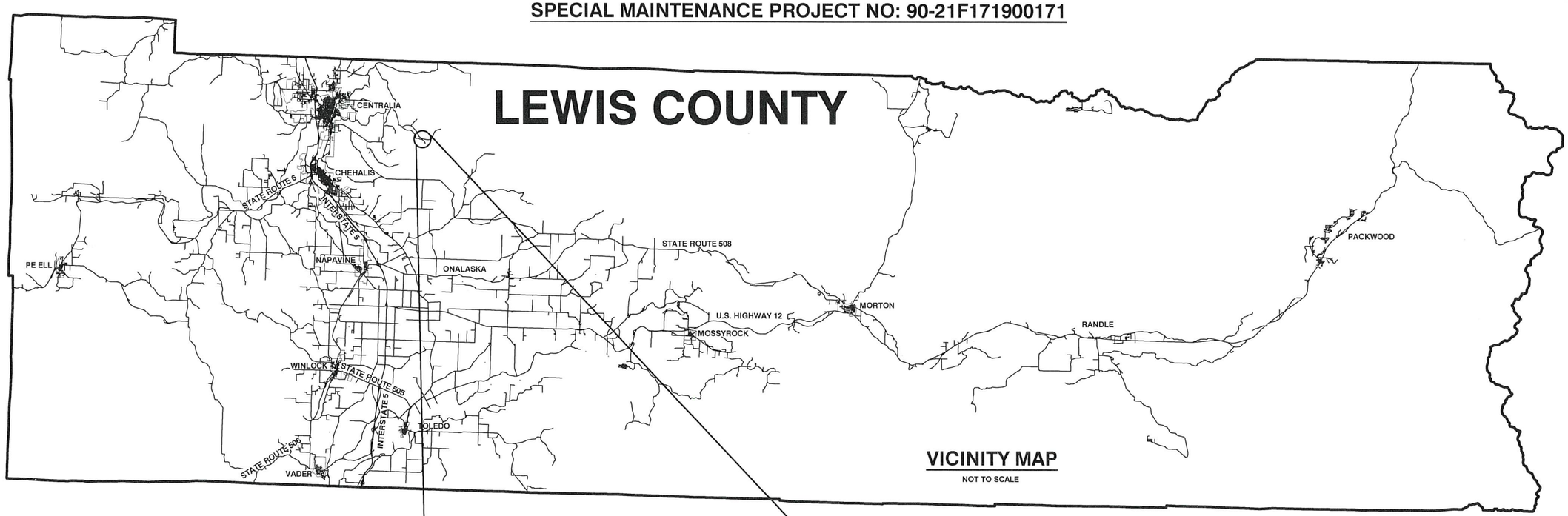
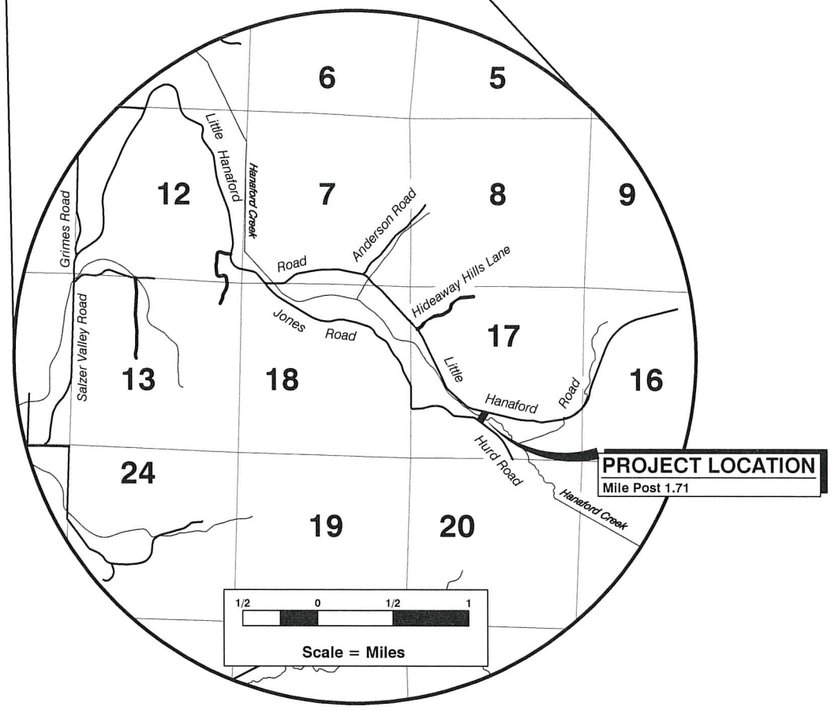
JONES ROAD MP 1.71 CULVERT REPLACEMENT

SPECIAL MAINTENANCE PROJECT NO: 90-21F171900171



VICINITY MAP

NOT TO SCALE



PROJECT LOCATION
Mile Post 1.71

LEWIS COUNTY
DEPARTMENT OF PUBLIC WORKS
APPROVED FOR CONSTRUCTION:

Assistant County Engineer — Date 10/29/26

W. VINCENT HALL — STATE OF WASHINGTON — #40730 — REGISTERED PROFESSIONAL ENGINEER

COMMISSIONERS:

SEAN D. SWOPE, DISTRICT 1
LINDSEY R. POLLOCK, DVM, DISTRICT 2
SCOTT J. BRUMMER, DISTRICT 3

Lewis County
Department of Public Works

ENGINEERING-DESIGN SECTION

SHEET INDEX

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1	VICINITY MAP AND SHEET INDEX
2	LEGEND
3	SUMMARY OF QUANTITIES
4	ROADWAY TYPICAL SECTION
5	SITE PREPARATION/UTILITY/TESC PLAN
6	ROADWAY PLAN AND PROFILE
7-8	SF HANAFORD CREEK TYPICAL SECTION
9	SF HANAFORD CREEK PLAN AND PROFILE
10-11	SF HANAFORD CREEK DETAILS
12	EXCAVATION PLAN AND PROFILE
13	GUARDRAIL PLAN
14	PAVING/PAVING MARKING/SIGNAGE
15-16	DEWATERING PLAN
17	TESC PLAN/PLANTING PLAN
18-19	CONSTRUCTION SIGNS CLASS A
20	BRIDGE INDEX
B01-B22	STRUCTURAL/BRIDGE PLANS
C01-C10	CITY OF CENTRALIA WATER RELOCATION
R1	RIGHT OF WAY MAP

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LEGEND

EXISTING FEATURES

- UTILITY POLE
- GUY WIRE
- SIGN
- TELEPHONE RISER (TR)
- MAILBOX (MB)
- FIRE HYDRANT
- GUY POLE (GP)
- WATER METER (WM)
- BUILDING
- CULVERT
- DITCH
- DRIVEWAY
- FENCE (X)
- EXISTING RW
- GATE (GATE)
- ROAD
- STREAM
- UG FIBER (FO)
- UG GAS (G)
- UG TELEPHONE (T)
- UG WATER (W)
- UTILITY OVERHEAD (OHU)

SURVEY FEATURES

- POINT OF CURVATURE
- POINT OF INTERSECTION
- POINT OF TANGENT
- RIGHT OF WAY
- PROPERTY LINE
- FLOWLINE

NEW CONSTRUCTION FEATURES

- CALLOUT (#)
- NEW CULVERT
- NEW GUARDRAIL
- WINGWALL
- DESIGN CENTERLINE
- AREA OF POTENTIAL EFFECT (APE)
- CLEAR & GRUB (CG)
- CULVERT
- CUT LINE (C)
- FLOWLINE
- FILL LINE (F)
- GUARDRAIL
- HIGH VISIBILITY SILT FENCE (HVS)
- TEMPORARY CONSTRUCTION EASEMENT
- NEW EDGE OF PAVEMENT

GENERAL NOTES

1. SURVEY HORIZONTAL DATUM; WASHINGTON STATE PLANE, SOUTH GRID, NAD 83/91
   VERTICAL DATUM: NAVD '88

Lewis County
Department of Public Works
57 WEST MAIN ST.
CHEHALIS WA 98532
PHONE # (360) 740-1123
FAX # (360) 740-2719

DESIGNED BY : J. PIPER
DRAWN BY : MBH
CHECKED BY :
DATE :

NO.	DATE	REVISION	BY	APP.

JONES ROAD MP 1.71

SPECIAL MAINTENANCE PROJECT NO:
90-21F171900171

LEGEND

SHEET 2 OF 20

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"It's the Law"
Utilities Underground Location Center

Albert L Swank, P.E.
Senior Engineer/Design
Date: 10/26/26

ALBERT L SWANK
STATE OF WASHINGTON
23042
REGISTERED
PROFESSIONAL ENGINEER

SUMMARY OF QUANTITIES

ITEM NO.	STD. ITEM NO.	ITEM DESCRIPTION	TOTAL QUANTITY	UNIT
		PREPARATION		
1	1	MOBILIZATION	1	LUMP SUM
2	25	CLEARING AND GRUBBING	0.40	ACRE
3	S.P.	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	1	LUMP SUM
		GRADING		
4	310	ROADWAY EXCAVATION INCL. HAUL	215	C.Y.
5	431	GRAVEL BORROW INCL. HAUL	800	TON
		DRAINAGE		
6	S.P.	STREAMBED MIX	595	TON
7	1030	DITCH EXCAVATION INCL. HAUL	370	C.Y.
8	1292	CL. V REINF. CONC. CULV. PIPE 18 IN. DIAM.	48	L.F.
9	3075	TEMPORARY STREAM DIVERSION	1	LUMP SUM
		STRUCTURE		
10	4006	STRUCTURE EXCAVATION CLASS A INCL. HAUL	1025	C.Y.
11	4013	SHORING OR EXTRA EXCAVATION CL. A	1	LUMP SUM
12	4025	GRAVEL BACKFILL FOR WALL	265	C.Y.
13	4090	FURNISHING ST. PILING	1000	L.F.
14	4095	DRIVING ST. PILE	16	EACH
15	4149	ST. REINF. BAR FOR BRIDGE	40,050	LB.
16	7037	STRUCTURE SURVEYING	1	LUMP SUM
17	4300	SUPERSTRUCTURE--JONES RD BRIDGE MP 1.71	1	LUMP SUM
18	4322	CONC. CLASS 4000 FOR BRIDGE	285	C.Y.
19	4415	TRAFFIC BARRIER	80	L.F.
20	5656	BRIDGE APPROACH SLAB	180	S.Y.
		SURFACING		
21	5100	CRUSHED SURFACING BASE COURSE	760	TON
22	5120	CRUSHED SURFACING TOP COURSE	260	TON
23	S.P.	SHOULDER FINISHING	0.12	MILE
		HOT MIX ASPHALT		
24	5766	HMA CL. 3/8 IN. PG 58H-22	195	TON

SUMMARY OF QUANTITIES

ITEM NO.	STD. ITEM NO.	ITEM DESCRIPTION	TOTAL QUANTITY	UNIT
		EROSION CONTROL AND ROADSIDE PLANTING		
25	6403	ESC LEAD	25	DAY
26	6422	SEEDING AND MULCHING	0.27	ACRE
27	6455	EROSION CONTROL BLANKET	125	S.Y.
28	6468	STABILIZED CONSTRUCTION ENTRANCE	20	S.Y.
29	6490	EROSION/WATER POLLUTION CONTROL	1	EST.
30	6579	BARK OR WOOD CHIP MULCH	0.07	ACRE
31	6635	HIGH VISIBILITY SILT FENCE	860	L.F.
32	S.P.	PLANTING MITIGATION CONSTRUCTION	1	LUMP SUM
33	S.P.	LARGE WOODY DEBRIS	2	EACH
34	S.P.	BALLAST BOULDERS	4	EACH
		TRAFFIC		
35	6719	BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL	4	EACH
36	6727	EXTRUDED CURB	105	L.F.
37	6757	BEAM GUARDRAIL TYPE 31	50	L.F.
38	6760	BEAM GUARDRAIL TRANSITION SECTION TYPE 24	4	EACH
39	6806	PAINT LINE	280	L.F.
40	6832	FLEXIBLE GUIDE POST	16	EACH
41	6858	PAINTED STOP LINE	15	L.F.
42	6971	PROJECT TEMPORARY TRAFFIC CONTROL	1	LUMP SUM
43	6982	CONSTRUCTION SIGNS CLASS A	297	S.F.
		OTHER ITEMS		
44	7490	TRIMMING AND CLEANUP	1	LUMP SUM
45	7530	CONSTRUCTION GEOTEXTILE FOR SEPARATION	315	S.Y.
46	7725	REIMBURSEMENT FOR THIRD PARTY DAMAGE	1	EST.
47	S.P.	MINOR CHANGE	1	CALC.
48	7736	SPCC PLAN	1	LUMP SUM

Lewis County
Department of Public Works
57 WEST MAIN ST.
CHEHALIS WA 98532
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FAX # (360) 740-2719

DESIGNED BY : J. PIPER
DRAWN BY : PAT
CHECKED BY :
DATE :

NO.	DATE	REVISION	BY	APP.

JONES ROAD MP 1.71

SPECIAL MAINTENANCE PROJECT NO:
90-21F171900171

SUMMARY OF QUANTITIES

SHEET 3 OF 20

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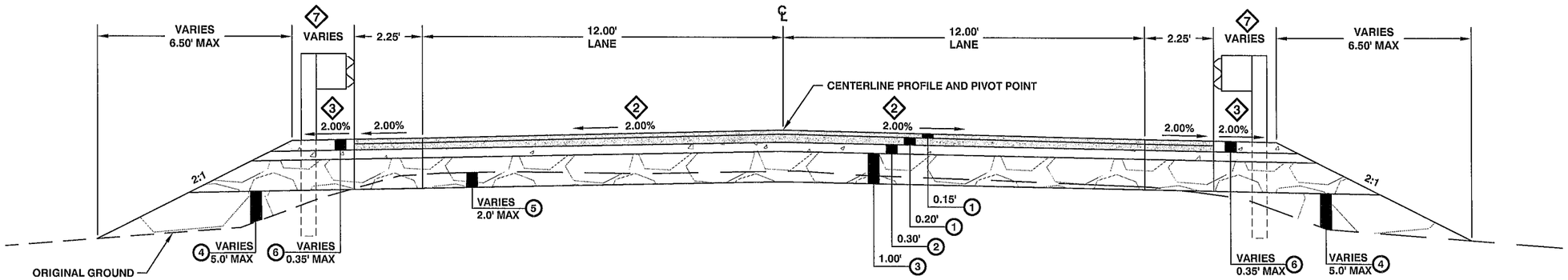
Albert L Swank, P.E.
Senior Engineer/Design
Date: 11/2/26

ALBERT L SWANK
STATE OF WASHINGTON
REGISTERED
PROFESSIONAL ENGINEER

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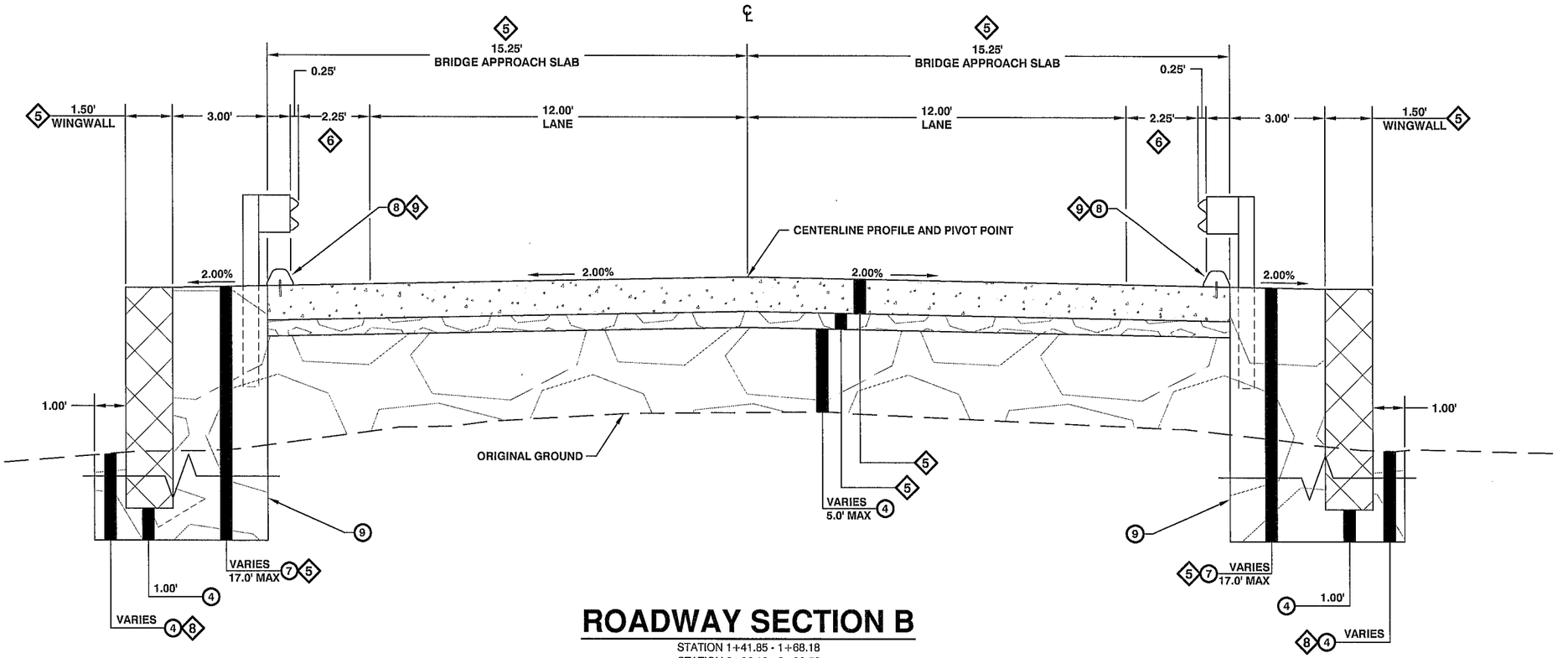


ROADWAY SECTION A

STATION 0+00.00 - 1+41.85
STATION 2+32.52 - 3+23.86
NOT TO SCALE

CONSTRUCTION NOTES:

1. ALL DISTANCES CALLED OUT VARY WITHIN TRANSITION LIMITS
2. CROSS SLOPES VARY WITHIN TRANSITION LIMITS
3. SLOPES WILL VARY IN SOME LOCATIONS
4. ALL DEPTHS ARE COMPACTED DEPTH
5. SEE BRIDGE PLAN SHEETS B01 - B22 FOR MORE DETAILS
6. FOR GUARDRAIL LAYOUT AND DETAILS SEE SHEET 13
7. SEE SHEET 13 FOR GUARDRAIL LOCATIONS
8. BACKFILL WINGWALL FACE TO 20% WALL HEIGHT OR MATCH EXISTING GROUND, WHICHEVER IS GREATER SEE WSDOT STANDARD PLAN D-20.10
9. FOR EXTRUDED CURB PLACEMENT AND DETAILS SEE BRIDGE PLAN SHEET B13



ROADWAY SECTION B

STATION 1+41.85 - 1+68.18
STATION 2+06.18 - 2+32.52
NOT TO SCALE

NOTES

1. HMA CL. 3/8" IN. PG 58H-22
2. CRUSHED SURFACING TOP COURSE
3. CRUSHED SURFACING BASE COURSE
4. GRAVEL BORROW INCL. HAUL
5. ROADWAY EXCAVATION INCL. HAUL
6. SHOULDER FINISHING (CRUSHED SURFACING TOP COURSE)
7. GRAVEL BACKFILL FOR WALL
8. EXTRUDED CURB
9. STRUCTURE EXCAVATION CLASS A INCL. HAUL

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DRAWN BY : MBH
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DATE :

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90-21F171900171

ROADWAY TYPICAL SECTION

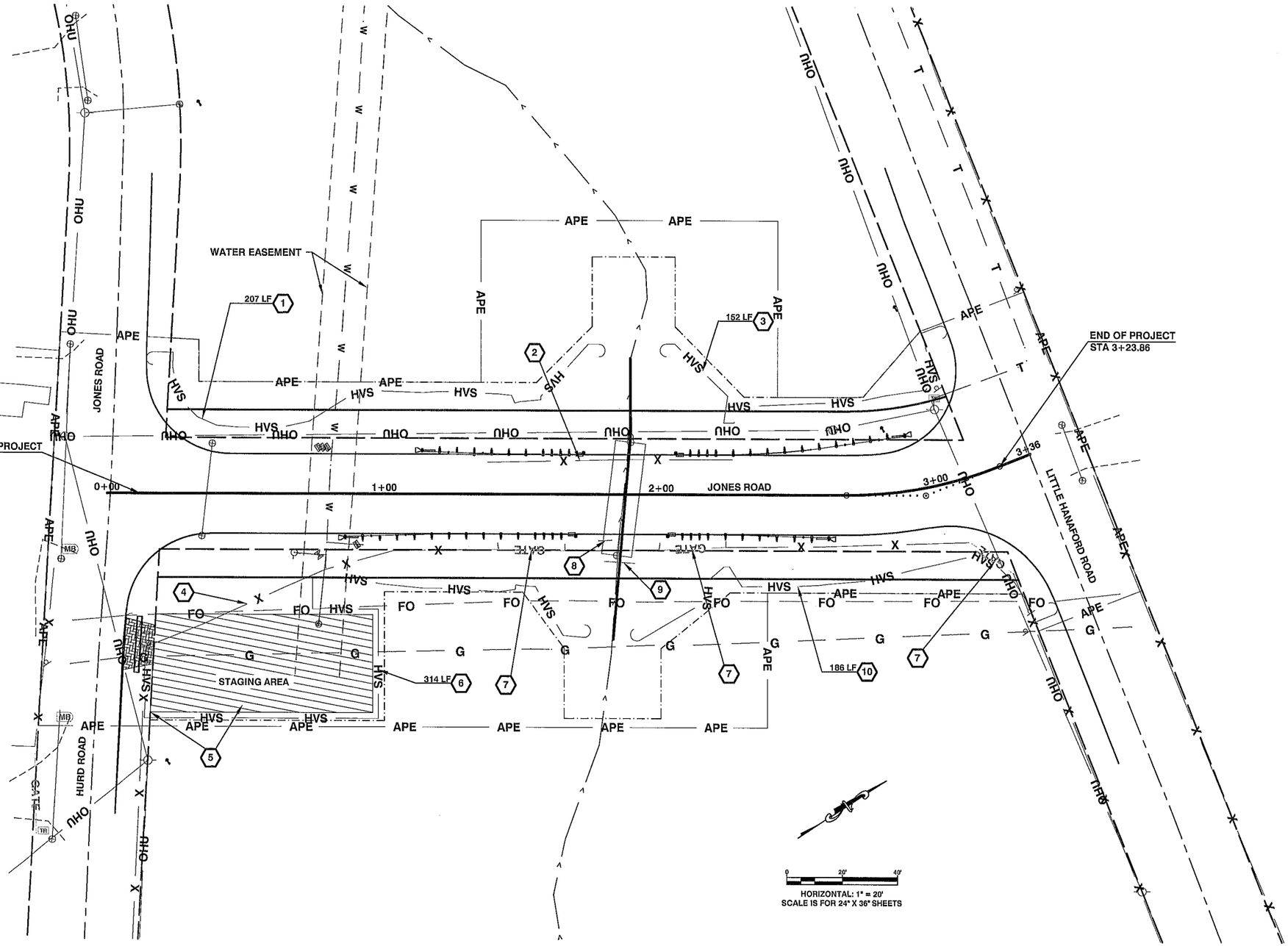
SHEET 4 OF 20

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Albert L Swank, P.E.
Senior Engineer/Design
Date: 10/26/26

ALBERT L SWANK
STATE OF WASHINGTON
#33470
REGISTERED
PROFESSIONAL ENGINEER

TWP 14 N RGE 1 W W.M.



CONSTRUCTION NOTES:

1. 207 L.F. HIGH VISIBILITY SILT FENCE
   INSTALL PER WSDOT STANDARD PLAN I-10.10
2. STA 1+37.23; 11.41' LT - 2+25.86; 12.54' LT
   89.00 L.F. EXISTING BARB WIRE FENCE TO BE REMOVED
3. 152 L.F. HIGH VISIBILITY SILT FENCE
   INSTALL PER WSDOT STANDARD PLAN I-10.10
4. STA 0+14.10; 54.87' RT - 3+16.20; 37.76' RT
   263 L.F. EXISTING BARB WIRE FENCE TO BE REMOVED
5. ENGINEER TO VERIFY IN FIELD
   STAGING AREA AT PARCEL# 020602003000
   315 S.Y. CONSTRUCTION GEOTEXTILE FOR SEPARATION
   0.07 ACRE BARK OR WOOD CHIP MULCH
   20 S.Y. STABILIZED CONSTRUCTION ENTRANCE WITH TEMPORARY 18" CORRUGATED HDPE PIPE
6. 314 L.F. HIGH VISIBILITY SILT FENCE
   INSTALL PER WSDOT STANDARD PLAN I-10.10
7. FIELD ACCESS GATES TO BE REMOVED
8. PARTIALLY REMOVE EXISTING 2" WATERLINE WITHIN PROJECT LIMITS. CONTRACTOR TO COORDINATE WITH LANDOWNER TO SHUT WATERLINE OFF BEFORE REMOVING LINE.
9. PARTIALLY REMOVE EXISTING 4" WATERLINE WITHIN PROJECT LIMITS. CONTRACTOR TO COORDINATE WITH LANDOWNER TO SHUT WATERLINE OFF BEFORE REMOVING LINE.
10. 186 L.F. HIGH VISIBILITY SILT FENCE
    INSTALL PER WSDOT STANDARD PLAN I-10.10
11. ALL UTILITIES & FENCING TO BE RELOCATED BY OTHERS

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Department of Public Works
57 WEST MAIN ST.
CHEHALIS WA 98532
PHONE # (360) 740-1123
FAX # (360) 740-2719

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DRAWN BY : PAT
CHECKED BY :
DATE :

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SPECIAL MAINTENANCE PROJECT NO:
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SITE PREPARATION/UTILITY/TESC PLAN

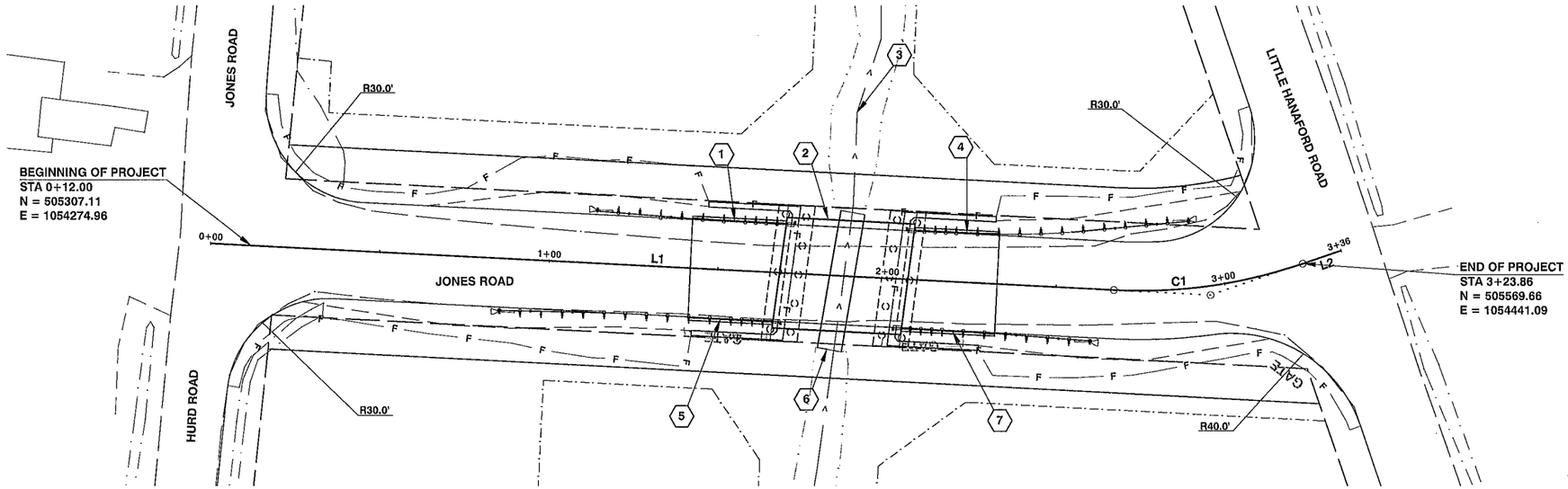
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Albert L Swank, P.E.
Senior Engineer/Design
Date: 10/29/26

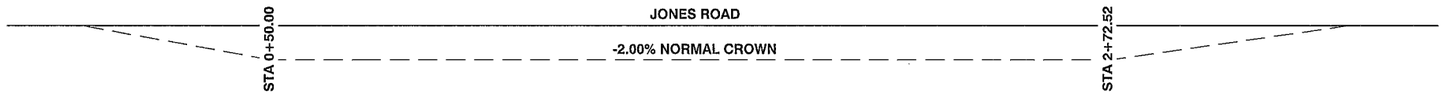
STATE OF WASHINGTON
ALBERT L SWANK
18742
REGISTERED PROFESSIONAL ENGINEER

TWP 14 N RGE 1 W W.M.

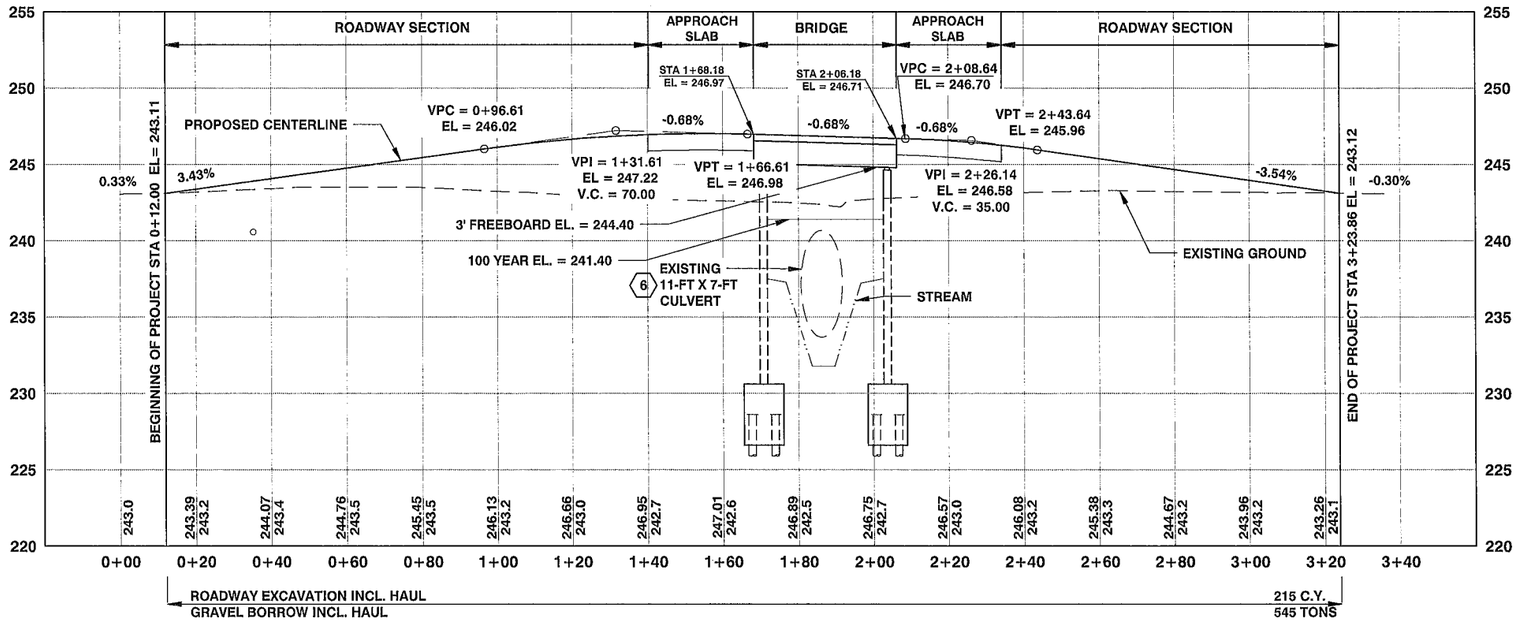


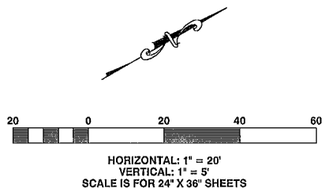
CONSTRUCTION NOTES:

1. STA 1+41.85 (14.68' LT) - 1+69.45 (14.50' LT)
   CONSTRUCT EXTRUDED CURB
   27.50 L.F. EXTRUDED CURB
   SEE DETAILS ON SHEETS B01 - B22
2. STA 1+41.85 - 2+32.52
   CONSTRUCT BRIDGE & BRIDGE APPROACH SLABS
   SEE DETAILS ON SHEETS B01 - B22
3. CONSTRUCT SF HANAFORD CREEK
   SEE DETAILS AND QUANTITIES ON SHEET 9
4. STA 2+07.45 (14.50' LT) -2+32.52 (14.79' LT)
   CONSTRUCT EXTRUDED CURB
   25 L.F. EXTRUDED CURB
   SEE DETAILS ON SHEETS B01 - B22
5. STA 1+41.85 (14.50' RT) - 1+66.91 (14.50' RT)
   CONSTRUCT EXTRUDED CURB
   25 L.F. EXTRUDED CURB
   SEE DETAILS ON SHEETS B01 - B22
6. STA 1+86.60
   REMOVE EXISTING 11' X 7' CMP CULVERT
7. STA 2+04.91 (14.50' RT) - 2+32.52 (14.68' RT)
   CONSTRUCT EXTRUDED CURB
   27.50 L.F. EXTRUDED CURB
   SEE DETAILS ON SHEETS B01 - B22
8. SEE SHEET 13 FOR GUARDRAIL LAYOUT AND PAVEMENT AND SHOULDER WIDTH TRANSITION LOCATIONS



JONES RD CL





JONES RD

Curve Table: Alignments

Curve #	Radius	Length	Tangent	Delta Angle	Degree Of Curve	P.C. Station	P.T. Station	PI Station
C1	150.00	56.77	28.73	021° 41' 02"	038° 11' 50"	2+67.05	3+23.81	2+95.77

JONES RD

Line Table: Alignments

Line #	Length	Direction	Begin Station	End Station
L1	267.05	N34°17'06"E	0+00.00	2+67.05
L2	11.98	N12°36'04"E	3+23.81	3+35.80

Lewis County
Department of Public Works
57 WEST MAIN ST.
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DRAWN BY : MBH
CHECKED BY :
DATE :

NO.	DATE	REVISION	BY	APP.

JONES ROAD MP 1.71

SPECIAL MAINTENANCE PROJECT NO: 90-21F171900171

JONES ROAD PLAN & PROFILE

SHEET 6 OF 20

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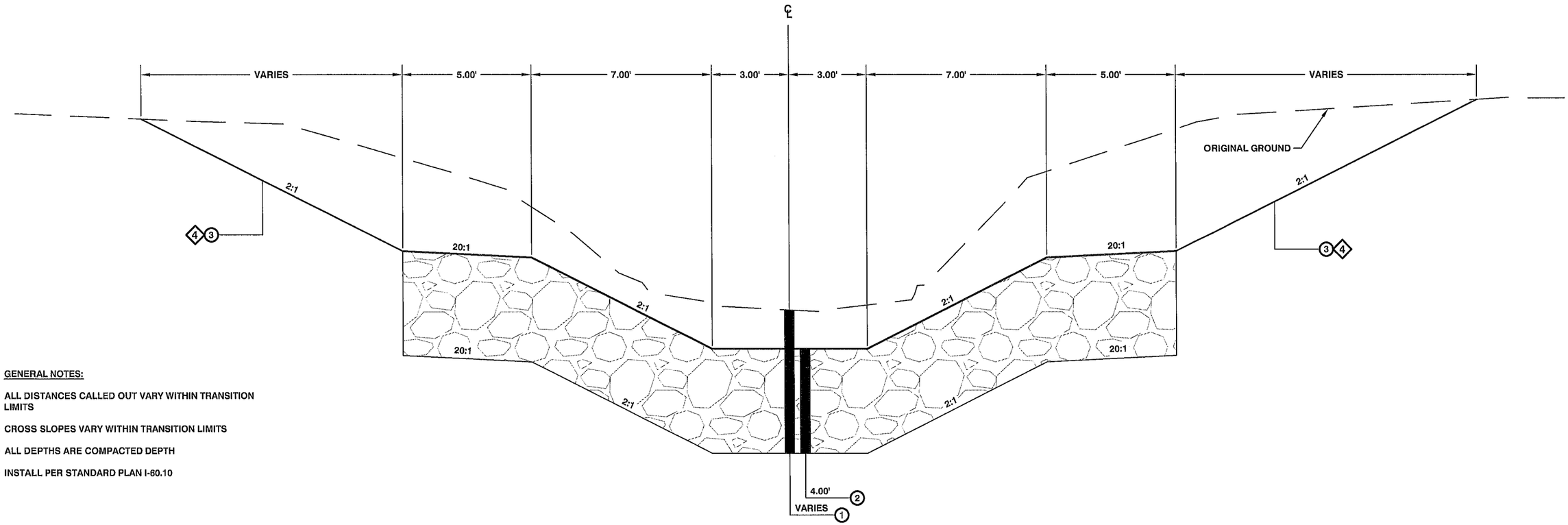
Albert L Swank, P.E.
Senior Engineer/Design
Date: 10/26/26

ALBERT L SWANK — STATE OF WASHINGTON — 19042 — REGISTERED PROFESSIONAL ENGINEER

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GENERAL NOTES:

1. ALL DISTANCES CALLED OUT VARY WITHIN TRANSITION LIMITS
2. CROSS SLOPES VARY WITHIN TRANSITION LIMITS
3. ALL DEPTHS ARE COMPACTED DEPTH
4. INSTALL PER STANDARD PLAN I-60.10

LEGEND

1. DITCH EXCAVATION INCL. HAUL
2. STREAMBED MIX
3. EROSION CONTROL BLANKET

SF HANAFORD CREEK TYPICAL SECTION

STATION 0+05.79 - 0+30.86
STATION 0+72.76 - 0+99.80
NOT TO SCALE

Lewis County
Department of Public Works
57 WEST MAIN ST.
CHEHALIS WA 98532
PHONE # (360) 740-1123
FAX # (360) 740-2719

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SF HANAFORD CREEK TYPICAL SECTION

SHEET 7 OF 20

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Albert L Swank, P.E.
Senior Engineer/Design
Date: 10/26/26

ALBERT L SWANK
STATE OF WASHINGTON
REGISTERED
PROFESSIONAL ENGINEER

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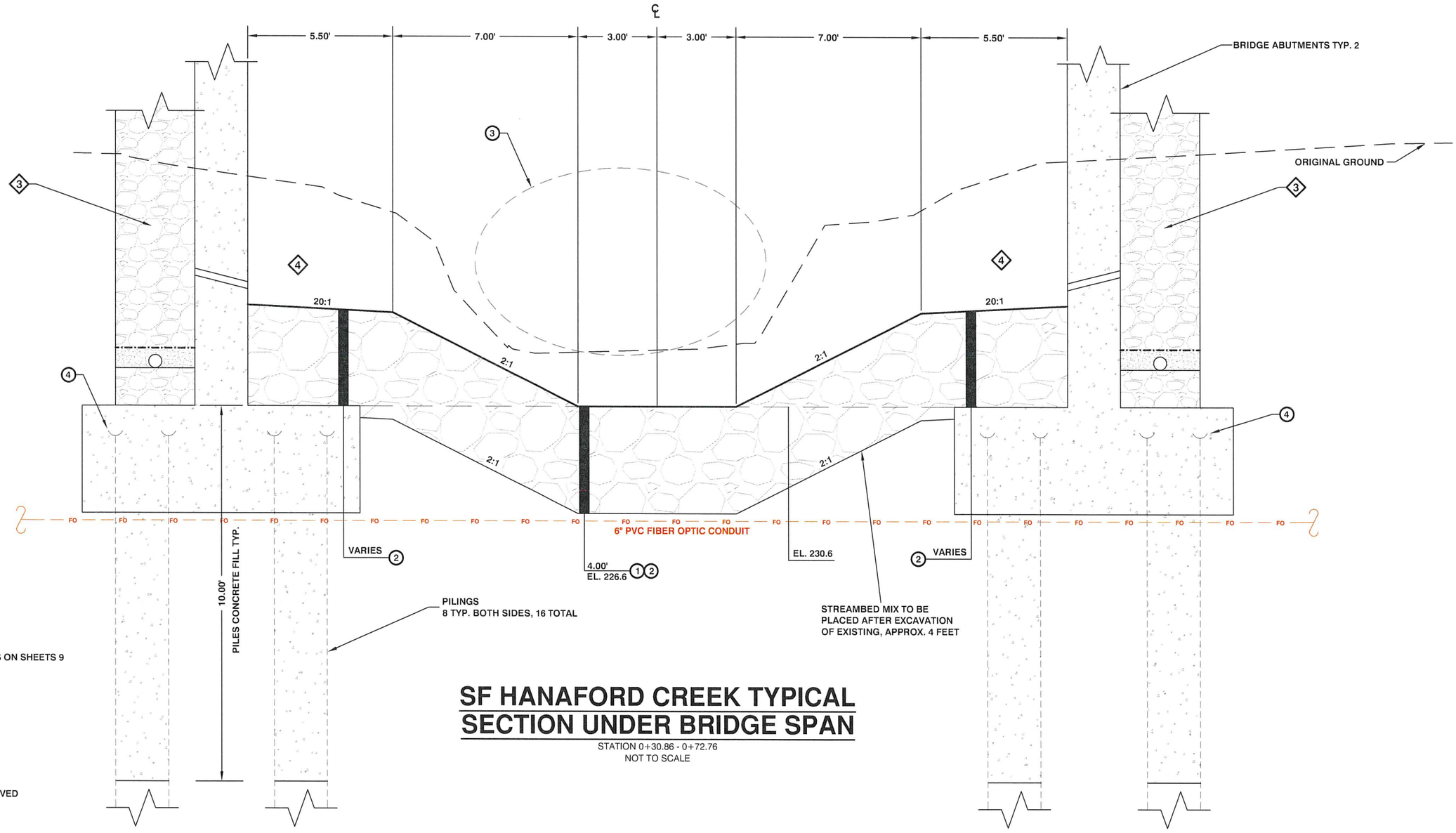
CAUTION

The existing 6" PVC fiber optic conduit shared between Zayo and MOX is to remain in place throughout the project's duration. Possible conflicts will be worked out mutually between all parties, with third party personnel and Lewis County engineer on site during ditch excavation.

ZAYO Fiber Optic
Phone: (800) 961-6500
locatedesk@zayo.com
zayo.relo.washington@zayo.com

MOX Fiber Optic
Phone: (844) 215-9500
help@moxnetworks.com

David (Dave) Fasshauer
Cell; (708) 975-5786
David.fasshauer@moxnetworks.com



CONSTRUCTION NOTES:

1. SLOPES WILL VARY IN SOME LOCATIONS
2. ALL DEPTHS ARE COMPACTED DEPTH
3. SEE BRIDGE PLAN SHEETS FOR DETAILS
4. SEE MEANDER BAR LOCATION AND DETAILS ON SHEETS 9 AND 10

LEGEND

1. DITCH EXCAVATION INCL. HAUL
2. STREAMBED MIX
3. EXISTING 11' X 7' CMP CULVERT TO BE REMOVED
4. STEEL ANNULAR RING PLATE PILE CAP TYP.

SF HANAFORD CREEK TYPICAL SECTION UNDER BRIDGE SPAN

STATION 0+30.86 - 0+72.76
NOT TO SCALE

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SF HANAFORD CREEK TYPICAL SECTION

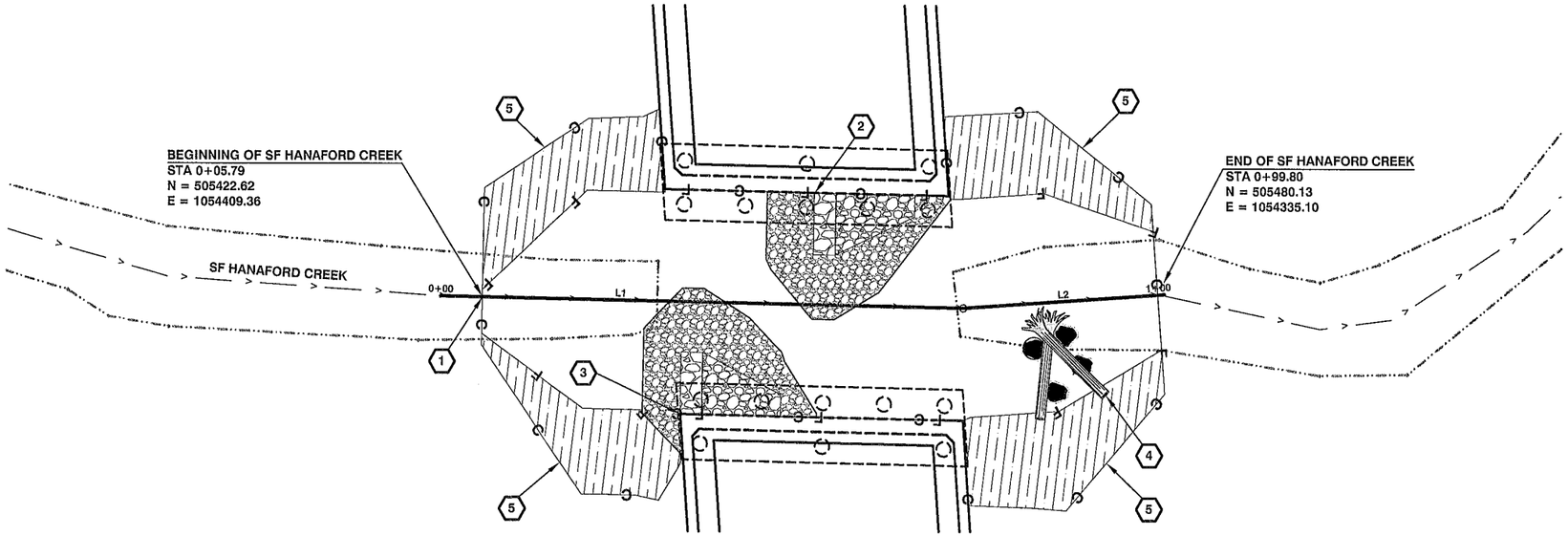
SHEET 8 OF 20

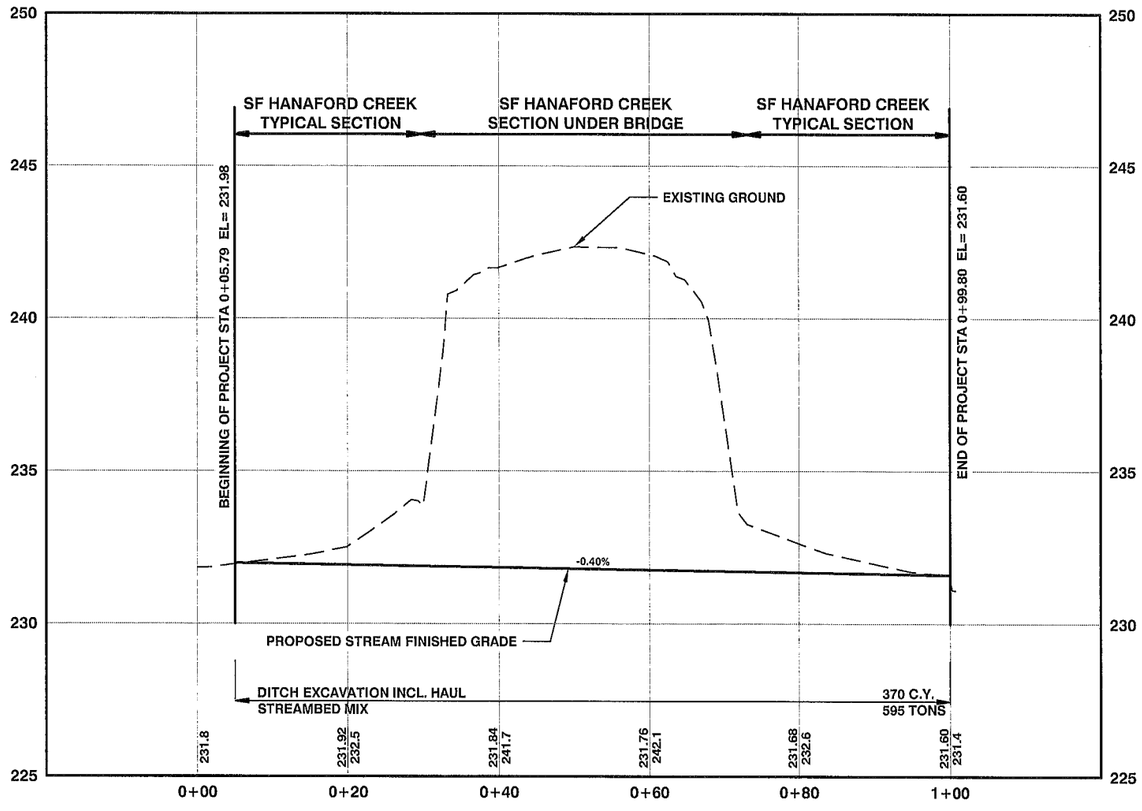
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Senior Engineer/Design
Date: 10/26/26

ALBERT L SWANK
STATE OF WASHINGTON
36612
REGISTERED PROFESSIONAL ENGINEER

TWP 14 N RGE 1 W W.M.





CONSTRUCTION NOTES

1. STA 0+5.79 TO STA 0+99.80
   CONSTRUCT STREAMBED
   SEE SF HANAFORD CREEK TYPICAL SECTIONS ON SHEETS 7 AND 8
   370 C.Y. DITCH EXCAVATION INCL. HAUL
   429 TON STREAMBED MIX
   SEE SPECIAL PROVISION 8-30

2. STA 0+51.65 (15.40' LT) TO STA 0+65.65 (15.40' LT)
   CONSTRUCT MEANDER BAR
   SEE MEANDER BAR DETAILS ON SHEET 10
   83 TON STREAMBED MIX
   SEE SPECIAL PROVISION 8-30

3. STA 0+33.55 (15.45' RT) TO STA 0+47.55 (15.45' RT)
   CONSTRUCT MEANDER BAR
   SEE MEANDER BAR DETAILS ON SHEET 10
   83 TON STREAMBED MIX
   SEE SPECIAL PROVISION 8-30

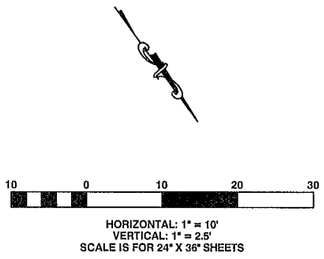
4. STA 0+82.00 (RT)
   PLACE AND ANCHOR LARGE WOODY DEBRIS
   SEE LWD SECTION VIEW ON SHEET 10
   SEE LWD CONNECTION DETAILS ON SHEET 11
   SEE SPECIAL PROVISION 8-30

5. STA 0+5.79 TO STA 0+99.80
   INSTALL EROSION CONTROL BLANKET
   125 S.Y. EROSION CONTROL BLANKET
   SEE SF HANAFORD CREEK TYPICAL SECTIONS ON SHEET 7 FOR DETAIL

SF HANAFORD CREEK

Line Table: Alignments

Line #	Length	Direction	Begin Station	End Station
L1	72.76	N50°43'36"W	0+00.00	0+72.76
L2	27.97	N56°00'33"W	0+72.76	1+00.73



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S:\Engineer\Design\JONES ROAD MP 1.71 SM21F171900171\DRAWINGS\DESIGN DRAWINGS\JONES ROAD MP 1.71 STREAM PLAN AND PROFILE.dwg

Lewis County
Department of Public Works

57 WEST MAIN ST.
CHEHALIS WA 98532
PHONE # (360) 740-1123
FAX # (360) 740-2719

DESIGNED BY : J. PIPER
DRAWN BY : MBH
CHECKED BY :
DATE :

NO.	DATE	REVISION	BY	APP.

JONES ROAD MP 1.71

SPECIAL MAINTENANCE PROJECT NO: 90-21F171900171

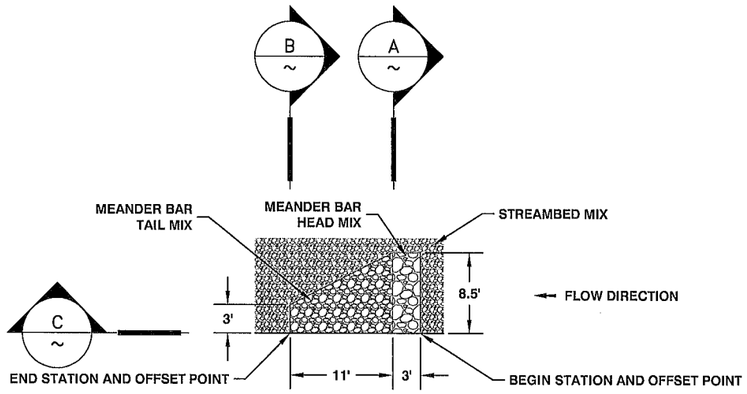
SF HANAFORD CREEK PLAN & PROFILE

SHEET 9 OF 20

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Utilities Underground Location Center

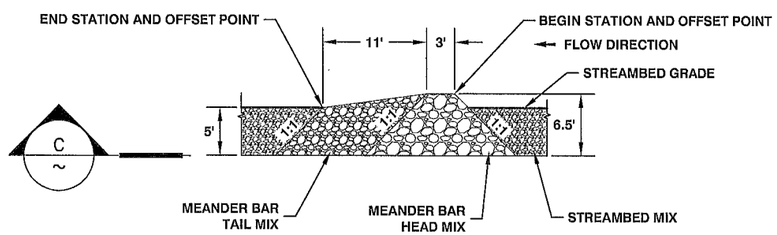
Albert L Swank, P.E.
Senior Engineer/Design
Date: 10/26/26

STATE OF WASHINGTON
ALBERT L SWANK
24872
REGISTERED PROFESSIONAL ENGINEER



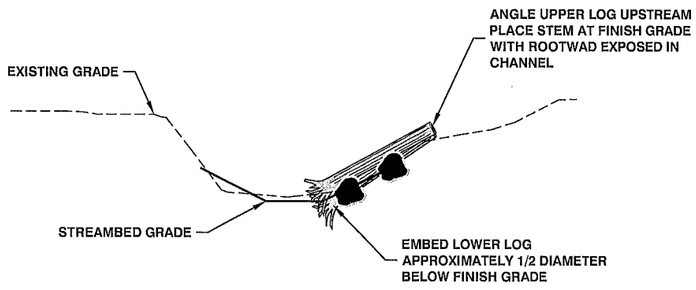
MEANDER BAR PLAN VIEW

NOT TO SCALE



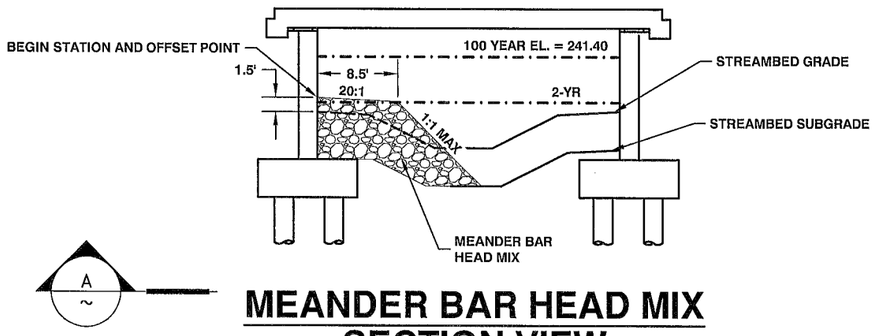
MEANDER BAR PROFILE VIEW

NOT TO SCALE



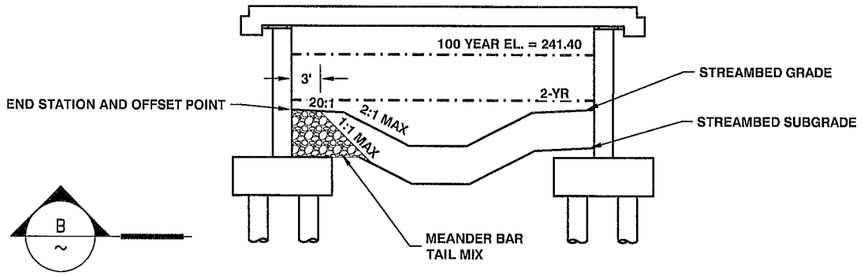
LWD SECTION VIEW

NOT TO SCALE



MEANDER BAR HEAD MIX SECTION VIEW

NOT TO SCALE



MEANDER BAR TAIL MIX SECTION VIEW

NOT TO SCALE

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DRAWN BY : MBH
CHECKED BY :
DATE :

NO.	DATE	REVISION	BY	APP.

JONES ROAD MP 1.71

SPECIAL MAINTENANCE PROJECT NO:
90-21F171900171

SF HANAFORD CREEK STREAM DETAILS

SHEET 10 OF 20

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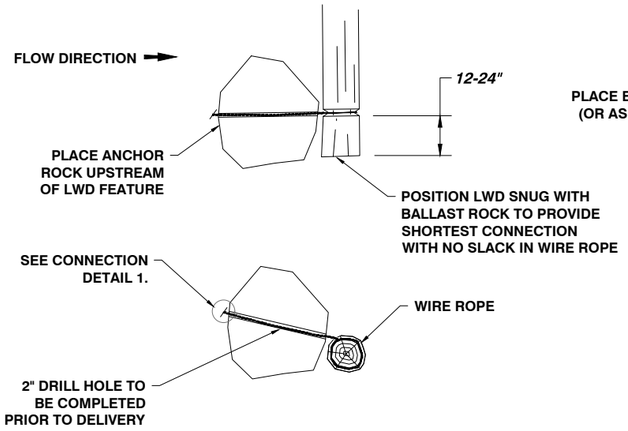
Albert L Swank, P.E.
Senior Engineer/Design
Date 10/26/26

STATE OF WASHINGTON ALBERT L SWANK 19012 REGISTERED PROFESSIONAL ENGINEER

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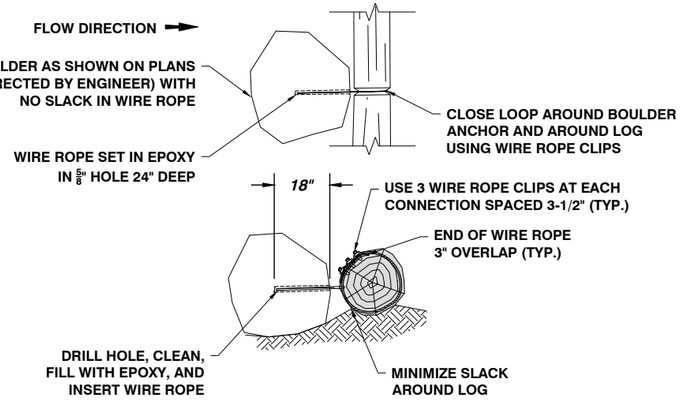
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BOUNDER TO LWD CONNECTION

OPTION A



BOULDER TO LWD CONNECTION

OPTION B

CONSTRUCTION NOTES

1. WOOD SPECIES FOR LARGE WOODY DEBRIS (LWD) PIECES SHALL BE GREEN (NOT STOCKPILED) DOUGLAS FIR OR RED CEDAR UNLESS OTHERWISE SPECIFIED. NO DIMENSIONAL BEAMS OR TIMBERS, HEMLOCK, ALDER, OR OTHER DECIDUOUS TREE SPECIES SHALL BE USED.
2. LWD PIECES: ALL LOGS SHALL HAVE ROOTWADS INTACT. LWD SHALL BE 16 INCHES DIAMETER AT BREAST HEIGHT. LWD SHALL BE 15 FEET LONG INCLUDING THE ROOTWAD.
3. EACH LOG SHALL BE SECURED IN PLACE AT BOTH ENDS BY ANCHORING TO BOULDER ANCHORS AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER. LOG TO LOG CONNECTIONS SHALL BE MADE AT EACH LOG CROSSING AS SHOWN IN THE PLANS AND AS DIRECTED BY THE ENGINEER.
4. BOULDERS USED FOR ANCHORS IN CHANNEL MAY BE ROUND OR SUB-ANGULAR, EACH WEIGHING AT LEAST 2200 LBS, AND SECURED TO THE LOGS WITH NO SLACK IN CHAIN OR WIRE ROPE. ALL BOULDERS SHALL BE PLACED ON THE UPSTREAM SIDE OF THE LOG THEY ARE SECURED TO AND EMBEDDED TO A DEPTH EVEN WITH OR BELOW THE BASE OF THE LOG WHERE ATTACHED (UNLESS INSTRUCTED OTHERWISE BY ENGINEER IN FIELD).
5. LWD CONNECTIONS FOR LOG TO ANCHOR, LOG TO BOULDER, AND LOG TO LOG SHALL BE MADE USING $\frac{1}{2}$" TRANSPORT CHAIN OR GALVANIZED WIRE ROPE. $\frac{1}{2}$" CHAIN WILL BE SECURED WITH BOLTS OR SHACKLES. $\frac{1}{2}$" ROPE CLIPS SHALL BE USED TO SECURE WIRE ROPES AS SHOWN IN PLANS OR AS DIRECTED BY THE ENGINEER. TO PREVENT LOOSENING OF ROPE CLIPS THE NUTS SHALL BE SPOT WELDED OR THREADS FOULED.
6. LOGS SHALL BE NOTCHED 1-2" AND STAPLED WITH $\frac{1}{2}$" STAPLES AT ALL CHAIN OR WIRE ROPE CONNECTIONS.
7. LOCAL EXCAVATION SHALL BE PERFORMED PRIOR TO, DURING AND AFTER PLACEMENT OF LWD STRUCTURES AS DIRECTED BY THE ENGINEER.
8. POSSIBLE METHODS FOR SECURING WIRE ROPE TO BOULDERS ARE:

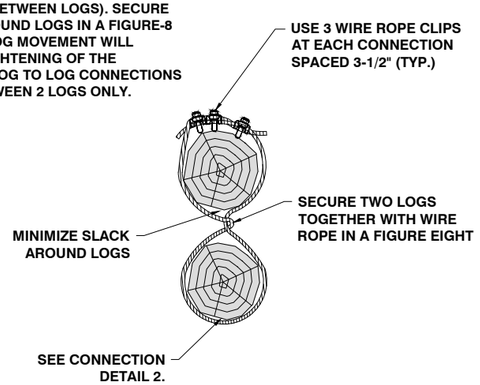
   OPTION A. DRILLING THROUGH BOULDER, THREADING WIRE ROPE THROUGH DRILLED HOLE, AND SECURING WIRE ROPE TO PLATE ON BACKSIDE OF BOULDER TO PREVENT THE WIRE ROPE FROM SLIPPING THROUGH. PRIOR TO CONNECTING BOULDER TO LWD, THE WIRE ROPE TO BOULDER CONNECTION SHALL BE PROOF TESTED BY LIFTING THE BOULDER BY THE ATTACHED WIRE ROPE.

   OPTION B. DRILL 5/8-INCH HOLE 18 INCHES (MINIMUM) INTO BOULDER. CLEAN HOLE WITH COMPRESSED AIR OR OTHER MEANS TO REMOVE DUST AND ROCK PARTICLES. FILL HOLE WITH EPOXY ADHESIVE AND INSERT WIRE ROPE ENSURING ADEQUATE LENGTH REMAINS TO SECURE TO LOG. EPOXY SHALL MEET WSDOT STANDARD SPECIFICATION 9-26.1 TYPE IV. THE GRADE, CLASS, AND OTHER PROPERTIES OF THE EPOXY ADHESIVE SHALL BE AS RECOMMENDED BY THE EPOXY MANUFACTURER AND SUBJECT TO APPROVAL BY THE ENGINEER. THE EPOXY ADHESIVE SHALL BE SUITABLE FOR PROVIDING A LONG-TERM BOND OF THE WIRE ROPE TO THE BOULDER ANCHOR IN SUBMERGED (UNDERWATER) CONDITIONS, DRY CONDITIONS, AND VARIABLE SUBMERGENCE CONDITIONS. EPOXY SHALL BOND THE WIRE ROPE TO THE BOULDER FOR AT LEAST A LOAD CORRESPONDING TO A 10,000 POUND TENSILE LOAD ON THE WIRE ROPE.

SPECIAL NOTES FOR ALL LOG STRUCTURES

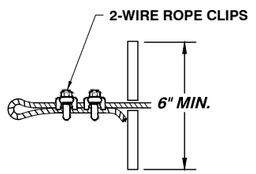
1. DRAWING SHOWS THE PROPOSED LOCATION OF THE LWD STRUCTURES. THE FINAL DESIGN MAY BE MODIFIED BY THE ENGINEER TO SUIT LOCAL CONDITIONS AND AVAILABLE MATERIALS. FURTHER, MODIFICATIONS TO THIS DESIGN MAY BE MADE IN THE FIELD BY THE ENGINEER DURING CONSTRUCTION.
2. TYPICAL DESIGNS ARE MEANT AS A GUIDE ONLY. MODIFICATION TO SUIT SITE CONDITIONS WILL LIKELY BE REQUIRED.

LOG TO LOG CONNECTIONS ARE MADE WHERE ONE LOG RESTS ON ANOTHER (MINIMAL GAP BETWEEN LOGS). SECURE WIRE ROPE AROUND LOGS IN A FIGURE-8 SO THAT ANY LOG MOVEMENT WILL RESULT IN A TIGHTENING OF THE CONNECTION. LOG TO LOG CONNECTIONS ARE MADE BETWEEN 2 LOGS ONLY.



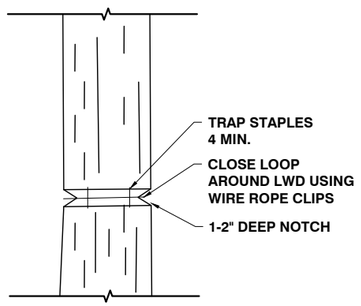
LOG TO LOG CONNECTION

NOT TO SCALE



CONNECTION DETAIL 1

NOT TO SCALE



CONNECTION DETAIL 2

NOT TO SCALE

NOTES

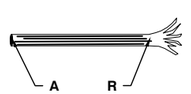
1. SEE LEGEND FOR LOG CONTROL POINTS. POINT "A" IS THE ENDPOINT OF THE STEM AND AND POINT "R" IS THE CENTER OF THE STEM AT THE ROOTWAD.

LOWER LOG
PT. A: SF HANAFORD CREEK STA. 0+82, OFF. 16' RT
PT. R: SF HANAFORD CREEK STA. 0+85, OFF. 4' RT

UPPER LOG
PT. A: SF HANAFORD CREEK STA. 0+91, OFF. 13' RT
PT. R: SF HANAFORD CREEK STA. 0+83, OFF. 4' RT

LEGEND

- MEANDER BAR HEAD MIX
- STREAMBED MIX
- MEANDER BAR TAIL MIX
- BOULDER ANCHOR
- LARGE WOODY DEBRIS (TYP.)



Lewis County
Department of Public Works

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CHECKED BY : ERR
DATE : 10-29-26

NO.	DATE	REVISION	BY	APP.

JONES ROAD MP 1.71

SPECIAL MAINTENANCE PROJECT NO:
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LARGE WOODY DEBRIS CONNECTION DETAILS

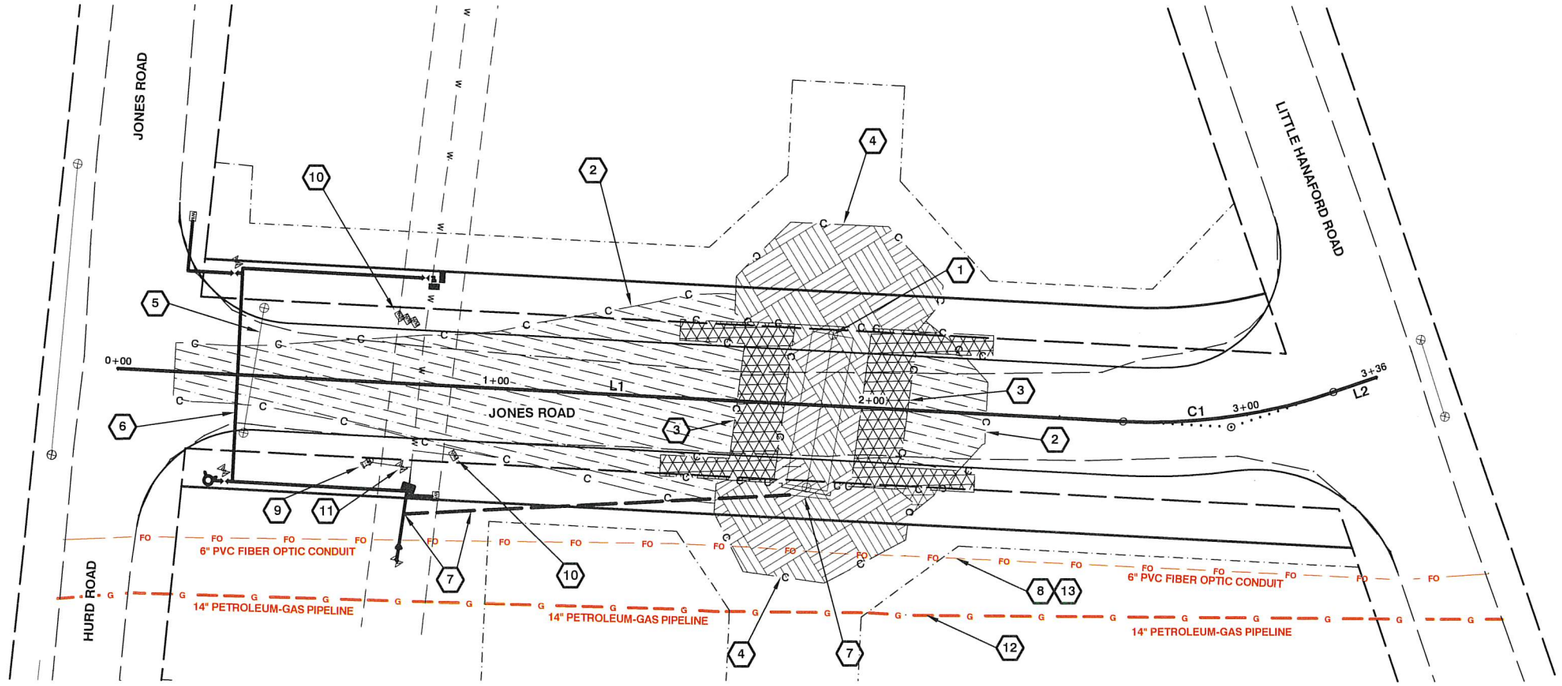
SHEET 11 OF 20

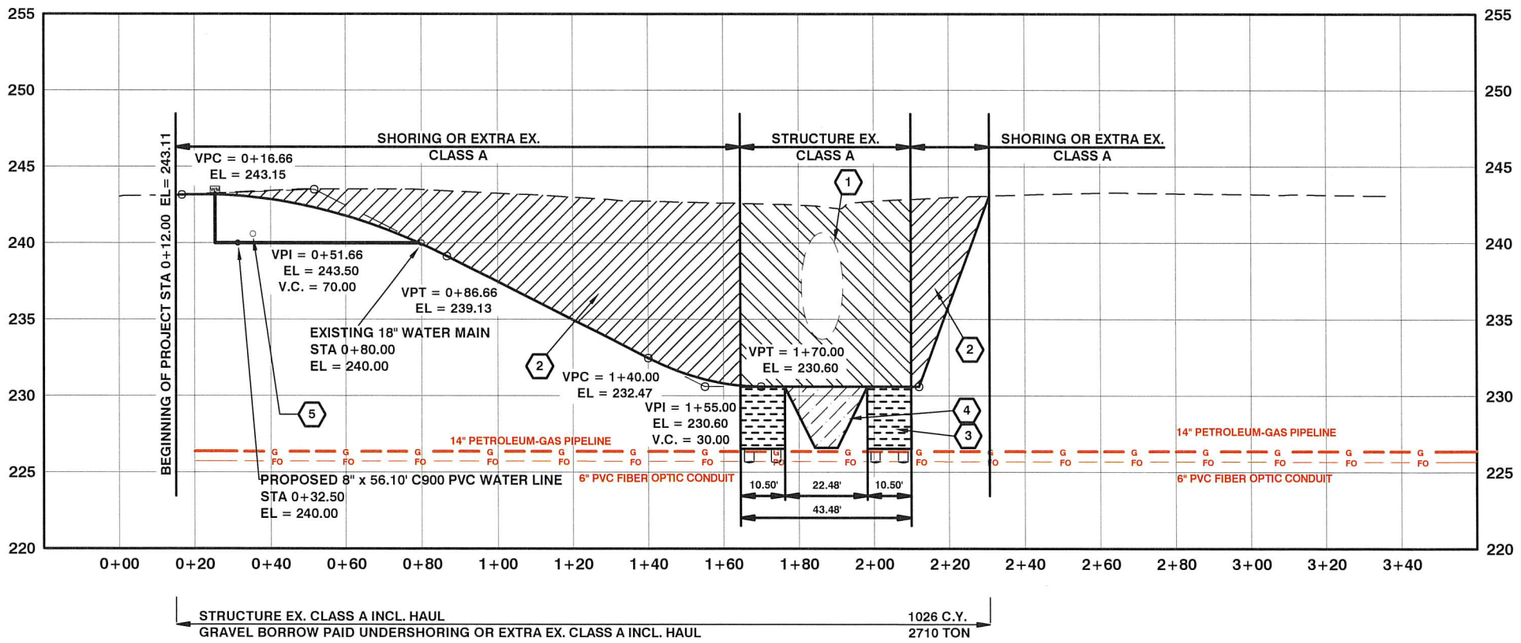
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nhc
12787 Gateway Drive S.
Seattle, WA 98168
Phone: 206-241-6000

JESSICA M. LAMMERS
STATE OF WASHINGTON
56280
REGISTERED PROFESSIONAL ENGINEER
10/29/2026

TWP 14 N RGE 1 W W.M.





STRUCTURE EX. CLASS A INCL. HAUL — 1026 C.Y.
GRAVEL BORROW PAID UNDERSHORING OR EXTRA EX. CLASS A INCL. HAUL — 2710 TON

CONSTRUCTION NOTES:

1. STA 1+86.60
   REMOVE AND DISPOSE OF EXISTING 11' x 7' CMP CULVERT
   SEE DETAILS ON SHEET 6
   356 C.Y. STRUCTURE EXCAVATION CLASS A INCL. HAUL
   7120 S.F. SHORING OR EXTRA EXCAVATION CLASS A
2. STA 0+15.00 - 2+30.70
   EST. 2710 TON GRAVEL BORROW; PAID UNDER SHORING OR EXTRA EX. CLASS A
   SEE DETAILS ON THIS SHEET
3. STA 1+44.78 - 2+31.71
   EXCAVATE FOR PILE CAPS AND WINGWALLS
   670 C.Y. STRUCTURE EXCAVATION CLASS A INCL. HAUL
4. DITCH EXCAVATION INCL. HAUL
   SEE DETAILS ON SHEET 9
5. STA 0+35.80
   EL = 240.53
   REMOVE AND DISPOSE OF EXISTING 18" X 33' DITCH CULVERT
6. CITY OF CENTRALIA AND LEWIS COUNTY PERSONNEL TO BE ON SITE DURING WATER MAIN RELOCATION
7. CONTRACTOR TO CHECK THE EXISTING WATER MAIN FOR POTENTIAL TIE-IN CONNECTIONS TO THE EXISTING 4" WATERLINE WITHIN PROJECT LIMITS. CONTRACTOR TO COORDINATE WITH LANDOWNER TO SHUT WATERLINE OFF BEFORE REMOVING LINE.
8. CONTRACTOR TO PROTECT EXISTING UNDERGROUND FIBER OPTIC
9. EXISTING HYDRANT TO BE REMOVED
10. EXISTING WATER METERS TO BE REMOVED
11. EXISTING WATER VALVES TO BE REMOVED

20 0 20 40 60

HORIZONTAL: 1" = 20'
VERTICAL: 1" = 5'
SCALE IS FOR 24" X 36" SHEETS

WARNING

12. 14" DIA. OLYMPIC PETROLEUM-GAS PIPELINE LOCATED WITHIN 10 FEET OF EXCAVATION LIMIT. POSSIBLE CONFLICTS WILL BE WORKED OUT MUTUALLY BETWEEN ALL PARTIES, WITH THIRD PARTY PERSONNEL AND LEWIS COUNTY ENGINEER ON SITE DURING DITCH EXCAVATION.
13. SEE FIBER OPTIC DETAILS ON SHEET 8

Lewis County
Department of Public Works
57 WEST MAIN ST.
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FAX # (360) 740-2719

DESIGNED BY : J. PIPER
DRAWN BY : PAT
CHECKED BY :
DATE :

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JONES ROAD EXCAVATION PLAN & PROFILE

SHEET 12 OF 20

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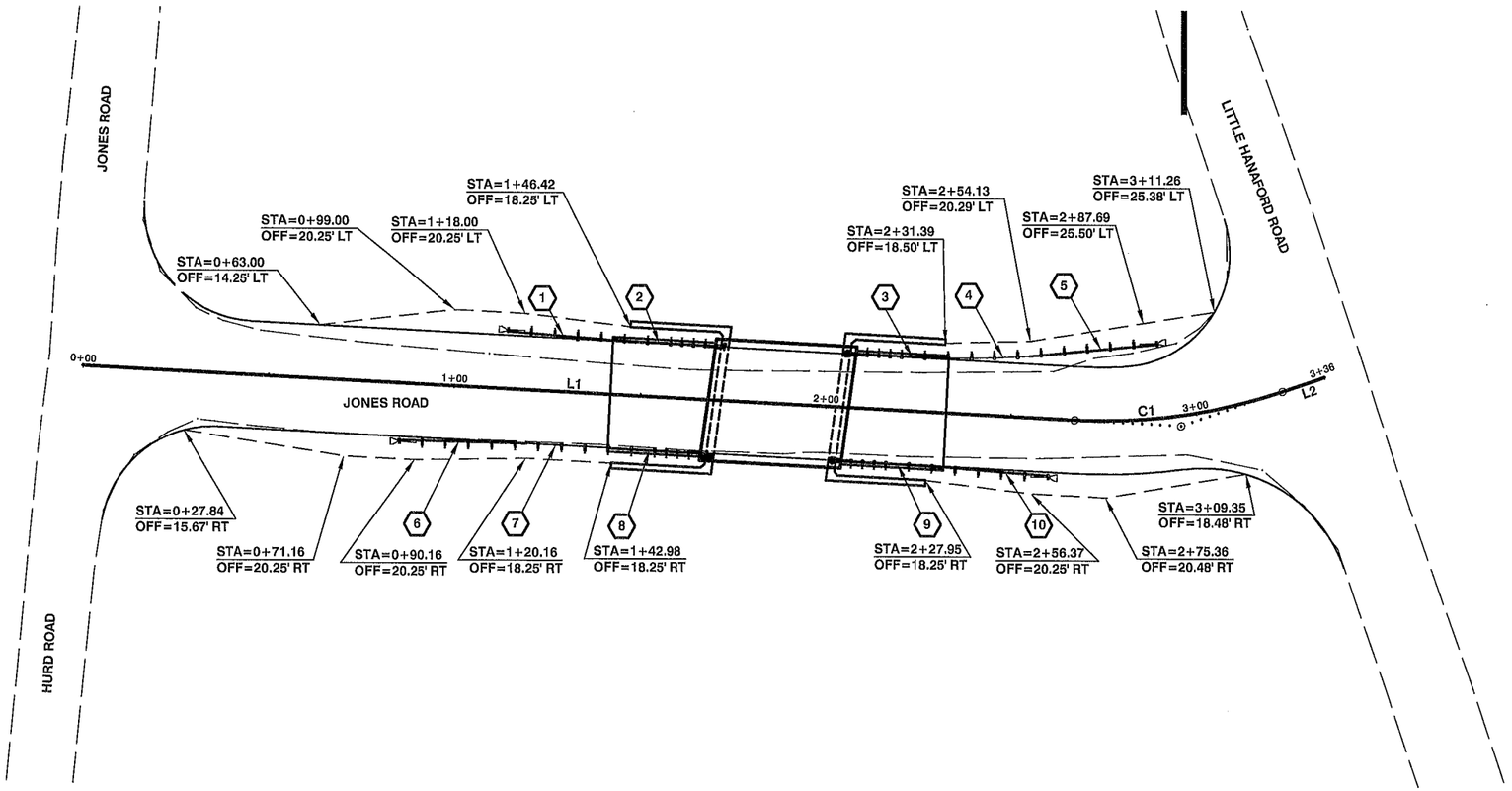
Albert L Swank, P.E.
Senior Engineer/Design
Date: 11/2/26

ALBERT L SWANK — STATE OF WASHINGTON — #36142 — REGISTERED PROFESSIONAL ENGINEER

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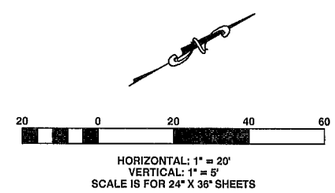
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TWP 14 N RGE 1 W W.M.



CONSTRUCTION NOTES:

1. STA 1+13.64, 15.25' LT TO STA 1+48.00, 14.25' LT
   1 EACH BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL
   SEE WSDOT STANDARD PLAN C-22.45
2. STA 1+48.00, 14.25' LT TO STA 1+71.77, 14.51' LT
   BEAM GUARDRAIL TYPE 31 TRANSITION SECTION TYPE 24
   SEE WSDOT STANDARD PLAN C-25.30
   USE THRIE BEAM END SECTION DESIGN F
   SEE WSDOT STANDARD PLAN C-7A
3. STA 2+05.44, 14.51' LT TO STA 2+29.21, 14.42' LT
   BEAM GUARDRAIL TYPE 31 TRANSITION SECTION TYPE 24
   SEE WSDOT STANDARD PLAN C-25.30
   USE THRIE BEAM END SECTION DESIGN F
   SEE WSDOT STANDARD PLAN C-7A
4. STA 2+29.21, 14.42' LT TO STA 2+54.13, 16.29' LT
   25.00 L.F. BEAM GUARDRAIL TYPE 31
   SEE WSDOT STANDARD PLAN C-20.10
5. STA 2+54.13, 16.29' LT TO STA 2+91.41, 19.55' LT
   1 EACH BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL
   SEE WSDOT STANDARD PLAN C-22.45
6. STA 0+85.80, 15.25' RT TO STA 1+20.16, 14.25' RT
   1 EACH BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL
   SEE WSDOT STANDARD PLAN C-22.45
7. STA 1+20.16, 14.25' RT TO STA 1+45.16, 14.25' RT
   25.00 L.F. BEAM GUARDRAIL TYPE 31
   SEE WSDOT STANDARD PLAN C-20.10
8. STA 1+45.16, 14.25' RT TO STA 1+68.93, 14.51' RT
   BEAM GUARDRAIL TYPE 31 TRANSITION SECTION TYPE 24
   SEE WSDOT STANDARD PLAN C-25.30
   USE THRIE BEAM END SECTION DESIGN F
   SEE WSDOT STANDARD PLAN C-7A
9. STA 2+02.59, 14.51' RT TO STA 2+26.37, 14.25' RT
   BEAM GUARDRAIL TYPE 31 TRANSITION SECTION TYPE 24
   SEE WSDOT STANDARD PLAN C-25.30
   USE THRIE BEAM END SECTION DESIGN F
   SEE WSDOT STANDARD PLAN C-7A
10. STA 2+26.37, 14.25' RT TO STA 2+60.73, 15.25' RT
    1 EACH BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL
    SEE WSDOT STANDARD PLAN C-22.45



HORIZONTAL: 1" = 20'
VERTICAL: 1" = 5'
SCALE IS FOR 24" X 36" SHEETS

Lewis County
Department of Public Works
57 WEST MAIN ST.
CHEHALIS WA 98532
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DESIGNED BY : J. PIPER
DRAWN BY : MBH
CHECKED BY :
DATE :

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GUARDRAIL PLAN & DETAILS

SHEET 13 OF 20

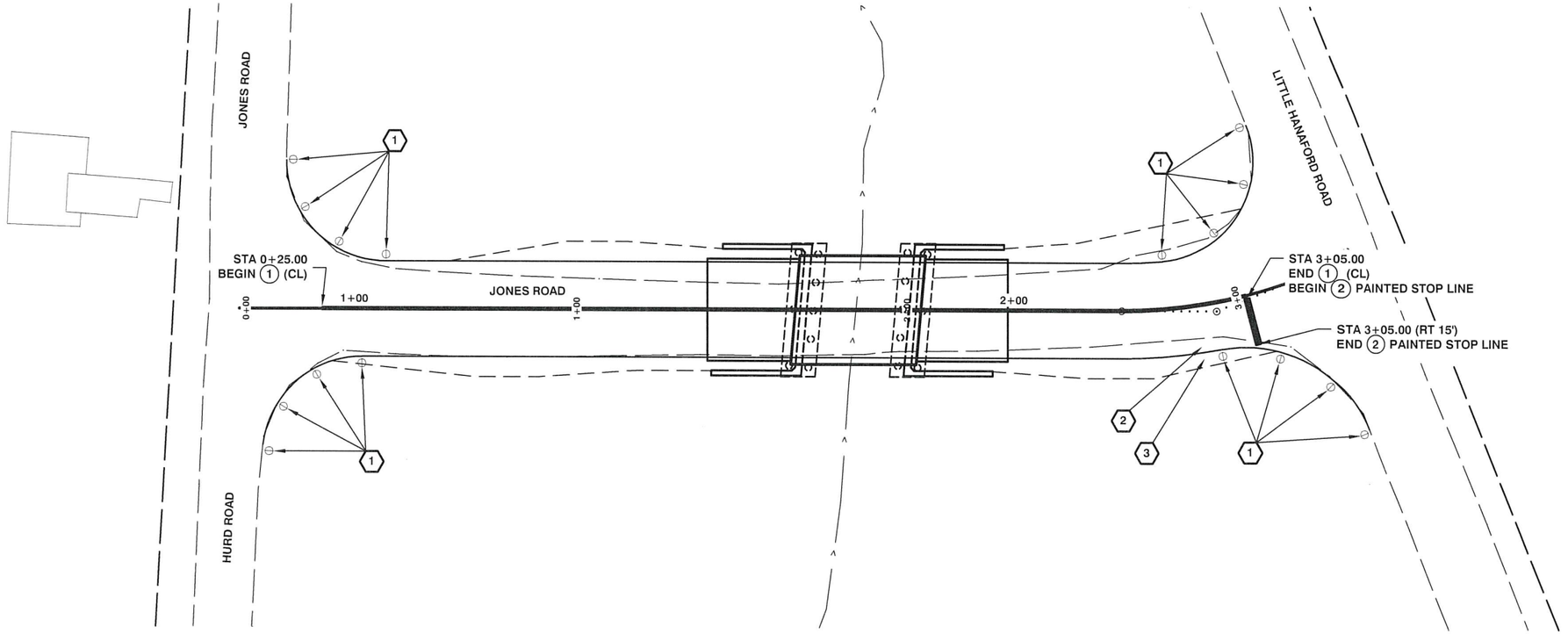
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Albert L Swank, P.E.
Senior Engineer/Design
Date: 10/26/26

STATE OF WASHINGTON
ALBERT L SWANK
18742
REGISTERED PROFESSIONAL ENGINEER

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TWP. 14 N. RGE 1 W.W.M.



CHANNELIZATION LEGEND

(1) 280 L.F. PAINT LINE - DOUBLE YELLOW CENTER LINE
PER WSDOT STANDARD PLAN M20.10

(2) 15 L.F. PAINTED STOPLINE
PER WSDOT STANDARD PLAN M-24.60

CONSTRUCTION NOTES:

(1) 4 EACH (16 TOTAL) FLEXIBLE GUIDEPOST TYPE WW
SEE WSDOT STANDARD PLAN M-40.30

(2) APPROXIMATE LOCATION OF EXISTING STOP SIGN
TO BE REMOVED AND RESET

(3) STA 2+90, 16.00' RT
RE-INSTALL STOP SIGN

LEGEND

DOUBLE YELLOW CENTER LINE

PAINTED STOPLINE

FLEXIBLE GUIDEPOST

(1) CONSTRUCTION NOTE

(3) 

(30"X30")
R1-1



0 20' 40'
HORIZONTAL: 1" = 20'
SCALE IS FOR FULL SIZE SHEETS

Lewis County Department of Public Works 57 WEST MAIN ST. CHEHALIS WA 98532 PHONE # (360) 740-1123 FAX # (360) 740-2719	DESIGNED BY : J. PIPER DRAWN BY : MBH CHECKED BY : DATE :	NO.	DATE	REVISION	BY	APP.	JONES ROAD MP 1.71

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PAVING/PAVING MARKING/SIGNAGE

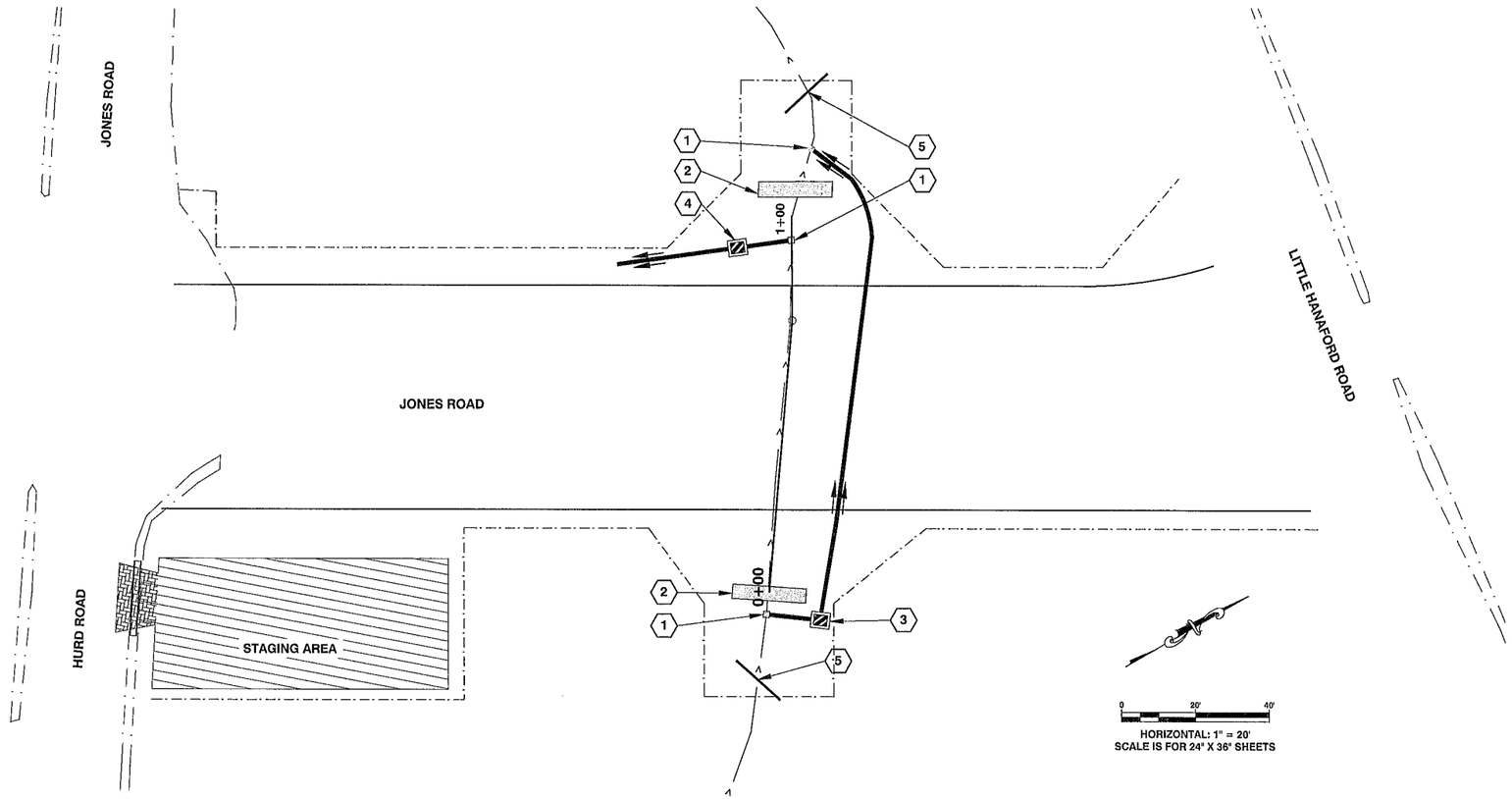
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Senior Engineer/Design
Date: 10/26/26

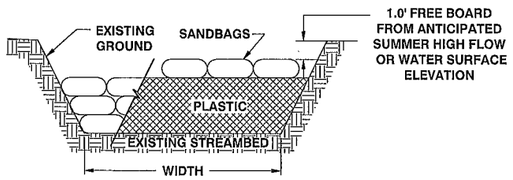
STATE OF WASHINGTON
ALBERT L SWANK
18742
REGISTERED PROFESSIONAL ENGINEER

TWP 14 N RGE 1 W W.M.



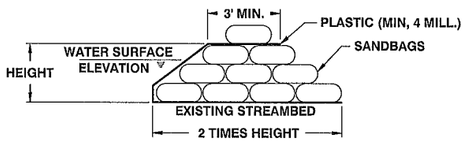
CONSTRUCTION NOTES

1. PUMP INTAKE SCREEN OVER ALL INTAKE AND OUTLET HOSES PER WDFW REQUIREMENTS
2. INSTALL COFFER DAM PER DETAILS ON THIS SHEET
3. INSTALL SPILL CONTAINED PUMP SYSTEM FOR STREAM BYPASS
4. INSTALL SPILL CONTAINED PUMP SYSTEM FOR DEWATERING, PUMP WORK WATER TO AN UPLAND AREA A MINIMUM OF 100' FROM A WATERBODY TO FLOW AWAY FROM PROJECT
5. FISH DIVERSION SCREEN UPSTREAM OF BYPASS INTAKE AND DOWNSTREAM OF BYPASS OUTLET PER HPA PROVISIONS, INSTALL 45 DEGREES TO WATERLINE OF STREAM



NOTES:
1. SANDBAGS SHALL BE USED IN ACCORDANCE WITH APPLICABLE PERMITS.
2. INSTALL COFFER DAM AND DEWATER SITE PRIOR TO CONSTRUCTION.
3. PROVIDE 1.0' FREEBOARD.

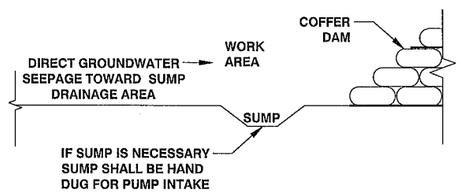
FRONT VIEW



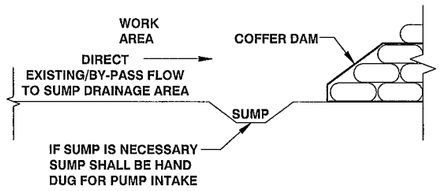
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2. INSTALL COFFER DAM AND DEWATER SITE PRIOR TO CONSTRUCTION.
3. PROVIDE 1.0' FREEBOARD.

SIDE VIEW

COFFER DAM TYPICAL DETAIL
NOT TO SCALE



UPSTREAM DEWATERING AREA SUMP DETAIL
NOT TO SCALE



DOWNSTREAM DEWATERING BY-PASS SUMP DETAIL
NOT TO SCALE

Lewis County
Department of Public Works

57 WEST MAIN ST.
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FAX # (360) 740-2719

DESIGNED BY : J. PIPER
DRAWN BY : MBH
CHECKED BY :
DATE :

NO.	DATE	REVISION	BY	APP.

JONES ROAD MP 1.71

SPECIAL MAINTENANCE PROJECT NO:
90-21F171900171

DEWATERING PLAN

SHEET 15 OF 20

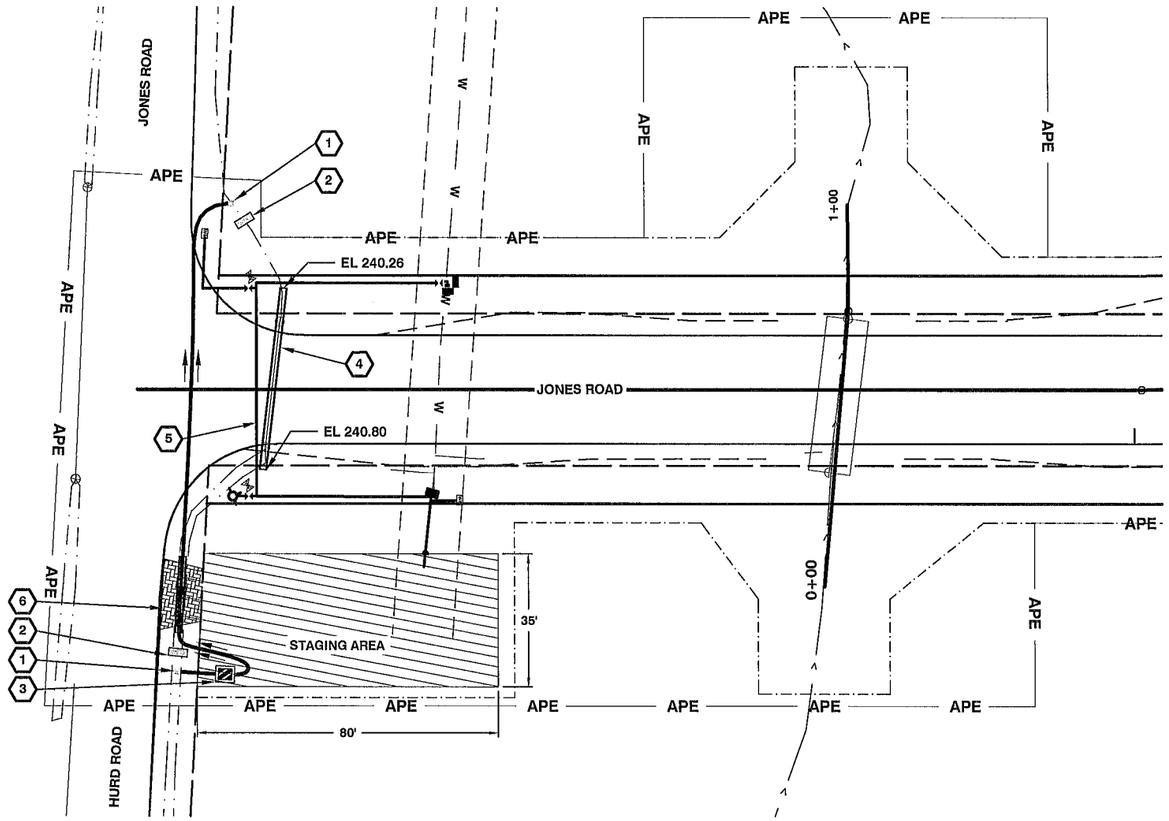
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Albert L Swank, P.E.
Senior Engineer/Design
Date: 10/24/26

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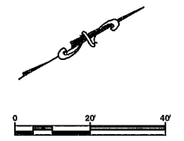
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TWP 14 N RGE 1 W W.M.

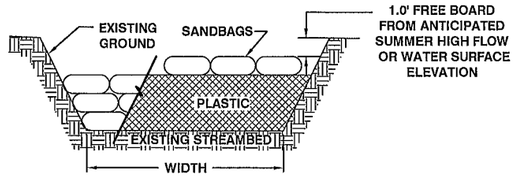


CONSTRUCTION NOTES

1. PUMP INTAKE SCREEN OVER ALL INTAKE AND OUTLET HOSES PER WDFW REQUIREMENTS
2. INSTALL COFFER DAM PER DETAILS ON THIS SHEET
3. INSTALL SPILL CONTAINED PUMP SYSTEM FOR STREAM BYPASS
4. STA 0+35.80
   48 L.F. CL. V REINF. CONC. CULV. PIPE 18 IN. DIAM.
   INLET INV. = EL 240.80 (STA 0+33.39, 21.05' RT)
   OUTLET INV. = EL 240.26 (STA 0+38.87, 26.64' LT)
5. CITY OF CENTRALIA AND LEWIS COUNTY PERSONNEL TO BE ON SITE DURING WATER MAIN RELOCATION
6. INSTALL 18.5' WIDE STABILIZED CONSTRUCTION ENTRANCE WITH TEMPORARY 18" CORRUGATED HDPE PIPE

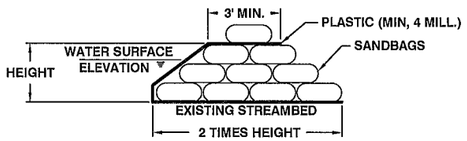


HORIZONTAL: 1" = 20'
SCALE IS FOR 24" X 36" SHEETS



NOTES:
1. SANDBAGS SHALL BE USED IN ACCORDANCE WITH APPLICABLE PERMITS.
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3. PROVIDE 1.0' FREEBOARD.

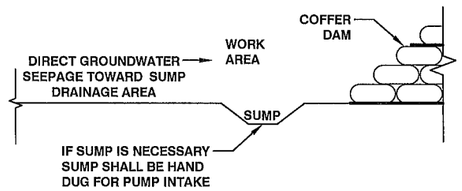
FRONT VIEW



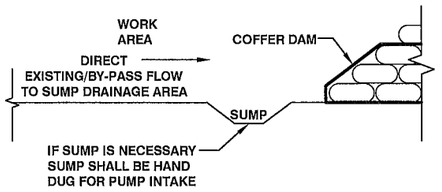
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2. INSTALL COFFER DAM AND DEWATER SITE PRIOR TO CONSTRUCTION.
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SIDE VIEW

COFFER DAM TYPICAL DETAIL
NOT TO SCALE



UPSTREAM DEWATERING AREA SUMP DETAIL
NOT TO SCALE



DOWNSTREAM DEWATERING BY-PASS SUMP DETAIL
NOT TO SCALE

Lewis County
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DESIGNED BY : J. PIPER
DRAWN BY : PAT
CHECKED BY :
DATE :

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JONES ROAD MP 1.71

SPECIAL MAINTENANCE PROJECT NO:
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DEWATERING PLAN

SHEET 16 OF 20

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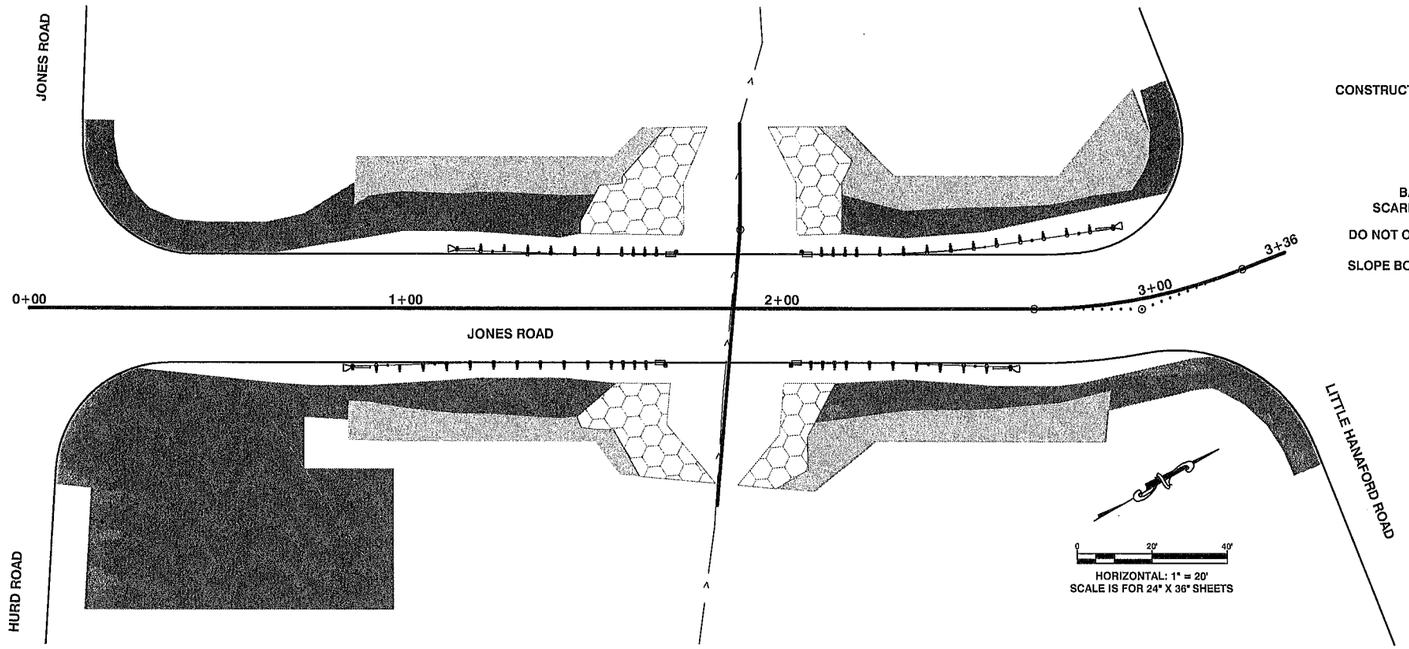
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Senior Engineer/Design
Date: 11/02/26

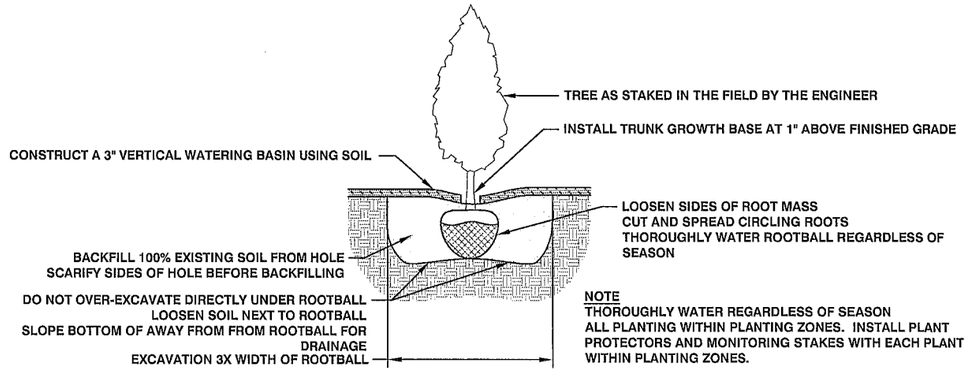
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STATE OF WASHINGTON
#38742
REGISTERED PROFESSIONAL ENGINEER

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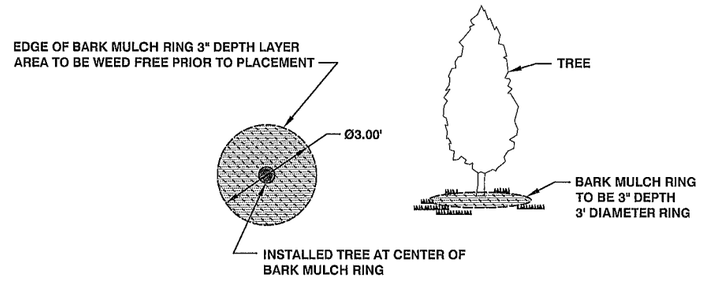
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TWP 14 N RGE 1 W W.M.





CONTAINER PLANTING DETAIL
NOT TO SCALE



BARK MULCH RING DETAIL
NOT TO SCALE

PLANTING PLAN

PLANTING ZONE	SCIENTIFIC NAME	COMMON NAME	TYPE	SIZE OF PLANTS (MATERIAL)	PLANTING DENSITY (SPACING)	PROPORTION OF PLANTING IN STRATA (%)	NUMBER OF PLANTS
Stream Bank Planting Zone Area 1718 s.f.	*Frangula purshiana*	Cascara	T	2 gallon container	12' on-center	100	12
	Cornus sericea	Red Osier Dogwood	S	6' Live Stake	5' on-center	35	20
	Salix geyeriana	Geyer Willow	S	6' Live Stake	5' on-center	20	11
	Salix sitchensis	Sitka Willow	S	6' Live Stake	5' on-center	35	20
	Salix lucida	Pacific Willow	S	6' Live Stake	5' on-center	10	6
Upland Riparian Planting Zone Area 3140 s.f.	*Fraxinus latifolia*	Oregon Ash	T	2 gallon container	12' on-center	30	7
	Pseudotsuga menziesii	Douglas Fir	T	2 gallon container	12' on-center	40	9
	Acer macrophyllum	Big-Leaf Maple	T	2 gallon container	12' on-center	30	7
	Acer circinlatum	Vine Maple	S	1 gallon container	5' on-center	35	36
	Oemleria cerasiformis	Indian Plum	S	1 gallon container	5' on-center	25	26
	Rubus spectabilis	Salmonberry	S	1 gallon container	5' on-center	5	5
	Symphoricarpos albus	Common Snowberry	S	1 gallon container	5' on-center	35	36

PLANTING NOTES:

ALL DISTURBED AREAS WITHIN CLEAR AND GRUB LIMITS SHALL BE HYDRO-SEEDED WITH ROADSIDE SEED MIX AT 80 LBS/AC.

ALL PLANT MATERIAL SHALL BE NURSERY GROWN STOCK. CONTAINER PLANT MATERIAL SHALL BE WELL-ROOTED IN POT.

PLANTING AREAS SHALL BE STAKED BY CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO PLANTING.

NO PLANT MATERIAL SHALL BE PLANTED UNTIL IT HAS BEEN INSPECTED AND APPROVED FOR PLANTING BY THE ENGINEER PER STANDARD SPECIFICATION 8-02.3(8).

PLANT MATERIAL SHALL BE STORED AND HANDLED PER SECTION 8-02.3(8) AND 9-14.7(3) OF THE STANDARD AND SPECIAL PROVISIONS.

PLANT MATERIAL SHALL BE INSTALLED PER SECTION 8-02.3(8) OF THE STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

PLANTS TO BE RANDOMLY MIXED WITHIN DESIGNATED PLANT GROUPS AS APPROVED BY THE ENGINEER UNLESS SPECIFIED OTHERWISE.

LEGEND

- HYDROSEED ONLY (8,380 SQ. FT.)
- STREAM BANK PLANTING (1,718 SQ. FT.)
- UPLAND PLANTING AND SEEDING AREA (3,140 SQ. FT.)

Lewis County
Department of Public Works
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CHEHALIS WA 98532
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DESIGNED BY : J. PIPER
DRAWN BY : MBH
CHECKED BY :
DATE :

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JONES ROAD MP 1.71

SPECIAL MAINTENANCE PROJECT NO:
90-21F171900171

PLANTING PLAN

SHEET 17 OF 20

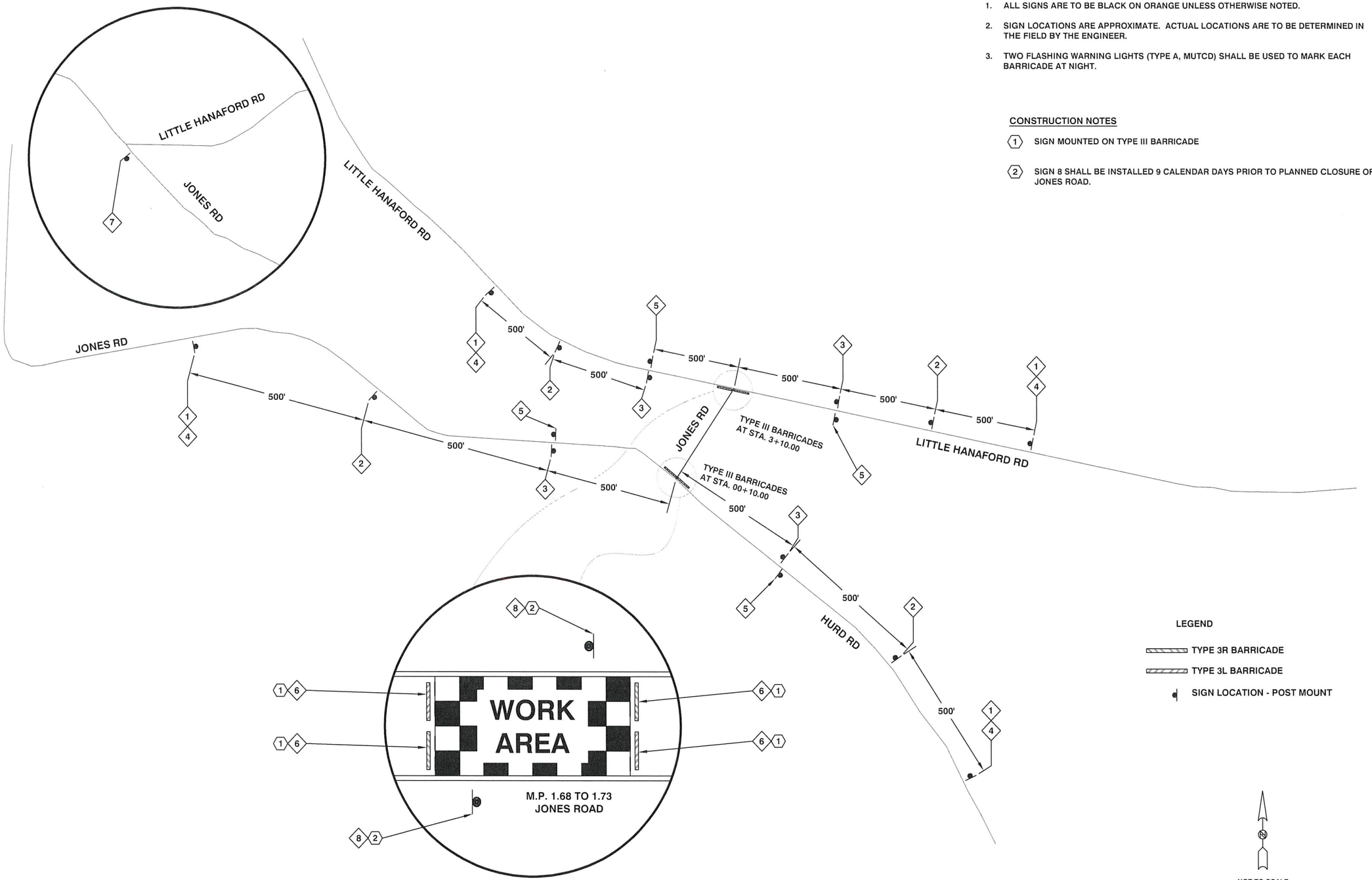
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Albert L Swank, P.E.
Senior Engineer/Design
Date: 1/26/26

ALBERT L SWANK
STATE OF WASHINGTON
19742
REGISTERED
PROFESSIONAL ENGINEER

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1. ROAD WORK AHEAD — (48"X48") W20-1
2. ROAD CLOSED 1000 FT — (48"X48") W20-3
3. ROAD CLOSED 500 FT — (48"X48") W20-3
4. 25 LIMIT SPEED — B/W (24"X30") R2-1
5. END ROAD WORK — (36"X18") G20-2
6. ROAD CLOSED — B/W (48"X30") R11-2
7. JONES ROAD CLOSED AT M.P. 1.71 — (60"X30") B/W
8. THIS ROAD WILL BE CLOSED MO DA MO DA — (30" x 36") B/W



NOTES

1. ALL SIGNS ARE TO BE BLACK ON ORANGE UNLESS OTHERWISE NOTED.
2. SIGN LOCATIONS ARE APPROXIMATE. ACTUAL LOCATIONS ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
3. TWO FLASHING WARNING LIGHTS (TYPE A, MUTCD) SHALL BE USED TO MARK EACH BARRICADE AT NIGHT.

CONSTRUCTION NOTES

1. SIGN MOUNTED ON TYPE III BARRICADE
2. SIGN 8 SHALL BE INSTALLED 9 CALENDAR DAYS PRIOR TO PLANNED CLOSURE OF JONES ROAD.

LEGEND

- TYPE 3R BARRICADE
- TYPE 3L BARRICADE
- SIGN LOCATION - POST MOUNT

NOT TO SCALE

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JONES ROAD MP 1.71

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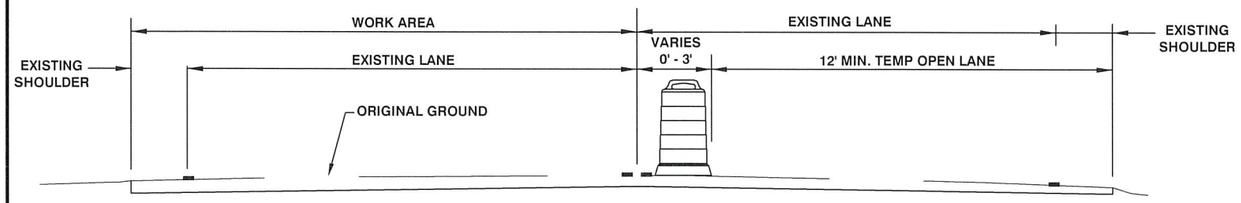
CONSTRUCTION SIGNS CLASS A

SHEET 18 OF 20

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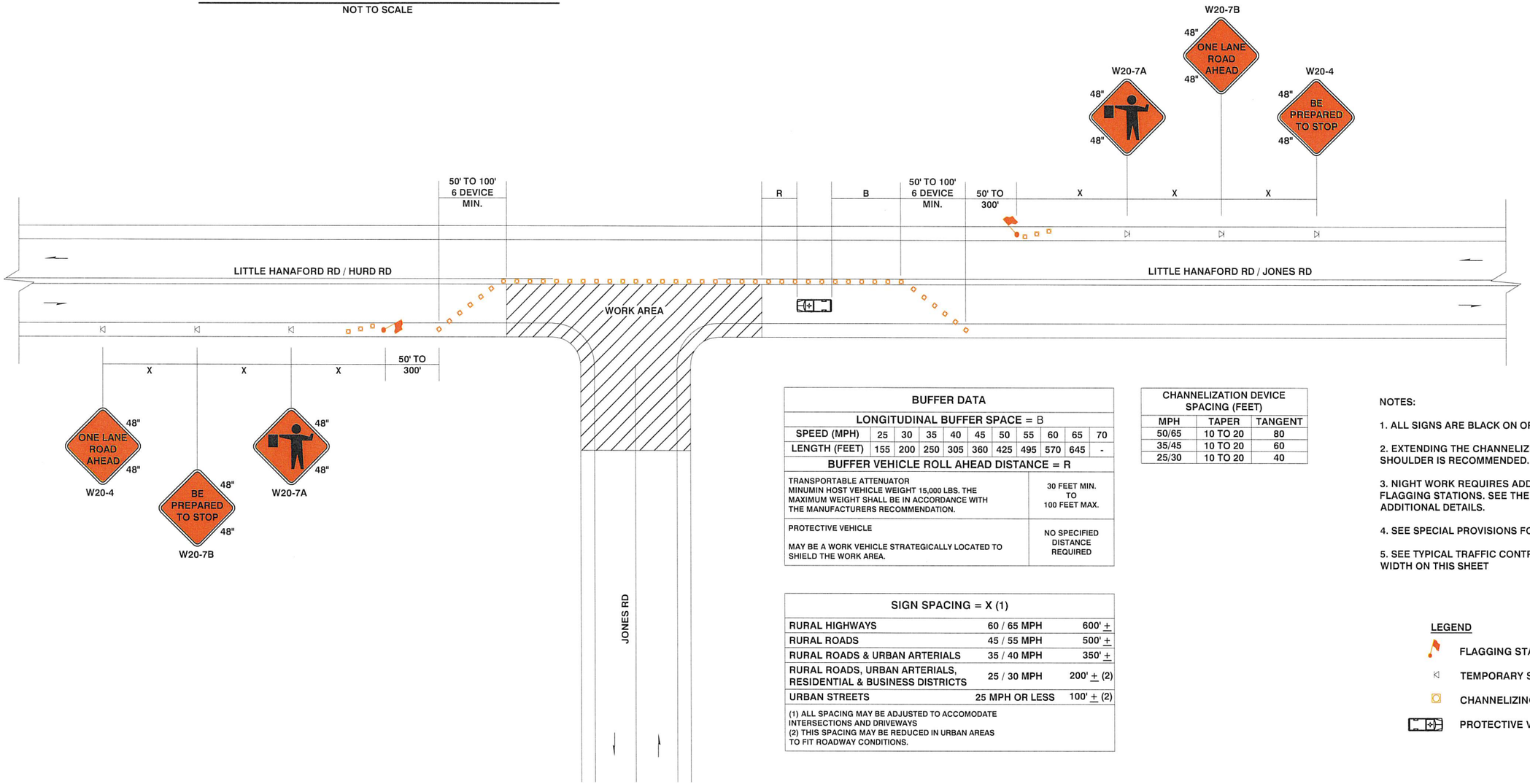
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Senior Engineer/Design
Date: 10/26/26

STATE OF WASHINGTON ALBERT L SWANK 45742 REGISTERED PROFESSIONAL ENGINEER



TYPICAL TRAFFIC CONTROL SECTION

NOT TO SCALE



BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (FEET)	155	200	250	305	360	425	495	570	645	-
BUFFER VEHICLE ROLL AHEAD DISTANCE = R										
TRANSPORTABLE ATTENUATOR MINUMIN HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION.									30 FEET MIN. TO 100 FEET MAX.	
PROTECTIVE VEHICLE MAY BE A WORK VEHICLE STRATEGICALLY LOCATED TO SHIELD THE WORK AREA.									NO SPECIFIED DISTANCE REQUIRED	

SIGN SPACING = X (1)		
RURAL HIGHWAYS	60 / 65 MPH	600' ±
RURAL ROADS	45 / 55 MPH	500' ±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS, URBAN ARTERIALS, RESIDENTIAL & BUSINESS DISTRICTS	25 / 30 MPH	200' ± (2)
URBAN STREETS	25 MPH OR LESS	100' ± (2)
(1) ALL SPACING MAY BE ADJUSTED TO ACCOMODATE INTERSECTIONS AND DRIVEWAYS (2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.		

CHANNELIZATION DEVICE SPACING (FEET)		
MPH	TAPER	TANGENT
50/65	10 TO 20	80
35/45	10 TO 20	60
25/30	10 TO 20	40

NOTES:

1. ALL SIGNS ARE BLACK ON ORANGE.
2. EXTENDING THE CHANNELIZING DEVICE TAPER ACROSS SHOULDER IS RECOMMENDED.
3. NIGHT WORK REQUIRES ADDITIONAL ROADWAY LIGHTING AT FLAGGING STATIONS. SEE THE STANDARD SPECIFICATIONS FOR ADDITIONAL DETAILS.
4. SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.
5. SEE TYPICAL TRAFFIC CONTROL SECTION FOR MINIMUM LANE WIDTH ON THIS SHEET

LEGEND

- FLAGGING STATION
- TEMPORARY SIGN LOCATION
- CHANNELIZING DEVICES
- PROTECTIVE VEHICLE

ONE-LANE, TWO WAY TRAFFIC CONTROL WITH FLAGGERS

NOT TO SCALE

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SPECIAL MAINTENANCE PROJECT NO:
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GENERAL TRAFFIC CONTROL PLAN

SHEET 19 OF 20

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STATE OF WASHINGTON
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BRIDGE SHEET INDEX

SHEET NO.	DESCRIPTION
B01	BRIDGE PLAN AND ELEVATION
B02	GENERAL NOTES, BRIDGE SECTION AND PROFILE
B03	SUPERSTRUCTURE CONSTRUCTION SEQUENCE
B04	FOUNDATION LAYOUT
B05	STEEL PIPE PILE DETAILS
B06	PIER 1 AND 2 PLAN AND ELEVATION
B07	PIER DETAILS 1 OF 3
B08	PIER DETAILS 2 OF 3
B09	PIER DETAILS 3 OF 3
B10	FRAMING PLAN
B11	PRESTRESSED SLAB GIRDER DETAILS 1 OF 3
B12	PRESTRESSED SLAB GIRDER DETAILS 2 OF 3
B13	PRESTRESSED SLAB GIRDER DETAILS 3 OF 3
B14	END DIAPHRAGM DETAILS
B15	DECK REINFORCING - TYPICAL SECTION
B16	DECK REINFORCING PLAN
B17	BRIDGE APPROACH SLAB LAYOUT
B18	BRIDGE APPROACH SLAB DETAILS
B19	BRIDGE RAILING DETAILS 1 OF 2
B20	BRIDGE RAILING DETAILS 2 OF 2
B21	BARLIST 1 OF 2
B22	BARLIST 2 OF 2

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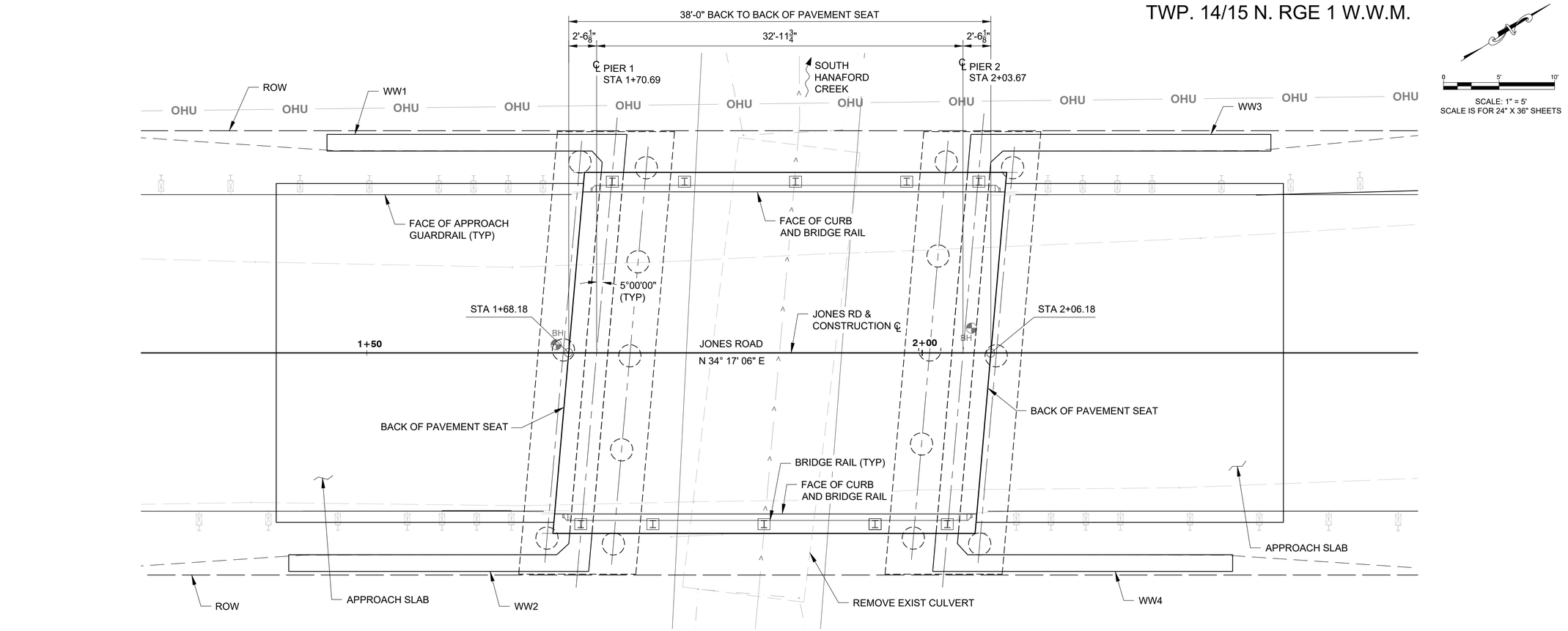
BRIDGE SHEET INDEX

SHEET 20 OF 20

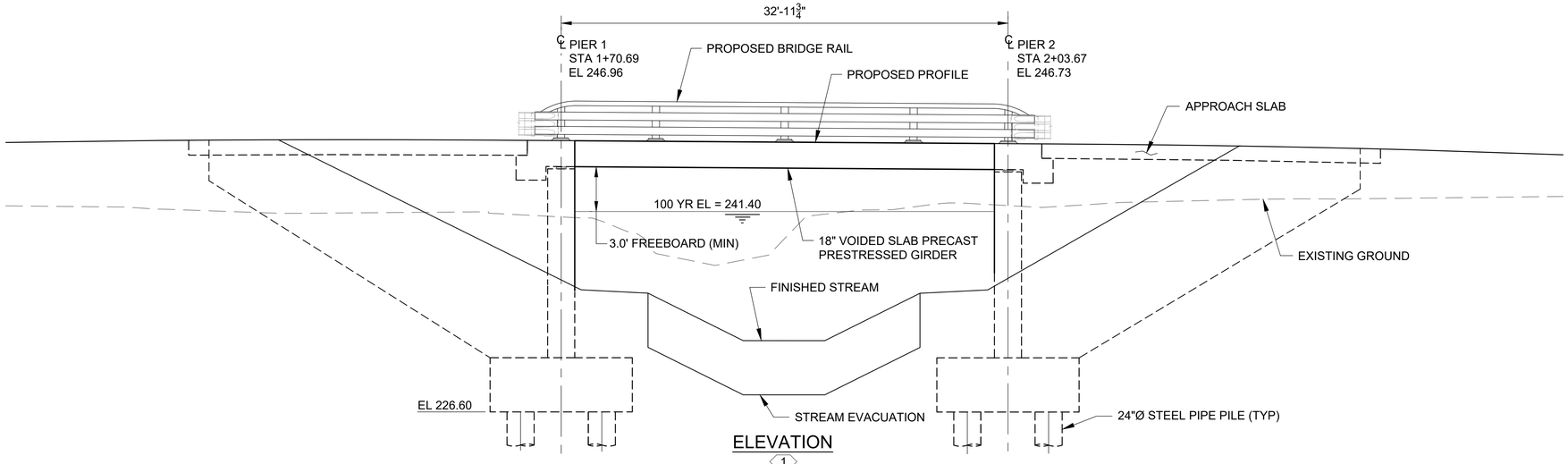
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Senior Engineer/Design
Date: 10/26/26

ALBERT L SWANK
STATE OF WASHINGTON
36742
REGISTERED PROFESSIONAL ENGINEER



PLAN



ELEVATION

1

KEY NOTES:

1. STATIONS AND ELEVATIONS ARE SHOWN AT ℄ ROADWAY. ELEVATIONS SHOWN ARE FINISHED GRADE AT TOP OF BRIDGE DECK AND ARE EQUAL TO PROFILE GRADE.

SCALE: 1" = 5'
SCALE IS FOR 24" X 36" SHEETS

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DESIGNED BY : NN
DRAWN BY : DJ
CHECKED BY : JK
DATE : 09/13/2024

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BRIDGE PLAN AND ELEVATION

SHEET B01 OF 22

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GENERAL NOTES

1. ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS, THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION DATED 2024 AND PROJECT SPECIAL PROVISIONS.

2. THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION, DATED 2020 AND STATE OF WASHINGTON DEPARTMENT OF TRANSPORTATION BRIDGE DESIGN MANUAL LRFD, DATED 2023.

3. DESIGN LOADS:

   DEAD LOAD:
   - NORMAL REINFORCED CONCRETE - 155 PCF
   - STRUCTURAL STEEL - 490 PCF
   - PRESTRESSED CONCRETE - 165 PCF

   LIVE LOAD:
   - VEHICLE - AASHTO HL93

   WIND LOAD:
   - BASIC WIND SPEED - 115 MPH (3 SECOND GUST)

   THERMAL FORCES:
   - NORMAL TEMPERATURE - 64° F
   - TEMPERATURE RANGE - 36° F RISE, 64° F FALL
   - COEFFICIENT OF THERMAL EXPANSION - 0.000006.

   FUTURE WEARING SURFACE: - 25 PSF

4. TRAFFIC BARRIERS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS FOR CRASH TEST LEVEL 4 (TL-4) RAILINGS.

5. SEISMIC DESIGN OF THIS STRUCTURE CONFORMS TO THE REQUIREMENTS OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS USING THE FOLLOWING SITE DATA:
   - SITE CLASS - E - STIFF SOIL
   - PEAK GROUND ACCELERATION COEFFICIENT - 0.334g
   - DESIGN SPECTRAL ACCELERATION COEFFICIENT AT 0.2 SEC - 0.748g
   - DESIGN SPECTRAL ACCELERATION COEFFICIENT AT 1.0 SEC - 0.274g
   - SEISMIC DESIGN CATEGORY - D

6. THE CONCRETE IN THE ROADWAY DECK SHALL BE CLASS 4000D, THE CONCRETE IN THE APPROACH SLABS SHALL BE CLASS 4000A. ALL OTHER CONCRETE SHALL BE CLASS 4000, UNLESS NOTED ON THE PLANS. REINFORCEMENT BAR SHALL CONFORM TO ASTM A706 GR 60 UNLESS NOTED OTHERWISE.

7. UNLESS OTHERWISE SHOWN ON THE PLANS, CLEAR CONCRETE COVER FROM THE TOP OF BRIDGE DECK TO ANY REINFORCEMENT BAR SHALL BE 2½ INCHES, 1 INCH FROM THE BOTTOM OF THE BRIDGE DECK, AND 1½ INCHES FROM ALL OTHER CONCRETE SURFACES.

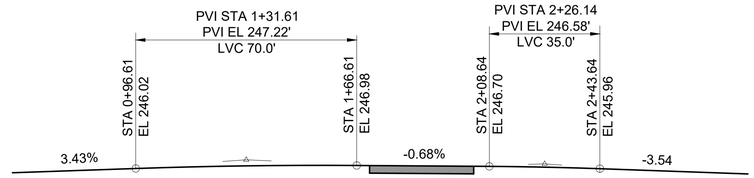
8. ALL PLAN DIMENSIONS SHOWN ARE MEASURED HORIZONTALLY UNLESS OTHERWISE NOTED, AND REFLECT THE ULTIMATE GEOMETRIC SHAPE AND LOCATION OF ALL ELEMENTS AT A MEAN TEMPERATURE OF 64° F.

9. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED ¾" UNLESS OTHERWISE SHOWN OR NOTED.

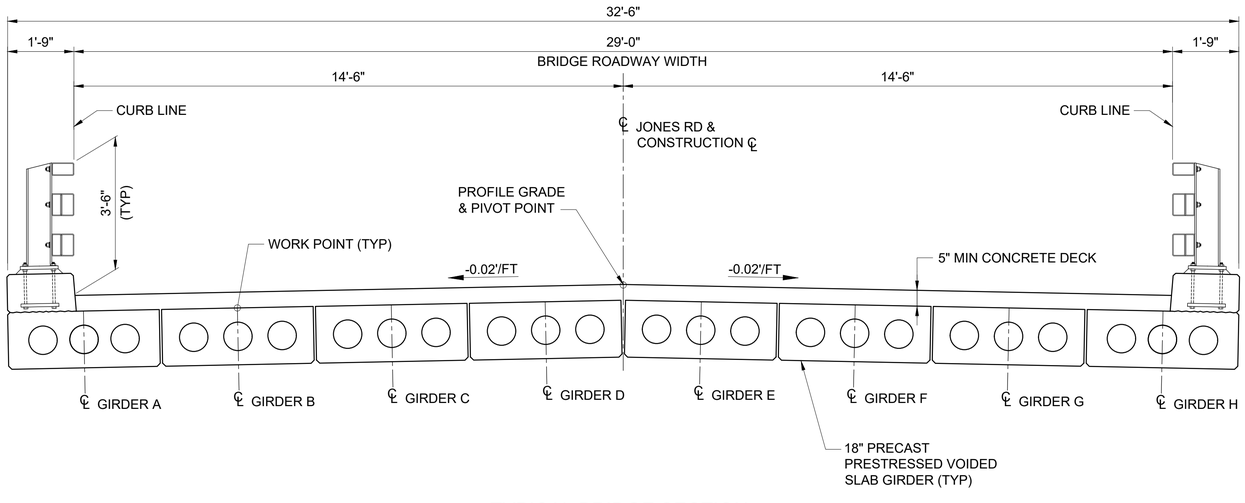
10. CONSTRUCTION JOINTS SHOWN ARE OPTIONAL UNLESS NOTED OTHERWISE.

11. FOR GEOTECHNICAL INFORMATION, SEE GEOTECHNICAL ENGINEERING REPORT PREPARED BY SAGE GEOTECHNICAL AS PUBLISHED WITH THESE BID DOCUMENTS.

12. DO NOT PLACE BACKFILL FOR ABUTMENT UNTIL SUPERSTRUCTURE CONSTRUCTION IS COMPLETE.



GRADE PROFILE



TYPICAL BRIDGE SECTION

Lewis County
Department of Public Works
57 WEST MAIN ST.
CHEHALIS WA 98532
PHONE # (360) 740-1123
FAX # (360) 740-2719

DESIGNED BY : NN
DRAWN BY : DJ
CHECKED BY : JK
DATE : 09/13/2024

NO.	DATE	REVISION	BY	APP.

JONES ROAD MP 1.71

SPECIAL MAINTENANCE PROJECT NO: 21F171900171

GENERAL NOTES, BRIDGE SECTION AND PROFILE

SHEET B02 OF 22

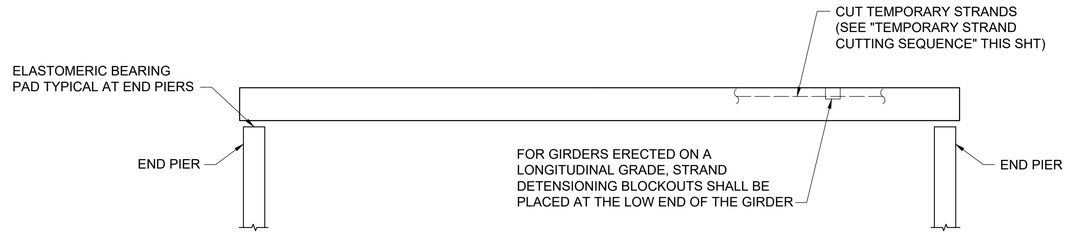
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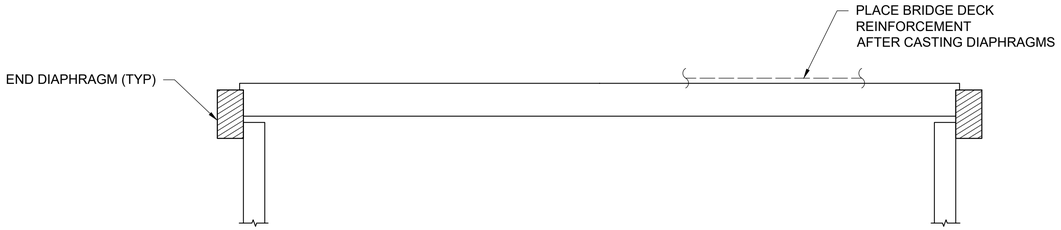
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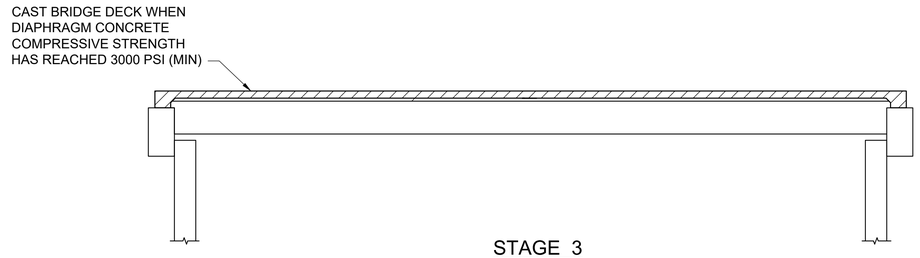


STAGE 1
SET GIRDERS IN PLACE

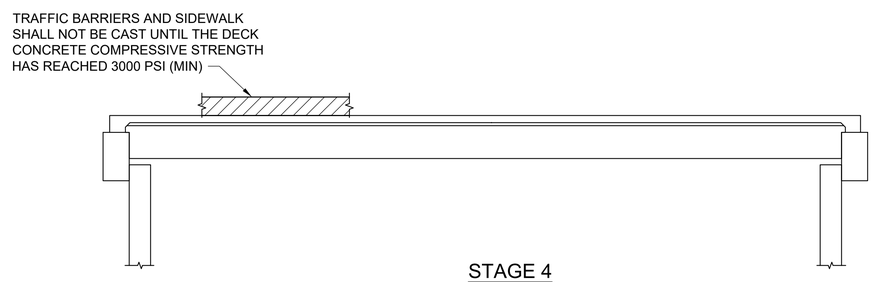
INSTALL GIRDER SUPPORT SYSTEMS
AND BEARINGS, PLACE GIRDERS



STAGE 2
CAST DIAPHRAGMS AND PLACE BRIDGE DECK REINFORCEMENT



STAGE 3
CAST BRIDGE DECK



STAGE 4
CAST TRAFFIC BARRIERS

CONSTRUCTION SEQUENCE - SUPERSTRUCTURE

TEMPORARY STRAND CUTTING SEQUENCE

1. ERECT AND BRACE GIRDERS.
2. JUST PRIOR TO CUTTING THE TEMPORARY STRANDS, REMOVE EXPANDED POLYSTYRENE IN BLOCKOUTS IN TOP FLANGE OF GIRDERS. ONCE THE EXPANDED POLYSTYRENE HAS BEEN REMOVED FROM THE STRAND DETENSIONING BLOCKOUT, PREVENT MOISTURE FROM ENTERING THE BLOCKOUT UNTIL THE TEMPORARY TOP STRAND IS CUT AND THE BLOCKOUT FILLED WITH GROUT.
3. CUT STRANDS IN BLOCKOUTS. STRANDS SHALL BE CUT BY USING A CUTTING TORCH AND MOVING THE FLAME BACK AND FORTH OVER THE LENGTH OF EXPOSED STRAND TO LET INDIVIDUAL WIRES BREAK ONE AT A TIME TO LESSEN THE SHOCK TO THE GIRDER. STRANDS SHALL BE RELEASED IN A SYMMETRICAL MANNER ABOUT THE GIRDER CENTERLINE STARTING WITH THOSE FURTHEST FROM THE CENTERLINE AND WORKING INWARDS.
4. WITHIN 24 HOURS OF CUTTING THE TEMPORARY STRANDS, FILL THE BLOCKOUTS WITH A GROUT CONFORMING TO STD. SPEC. 9-20.3(2). REMOVE ALL MOISTURE IN BLOCKOUTS PRIOR TO FILLING THEM WITH GROUT.

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SUPERSTRUCTURE CONSTRUCTION SEQUENCE

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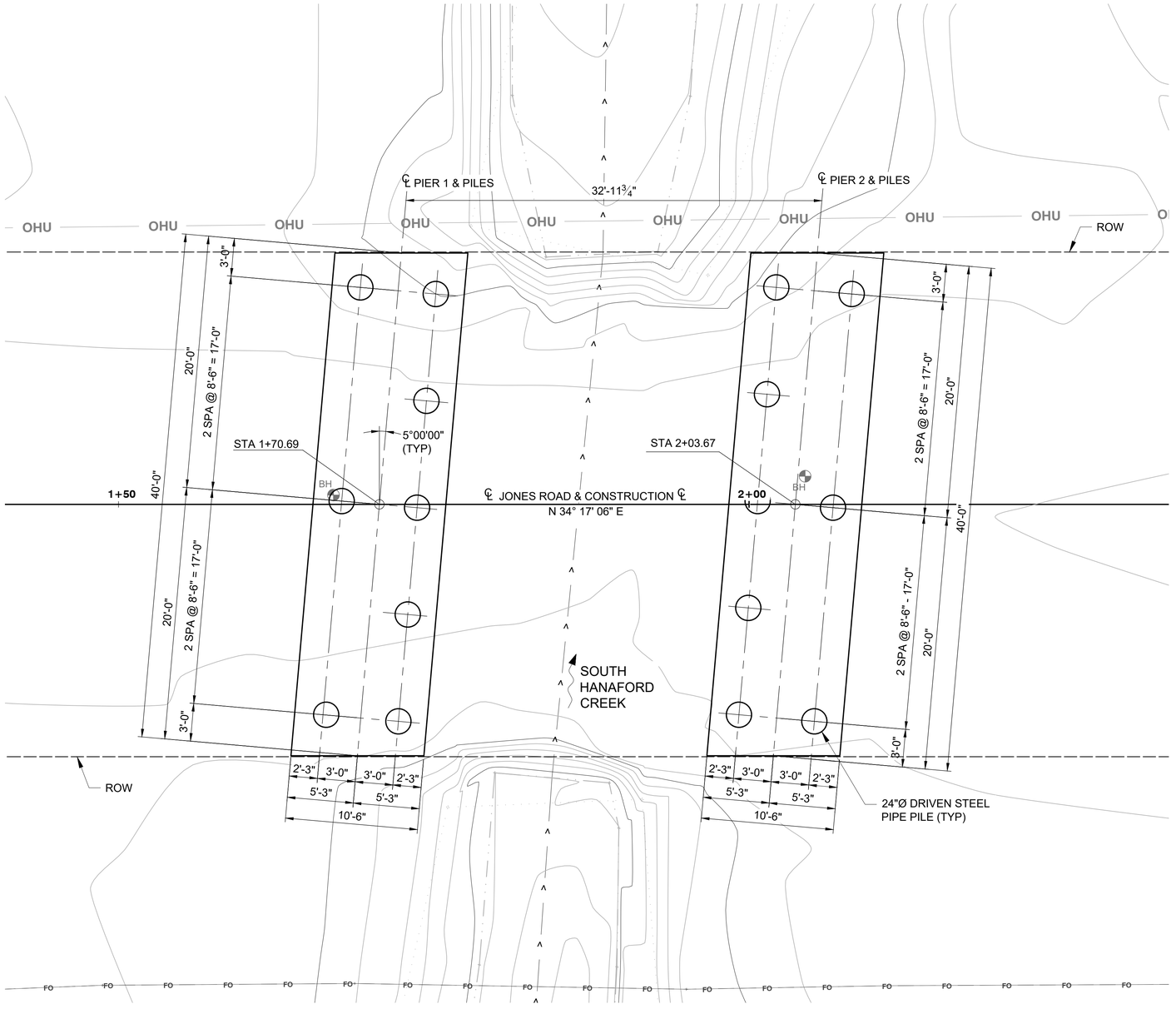
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TWP. 14/15 N. RGE 1 W.W.M.

NOTES

1. INDICATES THE LOCATION AND DESIGNATION OF BOREHOLES. SEE GEOTECHINCAL REPORT FOR BOREHOLE EXPLORATION LOGS AND OTHER INFORMATION.
2. SEE "STEEL PIPE PILE DETAILS" SHEET FOR DETAILS AND ELEVATIONS.



0 5' 10'

SCALE: 1" = 5'
SCALE IS FOR 24" X 36" SHEETS

FOUNDATION LAYOUT

Lewis County Department of Public Works	57 WEST MAIN ST. CHEHALIS WA 98532 PHONE # (360) 740-1123 FAX # (360) 740-2719	DESIGNED BY : NN DRAWN BY : DJ CHECKED BY : JK DATE : 09/13/2024	NO. / DATE / REVISION / BY / APP.
JONES ROAD MP 1.71	SPECIAL MAINTENANCE PROJECT NO: 21F171900171 FOUNDATION LAYOUT	SHEET B04 OF 22	CALL 48 HOURS BEFORE YOU DIG 1-800-424-5555 "It's the Law" Utilities Underground Location Center

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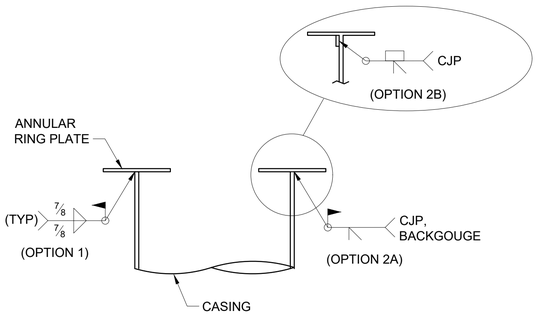
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PIER	PILE DIAMETER (D) IN.	NUMBER OF PILES	STEEL THICKNESS (T) IN.	MIN PILE TIP ELEV (FT)	ESTIMATED TIP ELEV (FT)	NOMINAL BEARING RESISTANCE (KIPS)	REQUIRED NOMINAL PILE DRIVING RESISTANCE, RNDR (KIPS)
1	24	8	$\frac{5}{8}$"	172.0	167.0	775	775
2	24	8	$\frac{5}{8}$"	172.0	167.0	775	775

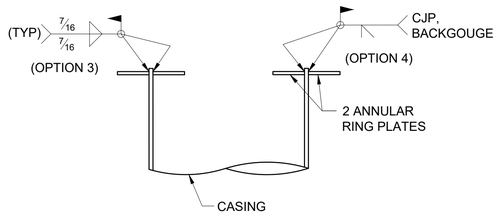
NOTES:

1. STEEL PIPE PILES SHALL COMPLY WITH ASTM A709, GRADE 50 (FY-50 KSI), API 5L X52, ASTM A588 GRADE 50, ASTM A572 GRADE 5 OR APPROVED EQUAL.
2. PILE INSTALLATION SHALL CONFORM TO SECTION 6-05, INCLUDING A WAVE EQUATION ANALYSIS AS DESCRIBED IN SECTION 6-05.3(9)A.
3. STEEL PILE FABRICATION AND MATERIAL TESTING SHALL CONFORM TO SECTION 6-05.3(5).
4. STEEL PILE SPLICES SHALL CONFORM TO SECTION 6-05.3(6).



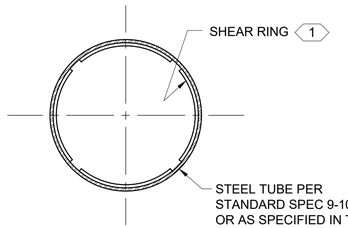
OPTION 1 AND OPTION 2

W - SIZE WELDS TO DEVELOP FULL CAPACITY OF CASING WALL



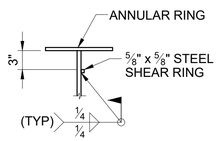
OPTION 3 AND OPTION 4

NOTE: FOR OPTION 3, THE MINIMUM FILLET WELD SIZE SHALL BE LIMITED TO MINIMUM FILLET WELD SIZE PER AWS D1.1



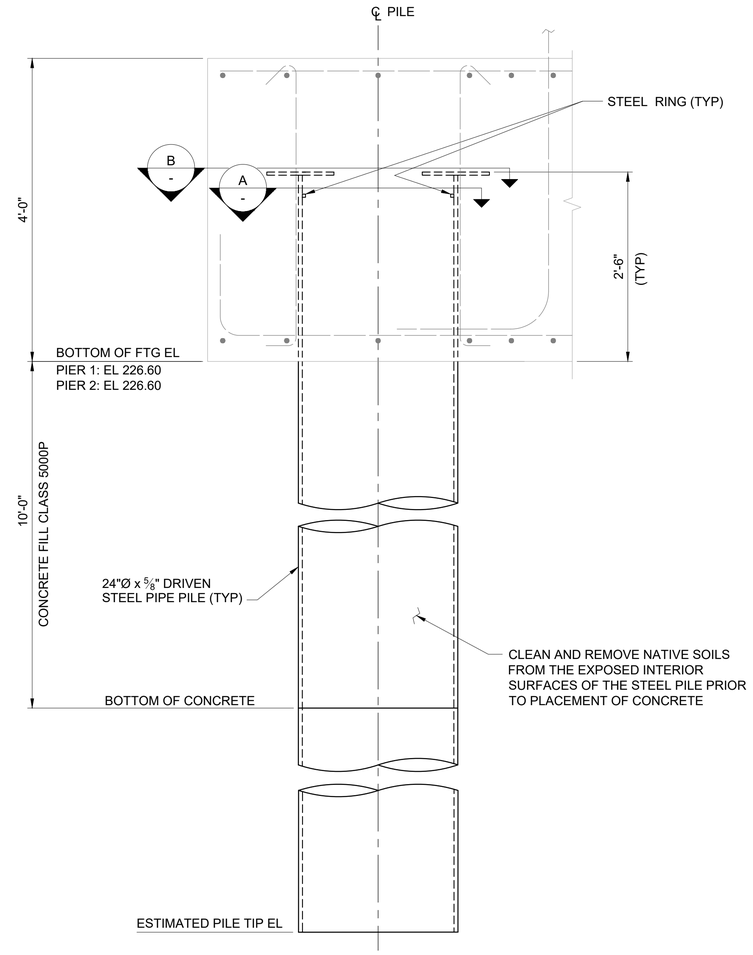
A - SECTION

1 STEEL SHEAR RING MAY BE CONTINUOUS OR DISCONTINUOUS. IF SHEAR RING IS DISCONTINUOUS, ALL SEGMENTS SHALL BE OF EQUAL LENGTH AND EQUALLY SPACED WITH THE TOTAL LENGTH OF THE SHEAR RING PIECES NOT BEING LESS THAN 75% OF THE TUBE CIRCUMFERENCE.

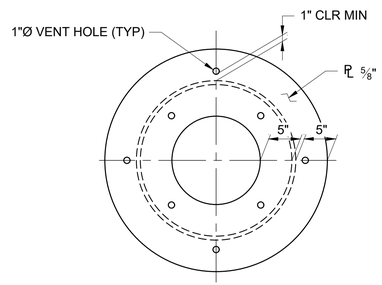


STEEL RING DETAIL

ANNULAR RING WELD DETAIL



STEEL PIPE PILE DETAIL



B - VIEW

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STEEL PIPE PILE DETAILS

SHEET B05 OF 22

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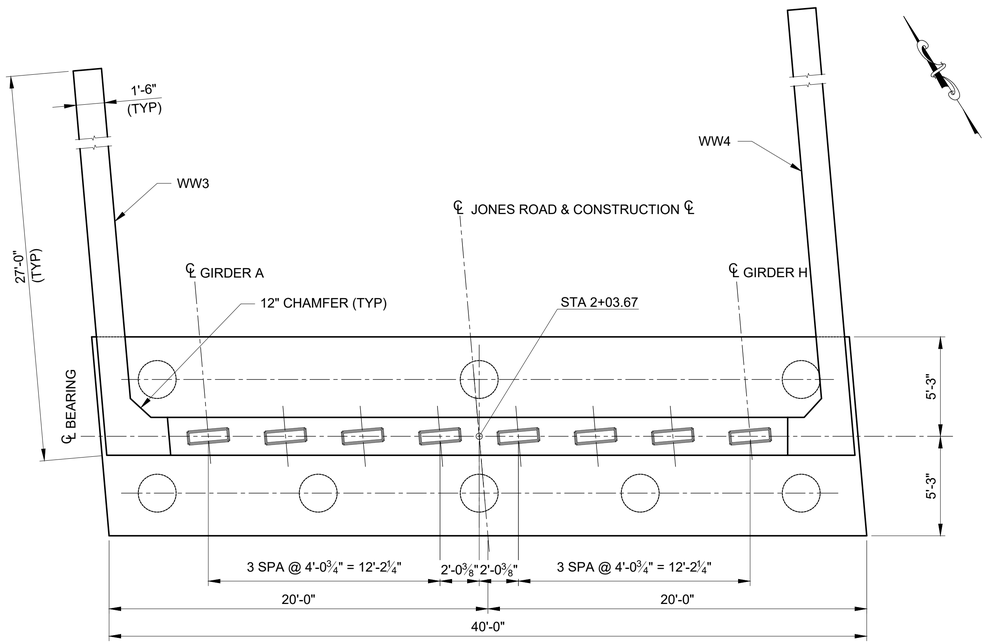
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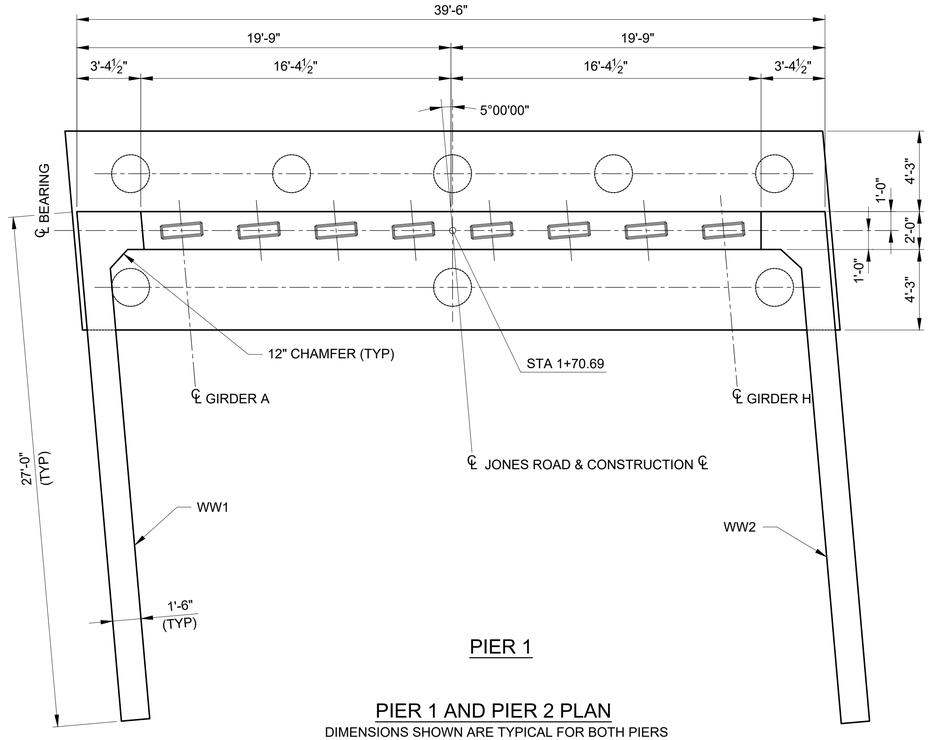
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CONTROL ELEVATIONS TABLE			
LOCATION	DESCRIPTION	PIER 1	PIER 2
SC	TOP OF STEM, CL JONES ROAD AT CL BEARING	244.77	244.54
⟨1⟩ SL	TOP OF STEM, LEFT END AT CL BEARING	246.62	246.40
⟨1⟩ SR	TOP OF STEM, RIGHT END AT CL BEARING	246.64	246.42
A	CL GIRDER A AT TOP OF GROUT PAD	244.60	244.38
B	CL GIRDER B AT TOP OF GROUT PAD	244.68	244.46
C	CL GIRDER C AT TOP OF GROUT PAD	244.77	244.54
D	CL GIRDER D AT TOP OF GROUT PAD	244.85	244.63
E	CL GIRDER E AT TOP OF GROUT PAD	244.85	244.63
F	CL GIRDER F AT TOP OF GROUT PAD	244.77	244.55
G	CL GIRDER G AT TOP OF GROUT PAD	244.70	244.47
H	CL GIRDER H AT TOP OF GROUT PAD	244.62	244.39

LOOKING AHEAD ON STATIONING.



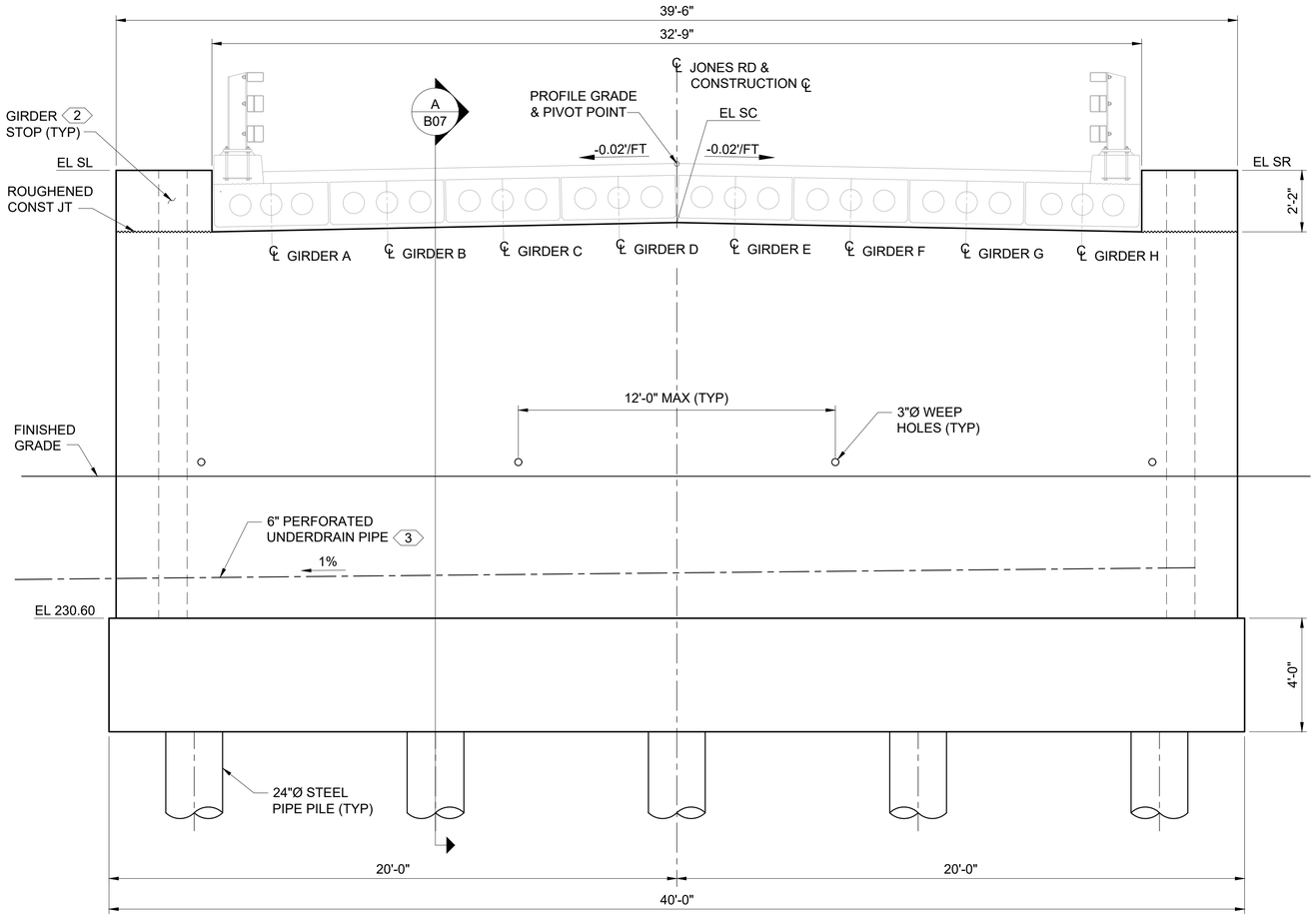
PIER 2



PIER 1

PIER 1 AND PIER 2 PLAN

DIMENSIONS SHOWN ARE TYPICAL FOR BOTH PIERS



PIER 2 ELEVATION

LOOKING AHEAD ON STATIONING, (PIER 1 SIMILAR)
DIMENSIONS ARE SHOWN AT ℄ PIER

KEY NOTES:

⟨1⟩ LOOKING AHEAD ON STATIONING.

⟨2⟩ PLACE GIRDER STOP AFTER SETTING GIRDERS.

⟨3⟩ SEE CIVIL PLANS FOR OUTLET OF THE UNDERDRAIN PIPE.

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PIER 1 AND 2 PLAN AND ELEVATION

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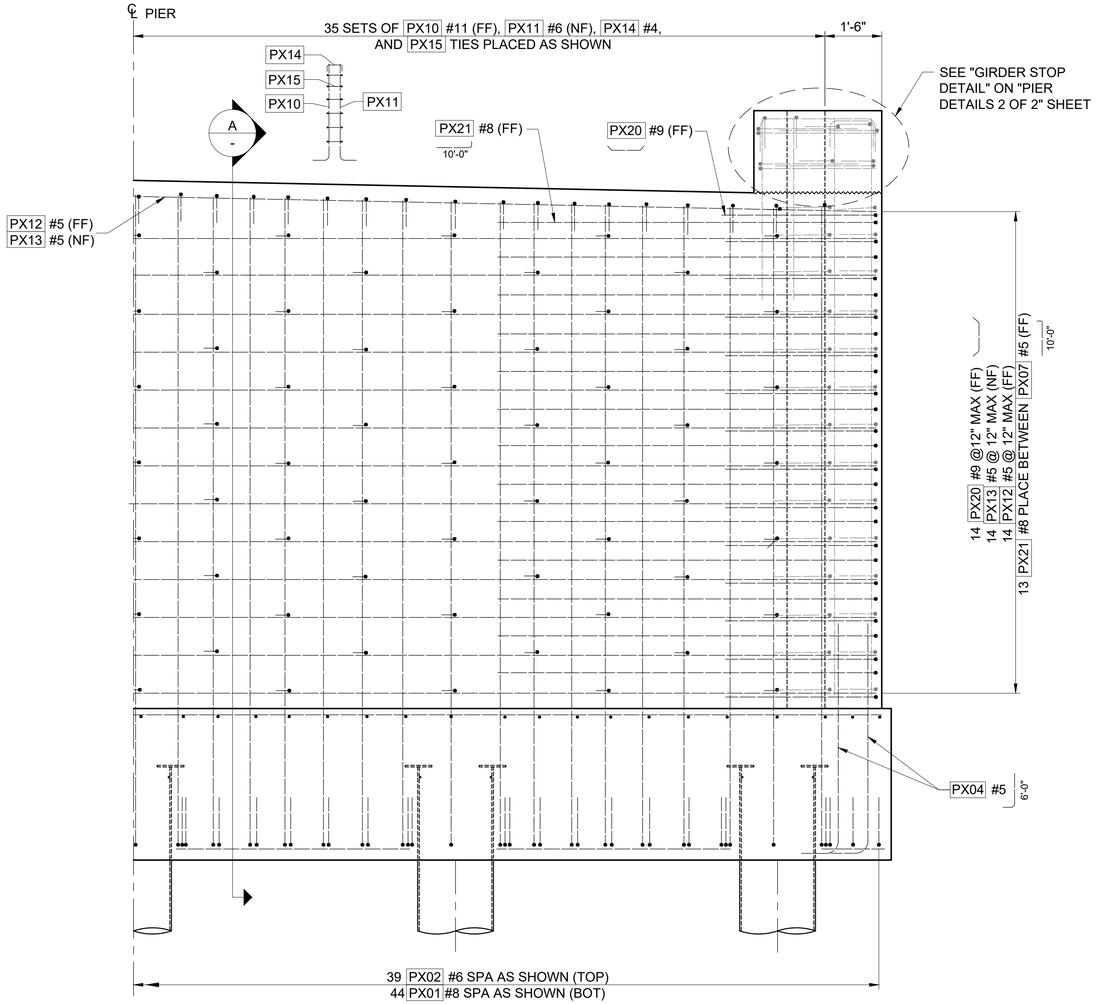
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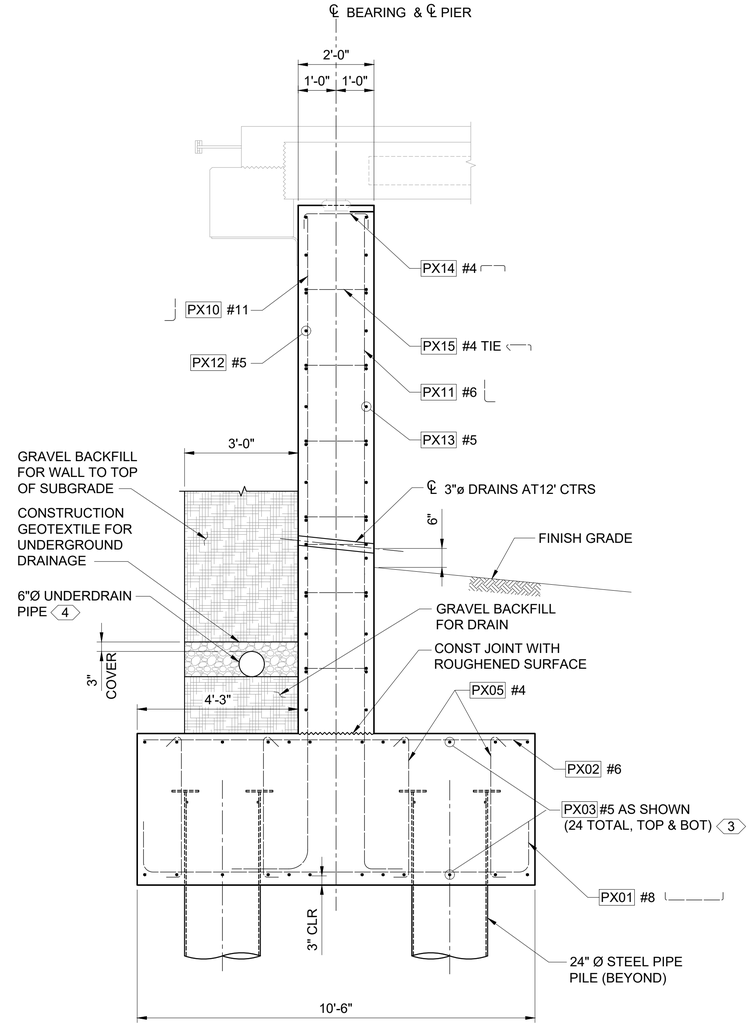
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PIER REINFORCING ELEVATION



A SECTION
-

KEY NOTES:

1. PIER REINF PLACEMENT IS SYMMETRICAL ABOUT CL OF PIER. PIER 2 SHOWN, PIER 1 SIMILAR. "X" IN REINFORCEMENT LABELS DESIGNATES THE PIER NUMBER.
2. FAN AS REQUIRED.
3. CUT AS NECESSARY TO CLEAR PILES.
4. UNDERDRAIN PIPE TO DAYLIGHT AT A MINIMUM 1% LONGITUDINAL SLOPE ON THE WEST SIDE OF THE ABUTMENT.

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PIER DETAILS 1 OF 3

SHEET B07 OF 22

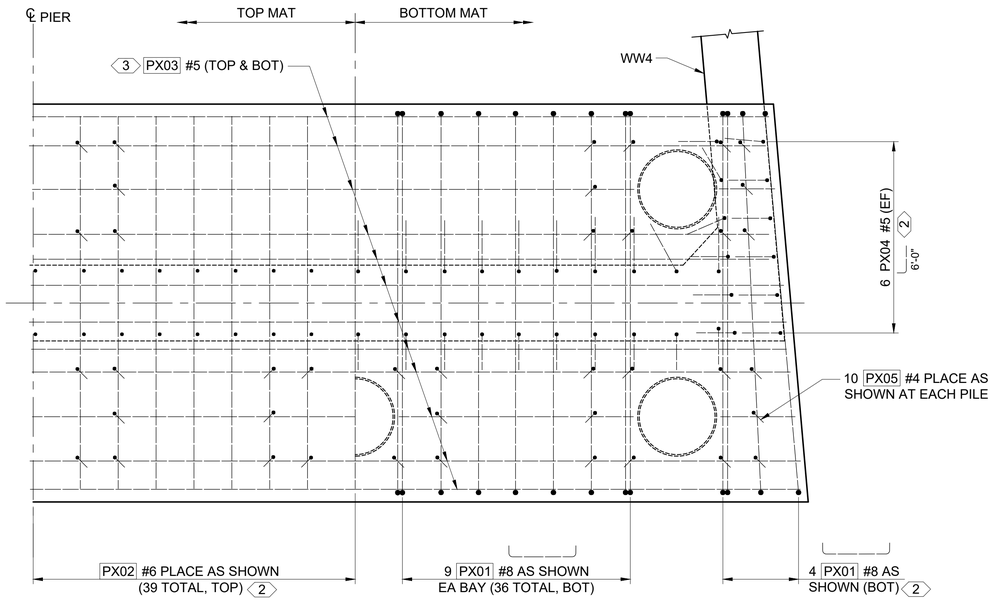
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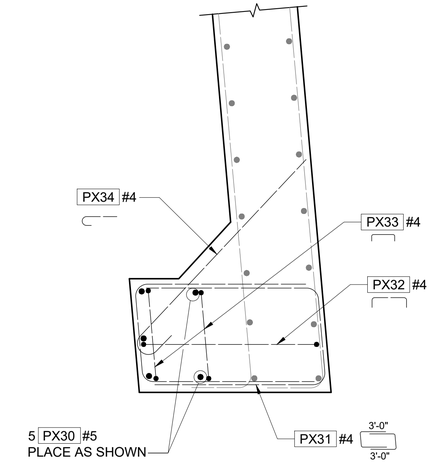
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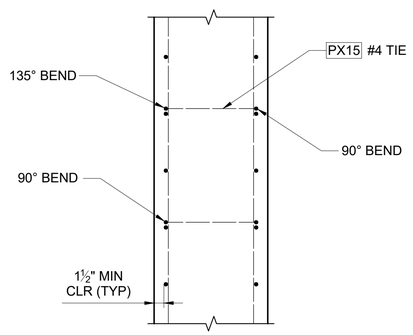


PIER 1 AND PIER 2 PLAN

1

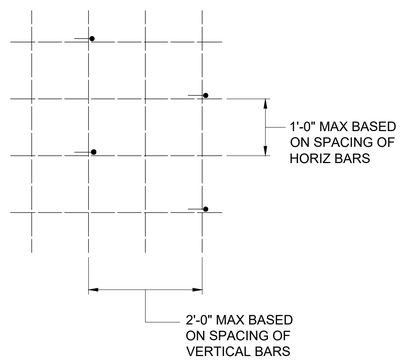


A - SECTION

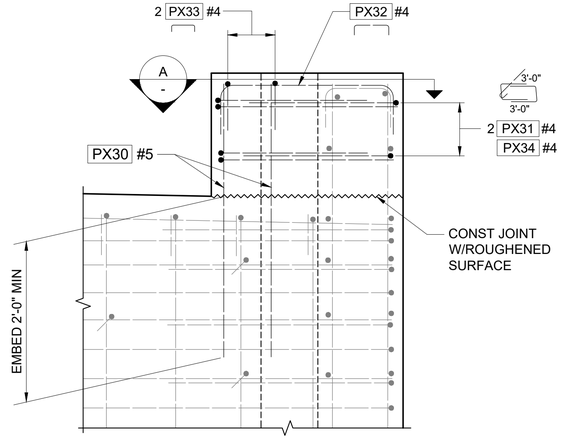


TIE BAR DETAIL

ALTERNATE 135° HOOK EVERY OTHER BAR



TIE BAR SPACING DETAIL



GIRDER STOP DETAIL

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PIER DETAILS 2 OF 3

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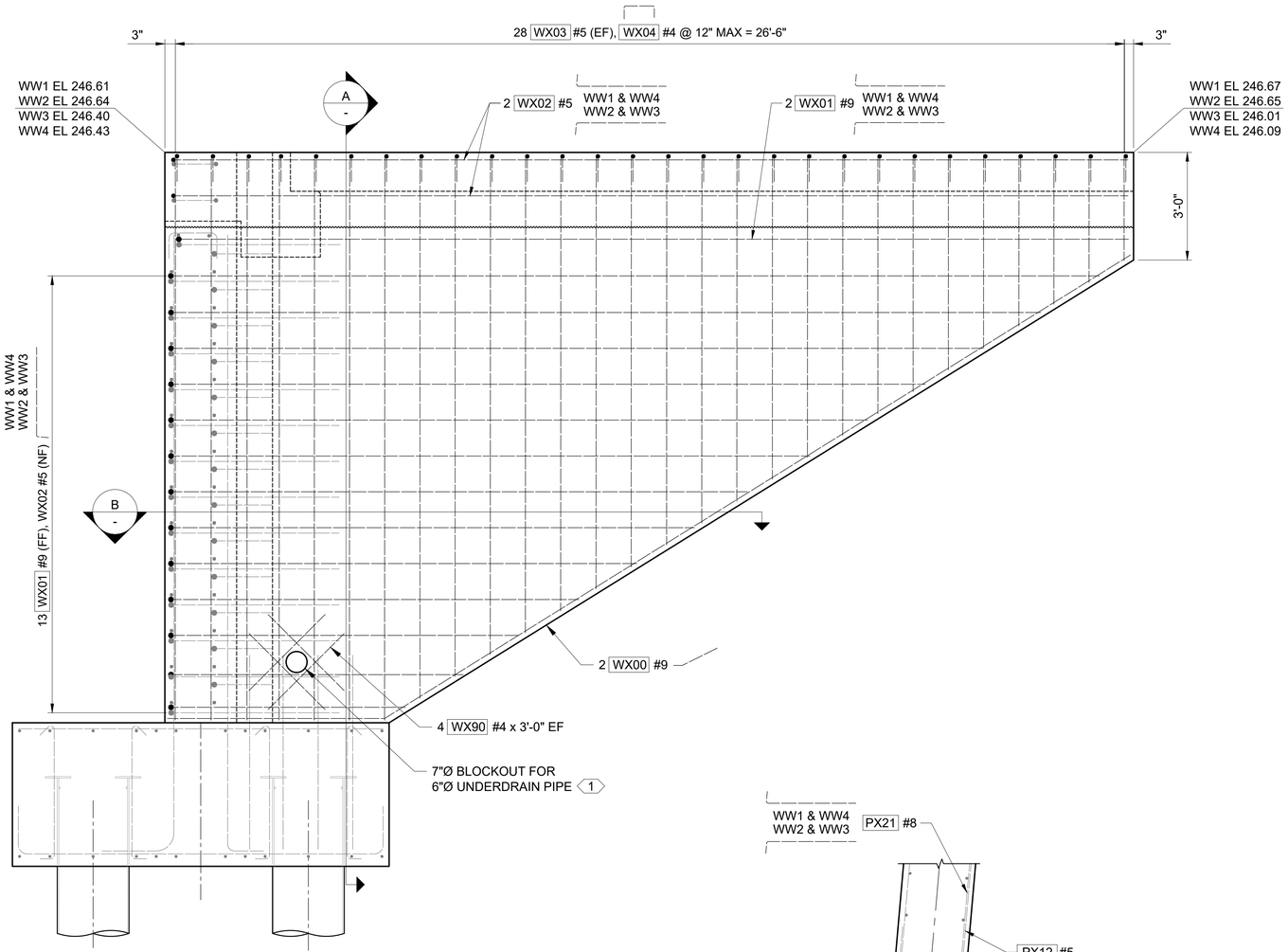
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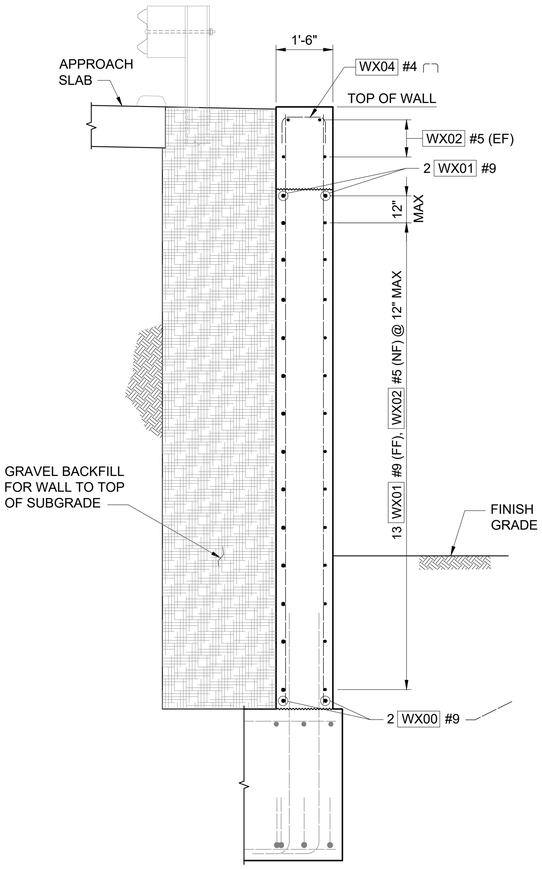
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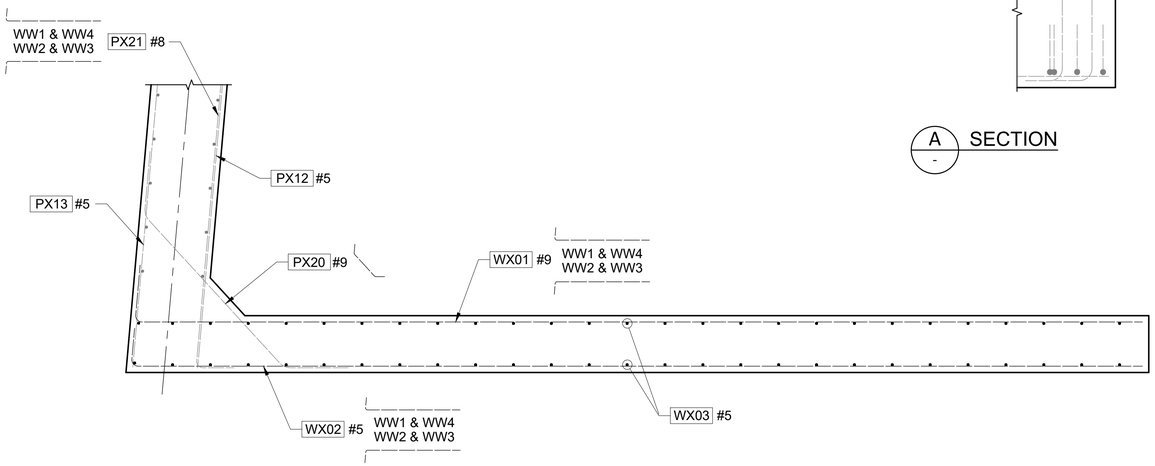
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TYPICAL WINGWALL ELEVATION



A - SECTION



B - SECTION

KEY NOTES:

(1) BLOCKOUT FOR UNDERDRAIN PIPE TO BE INSTALLED ON THE WEST SIDE OF THE ABUTMENT ONLY. THE BOTTOM OF THE BLOCKOUT SHOULD BE SET AT ELEVATION 232.0.

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JONES ROAD MP 1.71

SPECIAL MAINTENANCE PROJECT NO: 21F171900171

PIER DETAILS 3 OF 3

SHEET B09 OF 22

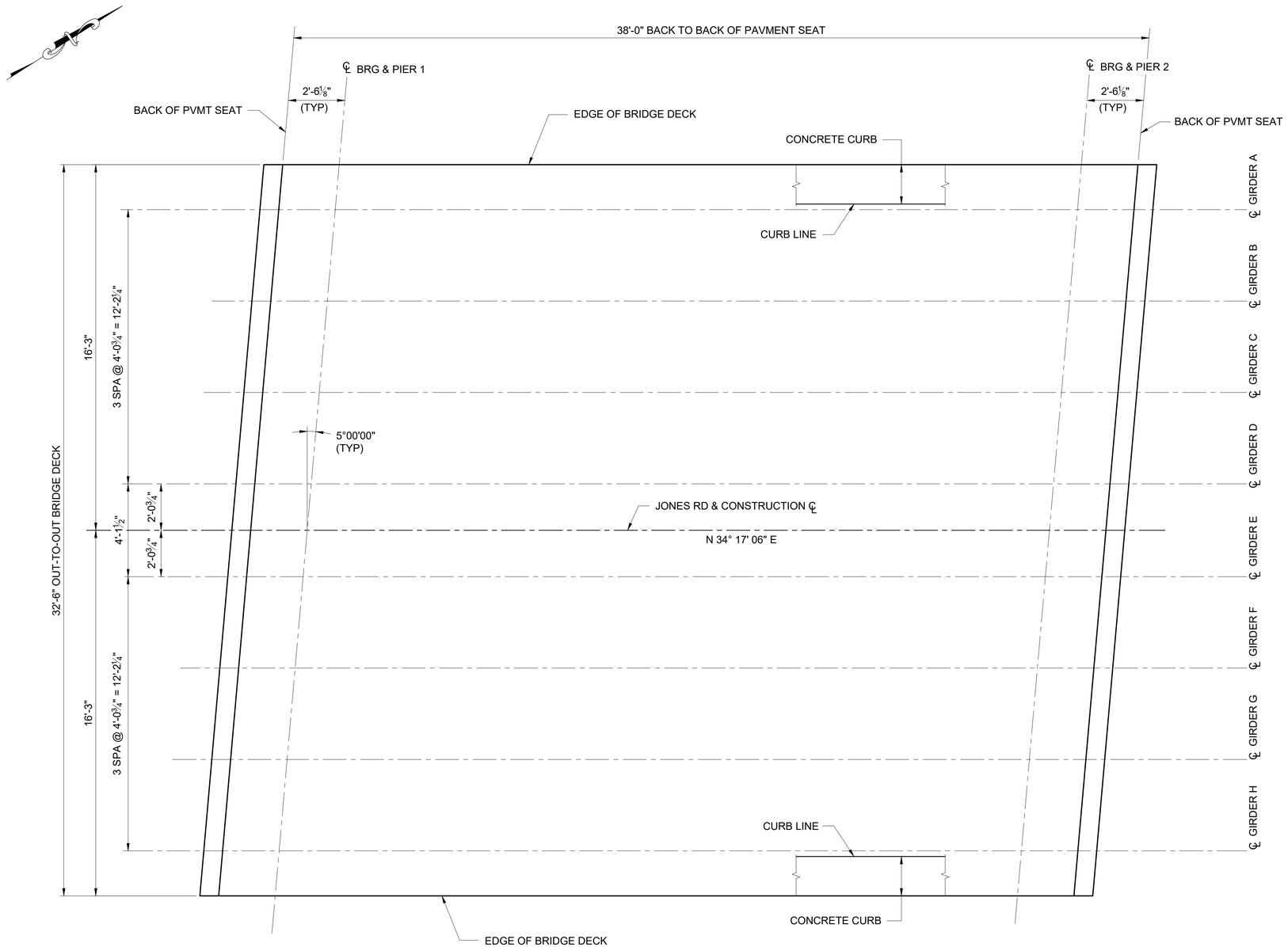
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FRAMING PLAN

Lewis County
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57 WEST MAIN ST.
CHEHALIS WA 98532
PHONE # (360) 740-1123
FAX # (360) 740-2719

DESIGNED BY : NN
DRAWN BY : DJ
CHECKED BY : JK
DATE : 09/13/2024

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SPECIAL MAINTENANCE PROJECT NO: 21F171900171

FRAMING PLAN

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GIRDER SCHEDULE

SPAN	GIRDER	GIRDER HEIGHT H	GIRDER WIDTH W	PLAN LENGTH (ALONG GIRDER GRADE) (SEE GIRDER NOTE 1)	GIRDER END DETAILS						MIN CONC COMPRESSIVE STRENGTH		PRESTRESSING STRANDS (SEE GIRDER NOTES 2-4)								"A" DIMENSION AT ℄ BEARINGS	DECK SCREED CAMBER C	MIDSPAN VERTICAL DEFLECTION D		TRANSVERSE REINFORCEMENT									LONGITUDINAL REINFORCEMENT				SHIPPING AND HANDLING DETAILS					
					NUMBER	DIAMETER	END 1 TYPE	END 2 TYPE	θ_1	θ_2	@ 28-DAYS F'C (KSI)	@ RELEASE F'CI (KSI)	ROW 1			ROW 2			TOP ROW						ZONE 1			ZONE 2			ZONE 3			G1		G2		MAX MIDSPAN VERTICAL DEFLECTION AT SHIPPING	L	L1	L2	K_θ MINIMUM SHIPPING SUPPORT ROTATIONAL SPRING CONSTANT	W_{CC} MINIMUM SHIPPING SUPPORT CNTR-TO-CNTR WHEEL SPACING
													PERMANENT STRANDS	EXTENDED NUMBER AND LENGTH	DEBONDED NUMBER AND LENGTH	PERMANENT STRANDS	EXTENDED NUMBER AND LENGTH	DEBONDED NUMBER AND LENGTH	PERMANENT STRANDS	TEMPORARY STRANDS			LOWER BOUND @ 40 DAYS	UPPER BOUND @ 120 DAYS	BAR SIZE	SPACING	LENGTH	BAR SIZE	SPACING	LENGTH	BAR SIZE	SPACING	LENGTH	BAR SIZE	NO. OF BARS	BAR SIZE	NO. OF BARS						
1	A-H	1'-6"	4'-0"	35'-8¾"	3	9"	A	A	95	95	5.0	4.0	11	4, 1'-4"	2, 3'-0"	-	-	-	2	2	6 ¼"	⅛"	¼"	⅝"	#5	3"	1-0"	#5	5"	5'-0"	#5	6"	7'-0"	#4	4	#4	4	½"	1'-9"	1'-6"	1'-6"	80,000 KIP-IN/RAD	8'-0"

GIRDER NOTES:

1. PLAN LENGTH SHALL BE INCREASED AS NECESSARY TO COMPENSATE FOR SHORTENING DUE TO PRESTRESS AND SHRINKAGE.
2. ALL STRANDS SHALL BE 0.6"Ø AASHTO M203 GRADE 270 LOW RELAXATION STRANDS, JACKED TO 202.5 KSI (43.94 KIPS PER STRAND). STRANDS SHALL BE SYMMETRICAL ABOUT THE GIRDER CENTERLINE. EXTERIOR STRANDS IN EACH ROW SHALL BE FULLY BONDED.
3. SPACE EXTENDED STRANDS SYMMETRICALLY AND EVENLY ACROSS GIRDER WIDTH.
4. DEBONDED STRANDS SHALL BE DEBONDED AT EACH GIRDER END FOR THE INDICATED LENGTH PARALLEL TO THE GIRDER CENTERLINE. DEBONDED STRANDS SHALL NOT BE EXTENDED PAST GIRDER ENDS. DEBONDED STRANDS SHALL BE SYMMETRICALLY PLACED ABOUT THE GIRDER CENTERLINE. DEBONDED LENGTHS OF PAIRS OF STRANDS THAT ARE SYMMETRICALLY POSITIONED ABOUT THE GIRDER CENTERLINE SHALL BE EQUAL.

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PRESTRESSED SLAB GIRDER DETAILS 1 OF 3

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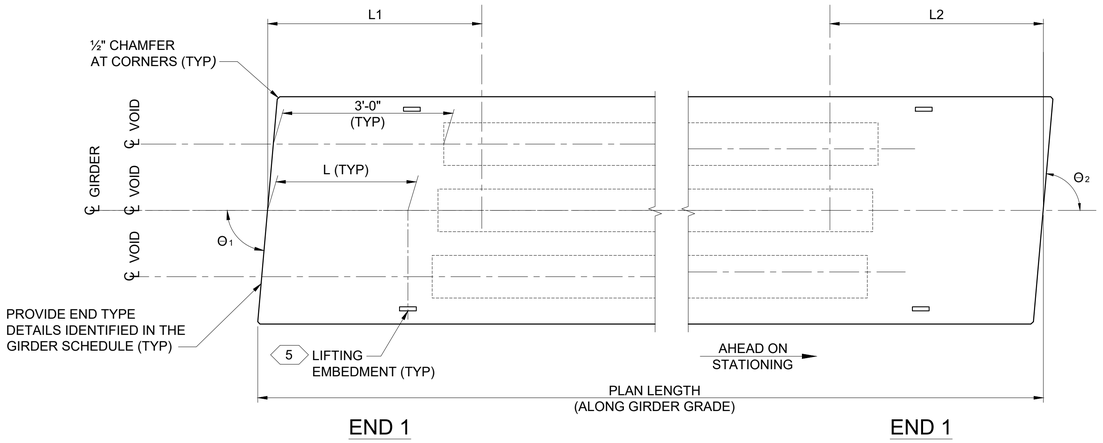
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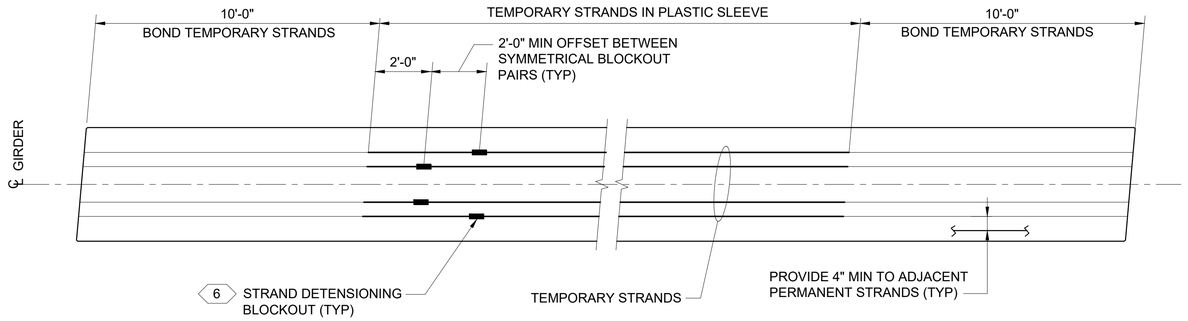
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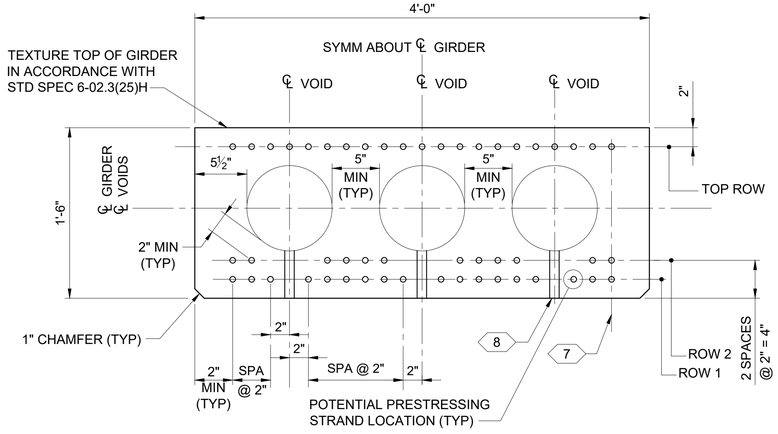
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GIRDER PLAN

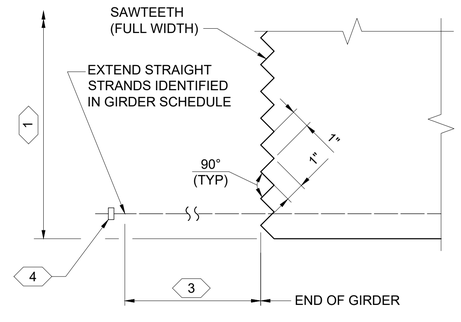


TEMPORARY STRANDS PLAN



TYPICAL GIRDER SECTION

TYPICAL INTERIOR GIRDER SHOWN.
EXTERIOR GIRDER SIMILAR



END TYPE A

GENERAL NOTES:

1. SEE GIRDER SCHEDULE FOR REQUIRED NUMBER OF TEMPORARY STRANDS. TEMPORARY STRANDS SHALL BE PLACED IN THE TOP ROW.
2. FOR GIRDERS ERECTED ON A LONGITUDINAL GRADE, STRAND DETENSIONING BLOCKOUTS SHALL BE PLACED AT THE LOW END OF THE GIRDER.
3. SEE "TEMPORARY STRAND CUTTING SEQUENCE" ON "SUPERSTRUCTURE CONSTRUCTION SEQUENCE" SHEET FOR TEMPORARY STRAND DETENSIONING PROCEDURE.

KEY NOTES:

1. CUT ALL STRANDS FLUSH WITH THE GIRDER END AND PAINT WITH AN APPROVED EPOXY RESIN, EXCEPT FOR EXTENDED STRANDS AS SHOWN.
2. CUT ALL STRANDS 1" BELOW CONCRETE SURFACE AND GROUT WITH AN APPROVED EPOXY GROUT.
3. EXTENSION LENGTH PARALLEL TO ℄ GIRDER. 1'-4" FOR END TYPE A.
4. $1^{11}/_{16}$"Ø MIN STRAND CHUCK OR ASTM A108 $2^{3}/_{4}$"Ø x $1^{1}/_{8}$" STRAND ANCHOR. ANCHOR STRAND WITH WEDGES BEFORE GIRDER ERECTION. VERIFY WEDGES ARE SEATED TIGHTLY IMMEDIATELY BEFORE PLACING DIAPHRAGM CONCRETE.
5. INSTALL LIFTING EMBEDMENTS IN ACCORDANCE WITH STD. SPEC. 6-02.3(25)L. REMOVE TO TOP OF GIRDER AFTER ERECTION.
6. 2½" x 6" x 2½" DEEP BLOCKOUT FOR STRAND DETENSIONING. FORM WITH EXPANDED POLYSTYRENE. REMOVE POLYSTYRENE JUST PRIOR TO CUTTING THE TEMPORARY STRANDS AND PREVENT MOISTURE FROM ENTERING THE BLOCKOUT AS DESCRIBED IN THE TEMPORARY STRAND CUTTING SEQUENCE.
7. EXTERIOR STRAND POSITIONS IN EACH ROW SHALL BE FILLED FIRST AND SHALL BE PERMANENT AND FULLY BONDED.
8. 1"Ø POLYETHYLENE PIPE DRAIN AT BOTH ENDS OF EACH VOID. ENSURE WATER WITHIN VOID WILL DRAIN AFTER CASTING GIRDER.

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PRESTRESSED SLAB GIRDER DETAILS 2 OF 3

SHEET B12 OF 22

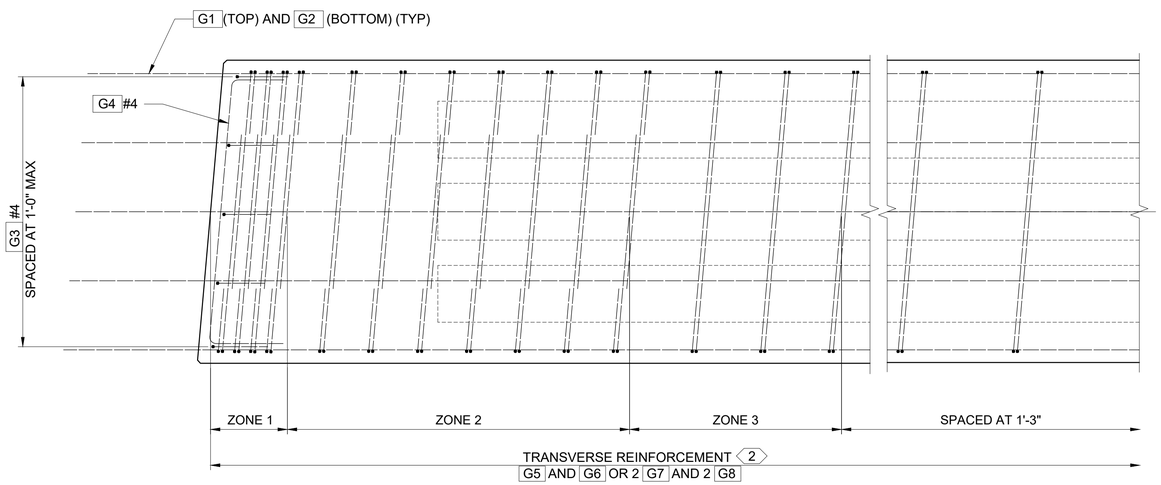
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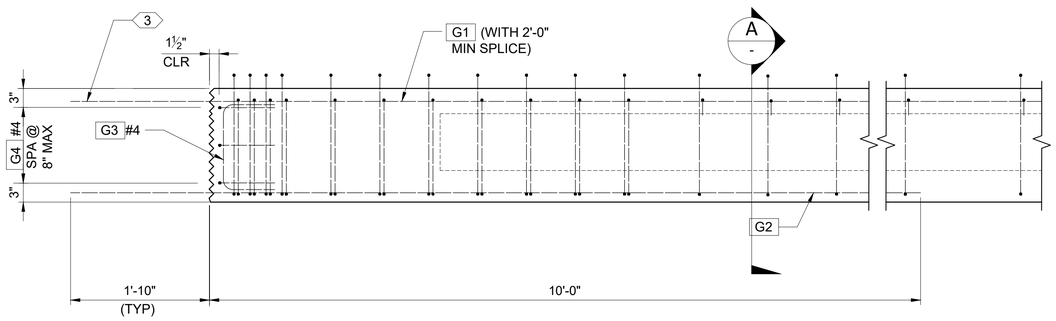
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PLAN
1



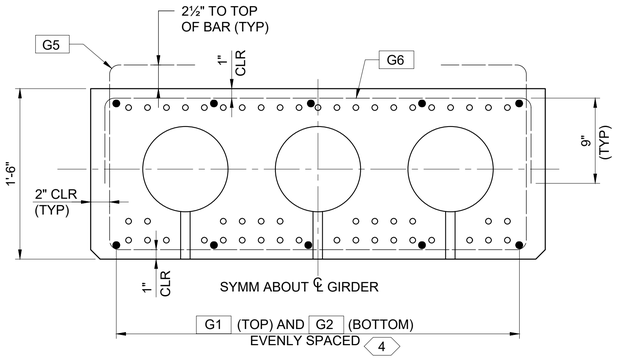
TRANSVERSE REINFORCEMENT OPTIONS
STRANDS NOT SHOWN

REINFORCING NOTES:

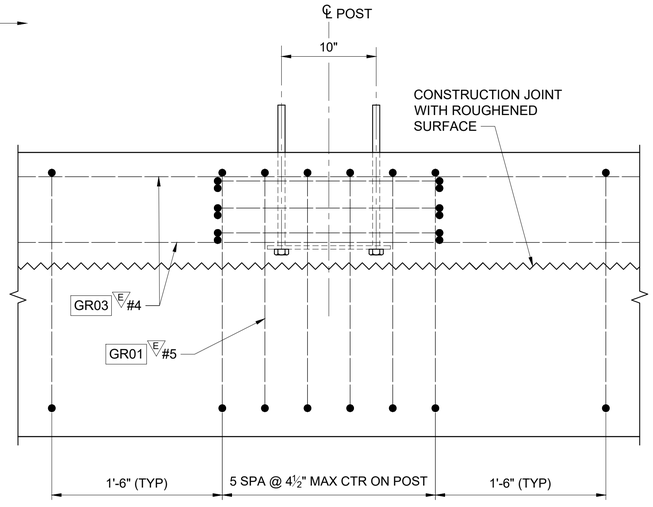
1. DEFORMED WELDED WIRE REINFORCEMENT MAY BE SUBSTITUTED FOR MILD REINFORCEMENT IN ACCORDANCE WITH STANDARD SPECIFICATION 6-02.3(25)A.

KEY NOTES:

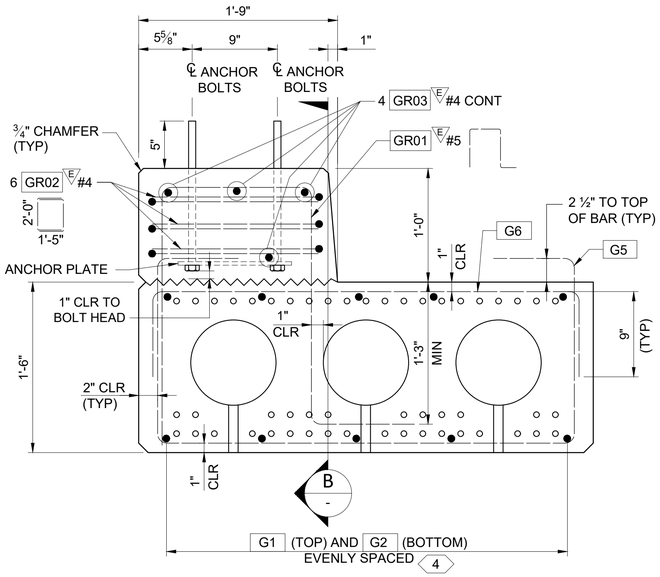
1. TRAFFIC BARRIER BARS NOT SHOWN FOR CLARITY. SEE TRAFFIC BARRIER SHEETS FOR DETAILS AND LOCATIONS. OTHER END SIMILAR. STRANDS NOT SHOWN.
2. SEE GIRDER SCHEDULE FOR BAR SIZE AND SPACING AND LENGTH OF ZONES.
3. FIELD BEND G1 TO OBTAIN 1½" COVER AT PAVEMENT SEAT IF NECESSARY. DO NOT EXTEND AND PROVIDE 1½" CLEAR TO GIRDER END FOR END TYPE B.
4. MAY BE BUNDLED IF SPACING DOES NOT EXCEED 1'-0". SEE GIRDER SCHEDULE.
5. FOR CURB REINFORCING PLACEMENT, ANCHOR BOLT DETAILS, AND DETAILS NOT SHOWN, SEE "BRIDGE RAILING DETAILS" SHEETS.



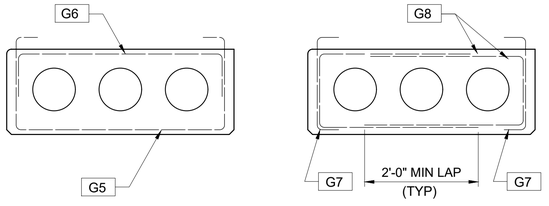
A - TYP INTERIOR GIRDER SECTION
G5 AND G6 SHOWN,
2 G7 AND 2 G8 SIMILAR



B - VIEW
SLAB DETAILS NOT SHOWN FOR CLARITY



A - TYP EXTERIOR SECTION 5
SHOWN AT CURB MOUNT RAIL POST
G5 AND G6 SHOWN,
2 G7 AND 2 G8 SIMILAR



TRANSVERSE REINFORCEMENT OPTIONS

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PRESTRESSED SLAB GIRDER DETAILS 3 OF 3

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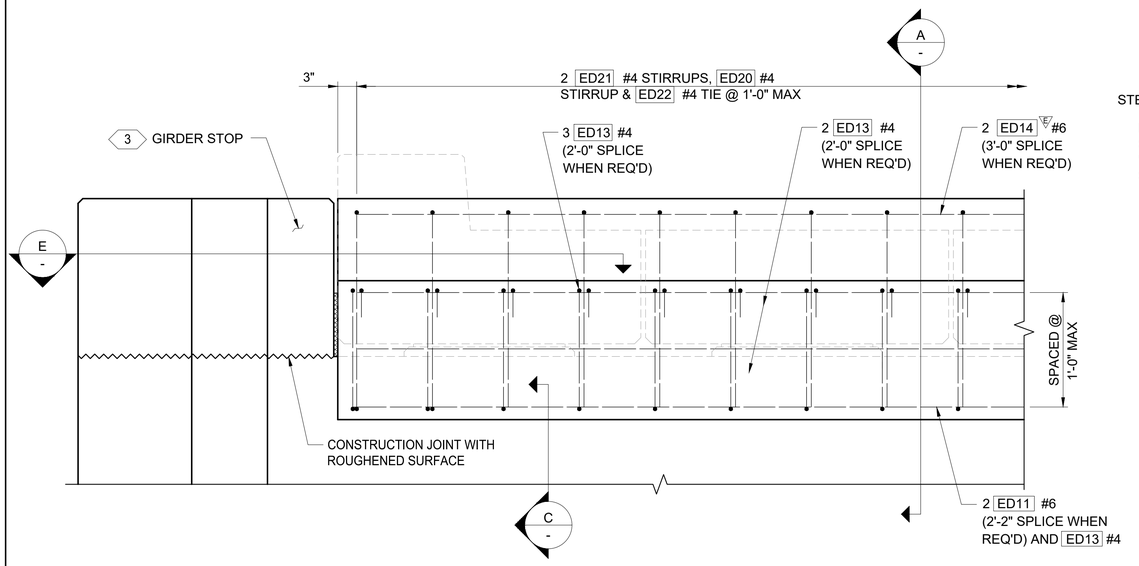
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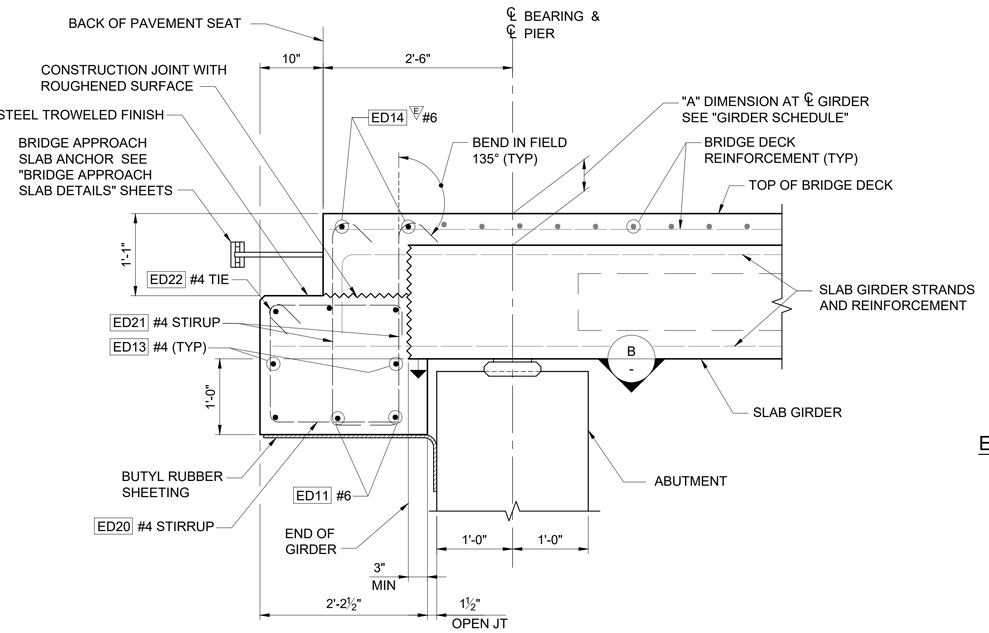
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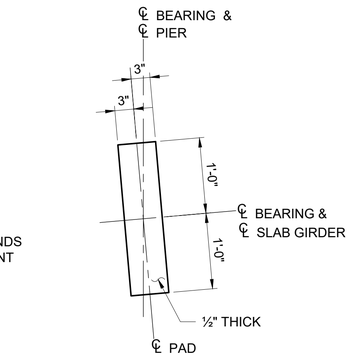
END DIAPHRAGM ELEVATION

DIMENSIONS ARE PARALLEL TO ℄ PIER

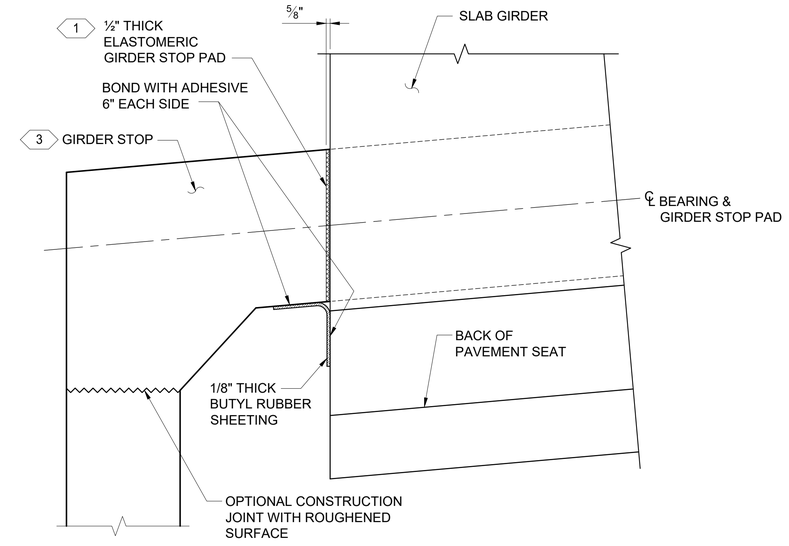


A - SECTION

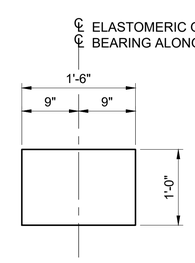
DIMENSIONS ARE NORMAL TO ℄ PIER



ELASTOMERIC BEARING PAD

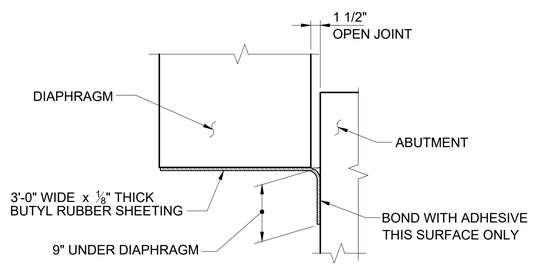


E - SECTION

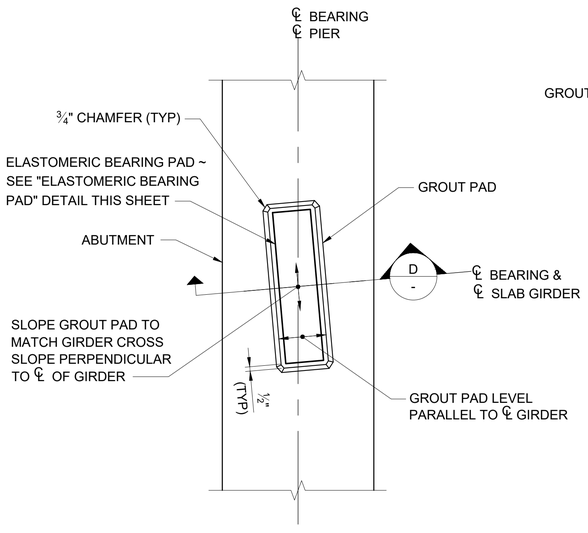


ELASTOMERIC GIRDER STOP PAD

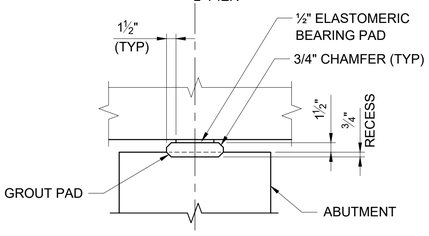
SHEAR MODULUS = 165 PSI



C - SECTION



B - VIEW 2



D - SECTION

KEY NOTES:

1. BOND TO GIRDER STOP WITH APPROVED ADHESIVE.
2. FULL BEARING OF SLAB UNIT IS REQUIRED AT EACH ELASTOMERIC BEARING.
3. GIRDER STOPS SHALL BE CONSTRUCTED AFTER GIRDER PLACEMENT.

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END DIAPHRAGM DETAILS

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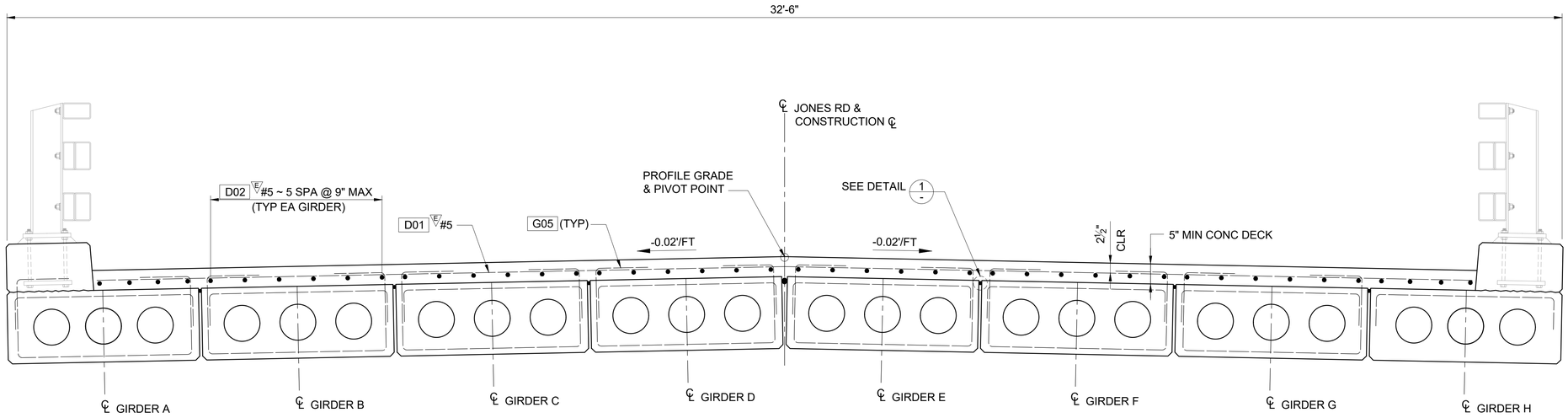
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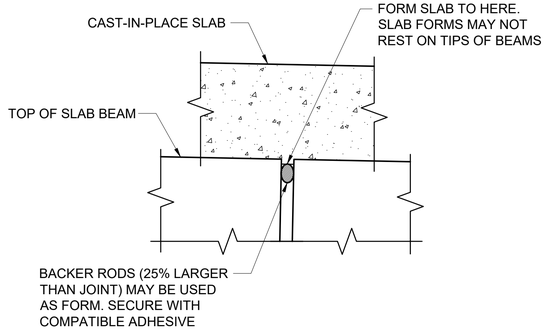
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TYPICAL DECK REINFORCING SECTION

SECTION PERPENDICULAR TO GIRDERS
SEE "GENERAL NOTES, BRIDGE SECTION AND PROFILE" SHEET FOR DETAILS NOT SHOWN. SEE "DECK REINFORCING PLAN" FOR REINFORCEMENT LAYOUT.



DETAIL 1 –

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DECK REINFORCING - TYPICAL SECTION

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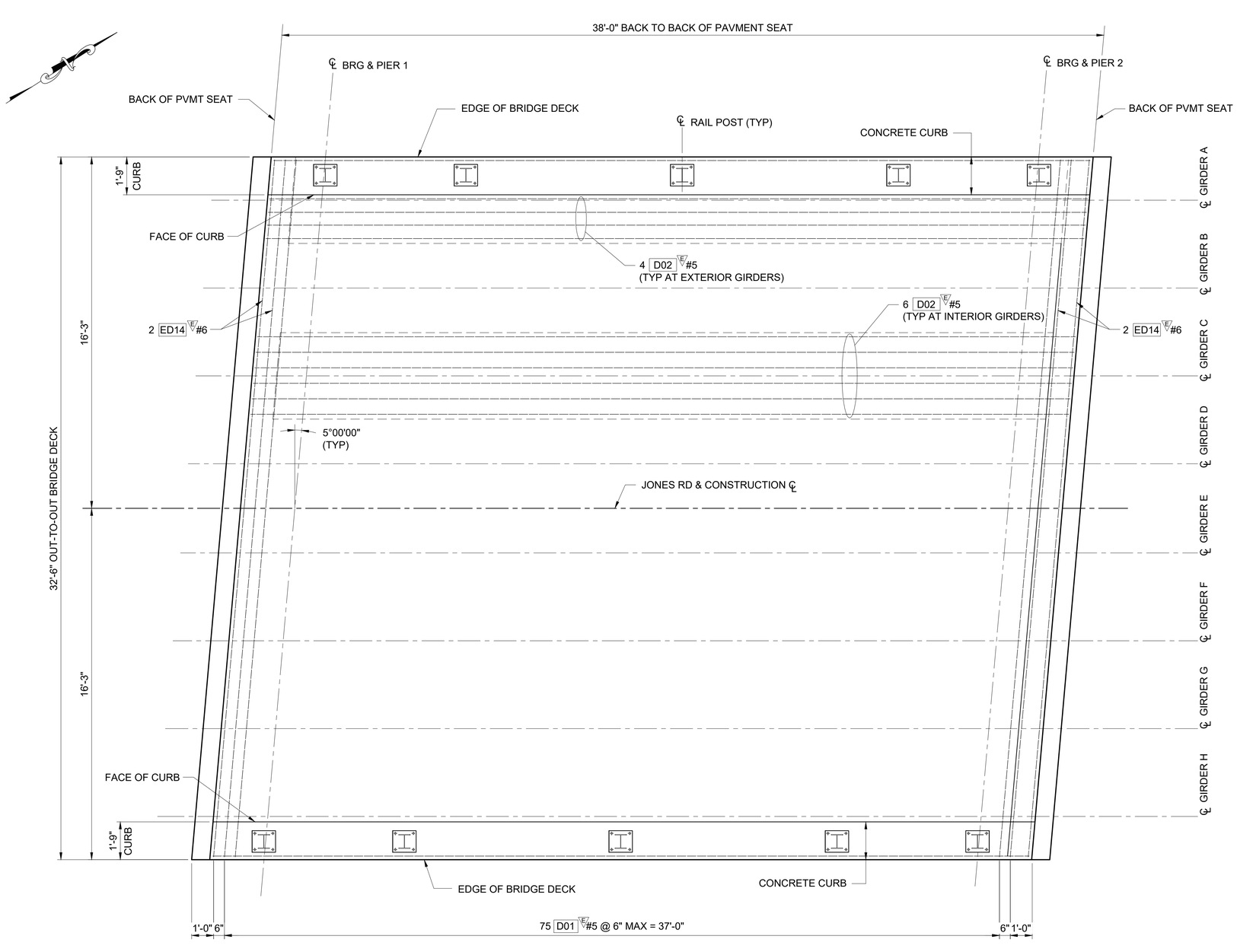
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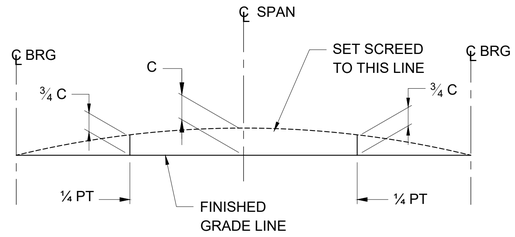
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DECK REINFORCING PLAN



SCREED SETTING DIMENSIONS

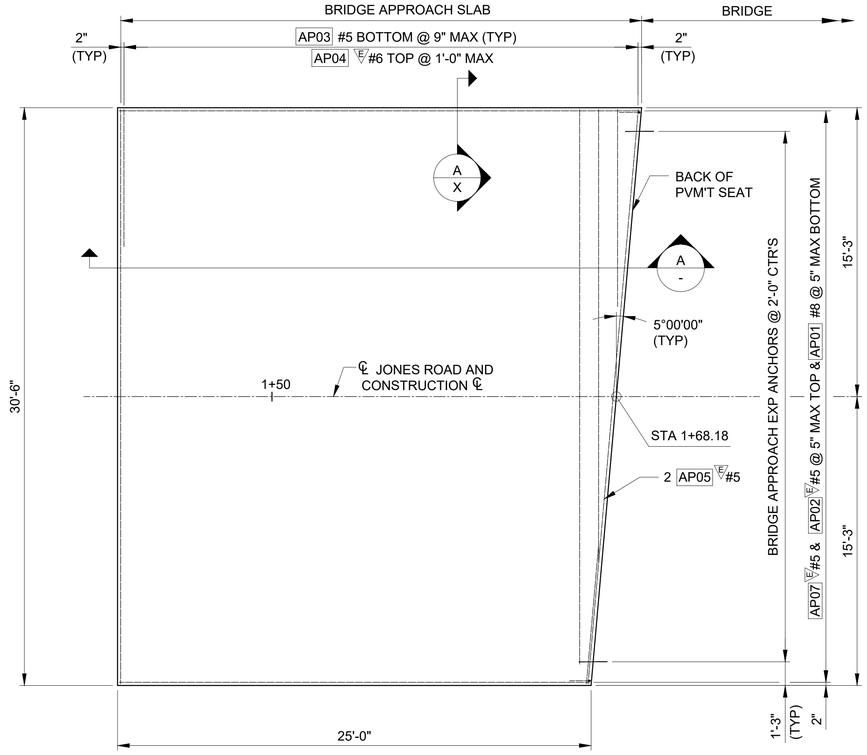
FOR DIMENSION "C" SEE GIRDER SCHEDULE

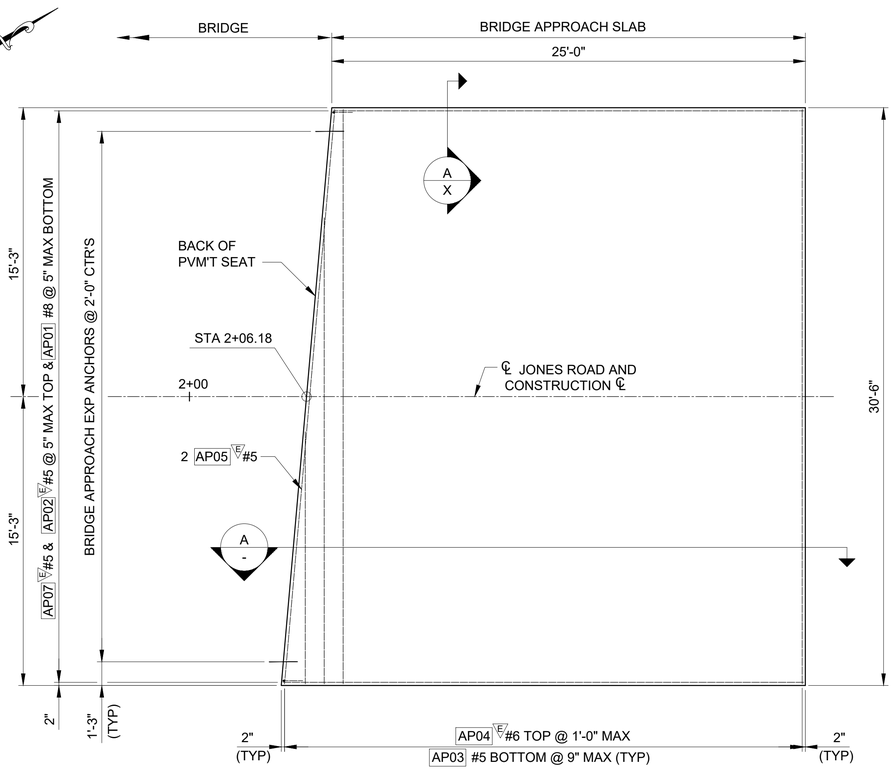
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GENERAL NOTES:

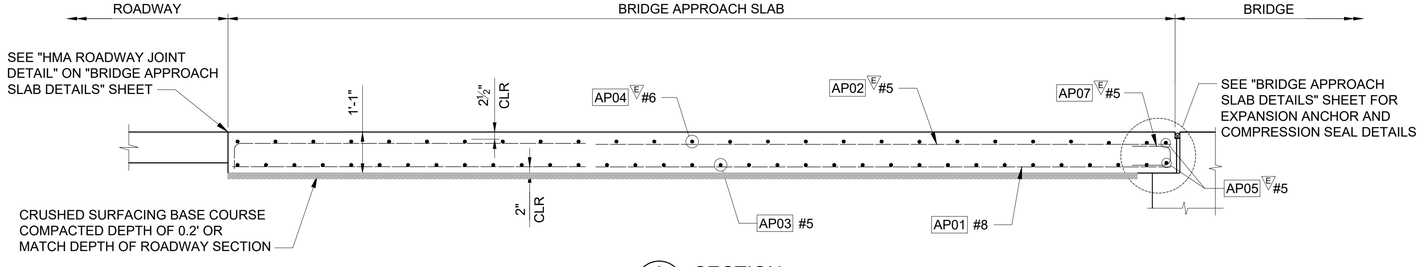
1. ALL EDGES OF BRIDGE APPROACH SLAB SHALL HAVE ½" RADIUS UNLESS SHOWN OTHERWISE.
2. THE MINIMUM LAP SPLICE OF #5 IS 2'-0", E #5 IS 2'-6", E #6 IS 3'-0", AND #8 IS 3'-3". ALL LAP SPLICES SHALL BE STAGGERED SO THAT NO MORE THAN 50% OF REBAR IS SPLICED AT THE SAME LOCATION. LAP SPLICES SHALL BE LOCATED WITHIN THE MIDDLE HALF OF THE BRIDGE APPROACH SLAB. OPTIONAL SPLICES ARE ALLOWED FOR AP04 E #6.

BENDING DIAGRAM



E = EPOXY COATED REINFORCING STEEL

NOTE: ALL DIMENSIONS ARE OUT TO OUT



A - SECTION

Lewis County
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CHEHALIS WA 98532
PHONE # (360) 740-1123
FAX # (360) 740-2719

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DRAWN BY : DJ
CHECKED BY : JK
DATE : 09/13/2024

NO.	DATE	REVISION	BY	APP.

JONES ROAD MP 1.71

SPECIAL MAINTENANCE PROJECT NO: 21F171900171

BRIDGE APPROACH SLAB LAYOUT

SHEET B17 OF 22

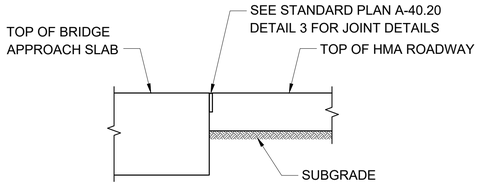
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STATE OF WASHINGTON
24020015
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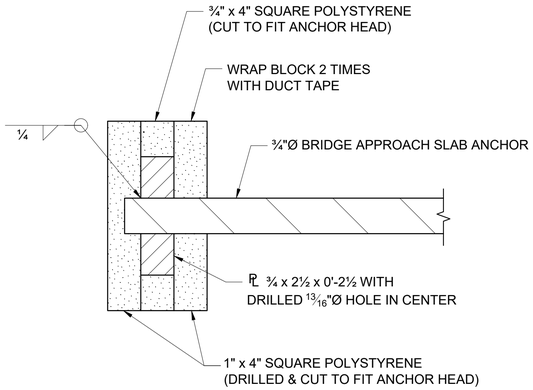
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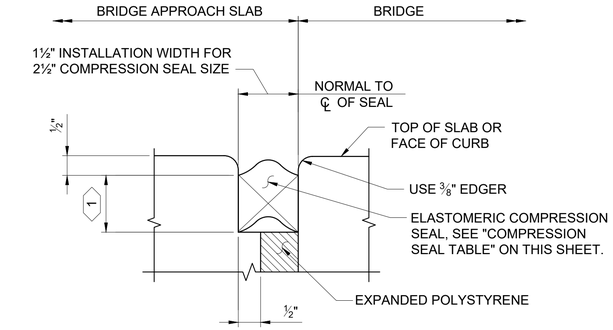


HMA ROADWAY JOINT DETAIL

APPROACH SLAB REINFORCING NOT SHOWN FOR CLARITY

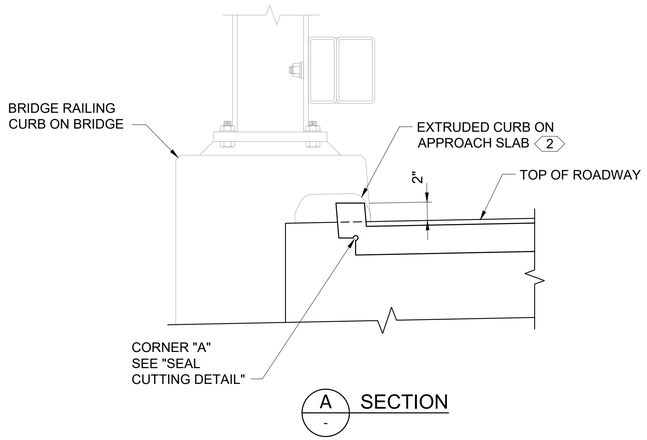


ANCHOR HEAD DETAIL

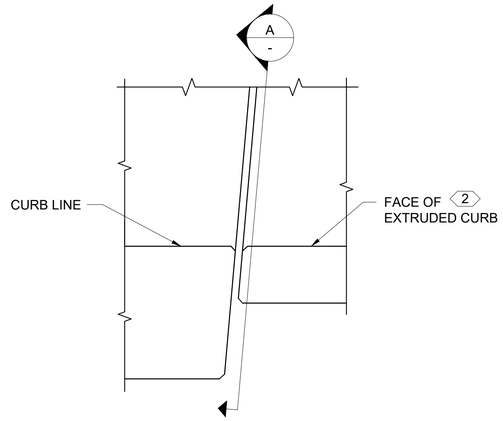


COMPRESSION SEAL DETAIL

EXPANSION JOINT AT BACK OF PAVEMENT SEAT



A SECTION



EXPANSION JOINT PLAN

GENERAL NOTES:

1. ALL METAL PARTS OF THE APPROACH EXPANSION ANCHOR SHALL RECEIVE ONE COAT OF PAINT CONFORMING TO STANDARD SPECIFICATION SECTION 9-08.1(2)F OR BE GALVANIZED IN ACCORDANCE WITH AASHTO M 232.
2. BRIDGE APPROACH SLAB ANCHORS SHALL BE INSTALLED PARALLEL TO ROADWAY AND TO EACH OTHER.

KEY NOTES:

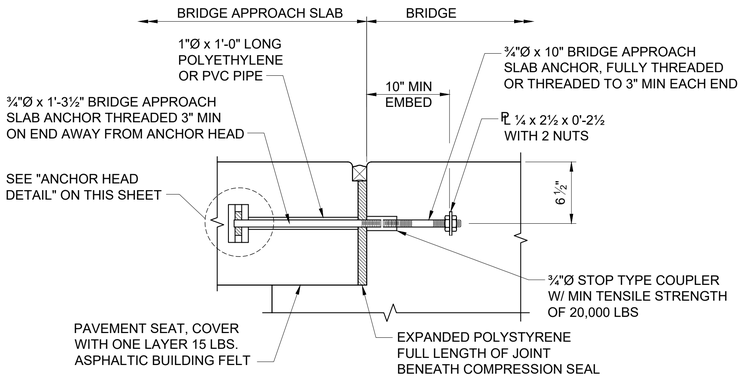
1 FULLY COMPRESSED SEAL HEIGHT, SEAL HEIGHT VARIES WITH MANUFACTURER, VERIFY PRIOR TO SLAB CONSTRUCTION.

2 SEE CIVIL PLANS FOR TYPE, LOCATION AND LAYOUT.

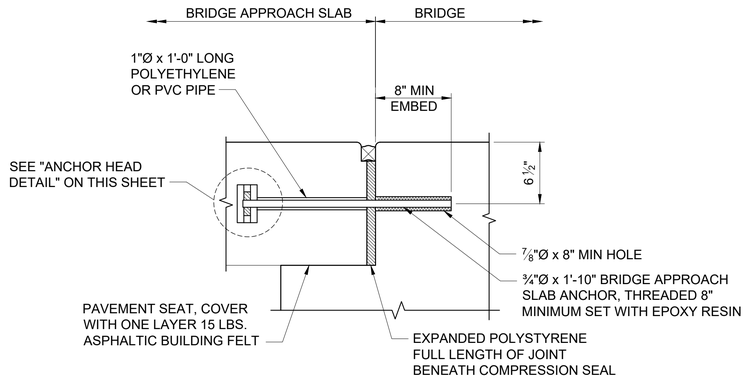
COMPRESSION SEAL TABLE			
D. S. BROWN		WATSON BOWMAN ACME	
SEAL	WIDTH	SEAL	WIDTH
CV-2502	2 ½	WA-250	2 ½

TESTING SHALL BE PER ASTM D 2628 PRIOR TO USE

SEAL CUTTING DETAIL



APPROACH EXPANSION ANCHOR - METHOD A



APPROACH EXPANSION ANCHOR - METHOD B

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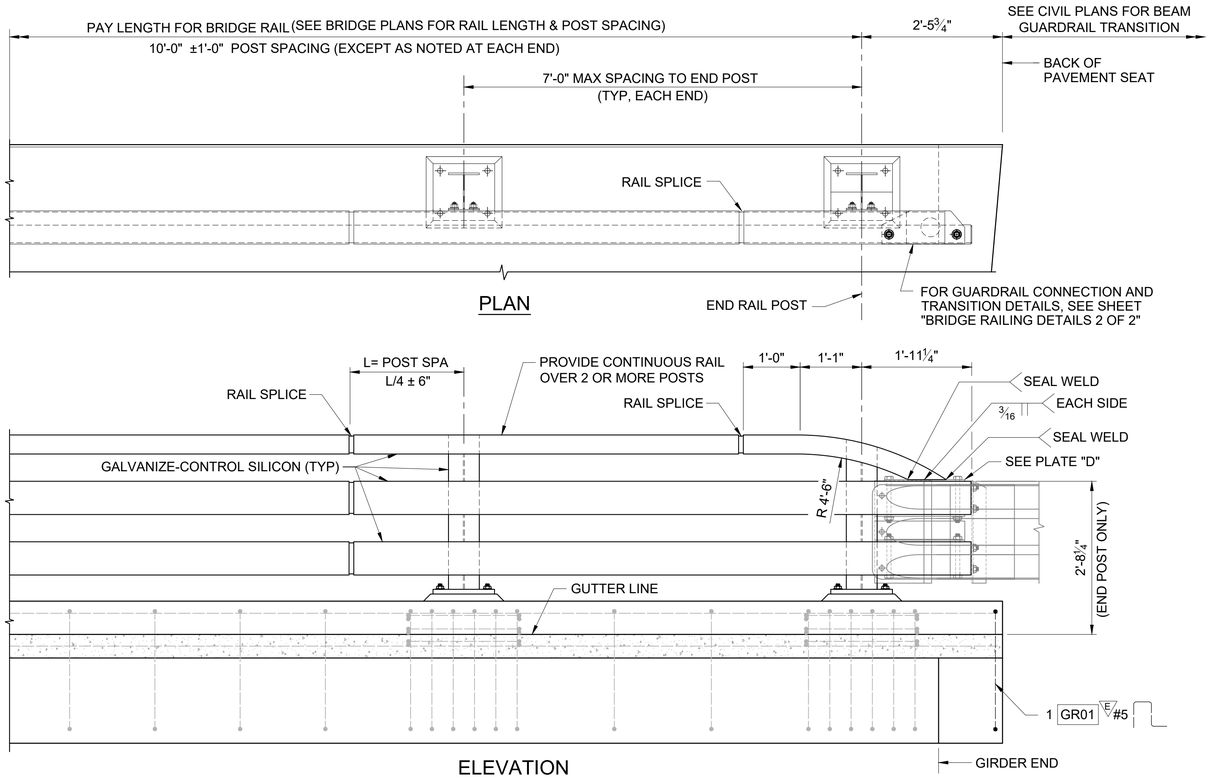
BRIDGE APPROACH SLAB DETAILS

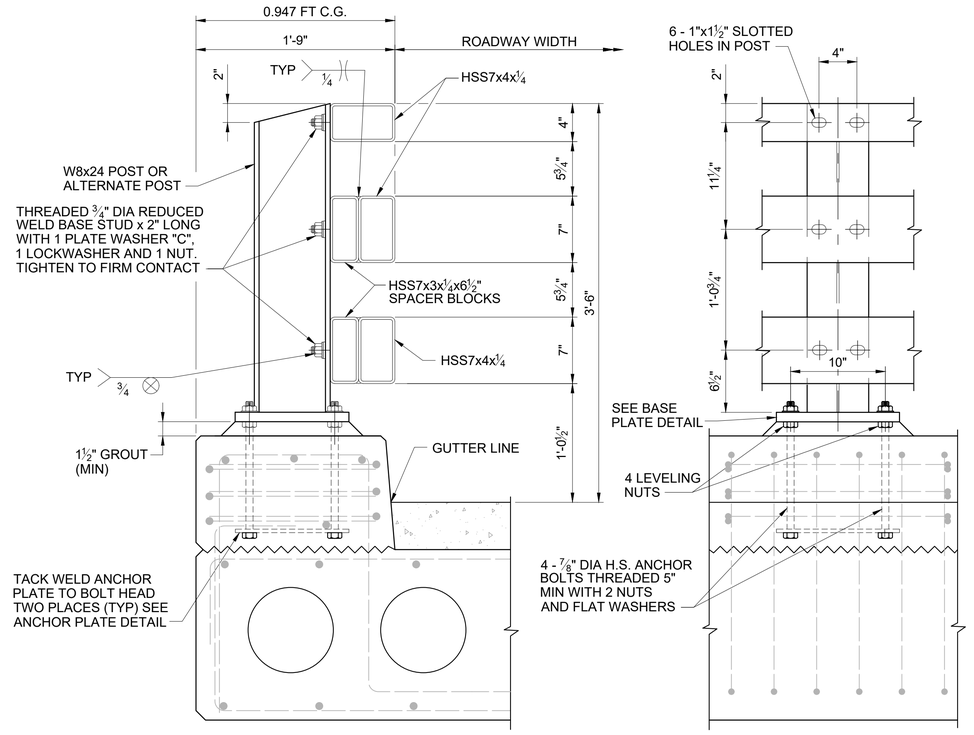
SHEET B18 OF 22

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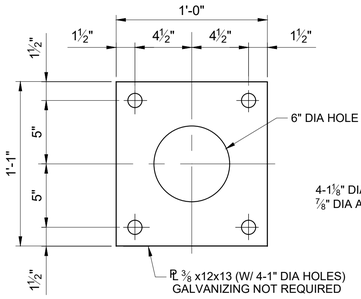
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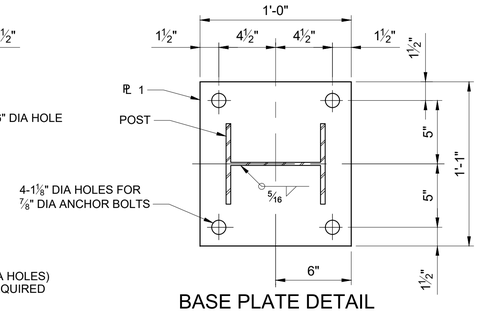




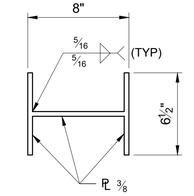
CURB AND POST DETAIL



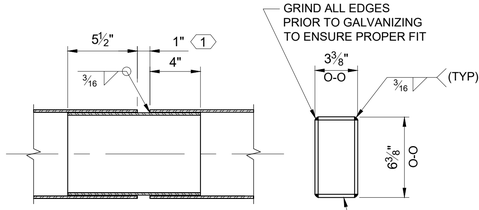
ANCHOR PLATE DETAIL



BASE PLATE DETAIL



ALTERNATE POST



RAIL SPLICE DETAIL

1 1" GAP UNLESS NOTED OTHERWISE ON DETAIL PLANS. PROVIDE A RAIL SPLICE IN PANEL THAT HAS A DECK EXPANSION JOINT. IF MORE THAN 2" OF MOVEMENT IS NEEDED, INCREASE LENGTH OF THE INNER MEMBER.

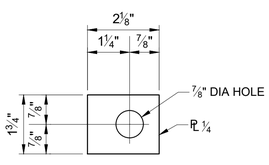
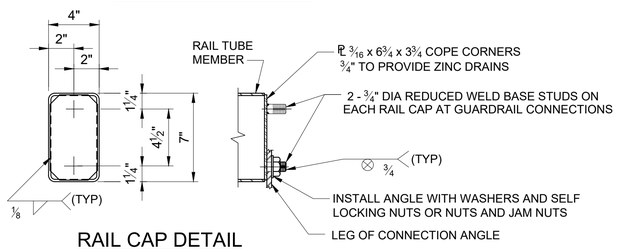


PLATE WASHER "C"



RAIL CAP DETAIL

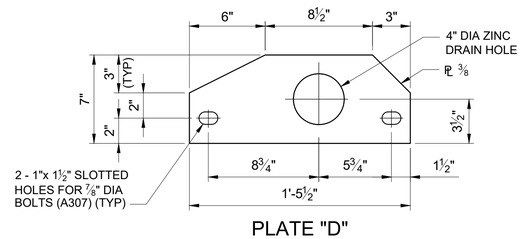


PLATE "D"

GENERAL NOTES:

1. RAIL DESIGNED AND CRASH TESTED TO MEET MASH TL-4 REQUIREMENTS.
2. PROVIDE STRUCTURAL TUBING, STEEL POSTS AND PLATES ACCORDING TO STANDARD SPECIFICATIONS SECTION 9-06. PROVIDE STEEL POSTS AND PLATES CONFORMING TO ASTM A572 GRADE 50.
3. PROVIDE HIGH STRENGTH ANCHOR BOLTS (GRADE 105) ACCORDING TO STANDARD SPECIFICATIONS SECTION 9-06.5(4). TIGHTEN TOP AND LEVELING NUTS FOR THE BASE PLATE ¼ TURN PAST SNUG TIGHT.
4. FABRICATE STEEL STUDS WITH MATERIAL, WELDING AND INSPECTION ACCORDING TO AWS D1.1.
5. CONSTRUCT RAILING CONFORMING TO THE HORIZONTAL AND VERTICAL ALIGNMENT OF THE STRUCTURE. INSTALL POSTS NORMAL TO GRADE IN LONGITUDINAL DIRECTION AND VERTICAL IN TRANSVERSE DIRECTION.
6. PAYMENT FOR THE RAILING WILL INCLUDE COMPENSATION FOR FURNISHING AND INSTALLING THE NECESSARY GUARDRAIL CONNECTION PLATES AND TERMINAL CONNECTORS.
7. HOT-DIP GALVANIZE STRUCTURAL STEEL INCLUDING FASTENERS AFTER FABRICATION, EXCEPT AS NOTED. PROVIDE GALVANIZE-CONTROL SILICON ACCORDING TO STANDARD SPECIFICATIONS SECTION 9-06.18.

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SPECIAL MAINTENANCE PROJECT NO: 21F171900171

BRIDGE RAILING DETAILS 1 OF 2

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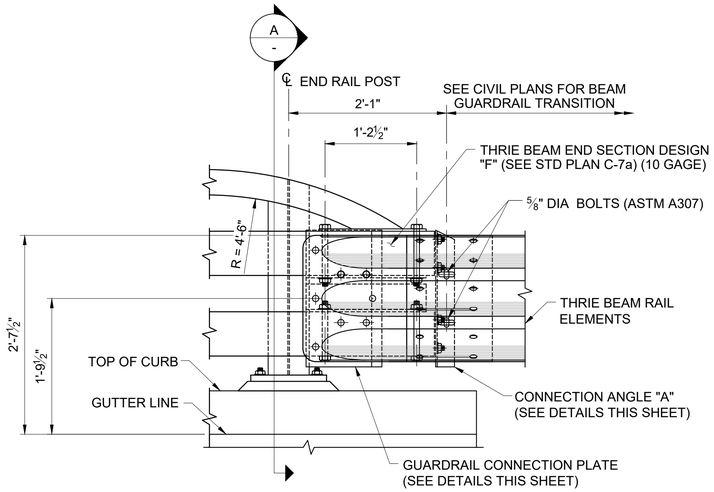
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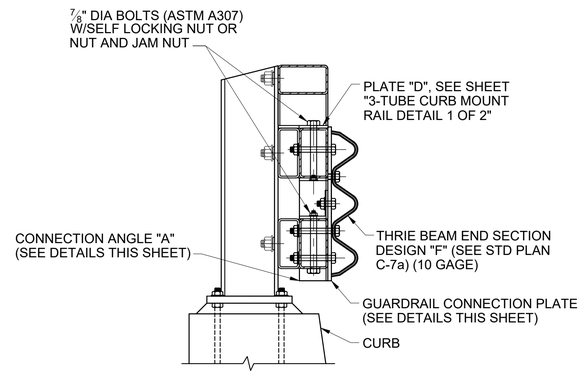
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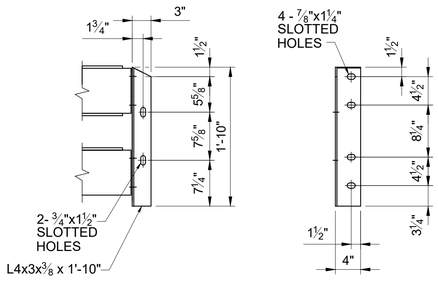
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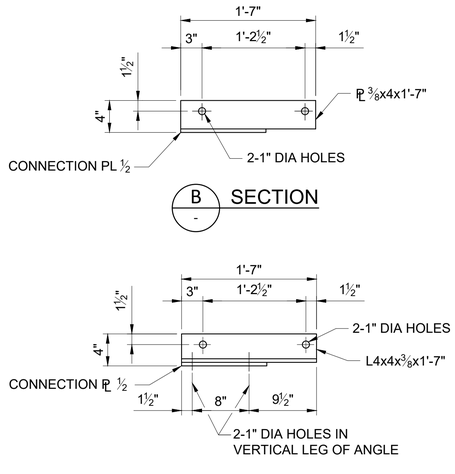
ELEVATION: TRANSITION CONNECTION

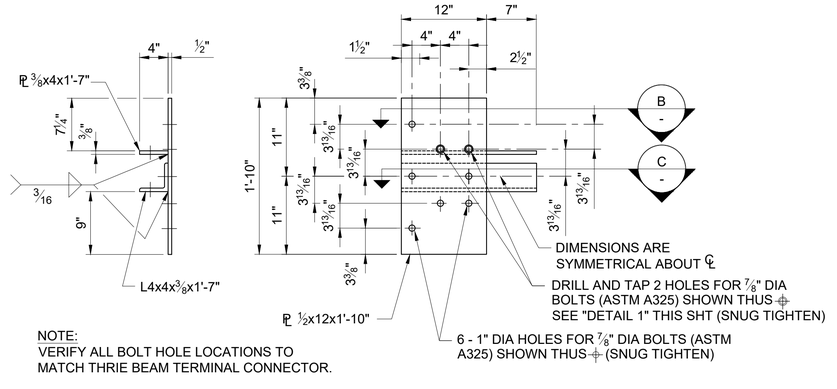


A - SECTION



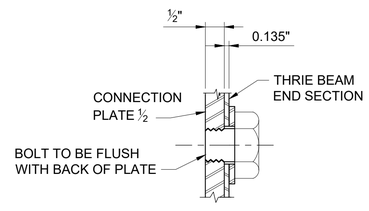
CONNECTION ANGLE "A"





NOTE:
VERIFY ALL BOLT HOLE LOCATIONS TO MATCH THRIE BEAM TERMINAL CONNECTOR.

GUARDRAIL CONNECTION PLATE DETAIL



1 - DETAIL

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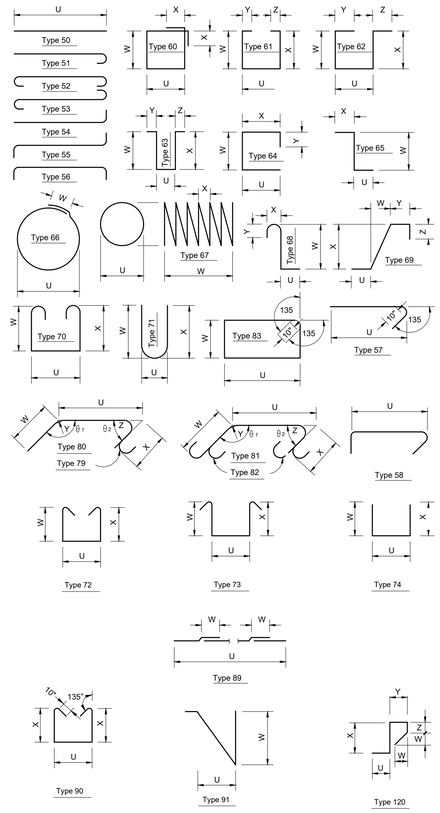
S=BAR IS INCLUDED IN SUBSTRUCTURE QUANTITIES

T=TIE OR STIRRUP

E=BAR IS TO BE EPOXY COATED

MARK	DESCRIPTION	SIZE	NUM	BEND	TIE	SUBS	EPOXY	VARIES	# EA	U		W		X		Y		Z		Θ1	Θ2	LENGTH	
#			REQD							FT	IN	FT	IN	FT	IN	FT	IN	FT	IN	DEG	DEG	FT	IN
	PIER 1 CAP AND WALL - ASSOCIATED WITH BID ITEM "ST. REINF. BAR FOR BRIDGE"																						
P101	PILE CAP TRANS BOT	8	44	56	T	S				10	3.0											12	6.0
P102	PILE CAP TRANS TOP	6	39	50	T	S				10	3.0											10	3.0
P103	PILE CAP LONG	5	24	50		S				39	9.0											39	9.0
P104	PILE CAP TRANS TIE	5	24	54	T	S				6	0.0											6	4.3
P105	PILE CAP PILE TIE	4	80	58	T	S				3	7.5											4	3.4
P107	PIER WALL END FF	5	28	54	T	S				10	0.0											10	4.3
P110	PILE CAP WALL FF	11	70	54		S		V	35	17	5.8											19	1.6
										17	9.6											19	5.4
P111	PILE CAP WALL NF	6	70	54	T	S		V	35	17	5.8											18	3.9
										17	9.6											18	7.7
P112	WALL LONG NF	5	14	50		S				39	3.0											39	3.0
P113	WALL LONG NF	5	14	50		S				39	3.0											39	3.0
P114	PILE CAP WALL TOP	4	70	56	T	S				1	9.0											2	3.9
P115	PILE CAP WALL TIE	4	420	58	T	S				1	9.0											2	4.9
P120	PIER WALL CONN. FF	9	28	80		S				5	5.0	1	8.0	1	8.0	0	6.0	0	6.0	133.0	133.0	8	7.5
P121	PIER WALL END FF	8	28	54		S				10	0.0											11	1.5
	PIER 1 GIRDER STOP - ASSOCIATED WITH BID ITEM "ST. REINF. BAR FOR BRIDGE"																						
P130	GIRD. STOP CONN.	5	10	50	T	S				2	1.0											2	1.0
P131	GIRD. STOP TRANS	4	8	74	T	S				1	9.0	3	0.0	3	0.0							7	6.9
P132	GIRD. STOP VERT	4	2	56	T	S				3	0.0											3	6.9
P133	GIRD. STOP VERT	4	4	56	T	S				1	9.0											2	3.9
P134	GIRD. STOP WALL	4	4	51		S				4	4.8											4	10.8
	PIER 2 CAP AND WALL - ASSOCIATED WITH BID ITEM "ST. REINF. BAR FOR BRIDGE"																						
P201	PILE CAP TRANS BOT	8	44	56	T	S				10	3.0											12	6.0
P202	PILE CAP TRANS TOP	6	39	50	T	S				10	3.0											10	3.0
P203	PILE CAP LONG	5	24	50		S				39	9.0											39	9.0
P204	PILE CAP TRANS TIE	5	24	54	T	S				6	0.0											6	4.3
P205	PILE CAP PILE TIE	4	80	58	T	S				3	7.5											4	3.4
P207	PIER WALL END FF	5	28	54	T	S				10	0.0											10	4.3
P210	PILE CAP WALL FF	11	70	54		S		V	35	17	5.4											19	1.2
										17	6.8											19	2.6
P211	PILE CAP WALL NF	6	70	54	T	S		V	35	17	5.4											18	3.5
										17	6.8											18	4.9
P212	WALL LONG NF	5	14	50		S				39	3.0											39	3.0
P213	WALL LONG NF	5	14	50		S				39	3.0											39	3.0
P214	PILE CAP WALL TOP	4	70	56	T	S				1	9.0											2	3.9
P215	PILE CAP WALL TIE	4	420	58	T	S				1	9.0											2	4.9
P220	PIER WALL CONN. FF	9	28	80		S				5	5.0	1	8.0	1	8.0	0	6.0	0	6.0	133.0	133.0	8	7.5
P221	PIER WALL END FF	8	28	54		S				10	0.0											11	1.5
	PIER 2 GIRDER STOP - ASSOCIATED WITH BID ITEM "ST. REINF. BAR FOR BRIDGE"																						
P230	GIRD. STOP CONN.	5	10	50	T	S				2	1.0											2	1.0
P231	GIRD. STOP TRANS	4	8	74	T	S				1	9.0	3	0.0	3	0.0							7	6.9
P232	GIRD. STOP VERT	4	2	56	T	S				3	0.0											3	6.9
P233	GIRD. STOP VERT	4	4	56	T	S				1	9.0											2	3.9
P234	GIRD. STOP WALL	4	4	51		S				4	4.8											4	10.8

REINFORCEMENT BENDING DIAGRAMS



REINFORCING NOTES:

1. REINFORCING FOR THE FOLLOWING ELEMENTS ARE NOT INCLUDED IN THIS BARLIST:
   - PRESTRESSED VOIDED SLAB GIRDERS (INCLUDING THE PRECAST CURB FOR RAIL)
   - APPROACH SLABS

   SEE APPROPRIATE SHEETS WITHIN THE PLAN SET FOR THEIR DETAILS.
2. BEND FOR TRANSVERSE BARS DUE TO ROADWAY CROWN CONDITIONS HAVE NOT SHOWN. THESE BARS SHALL BE BENT AS REQUIRED TO CONFIRM TO THE CONFIGURATION OF THE STRUCTURE.

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BARLIST 1 OF 2

SHEET B21 OF 22

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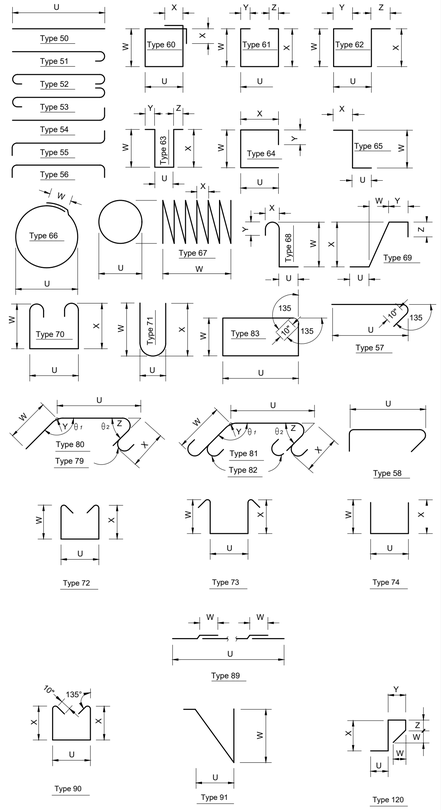
S=BAR IS INCLUDED IN SUBSTRUCTURE QUANTITIES

T=TIE OR STIRRUP

E=BAR IS TO BE EPOXY COATED

MARK	DESCRIPTION	SIZE	NUM	BEND	TIE	SUBS	EPOXY	VARIES	# EA	U		W		X		Y		Z		Θ1	Θ2	LENGTH	
#			REQD							FT	IN	FT	IN	FT	IN	FT	IN	FT	IN	DEG	DEG	FT	IN
	WINGWALL 1 - ASSOCIATED WITH BID ITEM "ST. REINF. BAR FOR BRIDGE"																						
W100	WW BOT LONG	9	2	80		S				25	6.0	6	1.5	0	0.0	0	6.0	0	0.0	148.0	0.0	31	7.1
W101	WW LONG FF	9	15	80		S		V	15	6	7.0	1	1.5	0	0.0	0	6.0	0	0.0	85.0	0.0	7	4.4
										16	6.0	1	1.5	0	0.0	0	6.0	0	0.0	85.0	0.0	17	3.4
W102	WW LONG NF	5	15	80		S		V	15	6	7.0	1	1.5	0	0.0	0	6.0	0	0.0	85.0	0.0	7	4.8
										16	6.0	1	1.5	0	0.0	0	6.0	0	0.0	85.0	0.0	17	3.8
W103	WW VERT	5	56	50	T	S		V	28	2	9.0											2	9.0
										15	9.0											15	9.0
W104	WW TRANS TOP	4	28	56	T	S				1	3.0											1	9.9
W190	WW BLOCKOUT	4	8	50	T	S				25	6.0											25	6.0
	WINGWALL 2 - ASSOCIATED WITH BID ITEM "ST. REINF. BAR FOR BRIDGE"																						
W200	WW BOT LONG	9	2	80		S				25	6.0	6	1.5	0	0.0	0	6.0	0	0.0	148.0	0.0	31	7.1
W201	WW LONG FF	9	15	80		S		V	15	6	7.0	1	1.5	0	0.0	0	6.0	0	0.0	95.0	0.0	7	5.6
										16	6.0	1	1.5	0	0.0	0	6.0	0	0.0	95.0	0.0	17	4.6
W202	WW LONG NF	5	15	80		S		V	15	6	7.0	1	1.5	0	0.0	0	6.0	0	0.0	95.0	0.0	7	5.9
										16	6.0	1	1.5	0	0.0	0	6.0	0	0.0	95.0	0.0	17	4.9
W203	WW VERT	5	56	50	T	S		V	28	2	9.0											2	9.0
										15	9.0											15	9.0
W204	WW TRANS TOP	4	28	56	T	S				1	3.0											1	9.9
W290	WW BLOCKOUT	4	8	50	T	S				25	6.0											25	6.0
	WINGWALL 3 - ASSOCIATED WITH BID ITEM "ST. REINF. BAR FOR BRIDGE"																						
W300	WW BOT LONG	9	2	80		S				25	6.0	6	1.5	0	0.0	0	6.0	0	0.0	148.0	0.0	31	7.1
W301	WW LONG FF	9	15	80		S		V	15	6	7.0	1	1.5	0	0.0	0	6.0	0	0.0	95.0	0.0	7	5.6
										16	6.0	1	1.5	0	0.0	0	6.0	0	0.0	95.0	0.0	17	4.6
W302	WW LONG NF	5	15	80		S		V	15	6	7.0	1	1.5	0	0.0	0	6.0	0	0.0	95.0	0.0	7	5.9
										16	6.0	1	1.5	0	0.0	0	6.0	0	0.0	95.0	0.0	17	4.9
W303	WW VERT	5	56	50	T	S		V	28	2	9.0											2	9.0
										15	7.6											15	7.6
W304	WW TRANS TOP	4	28	56	T	S				1	3.0											1	9.9
W390	WW BLOCKOUT	4	8	50	T	S				25	6.0											25	6.0
	WINGWALL 4 - ASSOCIATED WITH BID ITEM "ST. REINF. BAR FOR BRIDGE"																						
W400	WW BOT LONG	9	2	80		S				25	6.0	6	1.5	0	0.0	0	6.0	0	0.0	148.0	0.0	31	7.1
W401	WW LONG FF	9	15	80		S		V	15	6	7.0	1	1.5	0	0.0	0	6.0	0	0.0	85.0	0.0	7	4.4
										16	6.0	1	1.5	0	0.0	0	6.0	0	0.0	85.0	0.0	17	3.4
W402	WW LONG NF	5	15	80		S		V	15	6	7.0	1	1.5	0	0.0	0	6.0	0	0.0	85.0	0.0	7	4.8
										16	6.0	1	1.5	0	0.0	0	6.0	0	0.0	85.0	0.0	17	3.8
W403	WW VERT	5	56	50	T	S		V	28	2	9.0											2	9.0
										15	7.6											15	7.6
W404	WW TRANS TOP	4	28	56	T	S				1	3.0											1	9.9
W490	WW BLOCKOUT	4	8	50	T	S				25	6.0											25	6.0
	END DIAPHRAGM - ASSOCIATED WITH BID ITEM "SUPERSTRUCTURE"																						
ED11	LONG. BOT	6	4	50						32	0.0											32	0.0
ED13	LONG. FACE	4	16	50						32	0.0											32	0.0
ED14	LONG. TOP	6	6	50			E			32	0.0											32	0.0
ED20	TRANS. STIRRUP	4	66	72	T		E			1	8.0	3	0.0	0	0.0							4	11.4
ED21	TRANS. STIRRUP	4	132	54	T		E			3	0.0											3	3.5
ED22	TRANS. TIE	4	66	58	T		E			1	8.0											2	3.9
	DECK - ASSOCIATED WITH BID ITEM "SUPERSTRUCTURE"																						
D01	DECK TRANS.	5	75	50	T		E			28	10.3											28	10.3
D02	DECK LONG.	5	38	50			E			37	6.0											37	6.0

REINFORCEMENT BENDING DIAGRAMS



REINFORCING NOTES:

1. REINFORCING FOR THE FOLLOWING ELEMENTS ARE NOT INCLUDED IN THIS BARLIST:
   - PRESTRESSED VOIDED SLAB GIRDERS (INCLUDING THE PRECAST CURB FOR RAIL)
   - APPROACH SLABS

   SEE APPROPRIATE SHEETS WITHIN THE PLAN SET FOR THEIR DETAILS.
2. BEND FOR TRANSVERSE BARS DUE TO ROADWAY CROWN CONDITIONS HAVE NOT SHOWN. THESE BARS SHALL BE BENT AS REQUIRED TO CONFIRM TO THE CONFIGURATION OF THE STRUCTURE.

Lewis County
Department of Public Works
57 WEST MAIN ST.
CHEHALIS WA 98532
PHONE # (360) 740-1123
FAX # (360) 740-2719

DESIGNED BY : NN
DRAWN BY : DJ
CHECKED BY : JK
DATE : 09/13/2024

NO.	DATE	REVISION	BY	APP.

JONES ROAD MP 1.71

SPECIAL MAINTENANCE PROJECT NO: 21F171900171

BARLIST 2 OF 2

SHEET B22 OF 22

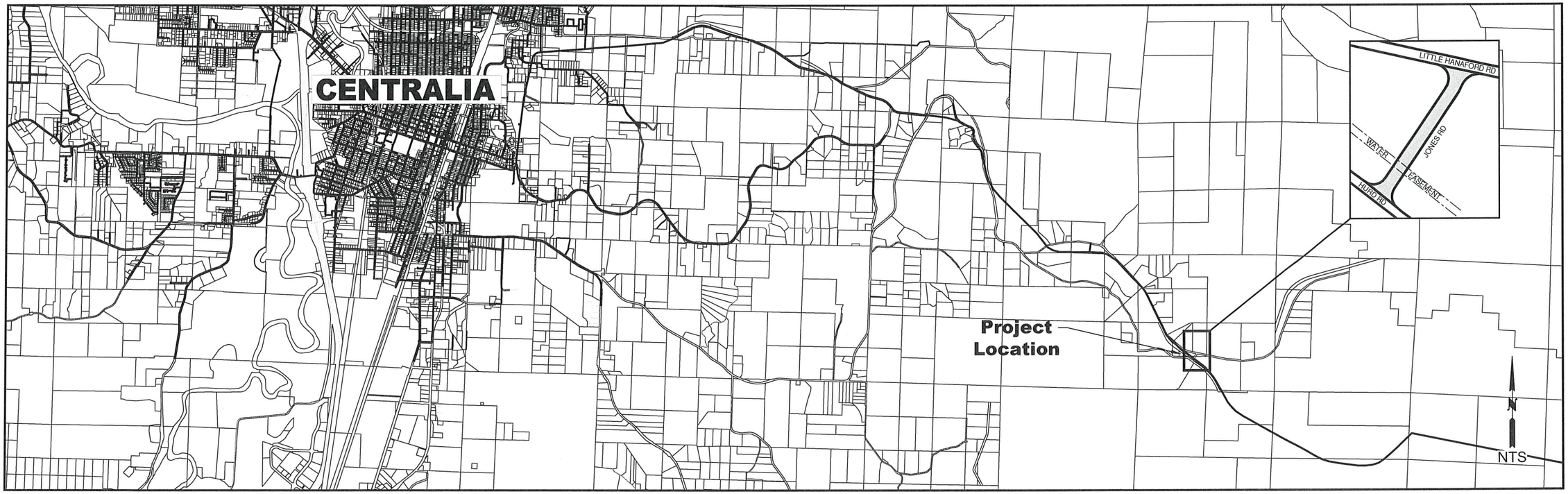
CALL 48 HOURS BEFORE YOU DIG
1-800-424-5555
"It's the Law"
Utilities Underground Location Center

DAVID EVANS AND ASSOCIATES INC.
14432 SE Eastgate Way
Suite 400
Bellevue, WA 98007
425.519.6500

10/26/2026

CITY OF CENTRALIA
Jones Rd Watermain Relocation
PW 2025-12

"CALL UNDERGROUND LOCATE 2 BUSINESS DAYS BEFORE YOU DIG AT 811 "



VICINITY MAP
NTS

C01	COVER SHEET
C02	WATER MAIN RELOCATION PLAN
C03	PROFILE & SECTION VIEW
C04	WATER GENERAL NOTES
C05	WM RELOCATION WORKS SEQUENCE & WATER PROJECT NOTES
C06	FIRE HYDRANT DETAILS
C07	¾" & 2" SINGLE METER SERVICE
C08	2" BLOW OFF ASSEMBLY & ROADWAY RESTORATION
C09	TRENCH RESTORATION
C10	STANDARD BLOCKING THRUST LOADS

SHEET INDEX

EXISTING		PROPOSED	
WATER LINE		NEW WATER MAIN	8" x 12" REDUCER
OH POWER		WV WATER VALVE	
UG POWER		THRUST BLOCK	
UG COMM		BOP BEGINING OF PIPE	
STORM LINE		EOP END OF PIPE	
FENCE		TOP TOP OF PIPE	
EDGE OF PAVEMENT		2'x2'x6' PRECAST ECOLOGY BLOCK	
FIRE HYDRANT		BLOW-OFF ASSEMBLY	
WV WATER VALVE		FIRE HYDRANT	

LEGEND

Approved By:

CITY ENGINEER — DATE 1/26/26

CENTRALIA Public Works Engineering Dept.
1100 N. TOWER AVE
CENTRALIA, WA 98531
P: 360.330.7512 F: 360.330.7516
CITYOFCENTRALIA.COM

No.	DATE	REVISION
0	12.1.2025	PRELIMINARY ISSUE
1	1.16.2026	ISSUED FOR CONSTRUCTION

WATER
WATERMAIN RELOCATION
PLAN VIEW

PW-2025-12
JONES RD
WATERMAIN RELOCATION

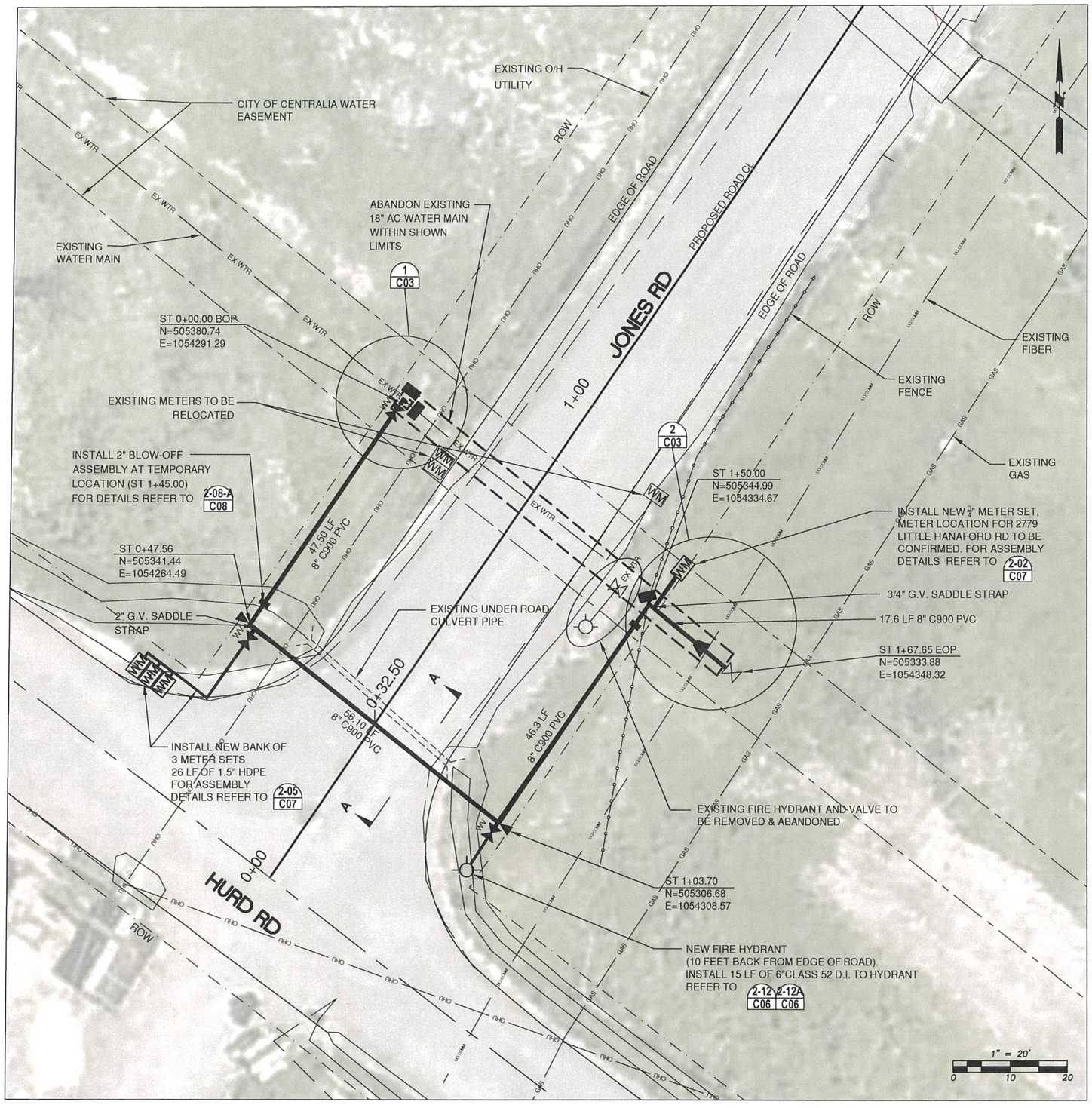
PATRICIA MARIE PAGE — STATE OF WASHINGTON — 19849 — REGISTERED PROFESSIONAL ENGINEER — 1/20/26

DESIGNED BY:	PPAGE
DRAWN BY:	RSORTO
SURVEYED BY:	
CHECKED BY:	PP/BH

December, 2025

C01

1 OF 10



PROPOSED WATER MAIN RELOCATION
PLAN VIEW

LIST OF MATERIALS

ST 0+00 BOP
INSTALL:
1 - LIVE TAP W/ 18" x 8" TAPPING TEE & 8" GV (FL x MJ) W/MEGA LUGS
2 LF - 18" D.I. W/CAP
1 - 18" HYMAX COUPLING
2 - 2' x 2' x 6' PRECAST ECOLOGY THRUST BLOCKS (TYP.)

ST 0+47.56
INSTALL:
1 - 8" 90° (MJ) W/MEGA LUGS
THRUST BLOCKING

ST 0+50.00
INSTALL:
1 - 2" SADDLE TAP AND 2" GV

ST 1+03.70
INSTALL:
1 - 8" x 8" (FL x FL) TEE
2 - 8" (FL x MJ) ADAPTER W/MEGALUGS
1 - 8"x 6" (FL) REDUCER
1 - 6" GATE VALVE (FL x MJ) TO FIRE HYDRANT ASSEMBLY
THRUST BLOCKING

ST 1+50.0
INSTALL:
1 - 8" 90° (MJ)
THRUST BLOCKING

ST 1+67.65 EOP
INSTALL:
1 - 8" x 12" (MJ) REDUCER, TO BE CONNECTED TO EXISTING 12" GV (FIELD VERIFY LOCATION & ELEVATION OF EXISTING 12" D.I.)

ESTIMATED QUANTITIES
2 LF OF 18" D.I.
167.50 LF OF 8" C900 PVC
15 LF 6" CLASS 52 D.I. PLUS ADDITIONAL 6" CLASS 52 D.I. CUT TO LENGTH FOR FIRE HYDRANT CONNECTION
1 - FIRE HYDRANT ASSEMBLY
26 LF OF 1.5" PVC

NOTES:

1. INSTALL NEW 8" C900 PVC WATER MAIN WITH A MINIMUM 2-FOOT HORIZONTAL SEPARATION FROM EXISTING UNDERGROUND UTILITIES.
2. CONTRACTOR SHALL NOTIFY THE CITY A MINIMUM 48 HRS. IN ADVANCE OF PROJECT SCHEDULE AND SERVICE DISRUPTIONS. ALSO COORDINATE ACCESS TO PROPERTIES DURING CONSTRUCTION
3. ALL WORK SHALL BE COMPLETED WITHOUT INTERRUPTING WATER SERVICE TO CUSTOMERS EXCEPT FOR SCHEDULED WATERMAIN SHUTDOWN.
4. CONTRACTOR SHALL ESTABLISH TRAFFIC CONTROL MEASURES, INSTALL SAFETY BARRIERS, AND PROVIDE GARBAGE DISPOSAL SERVICES AS REQUIRED.
5. EXISTING UTILITIES ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONDUCT UTILITIES LOCATES PRIOR TO STARTING EXCAVATING.
6. CONTRACTOR SHALL REMOVE AND REINSTALL ANY FENCING AND REINSTATE DISTURBED AREAS AS REQUIRED.
7. ABANDON EXISTING 18" AC WATER MAIN WORK SHALL TAKE PLACE AFTER THE NEW 8" C900 PVC WATER MAIN HAS BEEN INSTALLED AND TESTED PER WATER MAIN INSTALLATION GENERAL NOTES ON SHEET C04.
8. POTHOLE TO EXPOSE THE 18" AC WATER MAIN AT STATION 0+00 AND THE EXISTING 12" GV AT STATION 1+67.65. CONFIRM ELEVATIONS AND LOCATE SERVICE LINES TO BE RELOCATED PRIOR TO COMMENCING WORK. REFER TO STD. DWG. 4-01B ON C08.
9. ALL PVC JOINTS SHALL BE RESTRAINED USING LOCKING GASKETS INSTALLED IN THE PIPE BELLS.
10. THRUST BLOCKING AT ABANDONMENT POINTS SHALL BE ACCOMPLISHED WITH PRECAST ECOLOGY BLOCKS WITH MINIMUM DIMENSIONS OF 2' X 2' X 6' AND SET AGAINST UNDISTURBED SOIL. FOR THRUST BLOCKING DETAILS SEE SHEET C10.
11. FIRE HYDRANT AND VALVE, SHOULD BE REMOVED PRIOR TO LEWIS COUNTY STARTING MAINTENANCE WORK ON JONES RD.
12. CONCRETE MIX USED FOR THE FIRE HYDRANT ACCESS PAD SHALL BE CLASS 4000 PSI CONCRETE . REFER TO STD. DWG, 2-12A ON C06.
13. IF EXISTING CULVERT IS IN THE WAY OF REROUTING THE WATER MAIN, CONTRACTOR IS AUTHORIZED TO REMOVE AND DISPOSE IT.
14. TRENCHES SHALL BE BACKFILLED AND COMPACTED AS PER STD. DWGS. ON SHEET C09.

Approved By:

CITY ENGINEER — DATE 1/20/26

CENTRALIA Public Works Engineering Dept.
1100 N. TOWER AVE
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WATER
WATERMAIN RELOCATION
PLAN VIEW

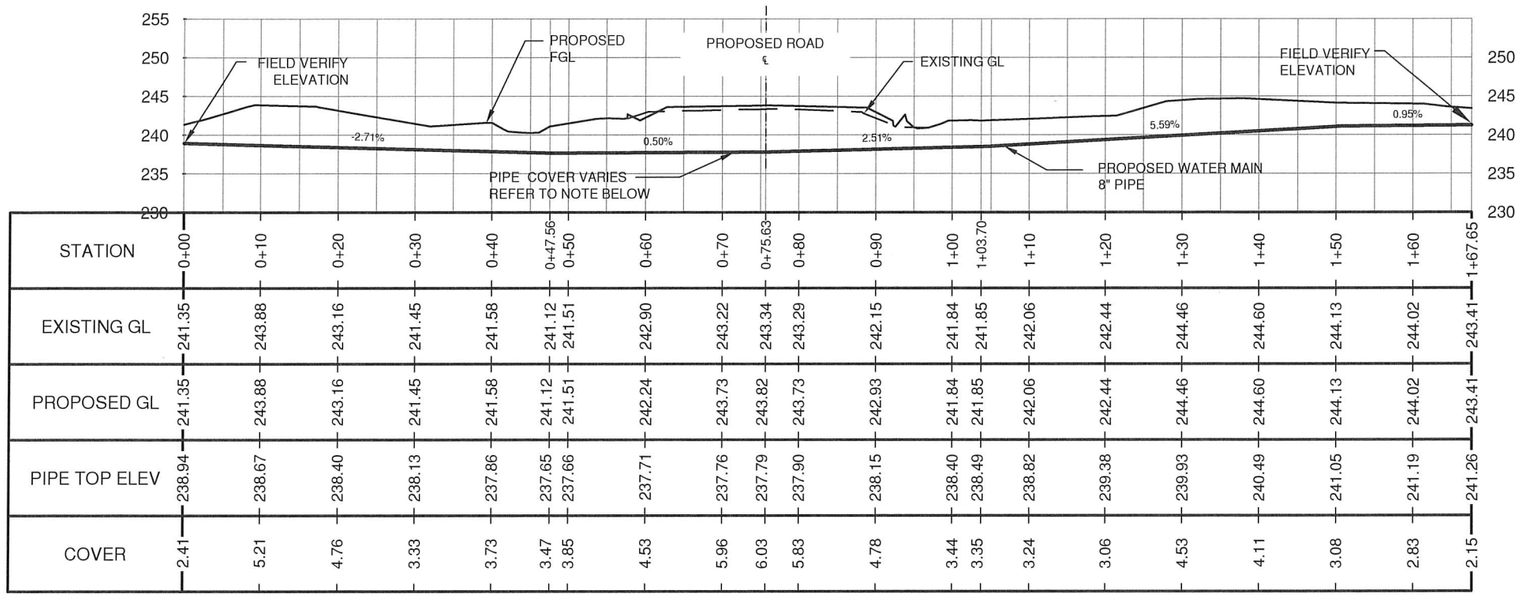
PW-2025-12
JONES RD
WATERMAIN RELOCATION

PATRICIA MARIE PAGE
STATE OF WASHINGTON
40849
REGISTERED
PROFESSIONAL ENGINEER
1/20/26

DESIGNED BY:	PPAGE
DRAWN BY:	RSORTO
SURVEYED BY:	
CHECKED BY:	PP/BH

December, 2025

C02



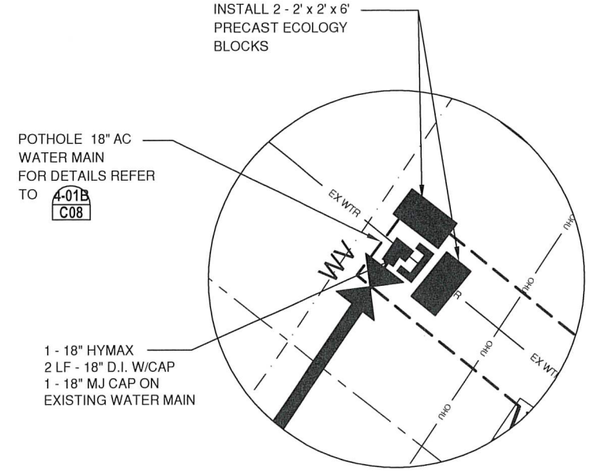
NOTE:

MAINTAIN MINIMUM 30" (in) COVER OVER ENTIRE LENGTH OF NEW 8" PVC WATER MAIN DURING CONSTRUCTION AND AT FINAL GRADE

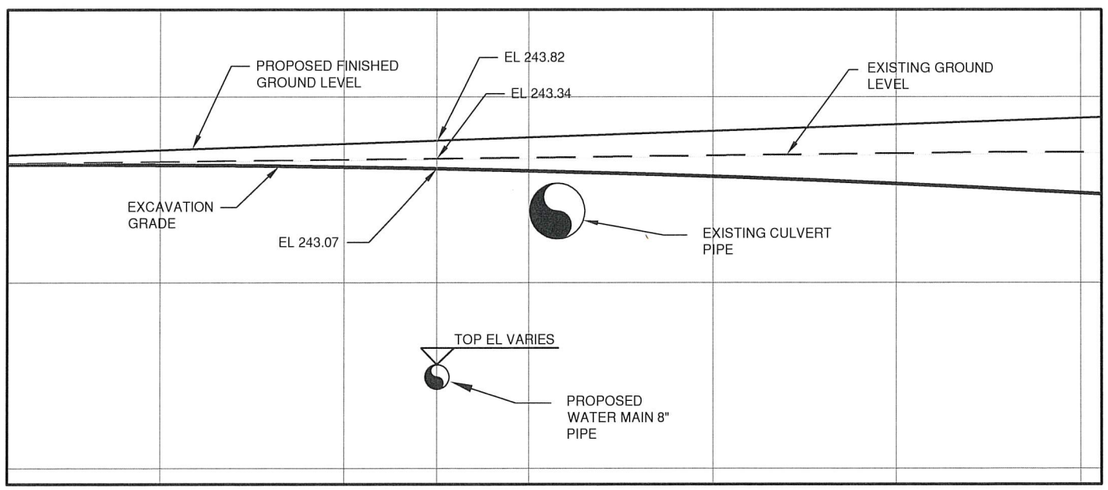
WATER MAIN CL PROFILE

1" = 20'

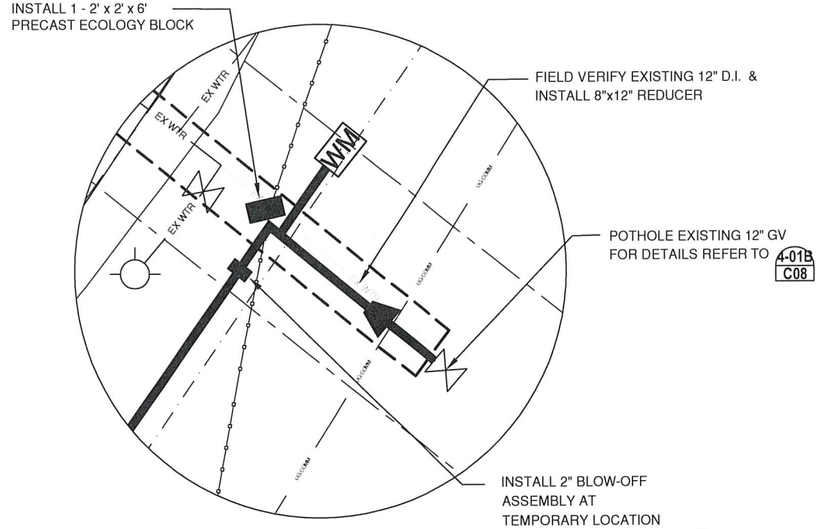
0 10 20



ST 0+00.0 BOP
DETAIL 1
N.T.S



WATER MAIN PIPE CROSSING JONES RD
SECTION A – A
N.T.S



ST 1+67.65 EOP
DETAIL 2
N.T.S

Approved By:

CITY ENGINEER 1/26/26 DATE

CENTRALIA
Public Works Engineering Dept.
1100 N. TOWER AVE
CENTRALIA, WA 98531
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No.	DATE	REVISION
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WATER
WATERMAIN RELOCATION
PROFILE, SECTIONS & DETAILS

PW-2025-12
JONES RD
WATERMAIN RELOCATION

PATRICIA MARIE PAGE
STATE OF WASHINGTON
48849
REGISTERED
PROFESSIONAL ENGINEER
1/26/26

DESIGNED BY:	PPAGE
DRAWN BY:	RSORTO
SURVEYED BY:	
CHECKED BY:	PP/BH

December, 2025

C03

3 OF 10

WATER MAIN INSTALLATION
GENERAL NOTES

1. ALL WORKMANSHIP AND MATERIAL SHALL BE IN ACCORDANCE WITH THE CITY OF CENTRALIA STANDARDS AND THE MOST CURRENT COPY OF THE STATE OF WASHINGTON SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION, WASHINGTON DEPARTMENT OF HEALTH REGULATIONS AND AMERICAN WATER WORKS ASSOCIATION STANDARDS.

2. ALL WATER LINES 12" AND LARGER SHALL BE MADE OF DUCTILE IRON, THICKNESS CLASS 52 AND A RATED WORKING PRESSURE OF 350 PSI CONFORMING TO AWWA C151. ALL PIPE SHALL BE CEMENT MORTAR LINED PER AWWA C104 WITH PUSH ON JOINTS CONFORMING TO AWWA C111. WATER LINES UNDER 12" DIAMETER MAY BE P.V.C. C-900 DR14.

3. FITTINGS SHALL BE CLASS 250 CEMENT MORTAR LINED DUCTILE IRON WITH MECHANICAL JOINT OR ANSI FLANGES. ALL BOLTED FITTINGS SHALL BE DRESSED WITH AN ANTI-SEIZE PRODUCT FOR PROTECTION. ALL DUCTILE IRON FITTING CONNECTION(S) SHALL BE COMPLETED BY THE USE OF MEGA-LUGS. WHEN CONNECTING TO AN EXISTING INLINE WATER MAIN, ALL CONNECTIONS WILL BE MADE USING A DUCTILE IRON (DI) SLEEVE, WITH MEGA-LUGS, OR ROMAC ALPHA COUPLING EXCEPT WHEN CONNECTING TO A AC MAIN WHERE A HYMAX COUPLER (OR EQUAL) WILL BE USED. ALL FITTINGS WILL USE 304A OR BETTER STAINLESS STEEL, CORTEN STEEL, OR XYLAN COATED (BLUE BOLTS) BOLTS

4. GATE VALVES SHALL BE RESILIENT WEDGE, NRS (NON-RISING STEM) WITH O-RING SEALS. VALVE ENDS SHALL BE MECHANICAL JOINT OR ANSI FLANGES. VALVES SHALL CONFORM TO AWWA (LATEST) 509 STD. VALVES SHALL BE MUELLER, M & H, CLOW, WATEROUS, KENNEDY OR AMERICAN AVK. EXISTING VALVES SHALL BE OPERATED BY CITY EMPLOYEES ONLY.

5. ALL NIBCO GATE VALVES MUST HAVE BRASS HANDLES.

6. A VALVE STEM RISER SHALL BE INSTALLED ON ALL VALVES WHERE THE DEPTH FROM FINISH GRADE TO THE TOP OF THE VALVE EXCEEDS 1.5'.

7. FIRE HYDRANTS SHALL BE 3-PORT M & H RELIANT STYLE 129, MUELLER CENTURION, 5 1/4" WITH STEAMER PORT THREAD OF 498. THE DISTANCE BETWEEN OPERATING NUT AND BREAK AWAY FLANGE SHALL BE 32 INCHES IN VERTICAL MEASUREMENT. ALL HYDRANT SHOES SHALL BE EPOXY COATED. EACH HYDRANT SHALL BE PROVIDED WITH A STORZ COUPLER ON THE STEAMER PORT. ALL HYDRANTS SHALL BE BAGGED UNTIL SYSTEM IS APPROVED.

8. BRASS WEDGES SHALL BE INSTALLED IN ALL DUCTILE IRON JOINTS FOR CONTINUITY, TWO (2) PER SECTION OF PIPE. P.V.C. PIPE, C.T.S. HDPE SCH. 200 PSI PIPE SHALL BE INSTALLED WITH A TONING (TRACER) WIRE. TONING WIRE SHALL BE UL LISTED, TYPE UF, SOLID CORE, 12 GAUGE INSULATED COPPER AND SHALL BE TAPED TO THE TOP OF THE PIPE TO PREVENT MOVEMENT DURING BACKFILLING. THE WIRE SHALL BE LAID LOOSELY ENOUGH TO PREVENT STRETCHING AND DAMAGE. THE WIRE SHALL BE BROUGHT UP AND TIED OFF AT VALVE BODY OR METER SETTING.

9. THE CONTRACTOR SHALL MAINTAIN A MIN. COVER OF 30 INCHES AND A MAX. COVER OF 36 INCHES OVER THE PIPE AT ALLTIMES.

10. ALL WATER MAINS SHALL BE STAKED FOR GRADE AND ALIGNMENT BY THE DESIGN ENGINEER OR A LICENSED LAND SURVEYOR. ALL VERTICAL CONTROL SHALL BE ESTABLISHED USING THE 1988 USGS DATUM.

11. ALL NEW WATER MAINS SHALL BE FILLED AND CHLORINATED FOR A MINIMUM OF 24 HRS PRIOR TO FLUSHING. CONTRACTOR SHALL COORDINATE WITH THE CITY TO HAVE LINES FILLED AND FLUSHED.

12. BACTERIA SAMPLING OF POTABLE WATER LINES SHALL BE PERFORMED BY THE CITY PRIOR TO HYDROSTATIC PRESSURE TESTING. CONTRACTOR SHALL PROVIDE AN APPROVED SAMPLING BOTTLE FROM THE LEWIS COUNTY HEALTH DEPT., 360 NW NORTH ST, CHEHALIS, WA 98532

13. ALL PIPE AND APPURTENANCES SHALL BE HYDROSTATICALLY TESTED AT 225 PSI (MIN.) FOR 15 MINUTES AND WITNESSED BY THE CITY. FIRE LINE TESTING BEHIND THE METERING VAULT SHALL BE COORDINATED WITH RIVERSIDE FIRE AUTHORITY.

14. SERVICE LINES OF 3/4" AND 1" SHALL BE TYPE "K" COPPER OR COPPER TUBING SIZE (C.T.S.) BLUE HDPE POLYETHYLENE, 200 PSI PIPE. GALVANIZED FITTINGS SHALL NOT BE USED IN CONSTRUCTION OF SERVICE LINES. NOTE: IN SOIL SENSITIVE AREAS, SERVICE LINES MAY BE CONSTRUCTED OF HDPE-CL200PSI. TONING (TRACER) WIRE IS REQUIRED WHEN USING HDPE PIPE WATER MAINS/SERVICES. SERVICES LARGER THAN 1" MAY BE BLUE HDPE OR BRASS.

15. FOR ANY WATER MAIN TAP TO EXISTING CITY MAINS WHERE THE CONTRACTOR ENCOUNTERS A COUPLING OR EXISTING ASSEMBLIES, THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 18" OF CLEARANCE FROM COUPLING OR ASSEMBLIES TO EDGE OF TAPPING SLEEVE AND THE TAPPING PROCESS SHALL BE WITNESSED BY THE CITY WITH 2 DAYS PRIOR NOTICE.

APPROVED BY	REVISED DATE	CITY OF CENTRALIA	
CITY ENGINEER	08/2024	WATER MAIN INSTALLATION GENERAL NOTES	1 OF 2
2026 Standard Drawings			

WATER MAIN INSTALLATION
GENERAL NOTES

16. WHERE THE WATER LINE CROSSES A SANITARY SEWER, THE WATER LINE SHALL BE ABOVE THE SEWER LINE WHENEVER POSSIBLE, WITH A SEPARATION OF AT LEAST 18 INCHES BETWEEN THE INVERT OF THE WATER LINE AND THE CROWN OF THE SEWER PIPE. IF THIS CRITERIA CAN NOT BE ACHIEVED THE SEWER PIPE SHALL BE CASED WITHIN DUCTILE IRON PIPE FOR A DISTANCE OF 10 FEET EITHER SIDE OF THE WATER LINE.

17. ALL "LONG SIDE SERVICES" SHALL BE CASED IN 160 PSI PIPE.

18. WATER SERVICES NOTED AS "LONG SIDE" SHALL REQUIRE A SCHEDULE 160 PVC PIPE AS A CASING TO CROSS THE R.O.W.

    3/4" SERVICE – CASING DIA. 1.5" 1.5" SERVICE – CASING DIA. 3"
    1" SERVICE – CASING DIA. 2" 2" SERVICE – CASING DIA. 3"

19. ALL ASBESTOS PIPE WORKMANSHIP MUST FOLLOW THE GUIDE LINES SET FORTH BY THESE AGENCIES: SOUTHWEST WASHINGTON AIR POLLUTION CONTROL AUTHORITY (SWAPCA) AND LABOR AND INDUSTRIES (L&I).

20. CALL THE UNDERGROUND LOCATION CENTER AT 1-800-424-5555 OR 811 AT LEAST 48 HOURS BEFORE ANY EXCAVATION.

APPROVED BY	REVISED DATE	CITY OF CENTRALIA	
CITY ENGINEER	08/2024	WATER MAIN INSTALLATION GENERAL NOTES	2 OF 2
2026 Standard Drawings			

Approved By:

CITY ENGINEER DATE 1/26/26

CENTRALIA Public Works Engineering Dept.
1100 N. TOWER AVE
CENTRALIA, WA. 98531
P: 360.330.7512 F: 360.330.7516
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No.	DATE	REVISION
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WATER
WATERMAIN RELOCATION
WATER INSTALLATION
GENERAL NOTES

PW-2025-12
JONES RD
WATERMAIN RELOCATION

PATRICIA MARIE PAGE
STATE OF WASHINGTON
48849
REGISTERED
PROFESSIONAL ENGINEER
1/26/26

DESIGNED BY:	PPAGE
DRAWN BY:	RSORTO
SURVEYED BY:	
CHECKED BY:	PP/BH

December, 2025

C04

4 OF 10

JONES RD WATERMAIN RELOCATION WORKS SEQUENCE

1. PRE-CONSTRUCTION PREPARATION
1.1 NOTIFY IN ADVANCE THE CITY OF CENTRALIA OF THE PLANNED START DATE SO THEY CAN INFORM ALL FOUR EXISTING CUSTOMERS OF POTENTIAL SHORT SERVICE INTERRUPTIONS.
1.2 VERIFY UTILITY LOCATES, TRAFFIC CONTROL, AND TRENCH SAFETY MEASURES.
1.3 POTHOLE PRIVATE SIDE WATER SERVICES LINES TO CONFIRM THEIR LOCATION PRIOR TO CONSTRUCTION.
1.4 CONFIRM MATERIALS: 8" PVC PIPE, FITTINGS, VALVES, METER ASSEMBLIES, HYDRANT ASSEMBLY, TAPPING SLEEVE & VALVE FOR 18" DI.
1.5 PRESSURE TEST AND CHLORINATION PLAN PREPARED FOR THE NEW 8" MAIN.

2. INSTALL NEW 8" PVC WATER MAIN (DRY CONSTRUCTION)
2.1 LIVE TAP 18" AC AND PLACE A PRE-CAST THRUST BLOCK BEHIND TEE ONLY.
2.2 EXCAVATE AND INSTALL THE NEW 8" PVC WATER MAIN ALONG THE PROPOSED ALIGNMENT TO ST 1+45.00 (TEMP BLOW-OFF TO BE INSTALLED).
2.3 INSTALL ALL FITTINGS, BENDS, AND APPURTENANCES EXCEPT THE FINAL TIE-IN.
2.4 INSTALL THE 3-METER BANK AND THE ADDITIONAL METER SERVICE PIPING UP TO THE METER BOXES.
2.5 INSTALL THE NEW FIRE HYDRANT ASSEMBLY ON THE NEW 8" PVC WATER MAIN.
2.6 DO NOT CONNECT SERVICES YET.

3. FILL, FLUSH, PRESSURE TEST NEW 8" PVC WATER MAIN
3.1 CITY OF CENTRALIA TO FILL 8" PVC WATER MAIN.
3.2 HOLD THE DISINFECTING CHLORINE SOLUTION IN THE PIPELINE FOR AT LEAST 24 HOURS. SCHEDULE THE CITY OF CENTRALIA TO FLUSH SYSTEM.
3.3 FLUSH THE MAIN THROUGH THE BLOW-OFF PLACED AT TEMPORARY LOCATION.
3.4 PERFORM PRESSURE TESTING.
3.5 PERFORM BACTERIOLOGICAL TESTING.

4. TRANSFER CUSTOMER SERVICES TO NEW METER LOCATIONS
4.1 ONCE TESTING HAS BEEN SUCCESSFULLY COMPLETED AND APPROVED, PROCEED TO TRANSFER EACH OF THE FOUR EXISTING CUSTOMERS TO THE NEW METER ASSEMBLIES.

5. SCHEDULE SHUT DOWN TO CONNECT 8" PVC FROM 1+45.00 TO 12" G.V., AT ST 1+67.65
5.1 SCHEDULE A PLANNED SHUTDOWN WITH THE CITY OF CENTRALIA AT LEAST 48 HOURS. IN ADVANCE.
5.1 PRE-CHLORINATE 8" PVC PIPE & FITTINGS AND CONNECT TO 12" G.V.
5.2 INSTALL 18" D.I. CAP AND THRUST BLOCK AT ST 0+00
5.3 CONNECT WATER SERVICES FROM PRIVATE LINES TO NEW WATER METER BOXES.
5.4 ABANDON 18" AC BY REMOVAL OR PLUGGING PIPES PER WSDOT DIVISION 7-08.3(4), (VERIFY WITH LEWIS COUNTY PROJECT MANAGER).
5.5 INSTALL PRE-CAST THRUST BLOCKS.

6. COMMISSIONING OF NEW FIRE HYDRANT
6.1 FIRE HYDRANT TO REMAIN BAGGED UNTIL COMPLETE AND READY FOR ACTIVE SERVICE.

7. FINAL STEPS
7.1 RESTORE DISTURBED GROUND.
7.2 SUBMIT AS BUILT DRAWINGS AND TESTING REPORTS.

WATER PROJECT NOTES

A. OPEN ONLY ENOUGH TRENCH LENGTH TO FACILITATE LAYING PIPE SECTIONS. ACCURATELY GRADE AND SHAPE TRENCH BOTTOM FOR UNIFORM BEARING OF PIPE TO THE LINE AND GRADE SHOWN ON THE PLANS.

B. PROVIDE SHORING AS REQUIRED TO MAINTAIN TRENCH WALL STABILITY. ANY COST ASSOCIATED WITH OVER-EXCAVATION AND SUBSEQUENT BACKFILLING OUTSIDE APPROVED TRENCH WIDTH AS INDICATED IN "A" ABOVE DUE TO IMPROPER SHORING WILL NOT BE REIMBURSABLE.

C. ALL MATERIALS SHALL BE SUBMITTED FOR REVIEW AND APPROVED PRIOR TO USE.

Approved By:

CITY ENGINEER 1/20/26 DATE

CENTRALIA Public Works Engineering Dept.
1100 N. TOWER AVE
CENTRALIA, WA. 98531
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No.	DATE	REVISION
0	12.1.2025	PRELIMINARY ISSUE
1	1.16.2026	ISSUED FOR CONSTRUCTION

WATER
WATERMAIN RELOCATION
WORKS SEQUENCE &
WATER PROJECT NOTES

PW-2025-12
JONES RD
WATERMAIN RELOCATION

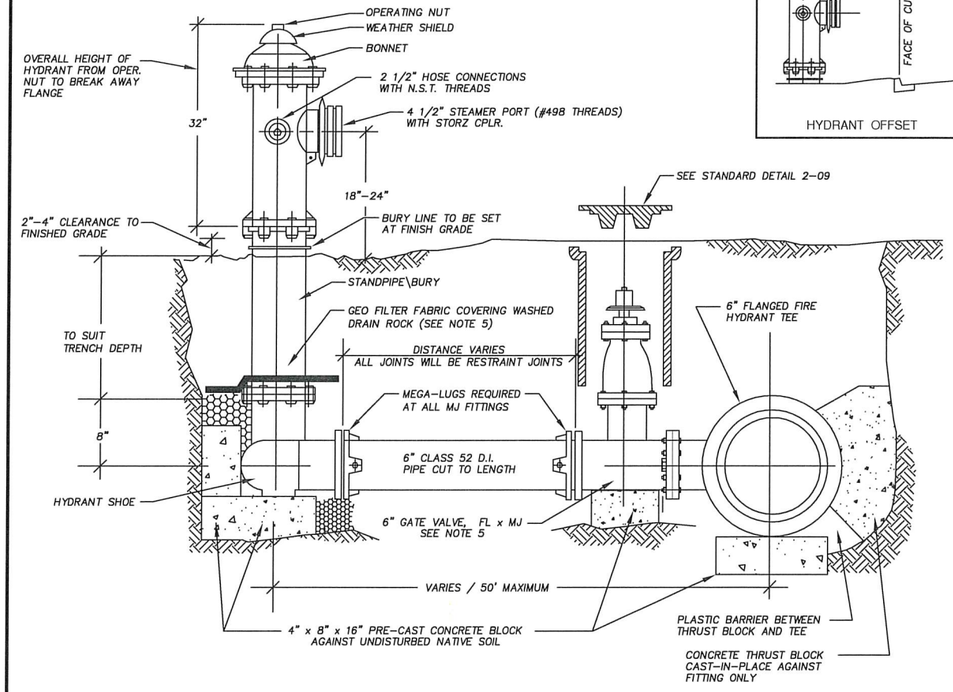
PATRICIA MARIE PAGE
STATE OF WASHINGTON
48849
REGISTERED
PROFESSIONAL ENGINEER

DESIGNED BY: PPAGE
DRAWN BY: RSORTO
SURVEYED BY:
CHECKED BY: PP/BH

December, 2025

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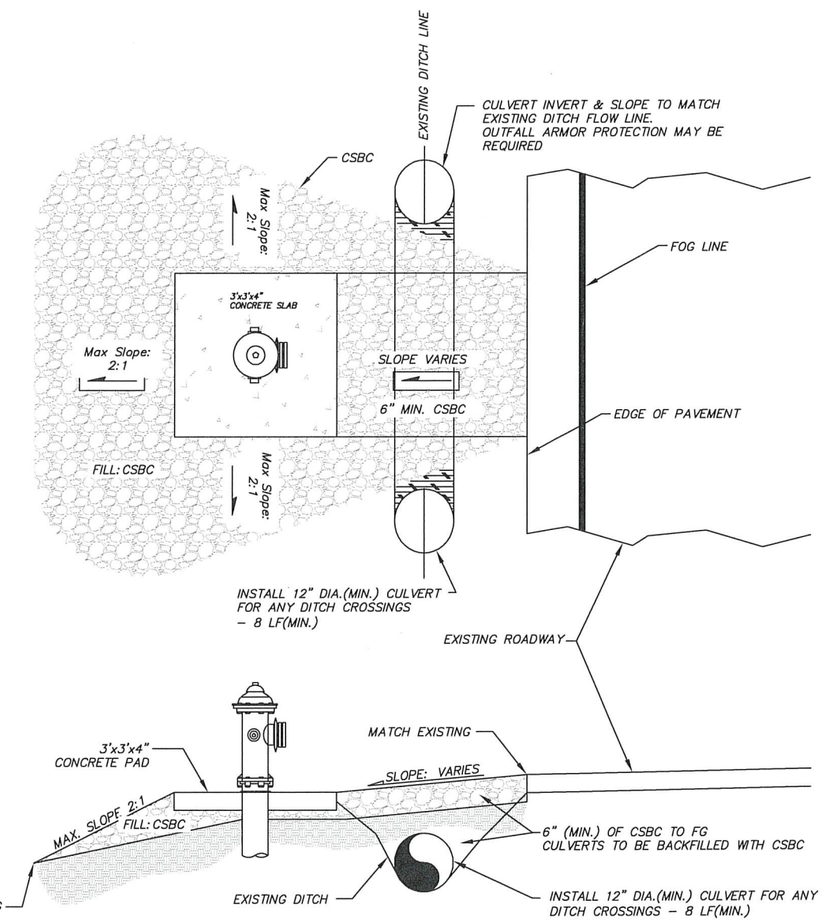


HYDRANT OFFSET

NOTES:

1. HYDRANTS SHALL BE LOCATED WITH A MINIMUM FIVE FOOT RADIUS UNOBSTRUCTED WORKING AREA PROVIDED, AND IN NO CASE SHALL BE LOCATED IN SIDEWALK.
2. HYDRANT SHALL BE WATEROUS CLASSIC PACER WB67–250, DRESSER M&H RELIANT STYLE 129 OR MUELLER CENTURION CHECK VERTICAL DISTANCE BETWEEN OPERATING NUT AND BREAK AWAY FLANGE (31–32 INCHES).
3. HYDRANTS SHALL BE PAINTED SUNBURST YELLOW – HIGH GRADE ENAMEL, AFTER INSTALLATION.
4. HYDRANTS SHALL HAVE A MINIMUM BURY OF 30 INCHES.
5. GATE VALVES SHALL BE RESILIENT WEDGE NRS WITH O–RING SEALS. VALVE ENDS SHALL BE MECHANICAL JOINT BY ANSI FLANGES. VALVES SHALL CONFORM TO AWWA C515.
6. FILTER FABRIC MATERIAL SHALL BE USED IN CONJUNCTION WITH THE USE OF DRAIN ROCK. THE APPLICATION OF THE FILTER FABRIC MATERIAL SHALL MINIMIZE THE IMPACT OF THE NATIVE SOIL IN THE FUNCTION OF THE DRAIN ROCK.
7. ALL MECHANICAL BOLTS TO FITTINGS SHALL HAVE ANTI–SEIZE COMPOUND APPLIED TO THE BOLTS.
8. POURED IN PLACE CONCRETE BLOCKING, BLOCK SIZE – (2 FT. WIDE, 2 FT. DEEP, AND 2 FT. MIN. LENGTH TO UNDISTURBED NATIVE SOIL – NOTE LENGTH IS A VARIABLE DEPENDING UPON DISTANCE TO UNDISTURBED NATIVE SOIL.
9. ALL HYDRANTS SHALL HAVE EPOXY COATED SHOE.
10. 4" x 8" x 16" PRE–CAST CONCRETE BLOCKS REQUIRED AT EACH TEE, VALVE AND UNDER/BEHIND HYDRANT SHOE.
11. SEE HYDRANT PAD DETAIL FOR DITCH CROSSINGS AND EMBANKMENT APPLICATIONS.

APPROVED BY	REVISED DATE	CITY OF CENTRALIA	STD. PLAN NO.
CITY ENGINEER	01/2024	FIRE HYDRANT DETAIL	2-12
2026 Standard Drawings			



NOTE:

1. CONCRETE MIX USED FOR THE FIRE HYDRANT ACCESS PAD, AS SHOWN, SHALL BE CLASS 4000 PSI CONCRETE.

APPROVED BY	REVISED DATE	CITY OF CENTRALIA	STD. PLAN NO.
CITY ENGINEER	09/2025	HYDRANT PAD NON PAVEMENT AREAS	2-12A
2026 Standard Drawings			

Approved By:

CITY ENGINEER — DATE 1/26/26

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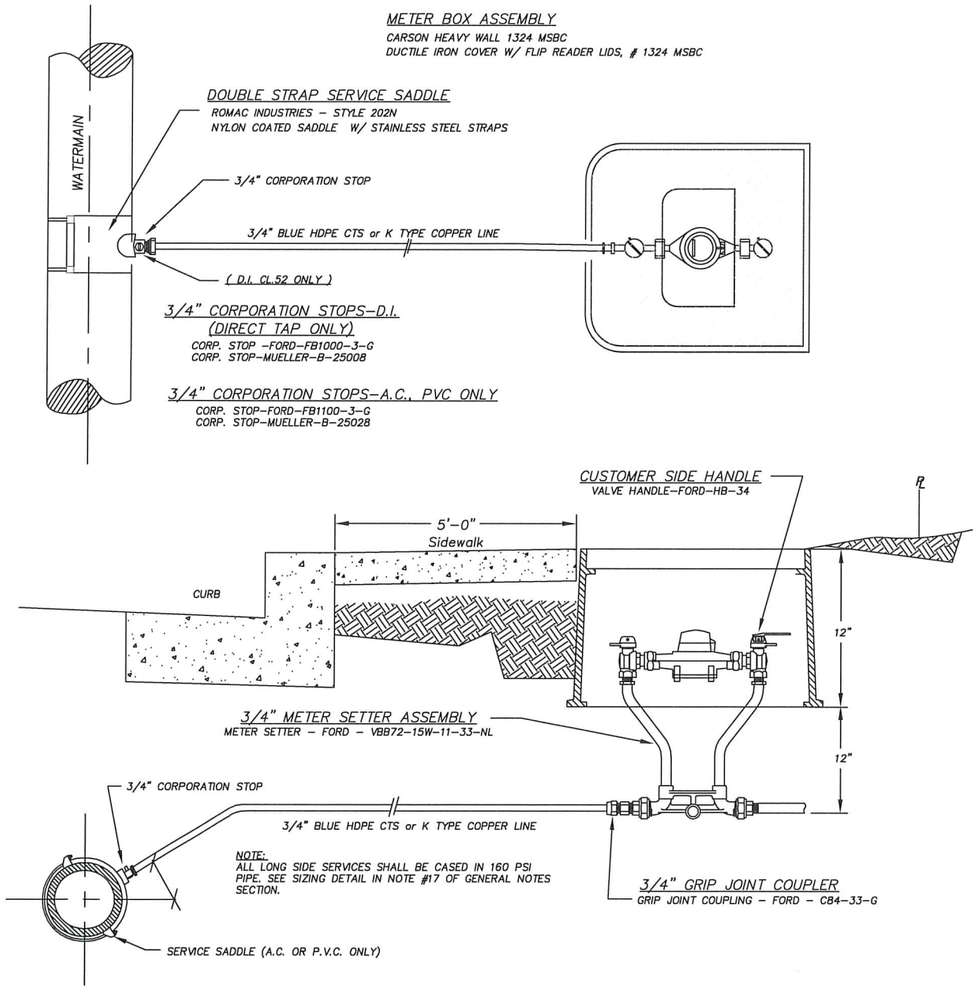
No.	DATE	REVISION
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WATER
WATERMAIN RELOCATION
FIRE HYDRANT
DETAILS

PW-2025-12
JONES RD
WATERMAIN RELOCATION

PATRICIA MARIE PAGE
STATE OF WASHINGTON
48849
REGISTERED
PROFESSIONAL ENGINEER

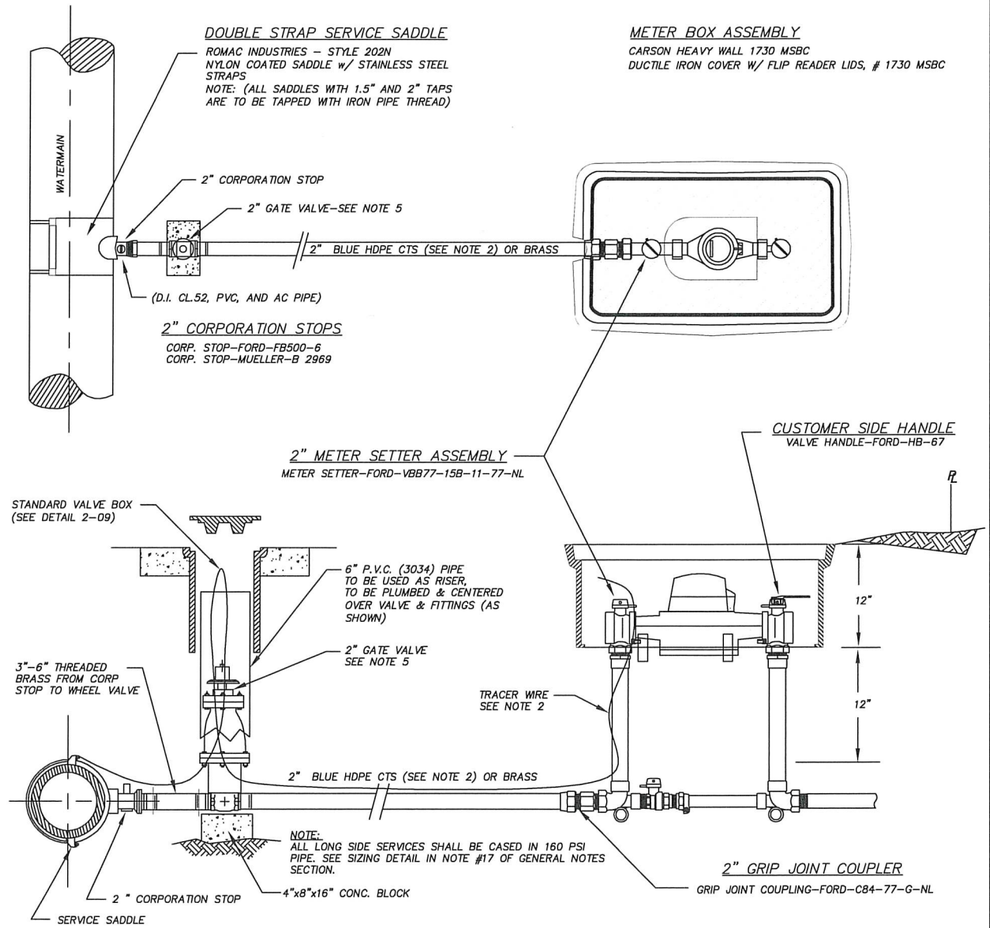
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SURVEYED BY:
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6 OF 10



NOTES:

1. ALL SERVICE SADDLES SHALL HAVE RUBBER GASKET, I.P. THREADS AND NYLON COATED.
2. IN APPROVED SOIL SENSITIVE AREAS HDPE MAINS AND SERVICE LINES ARE REQUIRED.
   A TONING (TRACER) WIRE, UL LISTED, TYPE UF, SOLID CORE, 12 GAUGE INSULATED COPPER IS REQUIRED.
   AN IDEAL TWISTER DB PLUS WIRE CONNECTOR, MODEL 60 IS REQUIRED TO CONNECT TRACER WIRES TOGETHER (i.e. TRACER WIRE EXTENSION SPOOL TO SPOOL, SERVICE TO MAIN, MAIN TO MAIN INTERSECTIONS, AND HYDRANT TO MAIN INSTALLATIONS). BLUE HDPE CTS SHALL BE SUBSTITUTED FOR TYPE "K" COPPER IN LINE SERVICES.
3. DUCTILE IRON MAINS SHALL BE DIRECT TAPPED ONLY
4. ASBESTOS CEMENT (A.C.) AND PVC MAINS SHALL REQUIRE A SADDLE FOR TAPPING
5. STAINLESS STEEL PIPE STIFFENERS ARE REQUIRED WHERE HDPE PIPE IS USED

APPROVED BY	REVISED DATE	CITY OF CENTRALIA	STD. PLAN NO.
CITY ENGINEER	02/2020	3/4" SINGLE METER SERVICE STANDARD	2-02
2026 Standard Drawings			



NOTES:

1. ALL SERVICE SADDLES SHALL HAVE RUBBER GASKET, I.P. THREADS AND NYLON COATED. ALL 1.5" AND 2" SERVICE LINES WILL BE SADDLED.
2. IN APPROVED SOIL SENSITIVE AREAS HDPE MAINS AND SERVICE LINES ARE REQUIRED. A TONING (TRACER) WIRE, UL LISTED, TYPE UF, SOLID CORE, 12 GAUGE INSULATED COPPER IS REQUIRED. AN IDEAL TWISTER DB PLUS WIRE CONNECTOR, MODEL 60 IS REQUIRED TO CONNECT TRACER WIRES TOGETHER (i.e. TRACER WIRE EXTENSION SPOOL TO SPOOL, SERVICE TO MAIN, MAIN TO MAIN INTERSECTIONS, AND HYDRANT TO MAIN INSTALLATIONS). BLUE HDPE CTS SHALL BE SUBSTITUTED FOR TYPE "K" COPPER IN LINE SERVICES.
3. ALL THREAD FITTING CONNECTIONS SHALL BE DRESSED WITH AN APPROVED JOINTING COMPOUND
4. ANTI–SEIZE SHALL BE USED ON ALL BOLT THREADS
5. 2" GATE VALVE – M&H AWWA C509 RESILIENT WEDGE GATE VALVE 4067–07 W/ 2" SQUARE NUT
6. STAINLESS STEEL PIPE STIFFENERS ARE REQUIRED WHERE HDPE PIPE IS USED

APPROVED BY	REVISED DATE	CITY OF CENTRALIA	STD. PLAN NO.
CITY ENGINEER	10/2025	2" SINGLE METER SERVICE STANDARD	2-05
2026 Standard Drawings			

Approved By:

CITY ENGINEER — DATE 11/26/26

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No.	DATE	REVISION
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WATERMAIN RELOCATION
WATERMAIN RELOCATION
3/4" & 2" SINGLE METER
SERVICE DETAILS

PW-2025-12
JONES RD
WATERMAIN RELOCATION

PATRICIA MARIE PAGE
STATE OF WASHINGTON
48849
REGISTERED
PROFESSIONAL ENGINEER

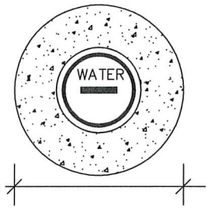
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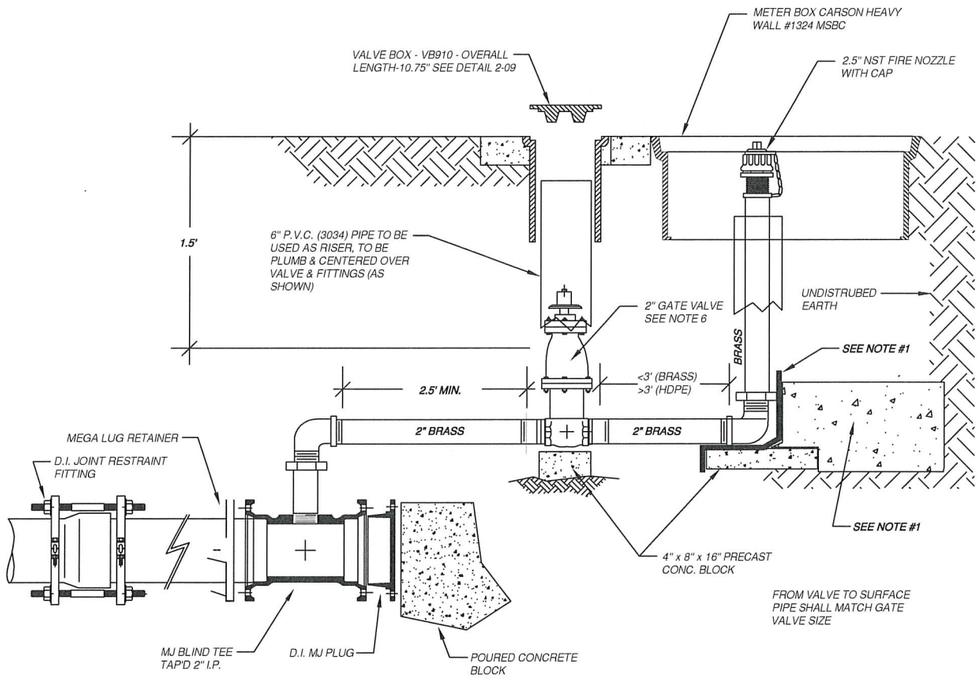
BLOW OFF ASSEMBLY GENERAL NOTES

1. POURED IN PLACE CONCRETE BLOCK SIZE (2 FT. WIDE, 2 FT. DEEP, AND 3 FT. MIN LENGTH TO UNDISTURBED NATIVE) LENGTH IS A VARIABLE DEPENDING UPON DISTANCE TO UNDISTURBED NATIVE SOIL. USE 12 ML. PLASTIC AROUND MAIN LINE FITTINGS AND BLOW-OFF ASSEMBLY WHEN INSTALLING THRUST BLOCKS.
2. ALL BLOW-OFF ASSEMBLIES ATTACHED TO P.V.C. MAINS MUST HAVE 12 GAUGE COATED COPPER TRACER WIRE TIED OFF AT THE VALVE BOX BODY AND EXTENDING ONE FOOT BEYOND TOP OF VALVE BOX.
3. VALVE CANS WILL BE CENTERED OVER THE GATE VALVE AT FINISH GRADE OF SURFACE. METER BOXES CONTAINING THE BLOW-OFF ASSEMBLY SHALL BE CENTERED AND SET AT FINISH GRADE OF A "NON-PAVEMENT AREA" ONLY. A CONCRETE COLLAR WILL BE REQUIRED FOR BOTH ITEMS IF PLACED OUTSIDE OF A "NON-PAVEMENT AREA" FOR SUPPORT AND MAINTENANCE.
4. FITTINGS FROM D.I. BLIND FLG. TEE TO 2" GATE VALVE WILL BE 2" DIAMETER AND MADE OF BRASS (3' MAX), FROM GATE VALVE TO BLOW OFF ASSEMBLY SHALL BE BRASS OR HDPE DEPENDING ON DISTANCE TO BLOW OFF.
5. VALVE CANS WILL BE OLYMPIC FOUNDRY INC. VB910 VALVE BOX WITH "WATER" CAST IN LID, OVERALL LENGTH IS 10.75"
6. 2" GATE VALVE-M&H AWWA C509 RESILIENT WEDGE GATE VALVE 4067-07 W/2" SQUARE NUT.
7. ALL PRODUCTS WILL NEED TO BE SUBMITTED AND APPROVED BY THE CITY OF CENTRALIA ENGINEERING DEPT. BEFORE BEING ORDERED OR INSTALLED.



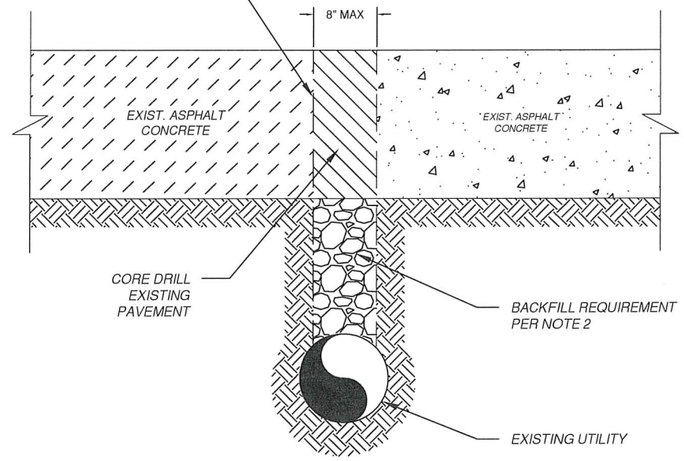
A CONCRETE COLLAR SHALL BE PLACED 1 FOOT OUTSIDE THE PERIMETER OF (CAN/BOX) INSTALLED IN "NON-PAVED AREA" ONLY.

COMMERCIAL GRADE CONCRETE (3000psi MIN), FORMED AND CAST 4 INCHES THICK CENTERED ON STRUCTURE - SEE DETAIL 2-09



APPROVED BY	REVISED DATE	CITY OF CENTRALIA	STD. PLAN NO.
CITY ENGINEER	09/2025	2" BLOW-OFF ASSEMBLY NON PAVEMENT AREAS	2-08-A
2026 Standard Drawings			

EXISTING SURFACES SHALL BE PREPARED IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATION 5-04.3(5)A PRIOR TO PLACING ANY NEW PAVEMENT SURFACES



NOTES:

1. THE EXISTING PAVEMENT SHALL BE CUT FULL DEPTH WITH A MAXIMUM EIGHT–INCH DIAMETER CORE DRILL. THE SUB–BASE MATERIAL SHALL BE REMOVED USING A VACUUM EXCAVATOR, KEEPING THE EXCAVATION AS MINIMAL AS POSSIBLE.
2. BACKFILL THE EXCAVATION WITH A SIX–INCH CUSHION OF CRUSHED ROCK OVER THE UTILITY THEN PLACE THE REMAINING VOID WITH CDF. IF THE RESULTANT VOID DEPTH IS GREATER THAN 30 INCHES, ONLY THE TOP 30 INCHES SHALL REQUIRE CDF. THE REMAINING DEPTH SHALL BE FILLED WITH COMPACTED CSTC.
3. FOR ASPHALT CONCRETE STREETS, REPAIR PAVEMENT CORE SECTION WITH CL. 1/2–INCH PG 64–22 HMA. PROVIDE A T–CUT, 2 INCHES LARGER THAN POTHOLE DIAMETER. FOR CEMENT CONCRETE PAVEMENT STREETS, REPLACE THE CORED SECTION WITH CLASS 6000 CEMENT CONCRETE.
4. IF EXCAVATION IS LARGER THAN 8 INCHES IN DIAMETER, RESTORATION SHALL COMPLY WITH TRENCH RESTORATION REQUIREMENTS.
5. IF THREE OR MORE CORES ARE MADE WITHIN A ROAD SECTION, RESTORATION SHALL COMPLY WITH TRENCH RESTORATION REQUIREMENTS.
6. MAXIMUM 1 POTHOLE WITHIN HALF–STREET WIDTH, WITHIN 10 FEET LINEAR SPACING OF ANOTHER POTHOLE OR WITHIN AN EXISTING PATCH. 2 OR MORE POTHOLES WITHIN HALF–STREET WIDTH OR LESS THAN 10 FEET APART WILL REQUIRE TRENCH RESTORATION PER CITY STANDARDS.
7. IF CORES ARE MADE IN EXISTING SIDEWALK PANELS, THE ENTIRE PANEL SHALL BE REPLACED. RESTORATION LIMITS TO BE DETERMINED BY ENGINEERING DEPARTMENT PRIOR TO WORK.

APPROVED BY	REVISED DATE	CITY OF CENTRALIA	STD. PLAN NO.
CITY ENGINEER	10/2025	Pothole Patch Repair	4-01B
2026 Standard Drawings			

Approved By:

CITY ENGINEER — DATE 1/26/26

CENTRALIA Public Works Engineering Dept.
1100 N. TOWER AVE
CENTRALIA, WA 98531
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No.	DATE	REVISION
0	12.1.2025	PRELIMINARY ISSUE
1	1.16.2026	ISSUED FOR CONSTRUCTION

WATER
WATERMAIN RELOCATION
2" BLOW OFF ASSEMBLY &
POTHOLE PATCH REPAIR

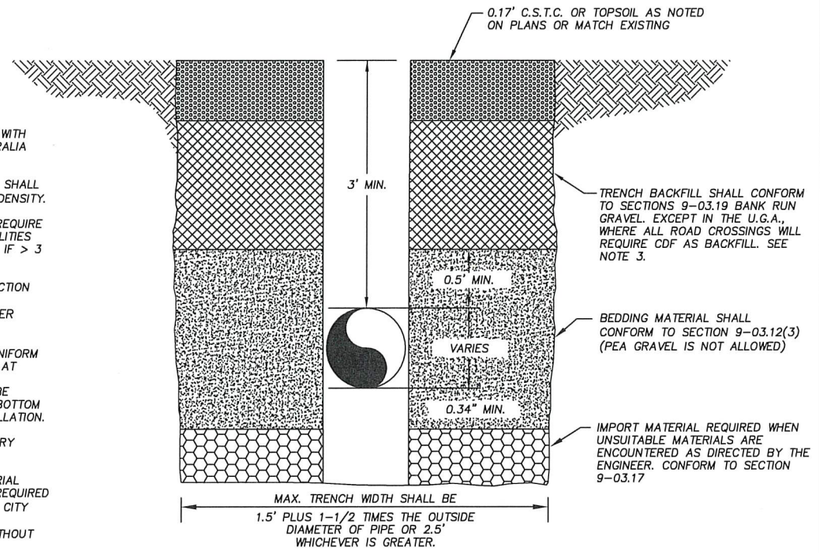
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JONES RD
WATERMAIN RELOCATION

PATRICIA MARIE PAGE — STATE OF WASHINGTON — 48849 — REGISTERED PROFESSIONAL ENGINEER — 1/26/26

DESIGNED BY:	PPAGE
DRAWN BY:	RSORTO
SURVEYED BY:	
CHECKED BY:	PP/BH
December, 2025	
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8 OF 10	

NOTES:

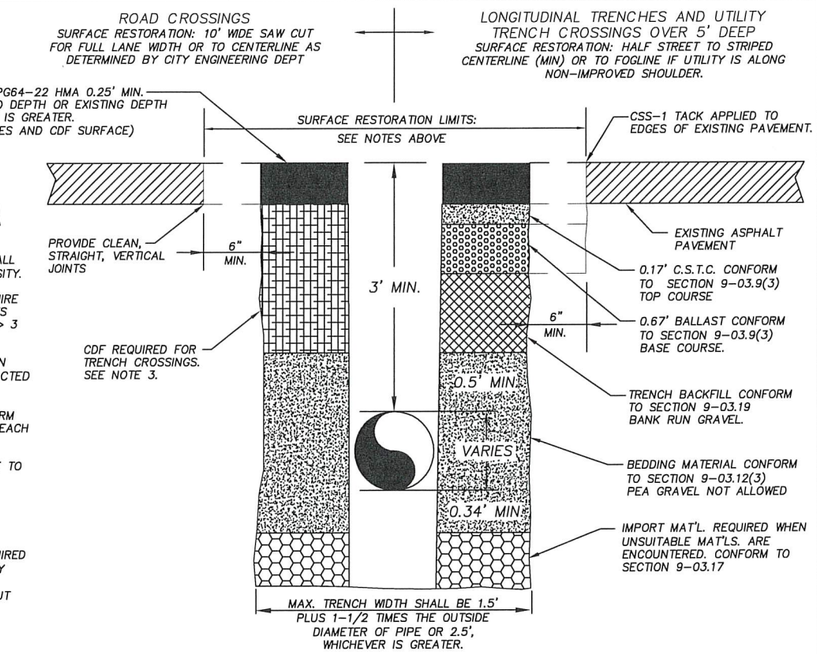
1. ALL MATERIALS, WORKMANSHIP, AND INSTALLATION SHALL BE IN CONFORMANCE WITH WSDOT SPECIFICATIONS AND CITY OF CENTRALIA STANDARDS.
2. ALL MATERIALS EXCEPT BEDDING MATERIAL SHALL BE COMPACTED IN 6" MAX. LIFTS TO 95% DENSITY.
3. ALL ROADWAY TRENCH CROSSINGS SHALL REQUIRE CDF AS TRENCH BACKFILL EXCEPT FOR UTILITIES DEEPER THAN 5 FEET. 2 FOOT MIN. DEPTH IF > 3 FOOT BURY.
4. BEDDING MATERIAL SHALL CONFORM TO SECTION 9-03.12(3) OF WSDOT SPECIFICATIONS COMPACTED TO 95% OF MAX. DENSITY PER ASTM D1557.
5. KEEP TRENCH BOTTOM COMPACTED WITH UNIFORM GRADE. A BELL JOINT SHALL BE REQUIRED AT EACH JOINT FOR PROPER SUPPORT. NO TEMPORARY SUPPORTS, I.E. BLOCKS, WILL BE ALLOWED TO SUPPORT THE PIPE. TRENCH BOTTOM SHALL BE TO GRADE PRIOR TO PIPE INSTALLATION.
6. COLD MIX WILL BE REQUIRED FOR TEMPORARY PATCHES OR ROAD CROSSINGS.
7. ALL TRENCH BACKFILL AND BEDDING MATERIAL SHALL BE IMPORT, EXCEPT WHERE CDF IS REQUIRED (SEE NOTE 3). SUBMIT ALL MATERIALS FOR CITY REVIEW PRIOR TO CONSTRUCTION. (NO NATIVE MATERIAL WILL BE ALLOWED WITHOUT APPROVAL FROM CITY ENGINEER)



STD. PLAN NO.	APPROVED BY	REVISED DATE	CITY OF CENTRALIA
4-02	CITY ENGINEER	10/2025	TRENCH RESTORATION OUTSIDE PAVED AREA
	2026 Standard Drawings		

NOTES:

1. ALL MATERIALS, WORKMANSHIP, AND INSTALLATION SHALL BE IN CONFORMANCE WITH WSDOT SPECIFICATIONS AND CITY OF CENTRALIA STANDARDS.
2. ALL MATERIALS EXCEPT BEDDING MATERIAL SHALL BE COMPACTED IN 6" MAX. LIFTS TO 95% DENSITY.
3. ALL ROADWAY TRENCH CROSSINGS SHALL REQUIRE CDF AS TRENCH BACKFILL EXCEPT FOR UTILITIES DEEPER THAN 5 FEET. 2 FOOT MIN. DEPTH IF > 3 FOOT BURY.
4. BEDDING MATERIAL SHALL CONFORM TO SECTION 9-03.12(3) OF WSDOT SPECIFICATIONS COMPACTED TO 95% OF MAX. DENSITY PER ASTM D1557.
5. KEEP TRENCH BOTTOM COMPACTED WITH UNIFORM GRADE. A BELL JOINT SHALL BE REQUIRED AT EACH JOINT FOR PROPER SUPPORT. NO TEMPORARY SUPPORTS, I.E. BLOCKS, WILL BE ALLOWED TO SUPPORT THE PIPE. TRENCH BOTTOM SHALL BE TO GRADE PRIOR TO PIPE INSTALLATION.
6. COLD MIX WILL BE REQUIRED FOR TEMPORARY PATCHES OR ROAD CROSSINGS.
7. ALL TRENCH BACKFILL AND BEDDING MATERIAL SHALL BE IMPORT, EXCEPT WHERE CDF IS REQUIRED (SEE NOTE 3). SUBMIT ALL MATERIALS FOR CITY REVIEW PRIOR TO CONSTRUCTION. (NO NATIVE MATERIAL WILL BE ALLOWED WITHOUT APPROVAL FROM CITY ENGINEER)



STD. PLAN NO.	APPROVED BY	REVISED DATE	CITY OF CENTRALIA
4-03	CITY ENGINEER	10/2025	TRENCH RESTORATION ASPHALT PAVEMENT
	2026 Standard Drawings		

Approved By:

CITY ENGINEER — DATE 1/20/26

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1	1.16.2026	ISSUED FOR CONSTRUCTION

WATERMAIN RELOCATION
WATERMAIN RELOCATION TRENCH RESTORATION DETAILS

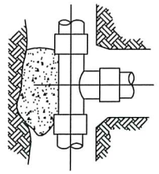
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WATERMAIN RELOCATION

PATRICIA MARIE PAGE — STATE OF WASHINGTON — 49849 — REGISTERED PROFESSIONAL ENGINEER — 1/20/26

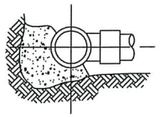
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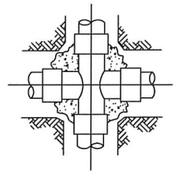


TOP VIEW

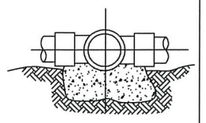


SIDE VIEW

TEE

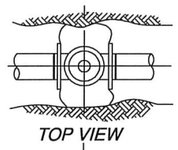


TOP VIEW

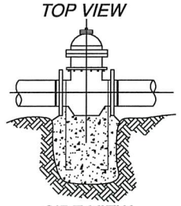


SIDE VIEW

CROSS

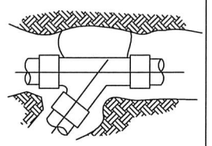


TOP VIEW



SIDE VIEW

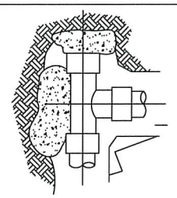
GATE VALVE



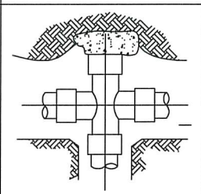
WYE



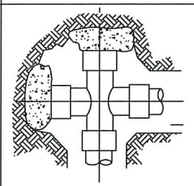
HORIZ. BEND



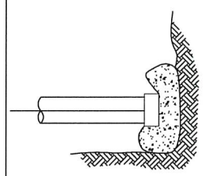
TEE WITH PLUG



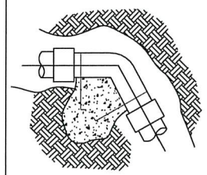
CROSS WITH PLUG



CROSS WITH PLUGS



PLUG OR CAP



45° – 90°

VERT. BEND

NOTES:

1. CONCRETE THRUST BLOCKING TO BE POURED AGAINST UNDISTURBED EARTH.
2. PLASTIC BARRIER (12 MIL.), SHALL BE PLACED BETWEEN ALL THRUST BLOCKS & FITTINGS
3. ANCHOR REBAR SHALL BE #8 ON 12" DIA. AND LESS WITH 30" EMBEDMENT, #8 ON 16"–24" DIAMETER WITH 36" EMBEDMENT.
4. ALL FITTINGS TO BE MJ–MEGA LUG RETAINER GLANDS
5. PLUGS TO BE MINIMUM OF 5' FROM TEE, WYE OR CROSS ON VALVE
6. ALL MECHANICAL BOLTS TO FITTINGS SHALL HAVE ANTI–SEIZE COMPOUND APPLIED TO THE BOLTS
7. NO CONCRETE WILL COME IN CONTACT WITH ANY MECHANICAL JOINTS

APPROVED BY	REVISED DATE	CITY OF CENTRALIA	STD. PLAN NO.
CITY ENGINEER	06/2017	STANDARD BLOCKING DETAIL	2-10
2026 Standard Drawings			

THRUST LOADS

THRUST AT FITTINGS IN POUNDS AT 200 POUNDS PER SQUARE INCH OF WATER PRESSURE

PIPE DIAMETER	90° BEND	45° BEND	22-1/2° BEND	11-1/4° BEND	DEAD END OR TEE
4"	3,600	2,000	1,000	500	2,600
6"	8,000	4,400	2,300	1,200	5,700
8"	14,300	7,700	4,000	2,000	10,100
10"	22,300	12,100	6,200	3,100	15,800
12"	32,000	17,400	8,900	4,500	22,700
14"	43,600	23,600	12,100	6,100	30,800
16"	57,000	30,800	15,700	7,900	40,300

NOTES:

1. BLOCKING SHALL BE CEMENT CONCRETE CLASS "B" POURED IN PLACE AGAINST UNDISTURBED EARTH. FITTING SHALL BE ISOLATED FROM CONCRETE THRUST BLOCK WITH PLASTIC OR SIMILAR MATERIAL.
2. TO DETERMINE THE BEARING AREA OF THE THRUST BLOCK IN SQUARE FEET (S.F.): EXAMPLE: 12" – 90 DEG. BEND IN SAND AND GRAVEL 32,000 LBS : 3000 LB/S.F. = 10.7 S.F. OF AREA
3. AREAS MUST BE ADJUSTED FOR OTHER PIPE SIZE, PRESSURES AND SOIL CONDITIONS.
4. BLOCKING SHALL BE ADEQUATE TO WITHSTAND FULL TEST PRESSURE AS WELL AS TO CONTINUOUSLY WITHSTAND OPERATING PRESSURE UNDER ALL CONDITIONS OF SERVICE.
5. BLOCKING FOR PIPES LESS THAN 4" DIA. WILL USE 4" PIPE VALUES.

SAFE SOIL BEARING LOADS

FOR HORIZONTAL THRUSTS WHEN THE DEPTH OF COVER OVER THE PIPE EXCEEDS 2 FEET

SOIL	POUNDS PER SQUARE FOOT
MUCK,PEAT	0
SOFT CLAY	1,000
SAND	2,000
SAND & GRAVEL	3,000
SAND & GRAVEL CEMENTED WITH CLAY	4,000
HARD SHALE	10,000

APPROVED BY	REVISED DATE	CITY OF CENTRALIA	STD. PLAN NO.
CITY ENGINEER	06/2017	THRUST LOADS	2-18
2026 Standard Drawings			

Approved By: _____ 1/26/26

CITY ENGINEER — DATE

CENTRALIA
Public Works Engineering Dept.
1100 N. TOWER AVE
CENTRALIA, WA 98531
P: 360.330.7512 F: 360.330.7516
CITYOFCENTRALIA.COM

No.	DATE	REVISION
0	12.1.2025	PRELIMINARY ISSUE
1	1.16.2026	ISSUED FOR CONSTRUCTION

WATERMAIN RELOCATION
WATERMAIN RELOCATION
STANDARD BLOCKING &
THRUST LOADS DETAILS

PW-2025-12
JONES RD
WATERMAIN RELOCATION

PATRICIA MARIE PAGE
STATE OF WASHINGTON
18849
REGISTERED
PROFESSIONAL ENGINEER
1/26/26

DESIGNED BY: PPAGE
DRAWN BY: RSORTO
SURVEYED BY:
CHECKED BY: PP/BH
December, 2025
C10
10 OF 10

SECTION 17, TWP. 14 N RGE. 1W, W.M.

LAND LINES ARE APPROXIMATE

THE WEST QUARTER CORNER OF SECTION 17, T14N R1W-L05
(7-2021 LEWIS COUNTY FIELD BOOK VOL. 938 PG. 8-9) FOUND A 8" SPLIT CEDAR FENCE POST, TOP OF POST IS ROTTEN. DROVE A DURANAIL IN THE TOP OF POST FOR LOCATION POINT. PER LAND CORNER RECORD UNDER AFN 3560084

THE NORTH QUARTER CORNER OF SECTION 17, T14N R1W-J07
(9-2021 LEWIS COUNTY FIELD BOOK VOL. 938 PG. 58-59) FOUND A 3" BRASS CAP IN A 6" CLAY TILE. PER LAND CORNER RECORD UNDER AFN 3561500

THE NE1/4 OF THE SW1/4 OF SECTION 17, T14N R1W

THOMAS AND DIANN HEINRICHER
PARCEL 020609-001-000

CLAYTON GRAHAM AND
KELLY MARIE GRAHAM
PARCEL 020598-004-001

THOMAS AND DIANN HEINRICHER
PARCEL 020602-003-000

HOUSE

16' EASEMENT FOR CITY OF CENTRALIA WATER LINE PER AFN 323471 AND AFN 104951. DEPTHS DO NOT GIVE A LOCATION. THE LOCATION DEPICTED IS BASED ON THE AS-BUILT OF THE UNDERGROUND LOCATES.

PACIFIC FIBERLINK PROJECT AND OLYMPIC PIPELINE COMPANY LOCATION AS PER REFERENCE DOCUMENT #2. THE LOCATION DEPICTED IS BASED ON THE AS-BUILT OF THE UNDERGROUND LOCATES. RIGHT OF WAY WIDTH IS LISTED AS 50' WIDE PER AFN 682417.

JONES RD. #456A

LITTLE HANAFORD RD. #686

OLD TACOMA OLYMPIA CHEHALIS VALLEY RAIL LINE "KOPIAH LINE"

OLD TACOMA OLYMPIA CHEHALIS VALLEY RAIL LINE "MAIN LINE"

HURD RD. #456A

EXISTING WATER LINE EASEMENT SEE SURVEY NOTE 1.

THE CENTER SOUTH SIXTEENTH CORNER OF SECTION 17, T14N R1W-M07
CALCULATED POSITION

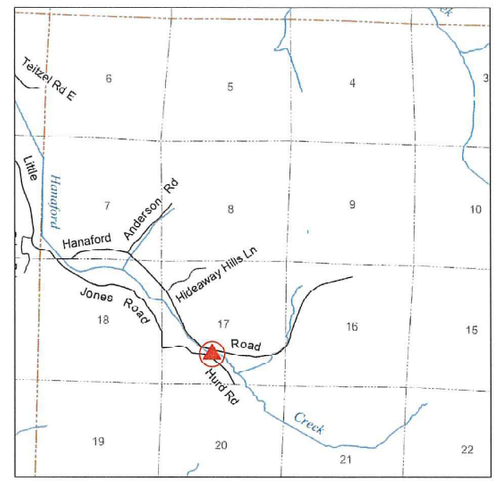
THE SE1/4 OF THE SW1/4 OF SECTION 17, T14N R1W

SAWDUST CONVEYOR

SAWMILL

THE SOUTH QUARTER CORNER OF SECTION 17, T14N R1W-N07
(9-2021 LEWIS COUNTY FIELD BOOK VOL. 938 PG. 36-37) FOUND A 1 1/2" SMALL GAUGE RAILROAD RAIL, 1.5' VISIBLE IN OLD EAST-WEST FENCE LINE. DROVE RAILROAD RAIL FLUSH WITH THE GROUND AND SET A 3 1/2" ALUMINUM CAP IN A 6" CONCRETE CYLINDER ABOVE RAIL. PER LAND CORNER RECORD UNDER AFN 3561499

VICINITY MAP
NOT TO SCALE



50 0 50 100 150
Scale: 1" = 50'

BEARINGS ARE BASED ON NAD 83/91 (WASHINGTON STATE PLANE GRID, SOUTH ZONE) N35°22'43"W BETWEEN LEWIS COUNTY GPS MONUMENT "LITTLE HANAFORD 1001" AND LEWIS COUNTY GPS MONUMENT "TEITZEL 1000". CONTROL FOR THE PROJECT WAS DERIVED FROM RTK OBSERVATIONS USING THE MONUMENTS NOTED ABOVE FOR BASE CONTROL. ADDITIONAL BASELINES WERE ALSO COLLECTED BY RTK METHOD FOR SECTION CORNER CONTROL. DISTANCES FOR THIS PROJECT WERE SCALED TO GROUND USING A SCALE FACTOR OF 1.000089367

PROPOSED RIGHT OF WAY ACQUISITION

PARCEL NUMBER	PROPERTY OWNER	ASSESSORS PARCEL BEFORE ACQUISITION	R/W ACQUISITION AREA		TEMP. CONST. EASEMENT		ASSESSORS PARCEL AFTER ACQUISITION
020609-001-000	THOMAS AND DIANN HEINRICHER		(A)	0.02 ACRES	(1)	0.04 ACRES	
			(R)	0.01 ACRES	(1-1)	0.02 ACRES	
					(2)	0.01 ACRES	
		80.18 ACRES		0.03 ACRES		0.07 ACRES	80.15 ACRES
020602-003-000	THOMAS AND DIANN HEINRICHER		(C)	0.02 ACRES	(3)	0.10 ACRES	
			(D)	0.02 ACRES	(4)	0.02 ACRES	
					(4-1)	0.01 ACRES	
		2.07 ACRES		0.04 ACRES		0.13 ACRES	2.03 ACRES
020598-004-001	CLAYTON GRAHAM AND KELLY MARIE GRAHAM		(E)	0.03 ACRES	(5)	0.01 ACRES	
			(F)	0.03 ACRES	(6)	0.06 ACRES	
					(5-1)	0.02 ACRES	
		1.69 ACRES		0.06 ACRES		0.09 ACRES	1.03 ACRES

SURVEY NOTES:
1. ONE FOOT WIDE WATERLINE EASEMENT PER AFN 9410767 FOR 2779 LITTLE HANAFORD RD COMMENCES AT WATER VALVE NEAR THE FIRE HYDRANT ON THE EAST SIDE OF JONES RD, SOUTH OF THE CULVERT, THENCE RUNS ALONG SOUTH SIDE OF LITTLE HANAFORD TO SERVED PARCEL, THE DEED DOES NOT GIVE A LOCATION.

REFERENCE DOCUMENTS:
1. RECORD OF SURVEY VOLUME 5 PAGE 277, LS#10785
2. DEEDS AFN 665514, 666449, 682417 AND 3050602.
3. LAND CORNER RECORD AFN 3561499, 3561500 AND 3560084, LS#57244
4. STATUTORY WARRANTY DEED AFN 3607357, 3530490
5. CITY OF CENTRALIA WATER LINE DEED AFN 104051 AND 323471
6. WATERLINE EASEMENT AND AGREEMENT AFN 9410767

RIGHT OF WAY MAP LEGEND

- EXISTING ROW
- REQUIRED ROW
- REQUIRED EASE
- ROW CENTERLINE
- EXISTING FENCE
- PROPOSED ROW
- TEMP CONST EASEMENT
- ADDITIONAL TEMP CONST EASEMENT
- SECTION CORNER
- QUARTER CORNER
- CALCULATED POSITION
- SIXTEENTH CORNER
- SET 5/8" REBAR & CAP LS 57244
- SECTION LINE
- QUARTER AND SIXTEENTH SECTION LINE
- SECTION TIE
- EXISTING EDGE OF ROAD
- RADIUS POINT LINES
- PROPERTY LINE
- OWNERSHIP TIE OR NOT TO SCALE FLYTIE
- PROJECT AREA
- PURCHASE AREAS OR EASEMENTS
- SET 3 1/2" LC ALUMINUM CAP WITH ROAD STATION.

Lewis County
Department of Public Works
57 WEST MAIN ST.
CHEHALIS WA 98532
PHONE # (360) 740-1123
FAX # (360) 740-2719

DESIGNED BY :
DRAWN BY : SL
CHECKED BY :
DATE : 6-04-2026

RIGHT OF WAY ALIGNMENT APPROVED BY :
SURVEY : DATE : 6-8-26
PROPERTY MANAGEMENT : DATE : 6/4/26
COUNTY ENGINEER: DATE : 6/8/26

NO.	DATE	REVISION	BY	APP.

JONES ROAD CULVERT REPLACEMENT
RIGHT OF WAY MAP
MP 1.71

COUNTY PROJECT NO:SM21F171900171

RIGHT OF WAY MAP
STA 10+00 TO STA 13+39.05

SHEET R1 OF R1

CALL 48 HOURS BEFORE YOU DIG
1-800-424-5555
"It's the Law"
Utilities Underground Location Center

SHAWN ANTHONY LATHAM
STATE OF WASHINGTON
57244
REGISTERED
PROFESSIONAL LAND SURVEYOR
6-8-26