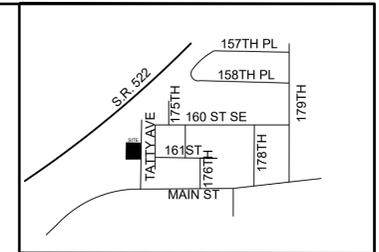
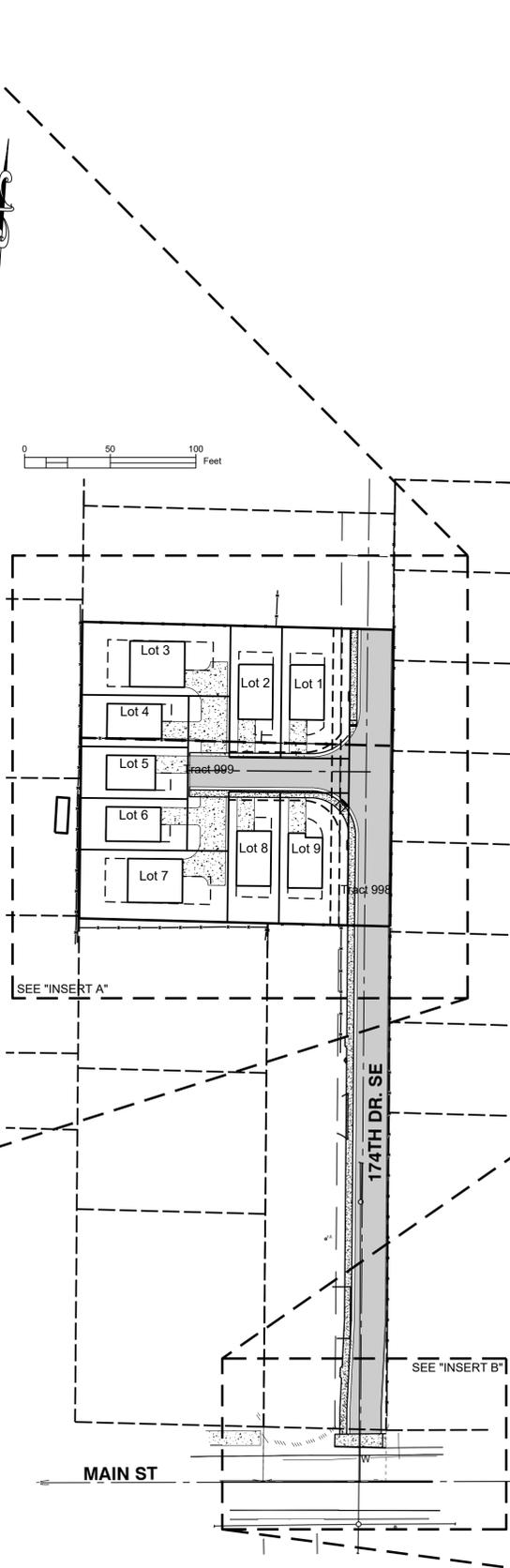
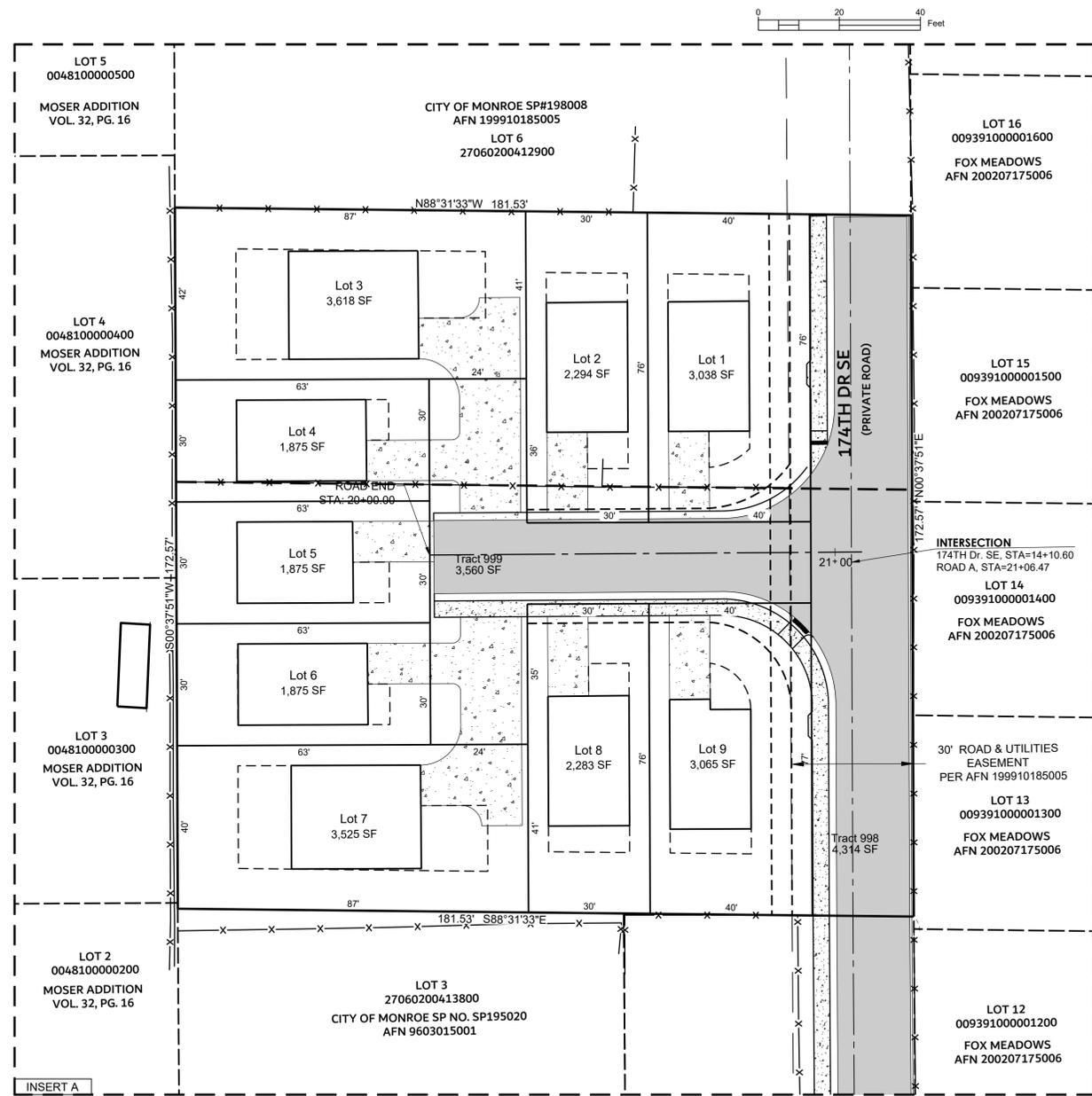


SECTION 02, TOWNSHIP 27 NORTH, RANGE 06 EAST, W.M.

CITY OF MONROE PONDEROSA PACIFIC



VICINITY MAP



SITE INFORMATION

TAX PARCEL	27060200413000
SITE ADDRESS	16052 174TH DR SE MONROE, WA 98272
TAX PARCEL	27060200412100
SITE ADDRESS	16096 174TH DR SE MONROE, WA 98272
ZONING	R-15, CITY
COMP PLAN	HIGH DENSITY SFR
USE CLASSIFICATION	SINGLE FAMILY RESIDENTIAL
PROPERTY SIZE (TOTAL)	31,323 SF (0.72 AC)
FRONTAGE AREA	9,000 SF (0.20 AC)
JURISDICTION	CITY OF MONROE
SEWER SERVICE	CITY OF MONROE
WATER SERVICE	CITY OF MONROE

LEGAL DESCRIPTION

PARCEL A:
LOT 2, CITY OF MONROE BOUNDARY LINE ADJUSTMENT# BA198003,
RECORDED UNDER AUDITORS FILE# 9904305001, BEING A PORTION OF
THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF
SECTION 2, TOWNSHIP 27 NORTH, RANGE 6 EAST, W.M. SNOHOMISH
COUNTY, WA

PARCEL B:
LOT 2, CITY OF MONROE BOUNDARY LINE ADJUSTMENT# 198008,
RECORDED UNDER AUDITORS FILE# 199910185005, BEING A PORTION
OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF
SECTION 2, TOWNSHIP 27 NORTH, RANGE 6 EAST, W.M. SNOHOMISH
COUNTY, WA

SHEET LIST

SHEET NO.	SHEET DESCRIPTION
C1.0	SITE PLAN
C2.0	DEMO AND SWPP PLAN
C2.1	DEMO AND SWPPP DETAILS
C3.0	174TH DR. SE ROAD PLAN, STORM, AND PROFILE
C3.1	ROAD A PLAN, STORM, AND PROFILE
C3.2	STORM DETAILS
C4.0	SEWER AND WATER PLAN AND PROFILE.
C4.1	SEWER PUMP DETAILS
C4.2	SEWER DETAILS
C5.0	FRONTAGE IMPROVEMENTS
C6.0	ROAD DETAILS

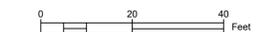
SITE CALCULATIONS

NEW IMPERVIOUS	16,385 SF
REPLACED IMPERVIOUS	7,148 SF
NEW + REPLACED IMPERVIOUS	23,533 SF
DISTURBANCE AREA	31,323 AC

GRADING QUANTITIES

CUT	400 CY's
FILL	150 CY's

SOILS NOT USED FOR BACKFILL WILL BE SPREAD OVER
LOTS ON SITE, OR HAULED TO A CITY APPROVED SITE.



**APPROVED
BY PLANNING**

Name: *d. Ban*
Date: *01/08/2026*

NOTES

- FOR FINAL PLAT MAP, LANGUAGE FOR MAINTENANCE FOR SIDEWALK AND CURB AND GUTTER EASEMENT SHOWN IS TO BE RESPONSIBILITY OF THE H.O.A., NOT THE PROPERTY OWNER.
- DEFERRED SUBMITTALS: THE FOLLOWING SYSTEMS ARE REQUIRED AND APPLICATIONS ARE DEFERRED. NO WORK ON THESE SYSTEMS MAY BEGIN UNTIL A PERMIT HAS BEEN ISSUED BY THE AHJ.
 - NFPA 13D AUTOMATIC FIRE SPRINKLER SYSTEM (SEPARATE SYSTEM PROTECTING EACH DWELLING UNIT)

CITY OF MONROE
DEPARTMENT OF BUILDING SAFETY

DATE *01/08/2026* BY *Ray Criswell*

NO CHANGES AUTHORIZED UNLESS
APPROVED BY THE BUILDING OFFICIAL
REVIEWED FOR CODE COMPLIANCE

These plans have been reviewed for compliance with the City of Monroe Public Works Design and Construction Standards and required conditions regarding water, sanitary sewer, storm water management, and streets only. Prior to beginning construction additional approvals may be required from other city departments or state or federal agencies.

x Approved Approved as corrected

The granting of this approval does not presume to give authority to violate or cancel the provisions of any law, conditions or regulation regarding this development activity or the performance of construction. Subject to field inspection and correction. No changes authorized unless approved by the City Engineer.

CITY OF MONROE ENGINEERING
By *J. G. G. G.* Date *12/04/2025*

REVISIONS

ENGINEERS
SURVEYORS

(425) 252-1884
(206) 343-5903

HARMSEN

2822 COLBY AVE., SUITE 300
EVERETT, WA 98201



PONDEROSA PACIFIC
16096 174TH DR SE
MONROE, WA 98272

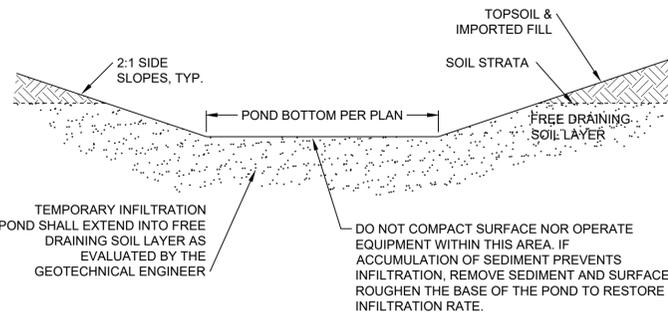
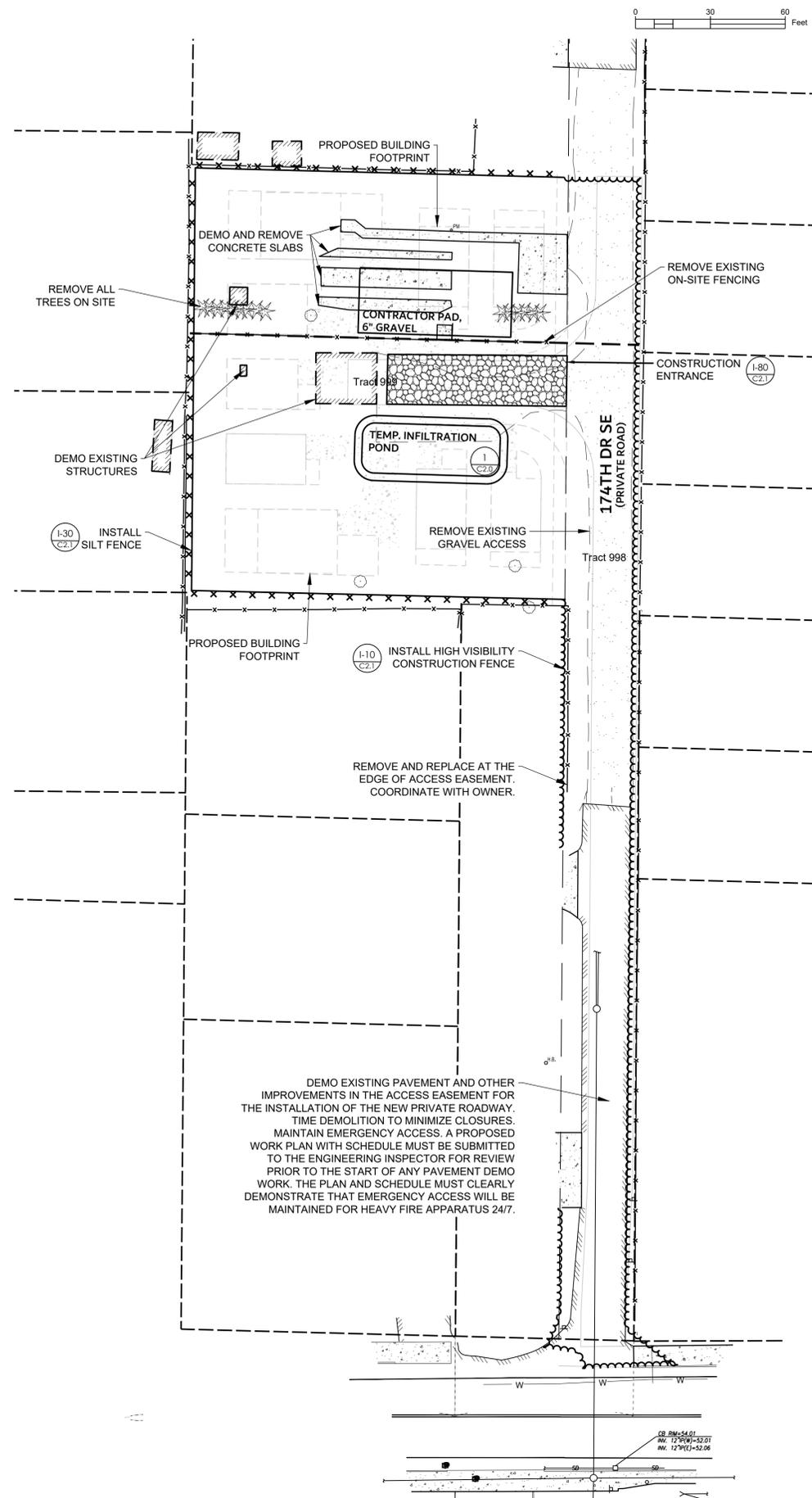
CONSTRUCTION DOCUMENTS
SITE PLAN

DATE: 11/26/2025
JOB #: 23-152

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C1.0

SECTION 02, TOWNSHIP 27 NORTH, RANGE 06 EAST, W.M.



1 TEMPORARY INFILTRATION POND
SCALE: NOT TO SCALE

GENERAL NOTES:

1. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF WASHINGTON STATE DEPARTMENT OF TRANSPORTATION/AMERICAN PUBLIC WORKS ASSOCIATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, AND THE CITY OF MONROE ENGINEERING STANDARDS.
2. ALL CONSTRUCTION IS SUBJECT TO THE INSPECTION BY THE CITY OF MONROE ENGINEERING INSPECTOR OR DESIGNATED REPRESENTATIVE.
3. PRIOR TO ANY CONSTRUCTION IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO OBTAIN ALL REQUIRED PERMITS AND SCHEDULE A PRECONSTRUCTION MEETING BY CONTACTING THE PUBLIC WORKS DEPARTMENT AT 360-863-4545. A ROW PERMIT IS REQUIRED PRIOR TO SCHEDULING THE PRECON.
4. APPROXIMATE LOCATIONS OF EXISTING UTILITIES HAVE BEEN OBTAINED FROM AVAILABLE RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADDITIONAL UTILITIES NOT SHOWN SO AS TO AVOID DAMAGE OR DISTURBANCE. CONTACT ONE-CALL (1-800-424-5555) FOR UTILITY LOCATIONS. THE OWNER OR HIS REPRESENTATIVE, AND THE CITY OF MONROE SHALL BE CONTACTED IMMEDIATELY IF A UTILITY CONFLICT EXISTS.
5. APPROVED COPIES OF THESE PLANS SHALL BE ON THE JOB WHENEVER CONSTRUCTION IS IN PROGRESS.
6. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND ENGINEER TO KEEP AS CONSTRUCTED INFORMATION DURING THE PROJECT. A MYLAR RECORD DRAWING MUST BE SUBMITTED TO THE CITY OF MONROE PRIOR TO FINAL ACCEPTANCE AND FINAL SHORT PLAT APPROVAL.
7. THE CONTRACTOR SHALL VERIFY THE LOCATION, WIDTHS, THICKNESSES, AND ELEVATIONS OF ALL EXISTING PAVEMENT AND STRUCTURES THAT ARE TO INTERFACE WITH NEW WORK. PROVIDE ALL TRIMMING, CUTTING, GRADING, LEVELING, SLOPING, COATING, AND OTHER WORK, INCLUDING MATERIALS AS NECESSARY, TO CAUSE THE INTERFACE WITH EXISTING WORKS TO BE ACCEPTABLE TO THE CITY ENGINEER.
8. ALL TRAFFIC CONTROL IN THE CITY OF MONROE RIGHT-OF-WAY AND THE ACCESS EASEMENT SHALL CONFORM TO THE MOST RECENT WASHINGTON STATE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
9. NOTE: THIS PROJECT MAY BE CONSTRUCTED IN PHASES. AREAS NOT UNDER CONSTRUCTION ARE TO EITHER REMAIN VEGETATED OR HYDROSEED TO MITIGATE EROSION AND SEDIMENTATION IMPACTS.
10. ALL UTILITIES SHALL BE INSTALLED UNDERGROUND. DROP LINES FOR ELECTRIC SERVICE ARE NOT PERMITTED. SNOHOMISH COUNTY PUD SHALL BE CONTACTED AND NOTIFIED IN WRITING OF THIS REQUIREMENT.
11. THE MAILBOX LOCATIONS ON SITE SHALL BE APPROVED BY THE POSTMASTER. PRIOR TO CLUSTER MAILBOX INSTALLATION, THE DEVELOPER SHALL PROVIDE THE CITY ENGINEERING INSPECTOR WITH A WRITTEN COPY OF THE APPROVAL.
12. CONTRACTORS SHALL MAINTAIN FOUR FEET OF CLEARANCE FROM ELECTRICAL VALVETS.
13. INSTALL TEN GAUGE INSULATED LOCATE WIRE ON ALL UNDERGROUND NON-METALLIC PIPE.

TEMPORARY EROSION & SEDIMENTATION CONTROL NOTES:

1. ALL TEMPORARY EROSION AND SEDIMENT CONTROL (TESC) MEASURES SHALL BE INSTALLED BY THE CONTRACTOR PRIOR TO ANY GRADING OR LAND CLEARING IN ACCORDANCE WITH THE APPROVED TESC PLAN. THESE FACILITIES MUST BE MAINTAINED DAILY UNTIL FINAL APPROVAL BY THE CITY INSPECTOR.
2. THE TESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE TESC FACILITIES SHALL BE UPGRADED (E.G. ADDITIONAL SUMPS, RELOCATION OF DITCHES AND SILT FENCES, ETC.) AS NEEDED FOR UNEXPECTED STORM EVENTS.
3. ALL VEHICLES LEAVING THE SITE ONTO 174TH ST. SE AND PUBLIC RIGHT-OF-WAY SHALL BE CLEANED TO PREVENT TRACKING OF MUD, DIRT, AND OTHER DEBRIS.
4. THE CONTRACTOR SHALL SWEEP STREETS BOTH PUBLIC AND PRIVATE AT LEAST DAILY OR MORE FREQUENTLY AS MAY BE NECESSARY AND SO DIRECTED BY THE CITY OF MONROE. DUST CONTROL ON SITE WILL BE REQUIRED.
5. INSTALL INLET PROTECTION AT DOWNSTREAM CATCH BASIN GRATES AND AT CATCHBASINS INSTALLED ON-SITE PER DETAIL 1/C2.0.
6. POLLUTED WATER MAY NOT BE PUMPED INTO THE CITY OR PRIVATE STORM SYSTEM.
7. ALL DISTURBED AREAS SUCH AS RETENTION FACILITIES, ROADWAY BACK-SLOPES, ETC. SHALL BE SEEDED WITH A PERENNIAL GROUND COVER TO MINIMIZE EROSION. GRASS SEEDING WILL BE DONE USING AN APPROVED HYDROSEEDER. IMMEDIATELY FOLLOWING FINISH GRADING, PERMANENT VEGETATION CONSISTING OF RAPID, PERSISTENT AND LEGUME WILL BE APPLIED AT A MINIMUM #80 PER ACRE. THIS IS TO INCLUDE THE FOLLOWING: 20% ANNUAL, PERENNIAL OR HYBRID RYE GRASS, 40% CREEPING RED FESCUE, 40% WHITE CLOVER. HYDROSEED REQUIRED.
8. ALL EROSION CONTROL ON SITE MUST COMPLY WITH THE DEPARTMENT OF ECOLOGY STORMWATER MANUAL FOR WESTERN WASHINGTON, 2019 EDITION.
9. EROSION AND SEDIMENTATION CONTROL DEVICES SHALL BE INSPECTED AT REGULAR INTERVALS FOR DAMAGE AND SEDIMENT ACCUMULATION. AT A MINIMUM, THE FACILITIES SHALL BE INSPECTED WEEKLY AND IMMEDIATELY AFTER ANY RUNOFF PRODUCING RAIN EVENT. INSPECTIONS SHALL TAKE PLACE AT THE END OF EACH WORK WEEK AND ANY NEEDED REPAIRS OR MAINTENANCE SHALL BE COMPLETED BEFORE THE JOB IS SHUT DOWN FOR THE WEEKEND. INSPECTIONS SHALL CONTINUE AT THESE INTERVALS DURING PERIODS OF WORK STOPPAGES OR UNTIL PERMANENT VEGETATION IS ESTABLISHED.
10. CONTRACTOR SHALL REMOVE EROSION AND SEDIMENTATION CONTROL DEVICES WHEN CONSTRUCTION IS COMPLETE.
11. FROM OCTOBER 1 TO APRIL 30, EXPOSED SOILS TO BE LEFT UNWORKED FOR MORE THAN 2 DAYS SHALL BE STABILIZED. OTHERWISE SOILS TO BE LEFT UNWORKED FOR 7 DAYS SHALL BE STABILIZED.

DEMO EXISTING PAVEMENT AND OTHER IMPROVEMENTS IN THE ACCESS EASEMENT FOR THE INSTALLATION OF THE NEW PRIVATE ROADWAY. TIME DEMOLITION TO MINIMIZE CLOSURES. MAINTAIN EMERGENCY ACCESS. A PROPOSED WORK PLAN WITH SCHEDULE MUST BE SUBMITTED TO THE ENGINEERING INSPECTOR FOR REVIEW PRIOR TO THE START OF ANY PAVEMENT DEMO WORK. THE PLAN AND SCHEDULE MUST CLEARLY DEMONSTRATE THAT EMERGENCY ACCESS WILL BE MAINTAINED FOR HEAVY FIRE APPARATUS 24/7.

2/21/25 REVISED PER CITY OF MONROE COMMENTS

REVISIONS

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DAVID W. HARMSEN
STATE OF WASHINGTON
REGISTERED PROFESSIONAL ENGINEER
33745

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MONROE, WA 98272

CONSTRUCTION DOCUMENTS
DEMO AND SWPP PLAN

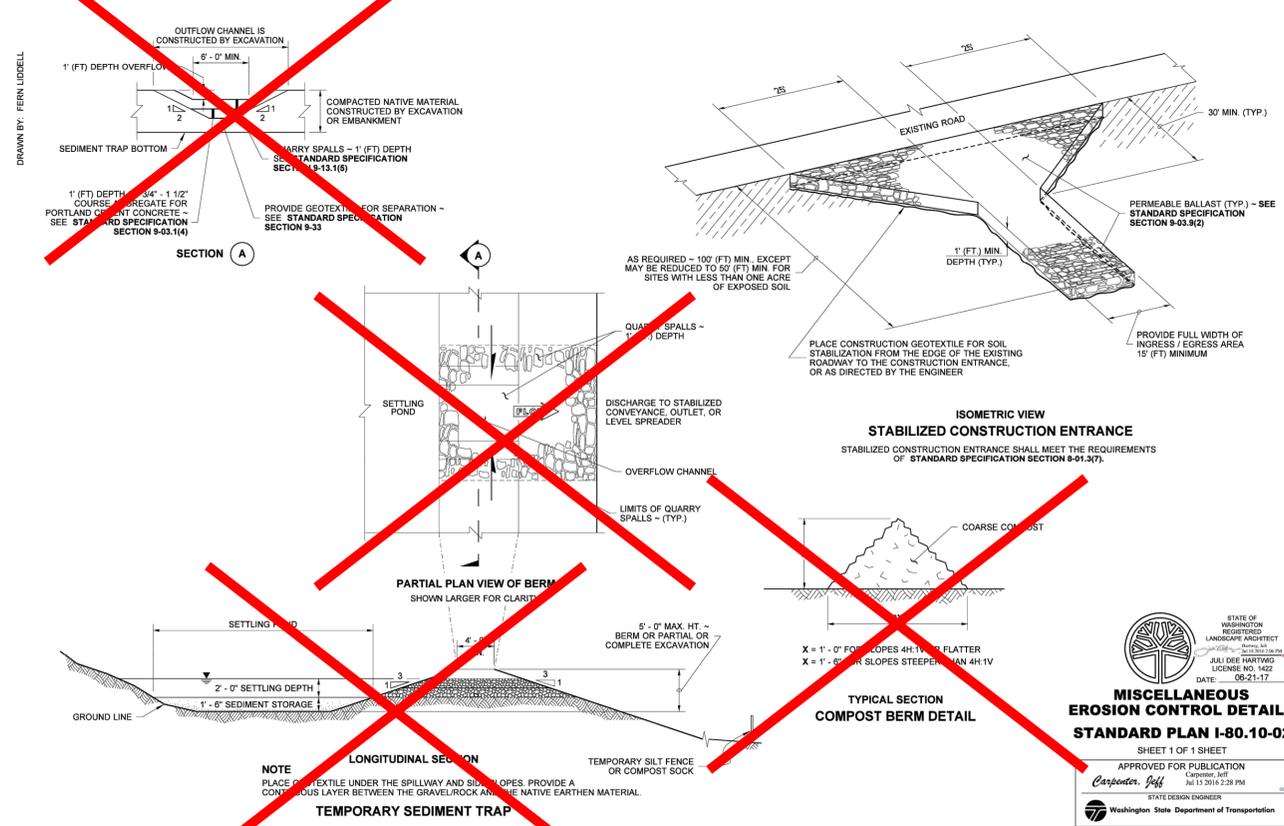
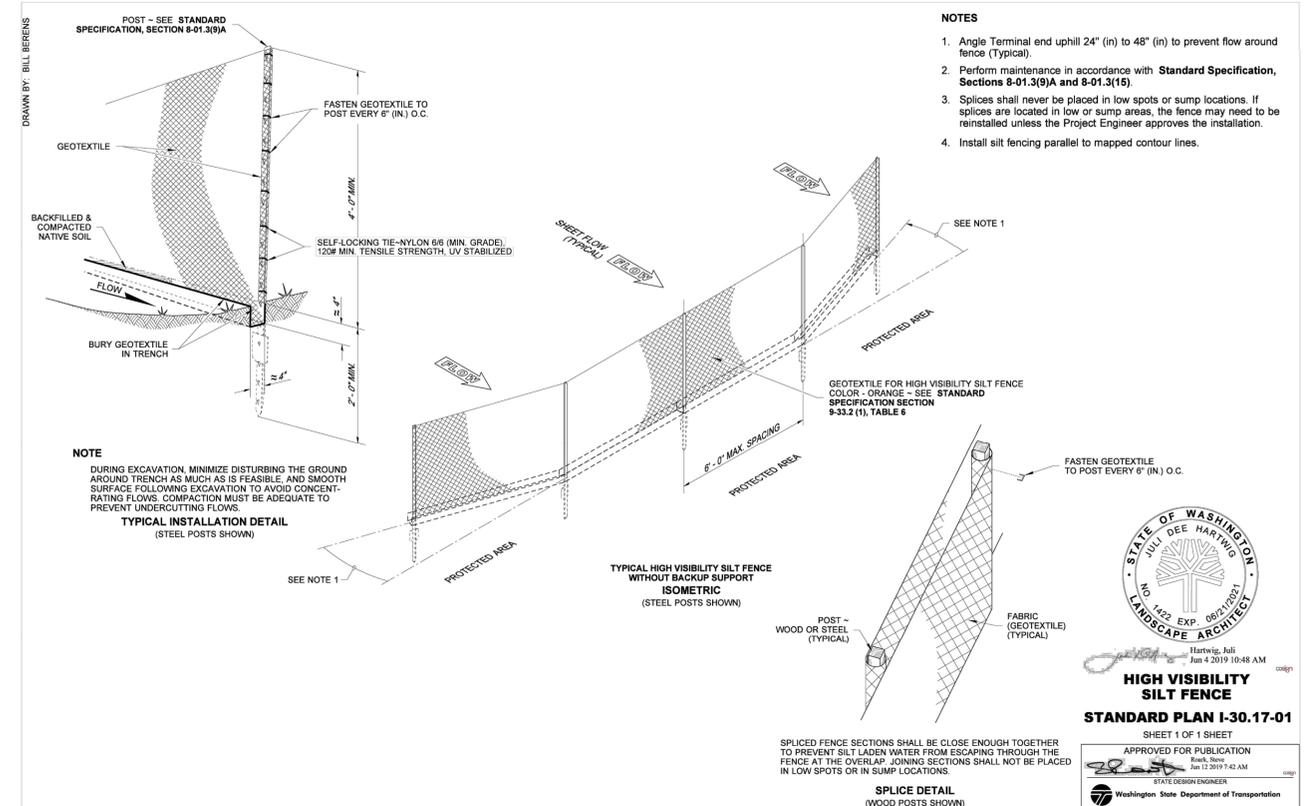
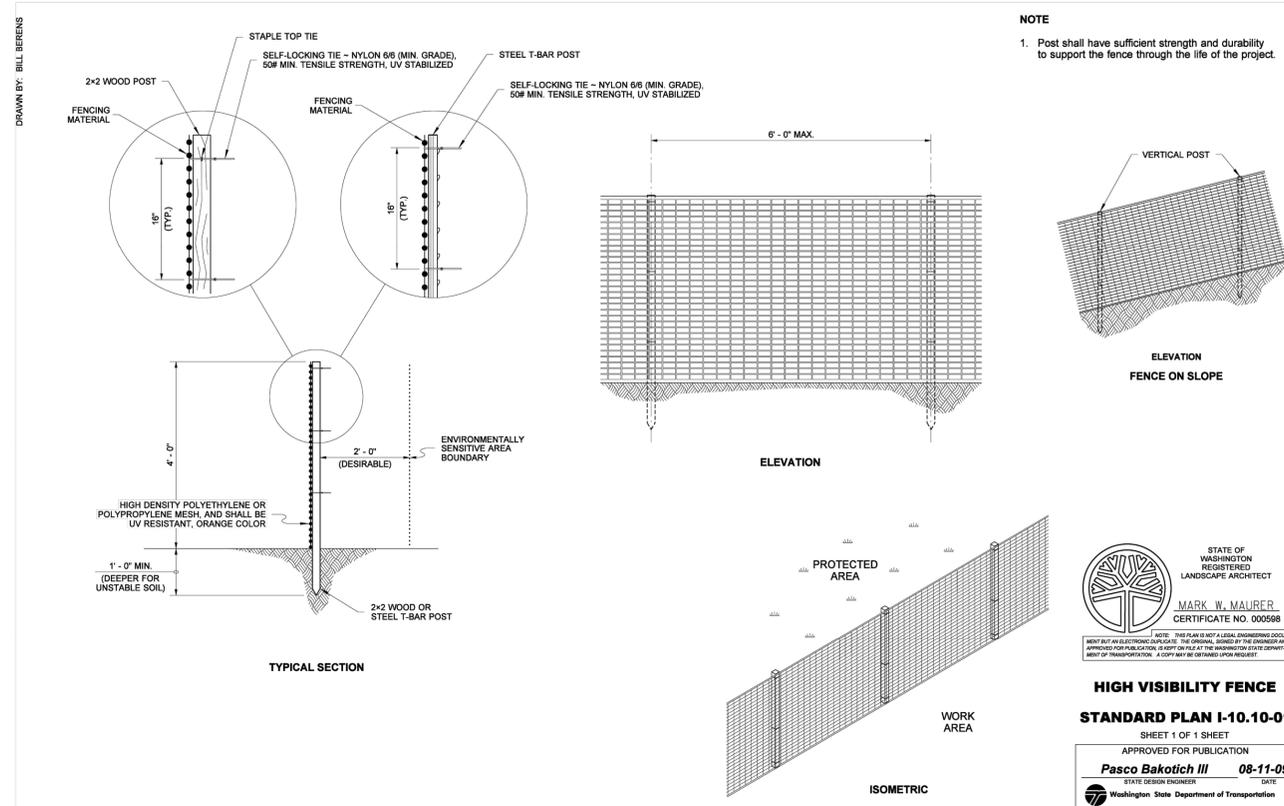
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SECTION 02, TOWNSHIP 27 NORTH, RANGE 06 EAST, W.M.



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DEMO AND SWPPP DETAILS

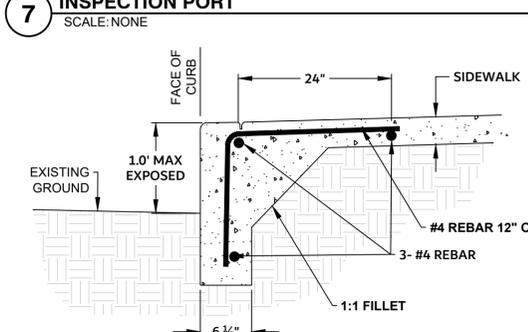
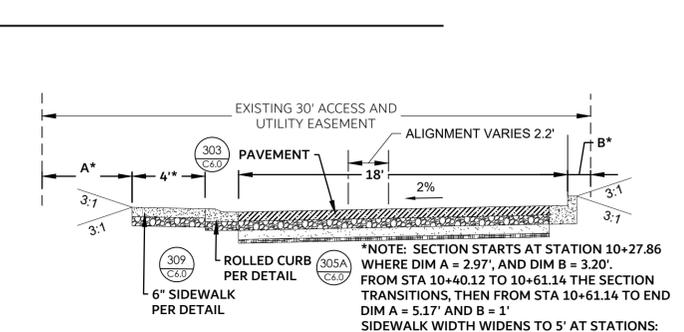
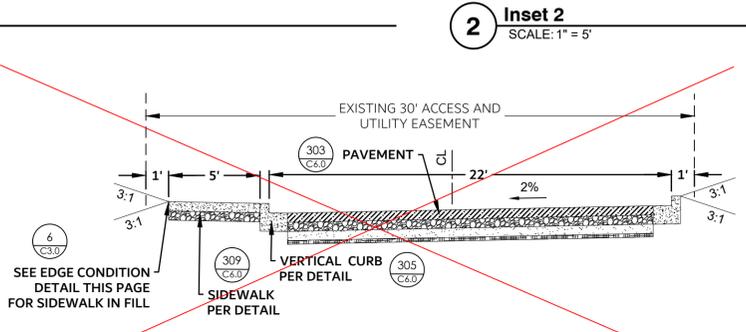
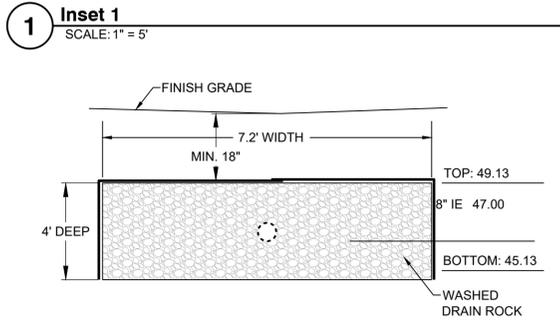
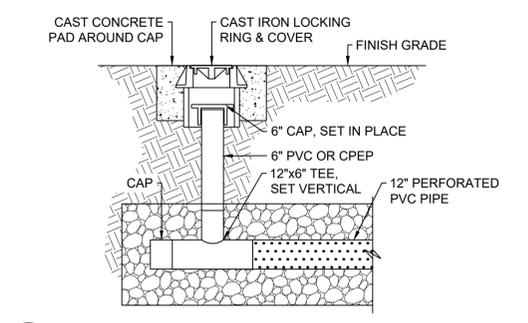
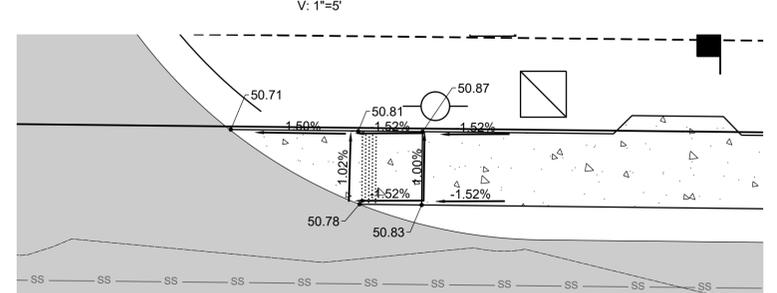
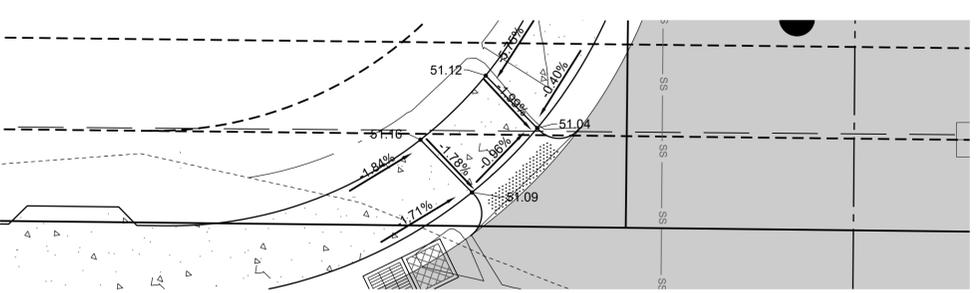
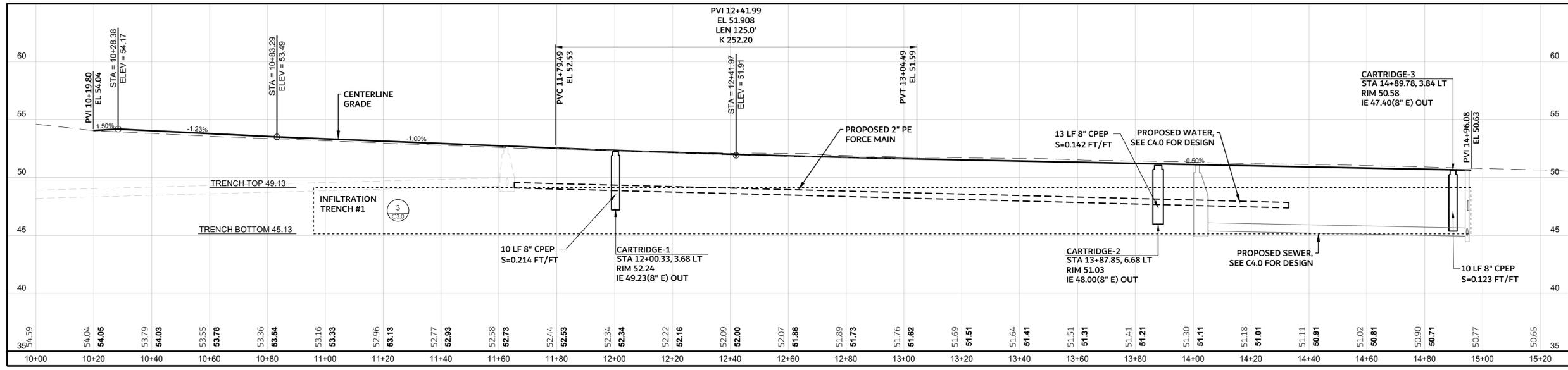
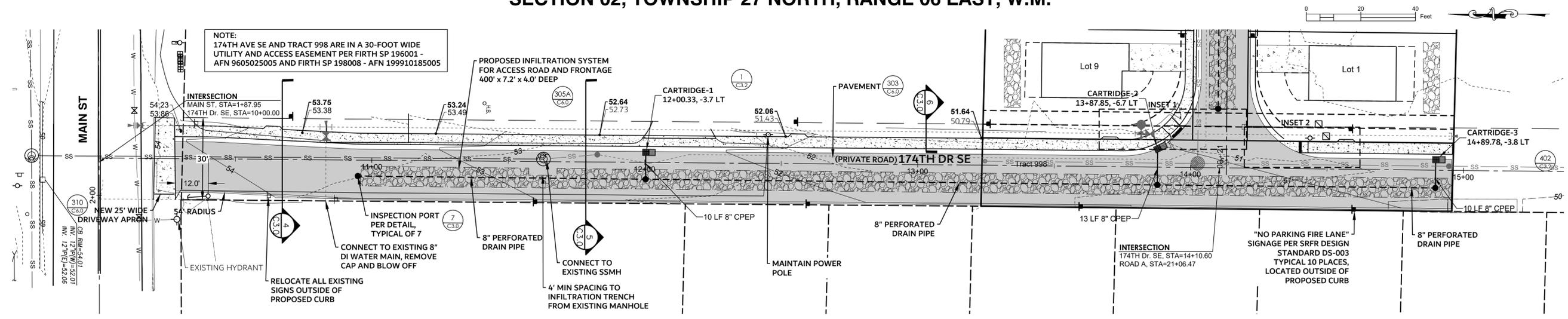
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SECTION 02, TOWNSHIP 27 NORTH, RANGE 06 EAST, W.M.



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PONDEROSA PACIFIC
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MONROE, WA 98272

CONSTRUCTION DOCUMENTS
174TH DR. SE ROAD PLAN,
STORM, AND PROFILE

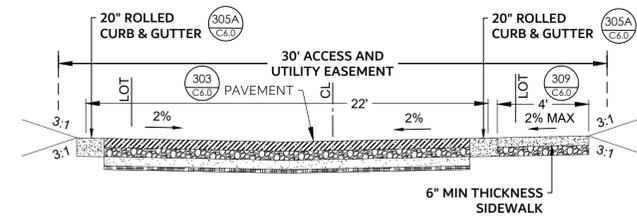
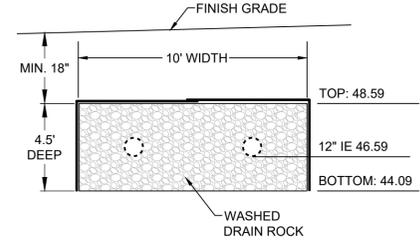
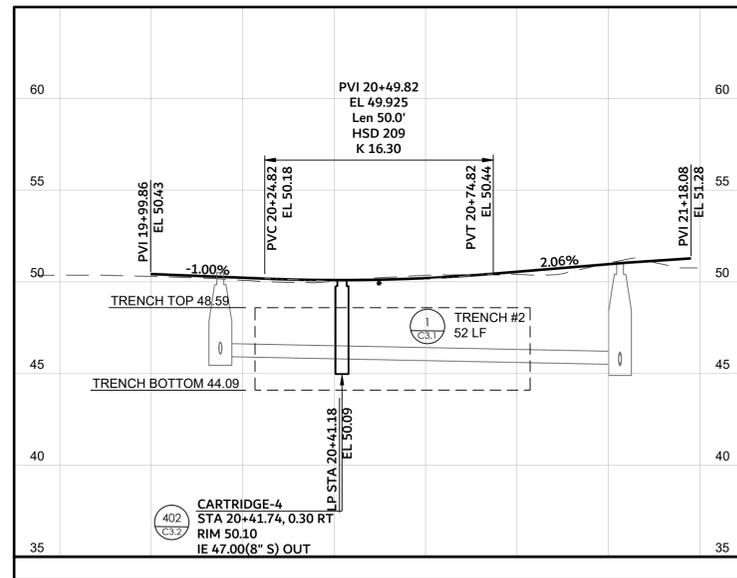
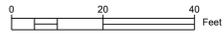
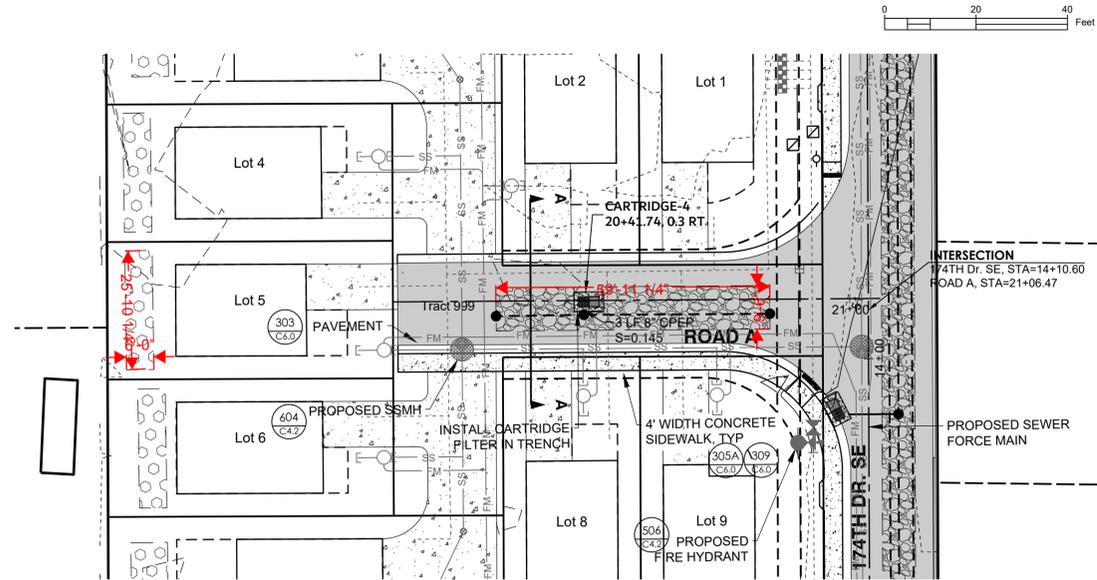
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SECTION 02, TOWNSHIP 27 NORTH, RANGE 06 EAST, W.M.



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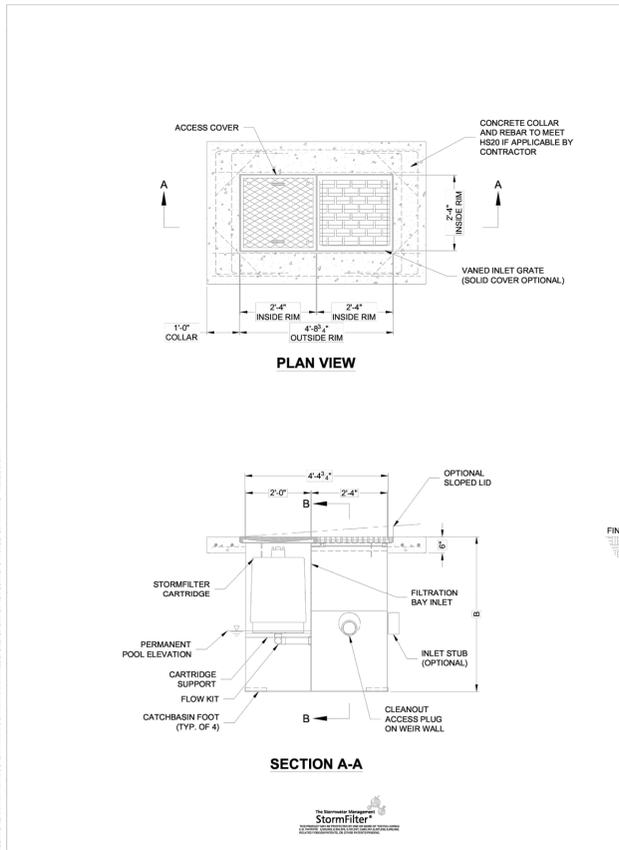
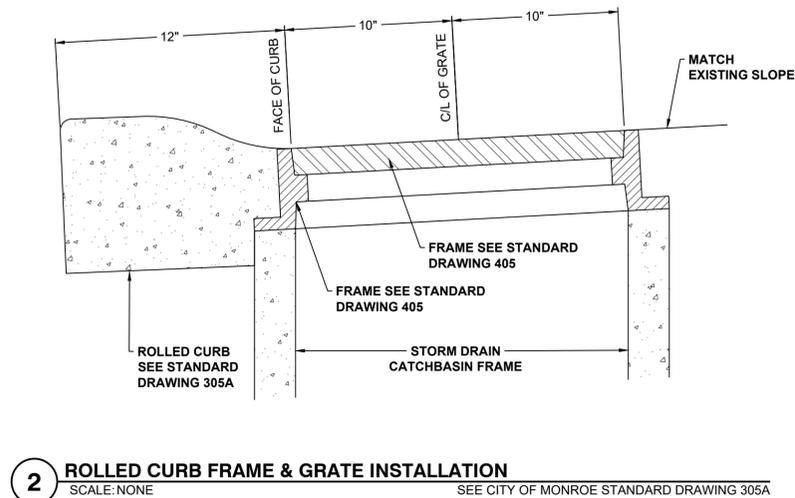
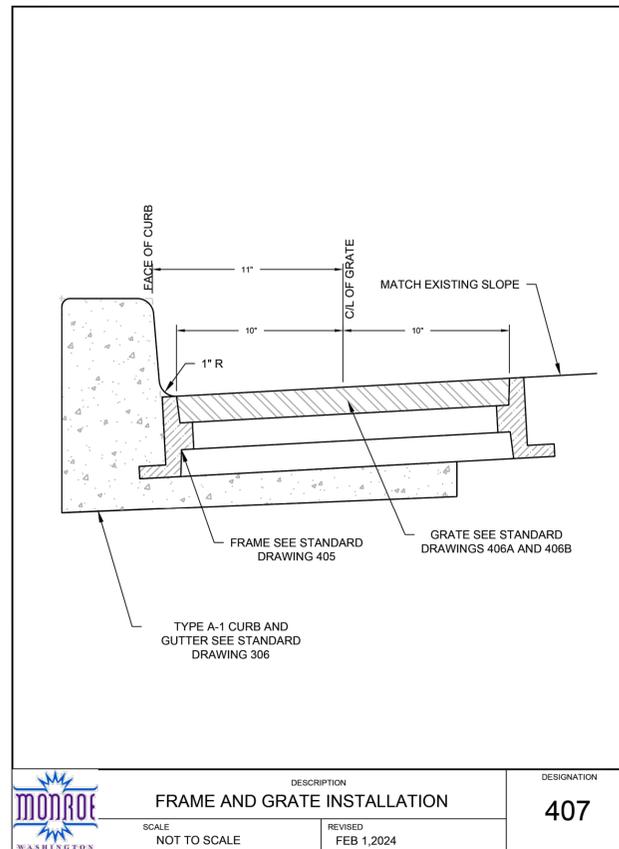
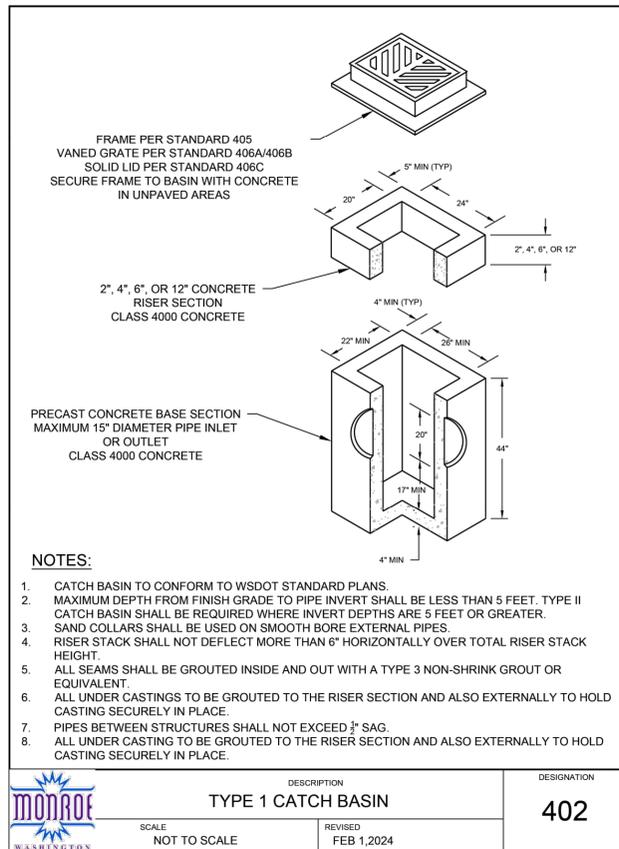
CONSTRUCTION DOCUMENTS
 ROAD A PLAN, STORM, AND PROFILE

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SECTION 02, TOWNSHIP 27 NORTH, RANGE 06 EAST, W.M.



STORMFILTER STEEL CATCHBASIN DESIGN NOTES

STORMFILTER TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE SELECTION AND THE NUMBER OF CARTRIDGES. 1 CARTRIDGE CATCHBASIN HAS A MAXIMUM OF ONE CARTRIDGE. SYSTEM IS SHOWN WITH A 27" CARTRIDGE, AND IS ALSO AVAILABLE WITH AN 18" CARTRIDGE. STORMFILTER CATCHBASIN CONFIGURATIONS ARE AVAILABLE WITH A DRY INLET BAY FOR VECTOR CONTROL. PEAK HYDRAULIC CAPACITY PER TABLE BELOW. IF THE SITE CONDITIONS EXCEED PEAK HYDRAULIC CAPACITY, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

CARTRIDGE SELECTION	27"	18"	18" DEEP
CARTRIDGE HEIGHT	27"	18"	18" DEEP
RECOMMENDED HYDRAULIC DROP (H)	3.05'	2.3'	3.3'
SPECIFIC FLOW RATE (gpm/sf)	2 gpm/sf, 1.67 gpm/sf, 1 gpm/sf	2 gpm/sf, 1.67 gpm/sf, 1 gpm/sf	2 gpm/sf, 1.67 gpm/sf, 1 gpm/sf
CARTRIDGE FLOW RATE (gpm)	22.5, 18.75, 11.25	15, 11.25, 7.5	15, 11.25, 7.5
PEAK HYDRAULIC CAPACITY	1.0	1.0	2.25
INLET PERMANENT POOL LEVEL (A)	1'-0"	1'-0"	2'-0"
OVERALL STRUCTURE HEIGHT (B)	4'-9"	3'-9"	4'-9"

* 1.67 gpm/sf SPECIFIC FLOW RATE IS APPROVED WITH PHOSPHOSORB® (PSORB) MEDIA ONLY.

GENERAL NOTES:

- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- FOR SITE SPECIFIC DRAWINGS WITH DETAILED STORMFILTER CATCHBASIN STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.contechES.com
- STORMFILTER CATCHBASIN WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
- INLET SHOULD NOT BE LOWER THAN OUTLET. INLET (IF APPLICABLE) AND OUTLET PIPING TO BE SPECIFIED BY ENGINEER AND PROVIDED BY CONTRACTOR.
- MANUFACTURER TO APPLY A SURFACE BEAD WELD IN THE SHAPE OF THE LETTER "O" ABOVE THE OUTLET PIPE STUB ON THE EXTERIOR SURFACE OF THE STEEL SFCS.
- STORMFILTER CATCHBASIN EQUIPPED WITH 4 INCH (APPROXIMATE) LONG STUBS FOR INLET (IF APPLICABLE) AND OUTLET PIPING. STANDARD OUTLET STUB IS 8 INCHES IN DIAMETER. MAXIMUM OUTLET STUB IS 15 INCHES IN DIAMETER. CONNECTION TO COLLECTION PIPING CAN BE MADE USING FLEXIBLE COUPLING BY CONTRACTOR.
- STEEL STRUCTURE TO BE MANUFACTURED OF 1/4 INCH STEEL PLATE. CASTINGS SHALL MEET AASHTO M308 LOAD RATING. TO MEET HS20 LOAD RATING ON STRUCTURE, A CONCRETE COLLAR IS REQUIRED. WHEN REQUIRED, CONCRETE COLLAR WITH #4 REINFORCING BARS TO BE PROVIDED BY CONTRACTOR.
- FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF-CLEANING. RADIAL MEDIA DEPTH SHALL BE 7 INCHES. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST 38 SECONDS.
- SPECIFIC FLOW RATE IS EQUAL TO THE FILTER TREATMENT CAPACITY (gpm) DIVIDED BY THE FILTER CONTACT SURFACE AREA (sq ft).

INSTALLATION NOTES:

- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CATCHBASIN (LIFTING CLUTCHES PROVIDED).
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.

1-CARTRIDGE CATCHBASIN STORMFILTER DATA

STRUCTURE ID	SEE 3.0 & 3.1
WATER QUALITY FLOW RATE (cfs)	0.0212
PEAK FLOW RATE (cfs)	0.15
RETURN PERIOD OF PEAK FLOW (hrs)	100
CARTRIDGE HEIGHT (27", 18", 18" DEEP)	27"
CARTRIDGE FLOW RATE (gpm)	0.025 cfs
MEDIA TYPE (PERLITE, ZPG, PSORB)	ZPG
RIM ELEVATION	SEE 3.0 & 3.1
PIPE DATA:	I.E. DIAMETER
INLET STUB	n/a
OUTLET STUB	SEE 3.0 & 3.1

CONFIGURATION: INLET, OUTLET, INLET, INLET

SLOPED LID: YES/NO
SOLID COVER: YES/NO
NOTES/SPECIAL REQUIREMENTS:

CONTECH ENGINEERED SOLUTIONS LLC
8020 Centre Pointe Dr., Suite 400, West Chester, OH 45389
800-526-3899 513-645-7000 513-645-7993 FAX

1 CARTRIDGE CATCHBASIN STORMFILTER STANDARD DETAIL

1 CARTRIDGE CATCH BASIN
SCALE: NONE

REVISIONS

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REGISTERED PROFESSIONAL ENGINEER
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16096 174TH DR SE
MONROE, WA 98272

STORM DETAILS

DATE: 11/26/2025
JOB #: 23-152

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

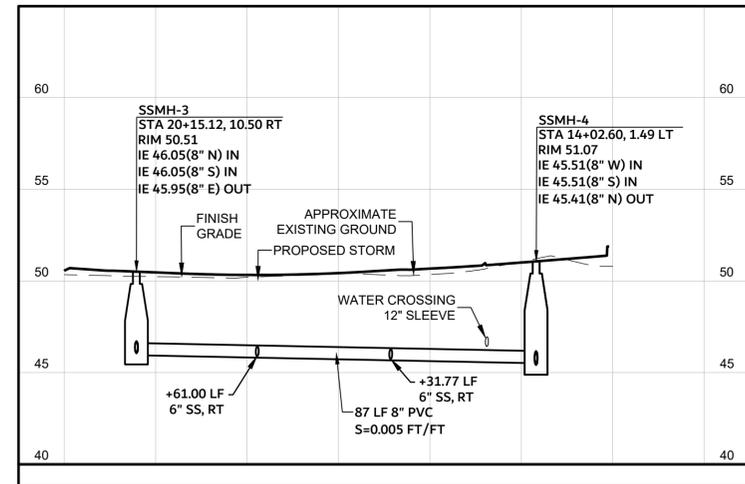
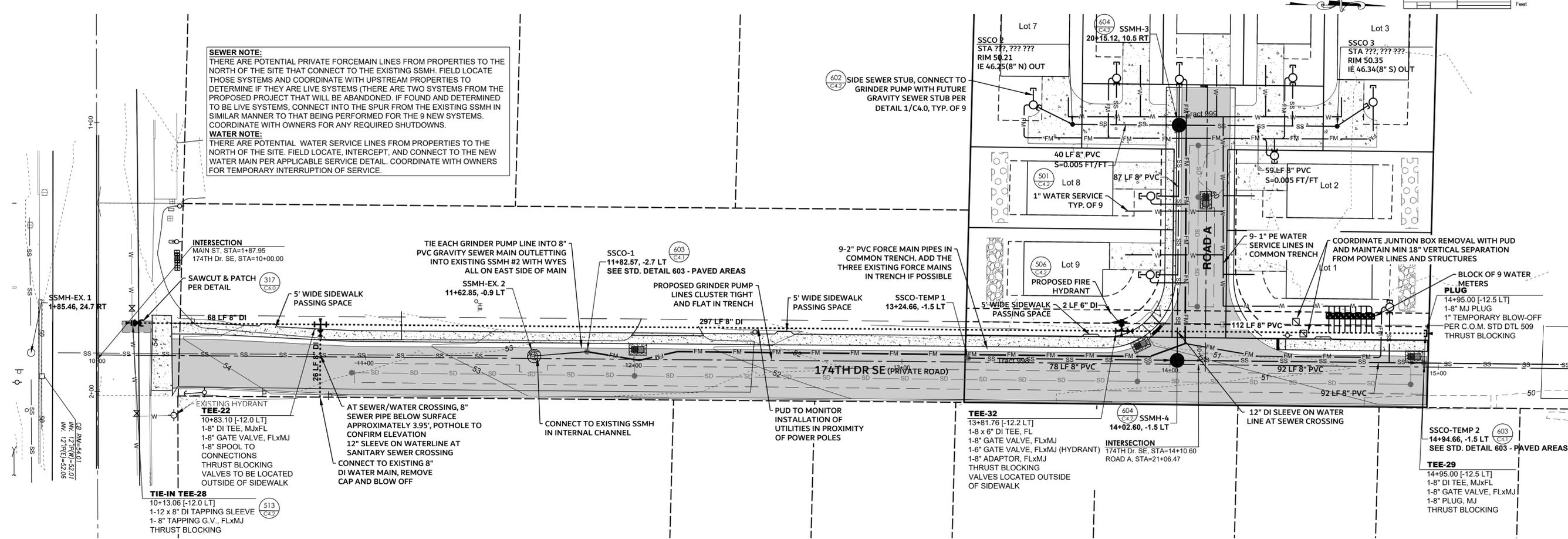
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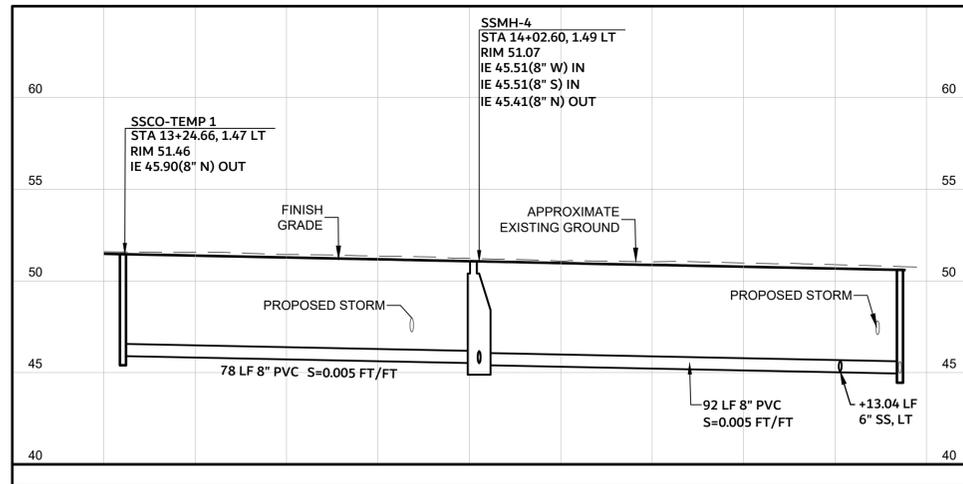
SECTION 02, TOWNSHIP 27 NORTH, RANGE 06 EAST, W.M.

SEWER NOTE:
THERE ARE POTENTIAL PRIVATE FORCE MAIN LINES FROM PROPERTIES TO THE NORTH OF THE SITE THAT CONNECT TO THE EXISTING SSMH. FIELD LOCATE THOSE SYSTEMS AND COORDINATE WITH UPSTREAM PROPERTIES TO DETERMINE IF THEY ARE LIVE SYSTEMS (THERE ARE TWO SYSTEMS FROM THE PROPOSED PROJECT THAT WILL BE ABANDONED. IF FOUND AND DETERMINED TO BE LIVE SYSTEMS, CONNECT INTO THE SPUR FROM THE EXISTING SSMH IN SIMILAR MANNER TO THAT BEING PERFORMED FOR THE 9 NEW SYSTEMS. COORDINATE WITH OWNERS FOR ANY REQUIRED SHUTDOWNS.)

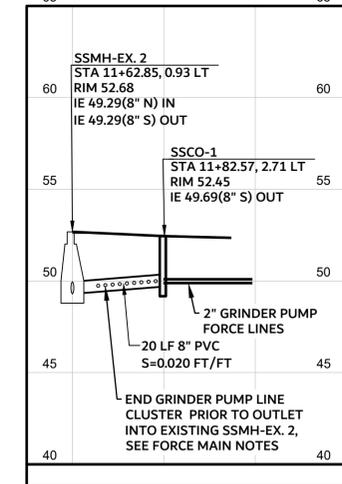
WATER NOTE:
THERE ARE POTENTIAL WATER SERVICE LINES FROM PROPERTIES TO THE NORTH OF THE SITE. FIELD LOCATE, INTERCEPT, AND CONNECT TO THE NEW WATER MAIN PER APPLICABLE SERVICE DETAIL. COORDINATE WITH OWNERS FOR TEMPORARY INTERRUPTION OF SERVICE.



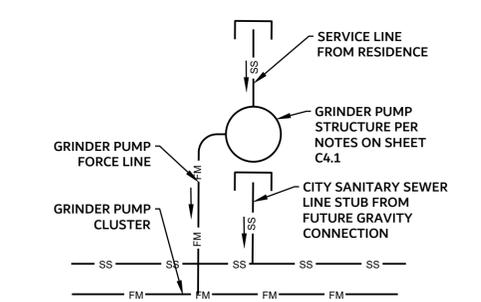
ROAD A SEWER - PROFILE
SCALE: H: 1"=5'
V: 1"=1'



174TH DR SE FRONTAGE SEWER - PROFILE
SCALE: H: 1"=5'
V: 1"=1'



FORCE LINE OUTLET TO EXISTING SSMH - PROFILE
SCALE: H: 1"=5'
V: 1"=1'



1 GRINDER PUMP TO GRAVITY SEWER DETAIL
SCALE: NONE

FORCE MAIN NOTES

1. THE (9) 2" PVC PIPES WILL LIE FLAT, TOUCHING ONE ANOTHER, IN THE BOTTOM OF THE TRENCH. IF POSSIBLE, THE 3 EXISTING GRINDER PUMP PIPES SHOULD ALSO BE PLACED WITHIN THE TRENCH.
2. PIPES TO BE 2" SCHEDULE 40 PVC WITH GLUED JOINTS THAT WILL HAVE A 15-MINUTE 10 PSI AIR PRESSURE TEST BEFORE APPROVAL. NO LOSS IN PRESSURE IS ACCEPTABLE.
3. AN 8" CLEAN OUT WILL BE INSTALLED PER COM STD. DETAIL 603 FOR PAVED AREAS SUBSTITUTING GLUED PVC FOR THE GASKETED SEWER PIPE.
4. THE PIPES WILL CONNECT TO THE 8" PVC "MAIN" IMMEDIATELY UPSTREAM OF THE EXISTING SSMH #2 WITH 8" X 2" WYES (SIZE REDUCTION INSERTS MIGHT BE NECESSARY) ALL CONNECTIONS ON WEST SIDE OF THE PIPE "MAIN."
5. THE 8" PVC MAIN MUST HAVE AT LEAST A 2% SLOPE FROM TERMINATION OF FORCE MAIN CLUSTER TO CLEANOUT.
6. THE EXISTING GRINDER PUMP LINES FOR THE 3 EXISTING HOMES NORTH OF THE SHORT PLAT MUST ALSO BE TIED INTO THIS 8" PVC MAIN.

REVISIONS

2/21/25 REVISED PER CITY OF MONROE COMMENTS

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PONDEROSA PACIFIC
16096 174TH DR SE
MONROE, WA 98272
CONSTRUCTION DOCUMENTS
SEWER AND WATER PLAN AND PROFILE.

DATE: 11/26/2025

JOB #: 23-152



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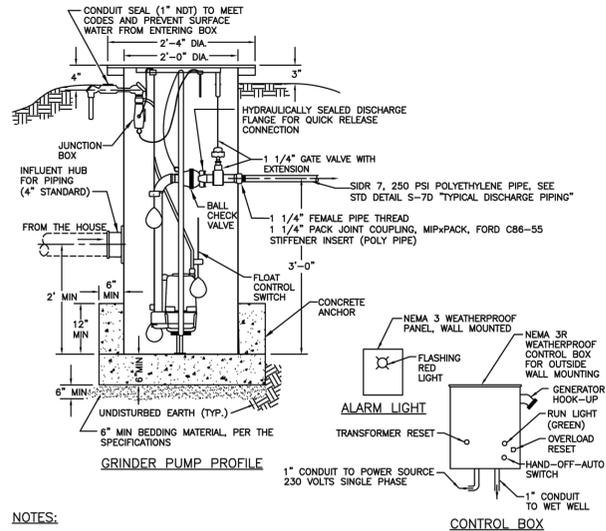
SECTION 02, TOWNSHIP 27 NORTH, RANGE 06 EAST, W.M.

NOTE: THE GRINDER PUMP SYSTEMS SHOWN ON THIS SHEET ARE RECOMMENDED SYSTEMS BASED ON THE EXPERIENCE OF THE NORTHSHORE UTILITY DISTRICT. THEY ARE NOT REQUIRED TO BE INSTALLED PRIOR TO FINAL SHORT PLAT APPROVAL. THEY WILL BE INSTALLED WITH THE BUILDING CONSTRUCTION AFTER BUILDING PERMIT APPLICATION, REVIEW AND APPROVAL.

PRIVATE SEWAGE PUMP SYSTEMS

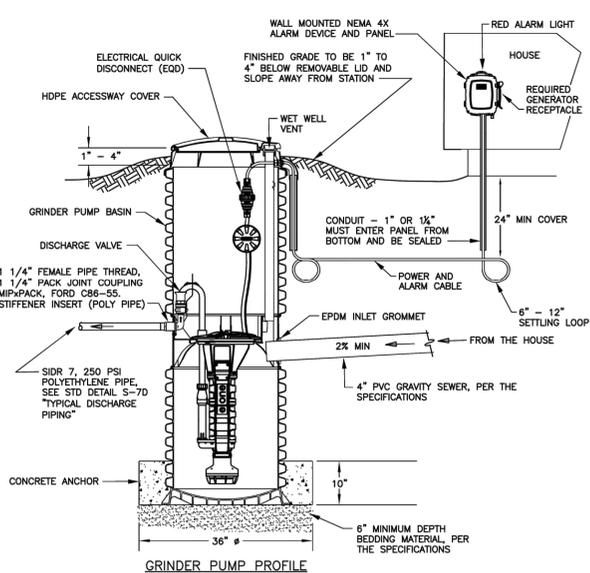
MINIMUM REQUIREMENTS:

- ONLY PLUMBING UNITS UNABLE TO BE SERVICED BY GRAVITY FLOW SHALL BE ROUTED TO THE PUMP SYSTEM.
- PLANS FOR SYSTEM SHALL BE SUBMITTED FOR APPROVAL BEFORE CONSTRUCTION, INCLUDING PUMP SPECIFICATION.
- CONTROL SYSTEM SHALL INCLUDE A HIGH WET WELL ALARM.
- PUMP SHALL BE A 2" SUBMERSIBLE SEWAGE EJECTOR PUMP.
- THE PUMP VAULT SHALL BE VENTED ACCORDING TO THE STATE PLUMBING CODE.
- THE PUMP VAULT REVERSE CAPACITY SHALL BE MINIMUM OF 300 GALLONS ABOVE HIGH WET WELL ALARM.
- A SEPTIC TANK MAY BE APPROVED FOR USE AS THE PUMP VAULT PROVIDED:
 - THE PUMP SHALL BE PLACED DIRECTLY ON THE BOTTOM OF THE TANK.
 - THE "OFF" SETTING SHALL BE ADJUSTED AS LOW AS POSSIBLE (APPROXIMATELY 6" FROM BOTTOM OF TANK).
 - THE "ON" SETTING SHALL BE WITHIN 8" OF THE "OFF" SETTING.
 - THE TANK MUST BE STRUCTURALLY SOUND AND WITHOUT LEAKS OR CRACKS.
 - THE DIVIDER WALL SHALL BE REMOVED FROM THE SEPTIC TANK.
 - IF CONVERTING AN EXISTING TANK, WATER TEST TO THE HOUSE EFFLUENT INVERT WILL BE REQUIRED.
- THE DISCHARGE LINE SHALL INCLUDE A BRASS BALL VALVE OR BRASS GATE VALVE (BRASS BALL VALVE PREFERRED), A BACK WATER VALVE, AND A THREADED UNION UPSTREAM FROM THE BACK WATER VALVE. THE GATE VALVE AND UNION MUST BE ACCESSIBLE WITHOUT ENTERING THE VAULT. NEITHER THE VALVE NOR UNION SHALL OBSTRUCT THE ACCESS OPENING.
- THE DISCHARGE LINE SHALL BE A MINIMUM OF 2" DIAMETER SCHEDULE 40 PVC PIPE.
- THE DISCHARGE LINE SHALL BE 2" DIAMETER SCHEDULE 40 PVC PIPE WITH GLUED JOINTS AND A 10 PSI PRESSURE TEST BEFORE APPROVAL.
- IF CONVERTING TO AN EXISTING TANK, WATER TEST TO THE HOUSE EFFLUENT INVERT WILL BE REQUIRED.



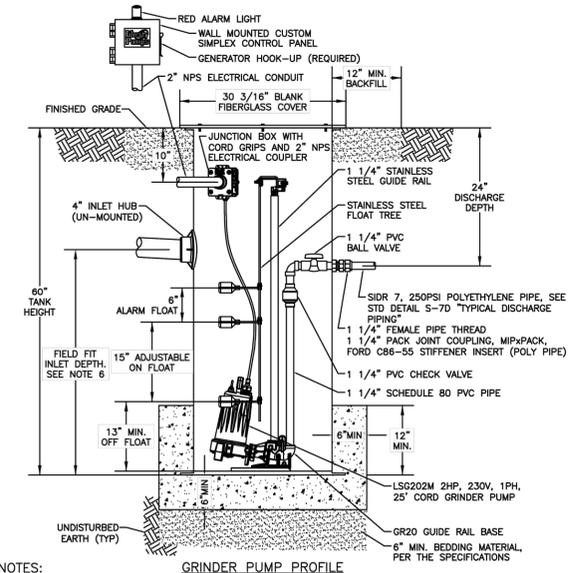
NOTES:

- HYDROMATIC HPC-200 COMPLETE PACKAGED SEWER GRINDER LIFT STATION TO INCLUDE THE FOLLOWING:
- GRINDER PUMP WITH 2HP SUBMERSIBLE SINGLE PHASE MOTOR (ADEQUATE FOR SINGLE RESIDENCE UP TO 100' HEAD AT 1/2" IMPELLER DIA.)
 - TWO SEALED FLOAT TYPE MERCURY SWITCHES FOR LEVEL CONTROL
 - ONE FLOAT SWITCH FOR ALARM CONTROL
 - 1" NPT MALE CONDUIT OUTSIDE OF SUMP FOR CONTROL WIRING
 - DISCHARGE PIPING SHALL INCLUDE A CHECK VALVE, A GATE VALVE AND NPT FEMALE CONNECTION OUTSIDE OF SUMP (DIA. PER PRESSURE PIPE DIA.)
 - INFLUENT PIPING SHALL PROVIDE HUB FOR PVC PIPE OUTSIDE OF SUMP (DIA. PER SIDESSEWER DIA.)
 - FIBERGLASS SUMP BASIN 24" I.D. x 5'-0" HIGH (PER BULLETIN SPC-604 (HYDROMATIC OR EQUAL))
 - NEMA 3R LOCKING CONTROL PANEL WALL MOUNTED
 - RED ALARM LIGHT PANEL, WALL MOUNTED WITH GENERATOR HOOK-UP.
 - SEE ADDITIONAL INFORMATION PER STD DETAIL S-7D.



NOTES:

- ENVIRONMENTAL ONE (E-ONE) DH071 COMPLETE PACKAGED SEWAGE GRINDER PUMP STATION TO INCLUDE THE FOLLOWING:
- ONE SIMPLEX GRINDER PUMP WITH 70 GAL CAPACITY AND HDPE BASIN (ADEQUATE FOR SINGLE RESIDENCE)
 - ASSEMBLED IN THE BASIN - NEMA 6P ELECTRICAL QUICK DISCONNECT, PUMP REMOVAL SYSTEM, STAINLESS STEEL DISCHARGE ASSEMBLY/SHUT-OFF VALVE, AND ANTI-SIPHON VALVE/CHECK VALVE
 - NEMA 4X ALARM PANEL EQUIPPED WITH CIRCUIT BREAKERS AND NECESSARY INTERNAL WIRING CONTROLS
 - DISCHARGE PIPING SHALL INCLUDE FEMALE PIPE THREAD FOR PRESSURE PIPE CONNECTION (DIA. PER PRESSURE PIPE DIA. 1/2" MIN)
 - INFLUENT PIPING SHALL PROVIDE INLET GROMMET FOR SDR 35 PVC PIPE (DIA. PER SIDESSEWER DIA.)
 - WALL MOUNTED ALARM PANEL INCLUDING RED ALARM LIGHT AND GENERATOR RECEPTACLE
 - SEE ADDITIONAL INFORMATION PER STANDARD STD DETAIL S-7D.



NOTES:

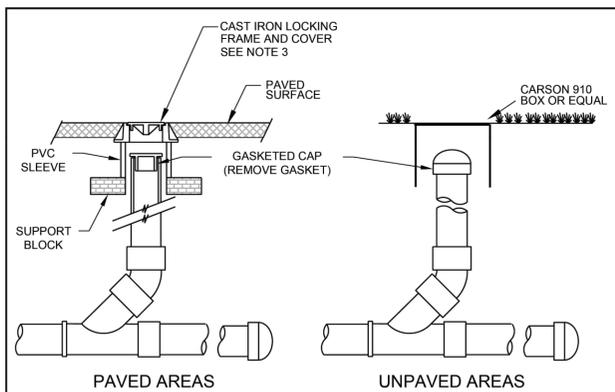
- LIBERTY PUMP EPS91174 COMPLETE PACKAGED SEWAGE GRINDER PUMP STATION TO INCLUDE THE FOLLOWING:
- 2HP LSG-SERIES GRINDER PUMP, 208-230V, SINGLE PHASE (ADEQUATE FOR SINGLE RESIDENCE, UP TO 108' TOTAL DYNAMIC HEAD)
 - THREE FLOAT TYPE MECHANICAL PILOT DUTY SWITCHES TO CONTROL PUMP AND HIGH LEVEL ALARM.
 - JUNCTION BOX AND 2" CONDUIT BULKHEAD.
 - PVC DISCHARGE PIPING SHALL INCLUDE CHECK VALVE, BALL VALVE, AND 1 1/4" DISCHARGE BULKHEAD.
 - FIBERGLASS TANK WITH ANTI-FLOTATION FLANGE. 24" ID x 60" HIGH.
 - 4" INLET HUB, UN-MOUNTED TO BE INSTALLED AT CORRECT DEPTH IN FIELD PER MANUFACTURER'S RECOMMENDATIONS.
 - SIMPLEX CONTROL PANEL, NEMA 4X ENCLOSURE, WITH GENERATOR RECEPTACLE. INCLUDES HIGH LEVEL ALARM AND TOP RED BEACON. ENCLOSURE MOUNTED OUTSIDE ON HOUSE WALL.
 - SEE ADDITIONAL INFORMATION PER STD DETAIL S-7D.

1 PUMP SYSTEM NOTES
SCALE: NONE

2 SINGLE FAMILY GRINDER PUMP STATION HYDROMATIC
SCALE: NONE

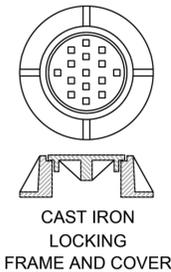
3 SINGLE FAMILY GRINDER PUMP STATION E-ONE
SCALE: NONE

4 SINGLE FAMILY GRINDER PUMP STATION LIBERTY PUMPS
SCALE: NONE



NOTES

- PIPE AND FITTINGS SHALL BE PVC ASTM 3034 (SDR 35).
- A GASKETED WYE MUST BE INSTALLED. STRAIGHT TEES ARE NOT ACCEPTABLE.
- CASTING SHALL BE 12" Ø CAST IRON LOCKING FRAME.
- CLEAN OUTS IN ALLEYS AND DRIVEWAYS SHALL HAVE A 2'x2'x6" ASPHALT OR CONCRETE PAD AROUND CLEAN OUT FRAME AND COVER.



	DESCRIPTION	DESIGNATION
	SANITARY SEWER/STORM DRAIN CLEAN OUT	603
SCALE	REVISED	
NOT TO SCALE	FEB 1, 2024	

2/21/22 REVISED PER CITY OF MONROE COMMENTS

REVISIONS

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 SEWER PUMP DETAILS

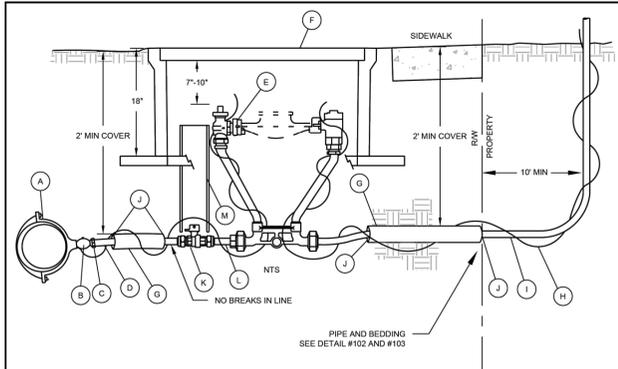
DATE: 11/26/2025

JOB #: 23-152



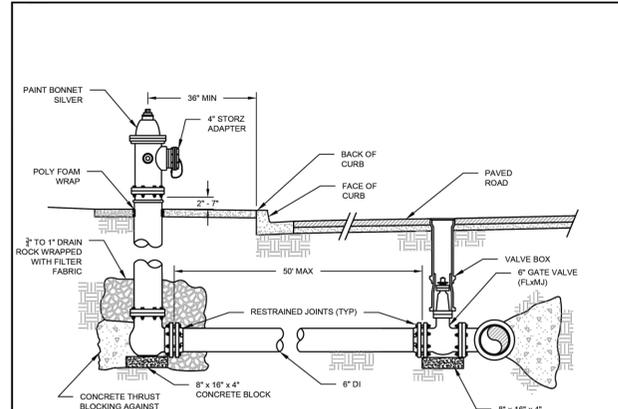
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SECTION 02, TOWNSHIP 27 NORTH, RANGE 06 EAST, W.M.



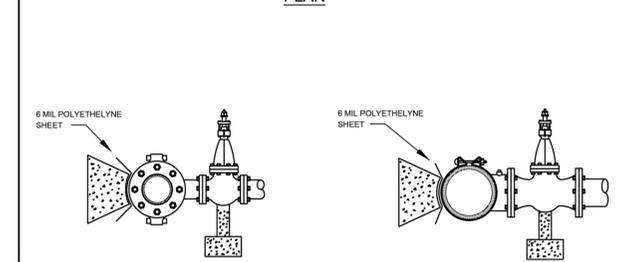
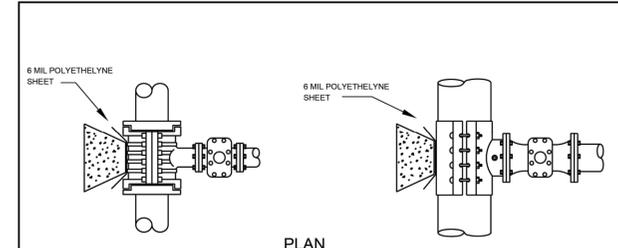
- LEGEND**
- (A) WIDE BAND STAINLESS STEEL SERVICE SADDLE WITH IRON PIPE THREADS. FORD STYLE FS101 OR EQUAL. WHEN WATER MAIN MATERIAL IS 6000 PVC PIPE THERE SHALL BE A MINIMUM OF 3 FEET BETWEEN TAPS AND STAGGER TAPS A MAXIMUM OF 45 DEGREES VERTICALLY. WITH ALL OTHER PIPES MATERIALS THERE SHALL BE A MINIMUM OF 2 FEET BETWEEN TAPS.
 - (B) 1" A-Y MCDONALD IPS BALL CORPORATION STOP - 300 PSI
 - (C) A-Y MCDONALD COMPRESSION FITTING. FEMALE IRON PIPE THREAD BY FEMALE COPPER TUBE SIZE. QUICK JOINT.
 - (D) 1 INCH (MINIMUM) COPPER TUBE SIZE REHAU MUNIPEX PE-X (200 PSI) OR COPPER TYPE K. SAND BEDDING FOR SERVICE LINE IS REQUIRED. SAND BEDDING SHALL BE 4 INCHES ABOVE AND BELOW PIPE.
 - (E) METER SETTERS SHALL BE A-Y MCDONALD 1" COPPER METER SETTER 720-4122W000-44 1/2" OR APPROVED EQUAL. SETTERS SHALL HAVE HORIZONTAL UNION INLET WITH PAD LOCK WINGS. DUAL CHECK VALVE AND HORIZONTAL UNION OUTLET.
 - (F) METER BOXES IN SHALL BE OLD CASTLE CARSON 1527 X 18 WITH OLD CASTLE LID #02001407 (LID, FL 1527P BLACK) TRAFFIC BOXES ARE TO BE SUPPORTED BY 4X8X16 SOLID CEMENT BLOCKS.
 - (G) METER BOXES ARE TO BE FIRMLY SUPPORTED WITH SETTER CENTERED IN BOX AND BACKFILLED WITH 1/2" MINUS CRUSHED ROCK TO WITHIN 4" BELOW FINISHED GRADE. BOXES ARE TO BE SET NO LOWER THAN SIDEWALK OR FINISHED GRADE WHICHEVER IS HIGHER.
 - (H) METERS SHALL BE PLACED AT LEAST 10' AWAY FROM TREES. ROOT BARRIERS SHALL BE NO CLOSER THAN 1 FOOT FROM BOX.
 - (I) 3 INCH SCHEDULE 40 WHITE PVC CASING UNDER PAVEMENT AND SIDEWALK.
 - (J) 12 GAUGE INSULATED LOCATOR WIRE. USE WIRE NUT (OR EQUAL) TO CONNECT TO MAIN LINE WIRE. RUN WIRE TO BUILDING.
 - (K) IRON PIPE SIZE HIGH DENSITY POLYETHYLENE (200 PSI), 1" COPPER PIPE TYPE K, OR PE-XA FOR DIRECT BURIAL =>200PSI. FOR NEW CONSTRUCTION EXTEND TEN FEET INTO PROPERTY. CUSTOMER SIDE SHALL BE BRASS TO POLY.
 - (L) FOAM BLOCKING (1/2" MIN LENGTH) TO FILL THE ANNULAR GAP BETWEEN CASING PIPE AND SERVICE LINE.
 - (M) A-Y MCDONALD 76101W 1" OR EQUAL CURB STOP VALVE. SHALL BE ACCESSIBLE FROM INSIDE OF METER BOX.
 - (N) 6" BRASS NIPPLE
 - (O) 3" SCH 40

	DESCRIPTION	DESIGNATION
	3/4" X 5/8" & 1" WATER SERVICE	501
SCALE	REVISED	
NOT TO SCALE	FEB 1, 2024	



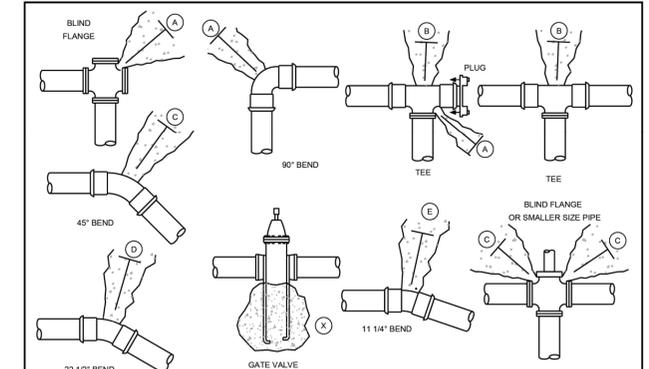
- NOTES:**
- HYDRANTS AND ALL MATERIALS TO BE APWA OR AWWA APPROVED.
 - FIRE HYDRANT SHALL BE WATEROUS PACER OR EAST JORDAN 5CD250 NORTHWEST EDITION WITH 5-1/4" VALVE. TWO 2 1/2" NST HOSE PORTS, AND ONE NST 4" STORZ FITTING ON 4 1/2" STEAMER PORT FACING STREET, OR AS OTHERWISE DIRECTED. 1-1/4" OPERATING NUT AND CAP NUT FOR 2-1/2" PORTS. BREAK-OFF HYDRANT BASE FLANGE. WHERE MORE THAN ONE BELL JOINT IS USED A FIELD LOCK GASKET SHALL BE INSTALLED.
 - 4" THICK 4' X 4' CONCRETE PAD WITH POLY WRAP FOAM AROUND HYDRANT BARREL. HYDRANT SHALL SIT IN THE CENTER OF THE PAD. CONCRETE SHALL BE CLASS 3000.
 - PROVIDE FOR VEHICULAR TRAFFIC PROTECTION WHEN NECESSARY PER STD. PLAN 507
 - BREAK-OFF FLANGE TO BE 2" - 7" ABOVE GROUND LEVEL.
 - 1/2 CY DRAIN ROCK WRAPPED WITH 6 MIL. POLYETHYLENE SHEETING.
 - FIRE HYDRANT BODY SHALL BE PAINTED WITH TWO COATS OF SAFETY RED INDUSTRIAL ENAMEL B54R38. FIRE HYDRANT CAPS AND BONNET SHALL BE PAINTED M10-ALUMINUM B65S14.
 - LANDSCAPING SHALL BE PLANTED AND MAINTAINED IN A MANNER SO AS TO PROVIDE 3' CLEARANCE FROM THE CIRCUMFERENCE OF THE HYDRANT.
 - THERE SHALL BE AT LEAST 1' OF CLEARANCE BETWEEN HYDRANT & SIDEWALK.
 - PAINT 30' FEET OF CURB SAFETY RED IN FRONT OF AND CENTERED ON HYDRANT.
 - VALVES INSTALLED IN UNPAVED AREAS SHALL HAVE A 2X2' CONCRETE OR ASPHALT AREA INSTALLED AROUND THE VALVE BOX.

	DESCRIPTION	DESIGNATION
	FIRE HYDRANT ASSEMBLY	506
SCALE	REVISED	
NOT TO SCALE	FEB 1, 2024	



- NOTES:**
- STAINLESS STEEL TAPPING TEES SHALL HAVE FULL CIRCLE SEAL.
 - ALL TEES AND VALVES TO BE WATER TESTED BEFORE TAP.

	DESCRIPTION	DESIGNATION
	TAPPING TEES	513
SCALE	REVISED	
NOT TO SCALE	FEB 1, 2024	



THRUST BLOCK - TABLE

MIN. BEARING AREA AGAINST UNDISTURBED SOIL

PIPE SIZE	SQUARE FEET					
	(A)	(B)	(C)	(D)	(E)	(X)
4"	3	1	1	1	1	NONE
6"	4	4	2	1	1	NONE
8"	7	8	4	2	1	4
10"	11	10	6	3	2	6
12"	18	14	9	5	3	9
14"	22	19	12	6	3	12
16"	29	25	16	8	4	16
18"	36	31	20	10	5	20
20"	45	39	24	13	6	24
22"	54	47	29	15	8	29
24"	64	56	35	18	9	35
28"	87	76	46	24	12	46
30"	101	87	55	28	14	55
36"	175	125	76	40	20	76
42"	197	171	107	55	27	107
48"	257	223	140	71	36	140

NOTES:

- BEARING AREA OF CONCRETE THRUST-BLOCK BASED ON 200 PSI PRESSURE AND SAFE SOIL BEARING LOAD OF 2,000 POUNDS PER SQUARE FOOT.
- AREAS MUST BE ADJUSTED FOR OTHER PIPE SIZES, PRESSURES, AND SOIL CONDITIONS.
- CONCRETE BLOCKING (CLASS 3000) SHALL BE CAST IN PLACE AND HAVE A MINIMUM OF 1/4 SQUARE FOOT BEARING AGAINST THE FITTING.
- BLOCK SHALL BEAR AGAINST FITTINGS ONLY AND SHALL BE CLEAR OF JOINTS TO PERMIT TAKING UP OR DISMANTLING OF JOINT.
- CONTRACTOR SHALL INSTALL BLOCKING ADEQUATE TO WITHSTAND FULL TEST PRESSURE UNDER ALL CONDITIONS OF SERVICE.
- MINIMUM ROD DIAMETER SHALL BE 3/4" ASTM A-307 WITH 36KSI YIELD STRENGTH.
- SHET PLASTIC OVER NUTS AND BOLTS PRIOR TO CONCRETE POUR.

	DESCRIPTION	DESIGNATION
	HORIZONTAL THRUST BLOCKS	514
SCALE	REVISED	
NOT TO SCALE	FEB 1, 2024	

VERTICAL BLOCKING

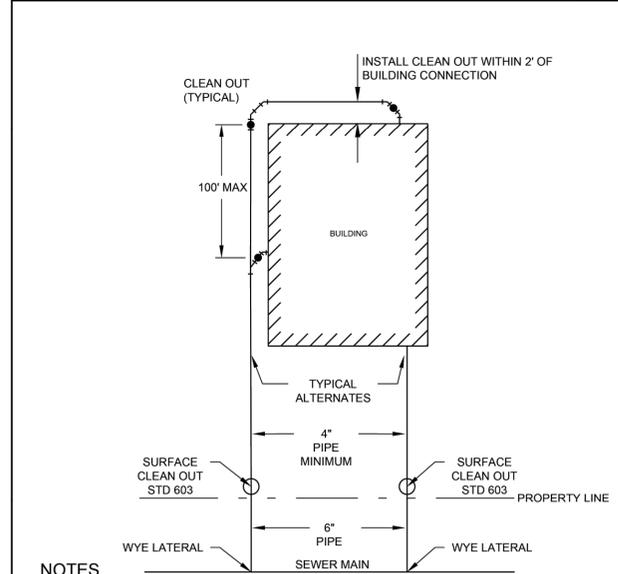
PIPE SIZE	VB	CY	A	D	L
4"	11-1/4"	0.25	2.0'	3/4"	1.5'
	22-1/2"	0.50	2.2'	3/4"	2.0'
	45°	1.00	2.8'	3/4"	2.0'
6"	11-1/4"	0.50	2.2'	3/4"	2.0'
	22-1/2"	1.00	2.9'	3/4"	2.0'
	45°	2.00	3.7'	3/4"	2.0'
8"	11-1/4"	1.00	2.5'	3/4"	2.0'
	22-1/2"	2.00	3.6'	3/4"	3.0'
	45°	3.50	4.5'	3/4"	2.5'
12"	11-1/4"	2.00	3.2'	7/8"	2.0'
	22-1/2"	4.00	4.5'	7/8"	3.0'
	45°	7.50	5.8'	1 1/8"	3.0'
16"	11-1/4"	3.75	4.1'	7/8"	3.0'
	22-1/2"	7.50	5.7'	1 1/8"	4.0'
	45°	13.50	7.1'	1 1/4"	4.0'
18"	11-1/4"	4.75	4.5'	7/8"	3.0'
	22-1/2"	9.25	6.1'	1 1/8"	4.0'
	45°	17.00	7.7'	1 1/4"	4.5'
20"	11-1/4"	5.75	4.5'	7/8"	3.0'
	22-1/2"	11.50	6.1'	1 1/4"	4.0'
	45°	20.75	8.2'	1 3/8"	4.5'
24"	11-1/4"	8.50	5.0'	1"	3.5'
	22-1/2"	16.25	6.8'	1 3/8"	4.5'
	45°	30.00	9.4'	1 5/8"	5.5'

BLOCK SIZED PER THRUST RESTRAINT

$$Vg = \frac{SfPA \sin \theta}{Wm}$$

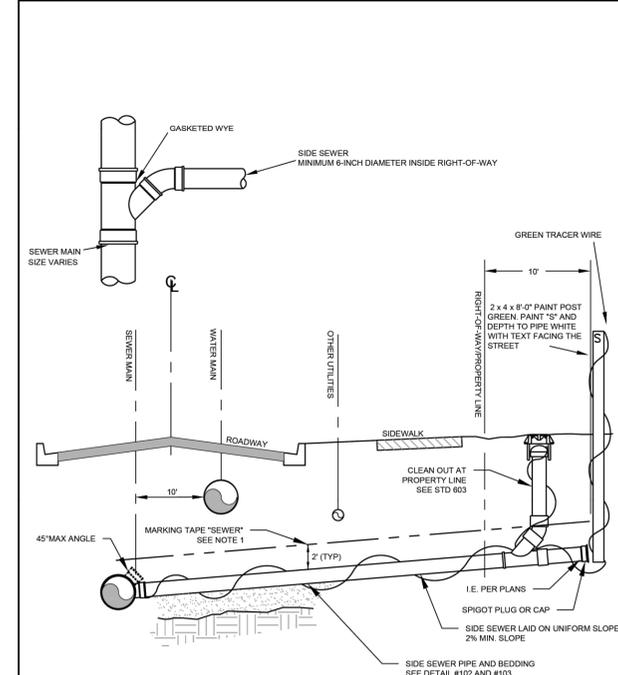
Vg = Volume of the Thrust Block
 Sf = Safety factor, used 1.5
 P = Design pressure, used 250 psi
 A = Pressure cross section area, varies with pipe size
 θ = Angle of fitting, varies with fitting type
 Wm = Density of block material, used 150 #/cf

	DESCRIPTION	DESIGNATION
	BLOCKING AND VERT. BLOCKING DETAILS	515
SCALE	REVISED	
NOT TO SCALE	FEB 1, 2024	



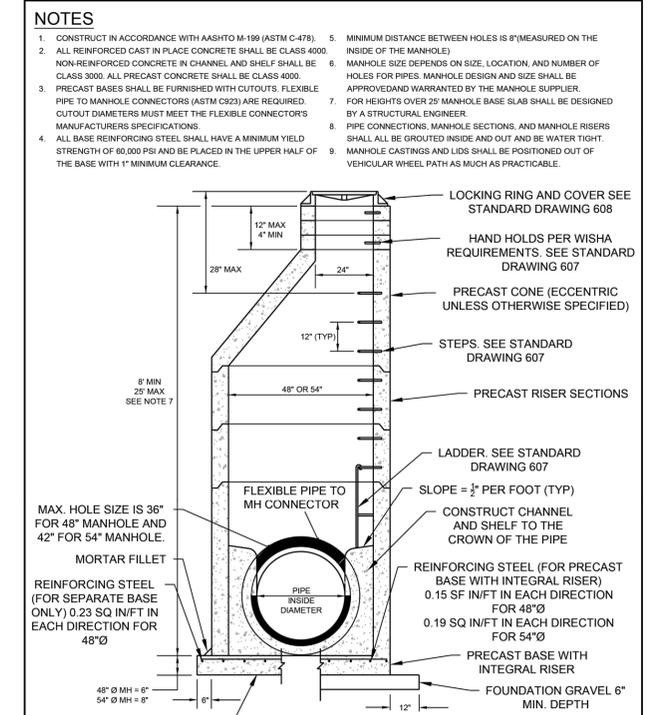
- NOTES:**
- INSTALL SEWER MAIN CONNECTION AND CLEANOUT PER STANDARD DRAWING 602 AND 603.
 - ALL TEE CONNECTIONS SHALL BE WITH WYES. STRAIGHT TEES ARE NOT PERMITTED.
 - ALLOWABLE GRADES ARE 2% (1/4"/FT) MINIMUM TO 100% (FT/FT) MAXIMUM.
 - INSTALL 6" MINIMUM PIPE SIZE FROM THE MAIN LINE TAP TO THE PROPERTY LINE.
 - BED SIDE SEWERS WITH PEA GRAVEL 12" ABOVE AND 6" BELOW PIPE.
 - FOR NEW DEVELOPMENT EXTEND SIDE SEWER STUB 10' ONTO PROPERTY.

	DESCRIPTION	DESIGNATION
	TYPICAL SIDE SEWER LAYOUT	601
SCALE	REVISED	
NOT TO SCALE	FEB 1, 2024	



- NOTES:**
- INSTALL SEWER MARKING TAPE 2' ABOVE SEWER FROM MAIN TO HOUSE.

	DESCRIPTION	DESIGNATION
	GRAVITY SEWER SVC CONNECTION	602
SCALE	REVISED	
NOT TO SCALE	FEB 1, 2024	



	DESCRIPTION	DESIGNATION
	TYPE I MANHOLE 48" & 54"	604
SCALE	REVISED	
NOT TO SCALE	FEB 1, 2024	

REVISIONS

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 2822 COLBY AVE., SUITE 300
 SEVERETT, WA 98201



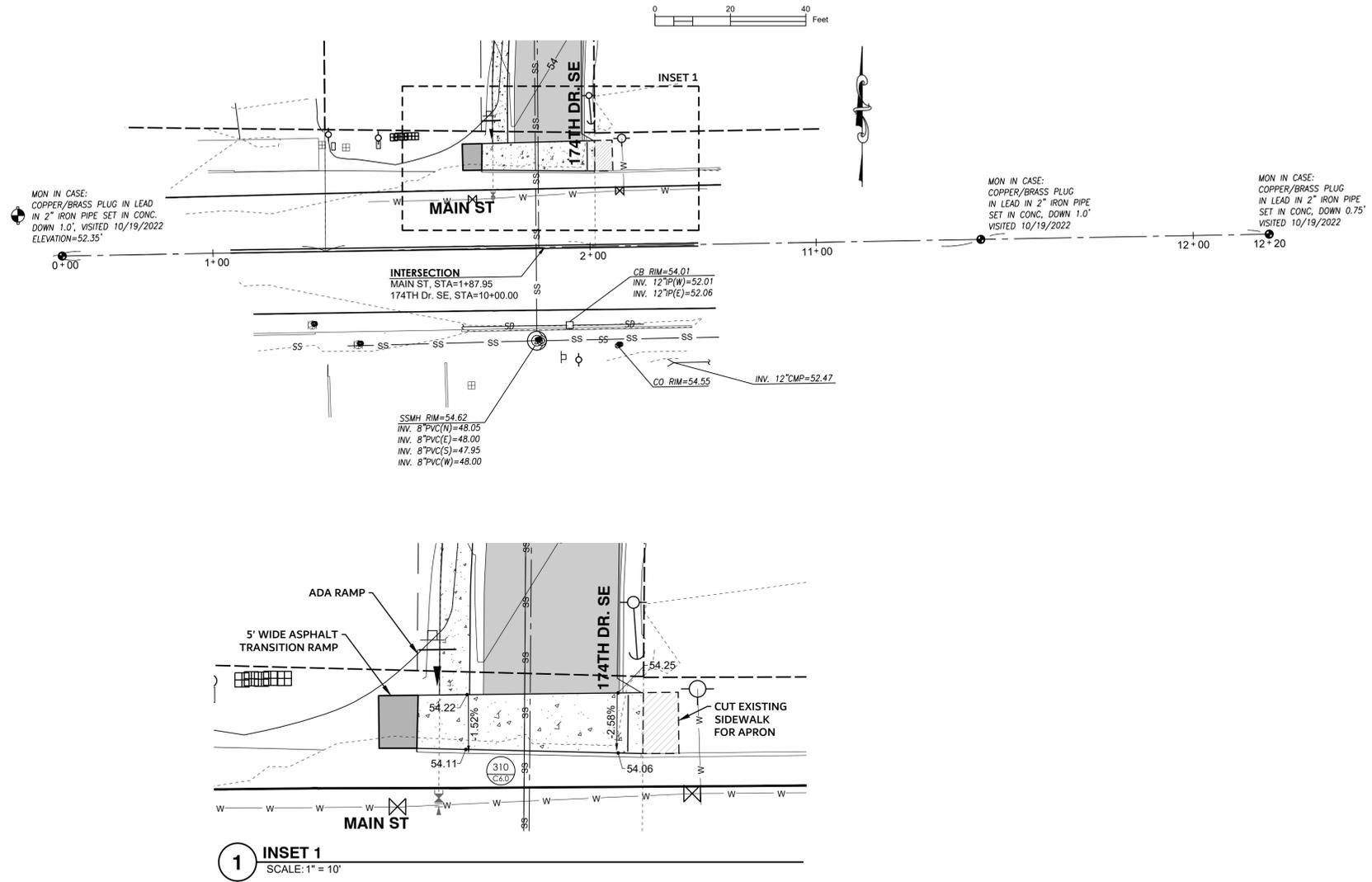
PONDEROSA PACIFIC
 16096 174TH DR SE
 MONROE, WA 98272

DATE: 11/26/2025
 JOB #: 23-152



C4.2

SECTION 02, TOWNSHIP 27 NORTH, RANGE 06 EAST, W.M.



1 INSET 1
SCALE: 1" = 10'

REVISIONS

NO.	DESCRIPTION	DATE

HARMSEN ENGINEERS SURVEYORS

2822 COLBY AVE., SUITE 300
EVERETT, WA 98201

(425) 252-1884
(206) 343-5903



PONDEROSA PACIFIC
16096 174TH DR SE
MONROE, WA 98272

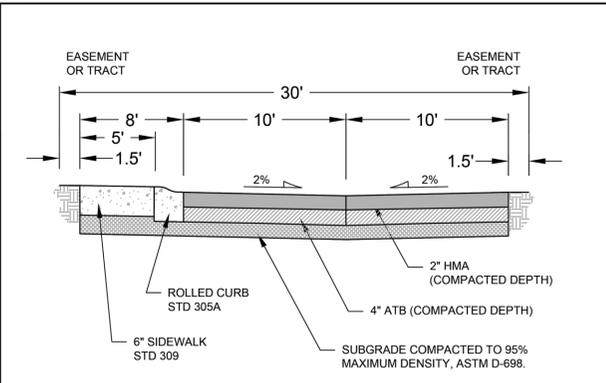
CONSTRUCTION DOCUMENTS
FRONTAGE IMPROVEMENTS

DATE: 11/26/2025
JOB #: 23-152



C5.0

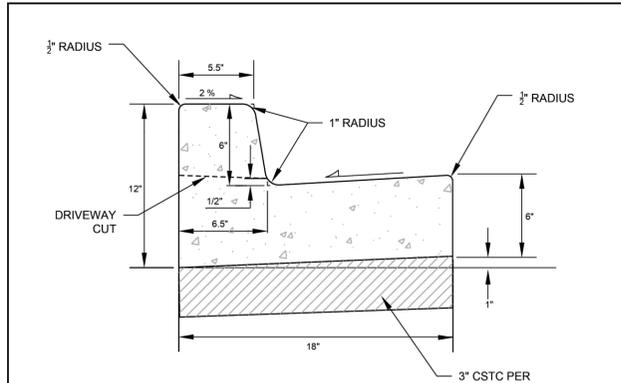
SECTION 02, TOWNSHIP 27 NORTH, RANGE 06 EAST, W.M.



- NOTES**
1. COMPACTION TESTS ON SUBGRADE ARE REQUIRED. THE NUMBER OF TESTS SHALL BE AT THE DISCRETION OF THE CITY INSPECTOR. ALL TESTING SHALL BE THROUGH A LICENSED TESTING LABORATORY. THE MINIMUM COMPACTION SHALL BE 95% OF MAXIMUM DENSITY, ASTM D-698.
 2. CATCH BASIN GRATES, MONUMENT CASES, VALVE BOXES, ETC. SHALL BE ADJUSTED TO FINISH GRADE PRIOR TO THE FINAL LIFT OF ASPHALT.
 3. THE CITY ENGINEER MAY REQUIRE THE FINAL 2" LIFT OF HMA TO BE BONDED AND DELAYED FOR UP TO ONE YEAR. ALL UTILITY CASTINGS (MANHOLE COVERS, VALVE BOXES, ETC.) MUST REMAIN AT GRADE UNTIL FINAL PAVING. PRIOR TO FINAL LIFT ALL ATB (SUB PAVING LIFT) DEFICIENCIES MUST BE REPAIRED TO THE SATISFACTION OF THE CITY.
 4. DRAINAGE TO BE DIRECTED TO STORM DRAINAGE SYSTEM.
 5. PAVEMENT DESIGN ALTERNATIVES MAY BE CONSIDERED SUBJECT TO APPROVAL BY THE CITY ENGINEER.

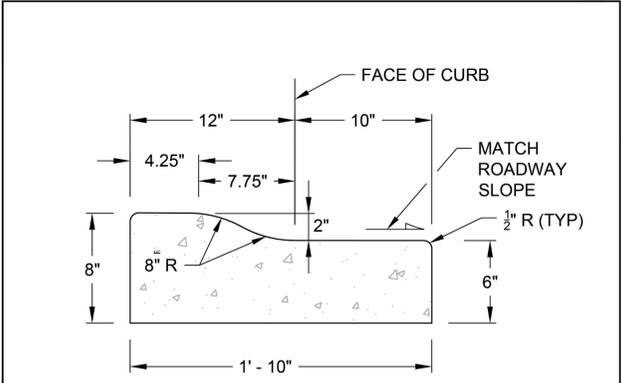
SEE DETAIL 4 ON SHEET C3.0 FOR 174TH DR SE X-SECTION AND DETAIL 2 ON SHT. C3.1 FOR ROAD A X-SECTION. THE PAVEMENT LAYERS AND NOTES ON THIS DETAIL DO APPLY TO THE ABOVE REFERENCED DETAILS.

	DESCRIPTION	DESIGNATION
	PRIVATE ROAD SECTION (SHORT PLAT)	303
SCALE	REVISED	
NOT TO SCALE	FEB 1, 2024	



- NOTES**
1. MID DEPTH EXPANSION JOINTS SHALL BE PLACED ON 10 FOOT CENTERS AND ADJACENT TO CATCH BASINS, TANGENT POINTS OF STREETS, ALLEYS, AND DRIVEWAYS. 3/8" EXPANSION JOINT BETWEEN BACK OF CURB AND SIDEWALK. PRE-MOLDED JOINT FILLER MAY BE 3/8" WIDE AND CONFORM TO AASHTO DESIGN M213.
 2. CONCRETE SHALL BE CLASS 4000 CONCRETE.
 3. STEEL FORMS SHALL BE USED ON TANGENT SECTIONS. WOOD FORMS TO BE USED ON CURVED SECTIONS.
 4. FINISH SHALL BE LIGHT BROOM FINISH.

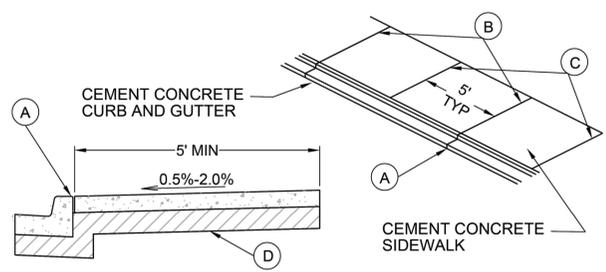
	DESCRIPTION	DESIGNATION
	CEMENT CONCRETE CURB AND GUTTER	305
SCALE	REVISED	
NOT TO SCALE	FEB 1, 2024	



- NOTES**
1. MID DEPTH EXPANSION JOINTS SHALL BE PLACED ON 10 FOOT CENTERS AND ADJACENT TO CATCH BASINS, TANGENT POINTS OF STREETS, ALLEYS, AND DRIVEWAYS. 3/8" EXPANSION JOINT BETWEEN BACK OF CURB AND SIDEWALK. PRE-MOLDED JOINT FILLER MAY BE 3/8" WIDE AND CONFORM TO AASHTO DESIGN M213.
 2. CONCRETE SHALL BE CLASS 4000 CONCRETE.
 3. STEEL FORMS SHALL BE USED ON TANGENT SECTIONS. WOOD FORMS TO BE USED ON CURVED SECTIONS.
 4. FINISH SHALL BE LIGHT BROOM FINISH.

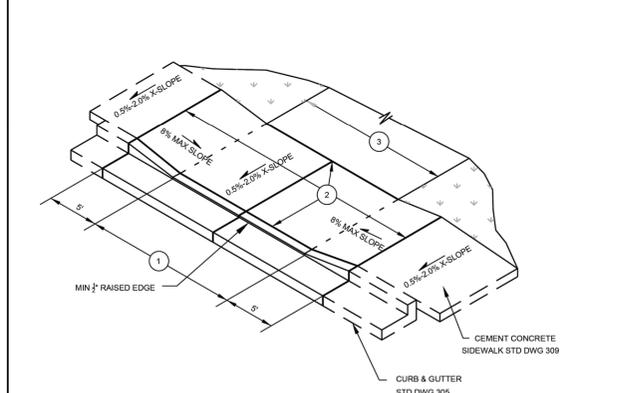
	DESCRIPTION	DESIGNATION
	ROLLED CURB	305A
SCALE	REVISED	
NOT TO SCALE	FEB 1, 2024	

- NOTES:**
1. CONSTRUCTION OF SIDEWALKS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION AS PUBLISHED BY THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND THE AMERICAN PUBLIC WORKS ASSOCIATION (WSDOT/APWA SPECIFICATIONS) UNLESS OTHERWISE MODIFIED BELOW.
 2. CONCRETE SHALL BE CLASS 4000 CONCRETE.
 3. FORMS SHALL BE TRUE TO LINE AND GRADE AND SECURELY STAKED. STEEL FORMS ONLY SHALL BE USED ON TANGENT SECTIONS. WOOD FORMS MAY BE USED ON CURVED SECTIONS.
 4. RESERVED.
 5. THE WIDTH OF SIDEWALK SHALL BE 5 FEET MIN. FOR SINGLE FAMILY RESIDENTIAL PROPERTY USES AND 8 FEET MIN. FOR COMMERCIAL/INDUSTRIAL AND MULTI-FAMILY RESIDENTIAL PROPERTY USES.
 6. FINISH SHALL BE A LIGHT BROOM FINISH.
 7. SUBGRADE COMPACTION FOR SIDEWALKS SHALL MEET A MINIMUM 95% OF MAXIMUM DENSITY IN ACCORDANCE WITH WSDOT/APWA SPECIFICATIONS.
 8. PLANTER STRIPS REQUIRED BUT NOT SHOWN.
 9. SIDEWALK SHALL BE AT LEAST 6" THICK IN DRIVEWAYS.
 10. THE FINISHED SIDEWALK SHALL BE SPRAYED WITH A TRANSPARENT CURING COMPOUND AND COVERED BY WATERPROOF PAPER OR PLASTIC SHEETING IN THE EVENT OF RAIN OR OTHER INCLEMENT WEATHER. CURING TIME SHALL BE FOR A MINIMUM OF 72 HOURS.
 11. ALL JOINTS SHALL BE CLEANED AND EDGED WITH AN EDGER HAVING A 1/2" RADIUS.



- FLAG NOTES:**
- Ⓐ EXPANSION JOINTS CONSISTING OF 1/2" X 2" PREMOLDED JOINT MATERIAL SHALL BE PLACED AROUND FIRE HYDRANTS, POLES, METER BOXES AND OTHER OBSTRUCTIONS AND ALONG WALLS OR STRUCTURES IN PAVED AREAS. EXPANSION JOINTS SHALL ALSO BE PLACED AT THE BEGINNING AND THE END OF EACH CURVE, ON EACH SIDE OF STRUCTURES, DROP CURB DRIVEWAYS AND CURB RAMPS. BETWEEN SIDEWALK AND BACK OF CURB WHEN POURED SEPARATELY, AND AT OTHER LOCATIONS AS DIRECTED BY THE ENGINEER. FULL EXPANSION JOINTS SHALL GENERALLY BE PLACED TO MATCH THOSE PLACED IN ADJACENT CURB.
 - Ⓑ CONTRACTION JOINTS (CONTROL JOINTS) SHALL CONSIST OF 1/2" X 2" OF PREMOLDED JOINT MATERIAL. WHEN SIDEWALKS ARE PLACED BY SLIPFORMING, A PREMOLDED STRIP OF 3/8" THICK AND UP TO FULL DEPTH MAY BE USED. CONTRACTION JOINTS (CONTROL JOINTS) IN SIDEWALKS SHALL BE LOCATED SO AS TO MATCH THE JOINTS IN THE CURB WHETHER SIDEWALK IS ADJACENT TO CURB OR SEPARATED BY A PLANTING STRIP. JOINT SEALANTS FOR SAVED CONSTRUCTION JOINTS SHALL MEET THE REQUIREMENTS OF SECTION 9-04.2 OF THE WSDOT/APWA SPECIFICATIONS.
 - Ⓒ SCORE MARKS, 1/4" DEEP WITH 2" FLASH ON EITHER SIDE OF CENTER SCORE, ARE TO BE PLACED ON 5 FOOT CENTERS, AND TO CORRESPOND TO THE MARKINGS IN EXISTING SIDEWALKS. WHEN THE SIDEWALK WIDTH EXCEEDS 8 FEET, A LONGITUDINAL SCORE AT THE CENTER OF THE SIDEWALK SHALL BE PROVIDED.
 - Ⓓ 4 INCHES OF CRUSHED SURFACING TOP COURSE COMPACTED TO 95% DENSITY.

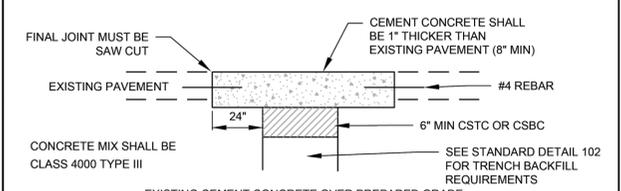
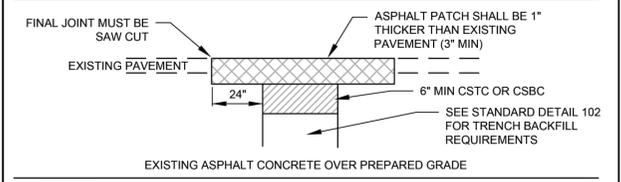
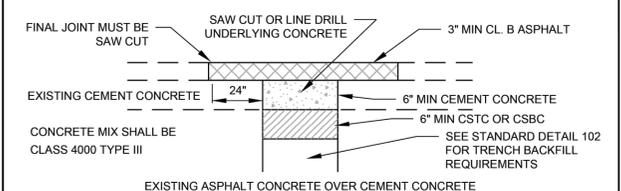
	DESCRIPTION	DESIGNATION
	CEMENT CONCRETE SIDEWALK	309
SCALE	REVISED	
NOT TO SCALE	FEB 1, 2024	



- LEGEND:**
- ① MAXIMUM 20' FOR RESIDENTIAL DRIVEWAY WITH TWO CAR GARAGE. MAXIMUM 35' FOR COMMERCIAL OR INDUSTRIAL DRIVEWAY.
 - ② 3/8" WIDE 4" DEPTH EXPANSION JOINT.
 - ③ DRIVEWAY TO BE SURFACED WITH ASPHALT, CONCRETE, OR PAVEMENT HARDSCAPE.

- NOTES:**
1. DRIVEWAY APPROACH APRON AND SIDEWALK CEMENT CONCRETE SHALL BE A MIN OF 6" THICK AND BE PLACED ON A MINIMUM OF 4" CRUSHED SURFACING TOP COURSE COMPACTED TO 95% MAXIMUM DENSITY.
 2. CONCRETE SHALL BE 4000 CLASS CONCRETE.
 3. ADD 3/8" ROUNDED EDGE AND 4" FLASHING AT JOINTS.
 4. RAMP RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET. WHEN APPLYING THE 15-FOOT MAXIMUM LENGTH THE RUNNING SLOPE OF THE CURB RAMPS IS ALLOWED TO EXCEED 8.3%. USE A SINGLE CONSTANT SLOPE FROM THE BOTTOM OF RAMP TO TOP OF RAMP.

	DESCRIPTION	DESIGNATION
	CEMENT CONCRETE DRIVEWAY TYPE I	310
SCALE	REVISED	
NOT TO SCALE	FEB 1, 2024	



- NOTES**
1. ALL TRENCHES IN ROADWAY AREAS SHALL BE BACKFILLED AND PATCHED WITH TEMPORARY ASPHALT AT THE END OF EACH WORK DAY UNLESS PERMISSION IS GRANTED TO DO OTHERWISE BY THE CITY ENGINEER.
 2. ALL TEMPORARY PATCHES ON TRENCHES SHALL BE PERMANENTLY PATCHED WITHIN 2 WEEKS OF COMPLETION OF WORK WITHIN THE ROADWAY AREA.
 3. FOR MORE INFORMATION SEE DETAILS 318 AND 318A.

	DESCRIPTION	DESIGNATION
	PAVEMENT PATCHING DETAIL	317
SCALE	REVISED	
NOT TO SCALE	FEB 1, 2024	

REVISIONS

2/21/26 REVISED PER CITY OF MONROE COMMENTS

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C6.0