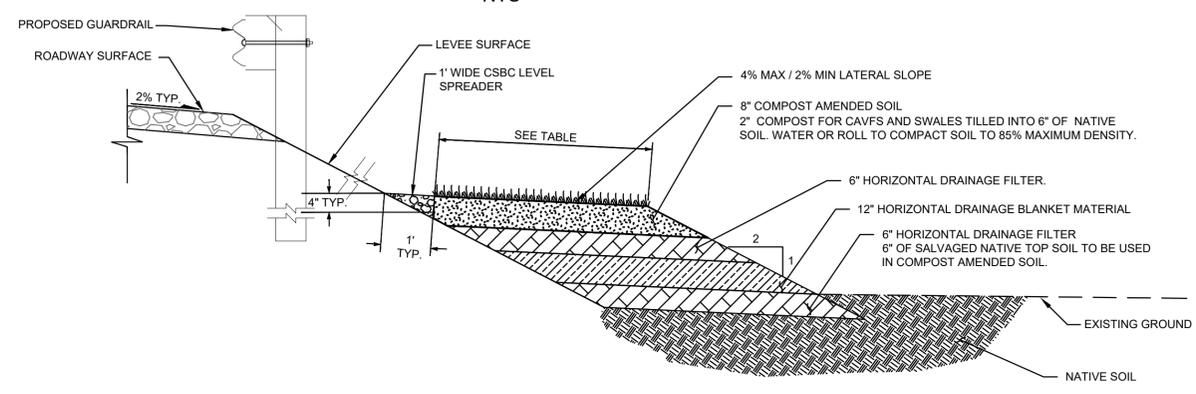


PLAN VIEW  
NTS

TABLE 1 - CAVFS PLACEMENT				
START STATION	END STATION	CAVFS WIDTH	SIDE OF ROADWAY	INCLUDE DRAINAGE BLANKET
103+60.00	108+33.00	7.5'	RIGHT	NO
108+59.50	112+90.00	7.5'	RIGHT	YES
112+90.00	123+50.00	6.5'	RIGHT	YES
124+12.00	142+12.00	6.5'	RIGHT	YES



PLAN VIEW  
NTS

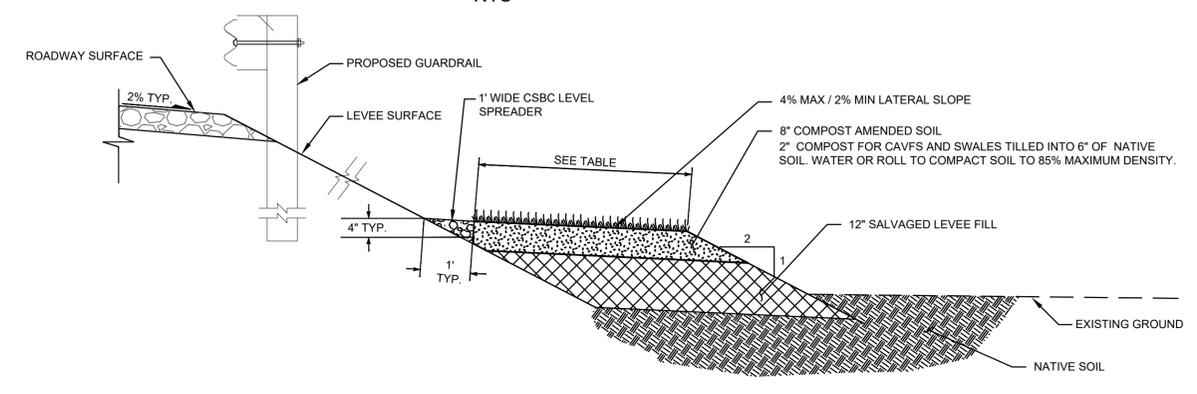


SECTION A-A  
NTS

**COMPOST AMENDED VEGETATED FILTER STRIP (CAVFS) WITH DRAINAGE BLANKET**

**A**

SCALE: N.T.S.

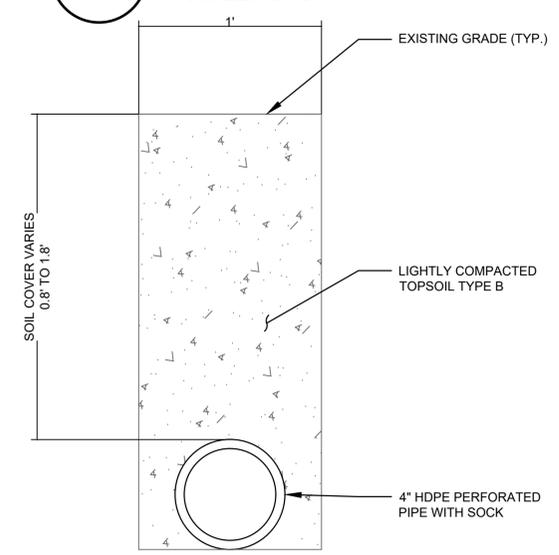


SECTION B-B  
NTS

**COMPOST AMENDED VEGETATED FILTER STRIP (CAVFS) WITHOUT DRAINAGE BLANKET**

**D**

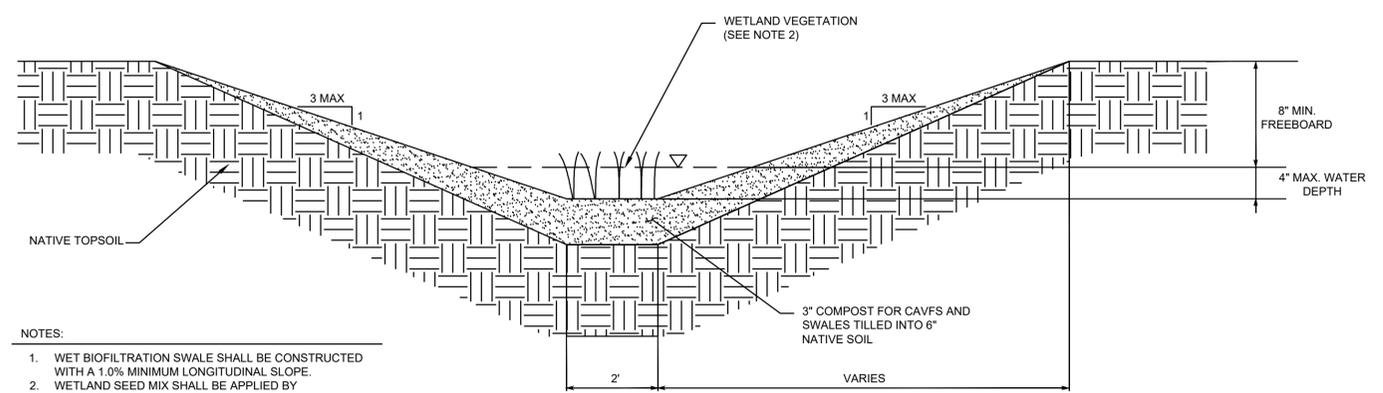
SCALE: N.T.S.



**C**

**TYPICAL SECTION: DRAIN TILE**

SCALE: N.T.S.



**B**

**WET BIOFILTRATION SWALE**

SCALE: N.T.S.

- NOTES:
1. WET BIOFILTRATION SWALE SHALL BE CONSTRUCTED WITH A 1.0% MINIMUM LONGITUDINAL SLOPE.
  2. WETLAND SEED MIX SHALL BE APPLIED BY HYDROSEEDING.
  3. EXCAVATION FOR WET BIOFILTRATION SWALE SHALL BE PAID FOR AS DITCH EXCAVATION.



REV	DATE	DESCRIPTION
REV1	04/05/24	ROAD & CAVFS DETAILS



DESIGNED BY: R. HADJILAND	ISSUE DATE: JUNE 2023
CHECKED BY: S. JOHNSON	CONTRACT NO.: 21-1-12559-100
SUBMITTED BY: HDR	PROJECT NO.: 33416
SIZE: ANSI D	

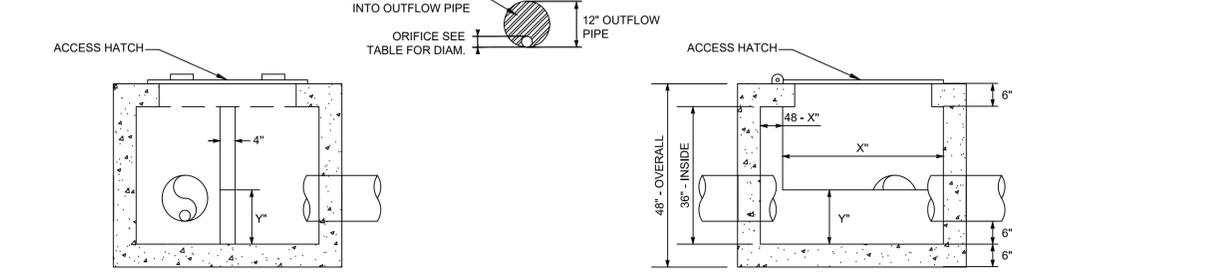
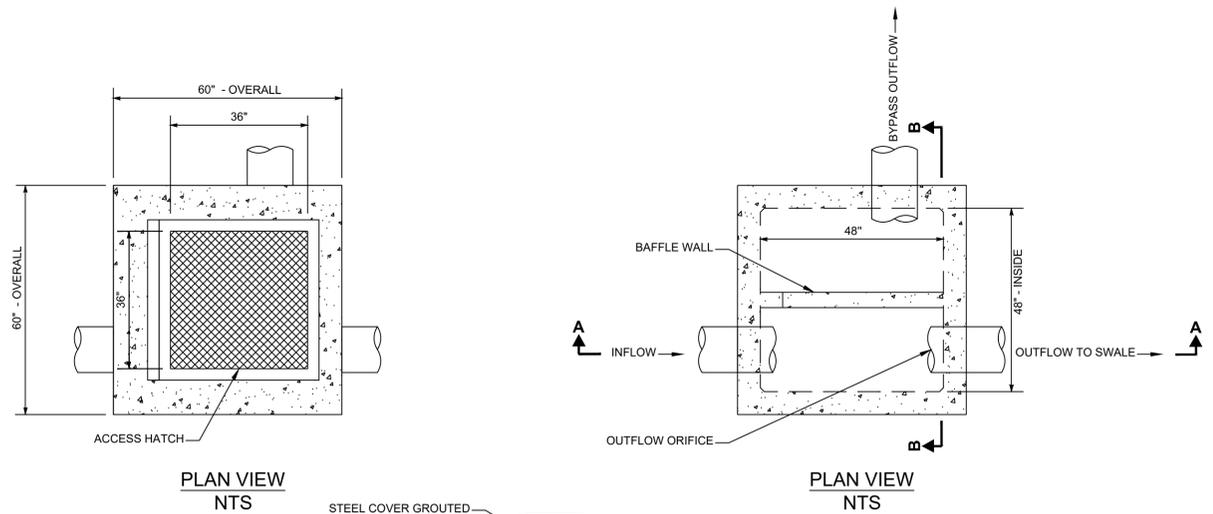
CLALLAM COUNTY, WASHINGTON  
223 EAST 4TH STREET, SUITE #6  
PORT ANGELES, WA 98362

HDR ENGINEERING  
929 108TH AVE NE, SUITE 1300  
BELLEVUE, WA 98004

DUNGENESS, WASHINGTON  
LOWER DUNGENESS RIVER FLOODPLAIN  
RESTORATION & LEVEE / ROAD REALIGNMENT PROJECT

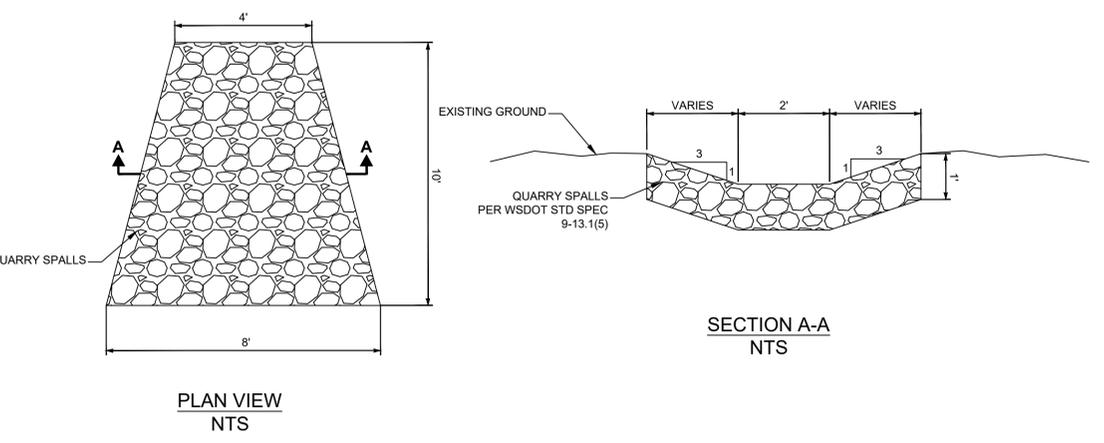
DRAINAGE DETAILS SHEET 1

SHEET ID  
**C-139**



FLOW SPLITTER DIMENSIONS			
FLOW SPLITTER	X - DIMENSION	Y - DIMENSION	ORIFICE DIAM.
FS - 5	42.40"	5.04"	1.55"

**B FLOW SPLITTER**  
SCALE: N.T.S.



**A OUTFALL PROTECTION**  
SCALE: N.T.S.

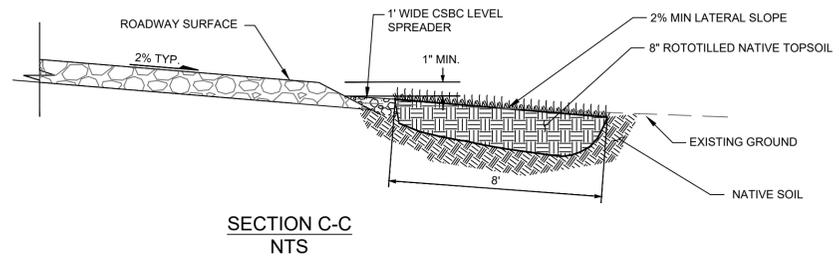
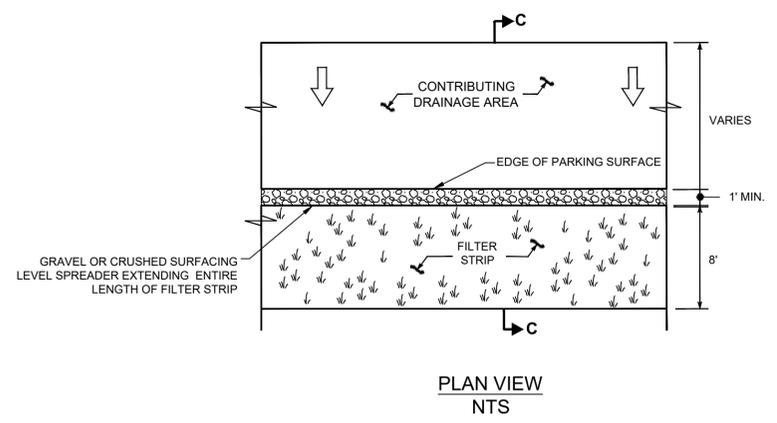
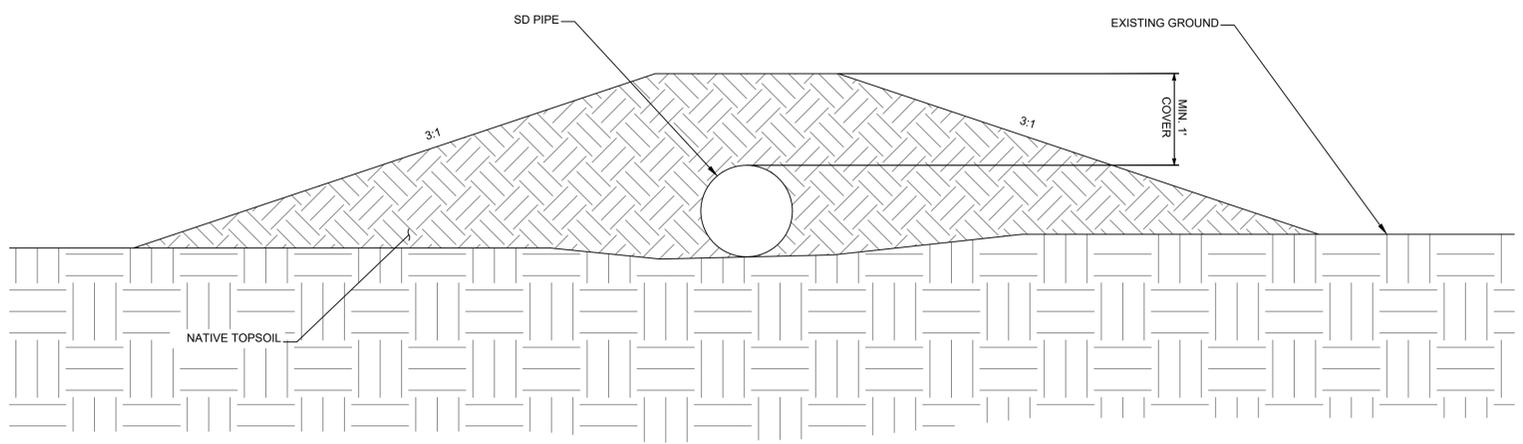


TABLE 2 - BASIC FILTER STRIP PLACEMENT			
START STATION	END STATION	FILTER STRIP WIDTH	SIDE OF ROADWAY
100+00.00	103+60.00	8.0'	LEFT

**D BASIC FILTER STRIP**  
SCALE: N.T.S.



**C STORM DRAIN TOP SOIL COVER DETAIL**  
SCALE: N.T.S.



REV	DATE	DESCRIPTION
REV1	04/05/24	ROAD & CAVFS DETAILS



DESIGNED BY: R. HADJILAND	ISSUE DATE: MARCH 2023
CHECKED BY: C. WILCOX	PERMIT NO.:
SUBMITTED BY: HDR	CONTRACT NO.:
SIZE: A11x17	

CLALLAM COUNTY, WASHINGTON  
223 EAST 4TH STREET, SUITE #6  
PORT ANGELES, WA 98362

HDR ENGINEERING  
929 108TH AVE NE, SUITE 1300  
BELLEVUE, WA 98004

DUNGENESS, WASHINGTON  
LOWER DUNGENESS RIVER FLOODPLAIN  
RESTORATION & LEVEE/ROAD REALIGNMENT PROJECT  
EE SURFACING PROJECT

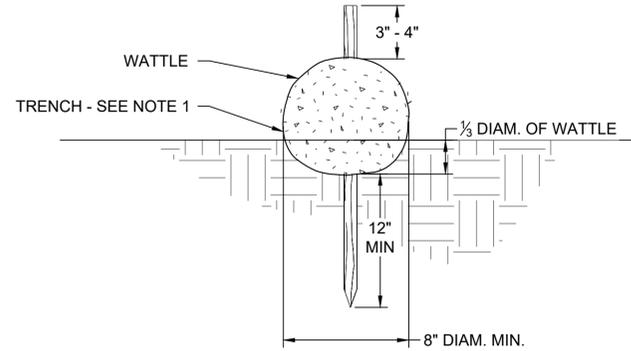
DRAINAGE DETAIL SHEET 2

SHEET ID  
**C-140**

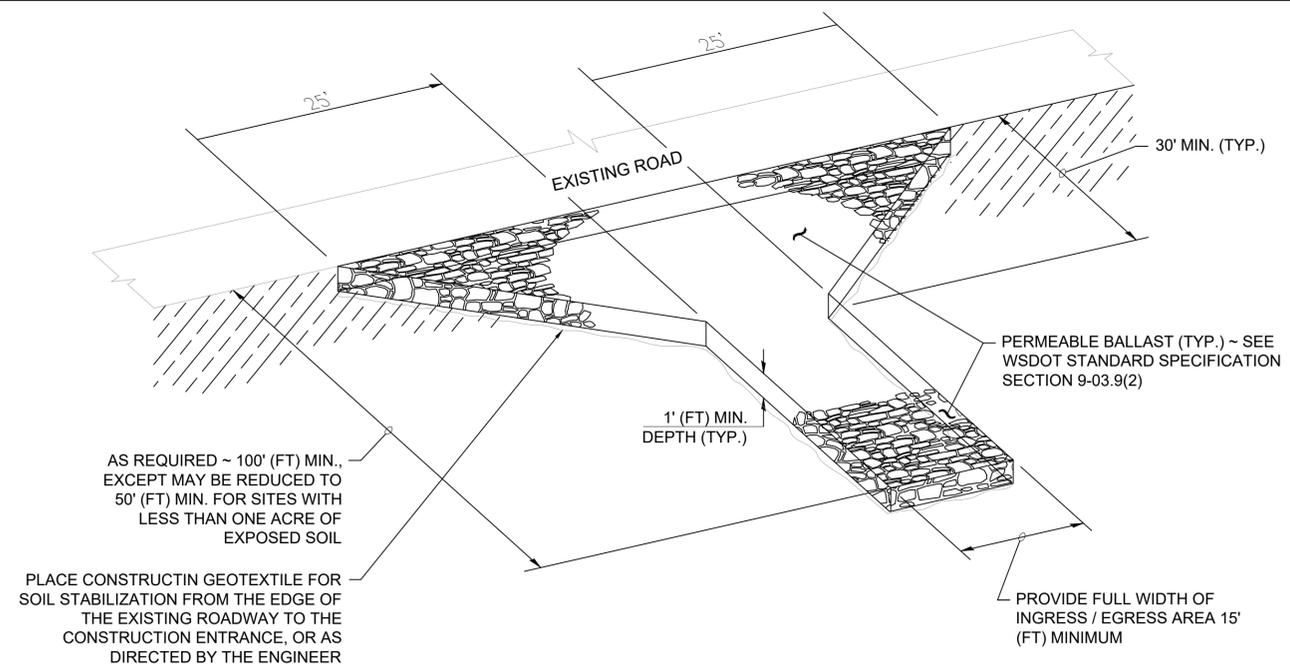


NOTES:

1. WATTLES SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION, SECTION 9-14.6(5). INSTALL WATTLES ALONG CONTOURS. INSTALLATION SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION, SECTION 8-01.3(10).
2. SECURELY KNOT EACH END OF WATTLE. OVERLAP ADJACENT WATTLE ENDS 12" (IN) BEHIND ONE ANOTHER AND SECURELY TIE TOGETHER.
3. COMPACT EXCAVATED SOIL AND TRENCHES TO PREVENT UNDERCUTTING. ADDITIONAL STAKING MAY BE NECESSARY TO PREVENT UNDERCUTTING.
4. INSTALL WATTLE PERPENDICULAR TO FLOW ALONG CONTOURS.
5. WATTLES SHALL BE INSPECTED REGULARLY, AND IMMEDIATELY AFTER A RAINFALL PRODUCES RUNOFF, TO ENSURE THEY REMAIN THOROUGHLY ENTRENCHED AND IN CONTACT WITH THE SOIL.
6. PERFORM MAINTENANCE IN ACCORDANCE WITH STANDARD SPECIFICATION, SECTION 8-01.3(15).
7. REFER TO STANDARD SPECIFICATION, SECTION 8-01.3(16) FOR REMOVAL.
8. STAKE WATTLE EVERY 24". ADDITIONAL STAKES MAY BE REQUIRED TO SECURE WATTLE.



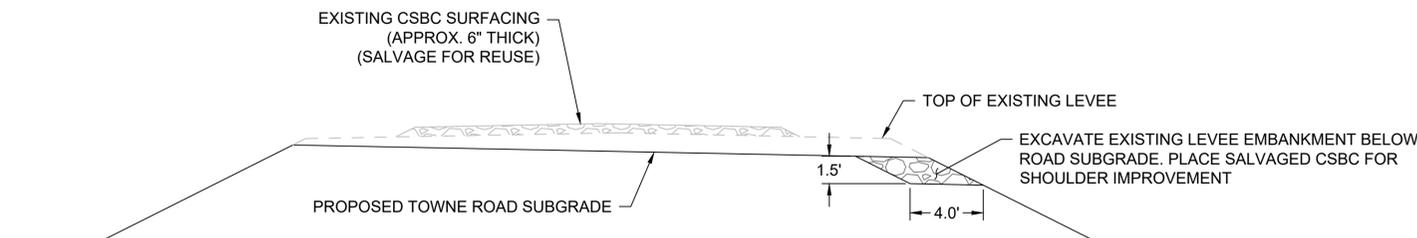
**A** DETAIL - STRAW WATTLE  
NTS



CONSTRUCTION ENTRANCE NOTES:

1. QUARRY SPALLS SHALL BE ADDED IF THE PAD IS NO LONGER IN ACCORDANCE WITH THE SPECIFICATIONS.
2. IF THE ENTRANCE IS NOT PREVENTING SEDIMENT FROM BEING TRACKED ONTO THE PAVEMENT, THEN ALTERNATIVE MEASURES TO KEEP THE STREETS FREE OF SEDIMENT SHALL BE USED. THIS MAY INCLUDE STREET SWEEPING, AN INCREASE IN THE DIMENSIONS OF THE ENTRANCE, OR THE INSTALLATION OF A WHEEL WASH.
3. ANY SEDIMENT THAT IS TRACKED ONTO PAVEMENT SHALL BE REMOVED BY SHOVELING OR SWEEPING. THE SEDIMENT COLLECTED BY SWEEPING SHALL BE REMOVED OR STABILIZED ON-SITE. THE PAVEMENT SHALL NOT BE CLEANED BY WASHING DOWN THE STREET, EXCEPT WHEN SWEEPING IS INEFFECTIVE AND THERE IS A THREAT TO PUBLIC SAFETY. IF IT IS NECESSARY TO WASH THE STREETS, THE CONSTRUCTION OF A SMALL SUMP SHALL BE CONSIDERED. THE SEDIMENT WOULD THEN BE WASHED INTO THE SUMP. CONTRACTOR SHALL OBTAIN OWNER APPROVAL PRIOR TO WASHING STREETS.
4. ANY ROCK SPALLS THAT ARE LOOSENED FROM THE PAD AND END UP ON THE ROADWAY SHALL BE REMOVED IMMEDIATELY.
5. IF VEHICLES ARE ENTERING OR EXITING THE SITE AT POINTS OTHER THAN THE CONSTRUCTION ENTRANCE(S), FENCING SHALL BE INSTALLED TO CONTROL TRAFFIC.

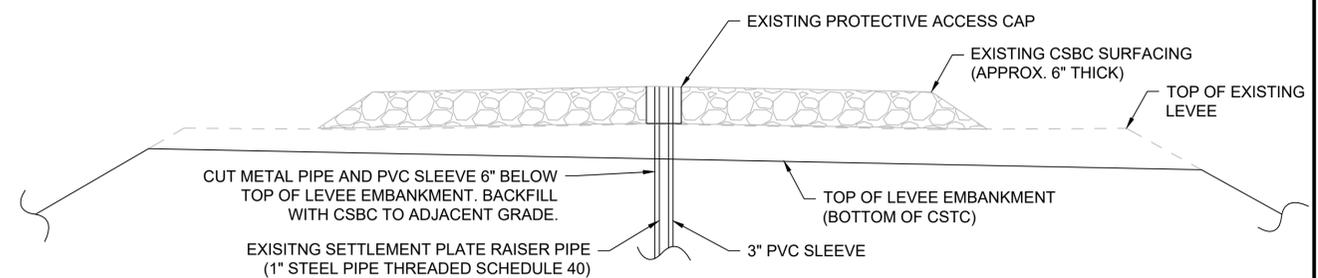
**B** DETAIL - CONSTRUCTION ENTRANCE  
NTS



NOTES:

1. SHOULDER IMPROVEMENT NOT TO OCCUR ACROSS EBERLE DRIVEWAY. END AND BEGIN SHOULDER IMPROVEMENT AT EBERLE MSE WALLS PER DIRECTION OF ENGINEER
2. SHOULDER IMPROVEMENT FROM STA 105+80.17 - 123+40 AND 124+25 - 140+00. CONTRACTOR TO CONFIRM ONSITE WITH ENGINEER.

**C** DETAIL - SHOULDER IMPROVEMENT  
NTS



**D** DETAIL - SETTLEMENT PLATE DEMOLITION  
NTS



REV	DATE	DESCRIPTION

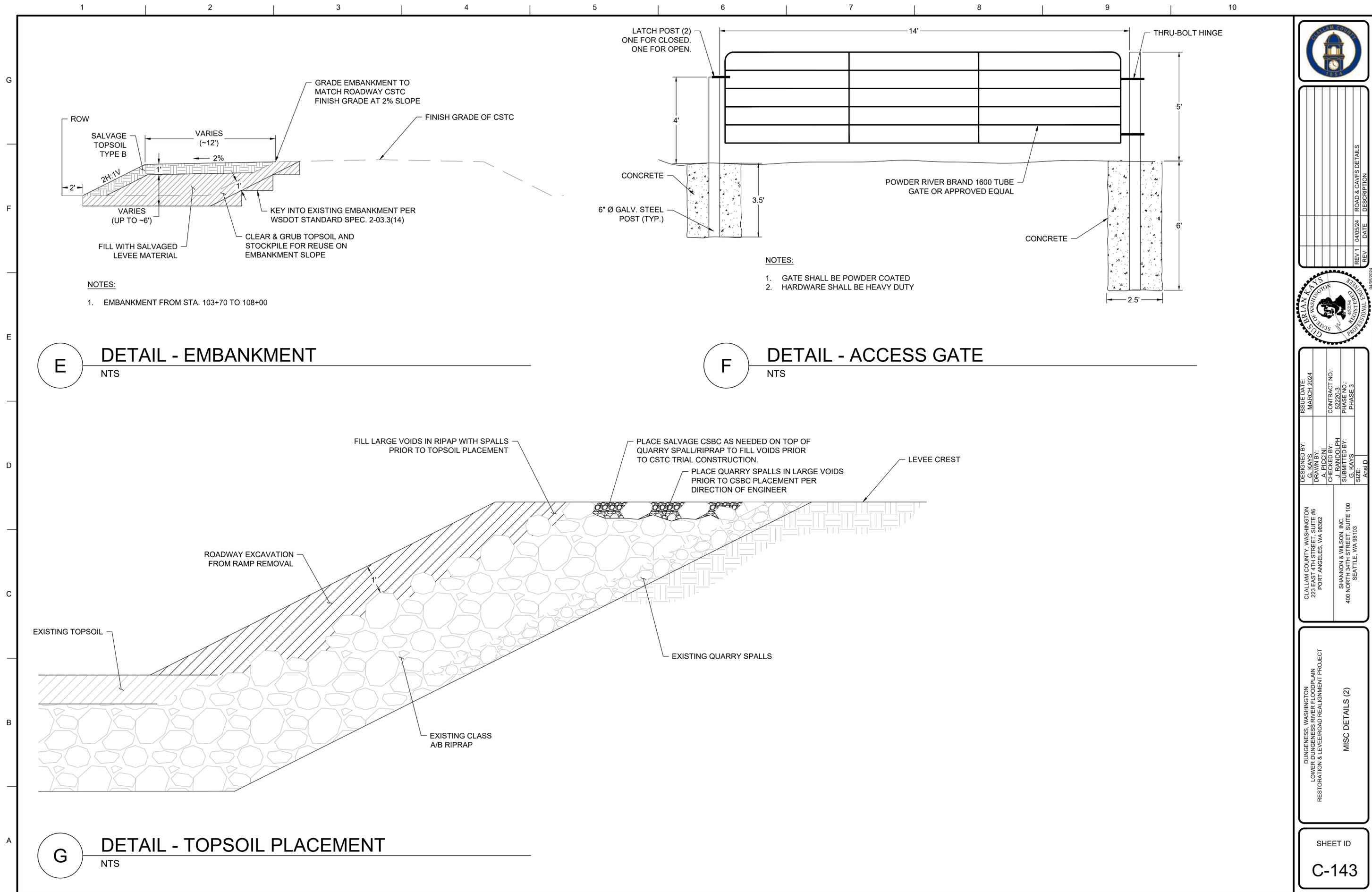


DESIGNED BY: G. KAYS	ISSUE DATE: MARCH 2024
DRAWN BY: A. PICCOLI	CONTRACT NO.:
CHECKED BY: J. RANDOLPH	52220-3
SUBMITTED BY: G. KAYS	PHASE NO.:
SIZE: ANSI D	PHASE 3

CLALLAM COUNTY, WASHINGTON 223 EAST 4TH STREET, SUITE #6 PORT ANGELES, WA 98102	SHANNON & WILSON, INC. 400 NORTH 4TH STREET, SUITE 100 SEATTLE, WA 98103
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DUNGENESS, WASHINGTON LOWER DUNGENESS RIVER FLOODPLAIN RESTORATION & LEVEE/ROAD REALIGNMENT PROJECT	MISC DETAILS (1)
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SHEET ID <b>C-142</b>
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REV	DATE	DESCRIPTION
REV.1	04/05/24	ROAD & CAVES DETAILS



ISSUE DATE:	MARCH 2024
DESIGNED BY:	C. KAYS
DRAWN BY:	A. PICCOLI
CHECKED BY:	J. RANDOLPH
SUBMITTED BY:	G. KAYS
SIZE:	AmsID
CLALLAM COUNTY, WASHINGTON	223 EAST 4TH STREET, SUITE #6 PORT ANGELES, WA 98502
SHANNON & WILSON, INC.	400 NORTH 5TH STREET, SUITE 100 SEATTLE, WA 98103

DUNGENESS, WASHINGTON  
 LOWER DUNGENESS RIVER FLOODPLAIN  
 RESTORATION & LEVEE/ROAD REALIGNMENT PROJECT  
 MISC DETAILS (2)

SHEET ID  
**C-143**