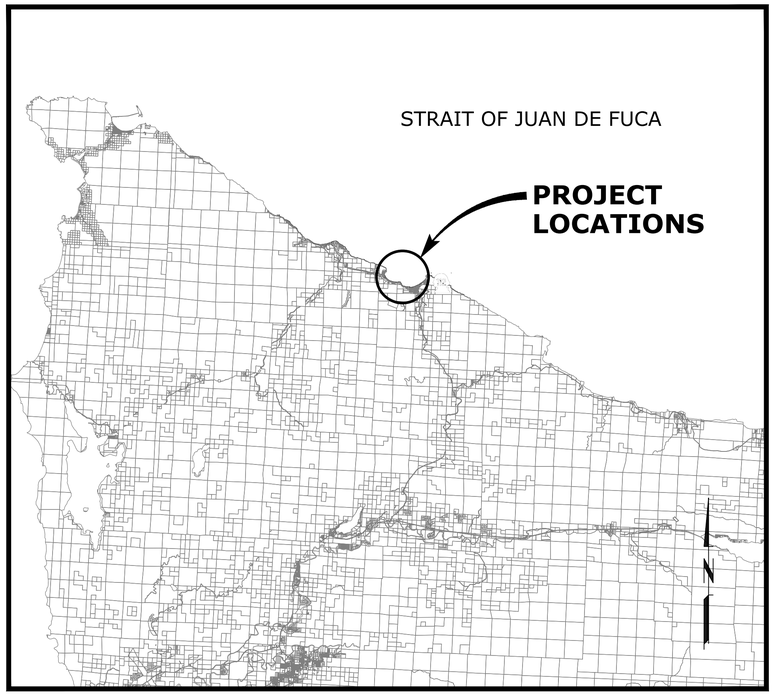
CLALLAM BAY SEKIU WATER MAIN UPGRADES

APRIL 2022



LOCATION MAP

SCALE: 1"=1 MILE

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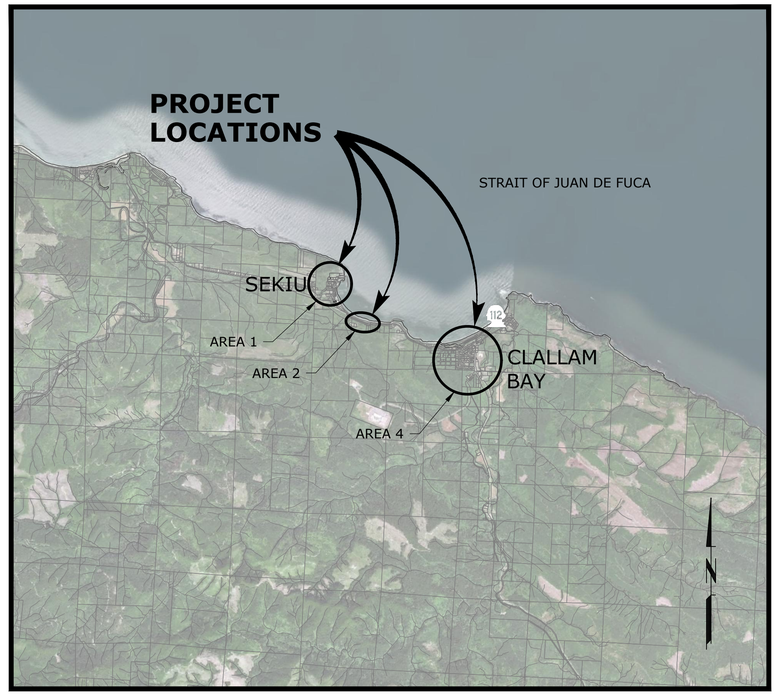

VICINITY MAP

SCALE: 1"=1500'

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811 Know what's **below.** **Call** before you dig.

20-2926

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GENERAL CONSTRUCTION NOTES

1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CLALLAM PUD GENERAL SPECIFICATIONS FOR MAIN EXTENSIONS. THE CURRENT EDITION OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT) STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION (STANDARD SPECIFICATIONS), AND ANY PROJECT SPECIFIC SPECIAL PROVISIONS OR CONDITIONS AND REQUIREMENTS.
2. TEMPORARY EROSION/WATER POLLUTION MEASURES ARE REQUIRED AND SHALL COMPLY WITH CLALLAM COUNTY STANDARDS AND THE CURRENT EDITION OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION.
3. EXISTING AND NEWLY CONSTRUCTED STORMWATER DRAINAGE SYSTEMS SHALL BE PROTECTED FROM CONSTRUCTION SITE RUNOFF.
4. A PRE-CONSTRUCTION MEETING SHALL BE HELD WITH THE DISTRICT PRIOR TO THE START OF CONSTRUCTION.
5. HORIZONTAL AND VERTICAL CONTROLS/DATUM AS ADOPTED BY THE DISTRICT SHALL BE USED, UNLESS APPROVED OTHERWISE.
6. ALL APPROVALS AND PERMITS REQUIRED BY THE DISTRICT SHALL BE OBTAINED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION, UNLESS OTHERWISE APPROVED BY THE COUNTY ENGINEER.
7. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALLING UNDERGROUND LOCATE AT 1-800-424-5555 A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION WORK. WHERE INDICATED ON PLANS CONTRACTOR SHALL POTHOLE UTILITIES. POTHOLES MARKED ON THE PLANS SHALL BE COORDINATED DURING KICK OFF MEETING.
8. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR TEMPORARY TRAFFIC CONTROL. THE CONTRACTOR SHALL, BY LETTER TO THE COUNTY ENGINEER, INDICATE THAT WSDOT STANDARD "K" PLANS SHALL BE UTILIZED FOR TEMPORARY TRAFFIC CONTROL. IF THE CURRENT WSDOT STANDARD "K" PLANS ARE NOT UTILIZED, THE CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN(S) FOR REVIEW AND APPROVAL BY THE COUNTY ENGINEER IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). THE COUNTY ENGINEER SHALL HAVE FIVE DAYS FOR REVIEW OF ANY PROPOSED TRAFFIC CONTROL PLAN. NO WORK MAY BE CONDUCTED WITHOUT AN APPROVED TRAFFIC CONTROL PLAN.
9. THE CONTRACTOR SHALL HAVE A COPY OF THE APPROVED PLANS AT THE CONSTRUCTION SITE AT ALL TIMES.
10. SPECIAL STRUCTURES SHALL BE INSTALLED PER PLANS AND MANUFACTURER'S RECOMMENDATIONS.
11. ALL DISTURBED AREAS SHALL RECEIVE TEMPORARY AND PERMANENT EROSION CONTROL IN THE FORM OF VEGETATION ESTABLISHMENT SUCH AS GRASS SEEDING. A MEANS SHALL BE ESTABLISHED TO PROTECT THE PERMANENT STORM DRAIN SYSTEM PRIOR TO ESTABLISHMENT OF THE PERMANENT EROSION CONTROL MEASURES. THESE METHODS SHALL BE INCLUDED IN THE EROSION AND SEDIMENT CONTROL PLANS IN ACCORDANCE WITH VOLUME II CHAPTER 4 OF THE CURRENT EDITION OF THE STORMWATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON (SMMWW).
12. CONSTRUCTION WORK HOURS SHALL BE RESTRICTED TO 7AM TO 7PM PRIOR WRITTEN APPROVAL OF THE CLALLAM PUD ENGINEER SHALL BE REQUIRED FOR WORK BETWEEN 7PM AND 7AM.
13. THE DISTRICT CONSTRUCTION INSPECTOR SHALL BE NOTIFIED A MINIMUM OF 24 HOURS IN ADVANCE OF THE NEED FOR AN INSPECTION.
14. WHERE NEW WATER METER IS MORE THAN 5 FT FROM THE EXISTING METER CONTRACTOR SHALL COORDINATE THE ROUTING OF THE WATER SERVICE ON PRIVATE PROPERTY WITH THE DISTRICT. COORDINATION EFFORTS SHOULD BE INITIATED AT KICK OFF MEETING. DISTRICT REPRESENTATIVE WILL BE RESPONSIBLE WITH COMMUNICATIONS WITH PROPERTY OWNERS. WATER SERVICE ROUTING ON PRIVATE PROPERTY IS PRELIMINARY.
15. PER THE PROVISIONS OF THE CURRENT WSDOT STANDARD SPECIFICATIONS RELATED TO PUBLIC CONVENIENCE AND SAFETY, THE CONTRACTOR SHALL MAINTAIN READY ACCESS TO DRIVEWAYS, HOUSES, BUILDINGS, AND BUSINESSES ALONG THE LINE OR WORK.
16. A MINIMUM OF ONE WAY TRAVEL THROUGH THE PROJECT AREA SHALL BE MAINTAINED AT ALL TIMES.
17. SHOULD ACCESS TO A PROPERTY ADJOINING THE PROJECT REQUIRE TEMPORARY CLOSURE ANTICIPATED TO HAVE A DURATION EXCEEDING 15 MINUTES, THE CONTRACTOR SHALL COORDINATE THE TEMPORARY CLOSURE WITH THE PROPERTY OWNER/RESIDENT. A MINIMUM OF 24 HOURS ADVANCE NOTIFICATION SHALL BE PROVIDED TO THE PROPERTY OWNER/RESIDENT PRIOR TO ANY SUCH TEMPORARY CLOSURE.
18. THE LOCATIONS OF EXISTING UTILITIES AND SITE FEATURES SHOWN HERON HAVE BEEN FURNISHED BY OTHERS BY FIELD SURVEY OR OBTAINED FROM AVAILABLE RECORDS AND SHOULD THEREFORE BE CONSIDERED APPROXIMATE ONLY AND NOT NECESSARILY COMPLETE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS SHOWN AND TO FURTHER DISCOVER AND PROTECT ANY OTHER UTILITIES NOT SHOWN HEREON WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THIS PLAN. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING LOCATION, DEPTH, SIZE, TYPE AND CONDITION OF EXISTING UTILITY LINES AT CONNECTION OR CROSSING POINTS BEFORE TRENCHING FOR NEW UTILITIES AND IF NECESSARY ADJUST PROPOSED UTILITY ACCORDINGLY. ENGINEER ASSUMES NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF THE EXISTING UTILITIES AND SITE FEATURES PRESENTED ON THESE DRAWINGS. ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF CONFLICTS THAT ARISE.
19. OVER HEAD UTILITIES EXIST IN THE PROJECT AREA BUT ARE NOT SHOWN ON THE PLANS. CONTRACTOR SHALL STAY 10 FT MIN AWAY FROM OVERHEAD UTILITES. CONTRACTOR TO CONTACT CLALLAM COUNTY PUD FOR POLE BRACING IF WATER MAIN CONSTRUCTION IS LESS THAN 5 FT FROM EXISTING UTILITY POLE
20. CONTRACTOR TO USE EXTREME CARE WHILE POTHOLING AC WATER MAIN, CAN ONLY BE DONE WITH A VACTOR TRUCK.
21. AC REMOVAL TO MEET OLYMPIC REGION CLEAN AIR STANDARDS AND STATE STANDARDS. CONTRACTOR TO OBTAIN PERMIT PRIOR TO STARTING WORK FOR DISPOSAL AT PORT ANGELES TRANSFER STATION.
22. TEMPORARY WATER SERVICE IS REQUIRED PER SECTION 1-07.17(1)A OF THE SPECIAL PROVISIONS . CONTRACTOR MUST SUBMIT TEMPORARY WATER SERVICE PLANS FOR APPROVAL.

THE CONSTRUCTION WINDOW CONSTRAINTS AND RECOMMENDED CONSTRUCTION SEQUENCE ARE PRESENTED IN THE TABLE BELOW. THE CONTRACTOR SHALL SUBMIT A DETAILED PRELIMINARY PROJECT SCHEDULE WITHIN 14 DAYS OF NOTICE TO PROCEED PER THE SPECIFICATIONS. THE RECOMMENDED SEQUENCE ASSUMES 1 CONSTRUCTION CREW PERFORMING WORK AT A GIVEN TIME. AT THE DISCRETION OF THE CONTRACTOR, THE CONSTRUCTION SEQUENCE AND SCHEULE MAY BENEFIT BY OPERATING WITH 2

RECOMMENDED SEQUENCE	DRAWING NUMBER	LOCATION	STREET SECTION	CONSTRUCTION WINDOW CONSTRAINTS
1	W-9	ALIGNMENT F, AREA 2	HWY-112: FALLS CREEK BRIDGE TO BREAKWATER - 1	NO CONSTRAINTS[2]
	W-10		HWY-112: FALLS CREEK BRIDGE TO BREAKWATER - 2	
	W-11		HWY-112: FALLS CREEK BRIDGE TO BREAKWATER - 3	
	W-12		HWY-112: FALLS CREEK BRIDGE TO BREAKWATER - 4	
	W-13		HWY-112: FALLS CREEK BRIDGE TO BREAKWATER - 5	
	W-14		HWY-112: FALLS CREEK BRIDGE TO BREAKWATER - 6	
	W-15		HWY-112: FALLS CREEK BRIDGE TO BREAKWATER - 7	
2	W-6	SEKIU, AREA 1	FRONT STREET - 1	OCTOBER-APRIL[3]
	W-7		FRONT STREET - 2	
3	W-1	SEKIU, AREA 1	WASHINGTON STREET - 1	OCTOBER-APRIL[1,2]
	W-2		COMMERCIAL STREET - 1	
	W-3		COMMERCIAL STREET - 2	
	W-4		DIVISION STREET	
	W-5		RICE STREET	
	W-8		WASHINGTON STREET - 2	
4	W-22	CLALLAM BAY, AREA 4	BOGACHIEL STREET - 1	NO CONSTRAINTS
	W-23		BOGACHIEL STREET - 2	
	W-24		BOGACHIEL STREET - 3	
	W-25		5TH STREET	
	W-26		6TH STREET	
	W-27		8TH ST FROM BOGACHIEL STREET TO SOL DUC STREET	
	W-28		KELLOGG ROAD - 1	
	W-29		KELLOGG ROAD - 2	
	W-30		SOL DUC STREET - 1	
5	W-31	CLALLAM BAY, AREA 4	HWY 112: 5TH STREET TO WEEL ROAD - 1	NO CONSTRAINTS[1,2]
	W-32		HWY 112: 5TH STREET TO WEEL ROAD - 2	
	W-33		HWY 112: 5TH STREET TO WEEL ROAD - 3	
	W-34		HWY 112: 5TH STREET TO WEEL ROAD - 4	
	W-35		HWY 112: 6TH STREET AND 7TH STREET	

NOTES:

1. TRAFFIC CONTROL MUST BE APPROVED BY COUNTY AND WSDOT AND EXPECTED TO BE REQUIRED TO MAINTAIN A MIN. OF ONE LANE OF TRAFFIC IN EACH DIRECTION AT ALL TIMES OR PROVIDE A DETOUR ROUTE. CONSTRUCTION MAY OCCUR OUTSIDE OF CONSTRUCTION WINDOW WITH APPROVAL FROM COUNTY. CONSTRUCTION WORKING HOURS AND DAYS MAY VARY TO PROVIDE ACCESS TO SCHOOL AS DIRECTED BY THE COUNTY.
2. TRAFFIC CONTROL MUST BE APPROVED BY WSDOT; NIGHT AND/OR WEEKEND WORK MAY BE REQUIRED. AND ALL PAVEMENT RESTORATION MUST ADHERE TO WSDOT REQUIREMENTS AND STANDARDS.
3. CONSTRUCTION WINDOW CONSTRAINTS ARE TO LIMIT IMPACT TO LOCAL BUSINESSES DURING PEAK TOURISM SEASON. THE DISTRICT RESERVES THE RIGHT TO MODIFY THE CONSTRUCTION WINDOW CONSTRAINTS TO MINIMIZE THE IMPACT TO BUSINESSES AFFECTED BY WATER SERVICE INTERRUPTIONS.

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NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

MCD DESIGNED
EJJ DRAWN
JAM CHECKED

TON MINER — STATE OF WASHINGTON — 20106449 — REGISTERED PROFESSIONAL ENGINEER
4/26/2022

murraysmith

CLALLAM COUNTY PUD — Bringing Energy To Life™

CLALLAM BAY SEKIU WATER MAIN UPGRADES

GENERAL NOTES

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

SHEET
G-2

PIPE & FITTING SYMBOLS

PLANT	SCHEMATIC	
		WELDED JOINT
		FLANGED JOINT
		GROOVED END JOINT
		MECHANICAL JOINT
		PUSH-ON JOINT (RUBBER GASKET)
		FLANGED COUPLING ADAPTER
		DOUBLE BALL FLEXIBLE EXTENSION COUPLING
		FLEXIBLE COUPLING W/ THRUST RING
		90° BEND UP
		90° BEND DOWN
		TEE UP
		TEE DOWN
		LATERAL UP
		LATERAL DOWN
		CONCENTRIC REDUCER
		ECCENTRIC REDUCER
		UNION
		BLIND FLANGE
		CAP
		LONG SLEEVE
		FLEXIBLE COUPLING
		FITTING (45°)

VALVE SYMBOLS

PLANT	SCHEMATIC	
		BUTTERFLY VALVE
		GATE VALVE
		GLOBE VALVE
		BALL VALVE
		BALANCING VALVE
		PLUG VALVE (TOP)
		PLUG VALVE (SIDE)
		3-WAY PLUG VALVE
		CHECK VALVE
		SWING CHECK VALVE
		DOUBLE CHECK ASSEMBLY
		BALL SWING CHECK
		SILENT CHECK VALVE
		PRESSURE REDUCING VALVE
		ALTITUDE CONTROL VALVE
		SOLENOID VALVE
		RELIEF VALVE
		NEEDLE VALVE
		HOSE VALVE
		REDUCED PRESSURE BACKFLOW PREVENTER W/ GATE VALVES
		HOSE BIBB

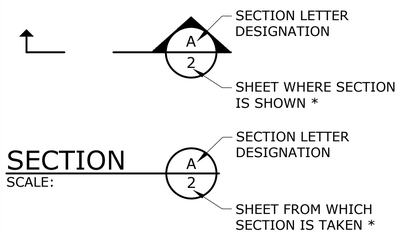
TOPOGRAPHIC LEGEND

	EXISTING	PROPOSED
WATERLINE	W	W
ELECTRICITY	UGP	UGP
GAS	G	G
TELEPHONE/TELEMETRY	T	T
CABLE TELEVISION	CATV	CATV
SANITARY SEWER LINE	SS	SS
SANITARY SEWER FORCE MAIN	FM	FM
STORM DRAIN	SD	SD
CULVERT		D
ABANDON PIPE		
DRAINAGE DITCH		
BARBWIRE FENCE		
CHAIN LINK FENCE		
TEMPORARY SILT FENCE		
GUARDRAIL		
ROCK WALL		
TREE/BUSH LINE		
CENTERLINE		
EASEMENT/PROPERTY LINE		
RIGHT-OF-WAY		
EDGE OF PAVEMENT/AC		
EDGE OF GRAVEL		
CURB		
SIDEWALK	S/W	
STRUCTURE OR FACILITY		
CONTOUR MINOR		
CONTOUR MAJOR	200	200

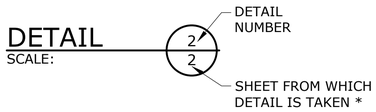
	EXISTING	PROPOSED
MANHOLE		
CLEAN-OUT		
CATCH BASIN/FIELD INLET		
THRUST BLOCK		
VALVE		
AIR INJECTION ASSEMBLY		
BLOW-OFF ASSEMBLY		
AIR RELEASE ASSEMBLY		
FIRE HYDRANT ASSEMBLY		
WATER METER		
PULL BOX/JUNCTION BOX		
UTILITY POLE		
GUY WIRE		
LIGHT POST		
MAILBOX		
SIGN		
BENCHMARK		
TREE DECIDUOUS		
TREE CONIFEROUS		
TREE TO BE REMOVED		
SURFACE ELEVATION	+ 176.63	+ 176.63
TEMPORARY BLOW-OFF ASSEMBLY		
TRENCH DAM		

SECTION AND DETAIL DESIGNATIONS

SECTION DESIGNATIONS



DETAIL DESIGNATIONS



* NOTE: IF PLAN AND SECTION FOR DETAIL CALL-OUT AND DETAIL ARE SHOWN ON THE SAME DRAWING, DRAWING NUMBER IS REPLACED WITH A DASH.

MISCELLANEOUS PIPING SYMBOLS

	STRAINER
	SIGHT GLASS
	PRESSURE GAUGE W/ COCK
	PRESSURE SWITCH W/ COCK
M	METER
SP	SLIP-ON JOINT PIPE
R	RESTRAINED JOINT PIPE

NO.	DATE	BY	REVISION

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GENERAL SYMBOLS AND LEGEND

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

SHEET G-3

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@	AT
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY & TRANSPORTATION OFFICIALS
AB	ANCHOR BOLT
ABAN(D)	ABANDON(ED)
ABS	ACRYLONITRILE BUTADIENE STYRENE
ABV	ABOVE / ALCOHOL BY VOLUME
AC	ASPHALTIC CONCRETE
ACP	ASPHALTIC CONCRETE PAVING
ADJ	ADJUSTABLE
ADJC	ADJACENT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHR	ANCHOR
AL	ALUMINUM
ALT	ALTERNATE
AMP	AMPERE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
APPROX	APPROXIMATE
APPVD	APPROVED
APWA	AMERICAN PUBLIC WORKS ASSOCIATION
ARCH	ARCHITECTURAL
ARV	AIR RELEASE VALVE
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSN	ASSOCIATION
ASSY	ASSEMBLY
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS
ATM	ATMOSPHERE
AUTO	AUTOMATIC
AUX	AUXILIARY
AVE	AVENUE
AVG	AVERAGE
AWWA	AMERICAN WATER WORKS ASSOCIATION
B&S	BELL & SPIGOT
BC	BOLT CIRCLE
BD	BOARD
BETW	BETWEEN
BF	BOTH FACE
BFD	BACKFLOW PREVENTION DEVICE
BFILL	BACKFILL
BFV	BUTTERFLY VALVE
BHP	BRAKE HORSEPOWER
BKGD	BACKGROUND
BLDG	BUILDING
BLK	BLOCK
BLVD	BOULEVARD
BM	BENCHMARK / BEAM
BMP	BEST MANAGEMENT PRACTICES
BO	BLOW-OFF
BOC	BACK OF CURB
BS	BOTH SIDES
BSMT	BASEMENT
BTF	BOTTOM FACE
BTU	BRITISH THERMAL UNIT
BV	BALL VALVE
BW	BOTH WAYS
C	CELSIUS
C TO C	CENTER TO CENTER
CALTRANS	CALIFORNIA DEPARTMENT OF TRANSPORTATION
CARV	COMBINATION AIR RELEASE VALVE
CATV	CABLE TELEVISION
CB	CATCH BASIN
CCP	CONCRETE CYLINDER PIPE
CCW	COUNTER CLOCKWISE
CDOT	COLORADO DEPARTMENT OF TRANSPORTATION
CFM	CUBIC FEET PER MINUTE
CFS	CUBIC FEET PER SECOND
CHAN	CHANNEL
CHEM	CHEMICAL
CHFR	CHAMFER
CHKV	CHECK VALVE
CI	CAST IRON
CIP	CAST IRON PIPE
CIPC	CAST IN PLACE CONCRETE
CISP	CAST IRON SOIL PIPE
CJ	CONSTRUCTION JOINT
CL OR C/L	CENTER LINE
CL2	CHLORINE
CLG	CEILING
CLJ	CONTROL JOINT
CLR	CLEAR
CLSM	CONTROLLED LOW STRENGTH MATERIAL

CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CND	CONDUIT
CO	CLEANOUT
COL	COLUMN
COMB	COMBINATION
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS / CONTINUATION
CONTR	CONTRACT(OR)
COORD	COORDINATE
COP	COPPER
CORP	CORPORATION
CORR	CORRUGATED
CP	CONTROL POINT
CPLG	COUPLING
CPVC	CHLORINATED POLYVINYL CHLORIDE
CR	CRUSHED ROCK
CS	COMBINED SEWER
CSP	CONCRETE SEWER PIPE
CT	COURT
CTR	CENTER
CU	CUBIC
CULV	CULVERT
CV	CONTROL VALVE
CW	CLOCKWISE / COLD WATER
CY	CUBIC YARDS
CYL	CYLINDER LOCK
D	DRAIN
DC	DIRECT CURRENT
DEFL	DEFLECTION
DEQ	DEPARTMENT OF ENVIRONMENTAL QUALITY
DET	DETAIL
DI	DUCTILE IRON
DIA	DIAMETER
DIM	DIMENSION
DIR	DIRECTION
DIST	DISTANCE
DN	DOWN
DR	DRIVE
DS	DOWNSPOUT
DWG	DRAWING
DWL	DOWEL
DWV	DRAIN WASTE AND VENT
DWY	DRIVEWAY
E / ELEC	ELECTRICAL
EA	EACH
ECC	ECCENTRIC
EF	EACH FACE
EL	ELEVATION
ELB	ELBOW
ENCL	ENCLOSURE
EOP	EDGE OF PAVEMENT
EQ	EQUAL
EQL SP	EQUALLY SPACED
EQUIP	EQUIPMENT
ESMT	EASEMENT
EW	EACH WAY
EXC	EXCAVATE
EXIST	EXISTING
EXP	EXPANSION
EXP BT	EXPANSION BOLT
EXP JT	EXPANSION JOINT
EXT	EXTERIOR
F	FAHRENHEIT
F TO F	FACE TO FACE
FAB	FABRICATE
FB	FLAT BAR
FCA	FLANGED COUPLING ADAPTER
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FDN	FOUNDATION
FEXT	FIRE EXTINGUISHER
FF	FAR FACE
FGL	FIBERGLASS
FH	FIRE HYDRANT
FIN	FINISH(ED)
FIPT	FEMALE IRON PIPE THREAD
FITG	FITTING
FL	FLOOR LINE
FLEX	FLEXIBLE
FLG	FLANGE
FLL	FLOW LINE
FLR	FLOOR
FM	FORCE MAIN

FO	FIBER OPTIC
FOC	FACE OF CONCRETE
FOF	FACE OF FINISH
FOM	FACE OF MASONRY
FOS	FACE OF STUDS
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FRP	FIBERGLASS REINFORCED PLASTIC
FT	FEET / FOOT
FTG	FOOTING
FUT	FUTURE
FXTR	FIXTURE
G	GAS
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GC	GROOVED COUPLING
GFA	GROOVED FLANGE ADAPTER
GI	GALVANIZED IRON
GIP	GALVANIZED IRON PIPE
GJ	GRIP JOINT
GL	GLASS
GLV	GLOBE VALVE
GND	GROUND
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GPS	GALLONS PER SECOND
GR	GRADE
GR LN	GRADE LINE
GRTG	GRATING
GV	GATE VALVE
GRVL	GRAVEL
GYP	GYPSUM
HB	HOSE BIBB
HC	HOLLOW CORE
HDPE	HIGH DENSITY POLYETHYLENE
HDR	HEADER
HDWE	HARDWARE
HGR	HANGER
HGT	HEIGHT
HH	HANDHOLD
HM	HOLLOW METAL
HMAC	HOT MIX ASPHALT CONCRETE
HNDRL	HANDRAIL
HOA	HAND-OFF-AUTO
HOR	HAND-OFF-REMOTE
HORIZ	HORIZONTAL
HP	HIGH PRESSURE / HORSEPOWER
HPG	HIGH PRESSURE GAS
HPT	HIGH POINT
HR	HOUR
HSB	HIGH STRENGTH BOLT
HV	HOSE VALVE
HVAC	HEATING, VENTILATION, AIR CONDITIONING
HWL	HIGH WATER LINE
HWY	HIGHWAY
HYD	HYDRANT
HYDR	HYDRAULIC
I&C	INSTRUMENTATION & CONTROL
IAW	IN ACCORDANCE WITH
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IF	INSIDE FACE
IMPVT	IMPROVEMENT
IN	INCH
INCC	INCLUDE(D)(ING)
INFL	INFLUENT
INJ	INJECTION
INSTL	INSTALLATION / INSTALL
INSUL	INSULATION
INTER	INTERCEPTOR
INTR	INTERIOR
INV	INVERT
IP	IRON PIPE
IPT	IRON PIPE THREAD
IR	IRON ROD
IRRIG	IRRIGATION
ITD	IDAHO TRANSPORTATION DEPARTMENT
JT	JOINT
JUNC	JUNCTION
KPL	KICK PLATE
KVA	KILOVOLT AMPERE

KW	KILOWATT
KWY	KEYWAY
L	LENGTH
LAB	LABORATORY
LAV	LAVATORY
LB	POUND
LF	LINEAR FOOT
LIN	LINEAL
LN	LANE
LOC	LOCATION
LONG	LONGITUDINAL
LP	LOW PRESSURE
LPT	LOW POINT
LRG	LARGE
LS	LONG SLEEVE / LUMP SUM
LT	LEFT
LVL	LEVEL
LWL	LOW WATER LINE
MAN	MANUAL
MAT	MATERIAL
MAX	MAXIMUM
MCC	MOTOR CONTROL CENTER
MCP	MASTER CONTROL PANEL
MECH	MECHANICAL
MET	METAL
MFR	MANUFACTURER
MGD	MILLION GALLONS PER DAY
MH	MANHOLE
MIN	MINIMUM
MIPT	MALE IRON PIPE THREAD
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
MON	MONUMENT / MONOLITHIC
MOT	MOTOR
MP	MILEPOST
MSL	MEAN SEAL LEVEL
MTD	MOUNTED
NA	NOT APPLICABLE
NAVD	NORTH AMERICAN VERTICAL DATUM
NC	NORMALLY CLOSED
NF	NEAR FACE
NIC	NOT IN CONTRACT
NO / NO.	NORMALLY OPEN / NUMBER
NOM	NOMINAL
NORM	NORMAL
NRS	NON-RISING STEM
NTS	NOT TO SCALE
O TO O	OUT TO OUT
OAR	OREGON ADMINISTRATIVE RULES
OC	ON CENTER
OD	OUTSIDE DIAMETER
ODOT	OREGON DEPARTMENT OF TRANSPORTATION
OF	OVERFLOW / OUTSIDE FACE
OPNG	OPENING
OPP	OPPOSITE
ORIG	ORIGINAL
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
OVHD	OVERHEAD
P&ID	PROCESS & INSTRUMENTATION DIAGRAM
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CURVE
PCVC	POINT OF CURVATURE ON VERTICAL CURVE
PE	PLAIN END
PERF	PERFORATED
PERM	PERMANENT
PERP	PERPENDICULAR
PG	PRESSURE GAUGE
PH	PIPE HANGER
PI	POINT OF INTERSECTION
PIVC	POINT OF INTERSECTION ON VERTICAL CURVE
PL OR P/L	PROPERTY LINE / PLATE / PLASTIC
PLBG	PLUMBING
PNL	PANEL
POC	POINT OF CURVATURE
POLY	POLYETHYLENE
PP	POWER POLE
PRC	POINT OF REVERSE CURVATURE
PRCST	PRECAST
PREP	PREPARATION

PRESS	PRESSURE
PRKG	PARKING
PROP	PROPERTY
PRV	PRESSURE REDUCING VALVE
PS	PUMP STATION
PSIG	POUNDS PER SQUARE INCH GAUGE
PSL	PIPE SLEEVE
PSPT	PIPE SUPPORT
PT	POINT OF TANGENCY
PTVC	POINT OF TANGENCY ON VERTICAL CURVE
PV	PLUG VALVE
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
PWR	POWER
QTY	QUANTITY
RAD	RADIUS
RC	REINFORCED CONCRETE
RCP	REINFORCED CONCRETE PIPE
RD	ROAD / ROOF DRAIN
RDCR	REDUCER
REF	REFERENCE
REINF	REINFORCE(D)(ING)(MENT)
REQ'D	REQUIRED
RESTR	RESTRAINED
RFCA	RESTRAINED FLANGE COUPLING ADAPTER
RM	ROOM
RND	ROUND
RO	ROUGH OPENING
R/W	RIGHT-OF-WAY
RPBPD	REDUCED PRESSURE BACKFLOW PREVENTION DEVICE
RPM	REVOLUTIONS PER MINUTE
RR	RAILROAD
RST	REINFORCED STEEL
RT	RIGHT
SALV	SALVAGE
SAN	SANITARY
SC	SOLID CORE
SCHED	SCHEDULE
SD	STORM DRAIN
SDL	SADDLE
SDR	STANDARD DIMENSION RATIO
SECT	SECTION
SHLDR	SHOULDER
SHT	SHEET
SIM	SIMILAR
SLP	SLOPE
SLV	SLEEVE
SOLN	SOLUTION
SP	SOIL PIPE / SEWER PIPE
SPCL	SPECIAL
SPEC(S)	SPECIFICATION(S)
SPG	SPACING
SPL	SPOOL
SPRT	SUPPORT
SQ	SQUARE
SQ FT	SQUARE FOOT
SQ IN	SQUARE INCH
SQ YD	SQUARE YARD
SS	SANITARY SEWER
SST	STAINLESS STEEL
ST	STREET
STA	STATION
STD	STANDARD
STL	STEEL
STOR	STORAGE
STR	STRAIGHT
STRUCT	STRUCTURE / STRUCTURAL
SUBMG	SUBMERGED
SUCT	SUCTION
SV	SOLENOID VALVE
S/W	SIDEWALK
SWD	SIDEWATER DEPTH
SWGR	SWITCH GEAR
SYMM	SYMMETRICAL
SYS	SYSTEM

T OR TEL	TELEPHONE
T&B	TOP & BOTTOM
TAN	TANGENCY
TB	THRUST BLOCK
TBM	TEMPORARY BENCHMARK
TC	TOP OF CONCRETE / TOP OF CURB
TCE	TEMPORARY CONSTRUCTION EASEMENT
TDH	TOTAL DYNAMIC HEAD
TEMP	TEMPERATURE / TEMPORARY
T&G	TONGUE & GROOVE
THK	THICK / THICKNESS
THRD	THREAD (ED)
THRU	THROUGH
TP	TEST PIT / TOP OF PAVEMENT / TURNING POINT
TRANS	TRANSITION
TSP	TRI-SODIUM PHOSPHATE
TST	TOP OF STEEL
TW	TOP OF WALL
TYP	TYPICAL
UG	UNDERGROUND
UH	UNIT HEATER
UN	UNION
UON	UNLESS OTHERWISE NOTED
USGS	UNITED STATES GEOLOGIC SURVEY
V	VENT / VOLT
VAC	VACUUM
VB	VACUUM BREAKER
VBOX	VALVE BOX
VC	VERTICAL CURVE
VERT	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
VOL	VOLUME
VCP	VITRIFIED CLAY PIPE
VTR	VENT THROUGH ROOF
W	WATER
W/	WITH
W/IN	WITHIN
W/O	WITHOUT
W/W	WALL TO WALL
WD	WOOD
WF	WIDE FLANGE
WH	WATER HEATER
WI	WROUGHT IRON
WM	WATER METER
WP	WORKING POINT / WATERPROOFING
WS	WATER SERVICE
WSDOT	WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
WT	WEIGHT
WTP	WATER TREATMENT PLANT
WTRT	WATERTIGHT
WWF	WELDED WIRE FABRIC
WWTF	WASTEWATER TREATMENT FACILITY
WWTP	WASTEWATER TREATMENT PLANT
X SECT	CROSS SECTION
XFMR	TRANSFORMER
YD	YARD DRAIN / YARD
YH	YARD HYDRANT
YR	YEAR
ZN	ZINC

NO.	DATE	BY	REVISION

NOTICE

0 ½ 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

MCD DESIGNED

EJJ DRAWN

JAM CHECKED

JON MINER — STATE OF WASHINGTON — 20106440 — REGISTERED PROFESSIONAL ENGINEER

4/26/2022

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CLALLAM BAY SEKIU WATER MAIN UPGRADES

GENERAL ABBREVIATIONS

SHEET G-4

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

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PLAN
SCALE: 1"=100'

DATUM

HORIZONTAL - NORTH AMERICAN DATUM OF 1983, 1991 ADJUSTMENT, NAD 83(91)
VERTICAL - NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD 88

SURVEY CONTROL POINTS

PT NO.	DESCRIPTION	NORTHING	EASTING	ELEVATION
327	mw front/rice	N479625.59	E796064.93	18.02
328	mw w end rice	N479684.14	E795573.80	89.23
329	mw w end division	N479911.11	E795705.24	72.31
330	mw front/commercial	N480190.93	E796097.98	16.98
331	mw e ep washington	N480206.66	E795519.60	111.47
332	mw n ep washington	N480511.61	E795649.93	75.06
333	mw front/washington	N480498.49	E796197.05	23.18
334	set mag/wash	N479939.61	E795472.78	139.70

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NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
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MCD
DESIGNED
EJJ
DRAWN
JAM
CHECKED

TON MINER
STATE OF WASHINGTON
20106449
REGISTERED PROFESSIONAL ENGINEER
4/26/2022

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CLALLAM BAY SEKIU WATER MAIN UPGRADES

GENERAL HORIZONTAL & VERTICAL CONTROL AREA 1

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

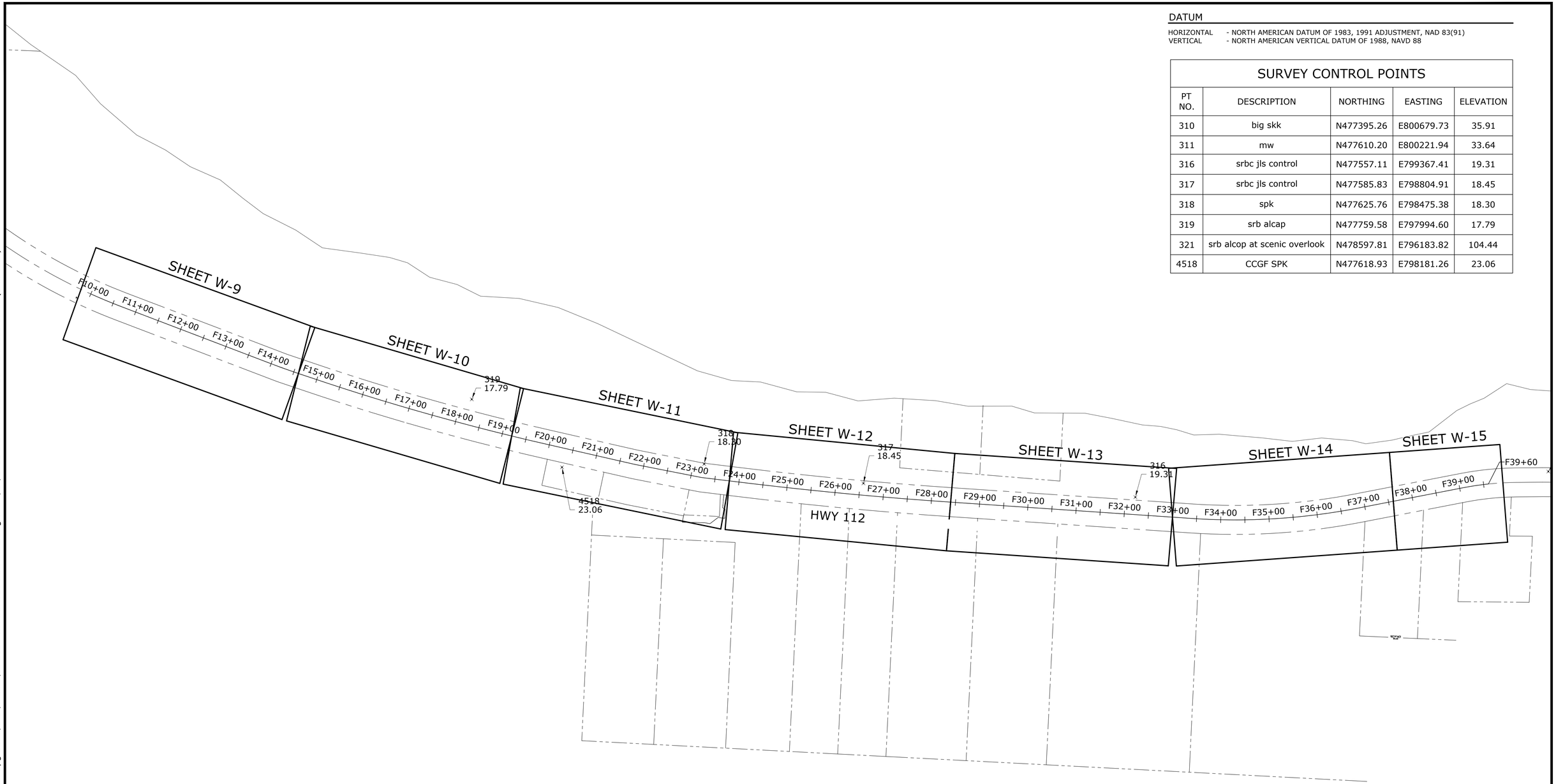
SHEET
G-5
5 of 56

DATUM

HORIZONTAL - NORTH AMERICAN DATUM OF 1983, 1991 ADJUSTMENT, NAD 83(91)
VERTICAL - NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD 88

SURVEY CONTROL POINTS

PT NO.	DESCRIPTION	NORTHING	EASTING	ELEVATION
310	big skk	N477395.26	E800679.73	35.91
311	mw	N477610.20	E800221.94	33.64
316	srbc jls control	N477557.11	E799367.41	19.31
317	srbc jls control	N477585.83	E798804.91	18.45
318	spk	N477625.76	E798475.38	18.30
319	srb alcap	N477759.58	E797994.60	17.79
321	srb alcop at scenic overlook	N478597.81	E796183.82	104.44
4518	CCGF SPK	N477618.93	E798181.26	23.06



PLAN
SCALE: 1"=100'

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
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JAM CHECKED

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CLALLAM BAY SEKIU WATER MAIN UPGRADES

GENERAL HORIZONTAL & VERTICAL CONTROL AREA 2

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

SHEET G-6

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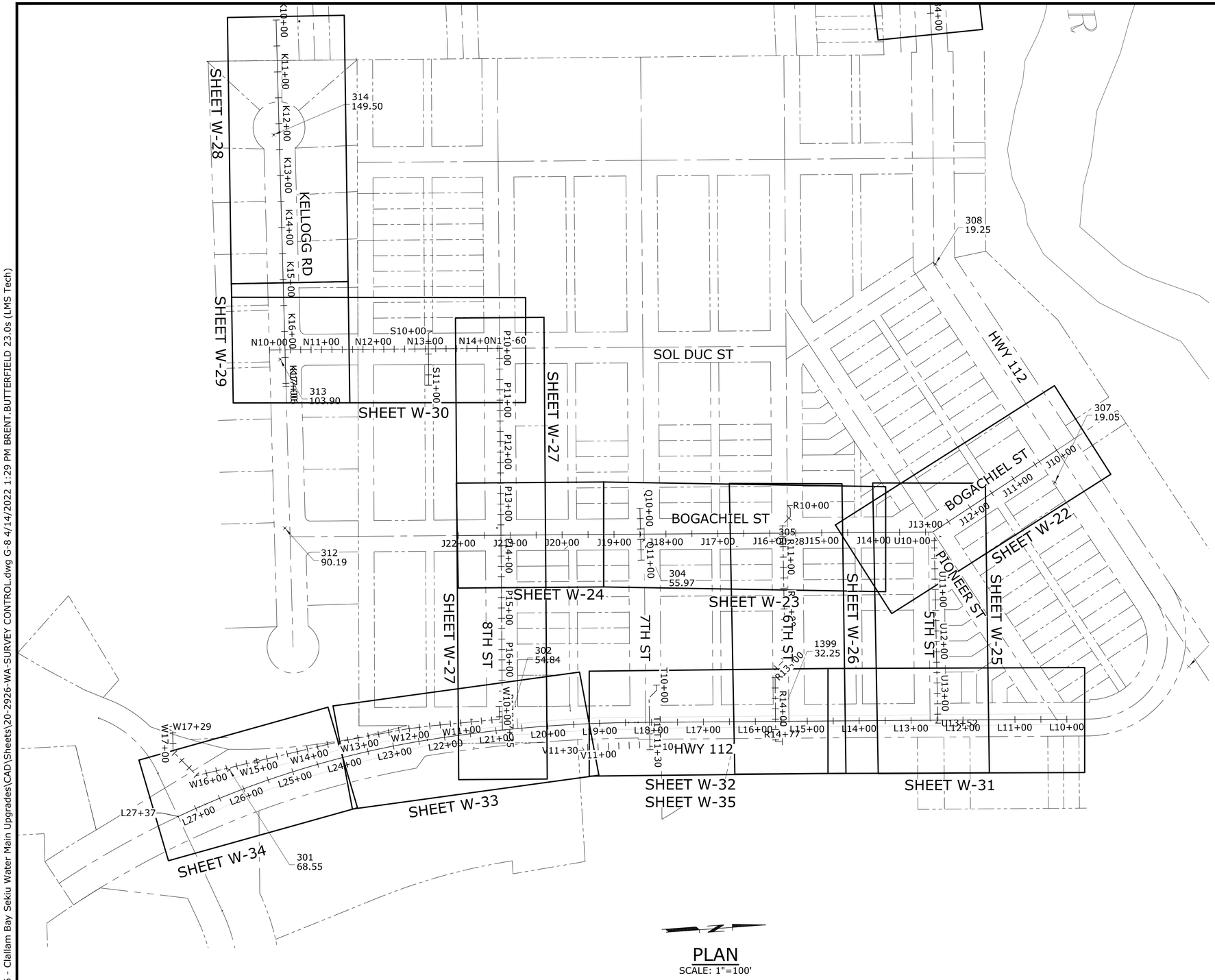

PLAN
SCALE: 1"=100'

DATUM

HORIZONTAL - NORTH AMERICAN DATUM OF 1983, 1991 ADJUSTMENT, NAD 83(91)
VERTICAL - NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD 88

SURVEY CONTROL POINTS

PT NO.	DESCRIPTION	NORTHING	EASTING	ELEVATION
300	MAG/WASH	N476164.44	E805782.84	21.58
301	mw 8th	N474306.84	E805845.37	68.55
302	mw 8th	N474856.32	E805783.15	54.84
304	mw 7th	N475135.49	E805462.86	55.97
305	fd CCRD mw 6th	N475390.41	E805480.52	29.28
307	mag in sidewalk	N475933.28	E805410.30	19.05
308	spk	N475734.61	E804974.07	19.25
312	m/w Bogachiel/Kellogg	N474447.73	E805389.11	90.19
313	m/w Kellogg/SolDuc	N474462.52	E805064.22	103.90
314	m/w Kellogg c-d-s	N474481.85	E804631.96	149.50
1399	mag	N475380.66	E805807.78	32.25

NO.	DATE	BY	REVISION

NOTICE
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CLALLAM BAY SEKIU WATER MAIN UPGRADES

GENERAL HORIZONTAL & VERTICAL CONTROL AREA 4

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

SHEET G-8

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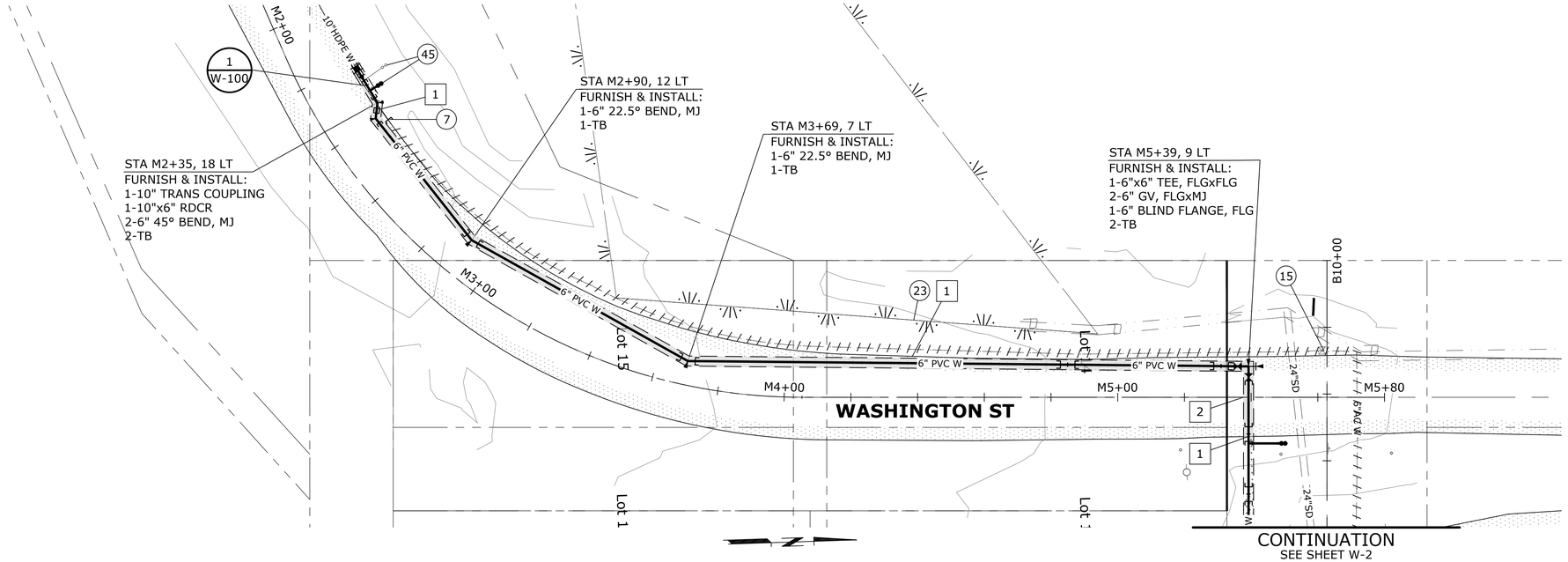
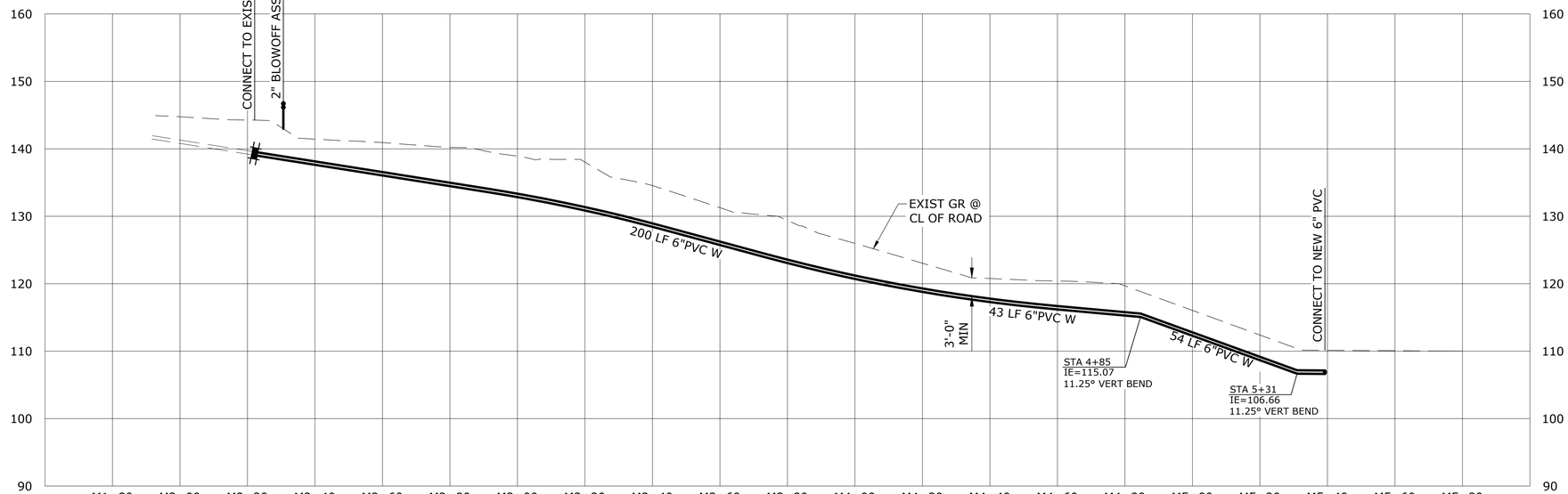


PLAN
SCALE: 1"=20'



PROFILE
SCALE: 1"=20' HORIZ, 1"=10' VERT

CONSTRUCTION NOTES:

(7) FILL WITH CDF, CAP, AND ABANDON, OR REMOVE EXISTING AC WATER MAIN PIPING AS NEEDED

(15) REMOVE VALVE STEM AND RISER ASSEMBLY, VALVE TO BE ABANDONED IN PLACE

(23) CONTRACTOR SHALL NOT DISTURB WETLAND DELINEATED AREA

(45) CONTRACTOR TO REMOVE AND REINSTALL EXISTING BLOWOFF

CHANNELIZATION NOTES:

[1] PAINTED WHITE EDGE LINE PER WSDOT STD PLAN M-20.10-03 TO MATCH EXISTING

[2] INSTALL PAINTED YELLOW DOUBLE CENTERLINE PER WSDOT STD PLAN M-20.10-03 TO MATCH EXISTING

NOTES:

1. CONTRACTOR MUST VERIFY ALL UTILITY LOCATIONS, SIZE, AND TYPES BEFORE BEGINNING CONSTRUCTION.
2. CONTRACTOR TO PROTECT ALL EXISTING UTILITIES THROUGHOUT THE DURATION OF THE PROJECT.
3. INSTALL PROPOSED WATER MAIN AT CONTINUOUS RISING SLOPE TO AVOID INTERMEDIATE HIGH POINTS

RESTORATION LEGEND

RESTORE SURFACE WITH SOIL AND HYDROSEEDING, SEE DETAIL 1, SHEET D-1

RESTORE HMA SURFACE WITH ASPHALT, SEE DETAIL 1, SHEET D-1

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
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CLALLAM BAY SEKIU WATER MAIN UPGRADES

WATER PLAN & PROFILE WASHINGTON STREET - 1

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

SHEET W-1

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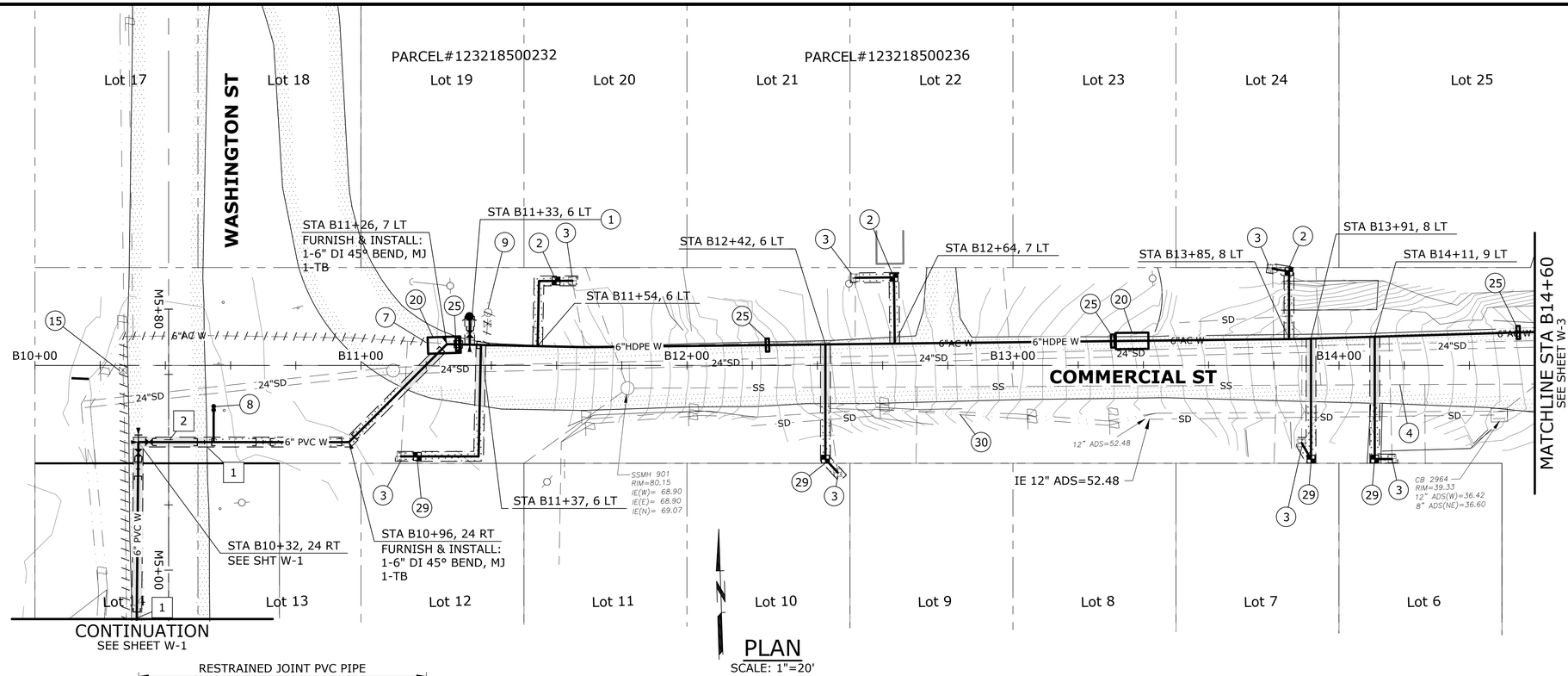
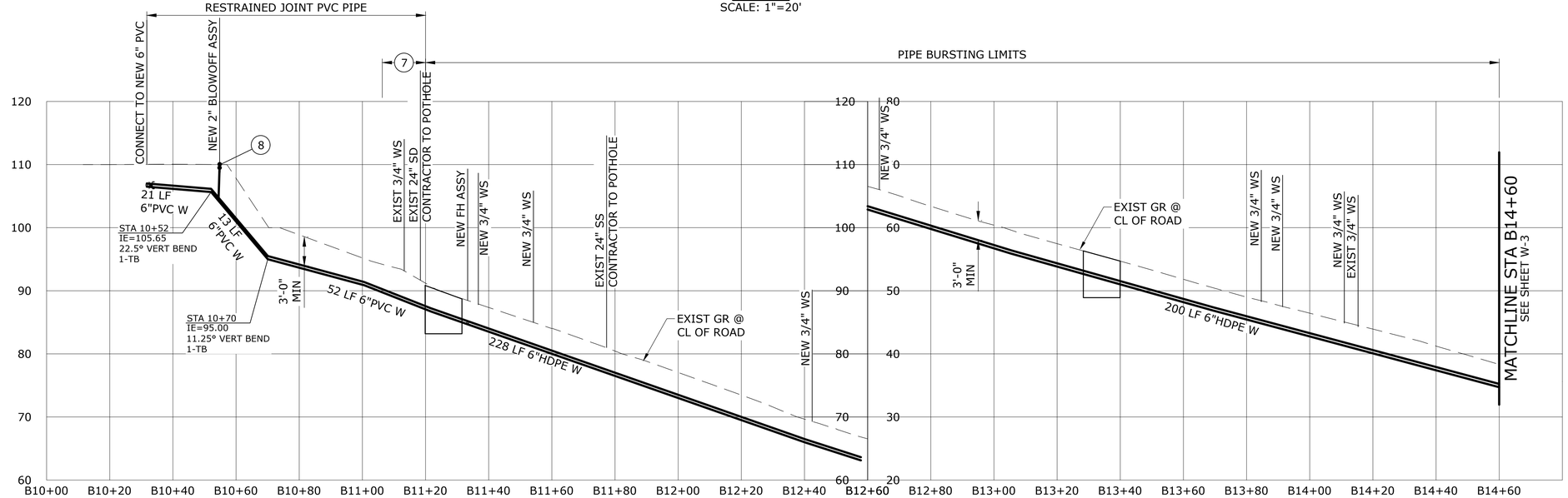


PLAN
SCALE: 1"=20'



PROFILE
SCALE: 1"=20' HORIZ, 1"=10' VERT

CONSTRUCTION NOTES

1. INSTALL:
NEW FIRE HYDRANT ASSEMBLY, INCLUDING VALVE AND VALVE BOX, AND CONNECT TO MAIN PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT D
2. INSTALL:
NEW 3/4" METER INSTALLATION PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT E
3. REMOVE METER/VALVE BOX & ABANDON EXISTING SERVICE LINE
4. PROTECT EXIST SS, MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" MEASURED EDGE-TO-EDGE
6. PROTECT EXISTING STORM DRAIN AND MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" MEASURED EDGE-TO-EDGE
7. FILL WITH CDF, CAP, AND ABANDON, OR REMOVE EXISTING AC WATER MAIN PIPING AS NEEDED
8. INSTALL:
2" BLOWOFF (WITH 2" GATE VALVE) PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT B
9. REMOVE HYDRANT AND HYDRANT VALVE PER WSDOT STD SPEC 7-14
15. REMOVE VALVE STEM AND RISER ASSEMBLY, VALVE TO BE ABANDONED IN PLACE
20. APPROX PIPE BURSTING PIT (10'x5')
23. CONTRACTOR SHALL NOT DISTURB WETLAND DELINEATED AREA
25. INSTALL:
NEW DEADMAN BLOCK PER DETAIL 2, SHT D-1
29. INSTALL:
NEW 3/4 IN METER INSTALLATION WITH 2" PVC CASING AROUND SERVICES CROSSING STREET PER CLALLAM PUD STANDARD DETAIL EXHIBIT E
30. CONTRACTOR SHALL NOT DISTURB STREAM DELINEATED AREA

CHANNELIZATION NOTES:

1. PAINTED WHITE EDGE LINE PER WSDOT STD PLAN M-20.10-03 TO MATCH EXISTING
2. INSTALL PAINTED YELLOW DOUBLE CENTERLINE PER WSDOT STD PLAN M-20.10-03 TO MATCH EXISTING

NOTES:

1. CONTRACTOR MUST VERIFY ALL UTILITY LOCATIONS, SIZE, AND TYPES BEFORE BEGINNING CONSTRUCTION.
2. CONTRACTOR TO PROTECT ALL EXISTING UTILITIES THROUGHOUT THE DURATION OF THE PROJECT.
3. INSTALL PROPOSED WATER MAIN AT CONTINUOUS RISING SLOPE TO AVOID INTERMEDIATE HIGH POINTS

RESTORATION LEGEND

RESTORE SURFACE WITH SOIL AND HYDROSEEDING, SEE DETAIL 1, SHEET D-1

RESTORE HMA SURFACE WITH ASPHALT, SEE DETAIL 1, SHEET D-1

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
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MCD DESIGNED
EJJ DRAWN
JAM CHECKED

TOM MINER STATE OF WASHINGTON 20106449 REGISTERED PROFESSIONAL ENGINEER
4/26/2022

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CLALLAM BAY SEKIU WATER MAIN UPGRADES

WATER PLAN & PROFILE COMMERCIAL STREET - 1

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

SHEET W-2

10 of 56

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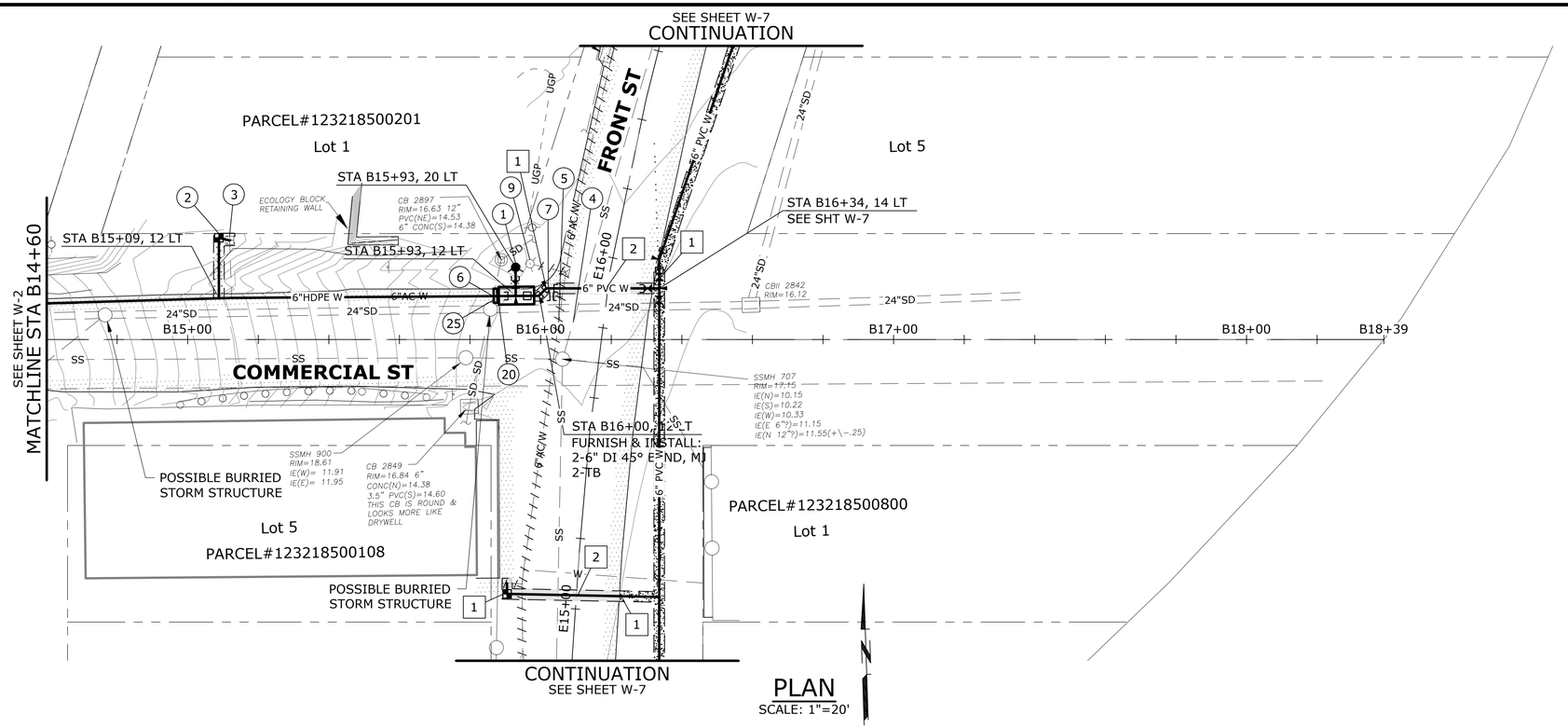
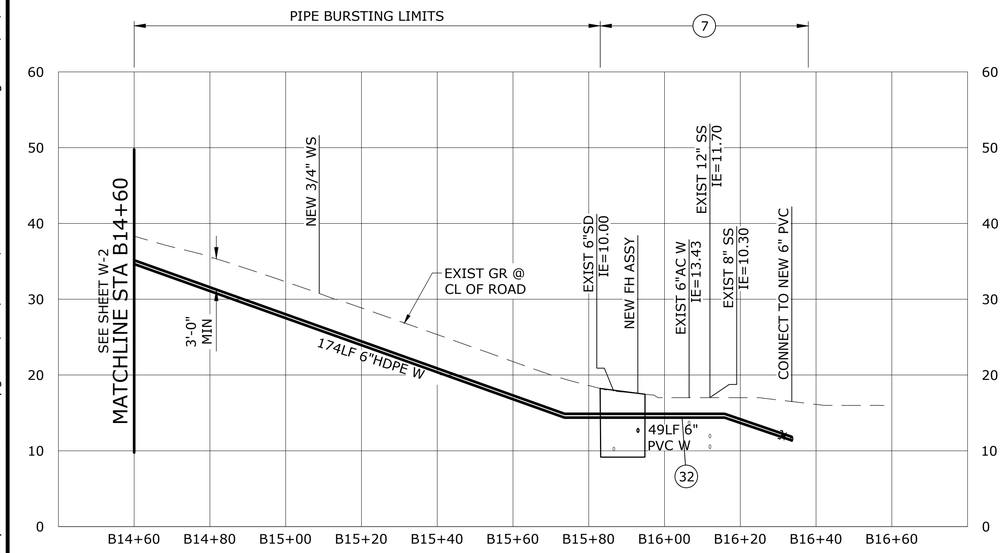


PLAN
SCALE: 1"=20'



PROFILE
SCALE: 1"=20' HORIZ, 1"=10' VERT

CONSTRUCTION NOTES

1. INSTALL: NEW FIRE HYDRANT ASSEMBLY, INCLUDING VALVE AND VALVE BOX, AND CONNECT TO MAIN PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT D
2. INSTALL: NEW 3/4" METER INSTALLATION PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT E
3. REMOVE METER/VALVE BOX & ABANDON EXISTING SERVICE LINE
4. PROTECT EXIST SS, MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" MEASURED EDGE-TO-EDGE
5. PROTECT EXISTING WATER MAIN AND MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" FROM WATER MAIN MEASURED EDGE-TO-EDGE
6. PROTECT EXISTING STORM DRAIN AND MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" MEASURED EDGE-TO-EDGE
7. FILL WITH CDF, CAP, AND ABANDON, OR REMOVE EXISTING AC WATER MAIN PIPING AS NEEDED
9. REMOVE HYDRANT AND HYDRANT VALVE PER WSDOT STD SPEC 7-14
20. APPROX PIPE BURSTING PIT (10'x5')
25. INSTALL: NEW DEADMAN BLOCK PER DETAIL 2, SHT D-1
32. INSTALL: ETHAFOAM 220 PAD

CHANNELIZATION NOTES:

1. PAINTED WHITE EDGE LINE PER WSDOT STD PLAN M-20.10-03 TO MATCH EXISTING
2. INSTALL PAINTED YELLOW DOUBLE CENTERLINE PER WSDOT STD PLAN M-20.10-03 TO MATCH EXISTING

NOTES:

1. CONTRACTOR MUST VERIFY ALL UTILITY LOCATIONS, SIZE, AND TYPES BEFORE BEGINNING CONSTRUCTION.
2. CONTRACTOR TO PROTECT ALL EXISTING UTILITIES THROUGHOUT THE DURATION OF THE PROJECT.
3. INSTALL PROPOSED WATER MAIN AT CONTINUOUS RISING SLOPE TO AVOID INTERMEDIATE HIGH POINTS

RESTORATION LEGEND

- RESTORE SURFACE WITH SOIL AND HYDROSEEDING, SEE DETAIL 1, SHEET D-1
- RESTORE HMA SURFACE WITH ASPHALT, SEE DETAIL 1, SHEET D-1
- RESTORE SURFACE WITH GRAVEL, SEE DETAIL 1, SHEET D-1

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

MCD DESIGNED
EJJ DRAWN
JAM CHECKED

JON MINER — STATE OF WASHINGTON — 20106445 — REGISTERED PROFESSIONAL ENGINEER
4/26/2022

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CLALLAM COUNTY PUD — Bringing Energy To Life™

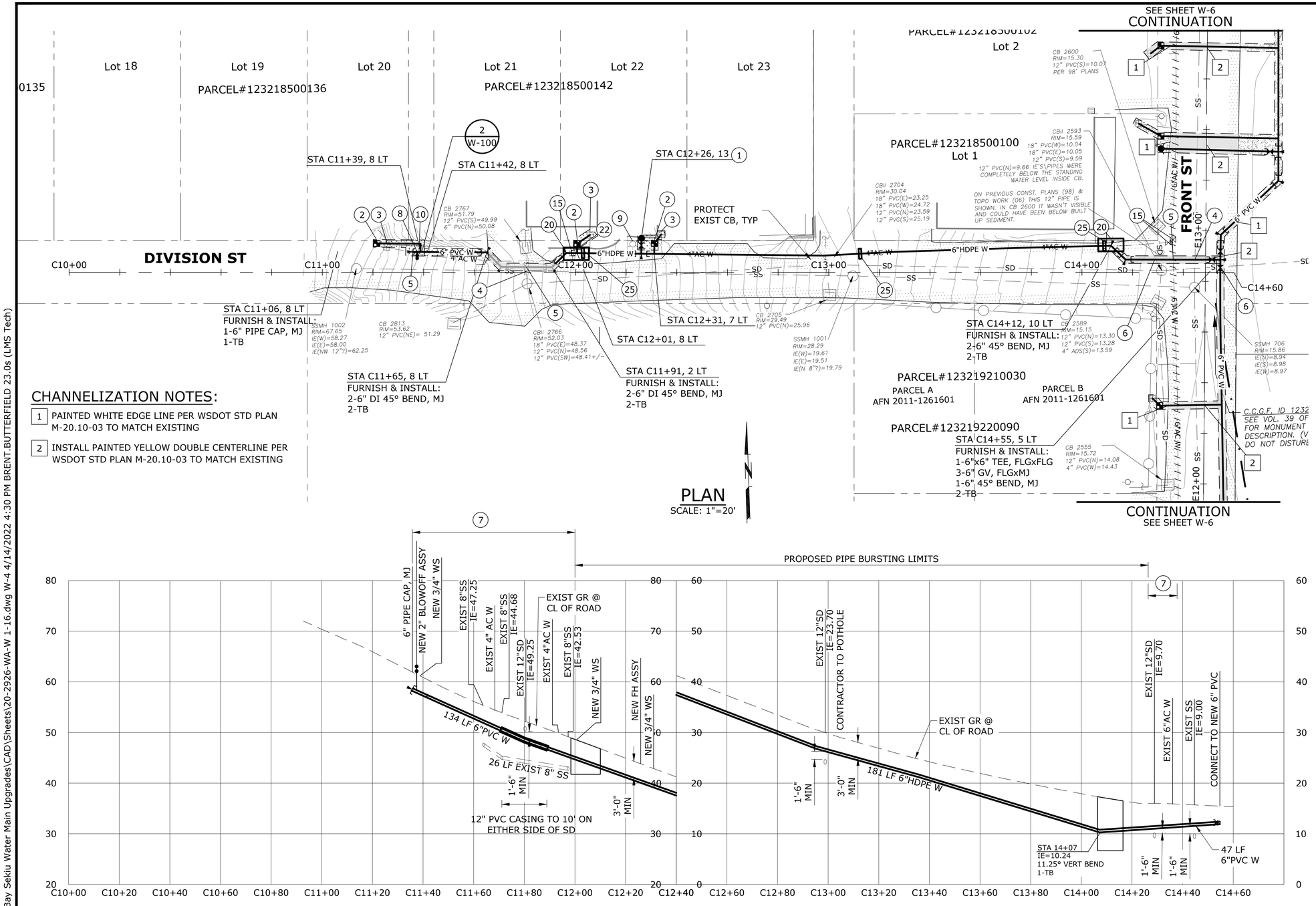
CLALLAM BAY SEKIU WATER MAIN UPGRADES

WATER PLAN & PROFILE COMMERCIAL STREET - 2

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

SHEET W-3

K:\TAC_Projects\20\2926 - Clallam Bay Sekiu Water Main Upgrades\CAD\Sheets\20-2926-WA-W 1-16.dwg W-3 4/14/2022 4:30 PM BRENT.BUTTERFIELD 23.0s (LMS Tech)



PLAN
SCALE: 1"=20'

PROFILE
SCALE: 1"=20' HORIZ, 1"=10' VERT

CHANNELIZATION NOTES:

1. PAINTED WHITE EDGE LINE PER WSDOT STD PLAN M-20.10-03 TO MATCH EXISTING
2. INSTALL PAINTED YELLOW DOUBLE CENTERLINE PER WSDOT STD PLAN M-20.10-03 TO MATCH EXISTING

CONSTRUCTION NOTES

1. INSTALL:
NEW FIRE HYDRANT ASSEMBLY, INCLUDING VALVE AND VALVE BOX, AND CONNECT TO MAIN PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT D
2. INSTALL:
NEW 3/4" METER INSTALLATION PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT E
3. REMOVE METER/VALVE BOX & ABANDON EXISTING SERVICE LINE
4. PROTECT EXIST SS, MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" MEASURED EDGE-TO-EDGE
5. PROTECT EXISTING WATER MAIN AND MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" FROM WATER MAIN MEASURED EDGE-TO-EDGE
6. PROTECT EXISTING STORM DRAIN AND MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" MEASURED EDGE-TO-EDGE
7. FILL WITH CDF, CAP, AND ABANDON, OR REMOVE EXISTING AC WATER MAIN PIPING AS NEEDED
8. INSTALL:
2" BLOWOFF (WITH 2" GATE VALVE) PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT B
9. REMOVE HYDRANT AND HYDRANT VALVE PER WSDOT STD SPEC 7-14
10. REMOVE EXIST BLOWOFF ASSEMBLY, BACKFILL VOID SPACE ONCE REMOVED AND PATCH FINISHED GRADE TO MATCH ADJACENT FINISHED GRADE
11. ABANDON AND CRUSH EXISTING AC WATER MAIN PIPING
15. REMOVE VALVE STEM AND RISER ASSEMBLY, VALVE TO BE ABANDONED IN PLACE
20. APPROX PIPE BURSTING PIT (10'x5')
22. CONTRACTOR TO RESTORE EXISTING CMU TO ORIGINAL CONDITION
25. INSTALL:
NEW DEADMAN BLOCK PER DETAIL 2, SHT D-1

NOTES:

1. CONTRACTOR MUST VERIFY ALL UTILITY LOCATIONS, SIZE, AND TYPES BEFORE BEGINNING CONSTRUCTION.
2. CONTRACTOR TO PROTECT ALL EXISTING UTILITIES THROUGHOUT THE DURATION OF THE PROJECT.
3. INSTALL PROPOSED WATER MAIN AT CONTINUOUS RISING SLOPE TO AVOID INTERMEDIATE HIGH POINTS

RESTORATION LEGEND

- RESTORE SURFACE WITH SOIL AND HYDROSEEDING, SEE DETAIL 1, SHEET D-1
- RESTORE HMA SURFACE WITH ASPHALT, SEE DETAIL 1, SHEET D-1
- RESTORE SURFACE WITH GRAVEL, SEE DETAIL 1, SHEET D-1

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

MCD DESIGNED
EJJ DRAWN
JAM CHECKED

JON MINER — STATE OF WASHINGTON — 20106449 — REGISTERED PROFESSIONAL ENGINEER
4/26/2022

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CLALLAM COUNTY PUD — Bringing Energy To Life™

CLALLAM BAY SEKIU WATER MAIN UPGRADES

WATER PLAN & PROFILE DIVISION STREET

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

SHEET W-4

12 of 56

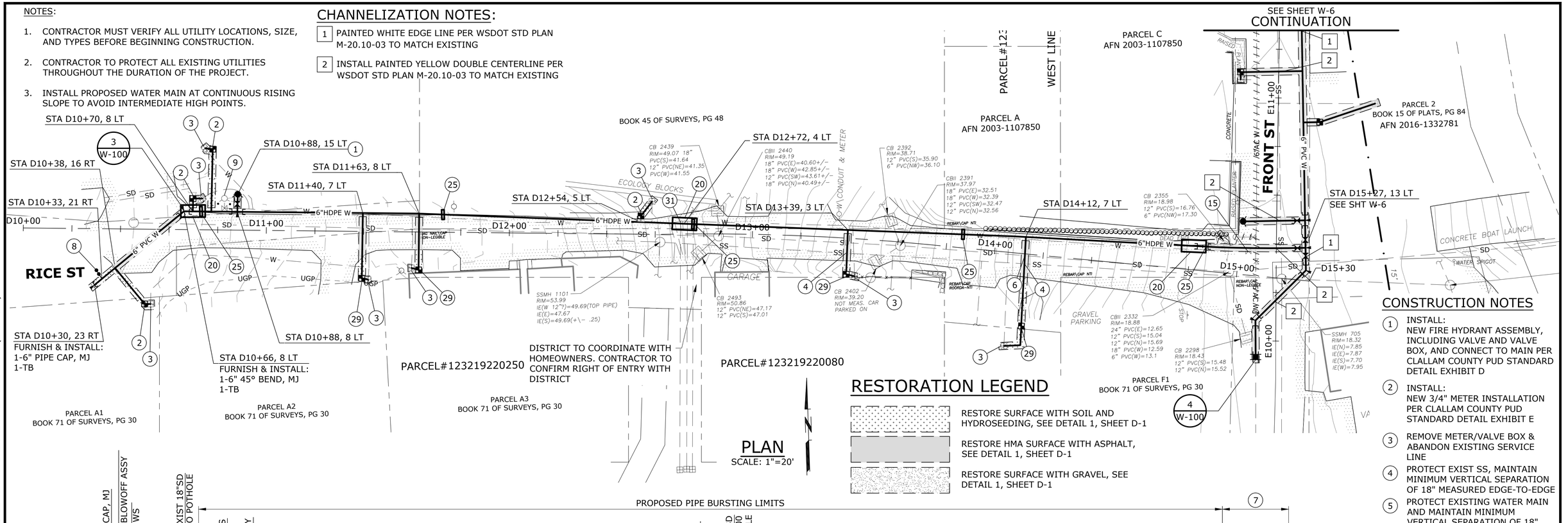
K:\TAC_Projects\20\2926 - Clallam Bay Sekiu Water Main Upgrades\CAD\Sheets\20-2926-WA-W 1-16.dwg W-4 4/14/2022 4:30 PM BRENT.BUTTERFIELD 23.0s (LMS Tech)

NOTES:

1. CONTRACTOR MUST VERIFY ALL UTILITY LOCATIONS, SIZE, AND TYPES BEFORE BEGINNING CONSTRUCTION.
2. CONTRACTOR TO PROTECT ALL EXISTING UTILITIES THROUGHOUT THE DURATION OF THE PROJECT.
3. INSTALL PROPOSED WATER MAIN AT CONTINUOUS RISING SLOPE TO AVOID INTERMEDIATE HIGH POINTS.

CHANNELIZATION NOTES:

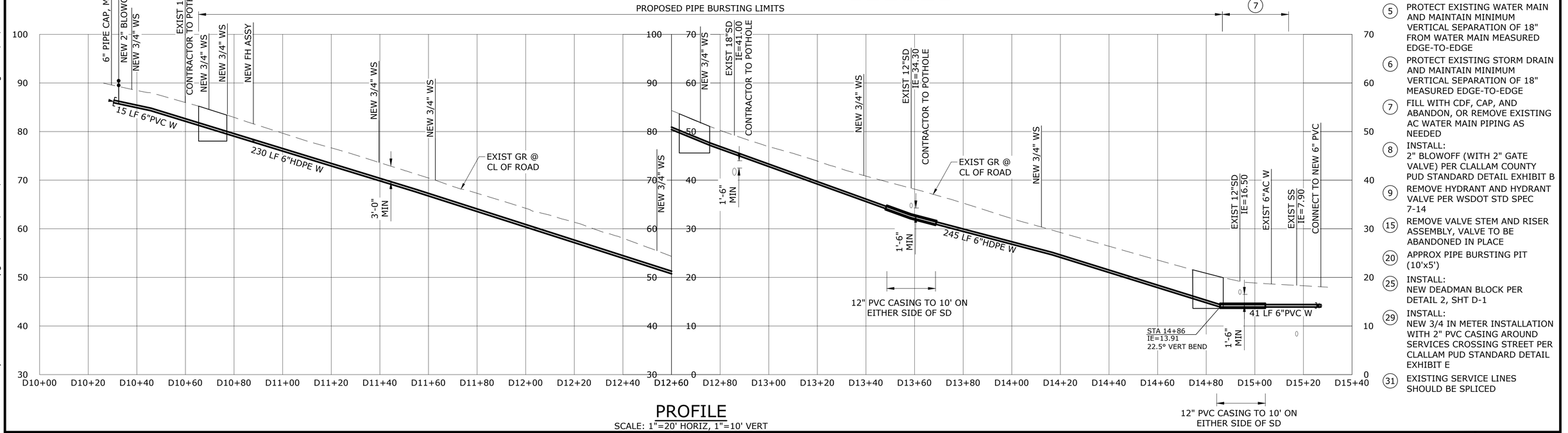
1. PAINTED WHITE EDGE LINE PER WSDOT STD PLAN M-20.10-03 TO MATCH EXISTING
2. INSTALL PAINTED YELLOW DOUBLE CENTERLINE PER WSDOT STD PLAN M-20.10-03 TO MATCH EXISTING



PLAN
SCALE: 1"=20'

RESTORATION LEGEND

- RESTORE SURFACE WITH SOIL AND HYDROSEEDING, SEE DETAIL 1, SHEET D-1
- RESTORE HMA SURFACE WITH ASPHALT, SEE DETAIL 1, SHEET D-1
- RESTORE SURFACE WITH GRAVEL, SEE DETAIL 1, SHEET D-1



PROFILE
SCALE: 1"=20' HORIZ, 1"=10' VERT

CONSTRUCTION NOTES

1. INSTALL: NEW FIRE HYDRANT ASSEMBLY, INCLUDING VALVE AND VALVE BOX, AND CONNECT TO MAIN PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT D
2. INSTALL: NEW 3/4" METER INSTALLATION PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT E
3. REMOVE METER/VALVE BOX & ABANDON EXISTING SERVICE LINE
4. PROTECT EXIST SS, MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" MEASURED EDGE-TO-EDGE
5. PROTECT EXISTING WATER MAIN AND MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" FROM WATER MAIN MEASURED EDGE-TO-EDGE
6. PROTECT EXISTING STORM DRAIN AND MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" MEASURED EDGE-TO-EDGE
7. FILL WITH CDF, CAP, AND ABANDON, OR REMOVE EXISTING AC WATER MAIN PIPING AS NEEDED
8. INSTALL: 2" BLOWOFF (WITH 2" GATE VALVE) PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT B
9. REMOVE HYDRANT AND HYDRANT VALVE PER WSDOT STD SPEC 7-14
15. REMOVE VALVE STEM AND RISER ASSEMBLY, VALVE TO BE ABANDONED IN PLACE
20. APPROX PIPE BURSTING PIT (10'x5')
25. INSTALL: NEW DEADMAN BLOCK PER DETAIL 2, SHT D-1
29. INSTALL: NEW 3/4 IN METER INSTALLATION WITH 2" PVC CASING AROUND SERVICES CROSSING STREET PER CLALLAM PUD STANDARD DETAIL EXHIBIT E
31. EXISTING SERVICE LINES SHOULD BE SPLICED

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

MCD DESIGNED
EJJ DRAWN
JAM CHECKED

TON MINER — STATE OF WASHINGTON — 20106449 — REGISTERED PROFESSIONAL ENGINEER — 4/26/2022

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CLALLAM COUNTY PUD — Bringing Energy To Life™

CLALLAM BAY SEKIU WATER MAIN UPGRADES

WATER PLAN & PROFILE RICE STREET

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

SHEET W-5

13 of 56

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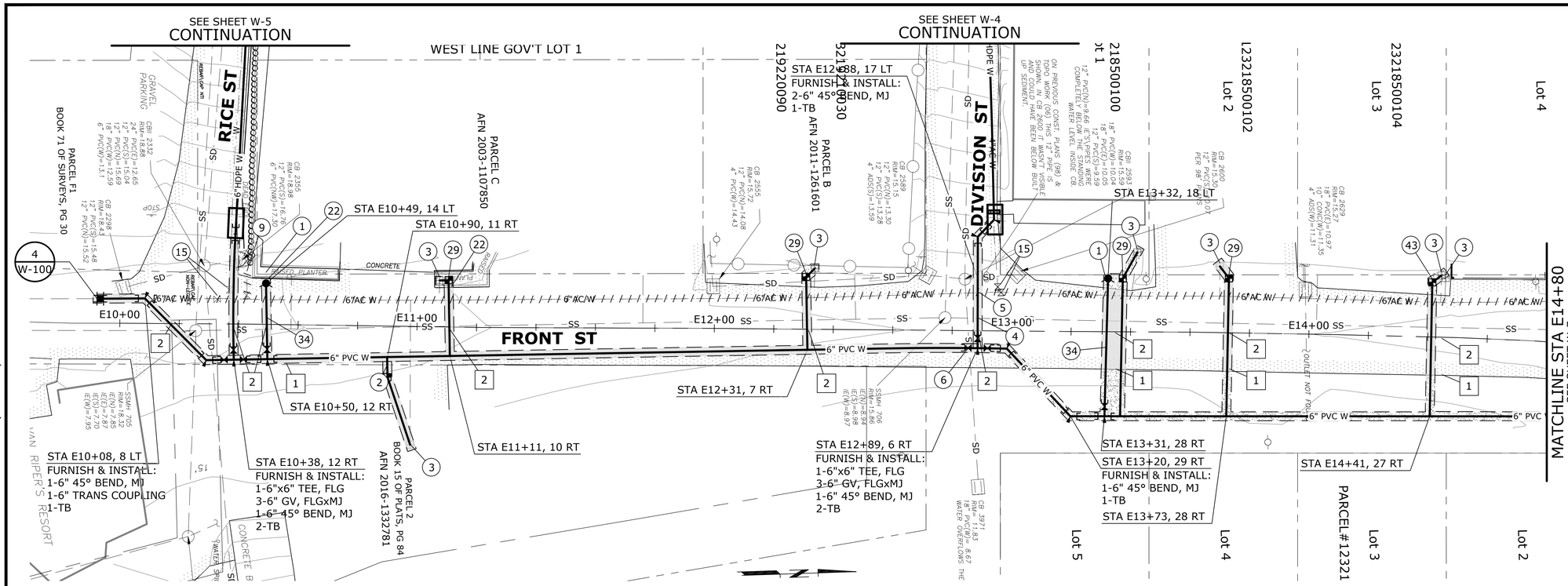
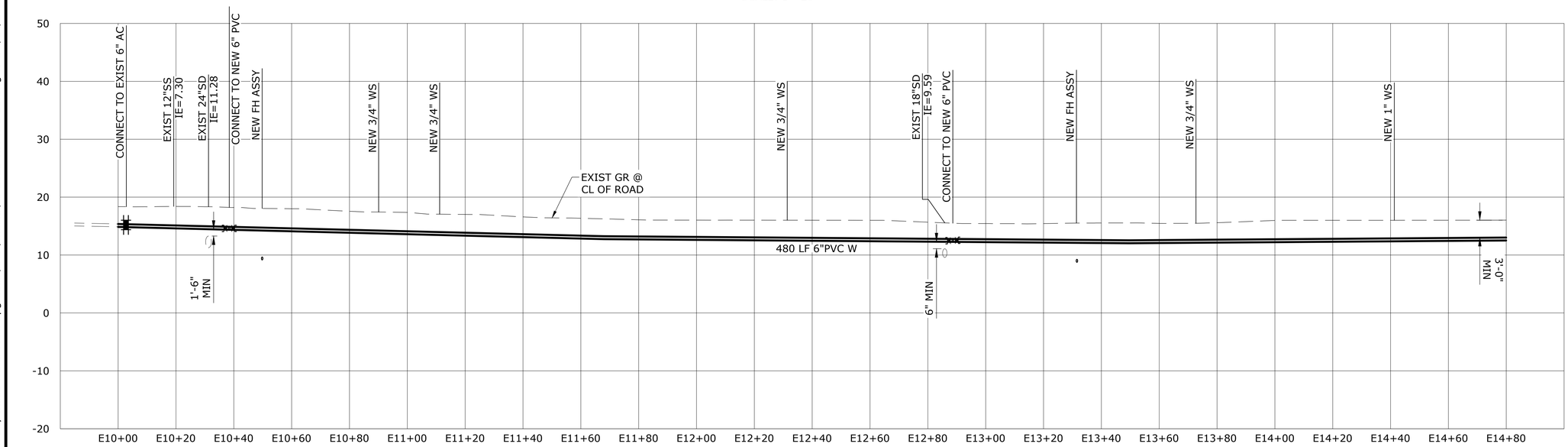


PLAN
SCALE: 1"=20'



PROFILE
SCALE: 1"=20' HORIZ, 1"=10' VERT

CONSTRUCTION NOTES

1. INSTALL: NEW FIRE HYDRANT ASSEMBLY, INCLUDING VALVE AND VALVE BOX, AND CONNECT TO MAIN PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT D
2. INSTALL: NEW 3/4" METER INSTALLATION PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT E
3. REMOVE METER/VALVE BOX & ABANDON EXISTING SERVICE LINE
4. PROTECT EXIST SS, MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" MEASURED EDGE-TO-EDGE
5. PROTECT EXISTING WATER MAIN AND MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" FROM WATER MAIN MEASURED EDGE-TO-EDGE
6. PROTECT EXISTING STORM DRAIN AND MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" MEASURED EDGE-TO-EDGE
7. FILL WITH CDF, CAP, AND ABANDON, OR REMOVE EXISTING AC WATER MAIN PIPING AS NEEDED
9. REMOVE HYDRANT AND HYDRANT VALVE PER WSDOT STD SPEC 7-14
15. REMOVE VALVE STEM AND RISER ASSEMBLY, VALVE TO BE ABANDONED IN PLACE
22. CONTRACTOR TO RESTORE EXISTING CMU TO ORIGINAL CONDITION
29. INSTALL: NEW 3/4 IN METER INSTALLATION WITH 2" PVC CASING AROUND SERVICES CROSSING STREET PER CLALLAM PUD STANDARD DETAIL EXHIBIT E
34. HYDRANT SERVICES TO BE RESTRAINED JOINT PIPE ON LONG SPOOL WITH BELL JOINT. POLYBAG RESTRAINED JOINT, DUCTILE IRON SPOOLS AND FITTING
43. INSTALL: NEW DUAL SERVICE METER INSTALLATION WITH 2" PVC CASING AROUND SERVICES CROSSING STREET PER DET 1, SHT D-2

CHANNELIZATION NOTES:

1. PAINTED WHITE EDGE LINE PER WSDOT STD PLAN M-20.10-03 TO MATCH EXISTING
2. INSTALL PAINTED YELLOW DOUBLE CENTERLINE PER WSDOT STD PLAN M-20.10-03 TO MATCH EXISTING

NOTES:

1. CONTRACTOR MUST VERIFY ALL UTILITY LOCATIONS, SIZE, AND TYPES BEFORE BEGINNING CONSTRUCTION.
2. CONTRACTOR TO PROTECT ALL EXISTING UTILITIES THROUGHOUT THE DURATION OF THE PROJECT.
3. INSTALL PROPOSED WATER MAIN AT CONTINUOUS RISING SLOPE TO AVOID INTERMEDIATE HIGH POINTS

RESTORATION LEGEND

- RESTORE SURFACE WITH SOIL AND HYDROSEEDING, SEE DETAIL 1, SHEET D-1
- RESTORE HMA SURFACE WITH ASPHALT, SEE DETAIL 1, SHEET D-1
- RESTORE SURFACE WITH GRAVEL, SEE DETAIL 1, SHEET D-1

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

MCD DESIGNED
EJJ DRAWN
JAM CHECKED

TON MINER STATE OF WASHINGTON 20106449 REGISTERED PROFESSIONAL ENGINEER 4/26/2022

murraysmith

CLALLAM COUNTY PUD Bringing Energy To Life™

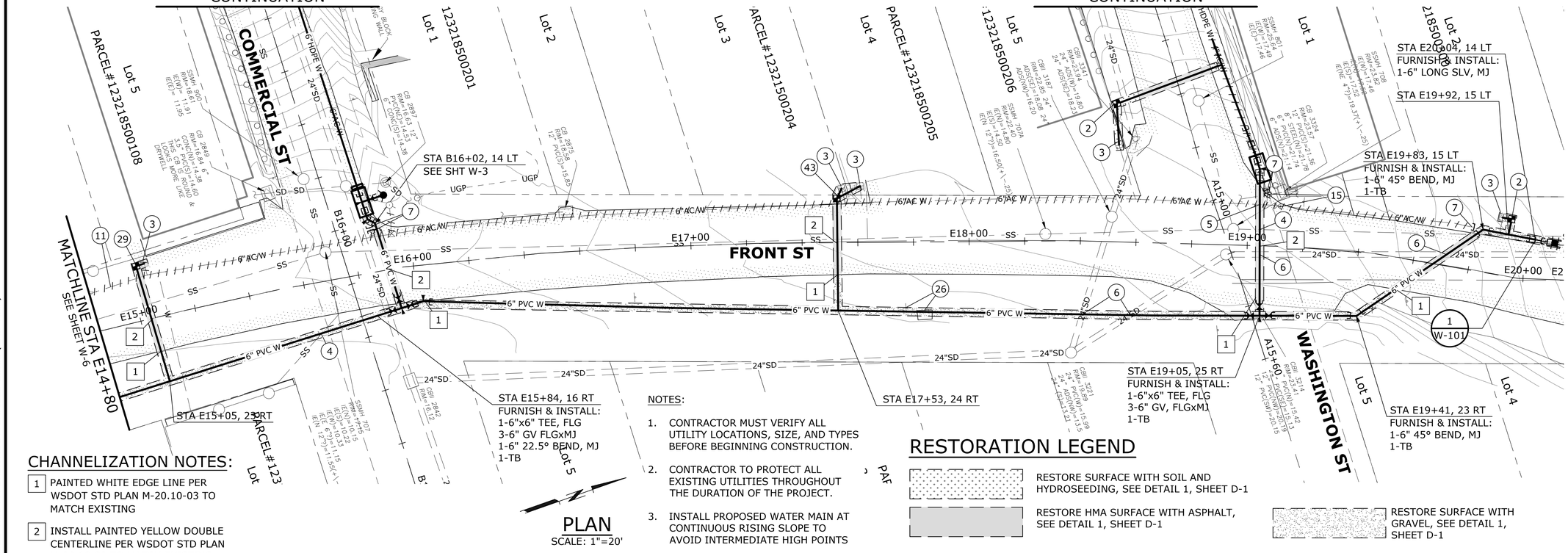
CLALLAM BAY SEKIU WATER MAIN UPGRADES

WATER PLAN & PROFILE FRONT STREET - 1

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

SHEET W-6

K:\TAC_Projects\20\2926 - Clallam Bay Sekiu Water Main Upgrades\CAD\Sheets\20-2926-WA-W 1-16.dwg W-6 4/14/2022 4:30 PM BRENT.BUTTERFIELD 23.0s (LMS Tech)



CHANNELIZATION NOTES:

1. PAINTED WHITE EDGE LINE PER WSDOT STD PLAN M-20.10-03 TO MATCH EXISTING
2. INSTALL PAINTED YELLOW DOUBLE CENTERLINE PER WSDOT STD PLAN M-20.10-03 TO MATCH EXISTING

PLAN

SCALE: 1"=20'

NOTES:

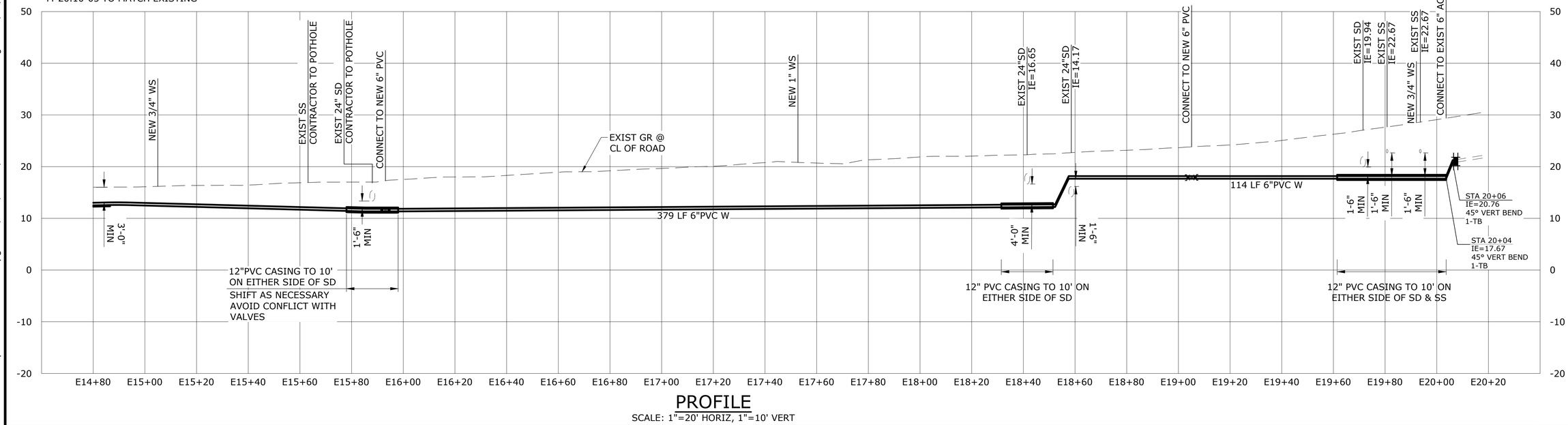
1. CONTRACTOR MUST VERIFY ALL UTILITY LOCATIONS, SIZE, AND TYPES BEFORE BEGINNING CONSTRUCTION.
2. CONTRACTOR TO PROTECT ALL EXISTING UTILITIES THROUGHOUT THE DURATION OF THE PROJECT.
3. INSTALL PROPOSED WATER MAIN AT CONTINUOUS RISING SLOPE TO AVOID INTERMEDIATE HIGH POINTS

RESTORATION LEGEND

- RESTORE SURFACE WITH SOIL AND HYDROSEEDING, SEE DETAIL 1, SHEET D-1
- RESTORE HMA SURFACE WITH ASPHALT, SEE DETAIL 1, SHEET D-1
- RESTORE SURFACE WITH GRAVEL, SEE DETAIL 1, SHEET D-1

CONSTRUCTION NOTES

2. INSTALL: NEW 3/4" METER INSTALLATION PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT E
3. REMOVE METER/VALVE BOX & ABANDON EXISTING SERVICE LINE
4. PROTECT EXIST SS, MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" MEASURED EDGE-TO-EDGE
5. PROTECT EXISTING WATER MAIN AND MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" FROM WATER MAIN MEASURED EDGE-TO-EDGE
6. PROTECT EXISTING STORM DRAIN AND MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" MEASURED EDGE-TO-EDGE
7. FILL WITH CDF, CAP, AND ABANDON, OR REMOVE EXISTING AC WATER MAIN PIPING AS NEEDED
11. ABANDON AND CRUSH EXISTING AC WATER MAIN PIPING
15. REMOVE VALVE STEM AND RISER ASSEMBLY, VALVE TO BE ABANDONED IN PLACE
26. REMOVE AND REPLACE SIGNAGE AND VEGETATION BOX TO SAME, OR BETTER CONDITION
29. INSTALL: NEW 3/4 IN METER INSTALLATION WITH 2" PVC CASING AROUND SERVICES CROSSING STREET PER CLALLAM PUD STANDARD DETAIL EXHIBIT E
43. INSTALL: NEW DUAL SERVICE METER INSTALLATION WITH 2" PVC CASING AROUND SERVICES CROSSING STREET PER DET 1, SHT D-2



PROFILE

SCALE: 1"=20' HORIZ, 1"=10' VERT

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

MCD DESIGNED
EJJ DRAWN
JAM CHECKED

JON MINER — STATE OF WASHINGTON — 20106446 — REGISTERED PROFESSIONAL ENGINEER
4/26/2022

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CLALLAM COUNTY PUD — Bringing Energy To Life™

CLALLAM BAY SEKIU WATER MAIN UPGRADES

WATER PLAN & PROFILE FRONT STREET - 2

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

SHEET W-7

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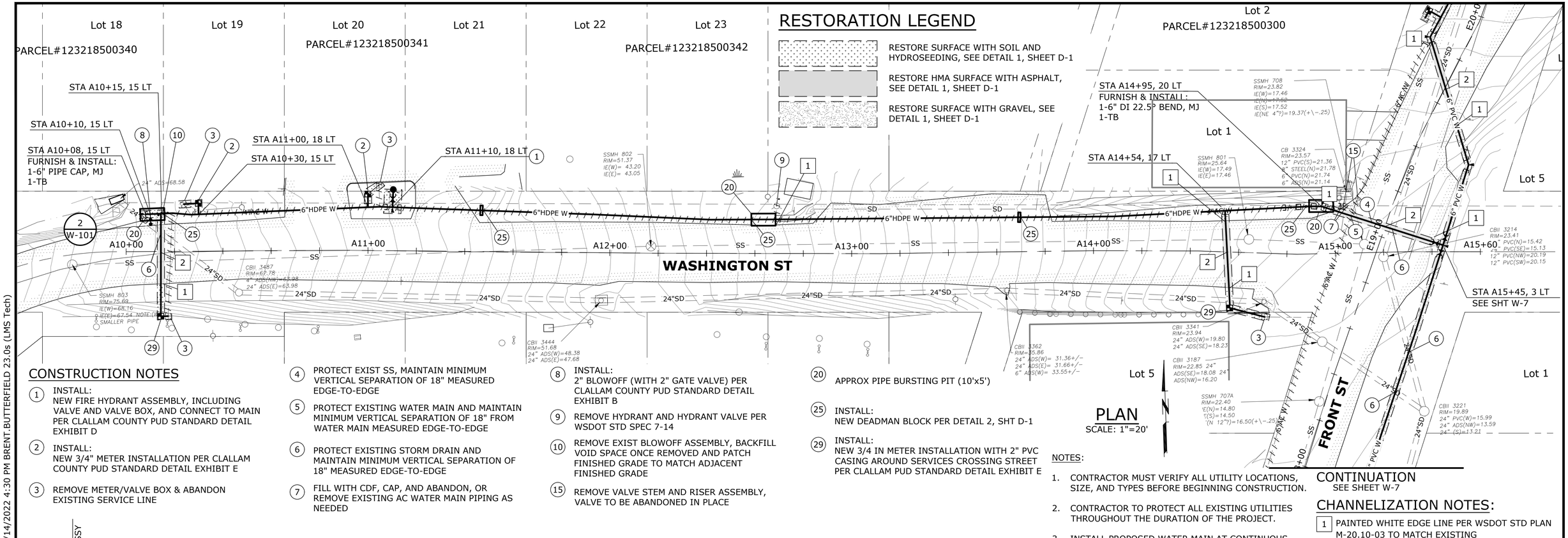


RESTORATION LEGEND

- RESTORE SURFACE WITH SOIL AND HYDROSEEDING, SEE DETAIL 1, SHEET D-1
- RESTORE HMA SURFACE WITH ASPHALT, SEE DETAIL 1, SHEET D-1
- RESTORE SURFACE WITH GRAVEL, SEE DETAIL 1, SHEET D-1

CONSTRUCTION NOTES

1. INSTALL:
   NEW FIRE HYDRANT ASSEMBLY, INCLUDING VALVE AND VALVE BOX, AND CONNECT TO MAIN PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT D
2. INSTALL:
   NEW 3/4" METER INSTALLATION PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT E
3. REMOVE METER/VALVE BOX & ABANDON EXISTING SERVICE LINE
4. PROTECT EXIST SS, MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" MEASURED EDGE-TO-EDGE
5. PROTECT EXISTING WATER MAIN AND MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" FROM WATER MAIN MEASURED EDGE-TO-EDGE
6. PROTECT EXISTING STORM DRAIN AND MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" MEASURED EDGE-TO-EDGE
7. FILL WITH CDF, CAP, AND ABANDON, OR REMOVE EXISTING AC WATER MAIN PIPING AS NEEDED
8. INSTALL:
   2" BLOWOFF (WITH 2" GATE VALVE) PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT B
9. REMOVE HYDRANT AND HYDRANT VALVE PER WSDOT STD SPEC 7-14
10. REMOVE EXIST BLOWOFF ASSEMBLY, BACKFILL VOID SPACE ONCE REMOVED AND PATCH FINISHED GRADE TO MATCH ADJACENT FINISHED GRADE
15. REMOVE VALVE STEM AND RISER ASSEMBLY, VALVE TO BE ABANDONED IN PLACE
20. APPROX PIPE BURSTING PIT (10'x5')
25. INSTALL:
    NEW DEADMAN BLOCK PER DETAIL 2, SHT D-1
29. INSTALL:
    NEW 3/4 IN METER INSTALLATION WITH 2" PVC CASING AROUND SERVICES CROSSING STREET PER CLALLAM PUD STANDARD DETAIL EXHIBIT E

PLAN

SCALE: 1"=20'

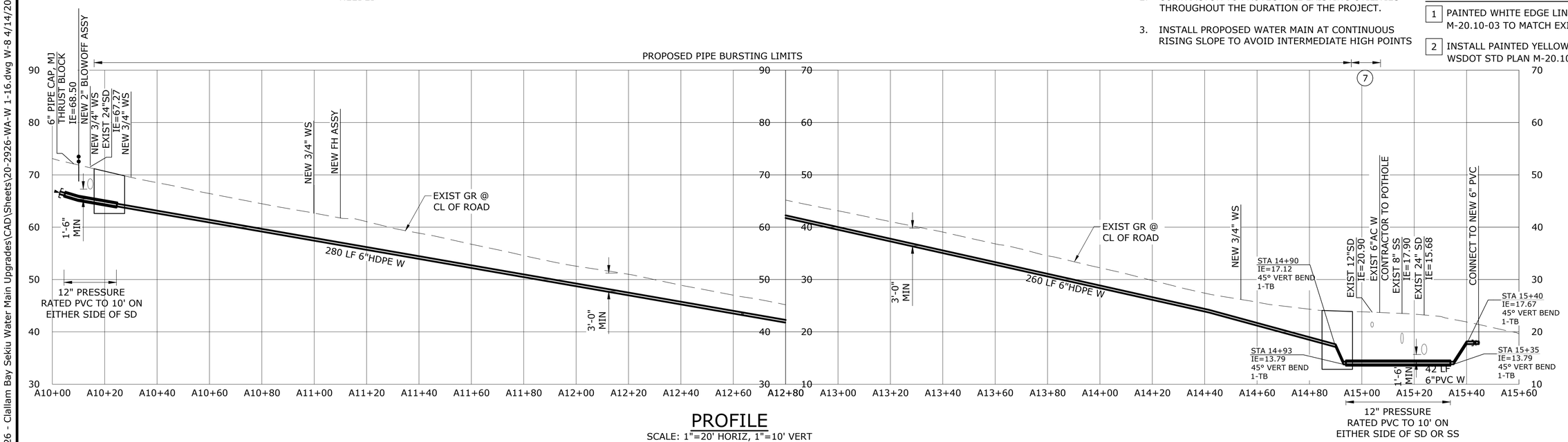
NOTES:

1. CONTRACTOR MUST VERIFY ALL UTILITY LOCATIONS, SIZE, AND TYPES BEFORE BEGINNING CONSTRUCTION.
2. CONTRACTOR TO PROTECT ALL EXISTING UTILITIES THROUGHOUT THE DURATION OF THE PROJECT.
3. INSTALL PROPOSED WATER MAIN AT CONTINUOUS RISING SLOPE TO AVOID INTERMEDIATE HIGH POINTS

CONTINUATION
SEE SHEET W-7

CHANNELIZATION NOTES:

1. PAINTED WHITE EDGE LINE PER WSDOT STD PLAN M-20.10-03 TO MATCH EXISTING
2. INSTALL PAINTED YELLOW DOUBLE CENTERLINE PER WSDOT STD PLAN M-20.10-03 TO MATCH EXISTING



PROFILE

SCALE: 1"=20' HORIZ, 1"=10' VERT

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

MCD DESIGNED
EJJ DRAWN
JAM CHECKED

JON MINER — STATE OF WASHINGTON — 20106449 — REGISTERED PROFESSIONAL ENGINEER
4/26/2022

murraysmith

CLALLAM COUNTY PUD — Bringing Energy To Life™

CLALLAM BAY SEKIU WATER MAIN UPGRADES

WATER PLAN & PROFILE WASHINGTON STREET - 2

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

SHEET W-8

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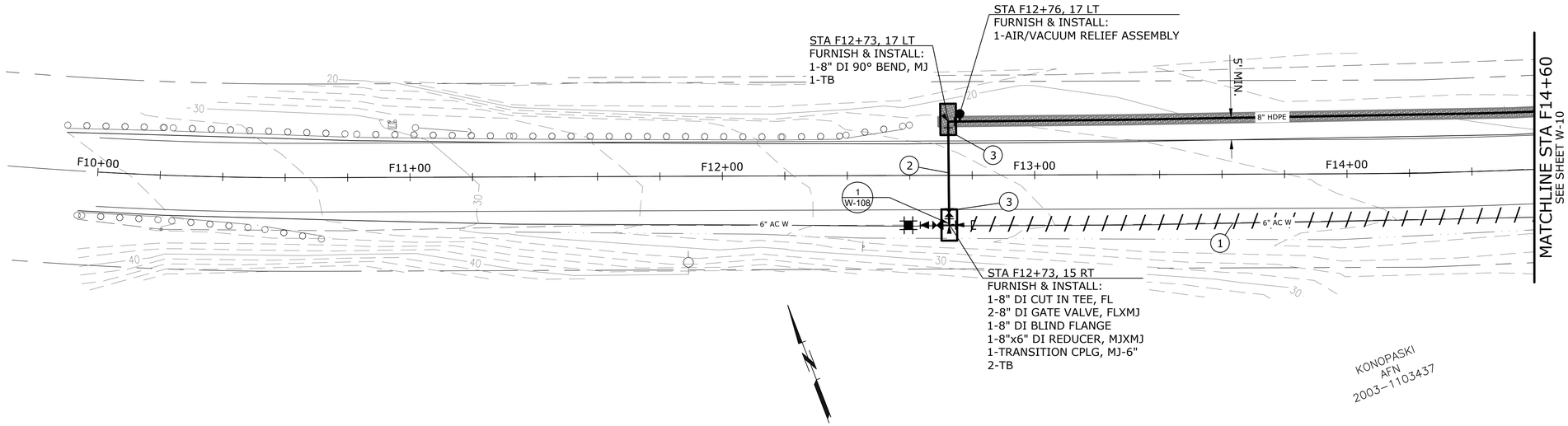
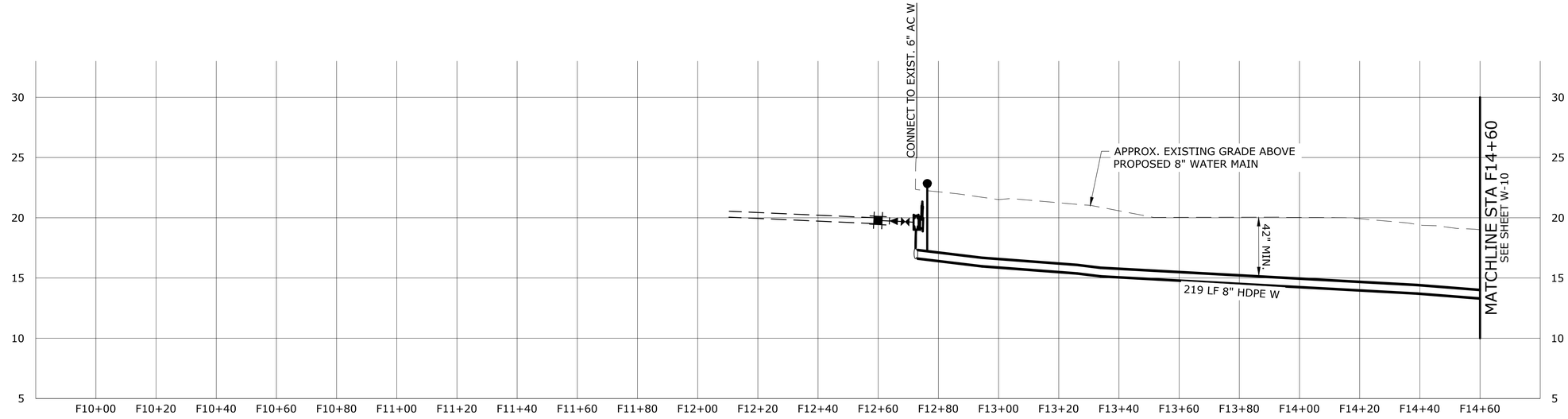


PLAN
SCALE: 1"=20'



PROFILE
SCALE: 1"=20' HORIZ, 1"=5' VERT

CONSTRUCTION NOTES:

1. DISCONNECT, CAP, AND ABANDON IN PLACE EXISTING 6" AC WATER MAIN.
2. INSTALL WATER MAIN ACROSS HIGHWAY VIA HORIZONTAL DIRECTIONAL DRILLING. ENCASE WATER MAIN INSIDE 12" STEEL CASING WITH CASING SPACERS 5' FEET BEYOND EDGE OF HWY PAVEMENT. MAINTAIN 60" MIN. OF COVER OVER CASING . SEE DETAIL.
3. APPROX. HDD PIT. (15' X 5') ANY IMPACTS BEYOND FOG LINE WILL REQUIRE FULL LANE RESTORATION.

TESC NOTES:

1. EMPLOY STRAW WATTLES AT ROADSIDE DITCHES TO PREVENT SILTATION FROM ENTERING DITCH FLOW.

TRAFFIC CONTROL NOTES:

1. EMPLOY TRAFFIC CONTROL PER WSDOT STANDARD TRAFFIC CONTROL DETAILS. SEE SHEET XXX.

NOTES:

1. CONTRACTOR MUST VERIFY ALL UTILITY LOCATIONS, SIZE, AND TYPES BEFORE BEGINNING CONSTRUCTION.
2. CONTRACTOR TO PROTECT ALL EXISTING UTILITIES THROUGHOUT THE DURATION OF THE PROJECT.
3. INSTALL PROPOSED WATER MAIN AT CONTINUOUS RISING SLOPE TO AVOID INTERMEDIATE HIGH POINTS.

RESTORATION LEGEND

- RESTORE SURFACE WITH SOIL AND HYDROSEEDING, SEE DETAIL 1, SHEET 1.
- RESTORE HMA SURFACE WITH ASPHALT.
- RESTORE SURFACE WITH 6" MIN. CSTC TO MATCH EXISTING CONDITIONS.

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

ZNS DESIGNED
ZNS DRAWN
ZNS CHECKED

ZACHARY N. SLATA — STATE OF WASHINGTON — 54958 — REGISTERED PROFESSIONAL ENGINEER
4/26/22

UNITED ENGINEERING, INC. EST. 2019

CLALLAM COUNTY PUD — Bringing Energy To Life™

CLALLAM BAY SEKIU WATER MAIN UPGRADES

WATER PLAN & PROFILE
HWY 112: FALLS CREEK
BRIDGE TO BREAKWATER-1

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: FEBRUARY 2022

SHEET
W-9
17 of 54

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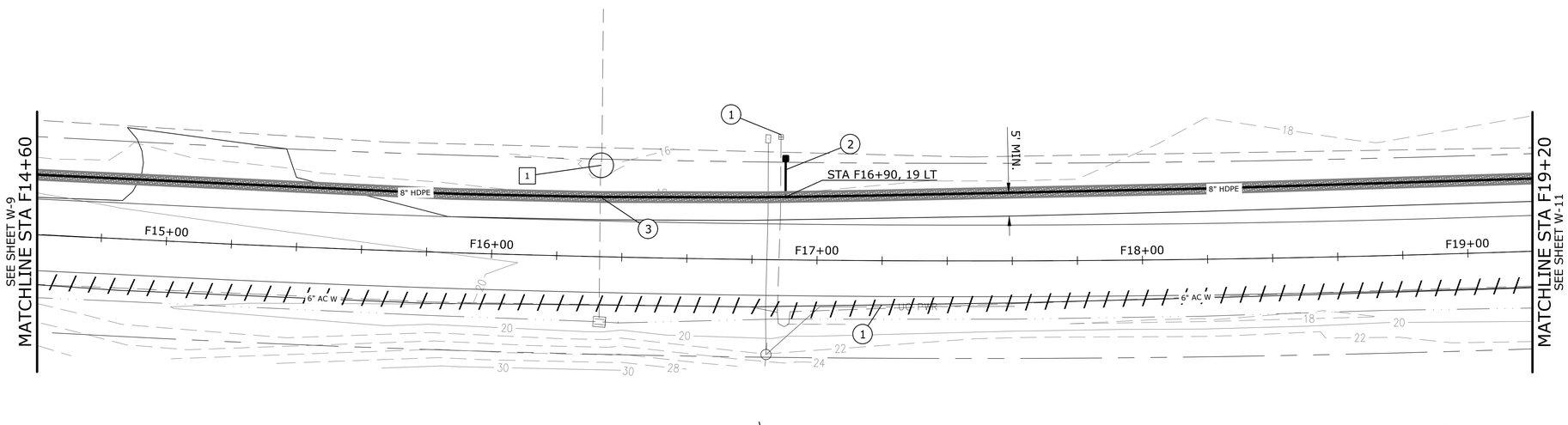
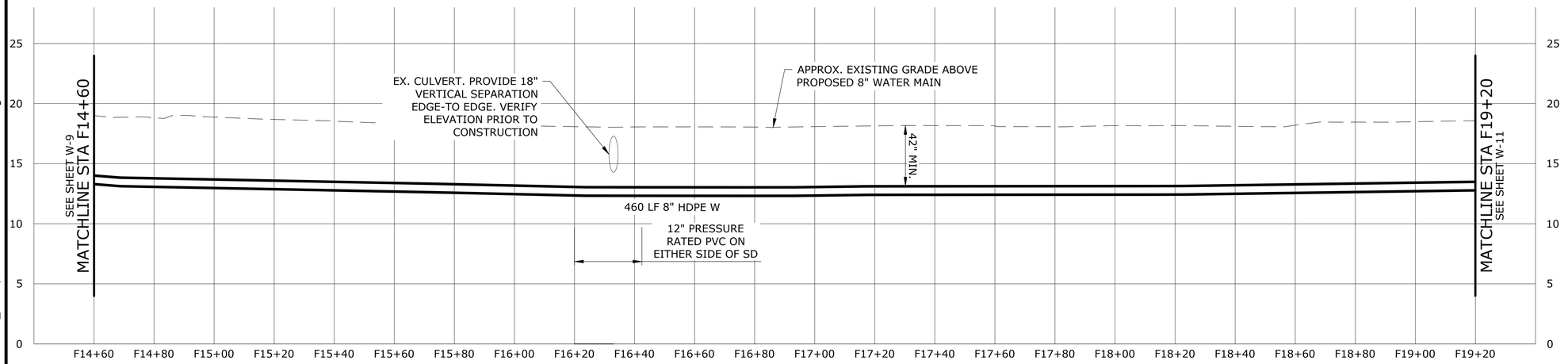


BOOK 65 OF
SURVEYS, PG 75

PLAN
SCALE: 1"=20'



PROFILE
SCALE: 1"=20' HORIZ, 1"=5' VERT

CONSTRUCTION NOTES:

1. REMOVE METER/VALVE BOX & ABANDON EXISTING SERVICE LINE.
2. INSTALL: NEW 1 IN. SINGLE SERVICE METER INSTALLATION PER CLALLAM COUNTY PUD STANDARD DETAIL
3. INSTALL WATER MAIN WITHOUT DISTURBING EXISTING CULVERT OR DRAINAGE FLOWS. PROTECT AND SUPPORT CULVERT WHILE WATER MAIN IS INSTALLED. BACKFILL EXCAVATIONS UNDER THE CULVERT WITH CDF. MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" MEASURED EDGE-TO-EDGE.
4. DISCONNECT, CAP, AND ABANDON IN PLACE EXISTING 6" AC WATER MAIN.

TESC NOTES:

1. PROVIDE TEMPORARY INLET SEDIMENT PROTECTION AT CULVERT INLET/OUTLET
2. EMPLOY STRAW WATTLES AT ROADSIDE DITCHES TO PREVENT SILTATION FROM ENTERING DITCH FLOW.

TRAFFIC CONTROL NOTES:

1. EMPLOY TRAFFIC CONTROL PER WSDOT STANDARD TRAFFIC CONTROL DETAILS. SEE SHEET 50

NOTES:

1. CONTRACTOR MUST VERIFY ALL UTILITY LOCATIONS, SIZE, AND TYPES BEFORE BEGINNING CONSTRUCTION
2. CONTRACTOR TO PROTECT ALL EXISTING UTILITIES THROUGHOUT THE DURATION OF THE PROJECT.
3. INSTALL PROPOSED WATER MAIN AT CONTINUOUS RISING SLOPE TO AVOID INTERMEDIATE HIGH POINTS.

RESTORATION LEGEND

- RESTORE SURFACE WITH SOIL AND HYDROSEEDING, SEE DETAIL 1, SHEET 1.
- RESTORE HMA SURFACE WITH ASPHALT.
- RESTORE SURFACE WITH 6" MIN. CSTC TO MATCH EXISTING CONDITIONS.

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

ZNS DESIGNED
MML DRAWN
ZNS CHECKED

ZACHARY N. SLATTA — STATE OF WASHINGTON — 54958 — REGISTERED PROFESSIONAL ENGINEER
4/26/22

UNITED ENGINEERING, INC. EST. 2019

CLALLAM COUNTY PUD — Bringing Energy To Life™

CLALLAM BAY SEKIU WATER MAIN UPGRADES

WATER PLAN & PROFILE -2
HWY 112: FALLS CREEK BRIDGE TO BREAKWATER

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: FEBRUARY 2022

SHEET
W-10
18 of 54

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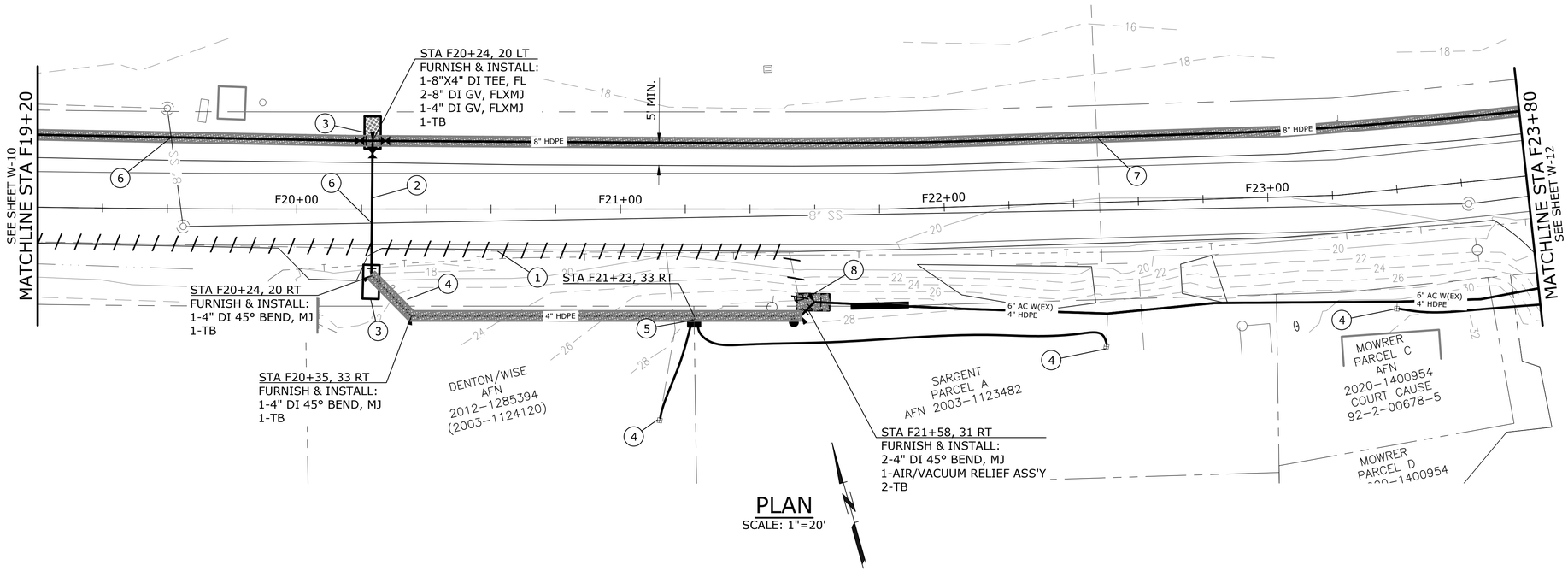
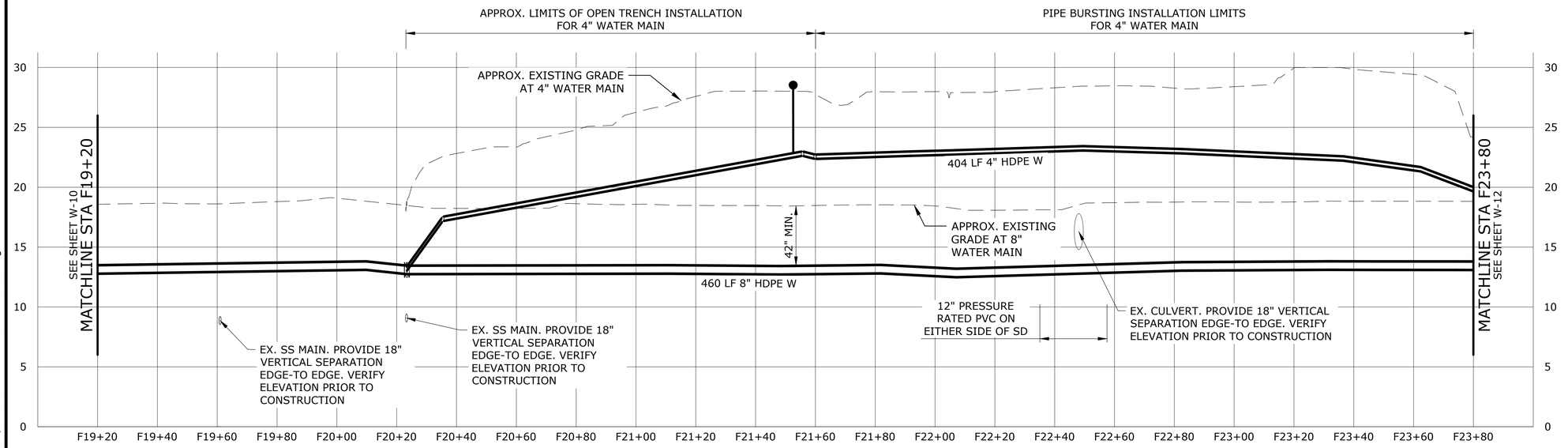


PLAN
SCALE: 1"=20'



PROFILE
SCALE: 1"=20' HORIZ, 1"=5' VERT

CONSTRUCTION NOTES:

1. DISCONNECT, CAP, AND ABANDON IN PLACE EXISTING 6" AC WATER MAIN.
2. INSTALL WATER MAIN ACROSS HIGHWAY VIA HORIZONTAL DIRECTIONAL DRILLING. ENCASE WATER MAIN INSIDE 8" STEEL CASING WITH CASING SPACERS 5' FEET BEYOND EDGE OF HWY PAVEMENT. MAINTAIN 60" MIN. OF COVER OVER CASING . SEE DETAIL.
3. APPROX. HDD PIT. (15' X 5')
4. REMOVE METER/VALVE BOX & ABANDON EXISTING DISTRICT SIDE SERVICE LINE.
5. INSTALL:
   NEW DUAL SERVICE METER INSTALLATION PER CLALLAM COUNTY PUD STANDARD DETAIL. CONNECT TO EXISTING CUSTOMER SIDE SERVICE LINES.
6. PROTECT EXIST. SS MAIN. MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" MEASURED EDGE-TO-EDGE.
7. INSTALL WATER MAIN WITHOUT DISTURBING EXISTING CULVERT OR DRAINAGE FLOWS. PROTECT AND SUPPORT CULVERT WHILE WATER MAIN IS INSTALLED. BACKFILL EXCAVATIONS UNDER THE CULVERT WITH CDF. MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" MEASURED EDGE-TO-EDGE.
8. APPROX. PIPE BURSTING PIT (15' X 5')

TESC NOTES:

1. EMPLOY STRAW WATTLES AT ROADSIDE DITCHES TO PREVENT SILTATION FROM ENTERING DITCH FLOW.

TRAFFIC CONTROL NOTES:

1. EMPLOY TRAFFIC CONTROL PER WSDOT STANDARD TRAFFIC CONTROL DETAILS. SEE SHEET T-1.

NOTES:

1. CONTRACTOR MUST VERIFY ALL UTILITY LOCATIONS, SIZE, AND TYPES BEFORE BEGINNING CONSTRUCTION.
2. CONTRACTOR TO PROTECT ALL EXISTING UTILITIES THROUGHOUT THE DURATION OF THE PROJECT.
3. INSTALL PROPOSED WATER MAIN AT CONTINUOUS RISING SLOPE TO AVOID INTERMEDIATE HIGH POINTS.

RESTORATION LEGEND

- RESTORE SURFACE WITH SOIL AND HYDROSEEDING, SEE DETAIL 1, SHEET 1.
- RESTORE HMA SURFACE WITH ASPHALT.
- RESTORE SURFACE WITH 6" MIN. CSTC TO MATCH EXISTING CONDITIONS.

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

ZNS DESIGNED
MML DRAWN
ZNS CHECKED

ZACHARY N. SLOTA — STATE OF WASHINGTON — 54958 — REGISTERED PROFESSIONAL ENGINEER
4/26/22

UNITED ENGINEERING, INC. EST. 2019

CLALLAM COUNTY PUD — Bringing Energy To Life™

CLALLAM BAY SEKIU WATER MAIN UPGRADES

WATER PLAN & PROFILE
HWY 112: FALLS CREEK BRIDGE TO BREAKWATER

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: FEBRUARY 2022

SHEET
W-11
19 of 54

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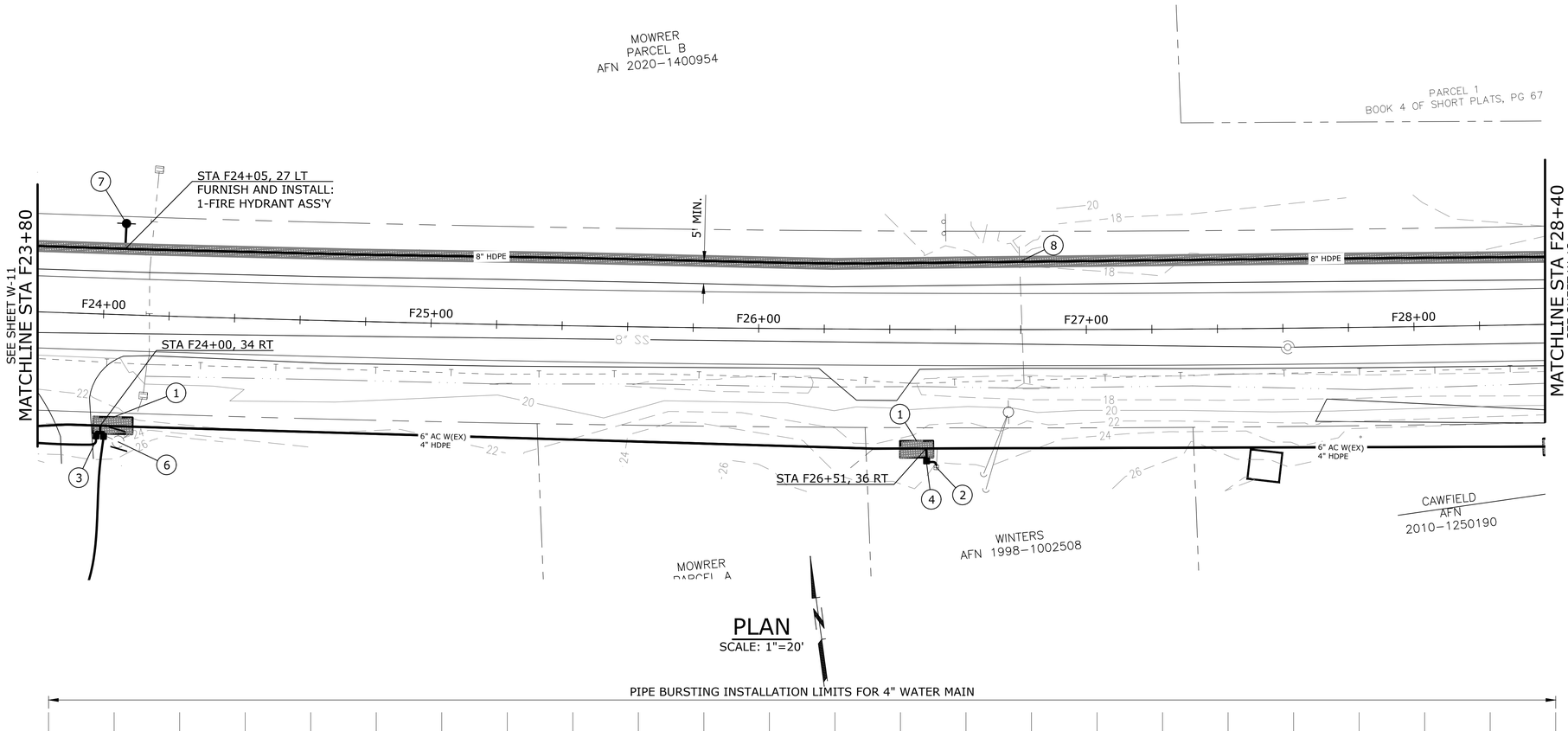
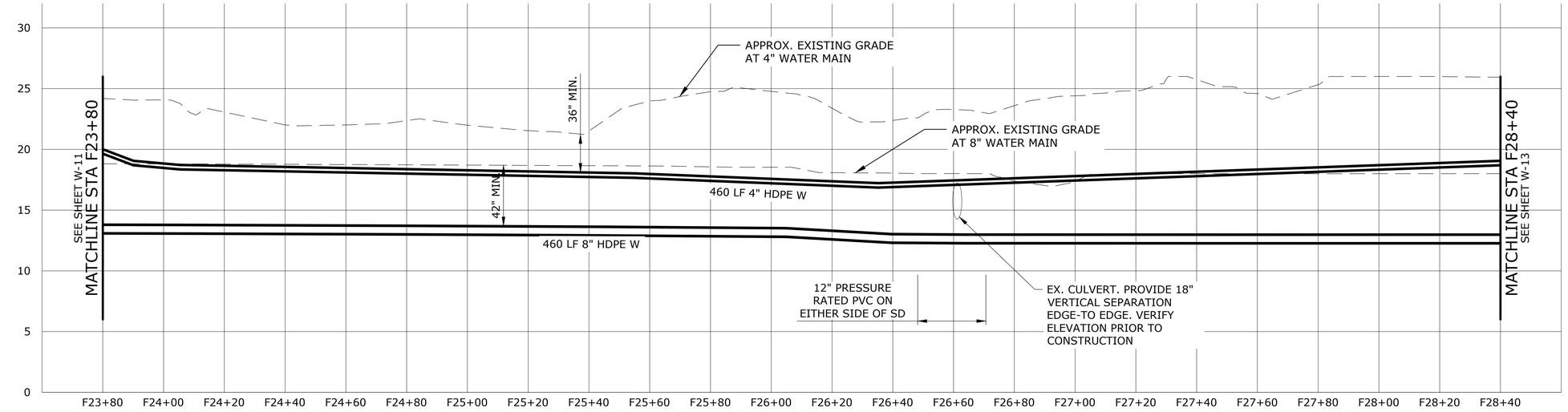


PLAN
SCALE: 1"=20'



PROFILE
SCALE: 1"=20' HORIZ, 1"=5' VERT

CONSTRUCTION NOTES:

1. APPROX. HDD/PIPE BURSTING PIT. (15' X 5')
2. REMOVE METER/VALVE BOX & ABANDON EXISTING DISTRICT SIDE SERVICE LINE.
3. INSTALL: NEW DUAL SERVICE METER INSTALLATION PER CLALLAM COUNTY PUD STANDARD DETAIL. CONNECT TO EXISTING CUSTOMER SIDE SERVICE LINES.
4. INSTALL: NEW 1 IN. SINGLE SERVICE METER INSTALLATION PER CLALLAM COUNTY PUD STANDARD DETAIL. CONNECT TO EXISTING CUSTOMER SIDE SERVICE LINE.
5. PROTECT EXIST. SS MAIN, MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" MEASURED EDGE-TO-EDGE.
6. REMOVE HYDRANT AND HYDRANT VALVE PER WSDOT STD SPEC 7-14.
7. INSTALL: NEW FIRE HYDRANT ASSEMBLY, INCLUDING VALVE AND VALVE BOX, AND CONNECT TO MAIN PER DISTRICT STANDARD DETAIL
8. INSTALL WATER MAIN WITHOUT DISTURBING EXISTING CULVERT OR DRAINAGE FLOWS. PROTECT AND SUPPORT CULVERT WHILE WATER MAIN IS INSTALLED. BACKFILL EXCAVATIONS UNDER THE CULVERT WITH CDF. MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" MEASURED EDGE-TO-EDGE.

TESC NOTES:

1. EMPLOY STRAW WATTLES AT ROADSIDE DITCHES TO PREVENT SILTATION FROM ENTERING DITCH FLOW.

TRAFFIC CONTROL NOTES:

1. EMPLOY TRAFFIC CONTROL PER WSDOT STANDARD TRAFFIC CONTROL DETAILS. SEE SHEET T-1.

NOTES:

1. CONTRACTOR MUST VERIFY ALL UTILITY LOCATIONS, SIZE, AND TYPES BEFORE BEGINNING CONSTRUCTION.
2. CONTRACTOR TO PROTECT ALL EXISTING UTILITIES THROUGHOUT THE DURATION OF THE PROJECT.
3. INSTALL PROPOSED WATER MAIN AT CONTINUOUS RISING SLOPE TO AVOID INTERMEDIATE HIGH POINTS.

RESTORATION LEGEND

RESTORE SURFACE WITH SOIL AND HYDROSEEDING, SEE DETAIL 1, SHEET 1.

RESTORE HMA SURFACE WITH ASPHALT.

RESTORE SURFACE WITH 6" MIN. CSTC TO MATCH EXISTING CONDITIONS.

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

ZNS DESIGNED
MML DRAWN
ZNS CHECKED

ZACHARY N. SLATTA — STATE OF WASHINGTON — 54958 — REGISTERED PROFESSIONAL ENGINEER
4/26/22

UNITED ENGINEERING, INC. EST. 2019

CLALLAM COUNTY PUD — Bringing Energy To Life™

CLALLAM BAY SEKIU WATER MAIN UPGRADES

WATER PLAN & PROFILE
HWY 112: FALLS CREEK
BRIDGE TO BREAKWATER-4

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: FEBRUARY 2022

SHEET
W-12
20 of 54

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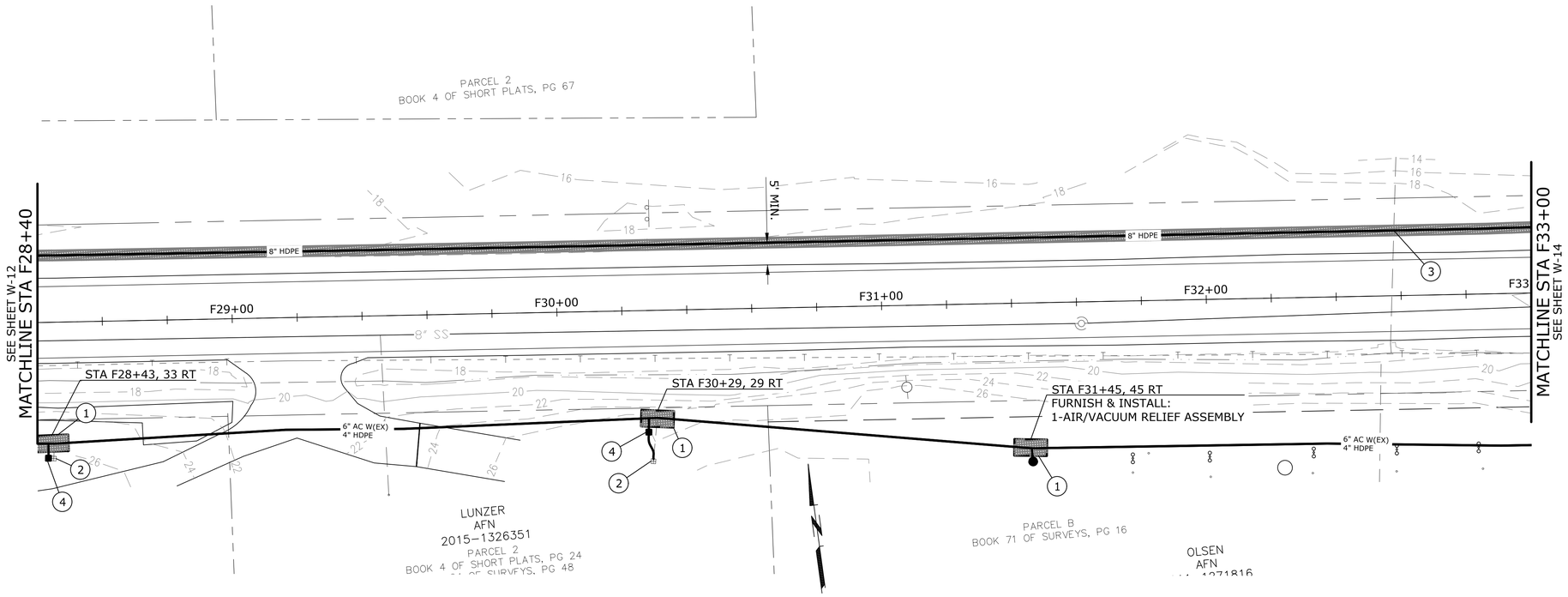

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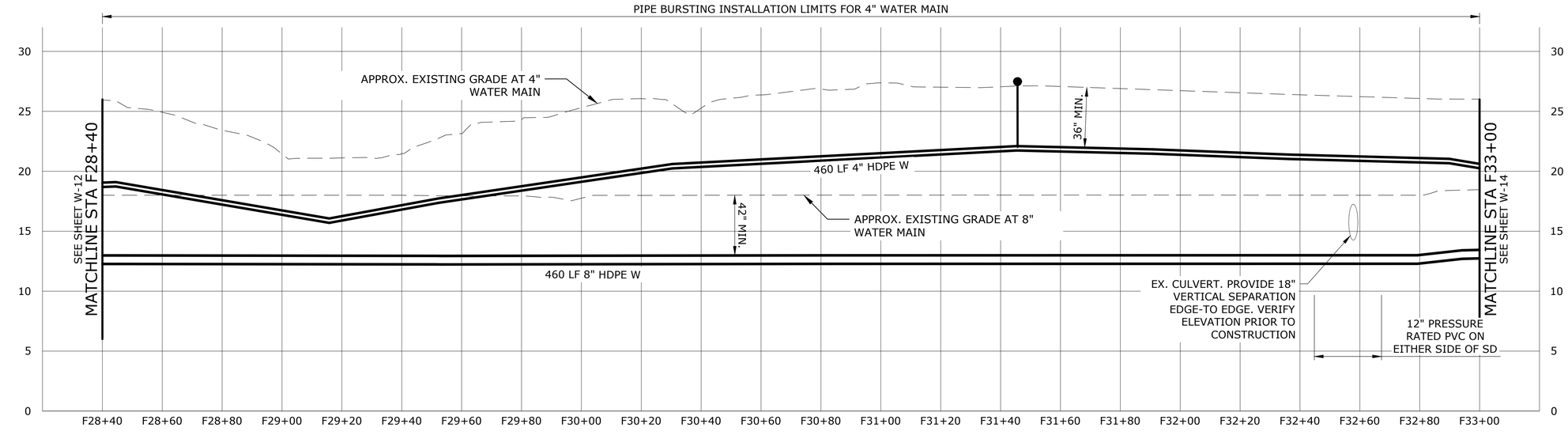
SCALE: 1"=20'



PROFILE
SCALE: 1"=20' HORIZ, 1"=5' VERT

CONSTRUCTION NOTES:

1. APPROX. HDD/PIPE BURSTING PIT. (15' X 5')
2. REMOVE METER/VALVE BOX & ABANDON EXISTING DISTRICT SIDE SERVICE LINE.
3. PROTECT EXIST. SS MAIN/SD CULVERT, MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" MEASURED EDGE-TO-EDGE.
4. INSTALL: NEW 1 IN. SINGLE SERVICE METER INSTALLATION PER CLALLAM COUNTY PUD STANDARD DETAIL. CONNECT TO EX. CUSTOMER SIDE SERVICE LINE

TESC NOTES:

1. EMPLOY STRAW WATTLES AT ROADSIDE DITCHES TO PREVENT SILTATION FROM ENTERING DITCH FLOW.

TRAFFIC CONTROL NOTES:

1. EMPLOY TRAFFIC CONTROL PER WSDOT STANDARD TRAFFIC CONTROL DETAILS. SEE SHEET T-1.

NOTES:

1. CONTRACTOR MUST VERIFY ALL UTILITY LOCATIONS, SIZE, AND TYPES BEFORE BEGINNING CONSTRUCTION.
2. CONTRACTOR TO PROTECT ALL EXISTING UTILITIES THROUGHOUT THE DURATION OF THE PROJECT.
3. INSTALL PROPOSED WATER MAIN AT CONTINUOUS RISING SLOPE TO AVOID INTERMEDIATE HIGH POINTS.

RESTORATION LEGEND

- RESTORE SURFACE WITH SOIL AND HYDROSEEDING, SEE DETAIL 1, SHEET 1.
- RESTORE HMA SURFACE WITH ASPHALT.
- RESTORE SURFACE WITH 6" MIN. CSTC TO MATCH EXISTING CONDITIONS.

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

ZNS — DESIGNED
MML — DRAWN
ZNS — CHECKED

ZACHARY N. SLOTA — STATE OF WASHINGTON — 54958 — REGISTERED PROFESSIONAL ENGINEER — 4/26/22

UNITED ENGINEERING, INC. EST. 2019

CLALLAM COUNTY PUD — Bringing Energy To Life™

CLALLAM BAY SEKIU WATER MAIN UPGRADES

WATER PLAN & PROFILE
HWY 112: FALLS CREEK BRIDGE TO BREAKWATER-5

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: FEBRUARY 2022

SHEET
W-13
21 of 54

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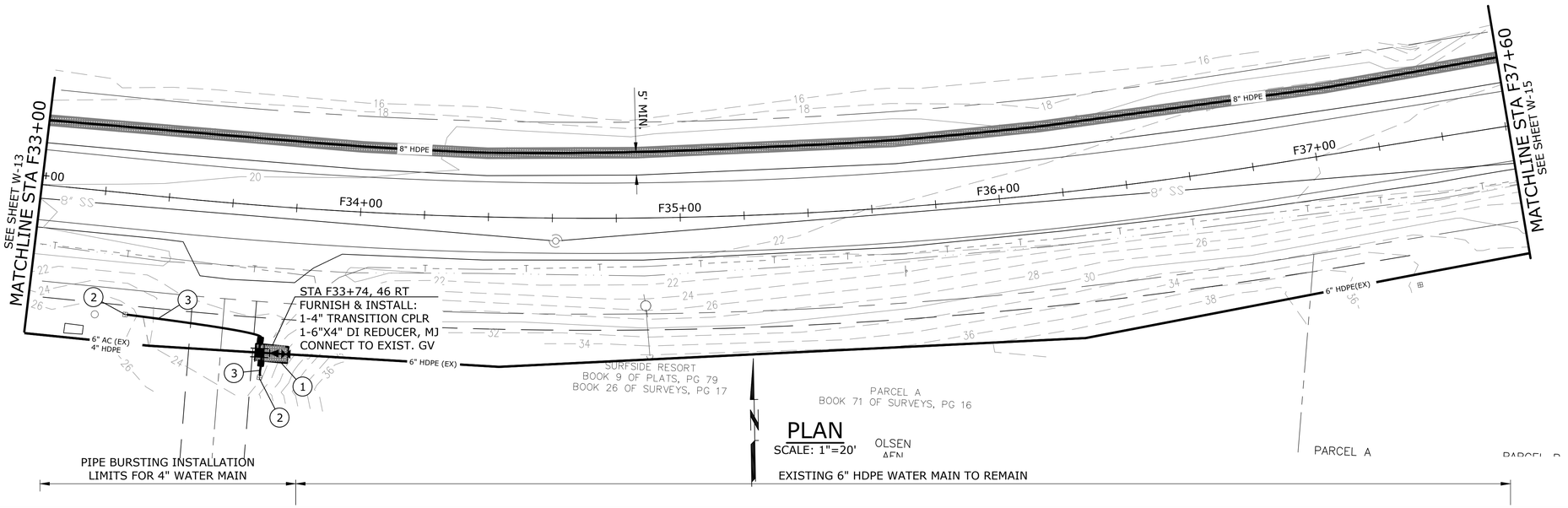
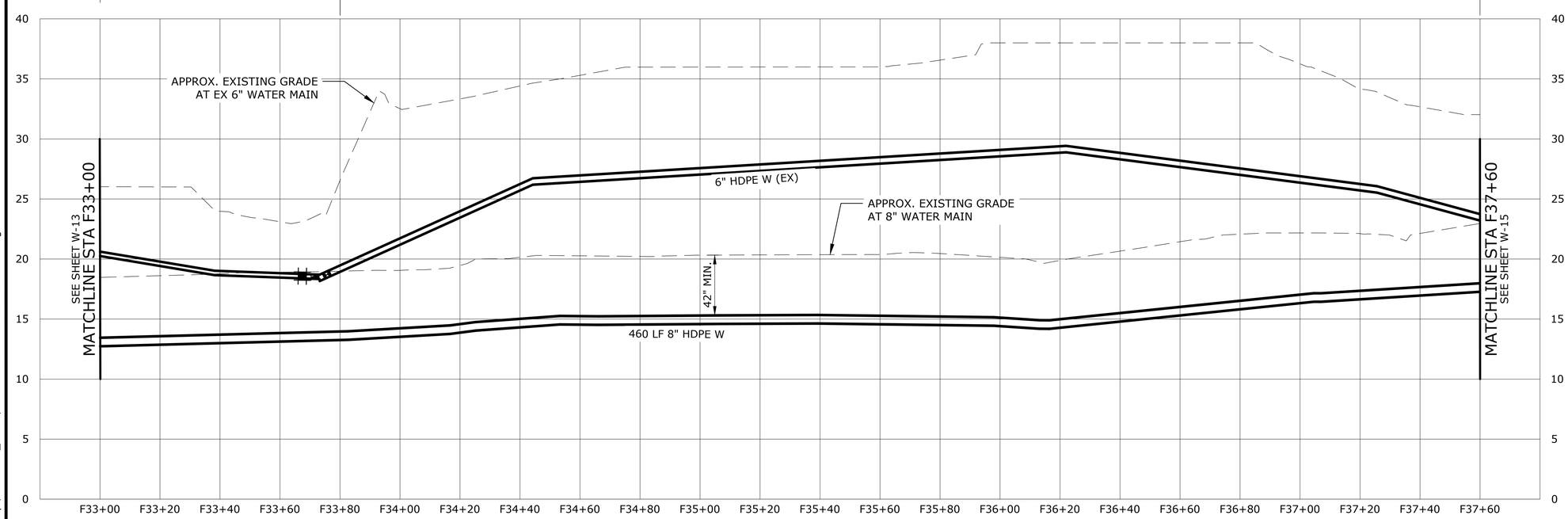


PLAN

SCALE: 1"=20'



PROFILE

SCALE: 1"=20' HORIZ, 1"=5' VERT

CONSTRUCTION NOTES:

1. APPROX. PIPE BURSTING PIT. (15' X 5')
2. REMOVE METER/VALVE BOX & ABANDON EXISTING DISTRICT SIDE SERVICE LINE.
3. INSTALL: NEW 1 IN. SINGLE SERVICE METER INSTALLATION PER CLALLAM COUNTY PUD STANDARD DETAIL. CONNECT TO EX. CUSTOMER SIDE SERVICE LINE.

TESC NOTES:

1. EMPLOY STRAW WATTLES AT ROADSIDE DITCHES TO PREVENT SILTATION FROM ENTERING DITCH FLOW.

TRAFFIC CONTROL NOTES:

1. EMPLOY TRAFFIC CONTROL PER WSDOT STANDARD TRAFFIC CONTROL DETAILS. SEE SHEET T-1.

NOTES:

1. CONTRACTOR MUST VERIFY ALL UTILITY LOCATIONS, SIZE, AND TYPES BEFORE BEGINNING CONSTRUCTION
2. CONTRACTOR TO PROTECT ALL EXISTING UTILITIES THROUGHOUT THE DURATION OF THE PROJECT.
3. INSTALL PROPOSED WATER MAIN AT CONTINUOUS RISING SLOPE TO AVOID INTERMEDIATE HIGH POINTS.

RESTORATION LEGEND

- RESTORE SURFACE WITH SOIL AND HYDROSEEDING, SEE DETAIL 1, SHEET 1.
- RESTORE HMA SURFACE WITH ASPHALT.
- RESTORE SURFACE WITH 6" MIN. CSTC TO MATCH EXISTING CONDITIONS.

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

ZNS DESIGNED
MML DRAWN
ZNS CHECKED

ZACHARY N. SLOTA — STATE OF WASHINGTON — 54958 — REGISTERED PROFESSIONAL ENGINEER
4/26/22

UNITED ENGINEERING, INC. EST. 2019

CLALLAM COUNTY PUD — Bringing Energy To Life™

CLALLAM BAY SEKIU WATER MAIN UPGRADES

WATER PLAN & PROFILE
HWY 112: FALLS CREEK
BRIDGE TO BREAKWATER-6

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: FEBRUARY 2022

SHEET
W-14
22 of 54

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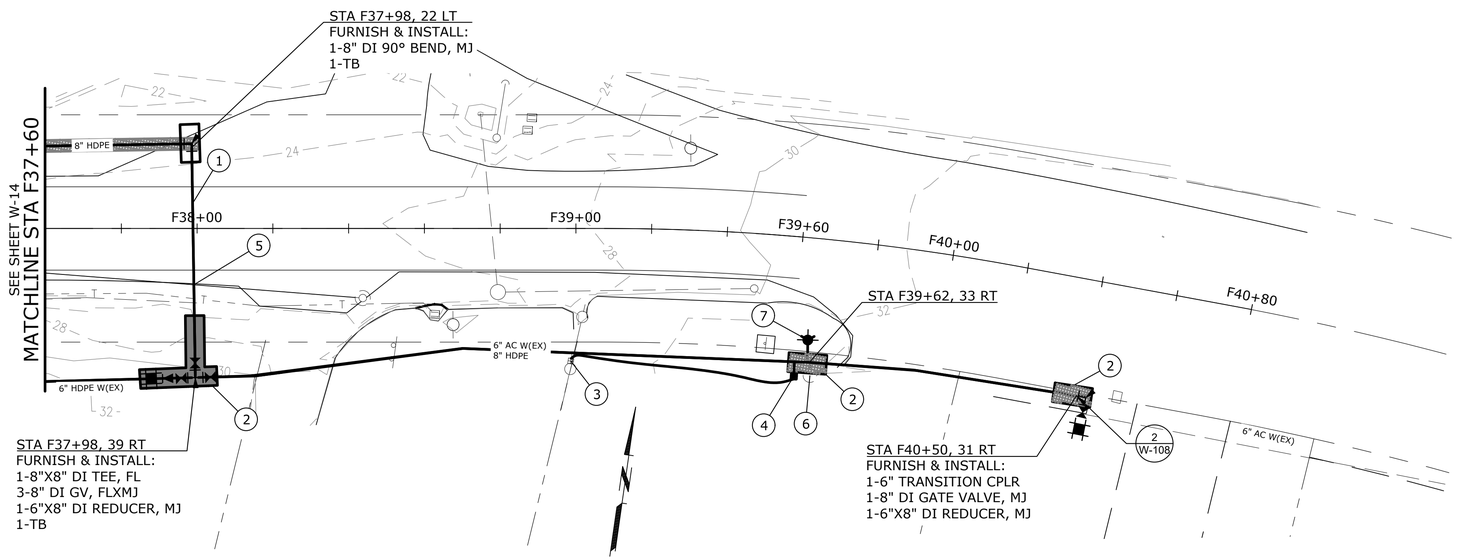

PLAN

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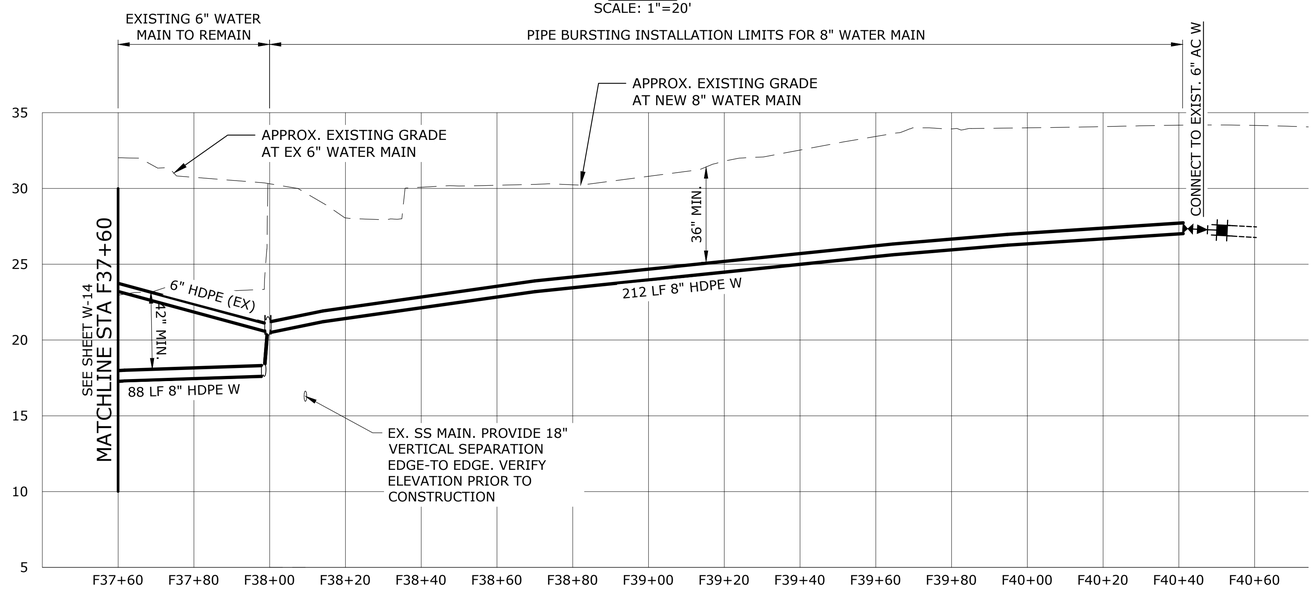

PROFILE

SCALE: 1"=20' HORIZ, 1"=5' VERT

CONSTRUCTION NOTES:

1. INSTALL WATER MAIN ACROSS HIGHWAY VIA HORIZONTAL DIRECTIONAL DRILLING. ENCASE WATER MAIN INSIDE 12"Ø DI PIPE WITH CASING SPACERS 5' FEET BEYOND EDGE OF HWY PAVEMENT. MAINTAIN 60" MIN. OF COVER OVER CASING . SEE DETAIL.
2. APPROX. HDD/PIPE BURTING PIT. (15' X 5')
3. REMOVE METER/VALVE BOX & ABANDON EXISTING DISTRICT SIDE SERVICE LINE.
4. INSTALL: NEW 1" SINGLE SERVICE METER INSTALLATION PER CLALLAM COUNTY PUD STANDARD DETAIL. CONNECT TO EXISTING CUSTOMER SIDE SERVICE LINES.
5. PROTECT EXIST. SS MAIN. MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" MEASURED EDGE-TO-EDGE.
6. REMOVE HYDRANT AND HYDRANT VALVE PER WSDOT STD SPEC 7-14.
7. INSTALL: NEW FIRE HYDRANT ASSEMBLY, INCLUDING VALVE AND VALVE BOX, AND CONNECT TO MAIN PER DISTRICT STANDARD DETAIL

TESC NOTES:

1. EMPLOY STRAW WATTLES AT ROADSIDE DITCHES TO PREVENT SILTATION FROM ENTERING DITCH FLOW.

TRAFFIC CONTROL NOTES:

1. EMPLOY TRAFFIC CONTROL PER WSDOT STANDARD TRAFFIC CONTROL DETAILS. SEE SHEET T-1.

NOTES:

1. CONTRACTOR MUST VERIFY ALL UTILITY LOCATIONS, SIZE, AND TYPES BEFORE BEGINNING CONSTRUCTION
2. CONTRACTOR TO PROTECT ALL EXISTING UTILITIES THROUGHOUT THE DURATION OF THE PROJECT.
3. INSTALL PROPOSED WATER MAIN AT CONTINUOUS RISING SLOPE TO AVOID INTERMEDIATE HIGH POINTS.

RESTORATION LEGEND

RESTORE SURFACE WITH SOIL AND HYDROSEEDING, SEE DETAIL 1, SHEET 1.

RESTORE HMA SURFACE WITH ASPHALT.

RESTORE SURFACE WITH 6" MIN. CSTC TO MATCH EXISTING CONDITIONS.

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

ZNS DESIGNED
MML DRAWN
ZNS CHECKED

ZACHARY N. SLUDA — STATE OF WASHINGTON — 54958 — REGISTERED PROFESSIONAL ENGINEER — 4/26/22

UNITED ENGINEERING, INC. EST. 2019

CLALLAM COUNTY PUD — Bringing Energy To Life™

CLALLAM BAY SEKIU WATER MAIN UPGRADES

WATER PLAN & PROFILE
HWY 112: FALLS CREEK
BRIDGE TO BREAKWATER-7

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: FEBRUARY 2022

SHEET W-15

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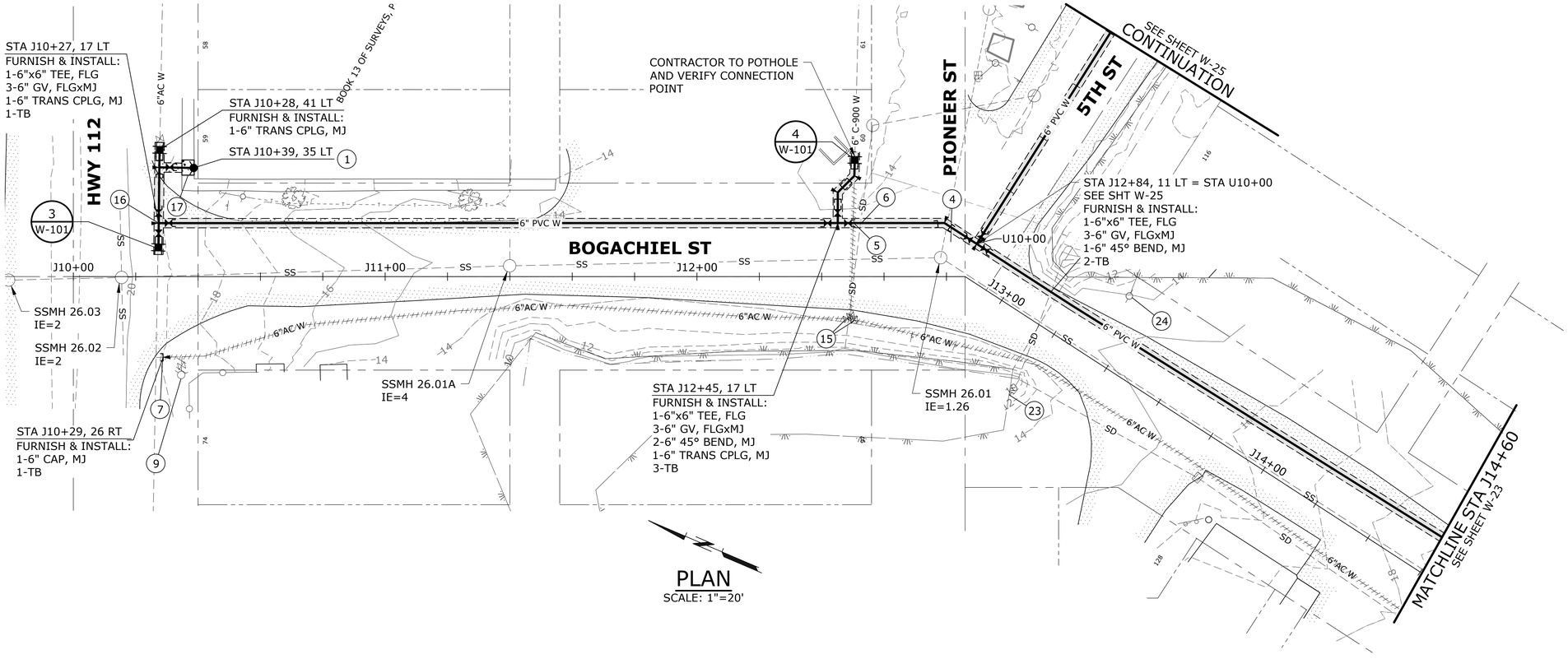
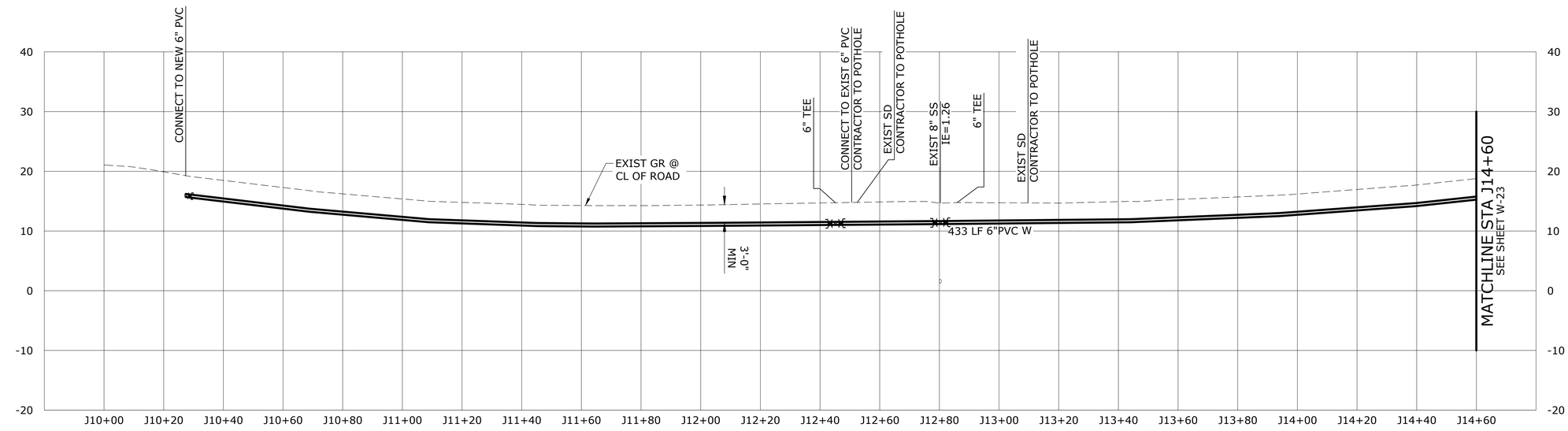


PLAN
SCALE: 1"=20'



PROFILE
SCALE: 1"=20' HORIZ, 1"=10' VERT

CONSTRUCTION NOTES

1. INSTALL:
NEW FIRE HYDRANT ASSEMBLY, INCLUDING VALVE AND VALVE BOX, AND CONNECT TO MAIN PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT D
2. INSTALL:
NEW 3/4" METER INSTALLATION PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT E
3. REMOVE METER/VALVE BOX & ABANDON EXISTING SERVICE LINE
4. PROTECT EXIST SS, MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" MEASURED EDGE-TO-EDGE
5. PROTECT EXISTING WATER MAIN AND MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" FROM WATER MAIN MEASURED EDGE-TO-EDGE
6. PROTECT EXISTING STORM DRAIN AND MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" MEASURED EDGE-TO-EDGE
7. FILL WITH CDF, CAP, AND ABANDON, OR REMOVE EXISTING AC WATER MAIN PIPING AS NEEDED
9. REMOVE HYDRANT AND HYDRANT VALVE PER WSDOT STD SPEC 7-14
15. REMOVE VALVE STEM AND RISER ASSEMBLY, VALVE TO BE ABANDONED IN PLACE
16. CONTRACTOR SHALL EXPOSE AND REMOVE EXISTING 6"x4" TEE, EXISTING TEE IS LOCATED 12" EAST OF CL OF BOGACHIEL ST
17. REMOVE AND REPLACE SIDEWALK
23. CONTRACTOR SHALL NOT DISTURB WETLAND DELINEATED AREA
24. CONTRACTOR TO CONTACT CLALLAM COUNTY PUD FOR POLE BRACING DURING CONSTRUCTION IF WATER MAIN CONSTRUCTION LIMITS ARE LESS THAN 5 FT FROM EXISTING UTILITY POLE

NOTES:

1. CONTRACTOR MUST VERIFY ALL UTILITY LOCATIONS, SIZE, AND TYPES BEFORE BEGINNING CONSTRUCTION.
2. CONTRACTOR TO PROTECT ALL EXISTING UTILITIES THROUGHOUT THE DURATION OF THE PROJECT.
3. INSTALL PROPOSED WATER MAIN AT CONTINUOUS RISING SLOPE TO AVOID INTERMEDIATE HIGH POINTS

RESTORATION LEGEND

RESTORE SURFACE WITH SOIL AND HYDROSEEDING, SEE DETAIL 1, SHEET D-1

RESTORE HMA SURFACE WITH ASPHALT, SEE DETAIL 1, SHEET D-1

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

MCD DESIGNED
EJJ DRAWN
JAM CHECKED

JON MINEBROOK — STATE OF WASHINGTON — 20106449 — REGISTERED PROFESSIONAL ENGINEER — 4/26/2022

murraysmith

CLALLAM COUNTY PUD — Bringing Energy To Life™

CLALLAM BAY SEKIU WATER MAIN UPGRADES

WATER PLAN & PROFILE
BOGACHIEL STREET - 1

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

SHEET
W-22
30 of 56

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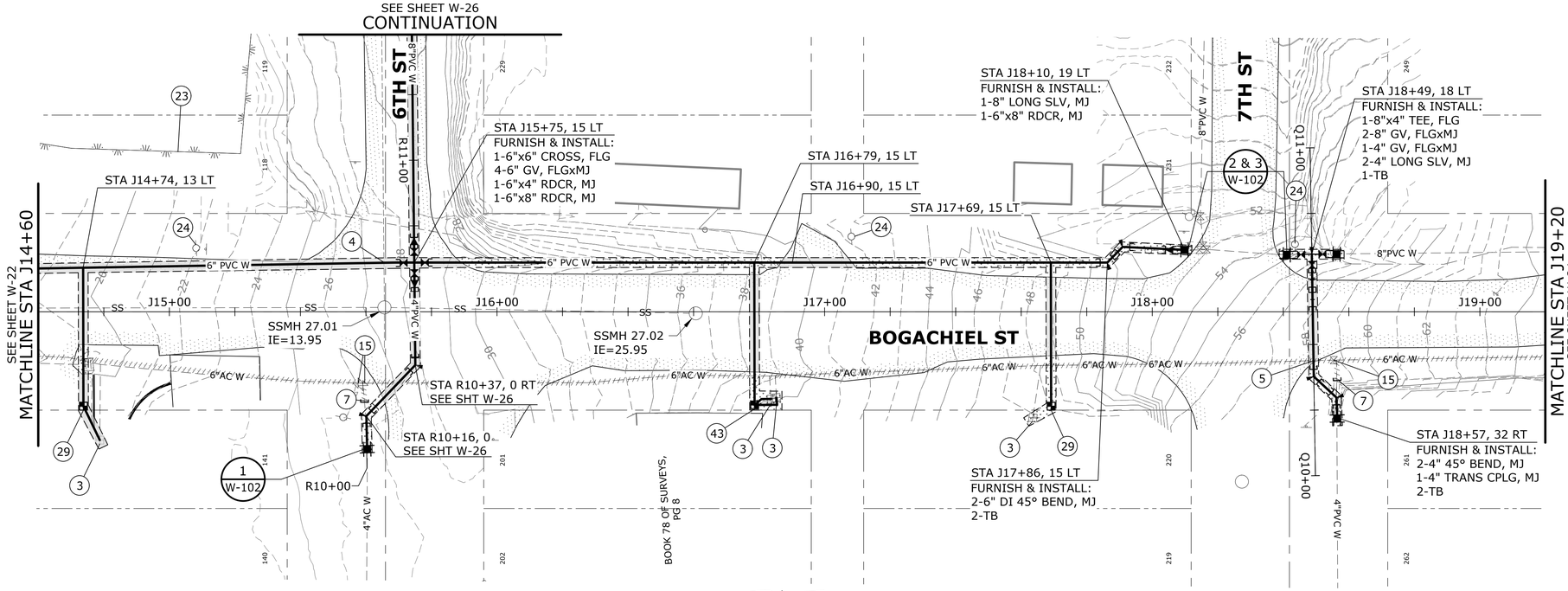
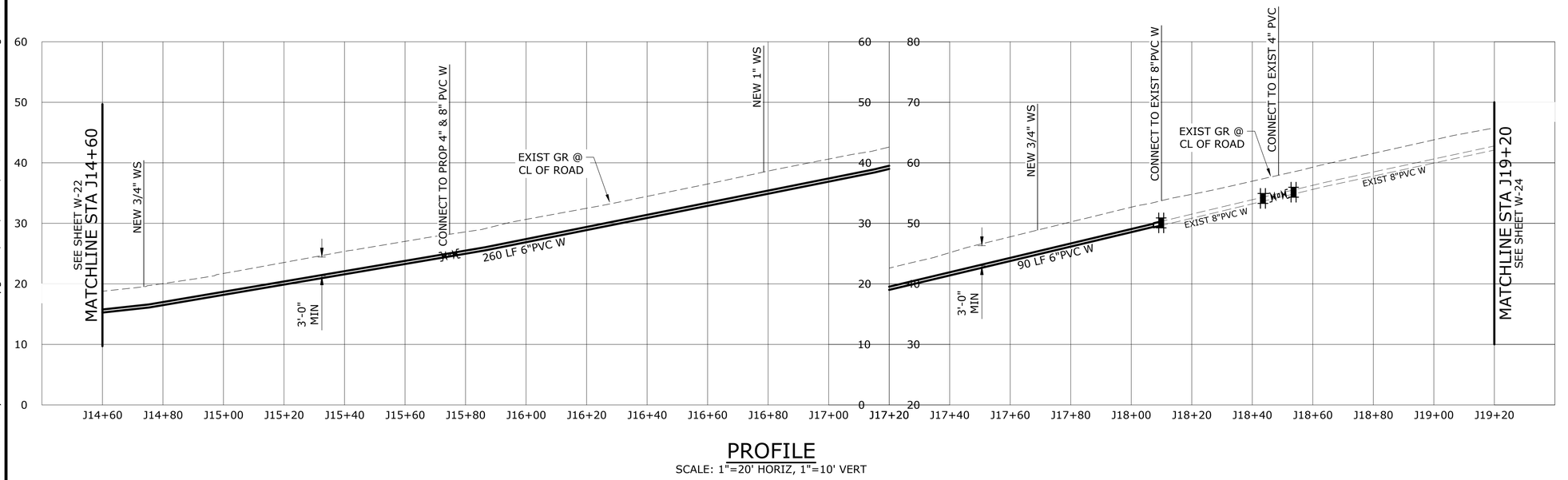


PLAN

SCALE: 1"=20'



PROFILE

SCALE: 1"=20' HORIZ, 1"=10' VERT

CONSTRUCTION NOTES

1. INSTALL:
NEW FIRE HYDRANT ASSEMBLY, INCLUDING VALVE AND VALVE BOX, AND CONNECT TO MAIN PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT D
2. INSTALL:
NEW 3/4" METER INSTALLATION PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT E
3. REMOVE METER/VALVE BOX & ABANDON EXISTING SERVICE LINE
4. PROTECT EXIST SS, MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" MEASURED EDGE-TO-EDGE
5. PROTECT EXISTING WATER MAIN AND MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" FROM WATER MAIN MEASURED EDGE-TO-EDGE
7. FILL WITH CDF, CAP, AND ABANDON, OR REMOVE EXISTING AC WATER MAIN PIPING AS NEEDED
15. REMOVE VALVE STEM AND RISER ASSEMBLY, VALVE TO BE ABANDONED IN PLACE
23. CONTRACTOR SHALL NOT DISTURB WETLAND DELINEATED AREA
24. CONTRACTOR TO CONTACT CLALLAM COUNTY PUD FOR POLE BRACING DURING CONSTRUCTION IF WATER MAIN CONSTRUCTION LIMITS ARE LESS THAN 5 FT FROM EXISTING UTILITY POLE
29. INSTALL:
NEW 3/4 IN METER INSTALLATION WITH 2" PVC CASING AROUND SERVICES CROSSING STREET PER CLALLAM PUD STANDARD DETAIL EXHIBIT E
43. INSTALL:
NEW DUAL SERVICE METER INSTALLATION WITH 2" PVC CASING AROUND SERVICES CROSSING STREET PER DET 1, SHT D-2

NOTES:

1. CONTRACTOR MUST VERIFY ALL UTILITY LOCATIONS, SIZE, AND TYPES BEFORE BEGINNING CONSTRUCTION.
2. CONTRACTOR TO PROTECT ALL EXISTING UTILITIES THROUGHOUT THE DURATION OF THE PROJECT.
3. INSTALL PROPOSED WATER MAIN AT CONTINUOUS RISING SLOPE TO AVOID INTERMEDIATE HIGH POINTS

RESTORATION LEGEND

RESTORE SURFACE WITH SOIL AND HYDROSEEDING, SEE DETAIL 1, SHEET D-1

RESTORE HMA SURFACE WITH ASPHALT, SEE DETAIL 1, SHEET D-1

NO.	DATE	BY	REVISION

NOTICE

0 ½ 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

MCD DESIGNED

EJJ DRAWN

JAM CHECKED

JON MINER — STATE OF WASHINGTON — 20106449 — REGISTERED PROFESSIONAL ENGINEER — 4/26/2022

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CLALLAM COUNTY PUD — Bringing Energy To Life™

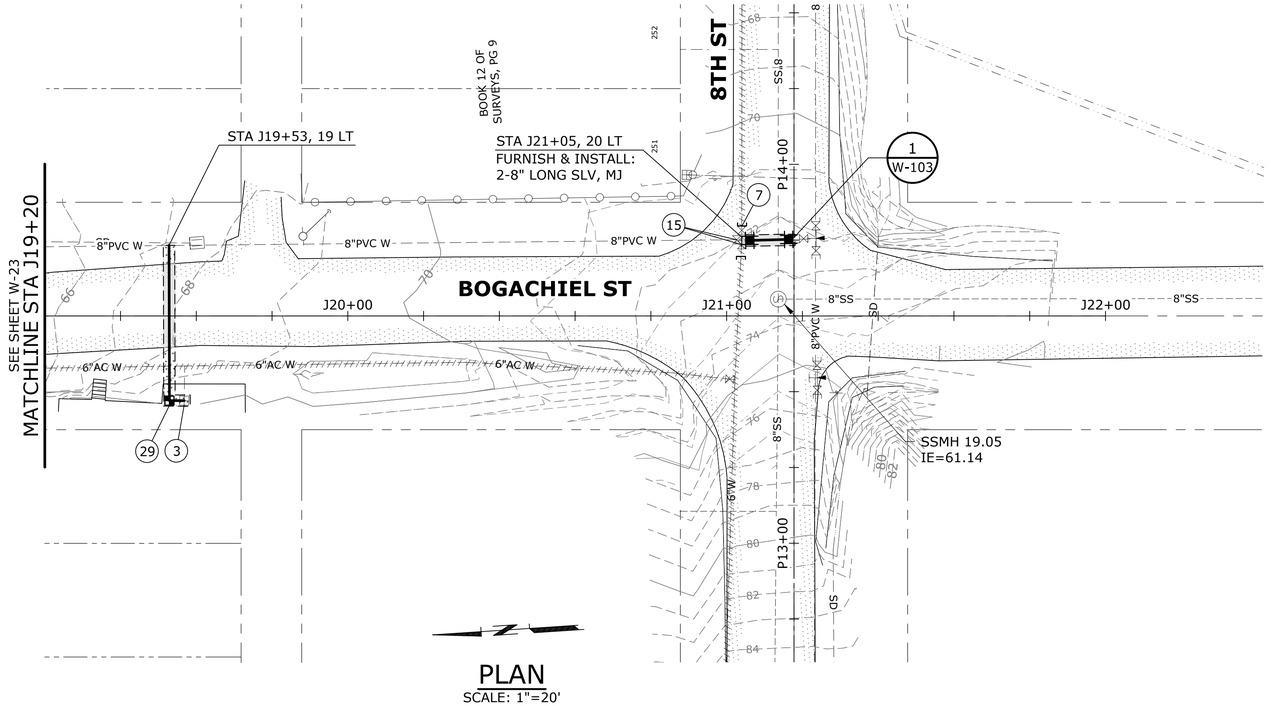
CLALLAM BAY SEKIU WATER MAIN UPGRADES

WATER PLAN & PROFILE BOGACHIEL STREET - 2

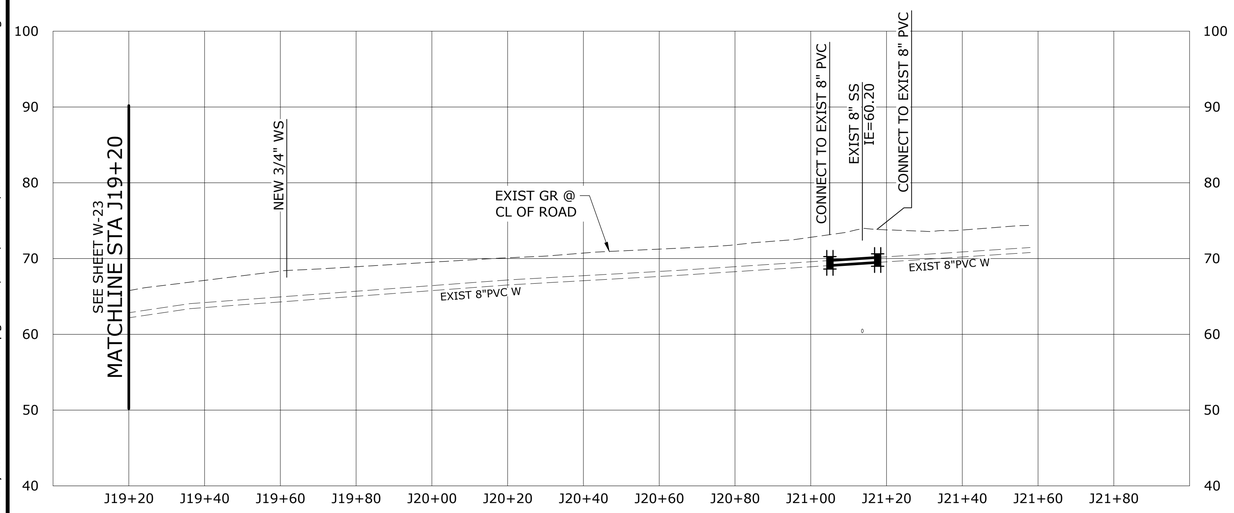
PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

SHEET W-23

K:\TAC_Projects\20\2926 - Clallam Bay Sekiu Water Main Upgrades\CAD\Sheets\20-2926-WA-W 17-29.dwg W-23 4/15/2022 8:32 AM BRENT.BUTTERFIELD 23.0s (LMS Tech)



PLAN
SCALE: 1"=20'



PROFILE
SCALE: 1"=20' HORIZ, 1"=10' VERT

CONSTRUCTION NOTES

(2) INSTALL:
NEW 3/4" METER INSTALLATION PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT E

(3) REMOVE METER/VALVE BOX & ABANDON EXISTING SERVICE LINE

(7) FILL WITH CDF, CAP, AND ABANDON, OR REMOVE EXISTING AC WATER MAIN PIPING AS NEEDED

(15) REMOVE VALVE STEM AND RISER ASSEMBLY, VALVE TO BE ABANDONED IN PLACE

(29) INSTALL:
NEW 3/4 IN METER INSTALLATION WITH 2" PVC CASING AROUND SERVICES CROSSING STREET PER CLALLAM PUD STANDARD DETAIL EXHIBIT E

NOTES:

1. CONTRACTOR MUST VERIFY ALL UTILITY LOCATIONS, SIZE, AND TYPES BEFORE BEGINNING CONSTRUCTION.
2. CONTRACTOR TO PROTECT ALL EXISTING UTILITIES THROUGHOUT THE DURATION OF THE PROJECT.
3. INSTALL PROPOSED WATER MAIN AT CONTINUOUS RISING SLOPE TO AVOID INTERMEDIATE HIGH POINTS

RESTORATION LEGEND

RESTORE SURFACE WITH SOIL AND HYDROSEEDING, SEE DETAIL 1, SHEET D-1

RESTORE HMA SURFACE WITH ASPHALT, SEE DETAIL 1, SHEET D-1

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

MCD DESIGNED
EJJ DRAWN
JAM CHECKED

JON MINER — STATE OF WASHINGTON — 20106449 — REGISTERED PROFESSIONAL ENGINEER
4/26/2022

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CLALLAM COUNTY PUD — Bringing Energy To Life™

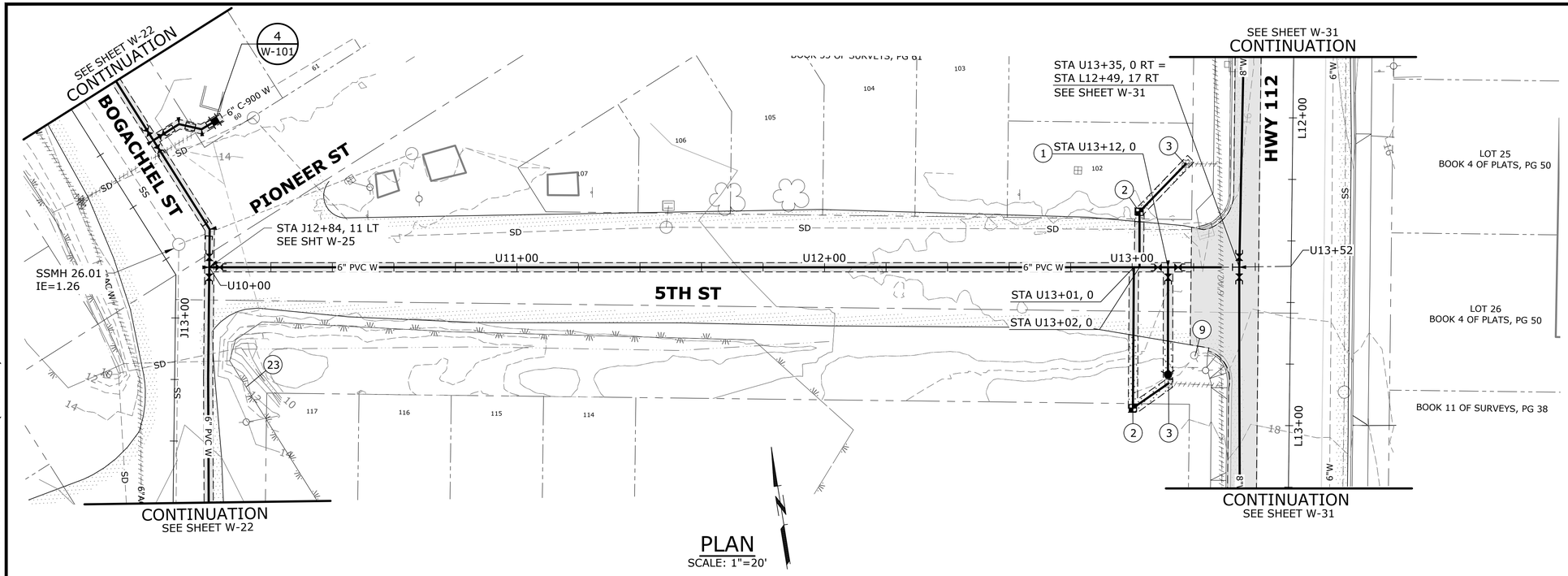
CLALLAM BAY SEKIU WATER MAIN UPGRADES

WATER PLAN & PROFILE
BOGACHIEL STREET - 3

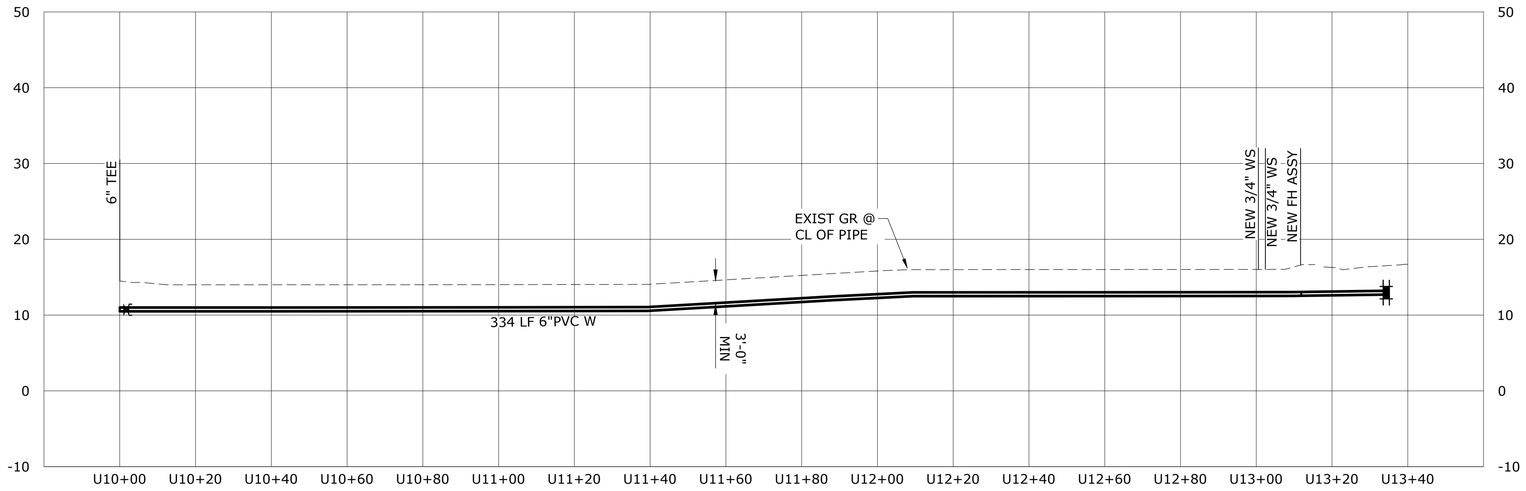
PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

SHEET
W-24
32 of 56

K:\TAC_Projects\20\2926 - Clallam Bay Sekiu Water Main Upgrades\CAD\Sheets\20-2926-WA-W 17-29.dwg W-24 4/15/2022 8:32 AM BRENT.BUTTERFIELD 23.0s (LMS Tech)



PLAN
SCALE: 1"=20'



PROFILE
SCALE: 1"=20' HORIZ, 1"=10' VERT

CONSTRUCTION NOTES

1. INSTALL:
NEW FIRE HYDRANT ASSEMBLY, INCLUDING VALVE AND VALVE BOX, AND CONNECT TO MAIN PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT D
2. INSTALL:
NEW 3/4" METER INSTALLATION PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT E
3. REMOVE METER/VALVE BOX & ABANDON EXISTING SERVICE LINE
4. PROTECT EXIST SS, MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" MEASURED EDGE-TO-EDGE
5. PROTECT EXISTING WATER MAIN AND MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" FROM WATER MAIN MEASURED EDGE-TO-EDGE
6. PROTECT EXISTING STORM DRAIN AND MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" MEASURED EDGE-TO-EDGE
7. FILL WITH CDF, CAP, AND ABANDON, OR REMOVE EXISTING AC WATER MAIN PIPING AS NEEDED
9. REMOVE HYDRANT AND HYDRANT VALVE PER WSDOT STD SPEC 7-14
15. REMOVE VALVE STEM AND RISER ASSEMBLY, VALVE TO BE ABANDONED IN PLACE
16. CONTRACTOR SHALL EXPOSE AND REMOVE EXISTING 6"x4" TEE, EXISTING TEE IS LOCATED 12" EAST OF CL OF BOGACHIEL ST
17. REMOVE AND REPLACE SIDEWALK
23. CONTRACTOR SHALL NOT DISTURB WETLAND DELINEATED AREA
24. CONTRACTOR TO CONTACT CLALLAM COUNTY PUD FOR POLE BRACING DURING CONSTRUCTION IF WATER MAIN CONSTRUCTION LIMITS ARE LESS THAN 5 FT FROM EXISTING UTILITY POLE

NOTES:

1. CONTRACTOR MUST VERIFY ALL UTILITY LOCATIONS, SIZE, AND TYPES BEFORE BEGINNING CONSTRUCTION.
2. CONTRACTOR TO PROTECT ALL EXISTING UTILITIES THROUGHOUT THE DURATION OF THE PROJECT.
3. INSTALL PROPOSED WATER MAIN AT CONTINUOUS RISING SLOPE TO AVOID INTERMEDIATE HIGH POINTS

RESTORATION LEGEND

RESTORE SURFACE WITH SOIL AND HYDROSEEDING, SEE DETAIL 1, SHEET D-1

RESTORE HMA SURFACE WITH ASPHALT, SEE DETAIL 1, SHEET D-1

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
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MCD DESIGNED
EJJ DRAWN
JAM CHECKED

TOM MINER STATE OF WASHINGTON 20106449 REGISTERED PROFESSIONAL ENGINEER
4/26/2022

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CLALLAM COUNTY PUD Bringing Energy To Life™

CLALLAM BAY SEKIU WATER MAIN UPGRADES

WATER PLAN & PROFILE 5TH STREET

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

SHEET W-25

33 of 56

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SEE SHEET W-23
CONTINUATION

SEE SHEET W-31
CONTINUATION

BOGACHIEL ST

SSMH
IE=27.53

SEE SHT W-23 FOR
CONNECTION

R10+00
4"AC W

STA R10+16, 0
FURNISH & INSTALL:
1-4" 45° BEND, MJ
1-TB

STA R10+38, 0
FURNISH & INSTALL:
1-4" 45° BEND, MJ
1-TB

STA R10+69, 0
SEE SHEET W-23

R11+00

R12+00

SSMH
IE=10.75

6TH ST

R13+00

STA R12+97, 0
FURNISH & INSTALL:
1-8" 45° BEND, MJ
1-TB

STA R13+24, 0
FURNISH & INSTALL:
1-8" 45° BEND, MJ
1-TB

STA R13+78, 0 RT

STA R13+74, 0 RT

R14+00

STA R13+84, 0 RT

STA R14+11, 0 RT
SEE SHEET W-32

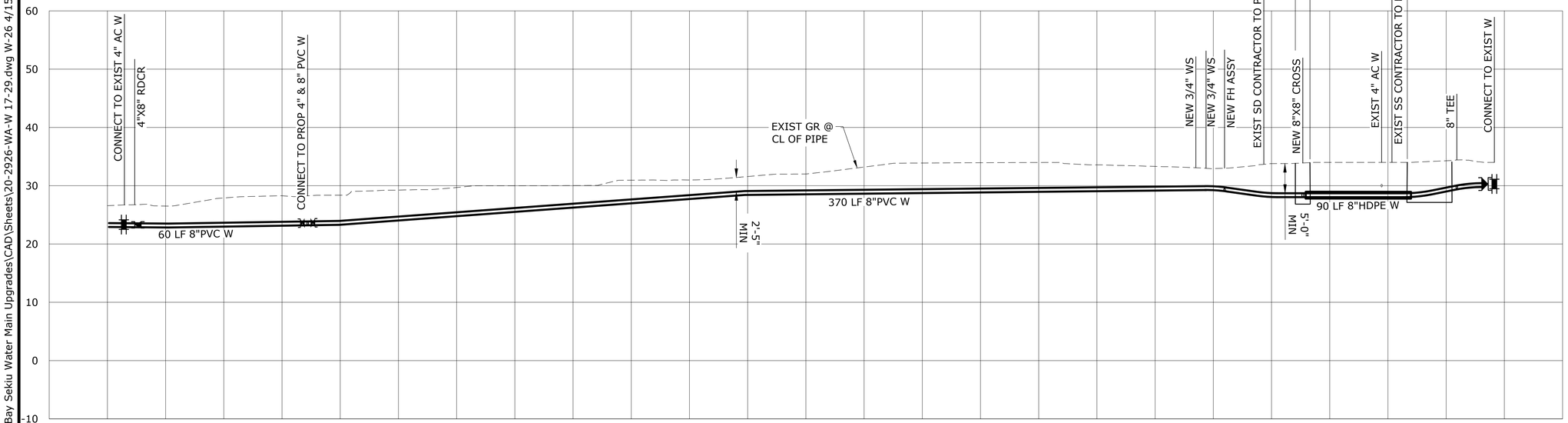
HWY 112

STA R14+64, 0 LT
FURNISH & INSTALL:
1-8"X8" TEE, FLG
2-8" GV, FLGxMJ
1-TRANS CPLG
1-8"x6" RDCR, MJ
1-8" BLIND FLANGE
2-TB

CONTINUATION
SEE SHEET W-23

CONTINUATION
SEE SHEET W-31

PLAN
SCALE: 1"=20'



PROFILE
SCALE: 1"=20' HORIZ, 1"=10' VERT

CONSTRUCTION NOTES

1. INSTALL:
NEW FIRE HYDRANT ASSEMBLY, INCLUDING VALVE AND VALVE BOX, AND CONNECT TO MAIN PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT D
2. INSTALL:
NEW 3/4" METER INSTALLATION PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT E
4. PROTECT EXIST SS, MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" MEASURED EDGE-TO-EDGE
7. FILL WITH CDF, CAP, AND ABANDON, OR REMOVE EXISTING AC WATER MAIN PIPING AS NEEDED
9. REMOVE HYDRANT AND HYDRANT VALVE PER WSDOT STD SPEC 7-14
23. CONTRACTOR SHALL NOT DISTURB WETLAND DELINEATED AREA
38. APPROX LOCATION OF HDD AND/OR JACKING PIT (ASSUMED 15'X5'). CUT INTO AND CONNECT TO HDD INSTALLED PIPE AT MIN DEPTH OF 5 FT. REMOVE EXCESS UNUSED HDD PIPING BEFORE MAKING FINAL CONNECTIONS
41. CONTRACTOR TO REPLACE CURB RAMP, PER DET 2 SHT D-2
42. APPROX LOCATION OF JACK AND BORE PIT (15'X5')

NOTES:

1. CONTRACTOR MUST VERIFY ALL UTILITY LOCATIONS, SIZE, AND TYPES BEFORE BEGINNING CONSTRUCTION.
2. CONTRACTOR TO PROTECT ALL EXISTING UTILITIES THROUGHOUT THE DURATION OF THE PROJECT.
3. INSTALL PROPOSED WATER MAIN AT CONTINUOUS RISING SLOPE TO AVOID INTERMEDIATE HIGH POINTS

RESTORATION LEGEND

RESTORE SURFACE WITH SOIL AND HYDROSEEDING, SEE DETAIL 1, SHEET D-1

RESTORE HMA SURFACE WITH ASPHALT, SEE DETAIL 1, SHEET D-1

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

MCD DESIGNED
EJJ DRAWN
JAM CHECKED

JON MINER — STATE OF WASHINGTON — 20106449 — REGISTERED PROFESSIONAL ENGINEER
4/26/2022

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CLALLAM COUNTY PUD — Bringing Energy To Life™

CLALLAM BAY SEKIU WATER MAIN UPGRADES

WATER PLAN & PROFILE 6TH STREET

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

SHEET
W-26
34 of 56

K:\TAC_Projects\20\2926 - Clallam Bay Sekiu Water Main Upgrades\CAD\Sheets\20-2926-WA-W 17-29.dwg W-26 4/15/2022 8:32 AM BRENT.BUTTERFIELD 23.0s (LMS Tech)

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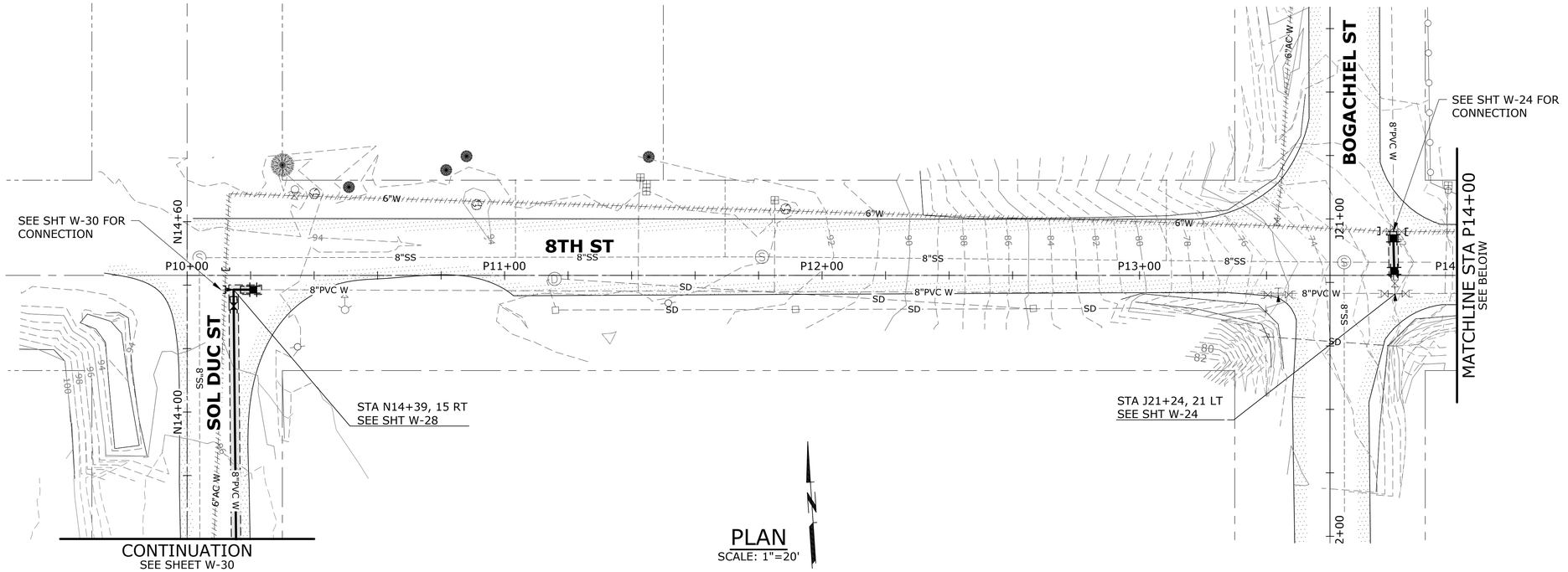
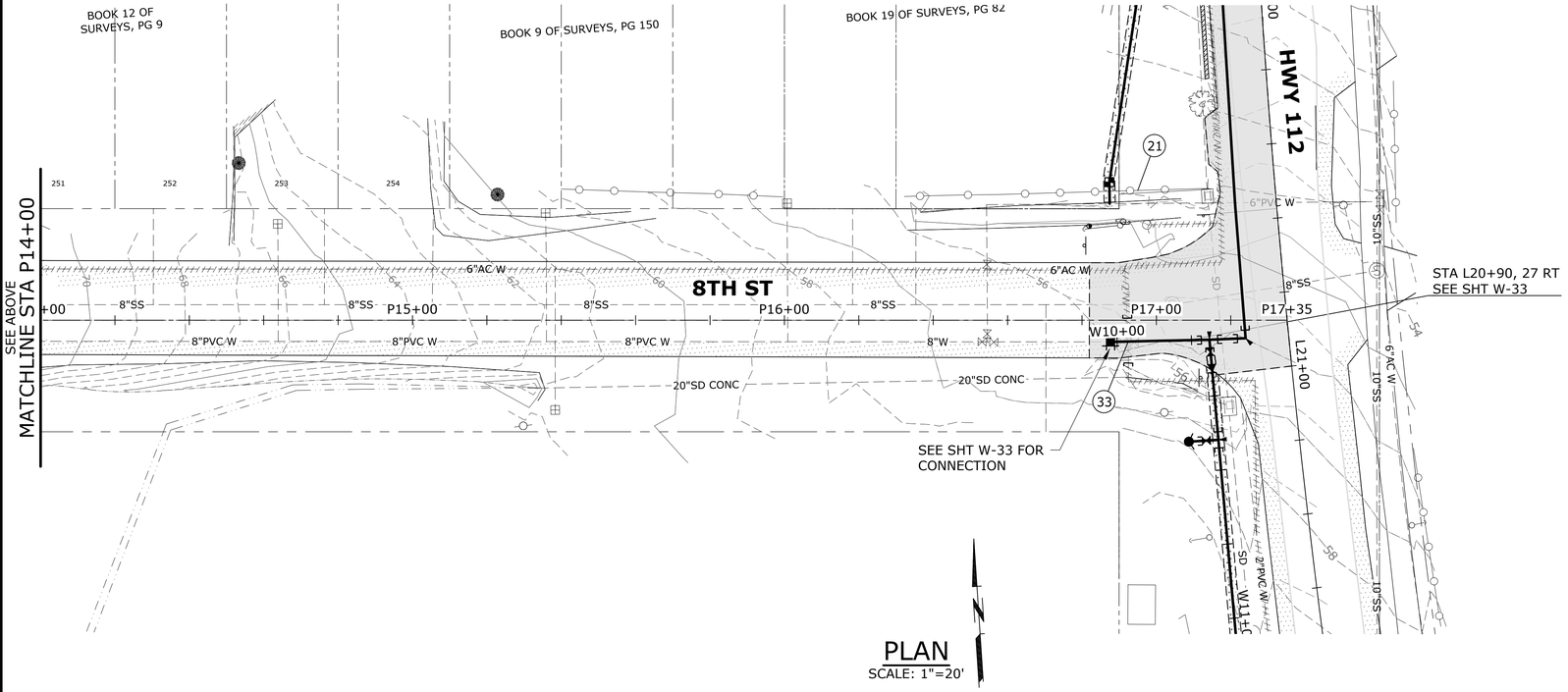


PLAN
SCALE: 1"=20'



PLAN
SCALE: 1"=20'

CONSTRUCTION NOTES

(21) CONTRACTOR TO PROTECT FENCE IN PLACE

(33) CONTRACTOR TO REMOVE, SALVAGE, AND RETURN TO THE DISTRICT THE CROSS, TWO 2" GATE VALVES, AND TWO 8" GATE VALVES

NOTES:

1. CONTRACTOR MUST VERIFY ALL UTILITY LOCATIONS, SIZE, AND TYPES BEFORE BEGINNING CONSTRUCTION.
2. CONTRACTOR TO PROTECT ALL EXISTING UTILITIES THROUGHOUT THE DURATION OF THE PROJECT.
3. INSTALL PROPOSED WATER MAIN AT CONTINUOUS RISING SLOPE TO AVOID INTERMEDIATE HIGH POINTS

RESTORATION LEGEND

RESTORE SURFACE WITH SOIL AND HYDROSEEDING, SEE DETAIL 1, SHEET D-1

RESTORE HMA SURFACE WITH ASPHALT, SEE DETAIL 1, SHEET D-1

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
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MCD DESIGNED
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JAM CHECKED

JON MINER — STATE OF WASHINGTON — 20106440 — REGISTERED PROFESSIONAL ENGINEER
4/26/2022

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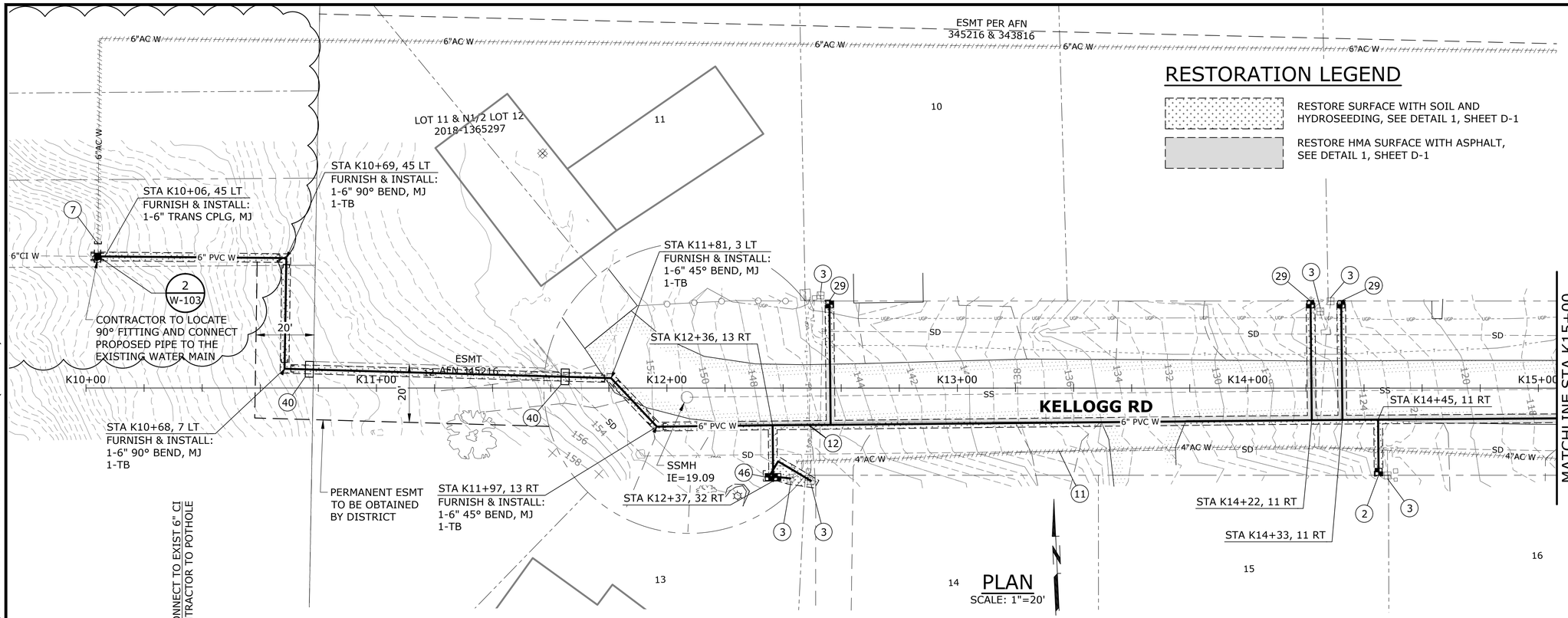
CLALLAM COUNTY PUD — Bringing Energy To Life™

CLALLAM BAY SEKIU WATER MAIN UPGRADES

WATER PLAN
8TH ST FROM BOGACHIEL ST TO SOL DUC ST

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

SHEET
W-27
35 of 56



PLAN
SCALE: 1"=20'

RESTORATION LEGEND

RESTORE SURFACE WITH SOIL AND HYDROSEEDING, SEE DETAIL 1, SHEET D-1

RESTORE HMA SURFACE WITH ASPHALT, SEE DETAIL 1, SHEET D-1

CONSTRUCTION NOTES

(2) INSTALL:
NEW 3/4" METER INSTALLATION PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT E

(3) REMOVE METER/VALVE BOX & ABANDON EXISTING SERVICE LINE

(7) FILL WITH CDF, CAP, AND ABANDON, OR REMOVE EXISTING AC WATER MAIN PIPING AS NEEDED

(11) ABANDON AND CRUSH EXISTING AC WATER MAIN PIPING

(12) PROTECT EXIST UNDERGROUND POWER AND TELECOMMUNICATION, DURING CONSTRUCTION

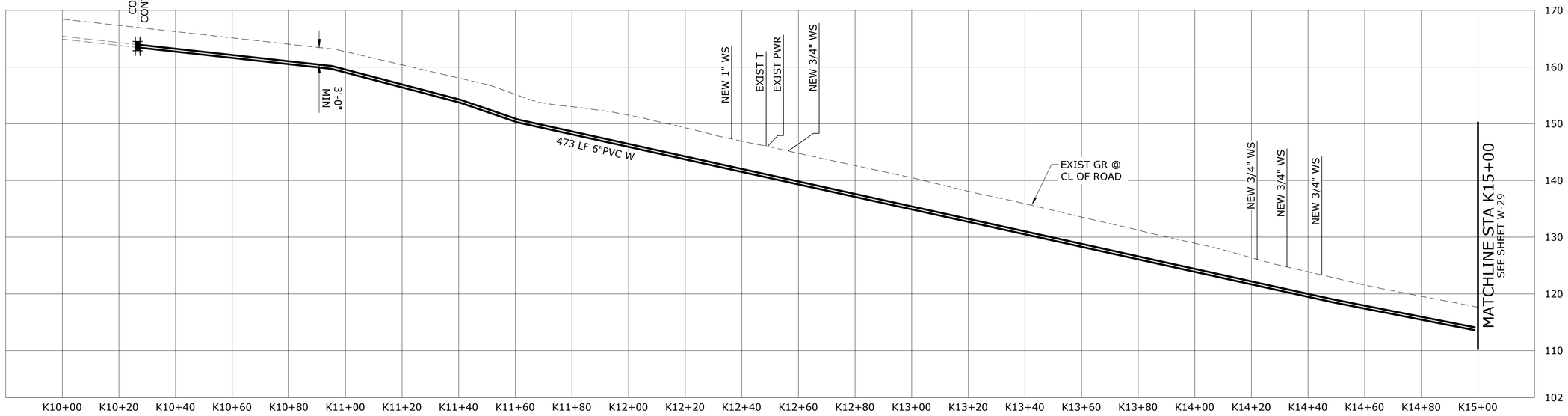
(29) INSTALL:
NEW 3/4 IN METER INSTALLATION WITH 2" PVC CASING AROUND SERVICES CROSSING STREET PER CLALLAM PUD STANDARD DETAIL EXHIBIT E

(40) APPROX LOCATION OF TRENCH DAM, SEE DET 2, SHT D-3

(46) INSTALL:
NEW DUAL SERVICE METER INSTALLATION PER DET 1, SHT D-2

NOTES:

1. CONTRACTOR MUST VERIFY ALL UTILITY LOCATIONS, SIZE, AND TYPES BEFORE BEGINNING CONSTRUCTION.
2. CONTRACTOR TO PROTECT ALL EXISTING UTILITIES THROUGHOUT THE DURATION OF THE PROJECT.
3. INSTALL PROPOSED WATER MAIN AT CONTINUOUS RISING SLOPE TO AVOID INTERMEDIATE HIGH POINTS



PROFILE
SCALE: 1"=20' HORIZ, 1"=10' VERT

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
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MCD DESIGNED
EJJ DRAWN
JAM CHECKED

TON MINER — STATE OF WASHINGTON — 20106449 — REGISTERED PROFESSIONAL ENGINEER — 4/26/2022

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CLALLAM COUNTY PUD — Bringing Energy To Life™

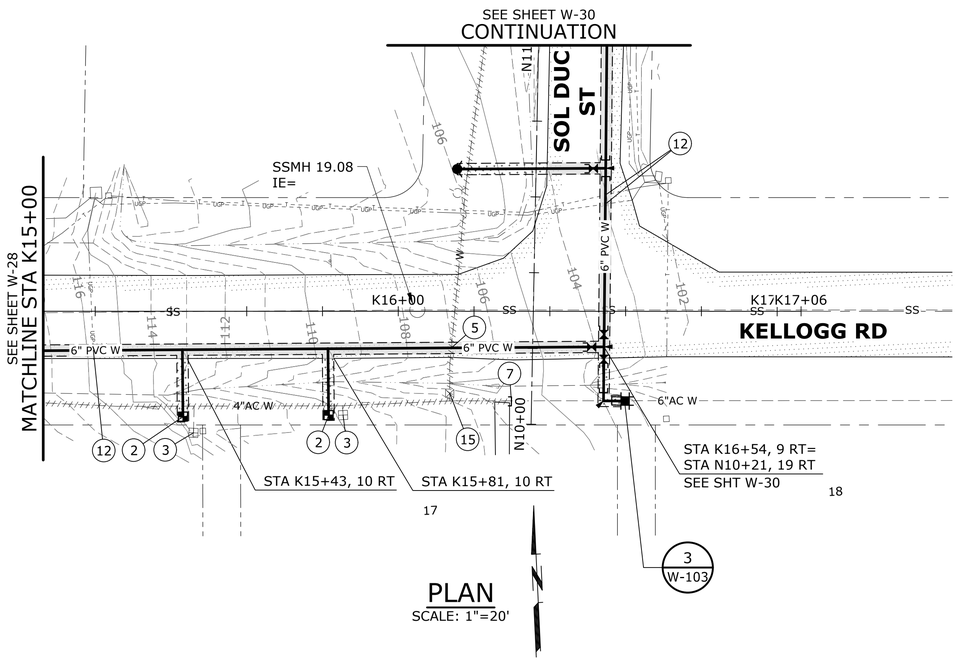
CLALLAM BAY SEKIU WATER MAIN UPGRADES

WATER PLAN & PROFILE KELLOGG ROAD - 1

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

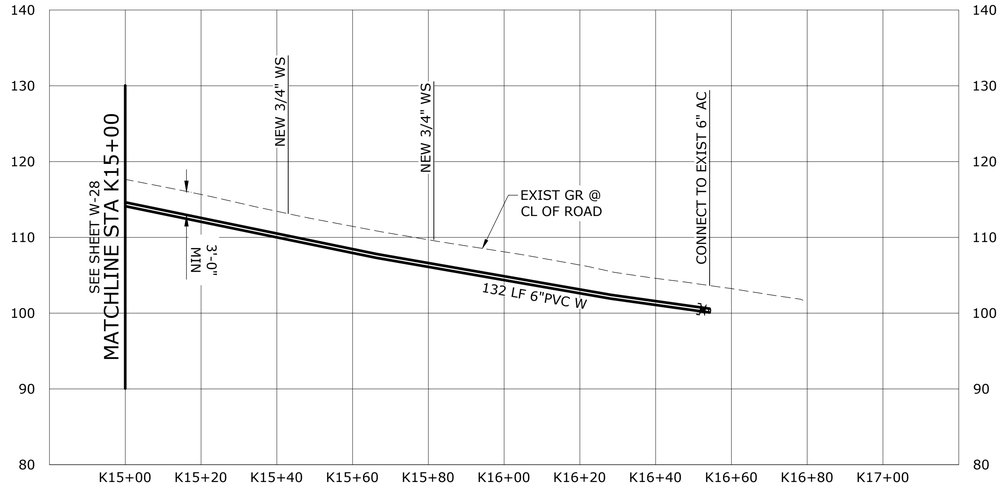
SHEET W-28

K:\TAC_Projects\20\2926 - Clallam Bay Sekiu Water Main Upgrades\CAD\Sheets\20-2926-WA-W 17-29.dwg W-28 4/15/2022 8:32 AM BRENT.BUTTERFIELD 23.0s (LMS Tech)



PLAN

SCALE: 1"=20'



PROFILE

SCALE: 1"=20' HORIZ, 1"=10' VERT

CONSTRUCTION NOTES

1. INSTALL:
NEW FIRE HYDRANT ASSEMBLY, INCLUDING VALVE AND VALVE BOX, AND CONNECT TO MAIN PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT D
2. INSTALL:
NEW 3/4" METER INSTALLATION PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT E
3. REMOVE METER/VALVE BOX & ABANDON EXISTING SERVICE LINE
5. PROTECT EXISTING WATER MAIN AND MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" FROM WATER MAIN MEASURED EDGE-TO-EDGE
7. FILL WITH CDF, CAP, AND ABANDON, OR REMOVE EXISTING AC WATER MAIN PIPING AS NEEDED
12. PROTECT EXIST UNDERGROUND POWER AND TELECOMMUNICATION, DURING CONSTRUCTION
15. REMOVE VALVE STEM AND RISER ASSEMBLY, VALVE TO BE ABANDONED IN PLACE
29. INSTALL:
NEW 3/4 IN METER INSTALLATION WITH 2" PVC CASING AROUND SERVICES CROSSING STREET PER CLALLAM PUD STANDARD DETAIL EXHIBIT E

NOTES:

1. CONTRACTOR MUST VERIFY ALL UTILITY LOCATIONS, SIZE, AND TYPES BEFORE BEGINNING CONSTRUCTION.
2. CONTRACTOR TO PROTECT ALL EXISTING UTILITIES THROUGHOUT THE DURATION OF THE PROJECT.
3. INSTALL PROPOSED WATER MAIN AT CONTINUOUS RISING SLOPE TO AVOID INTERMEDIATE HIGH POINTS

RESTORATION LEGEND

RESTORE SURFACE WITH SOIL AND HYDROSEEDING, SEE DETAIL 1, SHEET D-1

RESTORE HMA SURFACE WITH ASPHALT, SEE DETAIL 1, SHEET D-1

NO.	DATE	BY	REVISION

NOTICE

0 ½ 1

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MCD DESIGNED

EJJ DRAWN

JAM CHECKED

JON MINER — STATE OF WASHINGTON — 20106449 — REGISTERED PROFESSIONAL ENGINEER

4/26/2022

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CLALLAM COUNTY PUD — Bringing Energy To Life™

CLALLAM BAY SEKIU WATER MAIN UPGRADES

WATER PLAN & PROFILE
KELLOGG ROAD - 2

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

SHEET W-29

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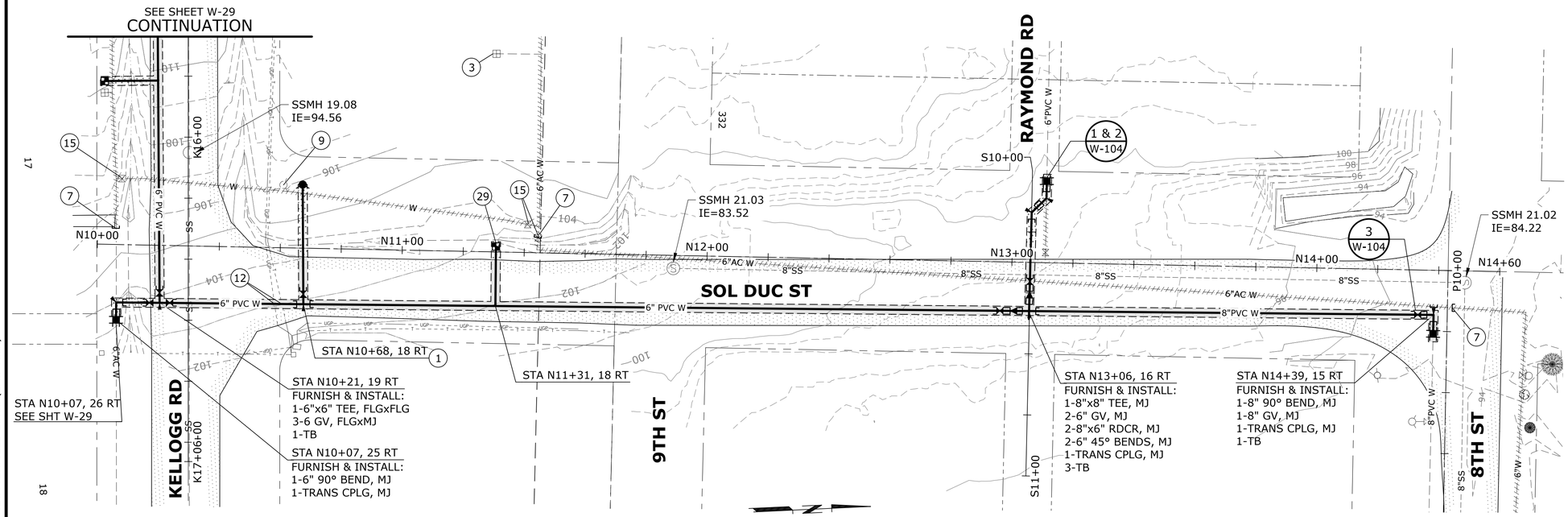


PLAN
SCALE: 1"=20'

CONSTRUCTION NOTES

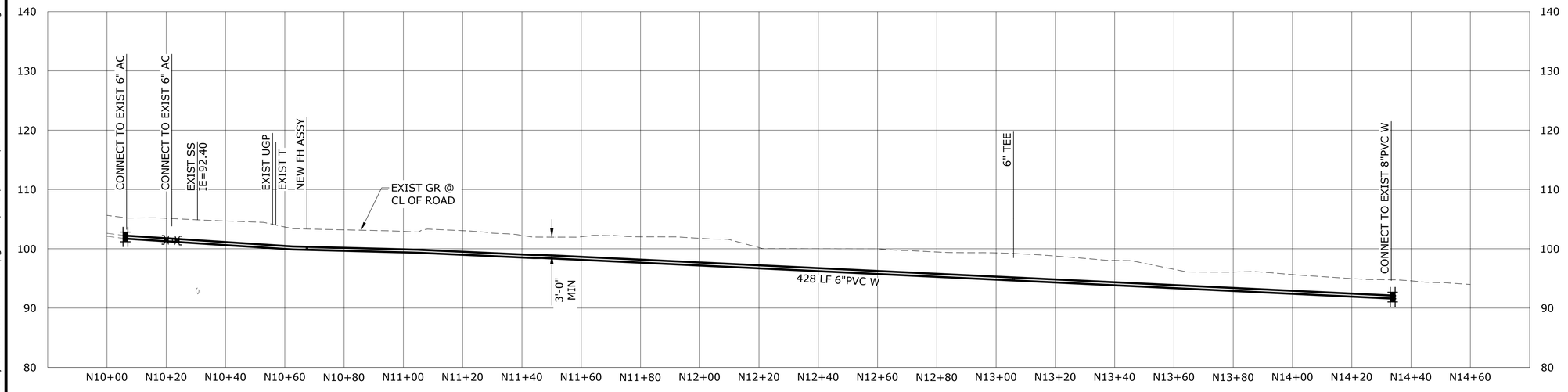
1. INSTALL:
NEW FIRE HYDRANT ASSEMBLY, INCLUDING VALVE AND VALVE BOX, AND CONNECT TO MAIN PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT D
3. REMOVE METER/VALVE BOX & ABANDON EXISTING SERVICE LINE
7. FILL WITH CDF, CAP, AND ABANDON, OR REMOVE EXISTING AC WATER MAIN PIPING AS NEEDED
9. REMOVE HYDRANT AND HYDRANT VALVE PER WSDOT STD SPEC 7-14
12. PROTECT EXIST UNDERGROUND POWER AND TELECOMMUNICATION, DURING CONSTRUCTION
15. REMOVE VALVE STEM AND RISER ASSEMBLY, VALVE TO BE ABANDONED IN PLACE
29. INSTALL:
NEW 3/4 IN METER INSTALLATION WITH 2" PVC CASING AROUND SERVICES CROSSING STREET PER CLALLAM PUD STANDARD DETAIL EXHIBIT E

NOTES:

1. CONTRACTOR MUST VERIFY ALL UTILITY LOCATIONS, SIZE, AND TYPES BEFORE BEGINNING CONSTRUCTION.
2. CONTRACTOR TO PROTECT ALL EXISTING UTILITIES THROUGHOUT THE DURATION OF THE PROJECT.
3. INSTALL PROPOSED WATER MAIN AT CONTINUOUS RISING SLOPE TO AVOID INTERMEDIATE HIGH POINTS. SURFACE ELEVATION IS ESTIMATED ON THIS SHEET. CONTRACTOR TO VERIFY ELEVATIONS PRIOR TO CONSTRUCTION.

RESTORATION LEGEND

- RESTORE SURFACE WITH SOIL AND HYDROSEEDING, SEE DETAIL 1, SHEET D-1
- RESTORE HMA SURFACE WITH ASPHALT, SEE DETAIL 1, SHEET D-1



PROFILE
SCALE: 1"=20' HORIZ, 1"=10' VERT

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
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MCD DESIGNED
EJJ DRAWN
JAM CHECKED

TOM MINER — STATE OF WASHINGTON — 20106449 — REGISTERED PROFESSIONAL ENGINEER
4/26/2022

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CLALLAM COUNTY PUD — Bringing Energy To Life™

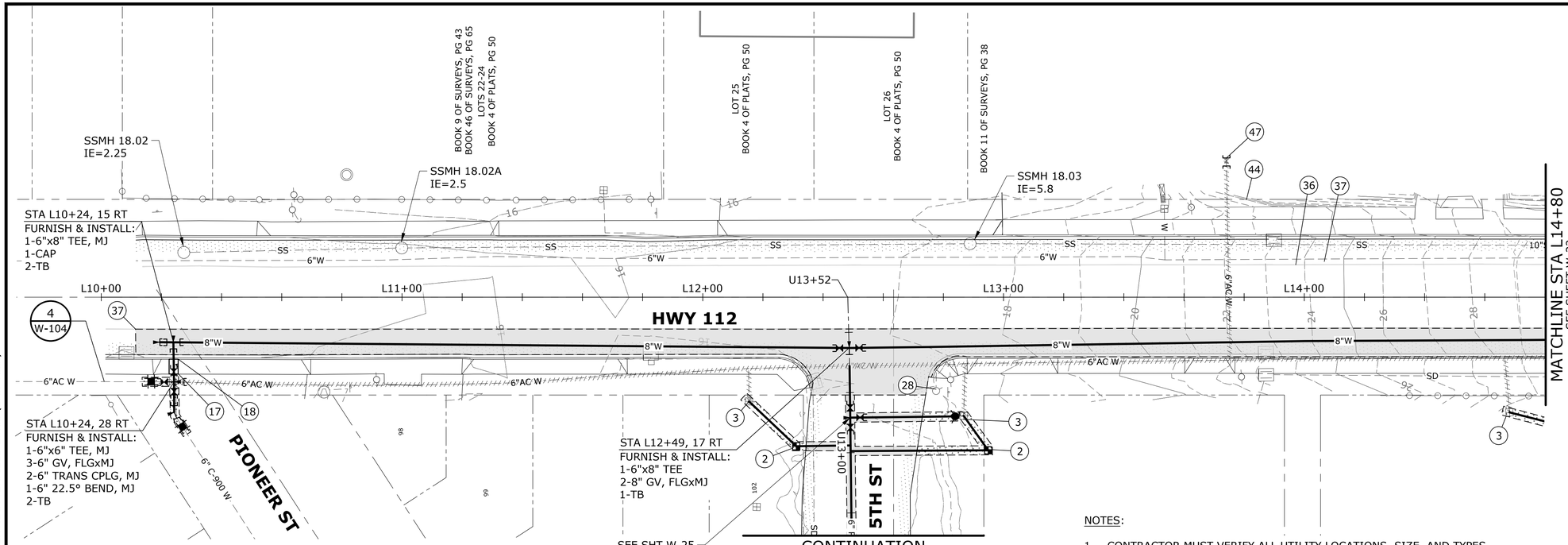
CLALLAM BAY SEKIU WATER MAIN UPGRADES

WATER PLAN & PROFILE SOL DUC STREET - 1

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

SHEET
W-30
38 of 56

K:\TAC_Projects\20\2926 - Clallam Bay Sekiu Water Main Upgrades\CAD\Sheets\20-2926-WA-W 30-35.dwg W-30 4/14/2022 4:25 PM BRENT.BUTTERFIELD 23.0s (LMS Tech)



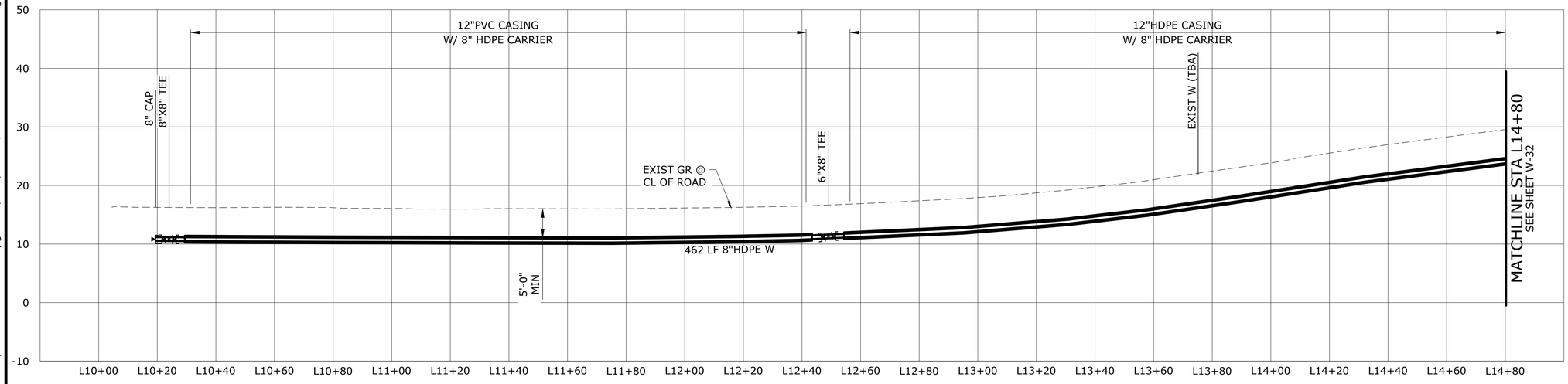
PLAN
SCALE: 1"=20'

CONSTRUCTION NOTES

2. INSTALL:
NEW 3/4" METER INSTALLATION PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT E
3. REMOVE METER/VALVE BOX & ABANDON EXISTING SERVICE LINE
7. FILL WITH CDF, CAP, AND ABANDON, OR REMOVE EXISTING AC WATER MAIN PIPING AS NEEDED
9. REMOVE HYDRANT AND HYDRANT VALVE PER WSDOT STD SPEC 7-14
17. REMOVE AND REPLACE SIDEWALK
18. REMOVE AND REPLACE CURB AND GUTTER
27. CONTRACTOR TO PROVIDE INFORMATION AND TRAFFIC CONTROL PLAN DESCRIBING CLOSURE AT BUS STOP TO CLALLAM PUBLIC TRANSIT
28. REUSE AND RECONNECT HYDRANT TO PROPOSED MAIN
29. INSTALL:
NEW 3/4 IN METER INSTALLATION WITH 2" PVC CASING AROUND SERVICES CROSSING STREET PER CLALLAM PUD STANDARD DETAIL EXHIBIT E
36. CONTRACTOR TO LIMIT WORK TO OUTSIDE OF FOG LINE TO WHAT IS SHOWN ON THE PLANS. CONTRACTOR WILL BE RESPONSIBLE FOR ANY ADDITIONAL PAVEMENT REQUIRED DUE TO CROSSING FOG LINE
37. LOCATION OF FOG LINE IS APPROXIMATE, CONTRACTOR TO VERIFY LOCATION OF FOG LINE
44. CONTRACTOR TO PROTECT WALL IN PLACE
47. CONTRACTOR TO LOCATE GATE VALVE ON SCHOOL PROPERTY, REMOVE VALVE, AND CAP AND ABANDON IN ACCORDANCE WITH SPECS. CONTRACTOR TO PROVIDE NOTICE A MINIMUM OF 30 WORKING DAYS

NOTES:

1. CONTRACTOR MUST VERIFY ALL UTILITY LOCATIONS, SIZE, AND TYPES BEFORE BEGINNING CONSTRUCTION.
2. CONTRACTOR TO PROTECT ALL EXISTING UTILITIES THROUGHOUT THE DURATION OF THE PROJECT.
3. INSTALL PROPOSED WATER MAIN AT CONTINUOUS RISING SLOPE TO AVOID INTERMEDIATE HIGH POINTS.



PROFILE
SCALE: 1"=20' HORIZ, 1"=10' VERT

RESTORATION LEGEND

RESTORE SURFACE WITH SOIL AND HYDROSEEDING, SEE DETAIL 1, SHEET D-1

RESTORE HMA SURFACE WITH ASPHALT, SEE DETAIL 1, SHEET D-1

CHANNELIZATION NOTES:

1. PAINTED WHITE EDGE LINE PER WSDOT STD PLAN M-20.10-03 TO MATCH EXISTING
2. INSTALL PAINTED YELLOW DOUBLE CENTERLINE PER WSDOT STD PLAN M-20.10-03 TO MATCH EXISTING

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

MCD DESIGNED
EJJ DRAWN
JAM CHECKED

TOM MINER STATE OF WASHINGTON 20106449 REGISTERED PROFESSIONAL ENGINEER
4/26/2022

murraysmith

CLALLAM COUNTY PUD Bringing Energy To Life™

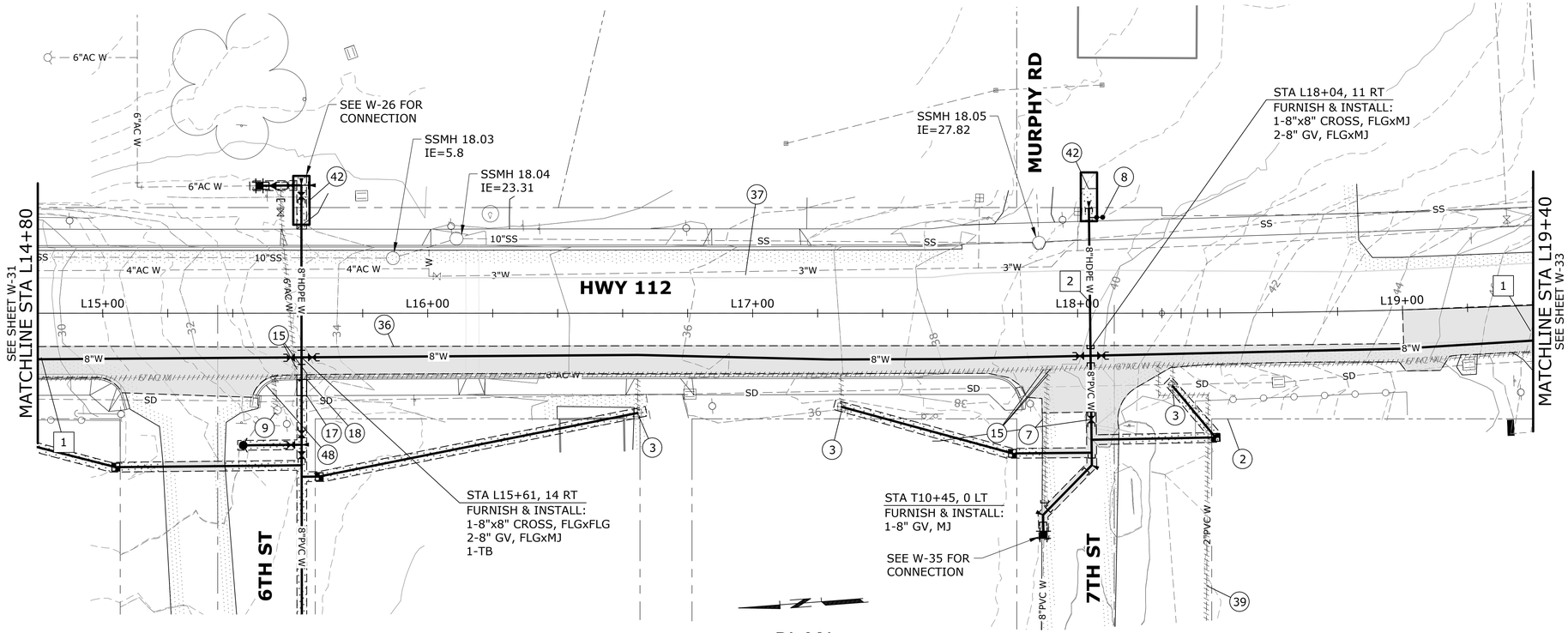
CLALLAM BAY SEKIU WATER MAIN UPGRADES

WATER PLAN & PROFILE
HWY 112: 5TH STREET
TO WEEL ROAD - 1

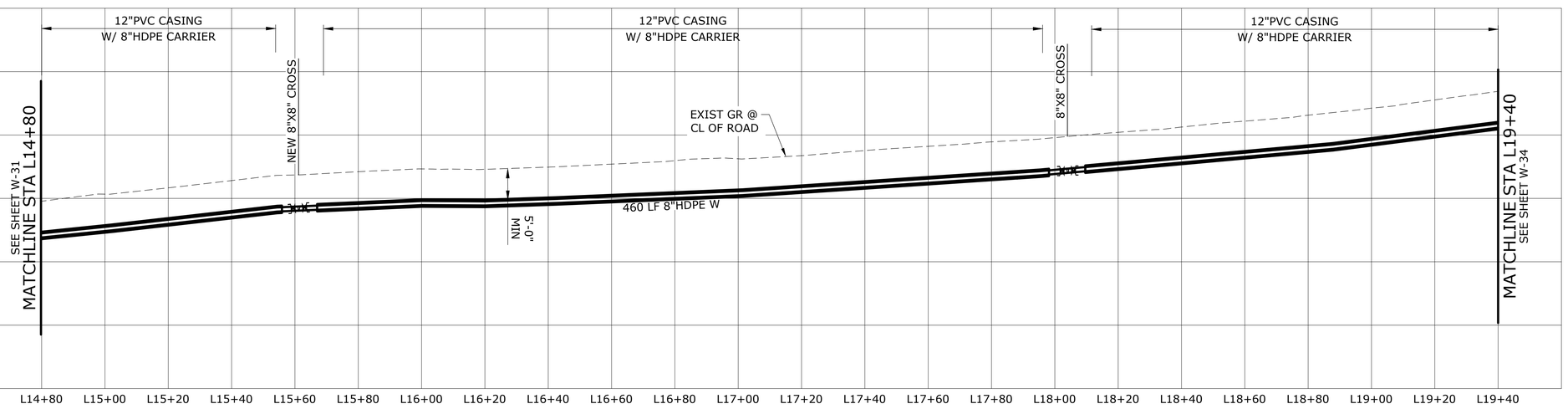
PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

SHEET
W-31
39 of 56

K:\TAC_Projects\20\2926 - Clallam Bay Sekiu Water Main Upgrades\CAD\Sheets\20-2926-WA-W 30-35.dwg W-31 4/14/2022 4:25 PM BRENT.BUTTERFIELD 23.0s (LMS Tech)



PLAN
SCALE: 1"=20'



PROFILE
SCALE: 1"=20' HORIZ, 1"=10' VERT

CONSTRUCTION NOTES

(2) INSTALL:
NEW 3/4" METER INSTALLATION PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT E

(3) REMOVE METER/VALVE BOX & ABANDON EXISTING SERVICE LINE

(7) FILL WITH CDF, CAP, AND ABANDON, OR REMOVE EXISTING AC WATER MAIN PIPING AS NEEDED

(8) INSTALL:
2" BLOWOFF (WITH 2" GATE VALVE) PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT B

(9) REMOVE HYDRANT AND HYDRANT VALVE PER WSDOT STD SPEC 7-14

(15) REMOVE VALVE STEM AND RISER ASSEMBLY, VALVE TO BE ABANDONED IN PLACE

(17) REMOVE AND REPLACE SIDEWALK

(18) REMOVE AND REPLACE CURB AND GUTTER

(36) CONTRACTOR TO LIMIT WORK TO OUTSIDE OF FOG LINE TO WHAT IS SHOWN ON THE PLANS. CONTRACTOR WILL BE RESPONSIBLE FOR ANY ADDITIONAL PAVEMENT REQUIRED DUE TO CROSSING FOG LINE

(37) LOCATION OF FOG LINE IS APPROXIMATE, CONTRACTOR TO VERIFY LOCATION OF FOG LINE

(39) CONTRACTOR TO CONFIRM WITH PUD PRIOR TO ABANDONING 2" PVC

(42) APPROX LOCATION OF JACK AND BORE PIT (15'X5')

(48) RESTORE CURB RAMP PER DET 2, SHT D-2

CHANNELIZATION NOTES:

[1] PAINTED WHITE EDGE LINE PER WSDOT STD PLAN M-20.10-03 TO MATCH EXISTING

[2] INSTALL PAINTED YELLOW DOUBLE CENTERLINE PER WSDOT STD PLAN M-20.10-03 TO MATCH EXISTING

NOTES:

1. CONTRACTOR MUST VERIFY ALL UTILITY LOCATIONS, SIZE, AND TYPES BEFORE BEGINNING CONSTRUCTION.
2. CONTRACTOR TO PROTECT ALL EXISTING UTILITIES THROUGHOUT THE DURATION OF THE PROJECT.
3. INSTALL PROPOSED WATER MAIN AT CONTINUOUS RISING SLOPE TO AVOID INTERMEDIATE HIGH POINTS

RESTORATION LEGEND

RESTORE SURFACE WITH SOIL AND HYDROSEEDING, SEE DETAIL 1, SHEET D-1

RESTORE HMA SURFACE WITH ASPHALT, SEE DETAIL 1, SHEET D-1

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

MCD DESIGNED
EJJ DRAWN
JAM CHECKED

TOM MINER STATE OF WASHINGTON 20106449 REGISTERED PROFESSIONAL ENGINEER
4/26/2022

murraysmith

CLALLAM COUNTY PUD Bringing Energy To Life™

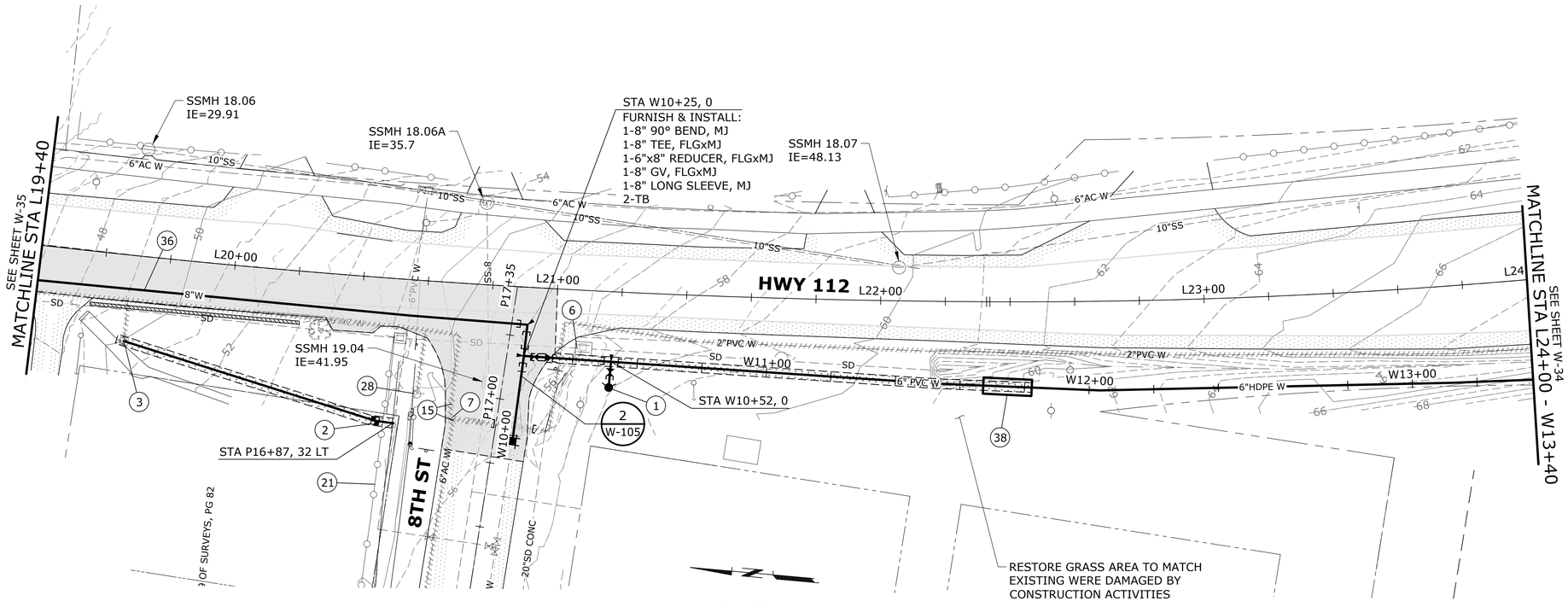
CLALLAM BAY SEKIU WATER MAIN UPGRADES

WATER PLAN & PROFILE
HWY 112: 5TH STREET TO WEEL ROAD - 2

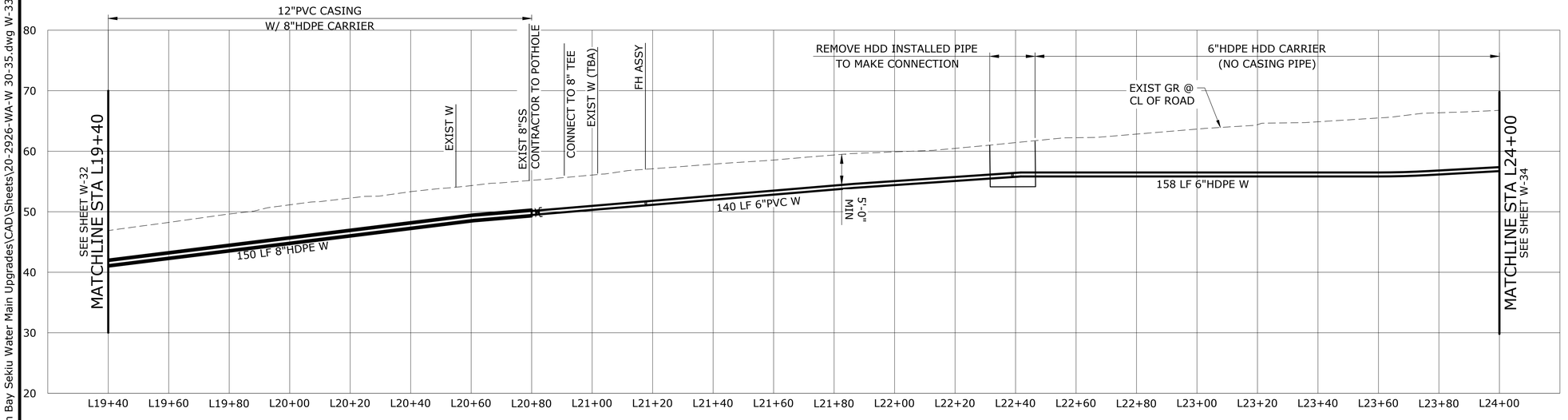
PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

SHEET
W-32
40 of 56

K:\TAC_Projects\20\2926 - Clallam Bay Sekiu Water Main Upgrades\CAD\Sheets\20-2926-WA-W 30-35.dwg W-32 4/14/2022 4:25 PM BRENT.BUTTERFIELD 23.0s (LMS Tech)



PLAN
SCALE: 1"=20'



PROFILE
SCALE: 1"=20' HORIZ, 1"=10' VERT

CONSTRUCTION NOTES

1. INSTALL:
NEW FIRE HYDRANT ASSEMBLY, INCLUDING VALVE AND VALVE BOX, AND CONNECT TO MAIN PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT D
2. INSTALL:
NEW 3/4" METER INSTALLATION PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT E
3. REMOVE METER/VALVE BOX & ABANDON EXISTING SERVICE LINE
6. PROTECT EXISTING STORM DRAIN AND MAINTAIN MINIMUM VERTICAL SEPARATION OF 18" MEASURED EDGE-TO-EDGE
7. FILL WITH CDF, CAP, AND ABANDON, OR REMOVE EXISTING AC WATER MAIN PIPING AS NEEDED
15. REMOVE VALVE STEM AND RISER ASSEMBLY, VALVE TO BE ABANDONED IN PLACE
21. CONTRACTOR TO PROTECT FENCE IN PLACE
28. REUSE AND RECONNECT HYDRANT TO PROPOSED MAIN
36. CONTRACTOR TO LIMIT WORK TO OUTSIDE OF FOG LINE TO WHAT IS SHOWN ON THE PLANS. CONTRACTOR WILL BE RESPONSIBLE FOR ANY ADDITIONAL PAVEMENT REQUIRED DUE TO CROSSING FOG LINE
38. APPROX LOCATION OF HDD AND/OR JACKING PIT (ASSUMED 15'X5'). CUT INTO AND CONNECT TO HDD INSTALLED PIPE AT MIN DEPTH OF 5 FT. REMOVE EXCESS UNUSED HDD PIPING BEFORE MAKING FINAL CONNECTIONS

CHANNELIZATION NOTES:

1. PAINTED WHITE EDGE LINE PER WSDOT STD PLAN M-20.10-03 TO MATCH EXISTING
2. INSTALL PAINTED YELLOW DOUBLE CENTERLINE PER WSDOT STD PLAN M-20.10-03 TO MATCH EXISTING

NOTES:

1. CONTRACTOR MUST VERIFY ALL UTILITY LOCATIONS, SIZE, AND TYPES BEFORE BEGINNING CONSTRUCTION.
2. CONTRACTOR TO PROTECT ALL EXISTING UTILITIES THROUGHOUT THE DURATION OF THE PROJECT.
3. INSTALL PROPOSED WATER MAIN AT CONTINUOUS RISING SLOPE TO AVOID INTERMEDIATE HIGH POINTS

RESTORATION LEGEND

RESTORE SURFACE WITH SOIL AND HYDROSEEDING, SEE DETAIL 1, SHEET D-1

RESTORE HMA SURFACE WITH ASPHALT, SEE DETAIL 1, SHEET D-1

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
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MCD DESIGNED
EJJ DRAWN
JAM CHECKED

JON MINER — STATE OF WASHINGTON — 20106449 — REGISTERED PROFESSIONAL ENGINEER
4/26/2022

murraysmith

CLALLAM COUNTY PUD — Bringing Energy To Life™

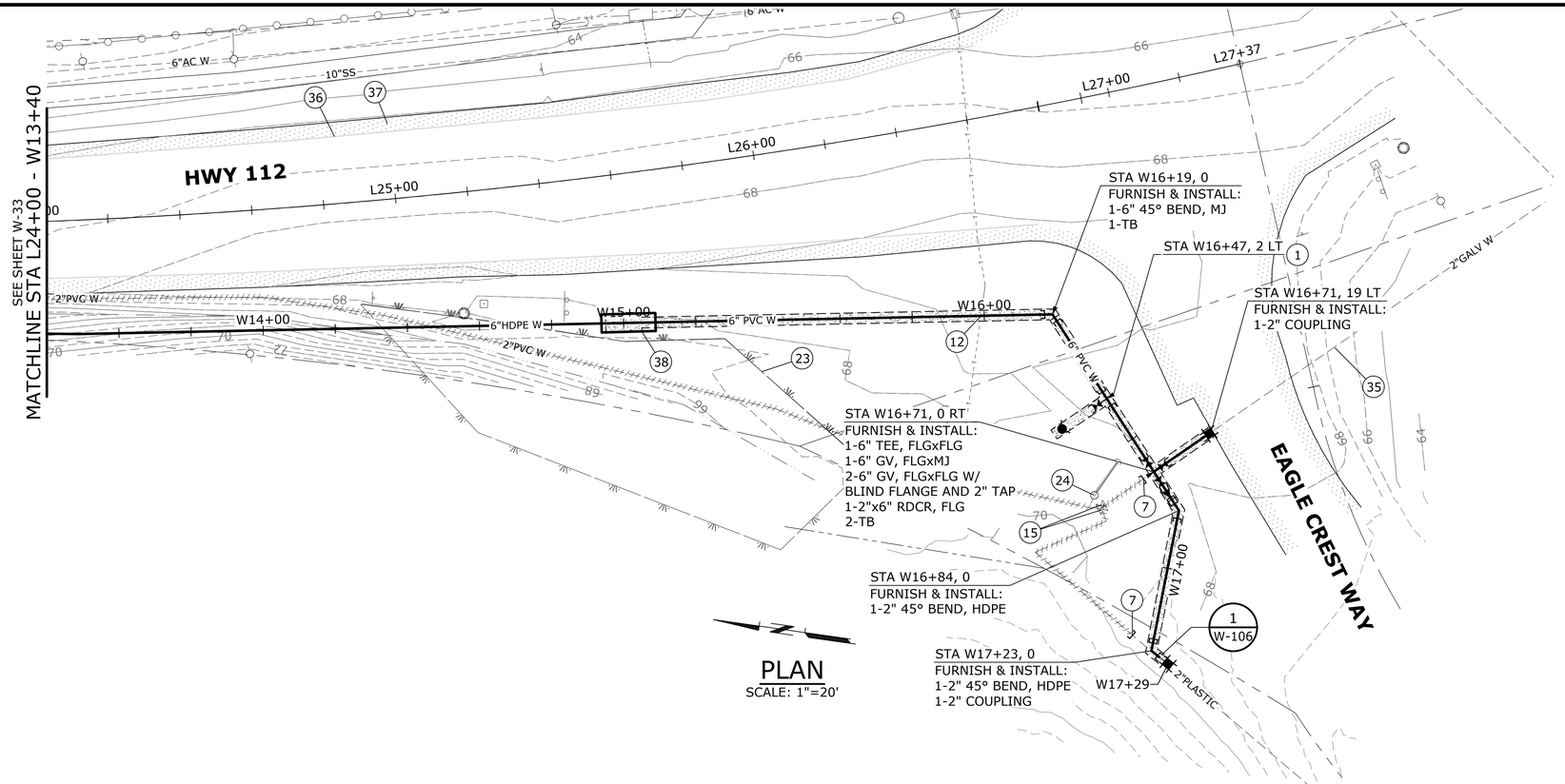
CLALLAM BAY SEKIU WATER MAIN UPGRADES

WATER PLAN & PROFILE
HWY 112: 8TH STREET
TO WEEL ROAD - 3

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

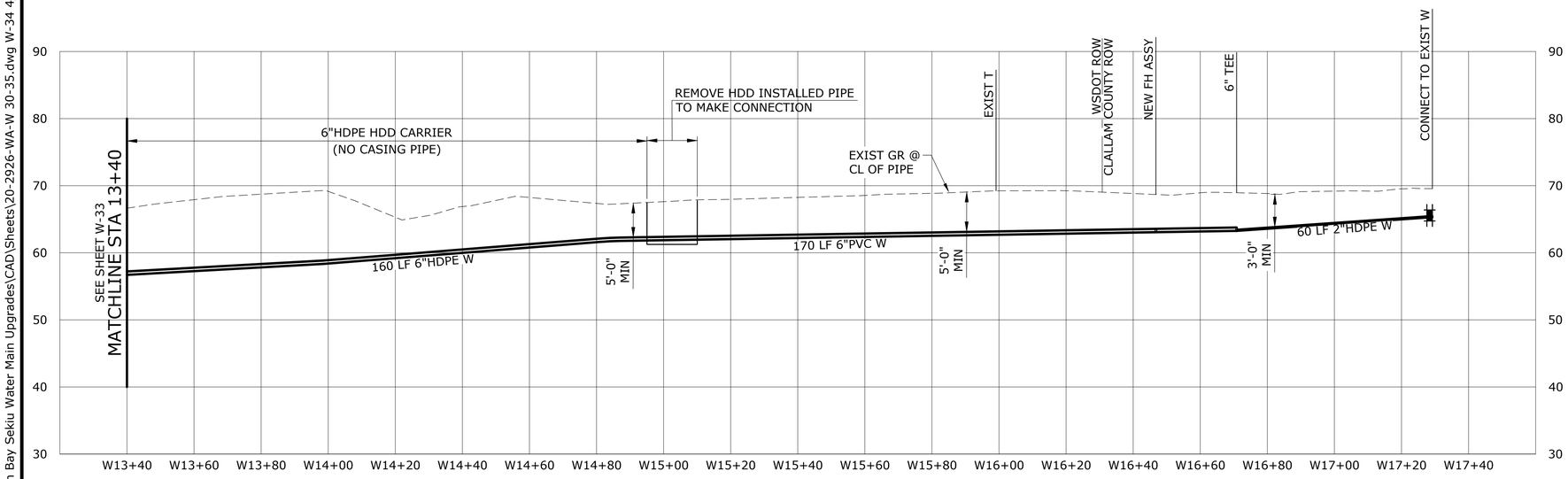
SHEET
W-33
41 of 56

K:\TAC_Projects\20\2926 - Clallam Bay Sekiu Water Main Upgrades\CAD\Sheets\20-2926-WA-W 30-35.dwg W-33 4/14/2022 4:25 PM BRENT.BUTTERFIELD 23.0s (LMS Tech)



PLAN

SCALE: 1"=20'



PROFILE

SCALE: 1"=20' HORIZ, 1"=10' VERT

CONSTRUCTION NOTES

1. INSTALL: NEW FIRE HYDRANT ASSEMBLY, INCLUDING VALVE AND VALVE BOX, AND CONNECT TO MAIN PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT D
7. FILL WITH CDF, CAP, AND ABANDON, OR REMOVE EXISTING AC WATER MAIN PIPING AS NEEDED
12. PROTECT EXIST UNDERGROUND POWER AND TELECOMMUNICATION, DURING CONSTRUCTION
15. REMOVE VALVE STEM AND RISER ASSEMBLY, VALVE TO BE ABANDONED IN PLACE
23. CONTRACTOR SHALL NOT DISTURB WETLAND DELINEATED AREA
24. CONTRACTOR TO CONTACT CLALLAM COUNTY PUD FOR POLE BRACING DURING CONSTRUCTION IF WATER MAIN CONSTRUCTION LIMITS ARE LESS THAN 5 FT FROM EXISTING UTILITY POLE
35. CROSSING AT EAGLE CREST WAY IS 2" GALV INSIDE 4" PVC. CONNECTION TO BE MADE BEFORE CASING PIPE
36. CONTRACTOR TO LIMIT WORK TO OUTSIDE OF FOG LINE TO WHAT IS SHOWN ON THE PLANS. CONTRACTOR WILL BE RESPONSIBLE FOR ANY ADDITIONAL PAVEMENT REQUIRED DUE TO CROSSING FOG LINE
37. LOCATION OF FOG LINE IS APPROXIMATE, CONTRACTOR TO VERIFY LOCATION OF FOG LINE
38. APPROX LOCATION OF HDD AND/OR JACKING PIT (ASSUMED 15'X5'). CUT INTO AND CONNECT TO HDD INSTALLED PIPE AT MIN DEPTH OF 5 FT. REMOVE EXCESS UNUSED HDD PIPING BEFORE MAKING FINAL CONNECTIONS

CHANNELIZATION NOTES:

1. PAINTED WHITE EDGE LINE PER WSDOT STD PLAN M-20.10-03 TO MATCH EXISTING
2. INSTALL PAINTED YELLOW DOUBLE CENTERLINE PER WSDOT STD PLAN M-20.10-03 TO MATCH EXISTING

NOTES:

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3. INSTALL PROPOSED WATER MAIN AT CONTINUOUS RISING SLOPE TO AVOID INTERMEDIATE HIGH POINTS

RESTORATION LEGEND

- RESTORE SURFACE WITH SOIL AND HYDROSEEDING, SEE DETAIL 1, SHEET D-1
- RESTORE HMA SURFACE WITH ASPHALT, SEE DETAIL 1, SHEET D-1
- RESTORE SURFACE WITH GRAVEL, SEE DETAIL 1, SHEET D-1

NO.	DATE	BY	REVISION

NOTICE

0 ½ 1

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MCD DESIGNED

EJJ DRAWN

JAM CHECKED

JON MINER STATE OF WASHINGTON 20108448 REGISTERED PROFESSIONAL ENGINEER 4/26/2022

murraysmith

CLALLAM COUNTY PUD Bringing Energy To Life™

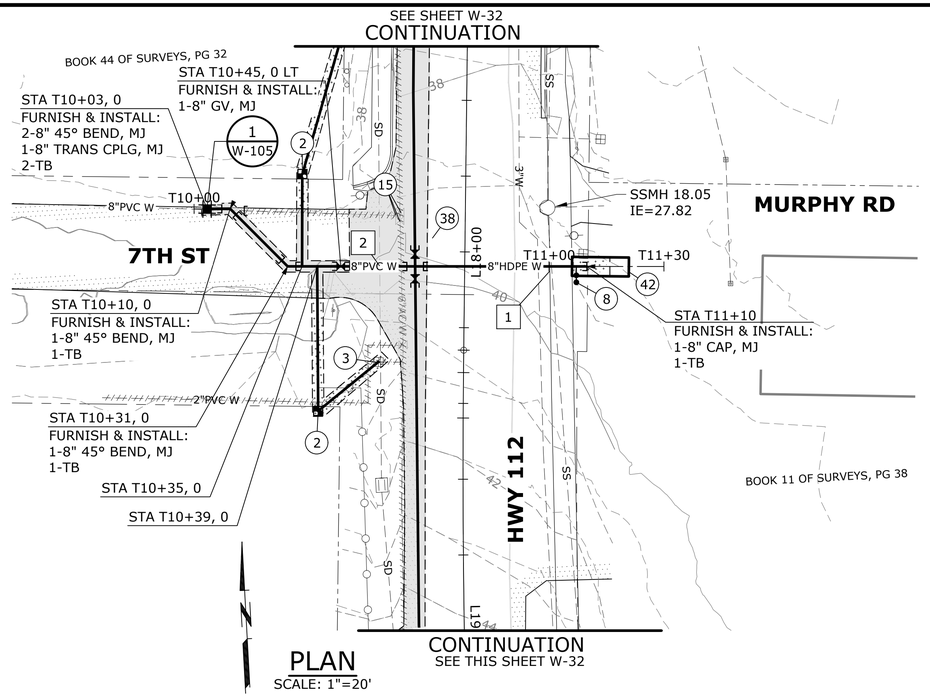
CLALLAM BAY SEKIU WATER MAIN UPGRADES

WATER PLAN & PROFILE
HWY 112: 5TH STREET
TO WEEL ROAD - 4

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

SHEET W-34

K:\TAC_Projects\20\2926 - Clallam Bay Sekiu Water Main Upgrades\CAD\Sheets\20-2926-WA-W 30-35.dwg W-34 4/14/2022 4:25 PM BRENT.BUTTERFIELD 23.0s (LMS Tech)



CONSTRUCTION NOTES

(2) INSTALL:
NEW 3/4" METER INSTALLATION PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT E

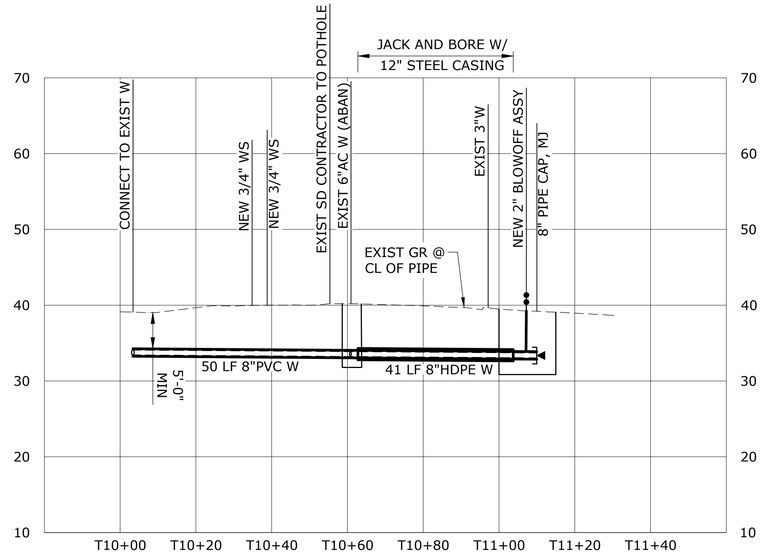
(3) REMOVE METER/VALVE BOX & ABANDON EXISTING SERVICE LINE

(8) INSTALL:
2" BLOWOFF (WITH 2" GATE VALVE) PER CLALLAM COUNTY PUD STANDARD DETAIL EXHIBIT B

(15) REMOVE VALVE STEM AND RISER ASSEMBLY, VALVE TO BE ABANDONED IN PLACE

(38) APPROX LOCATION OF HDD AND/OR JACKING PIT (ASSUMED 15'x5'). CUT INTO AND CONNECT TO HDD INSTALLED PIPE AT MIN DEPTH OF 5 FT. REMOVE EXCESS UNUSED HDD PIPING BEFORE MAKING FINAL CONNECTIONS

(42) APPROX LOCATION OF JACK AND BORE PIT (15'x5')



PROFILE

SCALE: 1"=20' HORIZ, 1"=10' VERT

CHANNELIZATION NOTES:

1 PAINTED WHITE EDGE LINE PER WSDOT STD PLAN M-20.10-03 TO MATCH EXISTING

2 INSTALL PAINTED YELLOW DOUBLE CENTERLINE PER WSDOT STD PLAN M-20.10-03 TO MATCH EXISTING

NOTES:

1. CONTRACTOR MUST VERIFY ALL UTILITY LOCATIONS, SIZE, AND TYPES BEFORE BEGINNING CONSTRUCTION.
2. CONTRACTOR TO PROTECT ALL EXISTING UTILITIES THROUGHOUT THE DURATION OF THE PROJECT.
3. INSTALL PROPOSED WATER MAIN AT CONTINUOUS RISING SLOPE TO AVOID INTERMEDIATE HIGH POINTS

RESTORATION LEGEND

RESTORE SURFACE WITH SOIL AND HYDROSEEDING, SEE DETAIL 1, SHEET D-1

RESTORE HMA SURFACE WITH ASPHALT, SEE DETAIL 1, SHEET D-1

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

MCD DESIGNED
EJJ DRAWN
JAM CHECKED

TOM MINER STATE OF WASHINGTON 20106449 REGISTERED PROFESSIONAL ENGINEER 4/26/2022

murraysmith

CLALLAM COUNTY PUD Bringing Energy To Life™

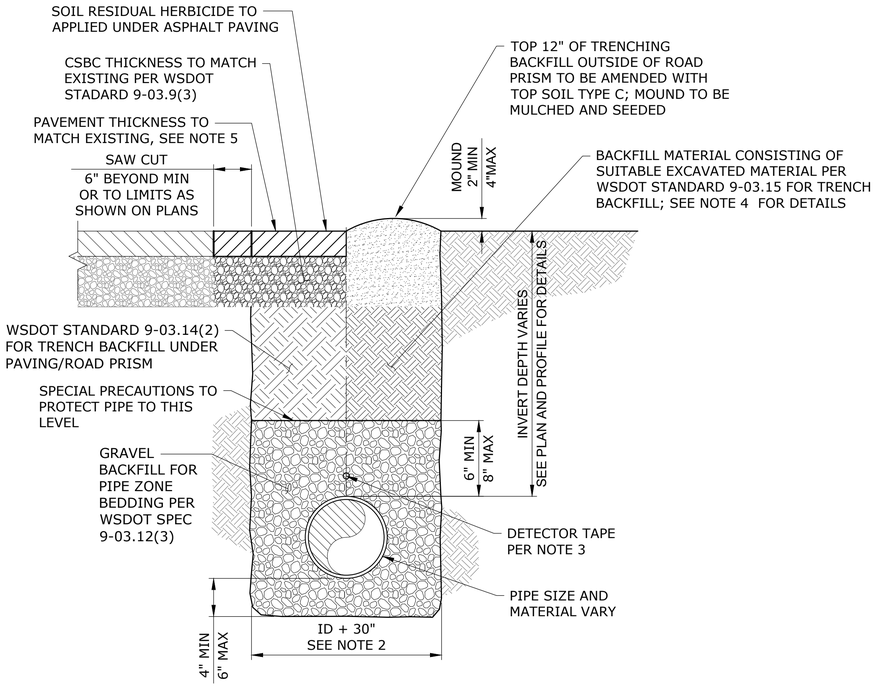
CLALLAM BAY SEKIU WATER MAIN UPGRADES

WATER PLAN & PROFILE HWY 112: 6TH STREET AND 7TH ST STREET

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

SHEET W-35

K:\TAC_Projects\20\2926 - Clallam Bay Sekiu Water Main Upgrades\CAD\Sheets\20-2926-WA-W 30-35.dwg W-35 4/14/2022 4:25 PM BRENT.BUTTERFIELD 23.0s (LMS Tech)



NOTES:

1. TRENCH SECTION SHOWS THE HORIZONTAL EXCAVATION AND PAYMENT LIMITS FOR STRUCTURE EXCAVATION CLASS AND CRUSHED SERVICING BASE COURSE. PAYMENT FOR STRUCTURE EXCAVATION CLASS B, AND CRUSHED SURFACING BASE COURSE (WHEN NEEDED) SHALL BE PAID AS COMPUTED FROM THE DESIGN NEATLINE SECTION AND PER WSDOT SPECIFICATION 2-09

2. COSTS FOR FURNISHING, PLACING, AND COMPACTION OF PIPE ZONE BEDDING SHALL BE INCLUDED IN THE UNIT PRICE FOR THE FURNISHING, AND PLACING OF THE PROPOSED WATER MAIN AND WATER SERVICE METER.

3. COSTS FOR SAW CUTTING SHALL BE INCLUDED IN THE UNIT PRICE FOR WATER MAIN.

4. SUITABLE EXCAVATED MATERIAL CAN BE USED FOR TRENCH BACKFILL OUTSIDE OF THE ROAD PRISM, UNLESS OTHERWISE APPROVED BY THE PROJECT ENGINEER. EXCAVATED MATERIAL MAY REQUIRE PROCESSING TO MEET GRADATION SPECIFICATIONS (DEEMED SUITABLE) AS DETAILED IN WSDOT SPEC 9-03.15.

5. ASPHALT DEPTH WITHIN CLALLAM COUNTY RIGHT OF WAY SHALL MATCH EXISTING OR 3" MIN

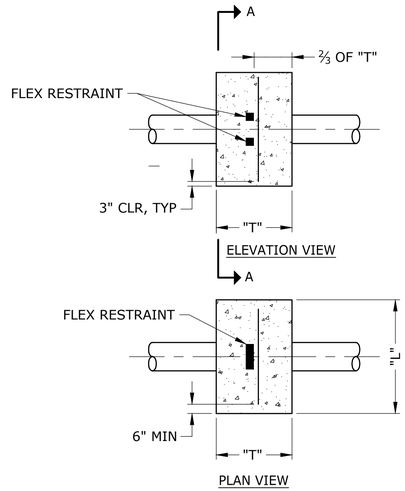
6. SAW CUT WILL BE 6" MIN OR TO LIMIT AS SHOWN ON PLANS. WITHIN CLALLAM COUNTY RIGHT OF WAY DISTRICT 3 SUPERVISOR OR SHOP FOREMAN WILL ASSESS ASPHALT TRENCH EDGE QUALITY AND IDENTIFY AREAS THAT NEED TO BE SAW CUT OUT PRIOR TO PATCHING. SPALLING, FRACTURING, OR CRACKING DUE TO CONSTRUCTION WILL NOT BE ACCEPTED.

TYPICAL TRENCH SECTION

SCALE: NTS

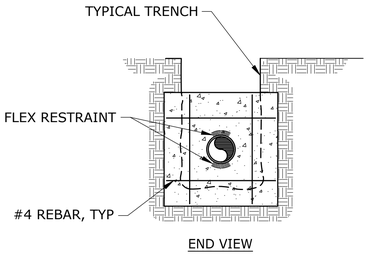
1
-

IN-LINE DEADMAN BLOCKING



SIZING TABLE					MIN BLOCK LENGTH (L)						
					SOIL CONDITIONS						
PIPE DIA	T (MIN)	H (MIN)	SHACKLE RODS		PIPE DIA	SOFT CLAY	SILT	SANDY SILT	SAND	SANDY CLAY	HARDY CLAY
6"	18"	30"	(4)#5 ($\frac{5}{8}$"Ø)		6"	30"	30"	30"	30"	30"	30"
BLOCK SIZES GOOD TO 300 PSI TEST PRESSURE											

NOTES:
· THIS STANDARD DETAIL IS FOR DEADMAN BLOCKING ONLY.
· CONCRETE BLOCK SHALL BE PER APWA SPECIFICATIONS 7-11.3(13) 1988.
· MAINTAIN 18 INCH MINIMUM COVER OVER THE TOP OF BLOCK.
· BOTTOM OF BLOCK IS TO BE UNDISTURBED SOIL.
· TRENCH TO BE BACKFILLED WITH CRUSHED ROCK COMPACTED TO 95% DENSITY ON ALL SIDES OF BLOCK AND A DISTANCE OF 4'-0" MINIMUM IN FRONT OF BLOCK AND FULL DEPTH OF BLOCK OR TO UNDISTURBED EARTH, WHICHEVER IS LESS.



END VIEW

SIZING TABLE					MIN BLOCK LENGTH (L)						
					SOIL CONDITIONS						
PIPE DIA	T (MIN)	H (MIN)	SHACKLE RODS		PIPE DIA	SOFT CLAY	SILT	SANDY SILT	SAND	SANDY CLAY	HARDY CLAY
6"	18"	30"	(4)#5 ($\frac{5}{8}$"Ø)		6"	30"	30"	30"	30"	30"	30"
BLOCK SIZES GOOD TO 300 PSI TEST PRESSURE											

NOTES:
· THIS STANDARD DETAIL IS FOR DEADMAN BLOCKING ONLY.
· CONCRETE BLOCK SHALL BE PER APWA SPECIFICATIONS 7-11.3(13) 1988.
· MAINTAIN 18 INCH MINIMUM COVER OVER THE TOP OF BLOCK.
· BOTTOM OF BLOCK IS TO BE UNDISTURBED SOIL.
· TRENCH TO BE BACKFILLED WITH CRUSHED ROCK COMPACTED TO 95% DENSITY ON ALL SIDES OF BLOCK AND A DISTANCE OF 4'-0" MINIMUM IN FRONT OF BLOCK AND FULL DEPTH OF BLOCK.

WATER MAIN CONCRETE BLOCKING DEADMAN THRUST BLOCKING

SCALE: NTS

2
-

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
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MCD DESIGNED
EJJ DRAWN
JAM CHECKED

TON MINER — STATE OF WASHINGTON — 20106449 REGISTERED PROFESSIONAL ENGINEER
4/26/2022

murraysmith

CLALLAM COUNTY PUD — Bringing Energy To Life™

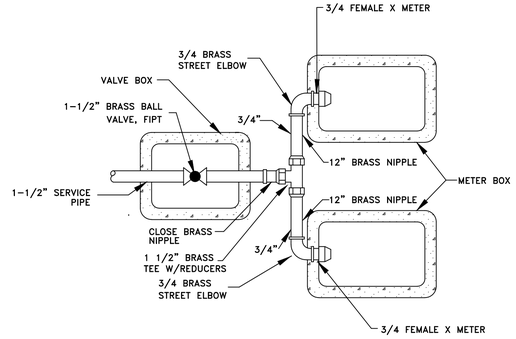
CLALLAM BAY SEKIU WATER MAIN UPGRADES

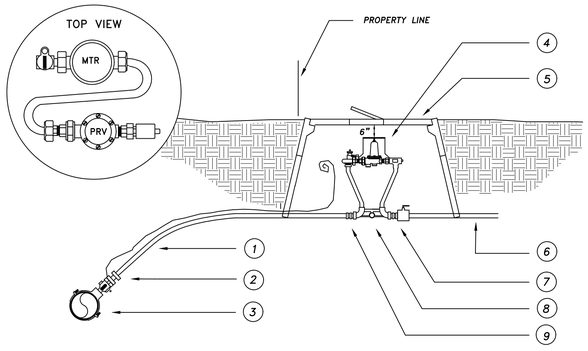
MISCELLANEOUS DETAILS 1

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

SHEET D-1

K:\TAC_Projects\20\2926 - Clallam Bay Sekiu Water Main Upgrades\CAD\Sheets\20-2926-WA-DET.dwg D-1 4/15/2022 10:11 AM BRENT.BUTTERFIELD 23.0s (LMS Tech)

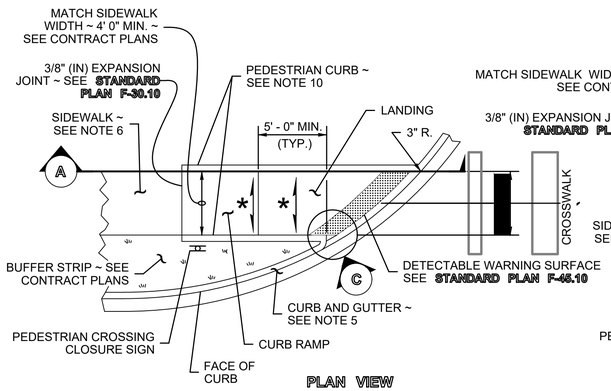




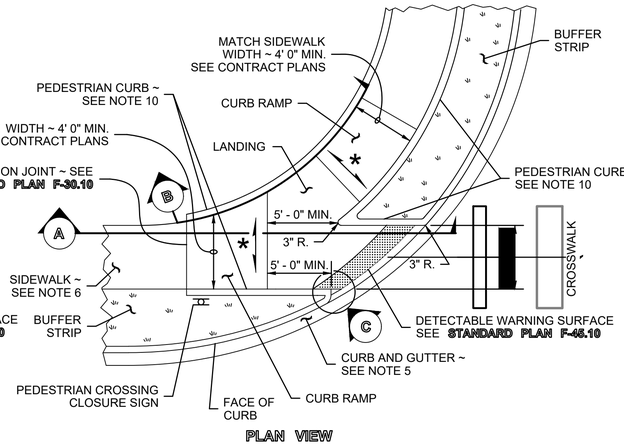
1. *SERVICE PIPE, 200 PSI (MIN.), COLD FLARE TYPE (EQUAL TO DRISCO PIPE 5100 CTS), WITH LOCATE WIRE (#10 STRANDED)*
2. *1-1/2" BRASS CORP STOP MIPT (EQUAL TO TO A.Y. McDONALD #73131), POSITION OPERATING LEVER ON THE SIDE;*
3. *WATER MAIN WITH 1-1/2" DOUBLE-STRAP SERVICE SADDLE, IPT, TAP SIZED AS REQUIRED (EQUAL TO ROMAC #202N-H), INSTALLED AT 45° ANGLE*
4. TANDEM COPPER SETTER (EQUAL TO A.Y. McDONALD #7502120AMM33) 5/8" x 3/4" M25 BADGER METER WITH ITRON 100W ERT, IN CUBIC FEET; AND 3/4" PRESSURE REDUCING VALVE, WATTS LF25AUB-Z3, WITH UNION END
5. *REINFORCED 1" PLASTIC METER BOX WITH READER STYLE LID (EQUAL TO CARSON INDUSTRIES #1220-12) AND EXTENSION (EQUAL TO CARSON INDUSTRIES #1220-6X)*
6. *3/4" x 12" BRASS NIPPLE, MIPT*
7. *3/4" BRASS BALL VALVE, IPT (EQUAL TO WATTS 600 SERIES)*
8. *STAKE THROUGH CENTER HOLE OF SETTER FOR STABILITY*
9. *1" ADAPTER, PACK-JOINTxMIPT, (A.Y. McDONALD 74753-22) 1" x 3/4" BELL REDUCER, IPT*

NOTES: PRESSURE REDUCING VALVE REQUIRED, UNLESS OTHERWISE DIRECTED BY DISTRICT.

DUAL WATER SERVICE (1 / -)
SCALE: NTS



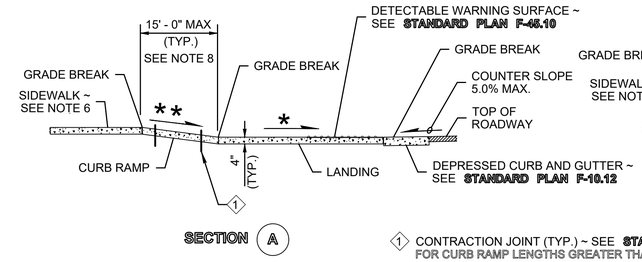
PLAN VIEW
TYPE SINGLE DIRECTION A



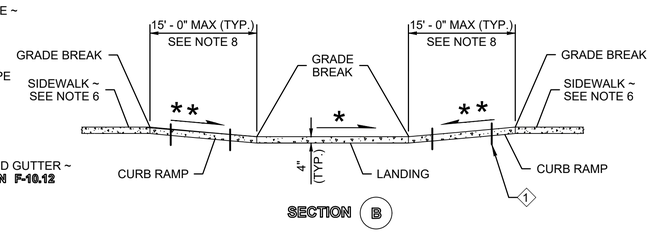
PLAN VIEW
TYPE SINGLE DIRECTION B

NOTES:

1. THIS PLAN IS TO BE USED WHERE PEDESTRIAN CROSSING IN ONE DIRECTION IS NOT PERMITTED.
2. AT MARKED CROSSWALKS, THE CONNECTION BETWEEN THE LANDING AND THE ROADWAY MUST BE CONTAINED WITHIN THE WIDTH OF THE CROSSWALK MARKINGS.
3. WHERE "GRADE BREAK" IS CALLED OUT, THE ENTIRE LENGTH OF THE GRADE BREAK BETWEEN THE TWO ADJACENT SURFACE PLANES SHALL BE FLUSH.
4. DO NOT PLACE GRATINGS, JUNCTION BOXES, ACCESS COVERS, OR OTHER APPURTENANCES ON ANY PART OF THE CURB RAMP OR LANDING OR IN THE DEPRESSED CURB AND GUTTER WHERE THE LANDING CONNECTS TO THE ROADWAY.
5. SEE CONTRACT PLANS FOR THE CURB DESIGN SPECIFIED. SEE STANDARD PLAN F-10.12 FOR CURB, CURB AND GUTTER, DEPRESSED CURB, GUTTER AND PEDESTRIAN CURB DETAILS.
6. SEE STANDARD PLAN F-30.10 FOR CEMENT CONCRETE SIDEWALK DETAILS. SEE CONTRACT PLANS FOR WIDTH AND PLACEMENT OF SIDEWALK.
7. THE BID ITEM "CEMENT CONCRETE CURB RAMP TYPE ___" DOES NOT INCLUDE THE ADJACENT CURB, CURB AND GUTTER, DEPRESSED CURB AND GUTTER, PEDESTRIAN CURB, OR SIDEWALKS.
8. THE CURB RAMP LENGTH IS NOT REQUIRED TO EXCEED 15 FEET (UNLESS SHOWN OTHERWISE IN THE CONTRACT PLANS). WHEN APPLYING THE 15-FOOT MAX. LENGTH (MEASURED FROM BACK OF SIDEWALK) THE RUNNING SLOPE OF THE CURB RAMP IS ALLOWED TO EXCEED 8.3%, USE A SINGLE CONSTANT SLOPE FROM BOTTOM OF RAMP TO TOP OF RAMP TO MATCH INTO THE SIDEWALK OVER A HORIZONTAL DISTANCE OF 15 FEET.
9. CURB RAMPS AND LANDINGS SHALL RECEIVE A BROOM FINISH. SEE STANDARD SPECIFICATIONS 8-14.
10. PEDESTRIAN CURB MAY BE OMITTED IF THE GROUND SURFACE AT THE BACK OF THE CURB RAMP AND/OR LANDING WILL BE AT THE SAME ELEVATION AS THE CURB RAMP OR LANDING AND THERE WILL NOT BE MATERIAL TO RETAIN.



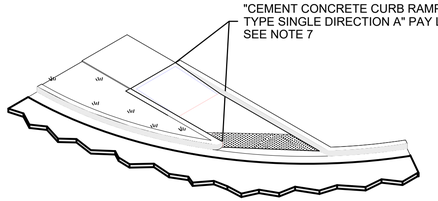
SECTION (A)



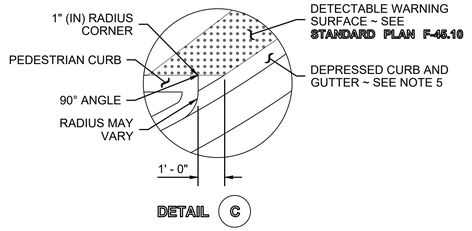
SECTION (B)

LEGEND
- SLOPE IN EITHER DIRECTION
- * 1.5 OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (2% MAX.)
- ** 7.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (8.3% MAX.) SEE NOTE 7

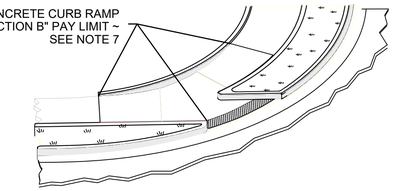
1 CONTRACTION JOINT (TYP.) ~ SEE **STANDARD PLAN F-30.10** (ALONG INSIDE RADIUS AT BACK OF WALKWAY)
FOR CURB RAMP LENGTHS GREATER THAN 8' - 0" PROVIDE CONTRACTION JOINT EQUALLY SPACED 4' - 0" MIN. OC.



ISOMETRIC VIEW
TYPE SINGLE DIRECTION A
PAY LIMIT



DETAIL (C)



ISOMETRIC VIEW
TYPE SINGLE DIRECTION B
PAY LIMIT

PERPENDICULAR CURB RAMP (2 / -)
SCALE: NTS

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

MCD DESIGNED
EJJ DRAWN
JAM CHECKED

TOM MINER — STATE OF WASHINGTON — 20108448 — REGISTERED PROFESSIONAL ENGINEER — 4/26/2022

murraysmith

CLALLAM COUNTY PUD — Bringing Energy To Life™

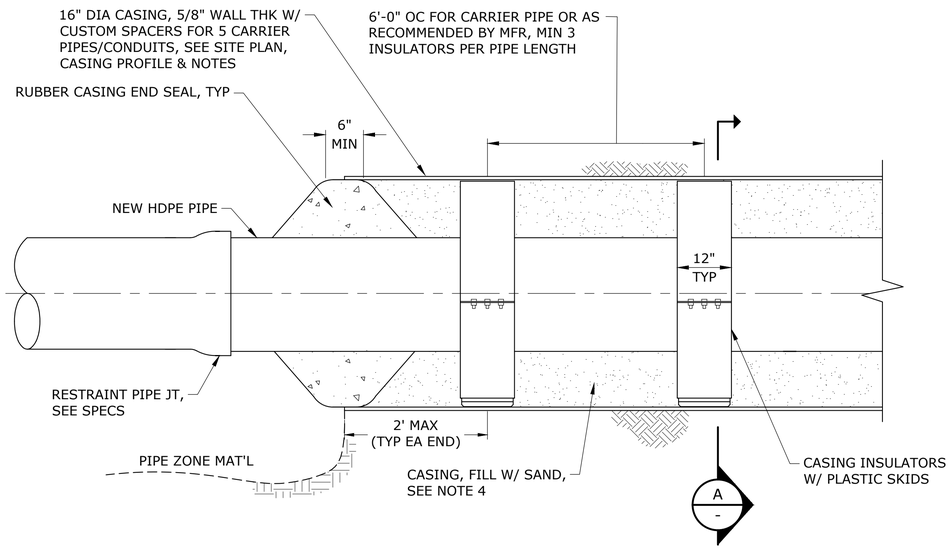
CLALLAM BAY SEKIU WATER MAIN UPGRADES

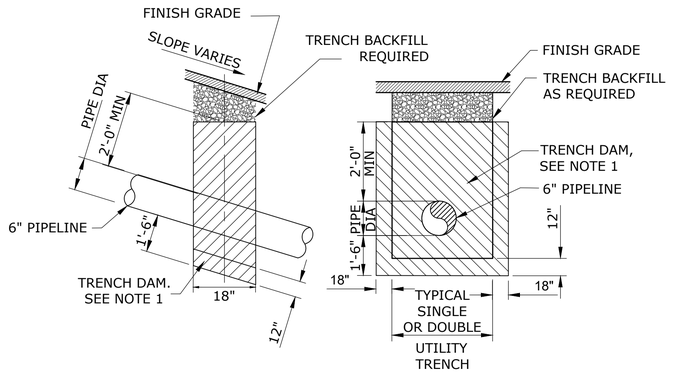
MISCELLANEOUS DETAILS 2

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

SHEET D-2

K:\TAC_Projects\20\2926 - Clallam Bay Sekiu Water Main Upgrades\CAD\Sheets\20-2926-WA-DET.dwg D-2 4/15/2022 10:11 AM BRENT.BUTTERFIELD 23.0s (LMS Tech)





NOTES:

1. CONSTRUCT TRENCH DAMS WITH BENTONITE, DO NOT USE TOPSOIL FOR FILLING BENTONITE.

2. TRENCH DAMS SHALL BE INSTALLED IN PIPELINE TRENCH ON SLOPED GRADES. APPROX LOCATION OF TRENCH DAMS ARE SHOWN ON PLAN SHEETS. COORDINATE EXACT LOCATION W/ FIELD ENGINEER.

TYPICAL TRENCH DAM
SCALE: NTS

2
-

SECTION
SCALE: NTS

A
-

CASING NOTES:

1. 16" HDPE CASING OR 12" STEEL CASING, AS INDICATED ON PLANS.
2. PROVIDE 2" MINIMUM CLEARANCE BETWEEN CASING AND CARRIER PIPE BELLS AND APPURTENANCES.
3. CONTRACTOR TO VERIFY CASING SIZES PRIOR TO SIZING AND ORDERING CASING INSULATORS.
4. CASING SHALL BE FILLED WITH FINE CLEAN DRY SAND CAREFULLY AIR BLOWN IN SUCH A WAY AS TO ELIMINATE ANY VOIDS.
5. CARRIER PIPE INSTALLED WITHIN BORE PITS SHALL BE INSTALLED WITH THE SAME BEDDING AND BACKFILL REQUIREMENTS AS PIPELINES, SEE TYPICAL TRENCH SECTION, STANDARD DETAIL XX, SHEET D-XX.
6. SEE SPECIFICATIONS FOR EXTERNAL GROUTING REQUIREMENTS.
7. SEE SHEET W-31, W-32, W-33, W-34

CASING DETAIL
SCALE: NTS

1
-

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
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MCD DESIGNED
EJJ DRAWN
JAM CHECKED

TOM MINER STATE OF WASHINGTON 20106449 REGISTERED PROFESSIONAL ENGINEER
4/26/2022

murraysmith

CLALLAM COUNTY PUD Bringing Energy To Life™

CLALLAM BAY SEKIU WATER MAIN UPGRADES

MISCELLANEOUS DETAILS 3

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

SHEET D-3

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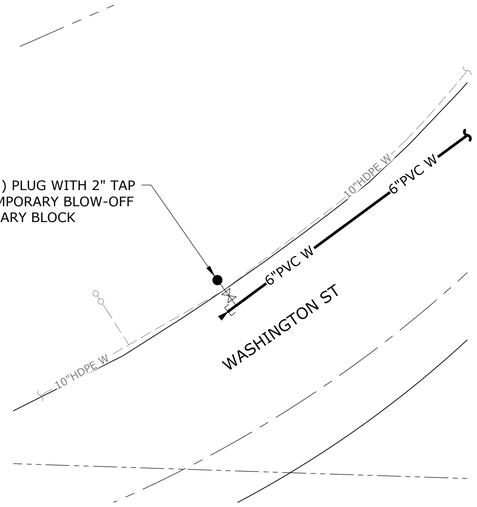

ANTICIPATED TESTING CONFIGURATION

NOTES:

1. TEMPORARY THRUST BLOCKS SHALL BE ECOLOGY BLOCK OR ENGINEER APPROVED EQUAL.

2. CONNECTION MAY REQUIRE MULTIPLE SHUTDOWNS. CONTRACTOR TO MAKE CONNECTION WITH MINIMUM NUMBER OF SHUTDOWNS NECESSARY.

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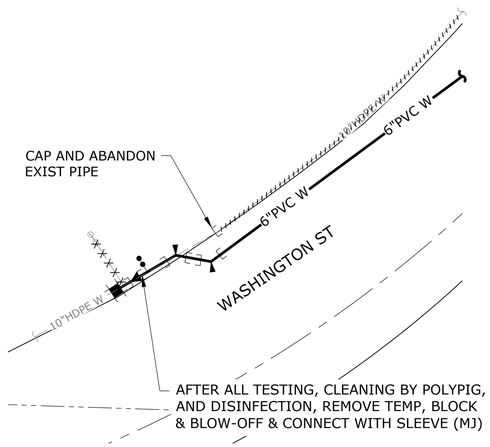


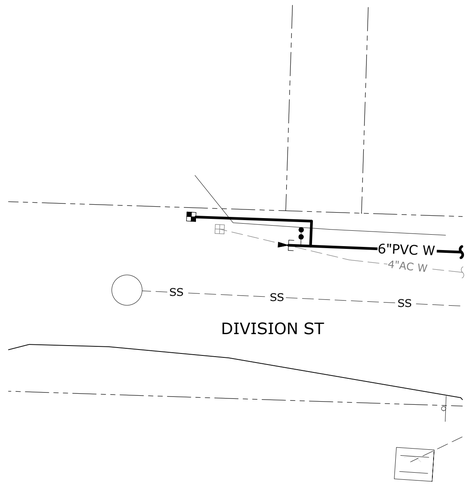
FINAL CONFIGURATION

CONNECTION DETAIL 1

SCALE: NTS

W-1

WASHINGTON ST



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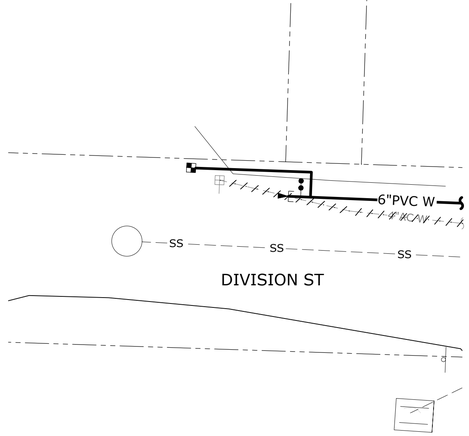


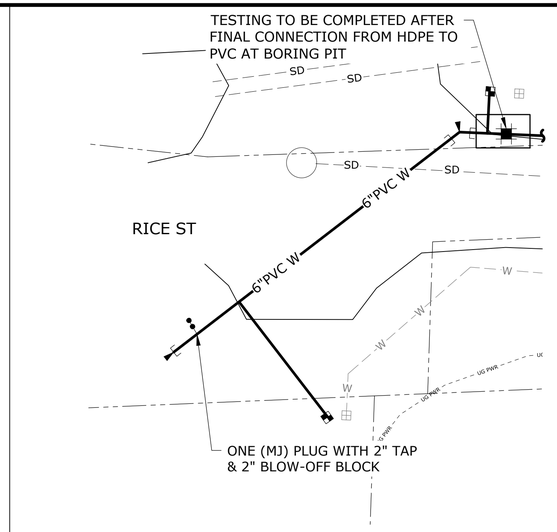
FINAL CONFIGURATION

CONNECTION DETAIL 2

SCALE: NTS

W-4

DIVISION ST



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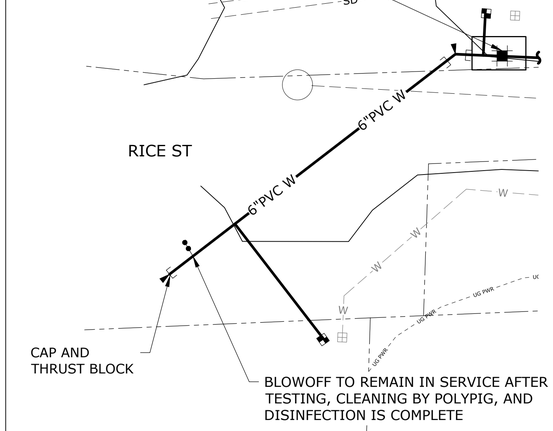


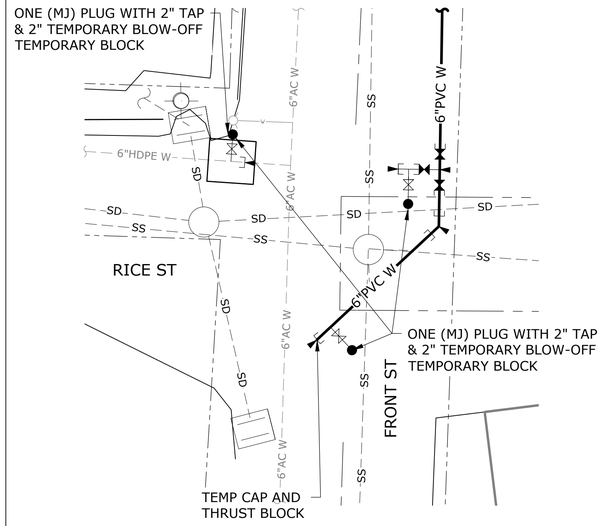
FINAL CONFIGURATION

CONNECTION DETAIL 3

SCALE: NTS

W-5

RICE ST



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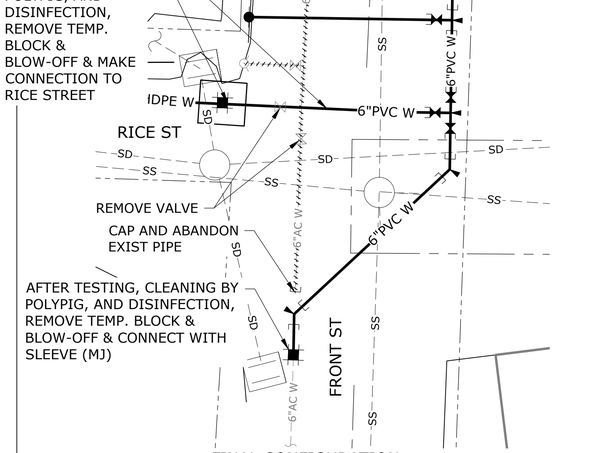


FINAL CONFIGURATION

CONNECTION DETAIL 4

SCALE: NTS

W-6

FRONT ST & RICE ST

NO.	DATE	BY	REVISION

NOTICE

0 ½ 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

MCD DESIGNED

EJJ DRAWN

JAM CHECKED

TOM MINER STATE OF WASHINGTON 20106449 REGISTERED PROFESSIONAL ENGINEER 4/26/2022

murraysmith

CLALLAM COUNTY PUD Bringing Energy To Life™

CLALLAM BAY SEKIU WATER MAIN UPGRADES

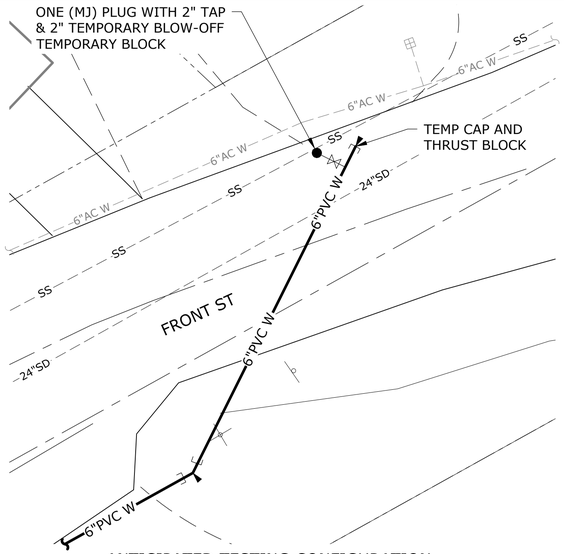
WATER CONNECTION DETAILS

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

SHEET W-100

47 of 56

K:\TAC_Projects\20\2926 - Clallam Bay Sekiu Water Main Upgrades\CAD\Sheets\20-2926-WA-WATER CONNECTION.dwg W-100 4/15/2022 9:56 AM BRENT.BUTTERFIELD 23.0s (LMS Tech)



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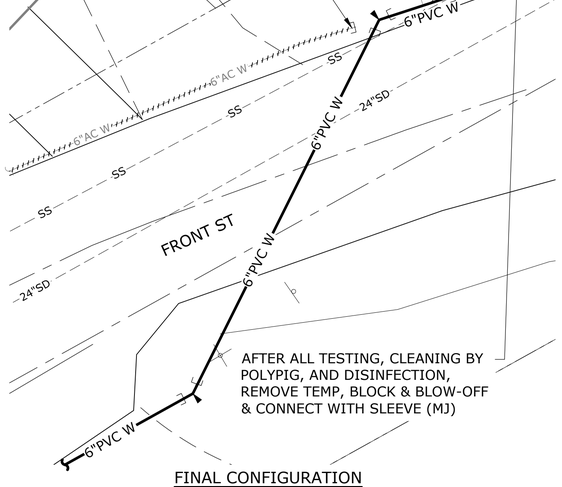
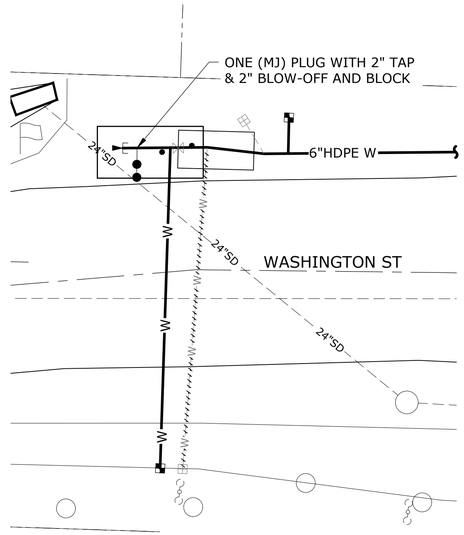


FINAL CONFIGURATION

CONNECTION DETAIL 1 (W-7)

SCALE: NTS

WASHINGTON ST AND FRONT ST



ANTICIPATED TESTING CONFIGURATION

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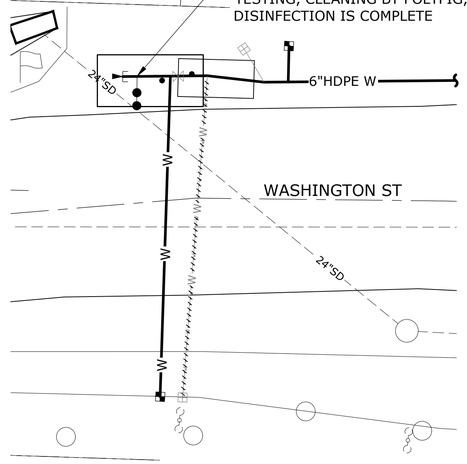
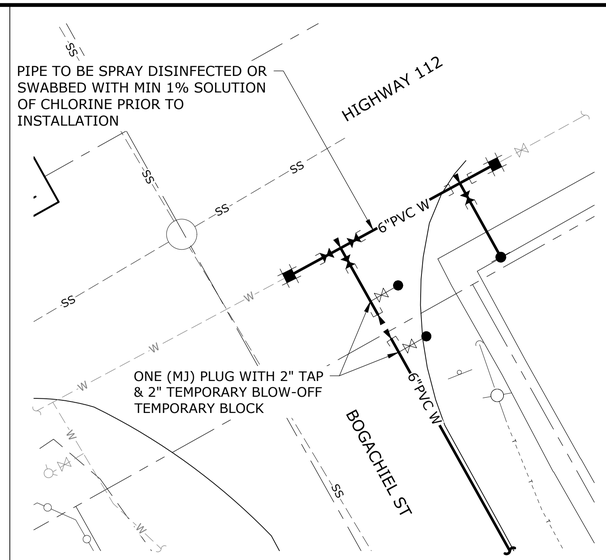


FINAL CONFIGURATION

CONNECTION DETAIL 2 (W-8)

SCALE: NTS

WASHINGTON ST



ANTICIPATED TESTING CONFIGURATION

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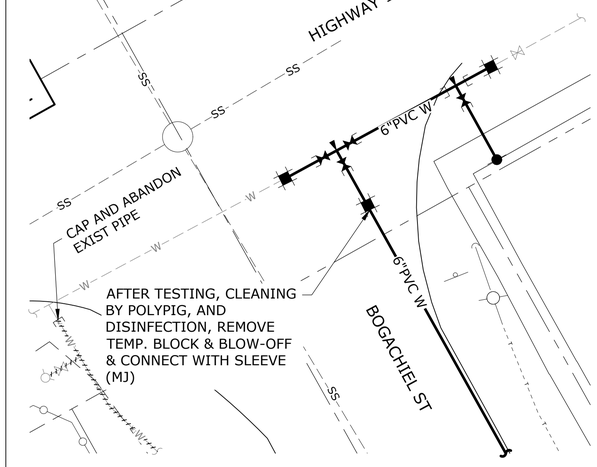
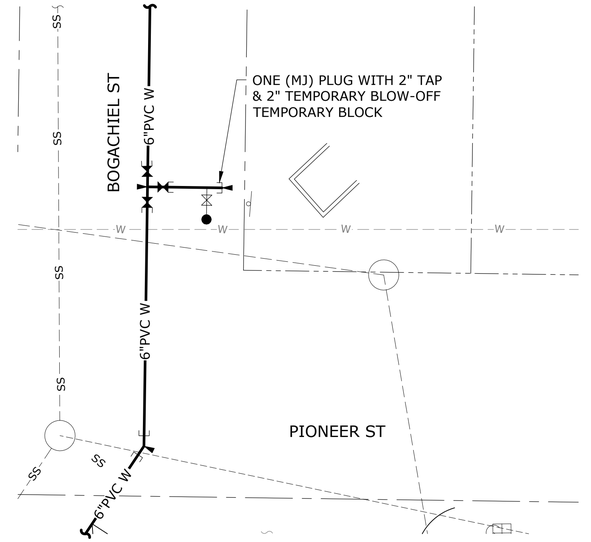


FINAL CONFIGURATION

CONNECTION DETAIL 3 (W-22)

SCALE: NTS

HIGWAY 112 & BOGACHIEL ST



ANTICIPATED TESTING CONFIGURATION

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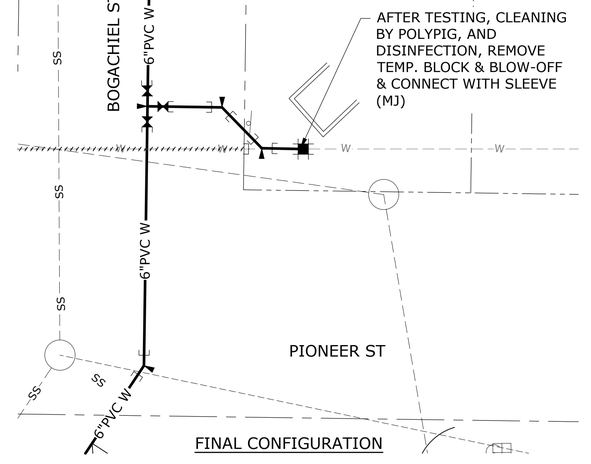


FINAL CONFIGURATION

CONNECTION DETAIL 4 (W-22)

SCALE: NTS

BOGACHIEL ST & PIONEER ST

NO.	DATE	BY	REVISION

NOTICE

0 ½ 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

MCD DESIGNED

EJJ DRAWN

JAM CHECKED

TON MINER — STATE OF WASHINGTON — 20106449 REGISTERED PROFESSIONAL ENGINEER — 4/26/2022

murraysmith

CLALLAM COUNTY PUD — Bringing Energy To Life™

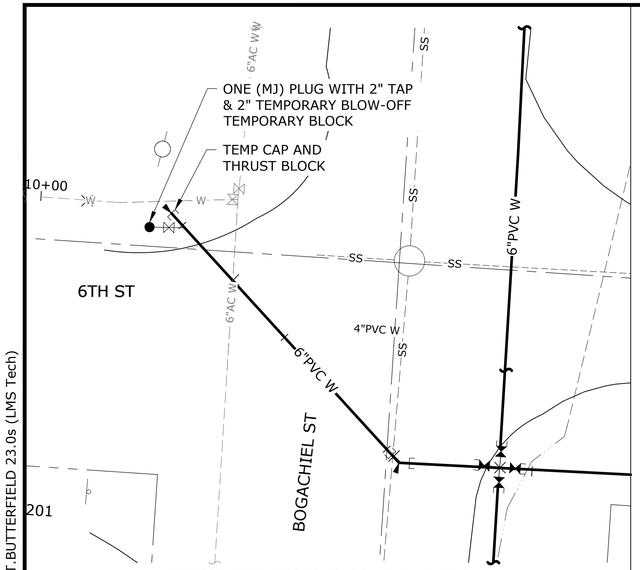
CLALLAM BAY SEKIU WATER MAIN UPGRADES

WATER CONNECTION DETAILS

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

SHEET W-101

K:\TAC_Projects\20\2926 - Clallam Bay Sekiu Water Main Upgrades\CAD\Sheets\20-2926-WA-WATER CONNECTION.dwg W-101 4/15/2022 9:56 AM BRENT.BUTTERFIELD 23.0s (LMS Tech)



ANTICIPATED TESTING CONFIGURATION

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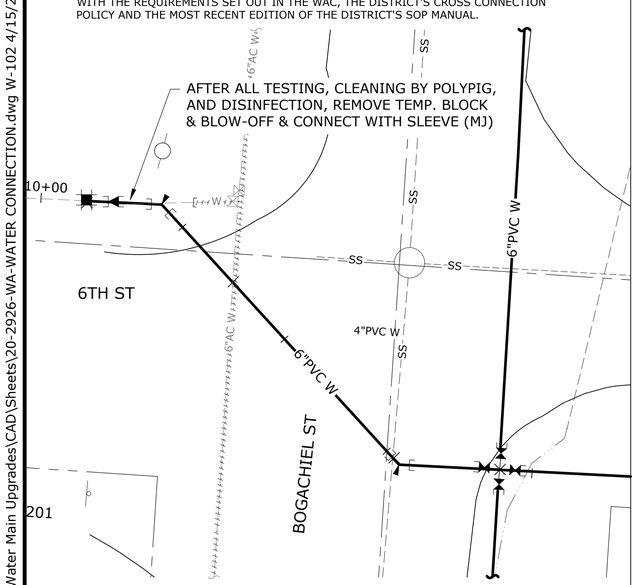
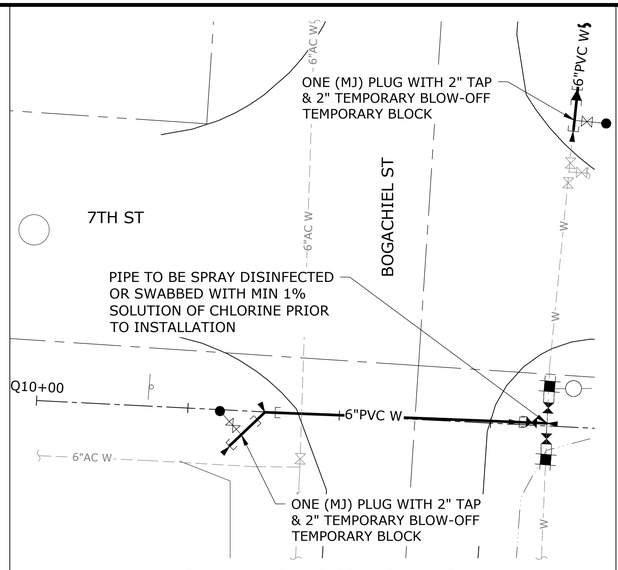


CONNECTION DETAIL 1 W-23

SCALE: NTS

BOGACHIEL ST & 6TH ST



ANTICIPATED TESTING CONFIGURATION

NOTES:

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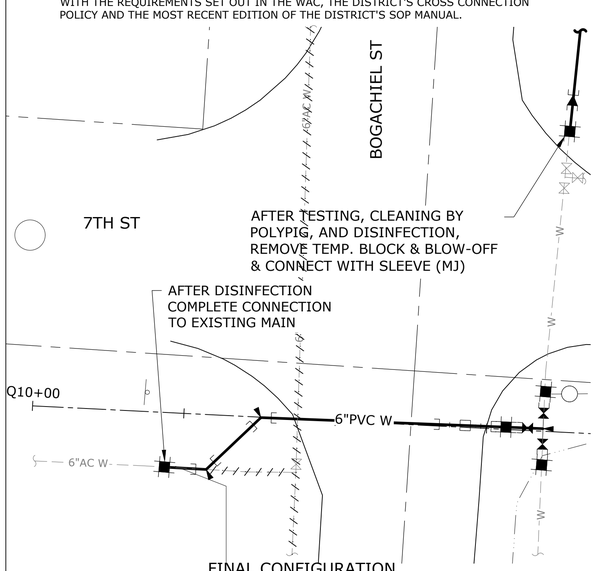

FINAL CONFIGURATION

CONNECTION DETAIL 2 W-23

SCALE: NTS

BOGACHIEL ST & 7TH ST

BOGACHIEL ST & 7TH ST PROFILE 3 W-23

SCALE: 1"=20' HORIZ, 1"=5' VERT

BOGACHIEL ST & 7TH ST

NO.	DATE	BY	REVISION

NOTICE

0 ½ 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

MCD DESIGNED

EJJ DRAWN

JAM CHECKED

JON MINER STATE OF WASHINGTON 20108448 REGISTERED PROFESSIONAL ENGINEER 4/26/2022

murraysmith

CLALLAM COUNTY PUD Bringing Energy To Life™

CLALLAM BAY SEKIU WATER MAIN UPGRADES

WATER CONNECTION DETAILS

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

SHEET W-102

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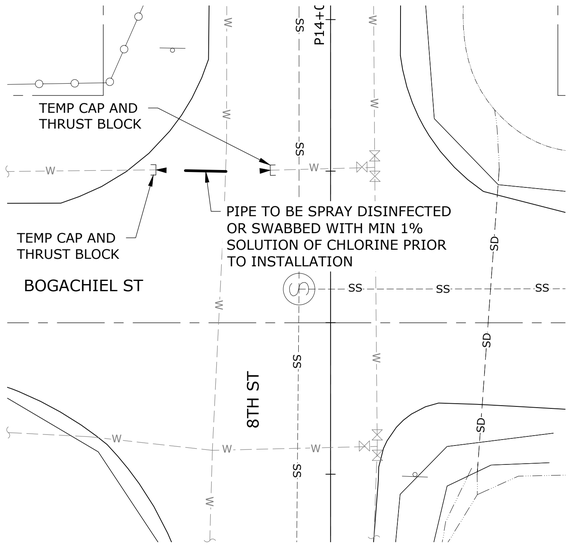
K:\TAC_Projects\20\2926 - Clallam Bay Sekiu Water Main Upgrades\CAD\Sheets\20-2926-WA-WATER CONNECTION.dwg W-102 4/15/2022 9:56 AM BRENT.BUTTERFIELD 23.0s (LMS Tech)



ANTICIPATED TESTING CONFIGURATION

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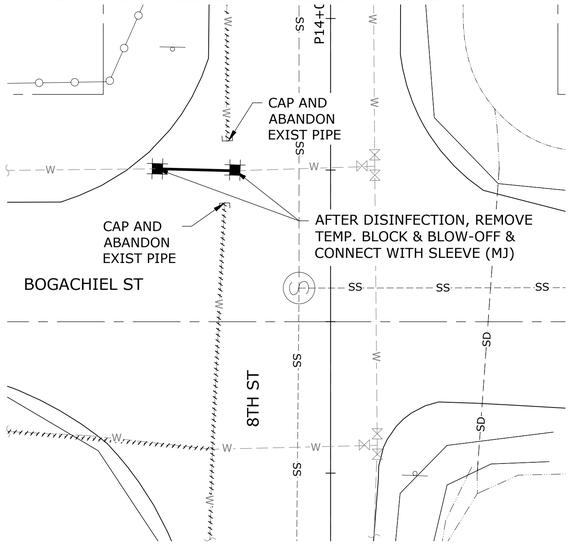
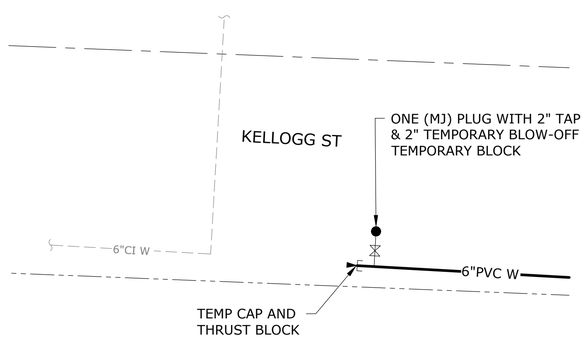


FINAL CONFIGURATION

CONNECTION DETAIL 1 (W-24)

SCALE: NTS

BOGACHIEL ST & 8TH ST



ANTICIPATED TESTING CONFIGURATION

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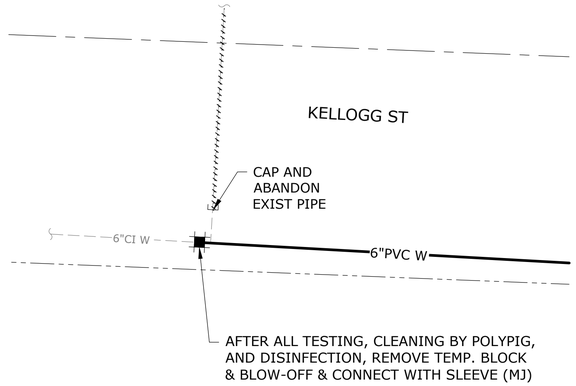
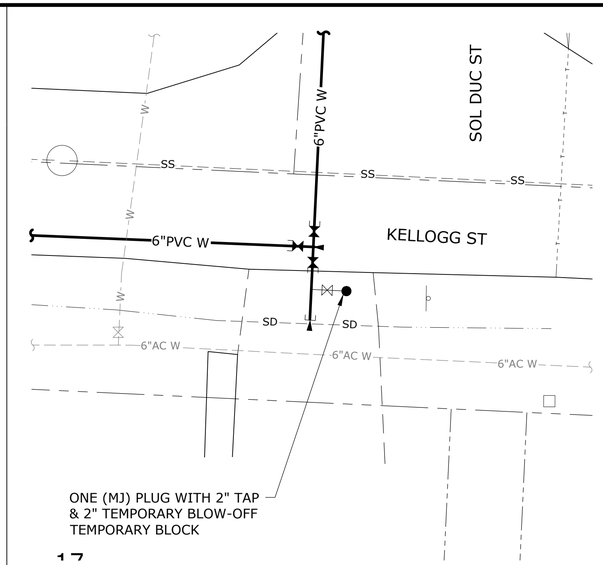


FINAL CONFIGURATION

CONNECTION DETAIL 2 (W-28)

SCALE: NTS

KELLOGG RD



ANTICIPATED TESTING CONFIGURATION

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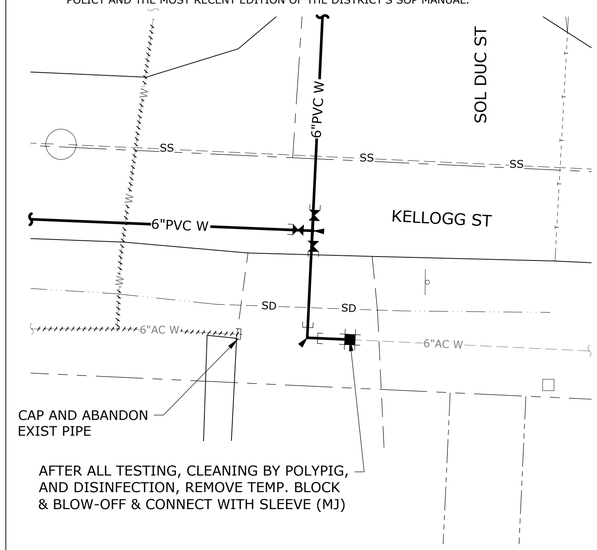

FINAL CONFIGURATION

CONNECTION DETAIL 3 (W-29)

SCALE: NTS

KELLOGG ST & SOL DUC ST

NO.	DATE	BY	REVISION

NOTICE

0 ½ 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

MCD DESIGNED

EJJ DRAWN

JAM CHECKED

TOM MINER — STATE OF WASHINGTON — 20106449 — REGISTERED PROFESSIONAL ENGINEER — 4/26/2022

murraysmith

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CLALLAM BAY SEKIU WATER MAIN UPGRADES

WATER CONNECTION DETAILS

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

SHEET W-103

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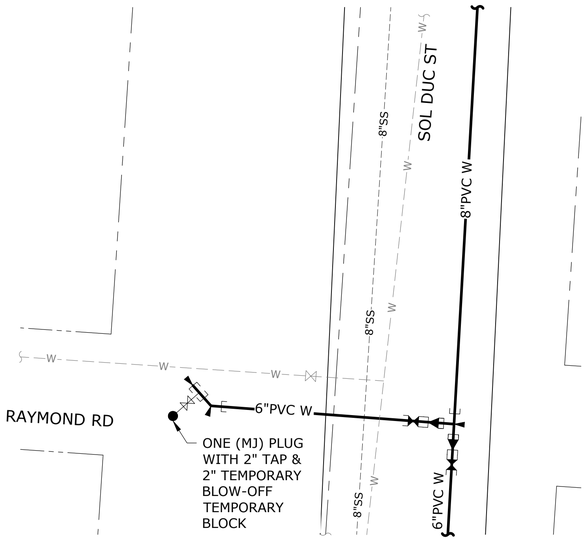
K:\TAC_Projects\20\2926 - Clallam Bay Sekiu Water Main Upgrades\CAD\Sheets\20-2926-WA-WATER CONNECTION.dwg W-103 4/15/2022 9:56 AM BRENT.BUTTERFIELD 23.0s (LMS Tech)



ANTICIPATED TESTING CONFIGURATION

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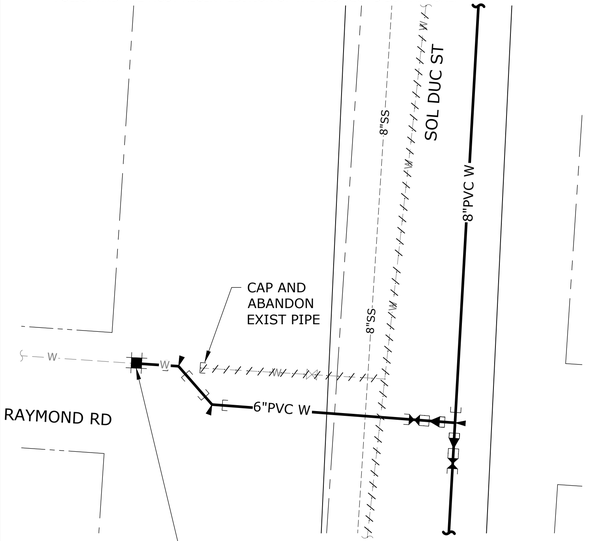
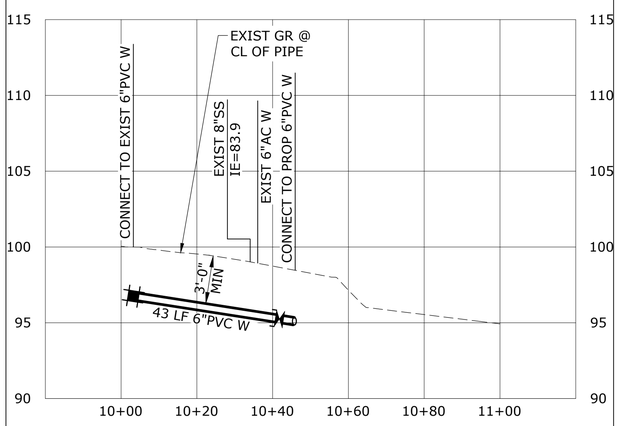


FINAL CONFIGURATION

CONNECTION DETAIL 1 W-30

SCALE: NTS

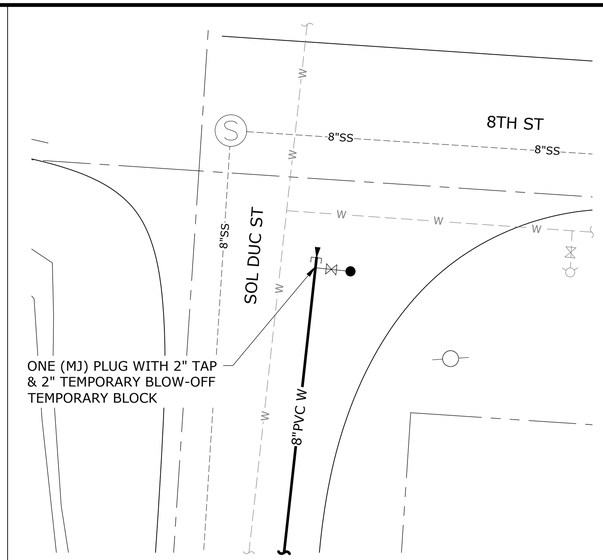
SOL DUC ST & RAYMOND RD



SOL DUC PROFILE 2 W-30

SCALE: 1"=20' HORIZ, 1"=5' VERT

SOL DUC ST & RAYMOND RD



ANTICIPATED TESTING CONFIGURATION

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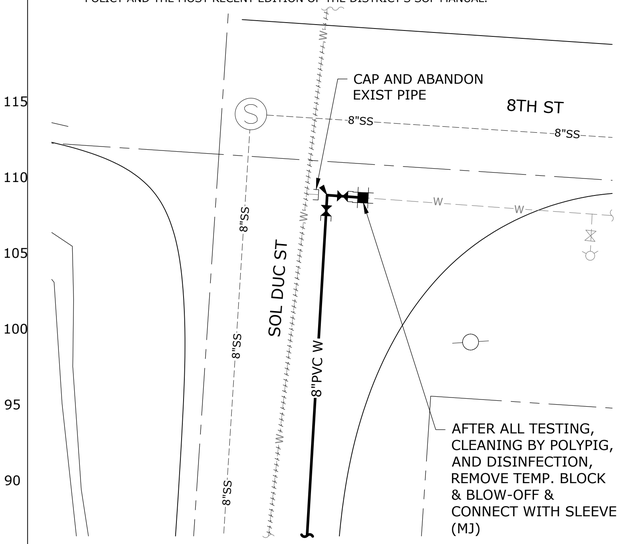
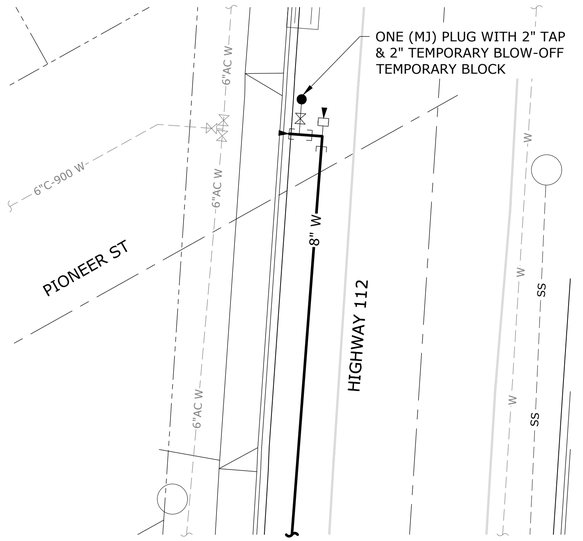


FINAL CONFIGURATION

CONNECTION DETAIL 3 W-30

SCALE: NTS

SOL DUC ST & 8TH ST



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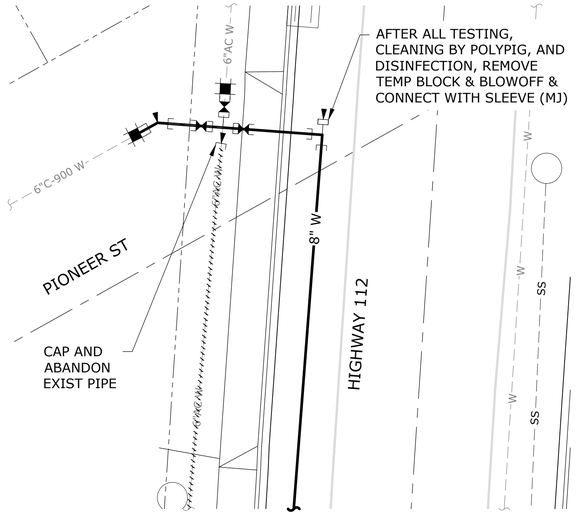

FINAL CONFIGURATION

CONNECTION DETAIL 4 W-31

SCALE: NTS

HIGHWAY 112 & PIONEER ST

NO.	DATE	BY	REVISION

NOTICE

0 ½ 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

MCD DESIGNED

EJJ DRAWN

JAM CHECKED

JON MINER — STATE OF WASHINGTON — 20106449 REGISTERED PROFESSIONAL ENGINEER — 4/26/2022

murraysmith

CLALLAM COUNTY PUD — Bringing Energy To Life™

CLALLAM BAY SEKIU WATER MAIN UPGRADES

WATER CONNECTION DETAILS

SHEET W-104

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

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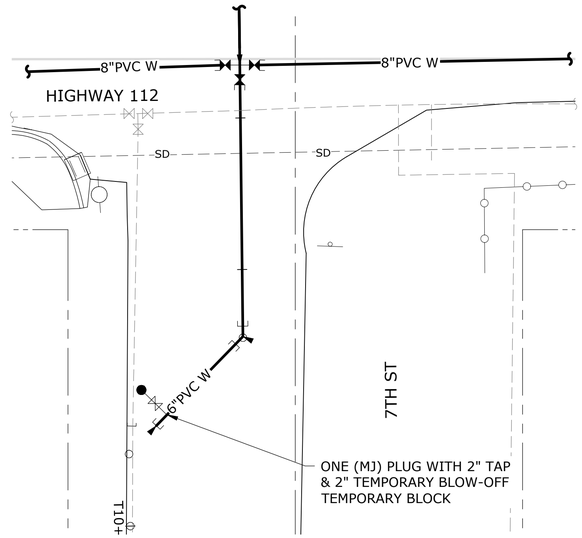
K:\TAC_Projects\20\2926 - Clallam Bay Sekiu Water Main Upgrades\CAD\Sheets\20-2926-WA-WATER CONNECTION.dwg W-104 4/15/2022 9:56 AM BRENT.BUTTERFIELD 23.0s (LMS Tech)



ANTICIPATED TESTING CONFIGURATION

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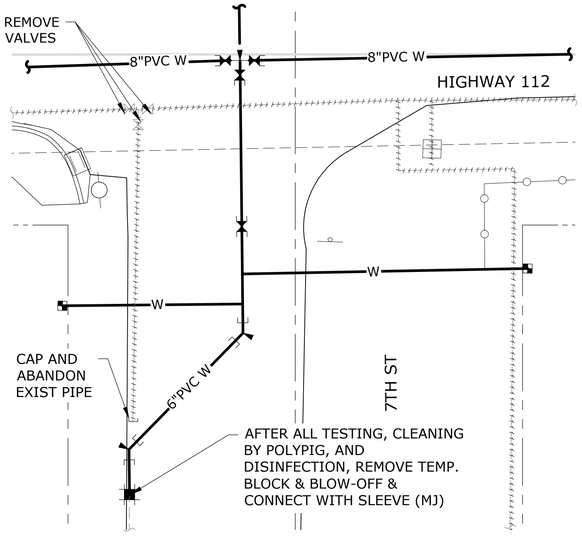


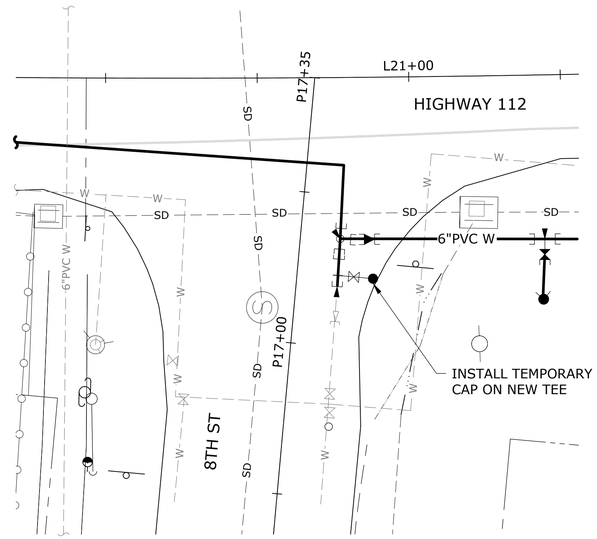
FINAL CONFIGURATION

CONNECTION DETAIL 1

SCALE: NTS

W-35

HIGHWAY 112 & 7TH ST



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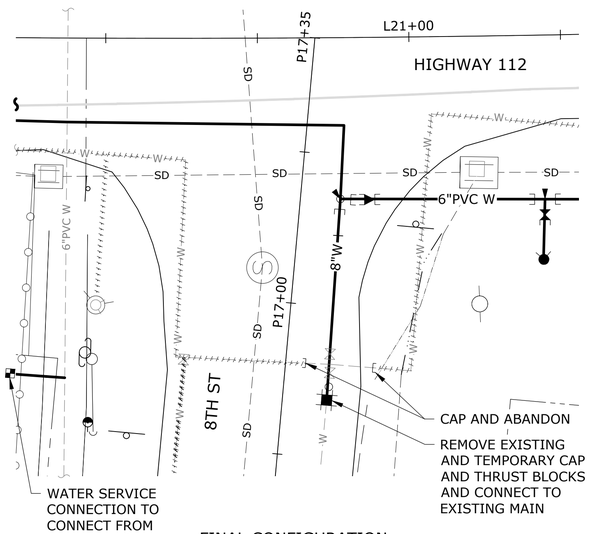

FINAL CONFIGURATION

CONNECTION DETAIL 2

SCALE: NTS

W-33

HIGHWAY 112 & 8TH ST

NO.	DATE	BY	REVISION

NOTICE

0 ½ 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

MCD DESIGNED

EJJ DRAWN

JAM CHECKED

4/26/2022

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CLALLAM COUNTY PUD — Bringing Energy To Life™

CLALLAM BAY SEKIU WATER MAIN UPGRADES

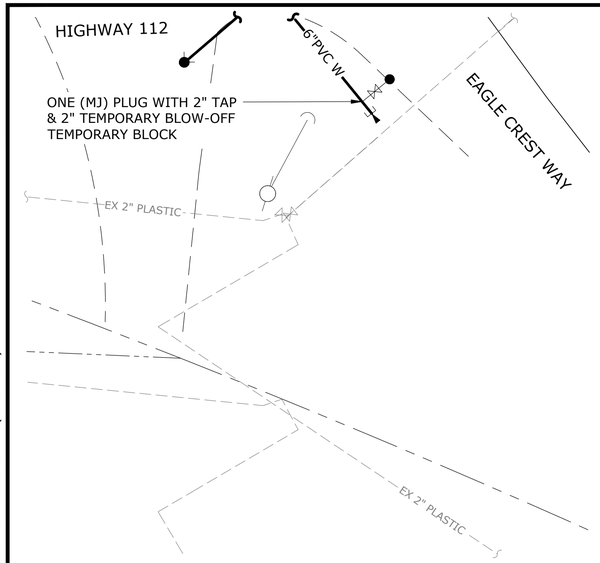
WATER CONNECTION DETAILS

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

SHEET W-105

52 of 56

K:\TAC_Projects\20\2926 - Clallam Bay Sekiu Water Main Upgrades\CAD\Sheets\20-2926-WA-WATER CONNECTION.dwg W-105 4/15/2022 9:56 AM BRENT.BUTTERFIELD 23.0s (LMS Tech)



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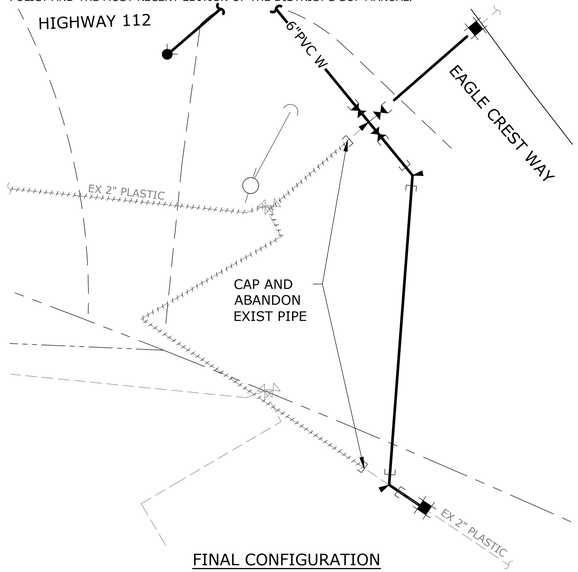


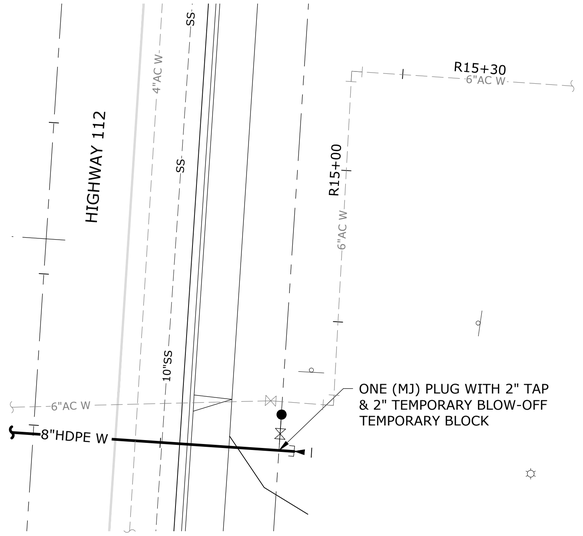
FINAL CONFIGURATION

CONNECTION DETAIL 1

SCALE: NTS

W-34

HIGHWAY 112 & EAGLE CREST WAY



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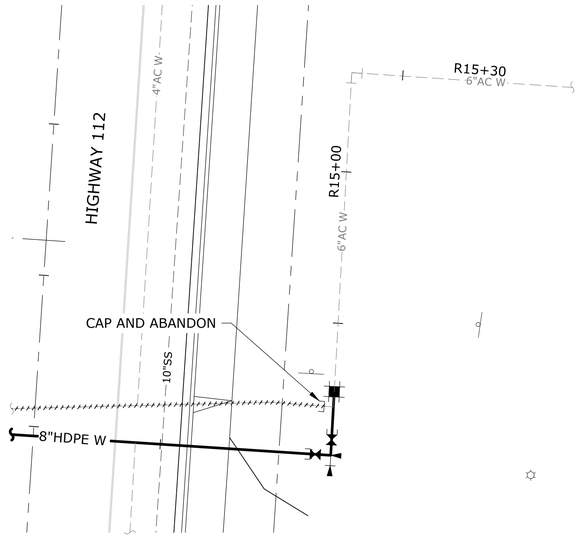

FINAL CONFIGURATION

CONNECTION DETAIL 2

SCALE: NTS

W-26

HIGHWAY 112 & 6TH ST

NO.	DATE	BY	REVISION

NOTICE

0 ½ 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

MCD DESIGNED

EJJ DRAWN

JAM CHECKED

JON MINER STATE OF WASHINGTON 20106449 REGISTERED PROFESSIONAL ENGINEER 4/26/2022

murraysmith

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CLALLAM BAY SEKIU WATER MAIN UPGRADES

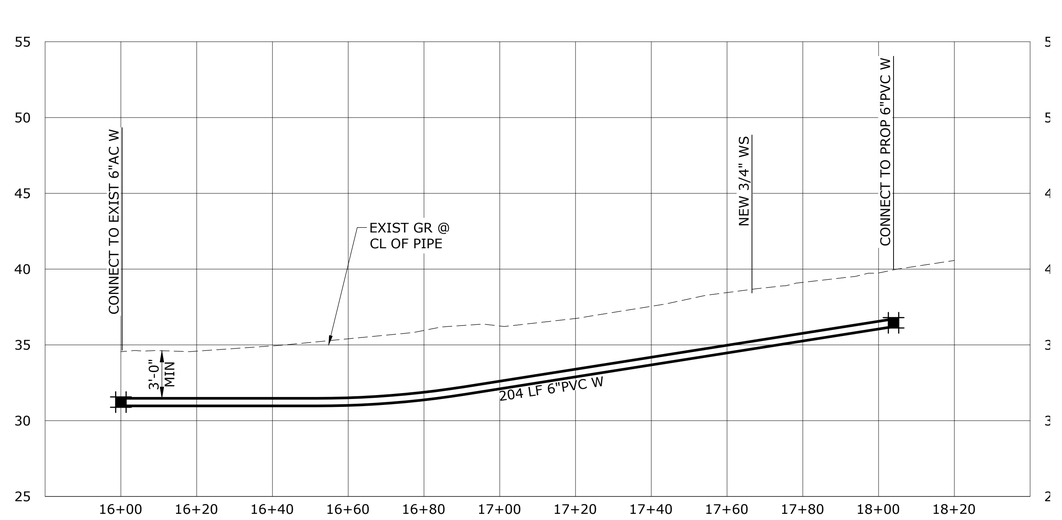
WATER CONNECTION DETAILS

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

SHEET W-106

53 of 56

K:\TAC_Projects\20\2926 - Clallam Bay Sekiu Water Main Upgrades\CAD\Sheets\20-2926-WA-WATER CONNECTION.dwg W-106 4/15/2022 9:56 AM BRENT.BUTTERFIELD 23.0s (LMS Tech)



HIGHWAY 112 PROFILE

SCALE: 1"=20' HORIZ, 1"=5' VERT

3
W-30

HIGHWAY 112

NO.	DATE	BY	REVISION

NOTICE

0 ½ 1

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MCD DESIGNED

EJJ DRAWN

JAM CHECKED

TOM MINER STATE OF WASHINGTON 20106449 REGISTERED PROFESSIONAL ENGINEER 4/26/2022

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CLALLAM BAY SEKIU WATER MAIN UPGRADES

WATER CONNECTION DETAILS

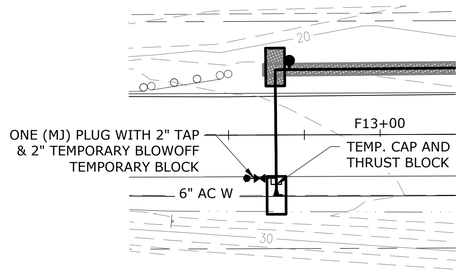
PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: APRIL 2022

SHEET

W-107

54 of 56

K:\TAC_Projects\20\2926 - Clallam Bay Sekiu Water Main Upgrades\CAD\Sheets\20-2926-WA-WATER CONNECTION.dwg W-107 4/15/2022 9:56 AM BRENT.BUTTERFIELD 23.0s (LMS Tech)



ANTICIPATED TESTING CONFIGURATION

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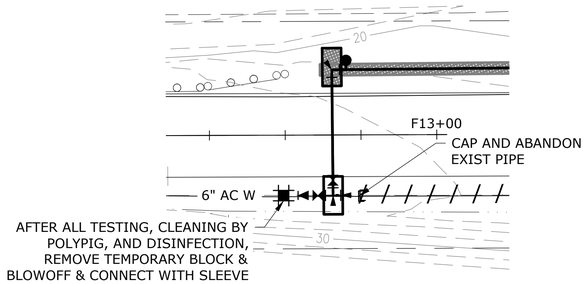
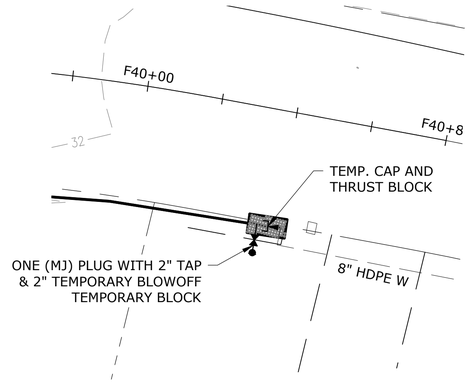


FINAL CONFIGURATION

1 / W-9 **CONNECTION DETAIL**

SCALE: NTS



ANTICIPATED TESTING CONFIGURATION

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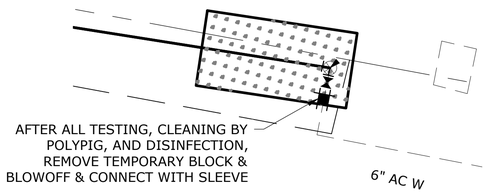
2. CONNECTION MAY REQUIRE MULTIPLE SHUTDOWNS. CONTRACTOR TO MAKE CONNECTION WITH MINIMUM NUMBER OF SHUTDOWNS NECESSARY.
3. BACKFLOW PREVENTION ASSEMBLIES SHALL BE TESTED AND REPAIRED IN ACCORDANCE WITH THE REQUIREMENTS SET OUT IN THE WAC, THE DISTRICT'S CROSS CONNECTION POLICY AND THE MOST RECENT EDITION OF THE DISTRICT'S SOP MANUAL



FINAL CONFIGURATION

2 / W-15 **CONNECTION DETAIL**

SCALE: NTS

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NO.	DATE	BY	REVISION

NOTICE

0 ½ 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

ZNS DESIGNED
ZNS DRAWN
ZNS CHECKED

ZACHARY N. SLATA — STATE OF WASHINGTON — 54958 — REGISTERED PROFESSIONAL ENGINEER
4/26/22

UNITED ENGINEERING, INC. EST. 2019

CLALLAM COUNTY PUD — Bringing Energy To Life™

CLALLAM BAY SEKIU WATER MAIN UPGRADES

WATER CONNECTION DETAILS

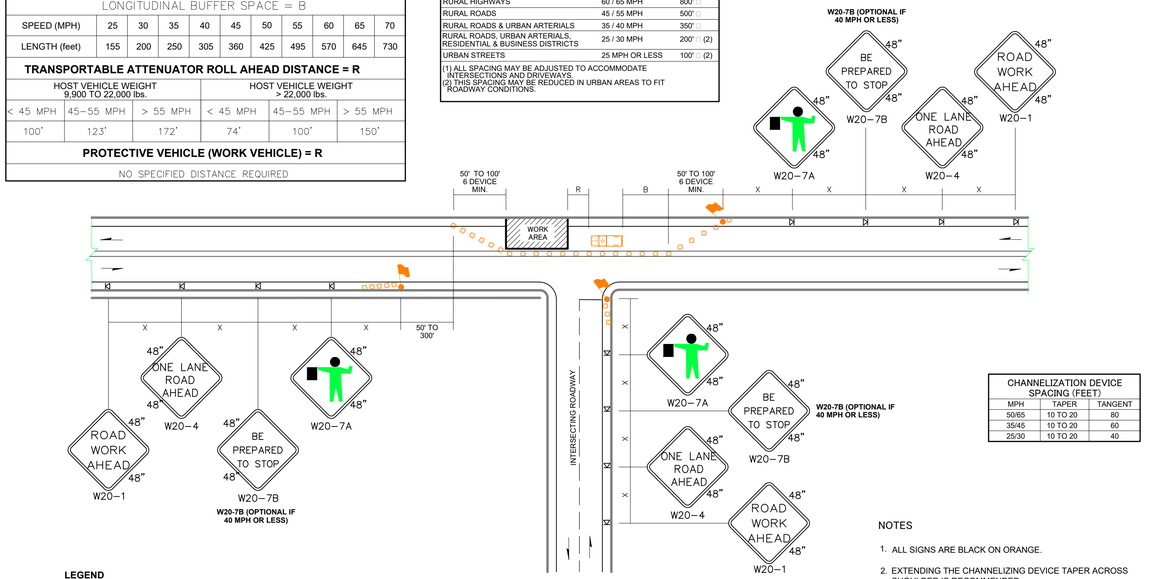
PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: FEBRUARY 2022

SHEET W-108

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, RESIDENTIAL & BUSINESS DISTRICTS	25 / 30 MPH	200' □ (2)
URBAN STREETS	25 MPH OR LESS	100' □ (2)

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE 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

LEGEND

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

ONE–LANE, TWO–WAY TRAFFIC CONTROL WITH FLAGGERS

NOT TO SCALE

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.

MINIMUM SHOULDER TAPER LENGTH = L/3 (feet)										
SHOULDER WIDTH (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
8'	-	-	-	-	120	130	150	160	170	190
10'	-	-	-	-	150	170	190	200	220	240

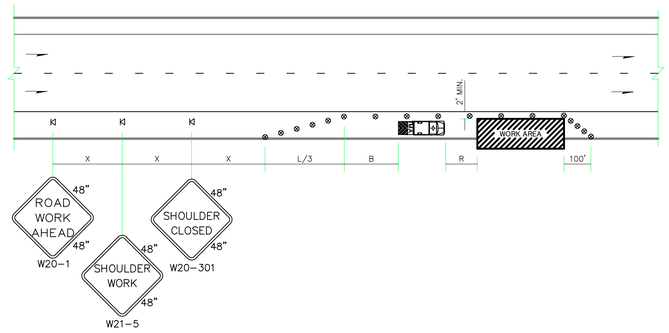
USE A MINIMUM 3 DEVICES TAPER FOR SHOULDER LESS THEN 8'.

SIGN SPACING = X (1)		
FREEWAYS & EXPRESSWAYS	55 / 70 MPH	1500' □
RURAL HIGHWAYS	60 / 65 MPH	800' □
RURAL ROADS	45 / 55 MPH	500' □

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMPS, AT-GRADE INTERSECTIONS AND DRIVEWAYS.

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

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'					



LEGEND

- TEMPORARY SIGN LOCATION
- TRAFFIC SAFETY DRUM
- TRANSPORTABLE ATTENUATOR

SHOULDER CLOSURE – HIGH SPEED

NOT TO SCALE

NOTES

1. NO ENCROACHMENT IN TRAVELED LANE. IF ENCROACHMENT IS NECESSARY, LANE SHALL BE CLOSED.
2. DEVICE SPACING FOR THE DOWNSTREAM TAPER SHALL BE 20' (FT) O.C.
3. ALL SIGNS ARE BLACK ON ORANGE.

SIGN SPACING = X (1)		
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)

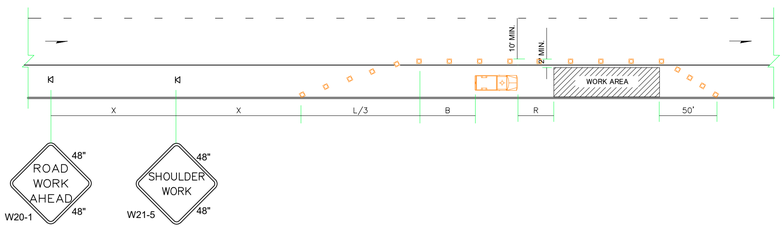
(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

MINIMUM SHOULDER TAPER LENGTH = L/3 (feet)										
SHOULDER WIDTH (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
8'	40	40	60	90	-	-	-	-	-	-
10'	40	60	90	90	-	-	-	-	-	-

USE A 3 DEVICES TAPER FOR SHOULDERS LESS THEN 8'

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										

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



LEGEND

- TEMPORARY SIGN LOCATION
- CHANNELIZING DEVICES
- PROTECTIVE VEHICLE

SHOULDER CLOSURE – LOW SPEED

(40 MPH OR LESS)

NOT TO SCALE

NOTES

1. DEVICE SPACING FOR THE DOWNSTREAM TAPER SHALL BE 20' (FT).
2. ALL SIGNS ARE BLACK ON ORANGE.

NO.	DATE	BY	REVISION

NOTICE

0 ½ 1

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ZNS DESIGNED
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ZNS CHECKED

ZACHARY N. SLUTA — STATE OF WASHINGTON — 54938 — REGISTERED PROFESSIONAL ENGINEER — 4/26/22

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TRAFFIC CONTROL DETAILS

PROJECT NO.: 20-2926 | SCALE: AS SHOWN | DATE: FEBRUARY 2022

SHEET T-1

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