TOWN OF CATHLAMET

WAHKIAKUM COUNTY **WASHINGTON**

BOEGE ROAD AND SR 4 PRV STATIONS

TOWN OFFICIALS

DAVID OLSON
Mayor

ROBERT STOWE **KERMIT CHAMBERLIN**

JOE BAKER **JEANNE HENDERICKSON** **LAUREL WALLER**
Town Council

DAVID MCNALLY
PUBLIC WORKS SUPERINTENDENT

Gray & Osborne, Inc.
CONSULTING ENGINEERS
8513 NE HAZEL DELL AVE, SUITE 202
VANCOUVER, WA 98665 • (360) 571-3350

JUNE 2023
G&O JOB #22239.00

ABBREVIATIONS

AC	ASBESTOS CEMENT PIPE
ADJ	ADJUST
ALT	ALTERNATE
ALUM	ALUMINUM
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
AP	ANGLE POINT
ASPH	ASPHALT
ASSY	ASSEMBLY
ASTM	AMERICAN SOCIETY OF TESTING AND MATERIALS
AVE	AVENUE
BF	BLIND FLANGE
BLDG	BUILDING
BLK	BLOCK
BO	BLOW OFF
BOP	BEGINNING OF PROJECT
BVCE	BEGIN VERTICAL CURVE ELEVATION
BVCS	BEGIN VERTICAL CURVE STATION
C	CONDUIT
CAP	CORRUGATED ALUMINUM PIPE
CB	CATCH BASIN
CF	CUBIC FEET
CFS	CUBIC FEET PER SECOND
CICL	CAST IRON CLASS
CLR	CLEARANCE
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUED/CONTINUOUS
CPEP	CORRUGATED POLYETHYLENE PIPE
CPLG	COUPLING
CTR	CENTER
CY	CUBIC YARD
℄	CENTER LINE
D	DRAIN
DC	DEGREE OF CURVATURE
DI	DUCTILE IRON
DIA	DIAMETER
DIM	DIMENSION
DOT	DEPARTMENT OF TRANSPORTATION
DWGS	DRAWING(S)
E	EAST
EA	EACH
EL	ELEVATION
ELEC	ELECTRICAL
EOA	EDGE OF ASPHALT
EOP	END OF PROJECT
EVCE	END VERTICAL CURVE ELEVATION
EVCS	END VERTICAL CURVE STATION
EXIST	EXISTING
FIG	FIGURE
FIN	FINISHED
FL	FLANGE
FT	FEET
GA	GAUGE
GALV	GALVANIZED
GI	GALVANIZED IRON
GV	GATE VALVE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IN	INCH
INV	INVERT
L	LENGTH
LB	POUND
LF	LINEAR FEET
MAX	MAXIMUM
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
N	NORTH
NO	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
PC	POINT OF CURVATURE
PE	PLAIN END
PERF	PERFORATED
PI	POINT OF INTERSECTION
PP	POWER POLE
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
PVI	POINT OF VERTICAL INTERSECTION
PVMT	PAVEMENT
PVT	POINT OF VERTICAL TANGENT
QTY	QUANTITY
R	RADIUS
R/W	RIGHT-OF-WAY
RED	REDUCER
REINF	REINFORCE
REQD	REQUIRED
RET	RETAINING
RR	RAILROAD
S	SOUTH
SCH	SCHEDULE
SF	SQUARE FEET
SHT	SHEET
SL	SLOPE
SPECS	SPECIFICATIONS
SQ	SQUARE
STA	STATION
STD	STANDARD
TB	THRUST BLOCK
TC	TOP OF CURB
TEL	TELEPHONE
TESC	TEMPORARY EROSION AND SEDIMENT CONTROL
THRD	THREADED
THRU	THROUGH
TYP	TYPICAL
VERT	VERTICAL
W	WEST
W/	WITH
W/O	WITHOUT
WSDOT	WASHINGTON STATE DEPARTMENT OF TRANSPORTATION

LINETYPES

EXISTING	PROPOSED	DESCRIPTION
SURFACE FEATURES		
		CURB (TYPE AS NOTED)
		CURB & GUTTER
		ASPHALT PAVEMENT
		GRAVEL SURFACING
		CONCRETE SURFACING
		CEMENT CONC. SIDEWALK
x x		FENCE/RAILING (TYPE AS NOTED)
x x		FENCE WITH GATE
		SHRUB/TREE/VEGETATION LINE
		EDGE OF LANDSCAPING
		SILT FENCE
SURVEY		
		RIGHT-OF-WAY LINE
		CENTERLINE OF RIGHT-OF-WAY
		PROPERTY LINE
		PERMANENT EASEMENT LINE
10		CONTOUR LINE
UTILITIES		
OH		OVERHEAD UTILITIES
E		BURIED ELECTRICAL
T		BURIED TELEPHONE/COMMUNICATIONS
W	W	WATER MAIN (SIZE AS NOTED)
S		SANITARY SEWER MAIN (SIZE AS NOTED)
D		STORM DRAIN (SIZE AS NOTED)
		DITCH CENTERLINE/THALWEG

WATER SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		CAP/PLUG
		COUPLING/ADAPTER
		GUARD POST
		REDUCER
		THRUST BLOCK
		WATER METER
W		WATER VAULT (SIZE VARIES)
FIRE HYDRANT		
		FIRE HYDRANT (3-NOZZLE)
JOINTS		
		FLANGE/BLIND FLANGE
		MECHANICAL JOINT
VALVES		
		AIR RELIEF VALVE
		BLOW-OFF VALVE
		BUTTERFLY VALVE
		CHECK VALVE
		GATE VALVE

SANITARY/STORM SEWER SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		STORM DRAIN MANHOLE/TYPE 2 CATCH BASIN (ACTUAL DIMENSION SHOWN FOR PROPOSED)
		STORM DRAIN CATCH BASIN, CONCRETE INLET, OR YARD/AREA DRAIN (ACTUAL DIMENSION SHOWN FOR PROPOSED)
		SANITARY SEWER MANHOLE (ACTUAL DIMENSION SHOWN FOR PROPOSED)

GAS/POWER/TELEPHONE SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		PAD MOUNT TRANSFORMER
P		POWER VAULT (SIZE VARIES)
		TRANSMISSION TOWER
		UTILITY POLE
		UTILITY POLE ANCHOR
		UTILITY PEDESTAL
T		TELEPHONE VAULT (SIZE VARIES)

GENERAL NOTES:

1. ALL MATERIALS AND WORKMANSHIP SHALL BE FURNISHED AND SUPPLIED IN ACCORDANCE WITH THE 2022 EDITION OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION, UNLESS OTHERWISE SPECIFICALLY NOTED.
2. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT AND COORDINATE WITH ALL UTILITY COMPANIES IN ORDER TO ASSURE THAT ALL LINES, PIPES, POLES AND OTHER APPURTENANCES ARE PROPERLY LOCATED, SECURED, AND/OR PROTECTED. BURIED UTILITIES (WHERE KNOWN) ARE SHOWN IN THEIR APPROXIMATE LOCATION. THE CONTRACTOR SHALL HAVE UTILITIES VERIFIED ON THE GROUND PRIOR TO ANY CONSTRUCTION. NOTIFY THE UNDERGROUND UTILITIES LOCATE CENTER: 1-800-424-5555.
3. ON-SITE EROSION AND SEDIMENT CONTROL MEASURES ARE REQUIRED AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. THE CONTRACTOR SHALL HAVE A COPY OF THESE PLANS, ANY ADDENDA, CHANGE ORDERS, AND THE CONTRACT SPECIFICATIONS ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
5. THE CONTRACTOR SHALL PROMPTLY NOTIFY THE ENGINEER IN THE EVENT OR DISCOVERY OF UNSUITABLE SOILS OR HIGH GROUND WATER CONDITIONS OR DISCREPANCIES FROM THE PLANS.
6. THE CONTRACTOR SHALL MAINTAIN A CLEAN LEGIBLE SET OF RECORD DRAWINGS AND PROVIDE A SET TO THE OWNER PRIOR TO DEMOBILIZATION OF THE SITE. SEE SPECIFICATIONS.

SIGNALIZATION/ILLUMINATION SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		JUNCTION BOX (TYPE I, II, VIII)
		LIGHT/LUMINAIRE POLE W/ARM

SURFACE FEATURES/LANDSCAPING

EXISTING	PROPOSED	DESCRIPTION
		BUILDING
		SIGN
		TREE STUMP
		SHRUB
NOTED		TREE (CONIFER)
NOTED		TREE (DECIDUOUS)

SURVEY SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		CONTROL POINT
		MONUMENT (IN CASE)
		MONUMENT (SURFACE)
		BENCH MARK
		BOUNDARY/PROPERTY CORNER
		IRON PIPE

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6/28/23

ABBEY N. McDONALD — STATE OF WASHINGTON — 57657 — REGISTERED PROFESSIONAL ENGINEER
6/28/23

Town of CATHLAMET Washington

TOWN OF CATHLAMET

BOEGE ROAD AND SR 4 PRV STATIONS

No.	DATE	REVISION

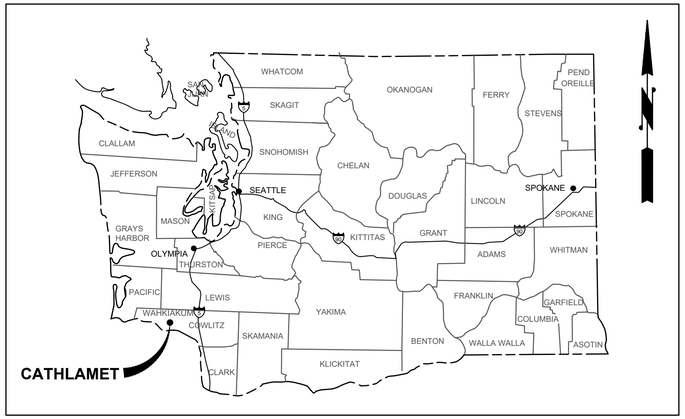
ISSUED FOR:	BID AND CONSTRUCTION
ISSUE DATE:	JUNE 2023
APPROVED BY:	MBJ
CHECKED BY:	ANM
DRAWN BY:	RAH
DESIGNER:	ANM
G & O JOB NO.:	22239
FILE:	LEGEND.DWG

0 1" 2"
TWO INCHES AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY

GENERAL

ABBREVIATIONS, LINETYPE LEGEND, AND SYMBOL LEGEND

DRAWING: **G-1** OF: **9**



VICINITY MAP
NTS

SHEET INDEX	
SHEET NO	**DESCRIPTION**
--	COVER
GENERAL	
G-1	ABBREVIATIONS, LINETYPE LEGEND, AND SYMBOL LEGEND
G-2	VICINITY MAP, LOCATION MAP, AND SHEET INDEX
G-3	SURVEY CONTROL
G-4	SITE PLAN
G-5	PRV 1 AND 2 PIPING DETAILS
G-6	TEMPORARY EROSION AND SEDIMENT CONTROL NOTES AND DETAILS
G-7	TRENCHING, RESTORATION, AND WATER DETAILS
G-8	PRV 1 AND PRV 2 VAULT PLANS AND SECTIONS
G-9	TRAFFIC CONTROL PLAN

PROJECT CONTACT INFORMATION:

OWNER CONTACT

TOWN OF CATHLAMET
375 2ND STREET
CATHLAMET, WA 98612

DAVID MCNALLY
PUBLIC WORKS SUPERINTENDENT
DAVID@TOWNOFCATHLAMET.COM
(360)751-0257

ENGINEER CONTACT
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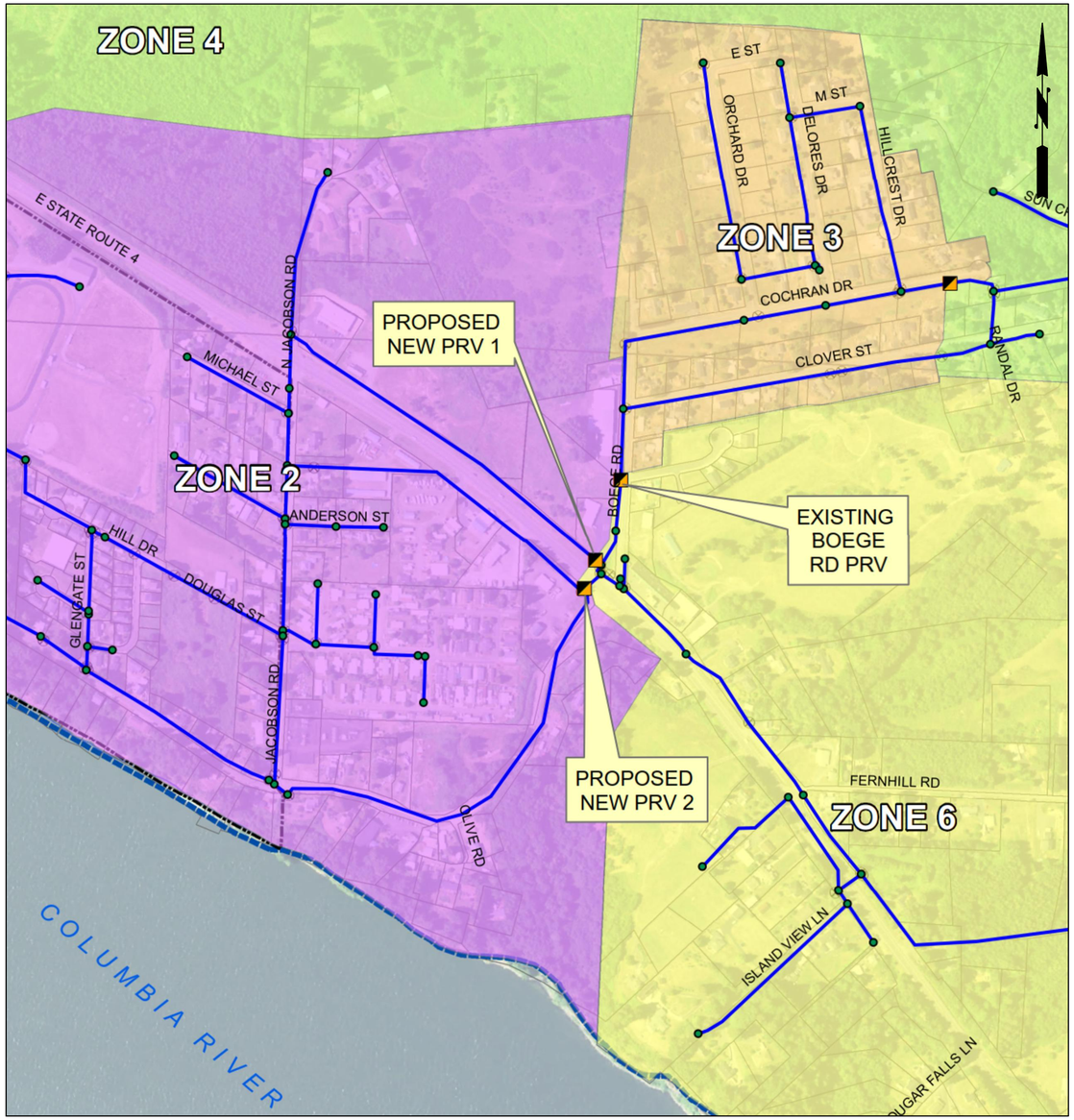
ABBEY MCDONALD, P.E.
AMCDONALD@G-O.COM
(360)571-3350

PRV STATION 1 DESIGN CRITERIA:

ELEVATION (CENTERLINE)	230 FT
SIZE	(1) 2-INCH, (1) 6-INCH
UPSTREAM PRESSURE	81 PSI
DOWNSTREAM PRESSURE	68 PSI

PRV STATION 2 DESIGN CRITERIA:

ELEVATION (CENTERLINE)	218 FT
SIZE	(1) 2-INCH, (1) 6-INCH
UPSTREAM PRESSURE	86 PSI
DOWNSTREAM PRESSURE	73 PSI



PRESSURE ZONE RECONFIGURATION AND PROJECT LOCATION
SCALE: 1:300

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FILE:	VIC_LOC_INDEX.DWG

0 1" 2"
TWO INCHES AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY

GENERAL

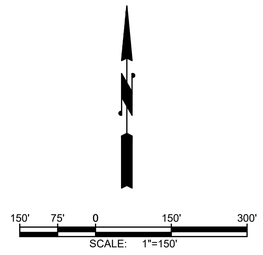
VICINITY MAP, LOCATION MAP, AND SHEET INDEX

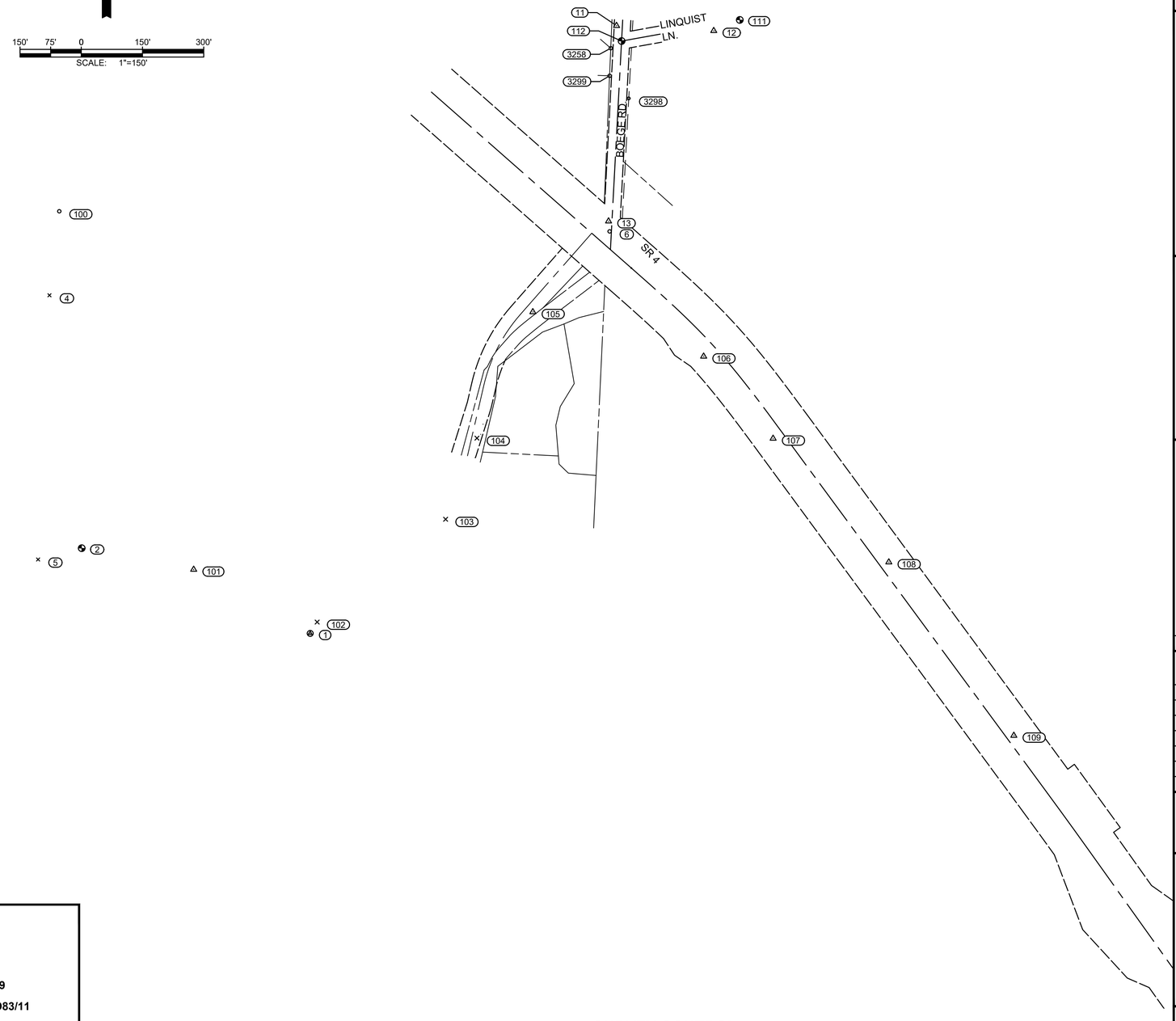
DRAWING: **G-2** OF: **9**

L:\Cathlamet\22239.00 - Boege Road and SR4 PRV\01 Design\PLANSET\General\VIC_LOC_INDEX.dwg, 6/28/2023 11:09 AM, ABBEY MCDONALD

CONTROL COORDINATES TABLE

TOWN OF CATHLAMET - BOEGE ROAD & SR 4 PRV				
JOB NUMBER - 22239				
HORIZONTAL DATUM:	**NAD83/2011** WASHINGTON PLANE COORDINATE SYSTEM, SOUTH ZONE, GRID NORTH MODIFIED GROUND COORDINATES, SCALED TO GROUND USING AVG. CGF OF 0.99993061754 AT WSDOT/NGS T202 (G&O #1)			
VERTICAL DATUM:	**NGVD29** **HOLDING NGS PUBLISHED ELEVATION ON "NGS T202" (G&O #1)**			
POINT	NORTHING	EASTING	ELEV	DESCRIPTION
1	327251.32	914066.79	214.67	SFM=FOUND SURFACE MONUMENT, WSDOT/NGS "T202" 3 1/2" BRASS DISC W/ "X" "1941" USGS BENCH MARK.
2	327459.96	913507.07	203.29	SFMC, 3 1/2" BRASS DISC "T202 RESET" ON CONC PAD OF POWER TOWER.
4	328079.35	913428.22	210.37	SFN=FOUND NAIL, MAG NAIL IN CENTERLINE JACOBSEN ROAD. N SIDE DOUGLAS ST. ~15' E OF POWER POLE.
5	327432.35	913400.31	201.58	SFN, MAG NAIL IN INTX JACOBSEN RD & COLUMBIA STREET.
6	328235.75	914800.25	227.68	SFRC, 5/8" REBAR W/ RED "HAMPSTUR CORP" PLASTIC CAP. AT GRADE. NE CORNER SR 4 & BOEGE RD IN GRASS ISLAND. ~245' SSE FROM MAILBOX. 9' N OF N EDGE OF ASPHALT. 8' E OF E ASPHALT AT W TIP OF GRASS ISLAND. N78°E OF NE CORNER OF CROSSWALK ON E SIDE OF INTX SR4 & BOEGE RD. 25' S09°W OF SW CORNER OF PRESSURE TREATED POST W/ 3 MAILBOXES.
11	328739.53	914817.20	253.78	SSNT, N EDGE OF DRIVEWAY, 3' W OF FOG LINE. W SIDE BOEGE RD, 37' N OF CENTERLINE LINQUIST LN EXTENDED. PREVIOUSLY #159 FROM G&O #05326.
12	328727.08	915055.36	259.58	SSNT, S SIDE LINQUIST LN & 1ST TRACT RD E OF INTX W/ BOEGE RD. 3' NNW OF S FACE OF CURB AT SEAM AT BOTTOM OF E WING OF ADA RAMP. SE QUADRANT LINQUIST LN & TRACT RD.
13	328260.77	914797.67	227.57	SSNT, 2.4' E OF FOGLINE. 19' SW OF POWER POLE. INTX BOEGE RD & SR 4. PREVIOUSLY #158 FROM G&O #05326.
100	328284.98	913452.26	211.01	SFRC, 5/8" REBAR W/ YELLOW PLASTIC CAP, " HAMPSTUR CORP LS 18087" NW CORNER INDIAN VILLAGE MOBILE ESTATES.
101	327407.81	913781.39	207.53	SSNT, N SIDE COLUMBIA ST. W SIDE DRWY, SE FROM POWER POLE.
102	327279.15	914083.94	214.69	SSN=SET NAIL, 60-D NAIL W/ WHISKERS. S SIDE COLUMBIA ST. ~16' S OF EDGE OF ASPHALT. ~12' N O N EDGE CONC DRWY. ~33' E OF MAILBOX FOR #1150. NNE OF WSDOT "T202."
103	327530.86	914398.54	212.97	SSN, 60-D NAIL W/ WHISKERS. 4' E OF GUARDRAIL. ~35' SSW OF PHONE PEDESTAL. IN TOP OF DIRT BANK.
104	327729.52	914475.38	210.22	SSN, 2' W OF E EDGE OF ASPHALT COLUMBIA ST. 2.8' E OF FOG LINE. 9' NW OF MAILBOX FOR #1490. N SIDE OF DRWY.
105	328038.50	914612.24	214.62	SSNT=SET LG MAG NAIL W/ "G&O CONTROL" TAG, 5.0' E OF E FOG LINE COLUMBIA ST. 2.0' WSW OF EDGE OF ASPHALT. N SIDE N DRWY TO HOUSE.
106	327929.74	915030.57	227.89	SSNT, ~7' NE OF EDGE OF ASPHALT DRWY. ~12' SW OF FOG LINE. W SIDE OF DRIVEWAY.
107	327728.68	915200.76	238.59	SSNT, S SIDE SR 4. ~2.5' N OF EDGE OF ASPHALT. ~4' S OF FOG LINE. S OF PC MONUMENT. ~MIDDLE OF LENGTH OF GUARDRAIL.
108	327425.80	915484.17	258.96	SSNT, 1' SW OF NE EDGE OF ASPHALT. NW OF N 1/2D INTX FERN HILL & SR 4. ~25' NW OF STOP SIGN.
109	327001.24	915790.42	272.15	SSNT, 1.5' SSW OF NNE EDGE OF ASPHALT SR 4. EXTENDED WESTERLY EDGE OF ASPHALT OF ISLAND VIEW LANE.
111	328753.67	915119.06	264.59	SFMC, 2" IRON PIPE W/ TACK, SET IN CONC. DOWN 0.4' IN CASE. TACK IS 0.03' BELOW TOP OF PIPE, ADD THIS DEPTH TO MEASURE UP. CENTERLINE LINQUIST LN, E OF TRACT RD TO S.
112	328701.92	914829.61	251.97	SFMC, 2" IRON PIPE W/ TACK, SET IN CONC. DOWN 0.5' IN CASE. TACK IS 0.02' BELOW TOP OF PIPE, ADD THIS DEPTH TO MEASURE UP. CENTER OF INTX BOEGE RD & LINQUIST LN.
3258	328684.32	914803.09	251.82	SFRC, 5/8" REBAR W/ YELLOW PLASTIC "HAMPSTUR CORP LS 18267" CAP.
3298	328561.50	914847.07	243.14	SFR, 3/8" REBAR W/ FLAGGING. DOWN 0.35' BELOW F/G.
3299	328616.70	914800.26	245.94	SFRC, 5/8" REBAR W/ YELLOW PLASTIC "HAMPSTUR CORP LS 18267" CAP.





SURVEY CONTROL
SCALE: 1"=150'

RIGHT-OF-WAY DISCLAIMER

THE RIGHT-OF-WAY AND/OR PROPERTY LINES SHOWN HEREON ARE BASED ON AVAILABLE INFORMATION, NOT ON A SURVEYED LOCATION AND ARE ONLY APPROXIMATE.

DATUM

VERTICAL: VERTICAL DATUM - NGVD29
HORIZONTAL: HORIZONTAL DATUM - NAD83/11
W.S.P.C.S. S. ZONE

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RICHARD A. BOND — STATE OF WASHINGTON — 40097 — REGISTERED PROFESSIONAL LAND SURVEYOR
06/29/2023

ABBEY N. McDONALD — STATE OF WASHINGTON — 57657 — REGISTERED PROFESSIONAL ENGINEER
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0 1" 2"
TWO INCHES AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY

GENERAL

SURVEY CONTROL

DRAWING: **G-3** OF: **9**

FIRE DISTRICT NO. 4
287 E STATE RT 4
120806240012

HOGE NSON
8 BOEGE RD
120806120005

ALIYA & SAHIJ, LLC
301 E STAT RT 4
120806120011

STATE OF WASHINGTON
286 E STATE RT 4
120806240013

SR4 PRV 1 VAULT 1/G-5

SR4 PRV 2 VAULT 2/G-5

1/G-6 SILT FENCE

1/G-6 SILT FENCE

SR 4

BOEGE RD

COLUMBIA ST

18" CONCRETE CULVERT IE: 216.14

12" CMP IE: 221.96

PED X-WALK BUTTON

ABANDONED 6" AC WATER

ABANDONED 6" AC

224.33

13

6

20' 10' 0 20' 40'
SCALE: 1"=20'

CONSTRUCTION NOTES:

1. CONTRACTOR SHALL LOCATE EXISTING UTILITIES SO HORIZONTAL AND/OR VERTICAL ALIGNMENT CAN BE ADJUSTED AS NECESSARY. CONTRACTOR SHALL POTHOLE PRIOR TO EXCAVATION TO DETERMINE EXACT LOCATION, DEPTH AND MATERIAL OF EXISTING UTILITIES AT ALL CROSSINGS AND CONFLICTS.
2. CONTRACTOR SHALL CONNECT NEW WATER MAIN TO EXISTING WATER MAIN WITH TRANSITION COUPLING. CONTRACTOR SHALL NOT MAKE CONNECTION TO EXISTING SYSTEM UNTIL A SUCCESSFUL PURITY AND PRESSURE TEST OF THE NEW SYSTEM HAS BEEN WITNESSED BY THE OWNER. CONTRACTOR SHALL INSTALL TEMPORARY BLOW-OFFS, FITTINGS, AND BLOCKING AS NECESSARY TO TEST AND DISINFECT WATER MAIN.
3. INSTALL EROSION CONTROL PER DETAIL 1 ON SHEET G-6 PRIOR TO THE START OF CONSTRUCTION.
4. ALL DISTURBED AREA SHALL BE HYDROSEEDED PER DETAIL 4 ON SHEET G-7.

SITE PLAN
SCALE: 1"=20'

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0 1" 2"
TWO INCHES AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY

GENERAL

SITE PLAN

DRAWING: **G-4** OF: **9**

CONTROL TABLE				
	DESCRIPTION	ELEVATION	NORTHING	EASTING
1	6" 90° BEND (MJ) w/ THRUST BLOCK	229.27	328,411.76	914,629.56
2	6" 90° BEND (MJ) w/ THRUST BLOCK	229.27	328,399.04	914,644.28
3	CORNER OF PRV VAULT	236.00	328,407.80	914,631.82
4	CORNER OF PRV VAULT	236.00	328,405.20	914,643.92
5	8" x 6" TEE (FL) w/ THRUST BLOCK	227.66	328,421.41	914,637.91
6	8" x 6" TEE (FL) w/ THRUST BLOCK	227.66	328,408.70	914,652.63
7	6" 90° BEND (MJ) w/ THRUST BLOCK	217.22	328,248.44	914,674.97
8	6" 90° BEND (MJ) w/ THRUST BLOCK	217.22	328,235.88	914,662.93
9	CORNER OF PRV VAULT	223.01	328,247.09	914,671.65
10	CORNER OF PRV VAULT	223.01	328,235.16	914,668.38
11	6" TEE (FL) w/ THRUST BLOCK	220.29	328,226.89	914,672.39
12	6" TEE (FL) w/ THRUST BLOCK	221.25	328,239.56	914,684.37

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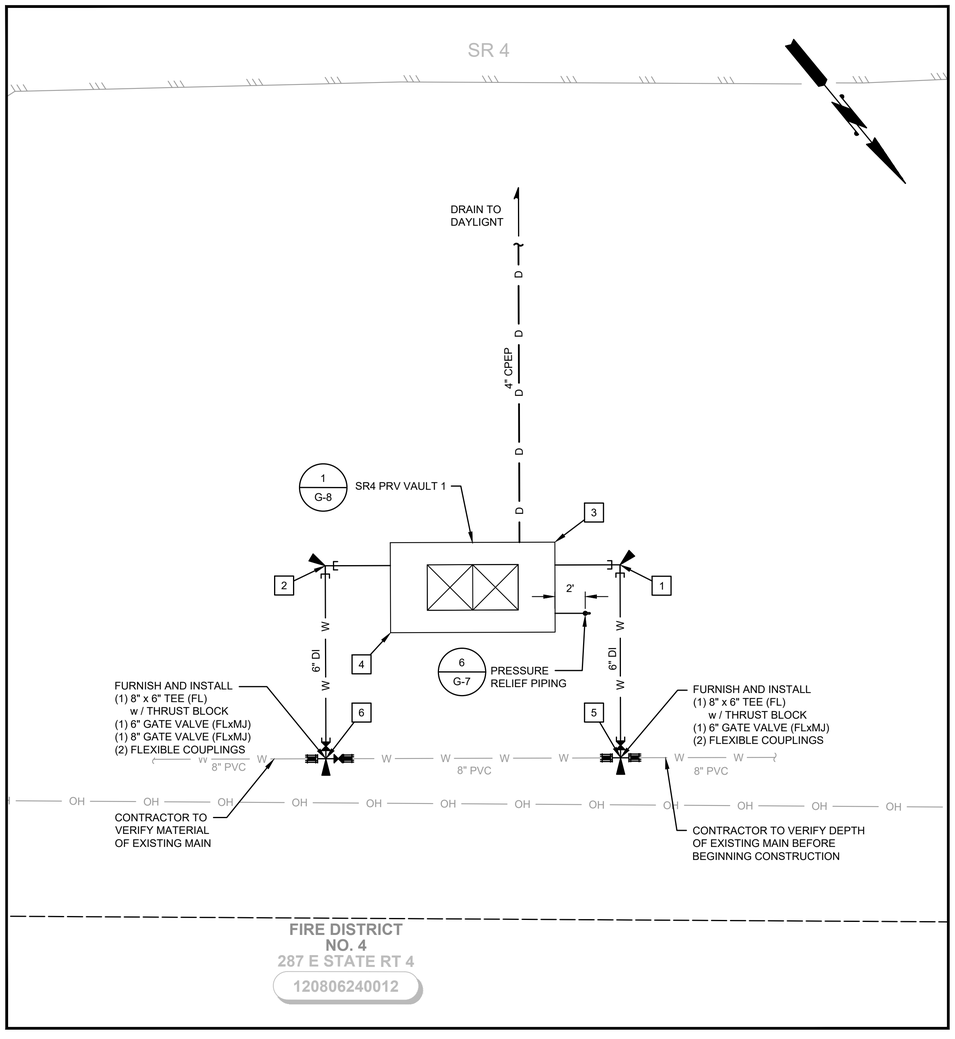
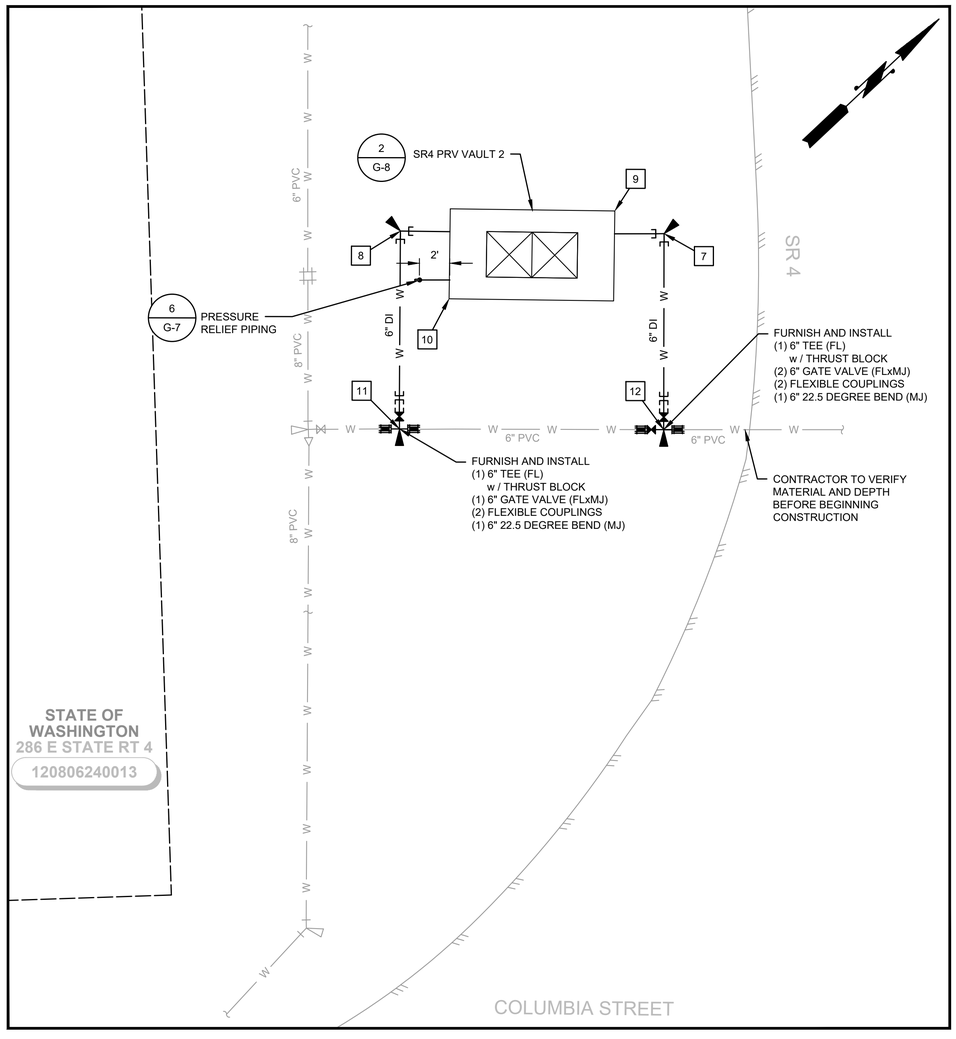
1. CONTRACTOR SHALL LOCATE EXISTING UTILITIES SO HORIZONTAL AND/OR VERTICAL ALIGNMENT CAN BE ADJUSTED AS NECESSARY. CONTRACTOR SHALL POTHOLE PRIOR TO EXCAVATION TO DETERMINE EXACT LOCATION, DEPTH AND MATERIAL OF EXISTING UTILITIES AT ALL CROSSINGS AND CONFLICTS.
2. CONTRACTOR SHALL CONNECT NEW WATER MAIN TO EXISTING WATER MAIN WITH TRANSITION COUPLING. CONTRACTOR SHALL NOT MAKE CONNECTION TO EXISTING SYSTEM UNTIL A SUCCESSFUL PURITY AND PRESSURE TEST OF THE NEW SYSTEM HAS BEEN WITNESSED BY THE OWNER. CONTRACTOR SHALL INSTALL TEMPORARY BLOW-OFFS, FITTINGS, AND BLOCKING AS NECESSARY TO TEST AND DISINFECT WATER MAIN.
3. INSTALL EROSION CONTROL PER DETAIL 1 ON SHEET G-6 PRIOR TO START OF CONSTRUCTION.
4. ALL DISTURBED AREA SHALL BE HYDROSEEDED PER DETAIL 4 ON SHEET G-7.
5. ALL PIPING TO BE RESTRAINED.



PRV 1 PIPING DETAILS

SCALE: 1"=5'



PRV 2 PIPING DETAILS

SCALE: 1"=5'

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36408
REGISTERED
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6/28/23

ABBEY N. McDONALD
STATE OF WASHINGTON
57657
REGISTERED
PROFESSIONAL ENGINEER
6/28/23

Town of CATHLAMET Washington

TOWN OF CATHLAMET

BOEGE ROAD AND SR 4 PRV STATIONS

No.	DATE	REVISION

ISSUED FOR:	BID AND CONSTRUCTION
ISSUE DATE:	JUNE 2023
APPROVED BY:	MBJ
CHECKED BY:	ANM
DRAWN BY:	RAH
DESIGNER:	ANM
G & O JOB NO.:	22239
FILE:	E_SITE_P.DWG

0 1" 2"
TWO INCHES AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY

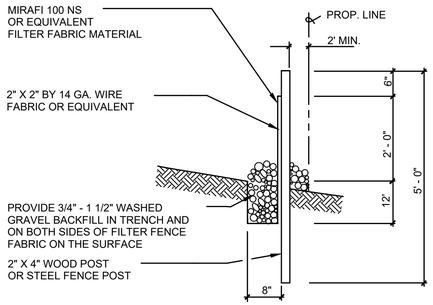
GENERAL

PRV 1 AND 2 PIPING DETAILS

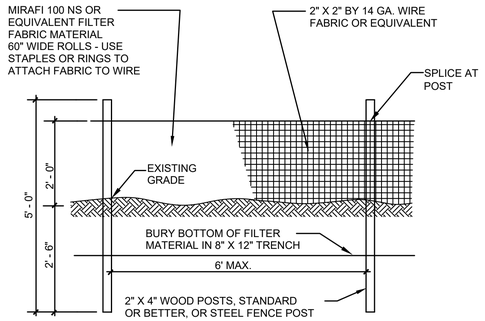
DRAWING: **G-5** OF: **9**

EROSION/SEDIMENTATION CONTROL NOTES

1. ALL LIMITS OF CLEARING AND AREAS OF VEGETATION PRESERVATION SHALL BE OBSERVED DURING CONSTRUCTION.
2. ALL REQUIRED SEDIMENTATION/EROSION CONTROL FACILITIES MUST BE IN OPERATION PRIOR TO LAND CLEARING AND/OR OTHER CONSTRUCTION TO INSURE THAT SEDIMENT LADEN WATER DOES NOT ENTER THE NATURAL DRAINAGE SYSTEM. ALL EROSION AND SEDIMENT FACILITIES SHALL BE MAINTAINED IN A SATISFACTORY CONDITION UNTIL SUCH TIME THAT CLEARING AND /OR CONSTRUCTION IS COMPLETED AND THE POTENTIAL FOR ON-SITE EROSION HAS PASSED. THE IMPLEMENTATION, MAINTENANCE, REPLACEMENT AND ADDITIONS TO EROSION/SEDIMENTATION CONTROL SYSTEMS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. THE EROSION AND SEDIMENTATION CONTROL SYSTEMS DEPICTED ON THIS DRAWING ARE INTENDED TO BE MINIMUM REQUIREMENTS TO MEET ANTICIPATED SITE CONDITIONS. AS CONSTRUCTION PROGRESSES AND AS UNEXPECTED OR SEASONAL CONDITIONS DICTATE, THE CONTRACTOR SHOULD ANTICIPATE THAT MORE EROSION AND SEDIMENTATION CONTROL FACILITIES WILL BE NECESSARY TO INSURE COMPLETE SILTATION CONTROL ON THE PROPOSED SITE. DURING THE COURSE OF CONSTRUCTION, IT SHALL BE THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY HIS ACTIVITIES AND TO PROVIDE ADDITIONAL FACILITIES, OVER AND ABOVE THE MINIMUM REQUIREMENTS, AS MAY BE NEEDED TO PROTECT ADJACENT PROPERTIES AND THE WATER QUALITY OF THE RECEIVING DRAINAGE SYSTEM.
4. AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND DISPOSING OF THE SEDIMENT. ALL CATCH BASINS, CONVEYANCE LINES AND DITCHES SHALL BE CLEANED PRIOR TO PAVING.
5. THE CONTRACTOR SHALL REMOVE MATERIAL DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO THE COUNTY RIGHT-OF-WAY OR INTO THE EXISTING STORM DRAINAGE SYSTEM. DEBRIS SHALL NOT BE WASHED INTO THE STORM DRAINAGE SYSTEM.
6. TEMPORARY EROSION CONTROL FACILITIES SHALL BE INSPECTED WEEKLY AND MAINTAINED WITHIN 24 HOURS FOLLOWING A STORM EVENT. SEDIMENT SHALL BE REMOVED TO INSURE THE FACILITIES WILL FUNCTION PROPERLY. THE FACILITIES SHALL BE SATISFACTORILY MAINTAINED UNTIL CONSTRUCTION IS COMPLETED AND THE POTENTIAL FOR ON-SITE EROSION HAS PASSED.
7. ALL STORM DRAIN INLETS MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT STORMWATER RUNOFF SHALL NOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.
8. NO DISTURBED SOIL SHALL REMAIN UNSTABILIZED FOR MORE THAN TWO DAYS.
9. CONTRACTOR MAY INSTALL COMPOST BERMS IN LIEU OF SILT FENCE.



SECTION



ELEVATION

1 TYP — **FILTER FABRIC FENCE DETAIL**
NOT TO SCALE

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6/28/23

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6/28/23

Town of CATHLAMET Washington

TOWN OF CATHLAMET

BOEGE ROAD AND SR 4 PRV STATIONS

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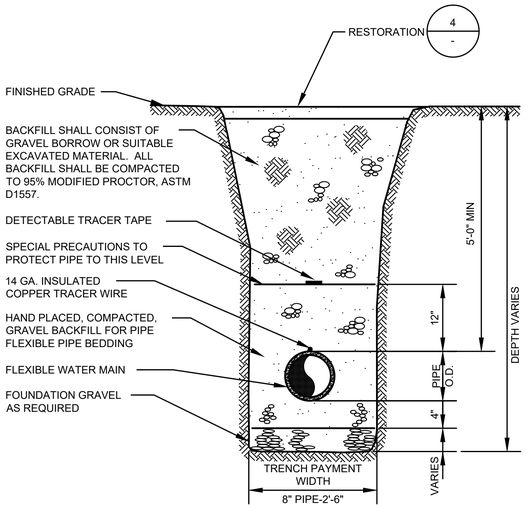
DESIGNER:	ANM
G & O JOB NO.:	22239
FILE:	TESC.DWG

0 1" 2"
TWO INCHES AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY

GENERAL

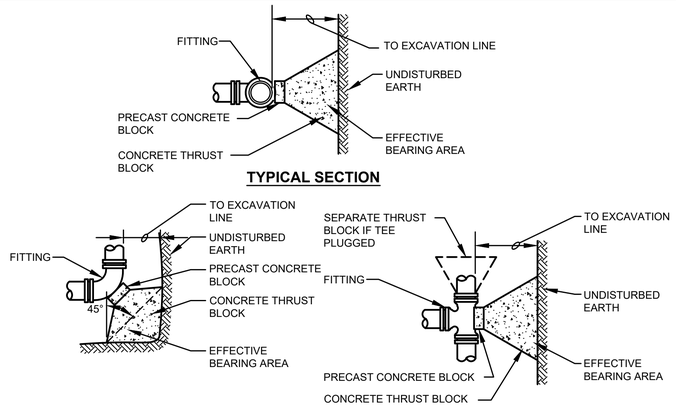
TEMPORARY EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

DRAWING: **G-6** OF: **9**



1 TYP **WSDOT R/W TRENCH SECTION**

NOT TO SCALE



90 EL PLAN

TEE PLAN

EFFECTIVE BEARING AREA REQUIRED

FITTING D	TEE	90°	45°	22½°	11¼°
6"	4 SQ. FT.	6 SQ. FT.	3 SQ. FT.	2 SQ. FT.	2 SQ. FT.
8"	7 SQ. FT.	10 SQ. FT.	6 SQ. FT.	3 SQ. FT.	2 SQ. FT.

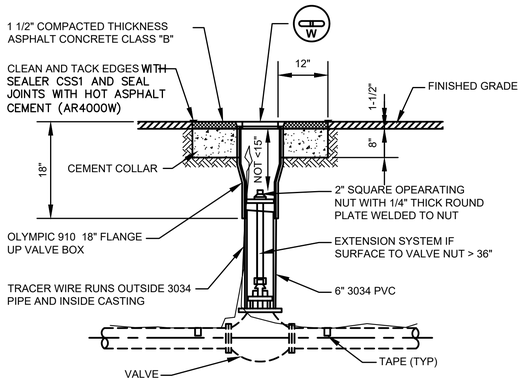
TYPICAL FOR SANDY SOIL WITH 2,000 P.S.F. BEARING STRENGTH & 100 P.S.I. WORKING PRESSURE. ADJUST BEARING AREA BY PRESSURE & SOIL BEARING CAPACITY. USE TEE FOR DEAD ENDS

NOTES:

1. BLOCKING SHALL BE TO SOLID BEARING SURFACE.
2. FITTING SHALL BE PROTECTED WITH A POLYTHLENE ENCASEMENT.
3. BEARING ARE SHALL BE PROPORTIONALLY INCREASED WITH PRESSURES IN EXCESS OF 100 P.S.I OR IN SOIL CONDITIONS WITH LESS THAN 2,OOO P.S.F BEARING STRENGTH.
4. ALL BLOCKS ON TEES SHALL BE SEPARATED FOR DIRECTION OF THRUST.

2 TYP **THRUST BLOCKING**

NOT TO SCALE



3 TYP **VALVE BOX W/ WIRE DETAIL**

NOT TO SCALE

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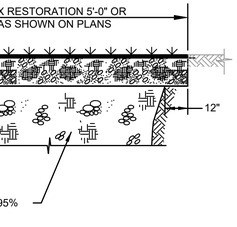
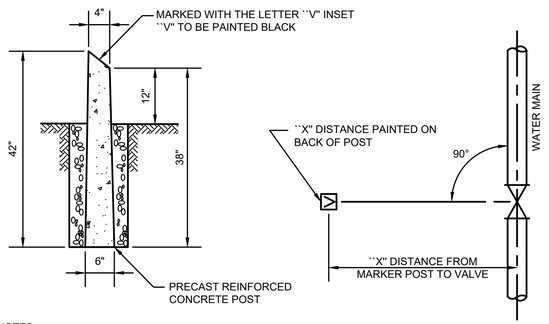


4 TYP **HYDROSEED RESTORATION**

NOT TO SCALE

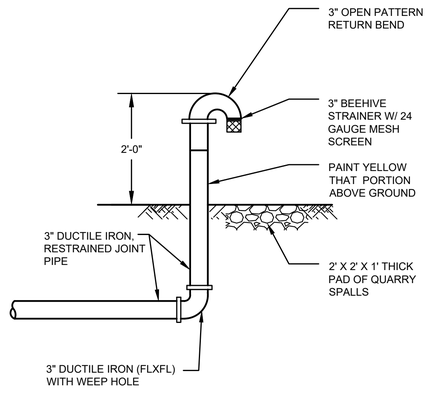


NOTES:

1. PRECAST REINFORCED POST TO BE PAINTED FLAT TRAFFIC YELLOW #2612 OR SAFETY YELLOW #1063.
2. THE DISTANCE FROM THE MARKER POST TO THE WATER MAIN SHALL BE PAINTED ON THE BACKSIDE OF THE MARKER POST IN BLACK WITH A 2" HIGH NUMBER.
3. VALVE MARKER POST SHALL BE REQUIRED WHENEVER THE WATER VALVE IS LOCATED IN AN UNPAVED AREA.
4. THE POST WILL ALSO BE REQUIRED FOR BLOW-OFF IN THE SAME CONDITION AS WATER VALVES.

5 TYP **VALVE MARKER POST**

NOT TO SCALE



6 G-5 **PRESSURE RELIEF PIPING**

NOT TO SCALE

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FILE:	GEN_DET.DWG

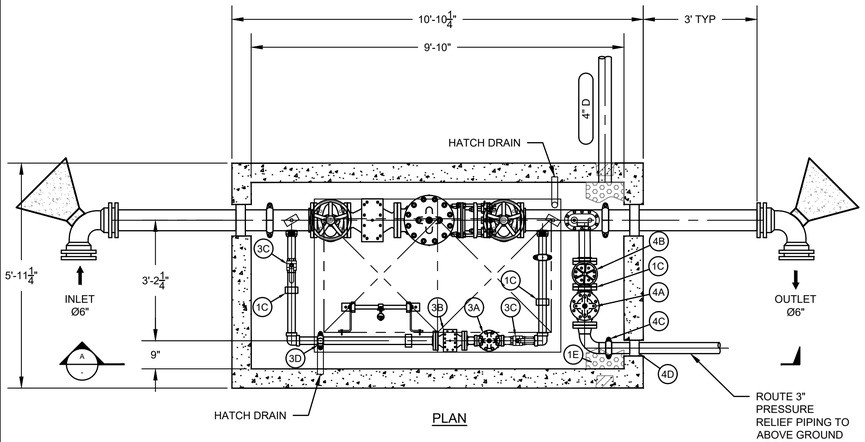
0 1" 2"

TWO INCHES AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

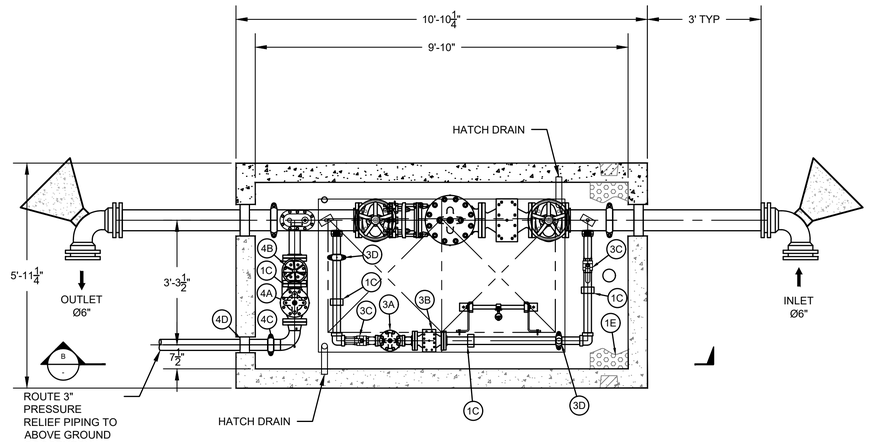
GENERAL

TRENCHING, RESTORATION, AND WATER DETAILS

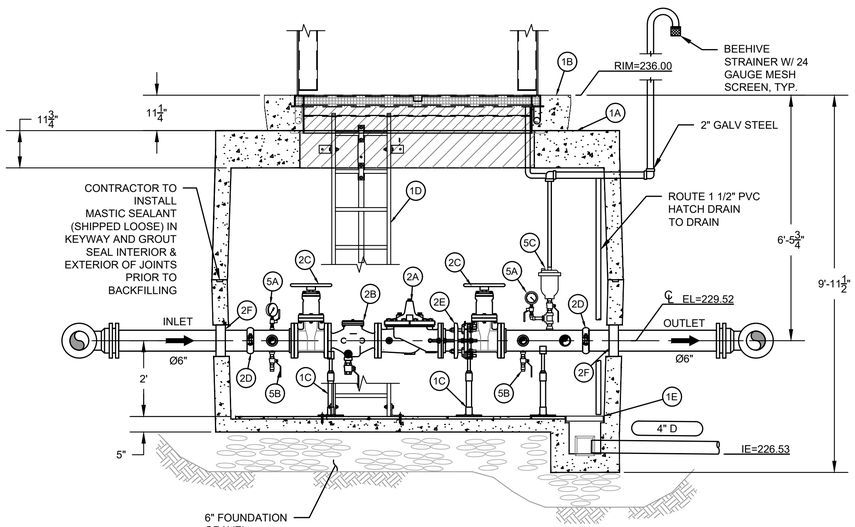
DRAWING: **G-7** OF: **9**



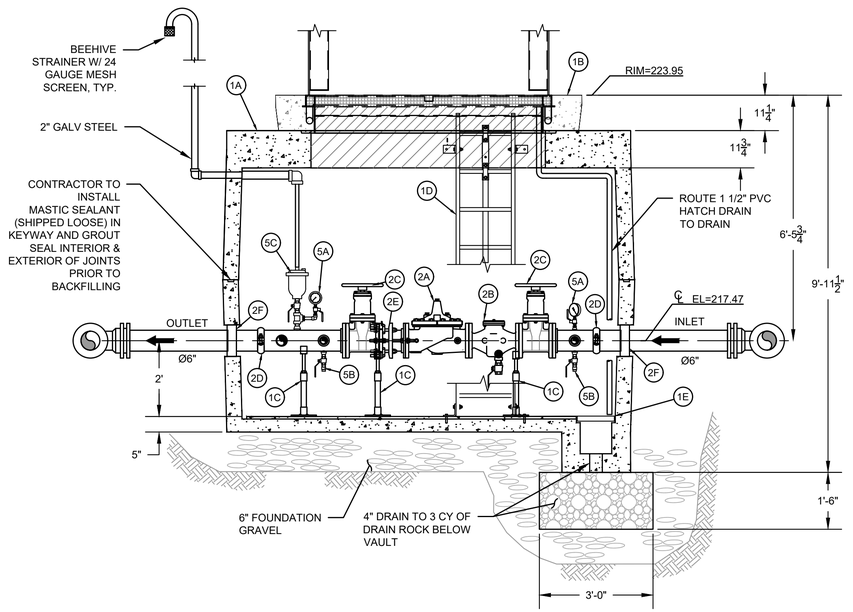
1 / G-5 **PRV VAULT 1 PLAN**
SCALE: 1/2"=1'-0"



2 / G-5 **PRV VAULT 2 PLAN**
SCALE: 1/2"=1'-0"



A / - **PRV VAULT 1 SECTION**
SCALE: 1/2"=1'-0"
(2" BYPASS REMOVED FOR CLARITY)



B / - **PRV VAULT 2 SECTION**
SCALE: 1/2"=1'-0"
(2" BYPASS REMOVED FOR CLARITY)

BILL OF MATERIALS

ITEM	QTY	DESCRIPTION
1A	2	3152 PRECAST CONCRETE CHAMBER c/w WHITE INTERIOR & BLACK EXTERIOR COATINGS
1B	2	2121 ROOF SLAB W/ MSU 36"X72" ALUMINUM HATCH, H-20 OCCASIONAL LOAD RATED
1C	12	ADJUSTABLE GALV STEEL SADDLE STYLE PIPE STAND
1D	2	ALUMINUM LADDER c/w RETRACTABLE SAFETY POST
1E	2	ALUMINUM SUMP GRATE
2A	2	6" CLA-VAL 90G-01BCSY PRESSURE REDUCING VALVE, DIBZT, EPOXY LINED & COATED, 150# FLANGED, CRD 20-105psi
2B	2	6" CLA-VAL X43H STRAINER c/w BLOWDOWN
2C	4	6" CLOW NRS GATE VALVE c/w HANDWHEEL
2D	2	6" SHURJOINT Z07 COUPLING
2E	4	6" ROMAC DISMANTLING JOINT
2F	4	LINK SEAL ASSEMBLY FOR 6" STEEL PIPE
3A	2	2" CLA-VAL 90G-01BCSY PRESSURE REDUCING VALVE, DIBZT, EPOXY LINED & COATED, THREADED, CRD 20-105psi
3B	2	2" CLA-VAL X43H STRAINER c/w BLOWDOWN
3C	4	2" MAS G2E SS ISOLATION BALL VALVE
3D	2	2" SHURJOINT Z07 COUPLING
4A	2	3" CLA-VAL 50G-01 BKC PRESSURE RELIEF VALVE, DIBRZT, 150# FLANGED, EPOXY COATED, CRL 20-200 psi
4B	2	3" CLOW NRS GATE VALVE c/w HANDHWEEL
4C	2	3" SHURJOINT Z07 COUPLING
4D	2	LINK SEAL ASSEMBLY FOR 3" STEEL PIPE
5A	4	PRESSURE GAUGE c/w ISOLATION BALL VALVE; INLET: 0-160 psi, OUTLET: 0-100 psi
5B	2	3/4" HOSE BIB c/w ISOLATION BALL VALVE
5C	2	1" VALMATIC COMBINATION AIR VALVE 201C.2 c/w ISOLATION BALL VALVE

NOTES:

FABRICATED STEEL PIPE & FITTINGS ARE SCHEDULE NO. 40 STEEL PIPE FOR SIZES TO 10". FLANGES ARE ANSI 125/150 AND FASTENED WITH SS ASTM F-593 BOLTS, F-594 NUTS & SAE WASHERS.

ALL 2" AND SMALLER PIPE & FITTINGS ARE THREADED 304 STAINLESS STEEL.

ALL 3" AND LARGER PIPE, INSIDE WETTED SURFACES ARE SANDBLASTED, FUSION EPOXY LINED AND COATED TO AWWA C-213 AND NSF-61 SPECIFICATION. FINISH COATING IS BLUE.

VAULTS AND HATCHES SHALL BE RATED FOR H20 TRAFFIC LOADING

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6/28/23

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6/28/23

Town of CATHLAMET Washington

TOWN OF CATHLAMET

BOEGE ROAD AND SR 4 PRV STATIONS

No.	DATE	REVISION

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FILE:	PRV_VAULTS.DWG

0 1" 2"
TWO INCHES AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY

GENERAL

PRV 1 AND PRV 2 VAULT PLANS AND SECTIONS

DRAWING: **G-8** OF: **9**

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	730

TRANSPORTABLE ATTENUATOR ROLL AHEAD DISTANCE = R					
HOST VEHICLE WEIGHT 9,900 TO 22,000 lbs.			HOST VEHICLE WEIGHT > 22,000 lbs.		
< 45 MPH	45-55 MPH	> 55 MPH	< 45 MPH	45-55 MPH	> 55 MPH
100'	123'	172'	74'	100'	150'

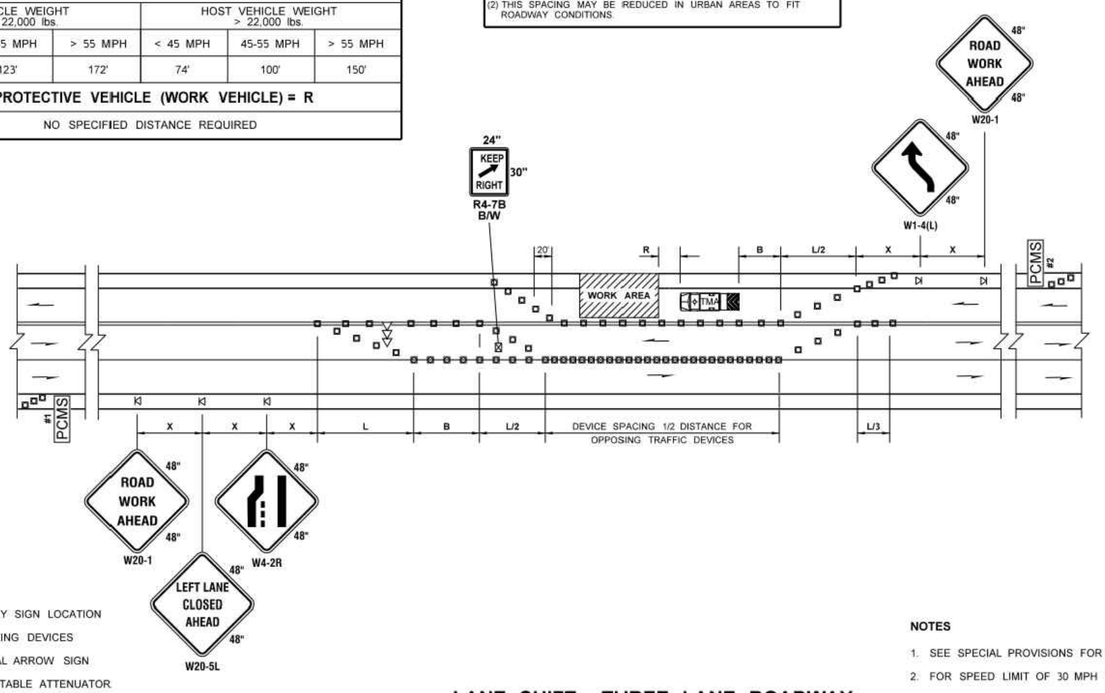
PROTECTIVE VEHICLE (WORK VEHICLE) = R
NO SPECIFIED DISTANCE REQUIRED

SIGN SPACING = X (1)		
RURAL HIGHWAYS	60 / 65 MPH	800' ±
RURAL ROADS	45 / 55 MPH	500' ±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS & URBAN ARTERIALS RESIDENTAL & BUSINESS DISTRICTS	25 / 30 MPH	200' ± (2)
URBAN STREETS	25 MPH OR LESS	100' ± (2)

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMPS, AT-GRADE INTERSECTIONS AND DRIVEWAYS.
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

MINIMUM TAPER LENGTH = L (feet)										
LANE WIDTH (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
10	105	150	205	270	450	500	550	-	-	-
11	115	165	225	295	495	550	605	660	-	-
12	125	180	245	320	540	600	660	720	780	-

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
50/60	40	80
35/45	30	60
25/30	20	40



PCMS #1	
1	2
LEFT LANE CLOSURE	1 MILE AHEAD
2.0 SEC	2.0 SEC

FIELD LOCATE IN ADVANCE OF TEMPORARY SIGNS.

PCMS #2	
1	2
LANE SHIFTS LEFT	1 MILE AHEAD
2.0 SEC	2.0 SEC

FIELD LOCATE IN ADVANCE OF TEMPORARY SIGNS.

LEGEND

- TEMPORARY SIGN LOCATION
- CHANNELIZING DEVICES
- SEQUENTIAL ARROW SIGN
- TRANSPORTABLE ATTENUATOR
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN
- TEMPORARY SIGN LOCATION (5' MOUNTING HEIGHT)

NOTES

1. SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.
2. FOR SPEED LIMIT OF 30 MPH OR LESS, USE SIGN W1-3 IN LIEU OF SIGN W1-4.
3. RECOMMENDED EXTENDING DEVICE TAPER (L/3) ACROSS SHOULDER.
4. ALL SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED.

LANE SHIFT - THREE LANE ROADWAY

NOT TO SCALE

FILE NAME	S:\Design R P& S\4-Standards\2-Plan Sheet Library\01-Published PSL\(TC) Work Zone Traffic Control\(TC-12) Lane Shift - Three Lane Roadway\TC-12.dgn								
TIME	2:34:58 PM				REGION NO.	STATE	FED.AID PROJ.NO.		Plot 1
DATE	1/2/2018					WASH			PLAN REF NO. TC12
PLOTTED BY	liddelf				JOB NUMBER				
DESIGNED BY									SHEET OF SHEETS
ENTERED BY					CONTRACT NO.		LOCATION NO.		
CHECKED BY									
PROJ. ENGR.							DATE	DATE	
REGIONAL ADM.	REVISION	DATE	BY				P.E. STAMP BOX	P.E. STAMP BOX	

Washington State Department of Transportation

TRAFFIC CONTROL PLAN

MINIMUM TAPER LENGTH = L (feet)										
LANE WIDTH (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
10	105	150	205	270	450	500	550	-	-	-
11	115	165	225	295	495	550	605	660	-	-
12	125	180	245	320	540	600	660	720	-	-

SIGN SPACING = X (1)		
RURAL HIGHWAYS	60 / 65 MPH	800' ±
RURAL ROADS	45 / 55 MPH	500' ±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS & URBAN ARTERIALS RESIDENTAL & BUSINESS DISTRICTS	25 / 30 MPH	200' ± (2)
URBAN STREETS	25 MPH OR LESS	100' ± (2)

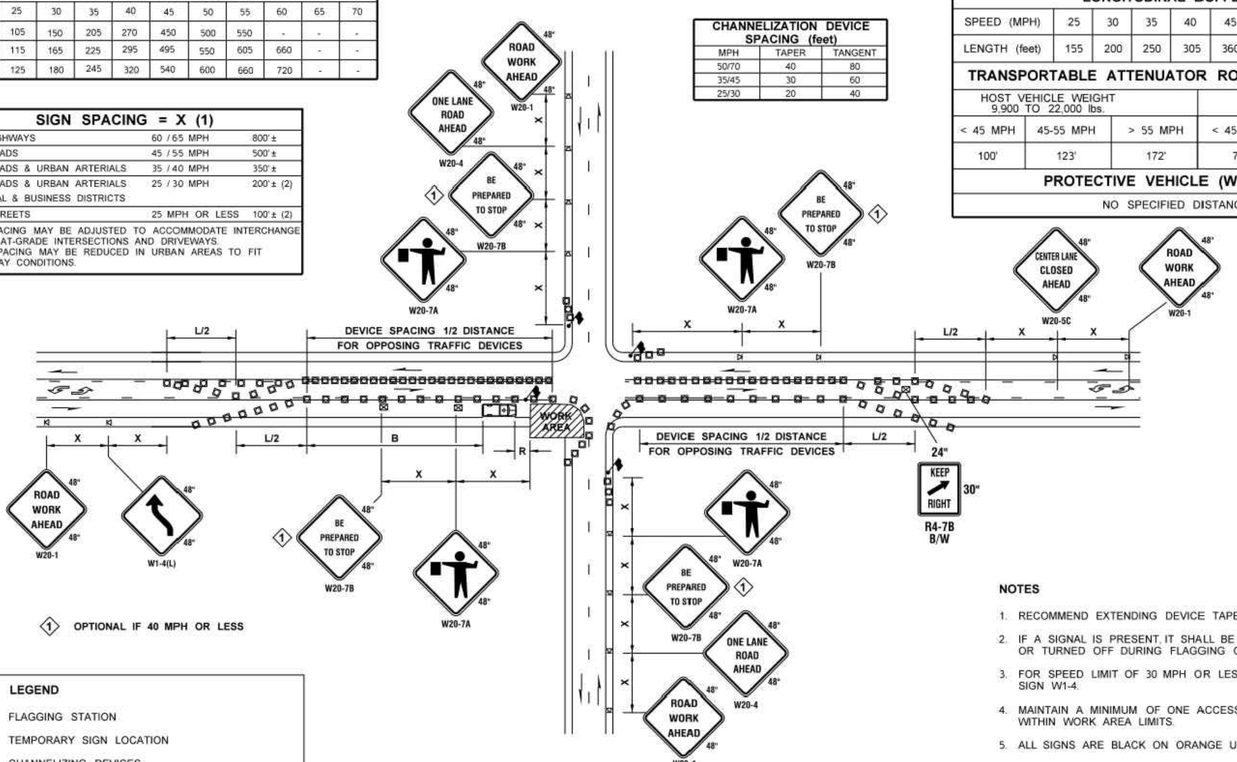
(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMPS, AT-GRADE INTERSECTIONS AND DRIVEWAYS.
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
50/70	40	80
35/45	30	60
25/30	20	40

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	730

TRANSPORTABLE ATTENUATOR ROLL AHEAD DISTANCE = R					
HOST VEHICLE WEIGHT 9,900 TO 22,000 lbs.			HOST VEHICLE WEIGHT > 22,000 lbs.		
< 45 MPH	45-55 MPH	> 55 MPH	< 45 MPH	45-55 MPH	> 55 MPH
100'	123'	172'	74'	100'	150'

PROTECTIVE VEHICLE (WORK VEHICLE) = R
NO SPECIFIED DISTANCE REQUIRED



1 OPTIONAL IF 40 MPH OR LESS

LEGEND

- FLAGGING STATION
- TEMPORARY SIGN LOCATION
- CHANNELIZING DEVICES
- PROTECTIVE VEHICLE - RECOMMENDED
- TEMPORARY SIGN LOCATION (5' MOUNTING HEIGHT)

NOTES

1. RECOMMEND EXTENDING DEVICE TAPER (L/3) ACROSS SHOULDER.
2. IF A SIGNAL IS PRESENT, IT SHALL BE SET TO "RED FLASH MODE" OR TURNED OFF DURING FLAGGING OPERATIONS.
3. FOR SPEED LIMIT OF 30 MPH OR LESS USE SIGN W1-3 IN LIEU OF SIGN W1-4.
4. MAINTAIN A MINIMUM OF ONE ACCESS POINT FOR EACH BUSINESS WITHIN WORK AREA LIMITS.
5. ALL SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED.

INTERSECTION LANE CLOSURE - THREE LANE ROADWAY

NOT TO SCALE

FILE NAME	S:\Design R P& S\4-Standards\2-Plan Sheet Library\01-Published PSL\(TC) Work Zone Traffic Control\(TC-14) Intersection Lane Closure - Three Lane Roadway\TC-14.dgn								
TIME	6:59:33 AM				REGION NO.	STATE	FED.AID PROJ.NO.		Plot 1
DATE	1/3/2018					WASH			PLAN REF NO. TC14
PLOTTED BY	liddelf				JOB NUMBER				
DESIGNED BY									SHEET OF SHEETS
ENTERED BY					CONTRACT NO.		LOCATION NO.		
CHECKED BY									
PROJ. ENGR.							DATE	DATE	
REGIONAL ADM.	REVISION	DATE	BY				P.E. STAMP BOX	P.E. STAMP BOX	

Washington State Department of Transportation

TRAFFIC CONTROL PLAN

DRAWING: G-9 OF: 9

TRAFFIC CONTROL PLAN

GENERAL

TWO INCHES AT FULL SCALE. IF NOT, SCALE ACCORDINGLY. 0 1" 2"

FILE: TRAF_CTRL.DWG
O & O JOB NO.: 22239
DESIGNER: ANM
DRAWN BY: RAH
CHECKED BY: ANM
APPROVED BY: MBJ
ISSUE DATE: JUNE 2023
ISSUED FOR: BID AND CONSTRUCTION

No.	DATE	REVISION

TOWN OF CATHLAMET

BOEGE ROAD AND SR 4 PRV STATIONS

Town of Cathlamet Washington

ABBEY N. M. MCDONALD — STATE OF WASHINGTON — 22000 — REGISTERED PROFESSIONAL ENGINEER — 6/28/23

MICHAEL B. JOHNSON — STATE OF WASHINGTON — 19648 — REGISTERED PROFESSIONAL ENGINEER — 6/28/23

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