

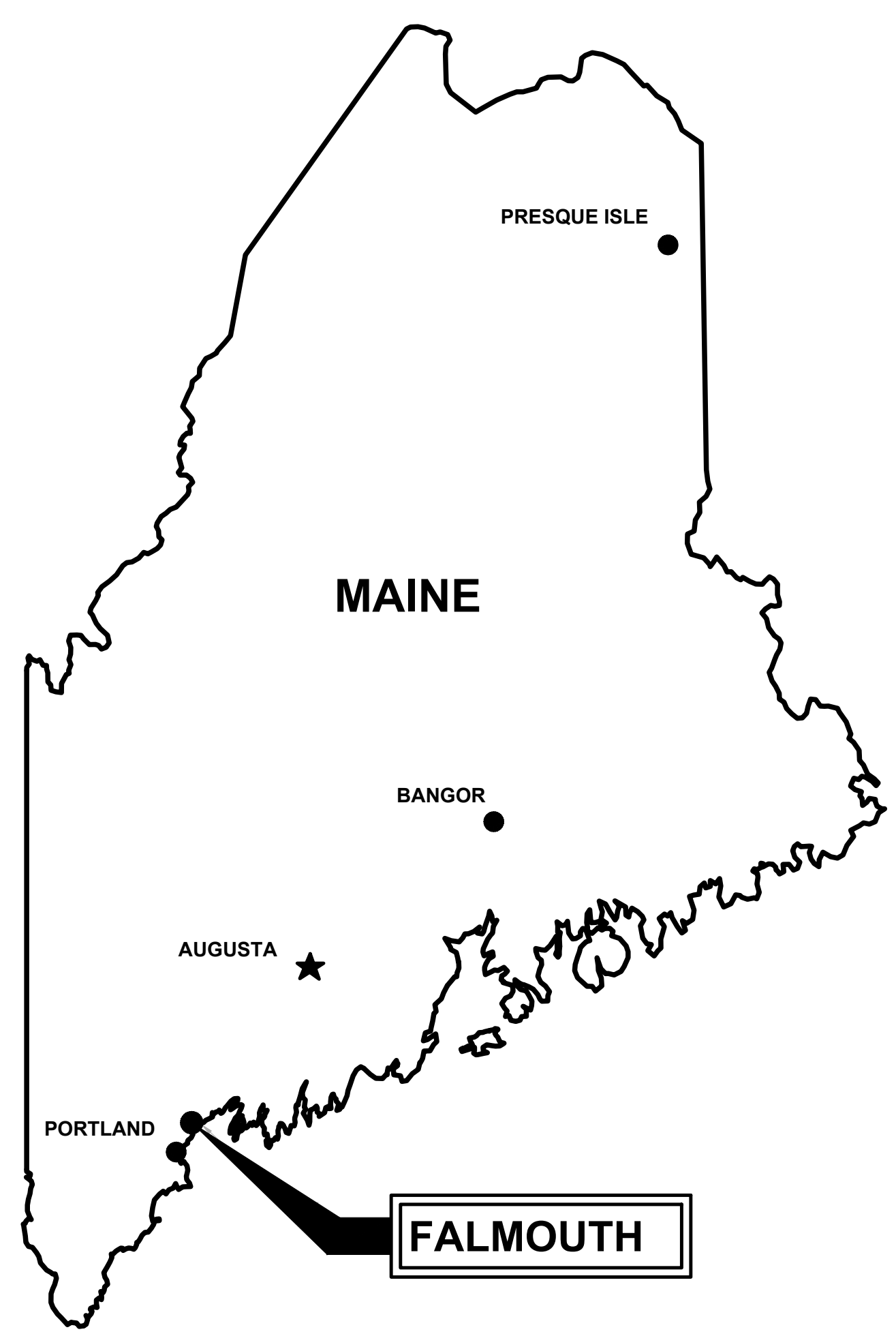
TOWN OF FALMOUTH, MAINE

CONTRACT DRAWINGS FOR

SEWER IMPROVEMENTS PHASE I

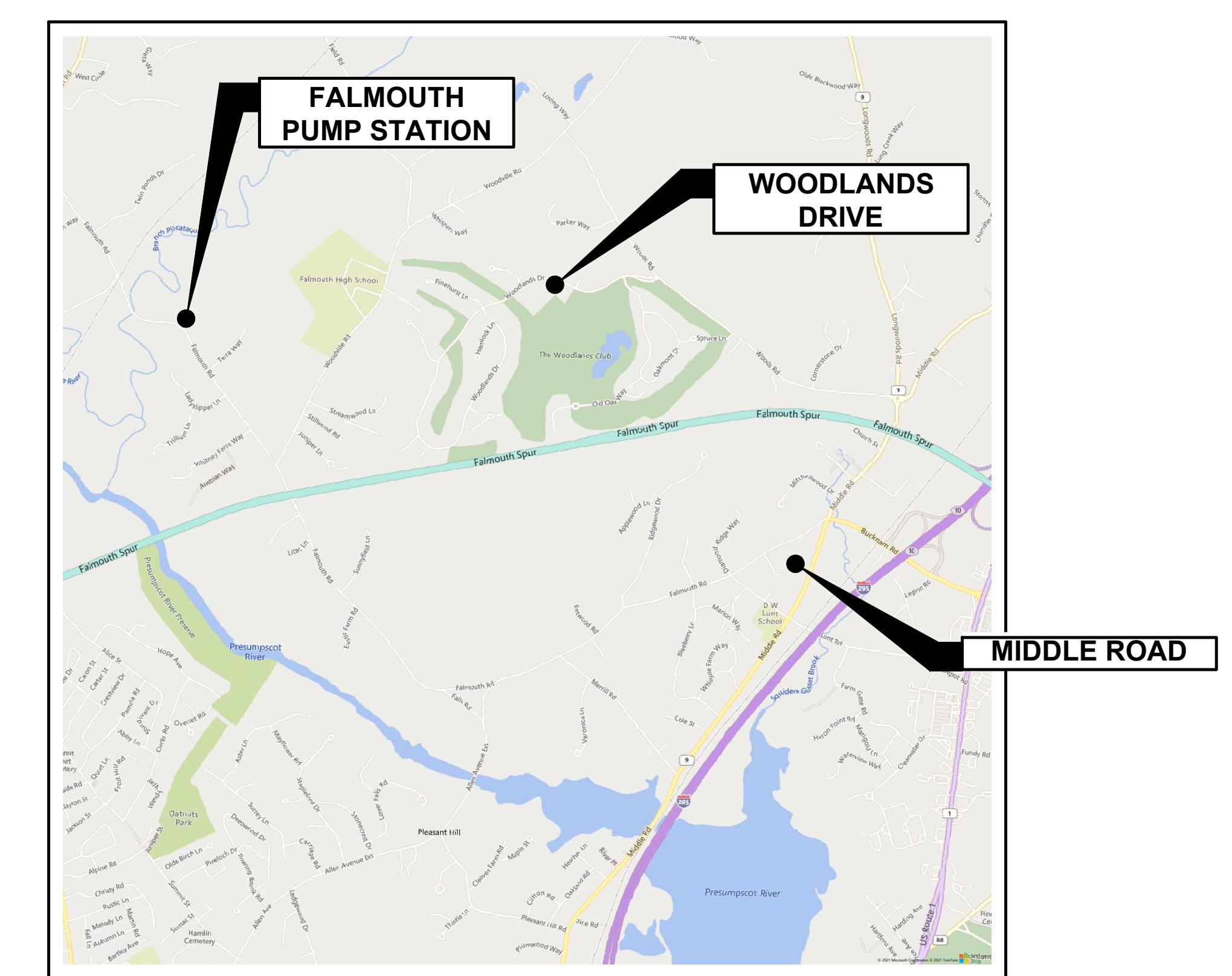
FEBRUARY 2022

CONTRACT DRAWINGS



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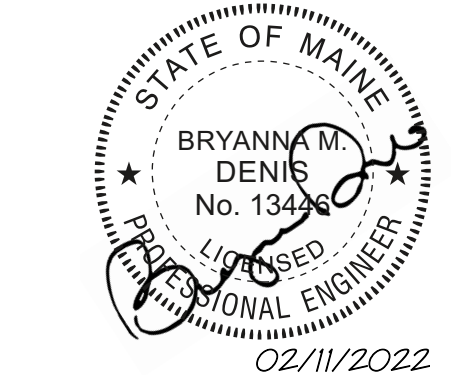
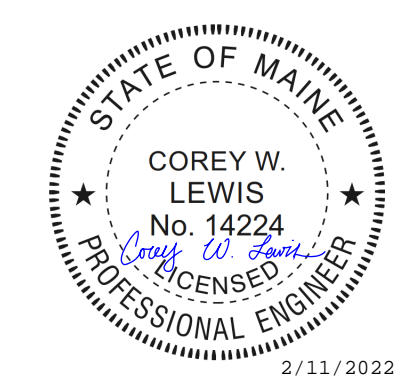
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LOCATION PLAN

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FOR REVIEW _____
 FOR BIDDING **FEBRUARY 2022**
 WP PROJECT No. 14070D

GENERAL NOTES

- 1. THE OWNER WILL BE RESPONSIBLE FOR OBTAINING THE PERMITS LISTED IN THE SUPPLEMENTARY OR SPECIAL CONDITIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BE FAMILIAR WITH THE APPLICABLE PROVISIONS OF EACH PERMIT AS THEY APPLY TO THE WORK PRIOR TO BIDDING AND ABIDE BY THOSE PROVISIONS DURING CONSTRUCTION. COPIES OF ALL OBTAINED PERMITS ARE AVAILABLE FOR REVIEW FROM THE OWNER. ALL OTHER PERMITS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
2. THE OWNER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY RIGHTS OF WAY AND EASEMENTS. THE CONTRACTOR SHALL VERIFY THAT THE NECESSARY EASEMENTS HAVE BEEN SECURED BY THE OWNER. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BE FAMILIAR WITH THE APPLICABLE PROVISIONS OF EACH EASEMENT AS THEY APPLY TO THE WORK PRIOR TO BIDDING AND ABIDE BY THOSE PROVISIONS DURING CONSTRUCTION. COPIES OF ALL RIGHTS OF WAY AND EASEMENTS ARE AVAILABLE FOR REVIEW FROM THE OWNER.
3. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TRAFFIC FLOW AT ALL TIMES. CONTRACTOR SHALL INSTALL AND MAINTAIN TRAFFIC CONTROL SIGNS IN ACCORDANCE WITH THE MUTCD AND ALL STATE AND LOCAL REGULATIONS. THE CONTRACTOR IS REQUIRED TO SUBMIT A TRAFFIC CONTROL PLAN TO THE OWNER PRIOR TO COMMENCING CONSTRUCTION. THE FALMOUTH POLICE DEPARTMENT AND FIRE DEPARTMENT ARE TO BE NOTIFIED AT LEAST 24 HOURS IN ADVANCE OF ANY STREET CLOSING OR DETOUR. REFER TO SPEC. SECTION 01570.
4. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
5. CONTRACTOR SHALL COMPLY WITH THE COORDINATION REQUIREMENTS AND RELATED COSTS, IF ANY, AS SPECIFIED IN SECTION 01050.
6. CONTRACTOR SHALL NOTE THAT, IN GENERAL, ALL EXISTING CONDITION INFORMATION ON THE DRAWINGS ARE SHOWN WITH A LIGHTER LINE WEIGHT AND WITH A SLANTED TYPE TEXT.
7. ALL EXISTING SEWER AND STORM DRAIN LINES ENCOUNTERED DURING CONSTRUCTION ARE TO REMAIN IN SERVICE. ANY EXISTING SEWERS, STORM DRAIN LINES OR CULVERTS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER, EXCEPT WHEN IN DIRECT CONFLICT WITH THE NEW SEWER OR WHEN NOT SHOWN OR INDICATED.
8. ALL STRUCTURES AND PIPELINES LOCATED ADJACENT TO TRENCH EXCAVATION SHALL BE PROTECTED AND FIRMLY SUPPORTED BY THE CONTRACTOR UNTIL THE TRENCH IS BACKFILLED. INJURY TO ANY SUCH STRUCTURES CAUSED BY OR RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. ALL UTILITIES REQUIRING REPAIR, RELOCATION OR ADJUSTMENT AS A RESULT OF THE PROJECT SHALL BE COORDINATED THROUGH THE RESPECTIVE UTILITY.
9. IN THOSE INSTANCES WHERE POWER OR TELEPHONE POLE SUPPORT IS REQUIRED, THE CONTRACTOR SHALL PROVIDE A MINIMUM 48-HOUR NOTICE TO THE RESPECTIVE UTILITY POLE OWNER. NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR TEMPORARY BRACING OF UTILITIES.
10. MAINE STATE HIGHWAYS: THE FOLLOWING ROADWAYS FALL WITHIN THE JURISDICTION OF THE MAINE TURNPIKE AUTHORITY. ALL WORK CONDUCTED WITHIN THESE ROADWAYS SHALL CONFORM TO MAINE TURNPIKE AUTHORITY STANDARDS. STATE HIGHWAYS WITHIN THE PROJECT AREA ARE AS FOLLOWS:
- FALMOUTH SPUR HIGHWAY
- MIDDLE ROAD BRIDGE
11. ALL TEST PITS SHALL BE EXCAVATED PRIOR TO CONSTRUCTION LAYOUT AND RESULTS REPORTED TO THE ENGINEER FOR REVIEW FOR CONFORMANCE WITH THE PLANS. TESTS PITS ARE REQUIRED WHERE SHOWN ON THE DRAWINGS AND AS DIRECTED BY THE ENGINEER. TEST PITS WILL BE DUG PRIOR TO CONNECTING PROPOSED SEWERS TO EXISTING SEWERS. THE RESULTS OF TEST PITS DUG TO DETERMINE EXISTING SEWER ELEVATIONS AND LOCATIONS WILL BE REPORTED TO THE ENGINEER. ADJUSTMENTS TO INVERTS, LENGTHS, AND SLOPES OF PROPOSED SEWER MAY BE REQUIRED AS DIRECTED BY THE ENGINEER. THE HORIZONTAL ALIGNMENT OF THE NEW SEWERS AND FORCE MAINS MAY BE ADJUSTED IN THE FIELD SUBJECT TO PRIOR APPROVAL OF THE ENGINEER.
12. SERVICE CONNECTIONS ARE SHOWN FOR ESTIMATING PURPOSES ONLY. THE ACTUAL NUMBER, LENGTH, AND LOCATION SHALL BE AS FIELD DETERMINED AT THE TIME OF CONSTRUCTION. A NEW SERVICE LEAD SHALL BE INSTALLED FROM THE NEW SEWER LINE BACK TO THE POINT OF CONNECTION TO THE EXISTING SERVICE AT THE EDGE OF THE MAIN LINE TRENCH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. NEW SEWER SERVICES SHALL BE 6-INCH DIAMETER UNLESS OTHERWISE INDICATED.
13. GRAVITY SEWER AND FORCE MAIN PIPE SCHEDULE IS IN SECTION 15050.
14. INSULATE OVER ANY GRAVITY SEWER OR FORCE MAIN PIPE WHEN COVER IS LESS THAN 5 FEET, OR THERE IS LESS THAN 2 FEET BETWEEN THE SEWER OR FORCE MAIN AND A CULVERT.
15. INITIAL PAVING SHALL BE CONDUCTED WITHIN TWO WEEKS OF COMPLETION OF PLACEMENT OF FINAL BACKFILL UNLESS OTHERWISE AUTHORIZED BY ENGINEER. INITIAL PAVEMENT SHALL BE INSTALLED AND MAINTAINED BY CONTRACTOR FOR A MINIMUM PERIOD OF 2 MONTHS BEFORE FINAL PAVEMENT IS PLACED. FINAL PAVEMENT MAY BE PLACED OVER THE INITIAL PAVING PROVIDED INITIAL PAVING COURSE IS IN GOOD REPAIR. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING AND SHIMMING THE INITIAL PAVEMENT AS NECESSARY TO ACCEPT THE FINAL PAVING COURSE. IF CONDITIONS WARRANT, THE CONTRACTOR MAY BE REQUIRED TO REMOVE AND REPLACE INITIAL PAVING PRIOR TO FINAL PAVING.

EXISTING SITE CONDITIONS

- 1. THE LOCATIONS OF UNDERGROUND UTILITIES AND STRUCTURES, AS SHOWN ON THE DRAWINGS, ARE APPROXIMATE AND MAY NOT BE COMPLETE. NO GUARANTEE IS MADE THAT UTILITIES OR STRUCTURES WILL BE ENCOUNTERED WHERE SHOWN, OR THAT ALL UNDERGROUND UTILITIES AND STRUCTURES ARE SHOWN. ALL LOCATIONS AND SIZES OF EXISTING UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD WITH TEST PITS AS REQUIRED PRIOR TO BEGINNING CONSTRUCTION OF NEW FACILITIES OR PIPING THAT MAY BE AFFECTED. THE CONTRACTOR WILL REALIGN NEW PIPE LOCATIONS AS REQUIRED TO CONFORM TO EXISTING LINES AND AS APPROVED BY THE ENGINEER.
2. BELOW GRADE UTILITY INFORMATION IS BASED ON INFORMATION PROVIDED BY EACH UTILITY. LOCATION OF PUBLIC UTILITIES SHOWN IS ONLY APPROXIMATE AND MAY NOT BE COMPLETE. PRIVATE UNDERGROUND UTILITIES SUCH AS, BUT NOT LIMITED TO, SEWER LINES, WATER LINES AND BURIED ELECTRICAL SERVICE ENTRANCES ARE NOT SHOWN. THE CONTRACTOR SHALL ASCERTAIN THE LOCATION AND SIZE OF EXISTING UTILITIES IN THE FIELD WITH THE RESPECTIVE UTILITY COMPANY REPRESENTATIVE PRIOR TO COMMENCING WORK. REFER TO SPECIFICATION SECTION 01050. ADDITIONAL TEST PITS, BEYOND THOSE SHOWN, MAY BE REQUIRED. UTILITY CONTACTS ARE AS FOLLOWS:

Table with utility contact information including Electric (Central Maine Power), Water (Portland Water District), Telecom (Consolidated Communications), and Dig Safe (Dial 811).

Table with contact information for Sewer (Dan Marks, Wastewater Dept.), Storm Drains (Public Works Dept.), and Maine Turnpike Authority (Justin Early, Eng. Program Manager).

- 3. HAZARDOUS ENVIRONMENTAL CONDITIONS HAVE BEEN IDENTIFIED WITHIN THE AREA OF WORK INCLUDING ASBESTOS CEMENT (TRANSITE) PIPE. REFER TO SECTION 08000-SC-5.06. IF THE PRESENCE OF ADDITIONAL HAZARDOUS ENVIRONMENTAL CONDITIONS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE ENGINEER IMMEDIATELY. ALL ACTIVITIES, HANDLING AND DISPOSAL OF HAZARDOUS ENVIRONMENTAL CONDITIONS AND MATERIALS SHALL BE IN ACCORDANCE WITH OSHA, FEDERAL, STATE, AND LOCAL REGULATIONS.
4. ALL DISTURBED/DAMAGED PROPERTY OF HOMEOWNERS, THE WOODLANDS HOMEOWNERS ASSOCIATION AND THE WOODLANDS CLUB SHALL BE RESTORED TO PRIOR EXISTING CONDITION OR REPLACED. THIS INCLUDES ALL UNDERGROUND UTILITIES, AND SPRINKLERS, PET CONTAINMENT SYSTEMS, DRIVEWAYS, CULVERTS, MAIL BOXES AND LANDSCAPING/HARDSCAPING SUCH AS LAWN, RETAINING WALLS, SHRUBS.

SITE DEMOLITION

- 1. REFER TO THE EXISTING SITE PLAN, FOR ADDITIONAL INFORMATION REGARDING EXISTING FACILITIES.
2. REFER TO SPECIFICATION SECTION 01010A, WHICH CONTAINS INFORMATION ON CONSTRAINTS OF CONSTRUCTION SEQUENCING.
3. DEMOLISH/REMOVE EXISTING PIPING AS REQUIRED FOR CONSTRUCTION OF NEW FACILITIES. ALL PIPING, EQUIPMENT AND MATERIALS TO BE DEMOLISHED AND/OR REMOVED FROM SERVICE SHALL BE COORDINATED WITH THE OWNER AND ENGINEER BEFORE COMMENCING THAT WORK. EXISTING PIPING THAT NEEDS TO BE REMOVED TO CONSTRUCT THE NEW FACILITIES, BUT IS TO REMAIN, SHALL BE REINSTALLED/REPLACED AS NEEDED. EXISTING PIPES AND CONDUIT DESIGNATED AS "ABANDONED" MAY BE REMOVED IF THE CONTRACTOR SO CHOOSES. IF ABANDONED PIPE CONFLICTS WITH NEW SITE PIPING OR FACILITIES, THEN A PORTION OF THE ABANDONED PIPE SHALL BE REMOVED AND THE NEW ENDS OF ABANDONED PIPE CAPPED OR PLUGGED WITH FLOWABLE FILL.
4. SEVERING OF EXISTING UTILITIES FOR ABANDONMENT, OR REMOVAL OF A SEGMENT FROM SERVICE, SHALL BE PERFORMED IN SUCH A MANNER AS TO ALLOW THE REMAINING ACTIVE SEGMENT TO CONTINUE IN ITS INTENDED SERVICE. CAP ACTIVE SEGMENTS WITH APPROPRIATE FITTINGS, JOINT RESTRAINT, ETC. TO ENSURE THEIR INTEGRITY. PLUG ENDS OF ABANDONED PIPE SEGMENTS WITH CONCRETE UNLESS SPECIAL CIRCUMSTANCES DICTATE PLUGGING ABANDONED PIPES WITH BLIND FLANGES, RESTRAINED MECHANICAL JOINT PLUGS, ETC. AS APPROPRIATE.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND DISPOSING OF ALL DEMOLISHED PIPING, EQUIPMENT AND MATERIALS. DISPOSAL SHALL BE IN ACCORDANCE WITH ALL STATE AND LOCAL REGULATIONS. THE OWNER RESERVES THE RIGHT TO RETAIN ANY SUCH PIPING, EQUIPMENT AND MATERIALS DESIGNATED FOR DEMOLITION. SUCH MATERIALS TO BE RETAINED SHALL BE PROPERLY STORED IN AN ON-SITE LOCATION, COORDINATE LOCATION AND MATERIALS TO BE SALVAGED WITH THE OWNER/ENGINEER. REFER TO SECTION 02050A.
6. THE CONTRACTOR SHALL KEEP A RECORD OF DEMOLITION AS PART OF THE PROJECT RECORD DOCUMENTS IN ACCORDANCE WITH SPECIFICATION SECTION 01720.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE APPROPRIATE DISPOSAL OF FLOWS RESULTING FROM PRECIPITATION AND GROUNDWATER DEWATERING OPERATIONS.

SITE CLEARING, GRUBBING AND GRADING

- 1. CONTRACTOR SHALL MINIMIZE CLEARING OPERATIONS. CLEARING AND GRUBBING SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 02110. CLEARING LIMITS SHALL BE AS INDICATED ON THE DRAWINGS, BUT AT ALL TIMES WITHIN EXISTING ROAD RIGHTS OF WAY AND PROPERTY LINES ON STATE OWNED PROPERTY OR EASEMENTS. ALL CLEARING AND GRUBBING MATERIAL SHALL BE THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF AT A SITE PROVIDED BY THE CONTRACTOR IN COMPLIANCE WITH ALL STATE AND LOCAL LAWS.
2. THE CONTRACTOR SHALL FOLLOW ALL ENDANGERED SPECIES ACT 4(D) RULES REGARDING THE NORTHERN LONG EARED BAT. THIS INCLUDES AVOIDANCE OF TREE REMOVAL DURING THE MONTHS OF JUNE AND JULY. CONTRACTOR SHALL PLAN ACCORDINGLY.
3. CONTRACTOR SHALL PROVIDE PROPER EROSION CONTROL AND DRAINAGE MEASURES IN ALL AREAS OF WORK, AND CONFINE SOIL SEDIMENT TO WITHIN THE LIMITS OF EXCAVATION AND GRADING. PRIOR TO BEGINNING EXCAVATION WORK, EROSION CONTROL FENCE SHALL BE INSTALLED AT THE DOWN GRADIENT PERIMETER OF THE ACTUAL LIMITS OF GRUBBING AND/OR GRADING, AND AS SHOWN ON THE DRAWINGS. EROSION CONTROL MEASURES SHOWN ON THE DRAWINGS ARE A MINIMUM. CONTRACTOR SHALL TAKE ALL OTHER NECESSARY MEASURES. EROSION CONTROL FENCE SHALL ALSO BE INSTALLED AT THE DOWN GRADIENT PERIMETER OF THE TOPSOIL STOCKPILES. ALL DISTURBED EARTH SURFACES SHALL BE STABILIZED IN THE SHORTEST PRACTICAL TIME AND TEMPORARY EROSION CONTROL DEVICES SHALL BE EMPLOYED UNTIL SUCH TIME AS ADEQUATE SOIL STABILIZATION HAS BEEN ACHIEVED. TEMPORARY STORAGE OF EXCAVATED MATERIAL SHALL BE STABILIZED IN A MANNER THAT WILL MINIMIZE EROSION. ALL INSTALLED EROSION CONTROL FACILITIES SHALL BE REMOVED AT THE END OF THE PROJECT. REFER TO SPECIFICATION SECTION 02270.
4. ALL STORM DRAINAGE INLETS SHALL BE PROTECTED BY HAY BALE FILTERS TO PREVENT ENTRY OF SEDIMENT FROM RUNOFF WATERS DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF ALL COLLECTED SEDIMENT, AND THAT WHICH COLLECTS IN THE STORM DRAIN SYSTEM. REFER TO THE CIVIL DETAIL DRAWINGS.
5. BORING LOGS FOR THE PROJECT SITE ARE INCLUDED IN APPENDIX A OF THE SPECIFICATIONS. THESE ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. PLEASE NOTE THAT THE SOIL DESCRIPTIONS PROVIDED ON THE BORING LOGS DO NOT REPRESENT FIELD CONDITIONS OTHER THAN AT THE SPECIFIC TEST BORING LOCATIONS. THE CONDITIONS BETWEEN BORING LOCATIONS MAY VARY FROM THOSE SHOWN ON THE TEST BORING LOGS.
6. CONTRACTOR SHALL CONTROL DUST ON THE CONSTRUCTION SITE TO A REASONABLE LIMIT, AS DETERMINED BY THE ENGINEER, AND AS OUTLINED IN SPECIFICATION SECTION 01562.
7. CONTRACTOR SHALL NOT TRACK OR SPILL EARTH, DEBRIS OR OTHER CONSTRUCTION MATERIAL ON PUBLIC OR PRIVATE STREETS AND PLANT DRIVES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE ASSOCIATED CLEAN UP.
8. ALL CATCH BASINS, MANHOLES, VALVE PITS, VALVE BOXES AND OTHER BURIED FACILITIES WITH SURFACE ACCESS SHALL BE ADJUSTED TO MATCH FINAL GRADES, UNLESS OTHERWISE INDICATED.
9. THE CONTRACTOR SHALL NOT HAVE ANY RIGHT OF PROPERTY IN ANY MATERIALS TAKEN FROM ANY EXCAVATION. SUITABLE EXCAVATED MATERIAL MAY BE INCORPORATED IN THE PROJECT, WITH EXCESS MATERIAL DISPOSED OF AT A LOCATION PROVIDED BY THE CONTRACTOR. THESE PROVISIONS SHALL IN NO WAY RELIEVE THE CONTRACTOR OF OBLIGATIONS TO PROPERLY DISPOSE OF AND REPLACE ANY MATERIAL DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING. THE CONTRACTOR SHALL DISPOSE OF UNSUITABLE AND EXCESS MATERIAL IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE CONTRACT DOCUMENTS.
10. CONTRACTOR SHALL REMOVE AND REPLACE, OR REPAIR, ALL CURBS, SIDEWALKS, PAVEMENT AND OTHER ITEMS DAMAGED BY CONSTRUCTION ACTIVITIES TO AT LEAST THEIR ORIGINAL CONDITION, TO THE SATISFACTION OF THE OWNER AND ENGINEER.
11. WHERE EXISTING PAVEMENT IS REMOVED AND REPLACED, MATCH EXISTING GRADES TO THE EXTENT POSSIBLE. COORDINATE FINE GRADING WITH THE ENGINEER.
12. ALL ROAD AND DRIVE CROSS SLOPES SHALL PITCH 1/4 INCH PER FOOT MINIMUM. ALL PAVED SURFACES SHALL PITCH 1% UNLESS OTHERWISE NOTED. REFER TO CIVIL DETAIL DRAWINGS.
13. ALL NON-ROADWAY AREAS THAT ARE EXCAVATED, FILLED, OR OTHERWISE DISTURBED BY THE CONTRACTOR SHALL BE LOAMED, GRADED, LIMED, FERTILIZED, SEEDDED AND MULCHED, UNLESS OTHERWISE NOTED. THE TOP 4 INCHES OF SOIL SHALL BE LOAM. REFER TO SPECIFICATION SECTION 02480, LANDSCAPING.

CIVIL SITE LAYOUT

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THIS PROVIDED LAYOUT INFORMATION THROUGHOUT THE COURSE OF CONSTRUCTION. REPORT ANY LAYOUT DISCREPANCIES IMMEDIATELY TO THE ENGINEER.
2. REFER TO THE SITE PIPING AND SITE GRADING DRAWINGS FOR ADDITIONAL LAYOUT INFORMATION.
3. IN GENERAL, THE GIVEN STRUCTURE LOCATIONS ARE TO THE OUTSIDE FACE OF THE STRUCTURE FOUNDATION WALL, NOT FOOTINGS.
4. THE LOCATIONS AND LIMITS OF ALL ON-SITE WORK AND STORAGE AREAS SHALL BE REVIEWED/COORDINATED WITH, AND ACCEPTABLE TO, THE OWNER AND ENGINEER. THE CONTRACTOR SHALL LIMIT ACTIVITIES TO THESE AREAS. THE LIMIT OF WORK WILL BE THE EXISTING ROAD RIGHT OF WAY AND FULL WIDTH OF THE EXISTING SEWER EASEMENTS
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RE-ESTABLISHING AND RESETTING ALL EXISTING PROPERTY MONUMENTATION DISTURBED BY CONSTRUCTION. THIS WORK SHALL BE DONE BY A LAND SURVEYOR REGISTERED IN THE STATE OF MAINE, AT NO ADDITIONAL COST TO THE OWNER.

- 6. WRITTEN DIMENSIONS SHALL PREVAIL. DO NOT SCALE DISTANCES FROM THE DRAWINGS. REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ENGINEER.
7. ALL ELEVATIONS REFER TO THE 1988 NAVD DATUM. ELEVATIONS ARE BASED ON NAVD 88, DERIVED FROM POST PROCESSED GPS OBSERVATIONS. ORIENTATION IS GRID NORTH ON THE MAINE STATE COORDINATE SYSTEM. PROJECT BENCH MARK IS SHOWN ON THE DRAWINGS AND IS DERIVED FROM SURVEY PREPARED BY OWEN HASKELL, INC. PROFESSIONAL LAND SURVEYORS DATED JULY 26, 2018. CONTRACTOR SHALL VERIFY BENCHMARK ELEVATIONS PRIOR TO USING IN CONSTRUCTION.
8. EXISTING CONDITIONS SITE PLAN DEVELOPED FROM SURVEY DRAWING PREPARED BY OWEN HASKELL, INC. PROFESSIONAL LAND SURVEYORS DATED JULY 26, 2018 AND EXISTING RECORD DRAWING INFORMATION. BEARINGS ARE BASED ON STATE PLANE COORDINATE SYSTEM, MAINE WEST ZONE, NAD 83, DERIVED FROM POST PROCESSED GPS OBSERVATIONS.

CIVIL SITE PIPING

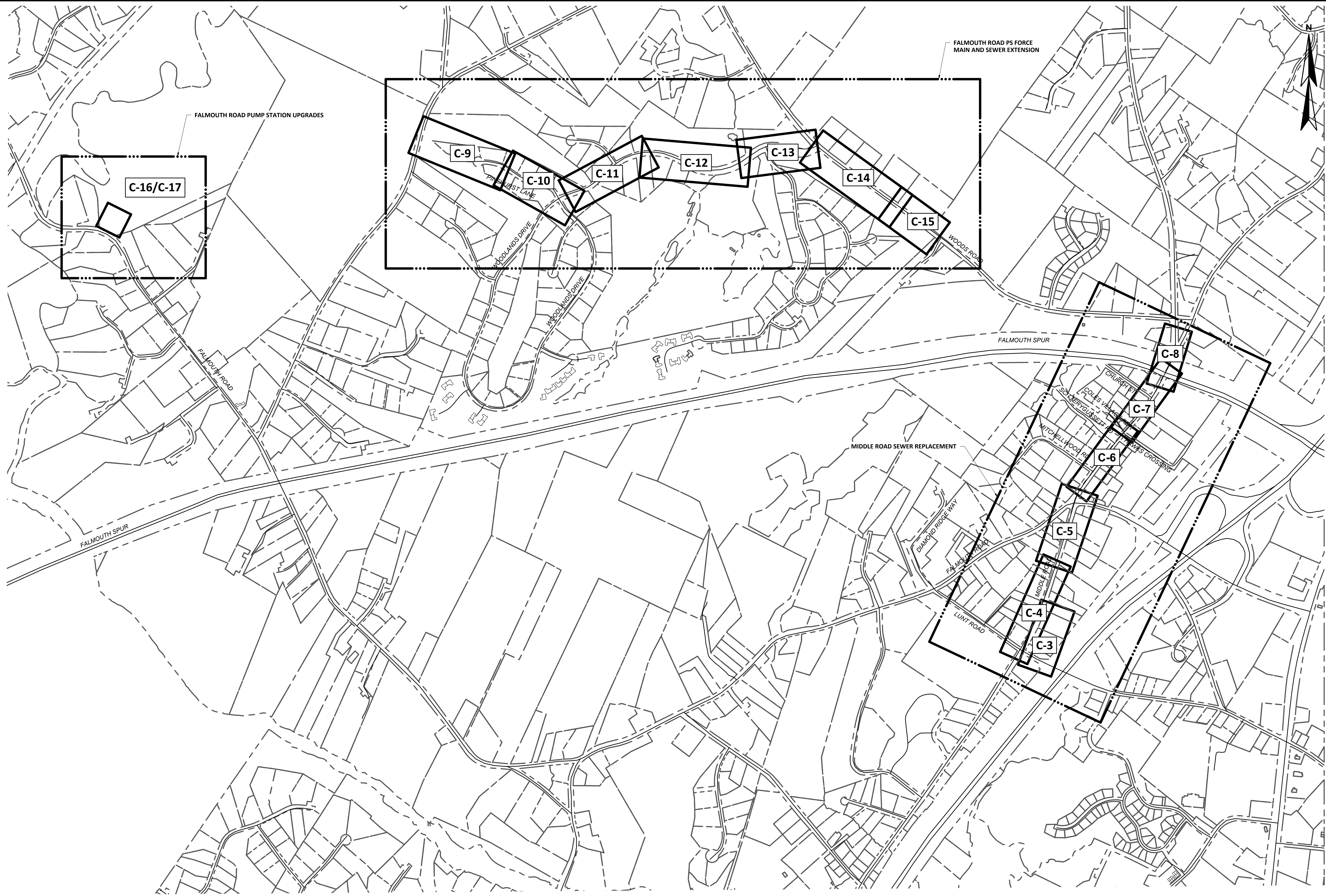
- 2. TRENCH INSULATION SHALL BE USED WHERE DEPTH OF COVER IS LESS THAN 5 FT. REFER TO THE CIVIL DETAIL DRAWINGS FOR THE TRENCH INSULATION DETAIL.
3. TRENCH INSULATION SHALL BE USED WHEN THERE IS LESS THAN 2 FT BETWEEN THE SEWER OR FORCE MAIN AND A CULVERT. REFER TO THE CIVIL DETAIL DRAWINGS FOR THE TRENCH INSULATION DETAIL.
4. MANHOLES ARE 4 FEET IN DIAMETER UNLESS OTHERWISE NOTED. THE TOP OF MANHOLE FRAMES SHALL BE SET FLUSH WITH FINISH GRADE, UNLESS OTHERWISE NOTED ON DRAWINGS. SEWER MANHOLE INVERTS SHOWN ON THE DRAWINGS ARE TO THE INSIDE FACE OF THE MANHOLE.
6. CONTRACTOR SHALL RE-SHAPE INVERTS AS REQUIRED WHEN CONNECTING INTO EXISTING MANHOLES.
7. REFER TO SPECIFICATION SECTION 02200 FOR PIPE AND STRUCTURE BEDDING AND BACKFILL REQUIREMENTS.
9. OPEN TRENCHES IN THE ROADWAY MUST BE BACKFILLED AT THE END OF THE WORKDAY.
10. WHERE NEW PIPING IS TO BE CONNECTED TO EXISTING PIPING, THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ADAPTERS, FITTINGS, AND ADDITIONAL PIPE AS REQUIRED TO COMPLETE THE CONNECTION. CONTRACTOR SHALL VERIFY LOCATION, ELEVATION, ORIENTATION AND MATERIAL OF CONSTRUCTION. TEST PITS SHALL BE USED AS REQUIRED.
11. ALL EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION ARE TO REMAIN IN SERVICE UNLESS OTHERWISE NOTED ON THE CIVIL EXISTING CONDITIONS. ANY EXISTING UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ALL DEMOLITION MATERIALS IN ACCORDANCE WITH SPECIFICATION SECTION 02050.
13. WHERE POSSIBLE, WATER LINES SHOULD BE INSTALLED OVER WASTEWATER LINES. A MINIMUM SEPARATION OF 18 INCHES BETWEEN THE BOTTOM OF THE WATER LINE AND THE TOP OF THE WASTEWATER LINE SHALL BE MAINTAINED, IF POSSIBLE. WHERE A WATER LINE CROSSES UNDER A WASTEWATER OR SLUDGE LINE, A FULL LENGTH OF PIPE SHALL BE CENTERED ABOVE THE WATER LINE SO THAT BOTH JOINTS WILL BE AS FAR FROM THE WATER LINE AS POSSIBLE.

CIVIL ABBREVIATIONS

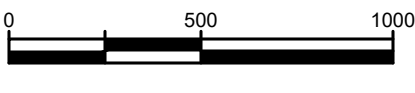
Table of Civil Abbreviations including symbols for diameter, number, approved, building, catch basin, center, cubic feet per second, cast iron, centerline, corrugated metal pipe, cleanout, concrete, corner, cubic yard, demolition, drain manhole, ductile iron, drain, drawing, elevation, electric manhole, force main, feet, gas, hydrant, inch, influent, invert, maximum, manhole, minimum, monitoring well, north, national geodetic vertical datum, not to scale, outside diameter, reinforced concrete pipe, roof drain, required, slope, sewer, storm drain, sanitary sewer manhole, station, transformer, temporary bench mark, thickness, top of structure, typical, underdrain, underground, underground electric, vitrified clay, and with.

Legend table with columns for EXISTING, LEGEND, and PROPOSED. It lists various symbols and line styles for property/row line, setback line, easement line, centerline, edge of pavement, curb, edge of gravel, edge of concrete, contour, building, stone wall, treeline, chain link fence, stockade fence, barb wire fence, retaining wall, guardrail, sewer, sewer force main, gas, water, storm drain, underdrain, culvert, underground electric, overhead electric, underground telephone, underground cable TV, iron pipe/rebar, drill hole, monument, survey control point, spot elevation, sewer manhole, drainage manhole, catch basin, electric manhole, telephone manhole, shutoff valve, water service shutoff, yard hydrant, hydrant, gas service shutoff, gas gate valve, utility pole, utility pole w/ guy, utility pole w/ light, light pole, bollard, flagpole, coniferous tree, deciduous tree, shrub, wetland flag, edge of water, stream, edge of wetlands, floodplain, wetlands, drainage flow, drainage swale, pavement markings, sign, mailbox, temporary bench mark, test pit, test boring, test probe, monitoring well, limit of work, silt fence, riprap, railroad, matchline, and rock outcrop.

Project information block including Project No. 140790, Designer: CLEWIS, CAD: DS SAVAGE, Checked: B. DENIS, Date: 02/20/2022, Approved: CLEWIS, Date: 02/20/2022, and a professional engineer seal for Corey W. Lewis, State of Maine, No. 14224, Exp. 12/31/2022. It also includes the company name WRIGHT-PIERCE and contact information for 11 BOWDWIN MILL ISLAND, SUITE 140, TOPSHAM, ME 04086, with phone 207.725.8721 and website www.wright-pierce.com.



SHEET INDEX
SCALE: 1"=500'



PROJECT NO: 14070		DESIGNED: CLEWIS	APPD DATE:
CAD COORD: D.SAVAGE		CAD: D.FUDA	
CHECKED: B.DENIS		DATE: 02/2022	
APPROVED: CLEWIS		DATE: 02/2022	
SUBMISSION: CONTRACT DRAWINGS			

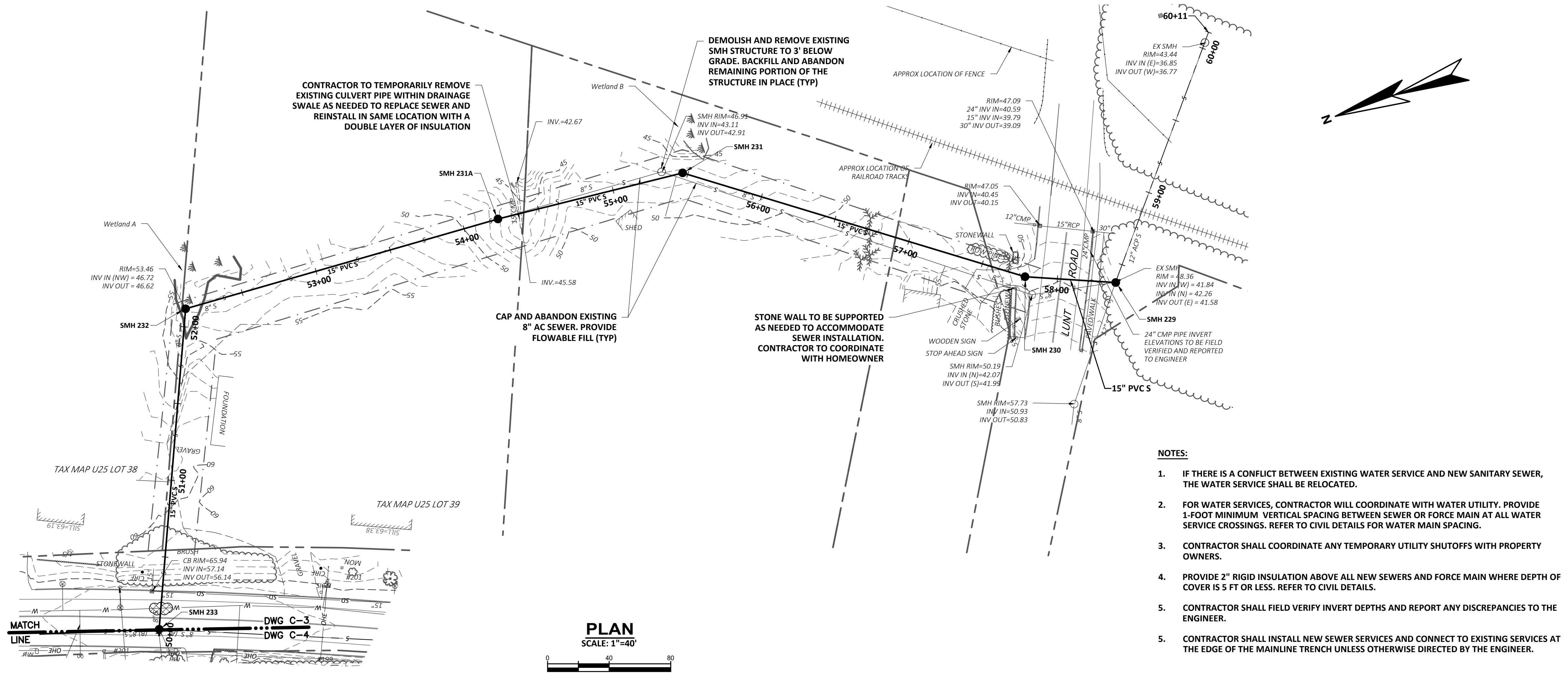
NO	REVISIONS	APPD DATE

TOWN OF FALMOUTH, MAINE
SEWER IMPROVEMENTS PHASE I

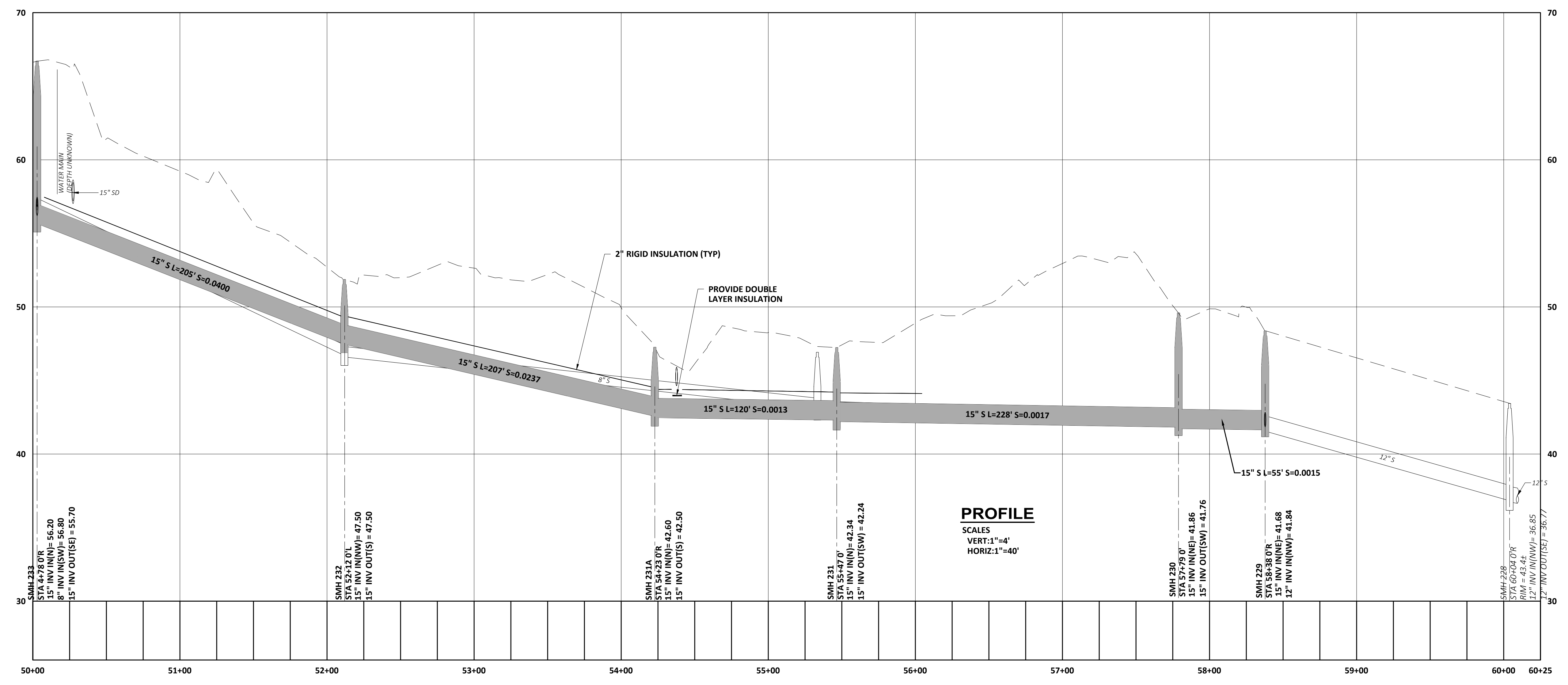
DRAWING
C-2

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11 BOWDOIN MILL ISLAND, SUITE 140, TOPSHAM, ME 04086

COREY W. LEWIS
No. 14224
PROFESSIONAL ENGINEER
STATE OF MAINE
2/11/2022



- NOTES:**
- IF THERE IS A CONFLICT BETWEEN EXISTING WATER SERVICE AND NEW SANITARY SEWER, THE WATER SERVICE SHALL BE RELOCATED.
 - FOR WATER SERVICES, CONTRACTOR WILL COORDINATE WITH WATER UTILITY. PROVIDE 1-FOOT MINIMUM VERTICAL SPACING BETWEEN SEWER OR FORCE MAIN AT ALL WATER SERVICE CROSSINGS. REFER TO CIVIL DETAILS FOR WATER MAIN SPACING.
 - CONTRACTOR SHALL COORDINATE ANY TEMPORARY UTILITY SHUTOFFS WITH PROPERTY OWNERS.
 - PROVIDE 2" RIGID INSULATION ABOVE ALL NEW SEWERS AND FORCE MAIN WHERE DEPTH OF COVER IS 5 FT OR LESS. REFER TO CIVIL DETAILS.
 - CONTRACTOR SHALL FIELD VERIFY INVERT DEPTHS AND REPORT ANY DISCREPANCIES TO THE ENGINEER.
 - CONTRACTOR SHALL INSTALL NEW SEWER SERVICES AND CONNECT TO EXISTING SERVICES AT THE EDGE OF THE MAINLINE TRENCH UNLESS OTHERWISE DIRECTED BY THE ENGINEER.



NO	REVISIONS	APPD	DATE

PROJECT NO: 14070D
 DESIGNED: CLEWIS
 CAD COORD: D.SAVAGE
 CAD: D.FUDA
 CHECKED: B.DENIS
 DATE: 02/2022
 APPROVED: CLEWIS
 DATE: 02/2022
 SUBMISSION: CONTRACT DRAWINGS

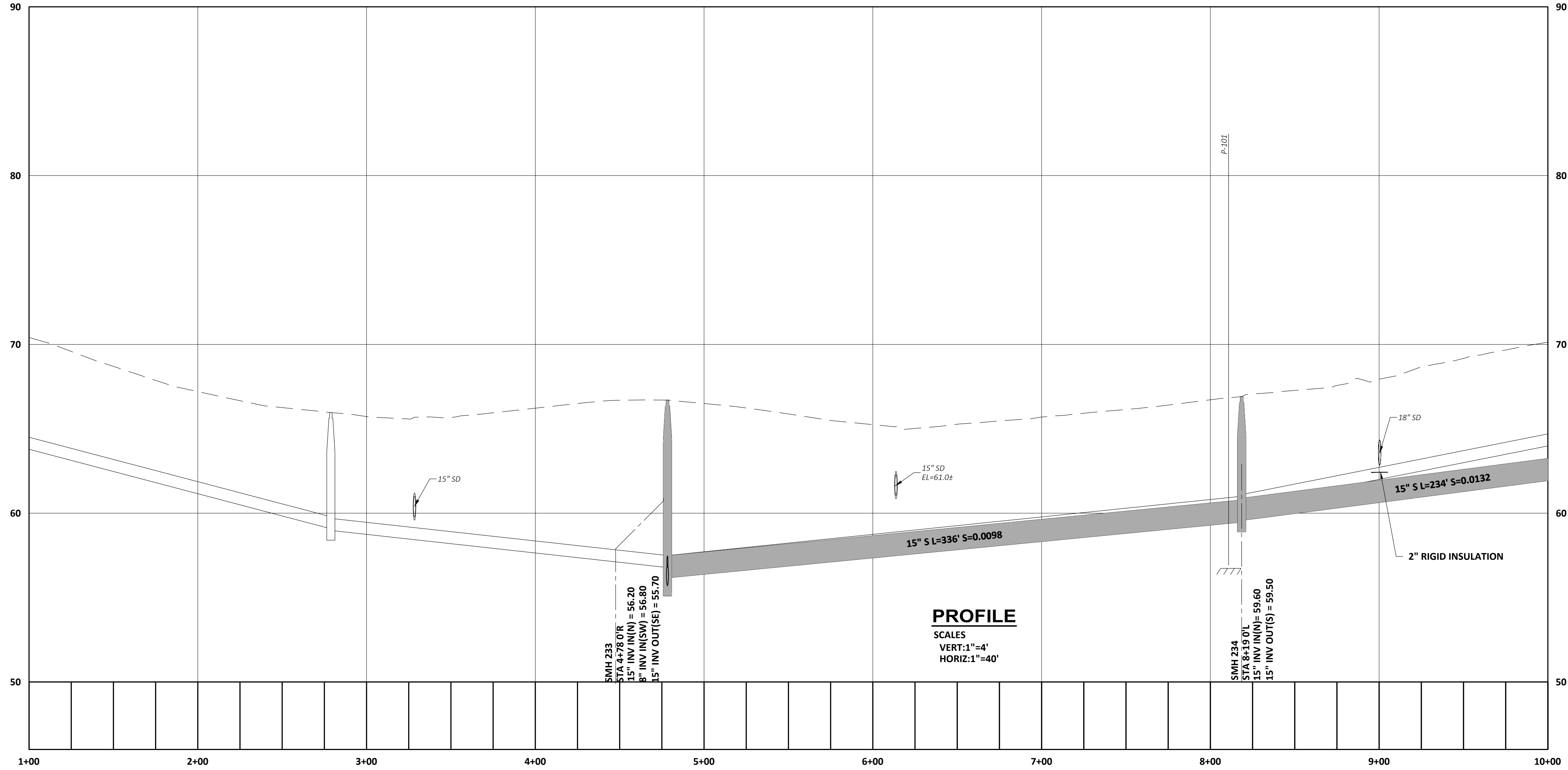
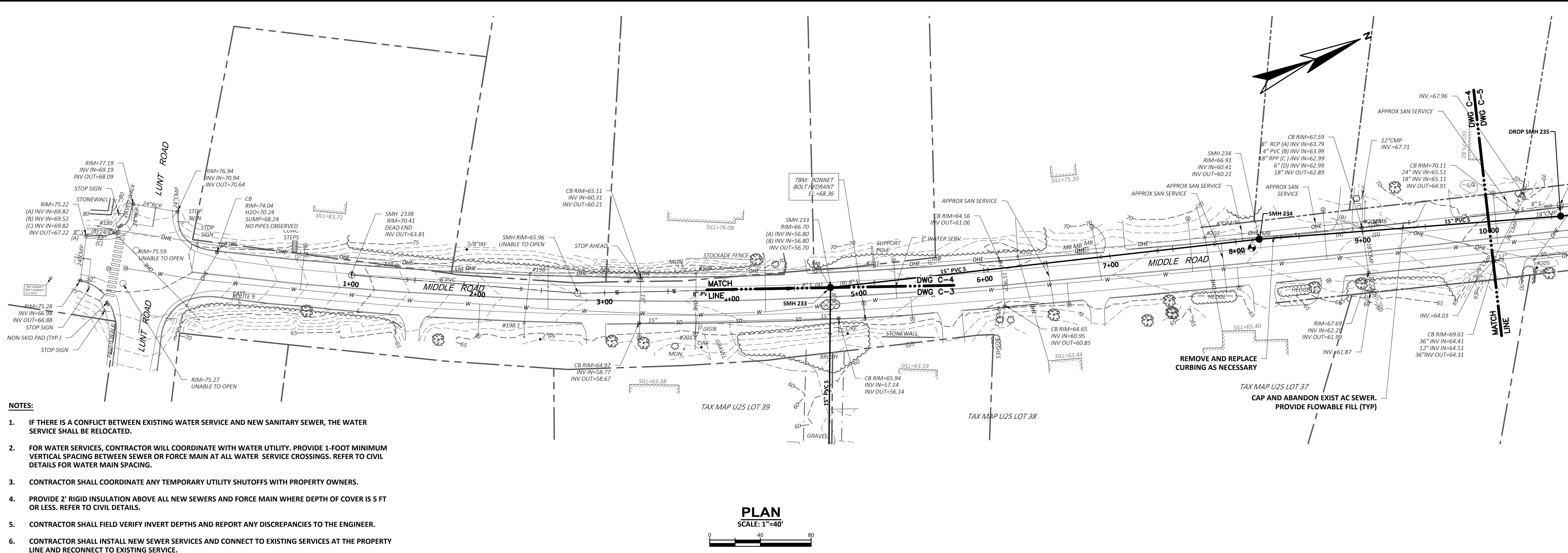
STATE OF MAINE
 COREY W. LEWIS
 No. 14224
 PROFESSIONAL ENGINEER
 2/11/2022

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**TOWN OF FALMOUTH, MAINE
 SEWER IMPROVEMENTS PHASE I**

PLAN AND PROFILE
 MIDDLE ROAD - CROSS COUNTRY
 STA 50+00 - 60+25

DRAWING
C-3



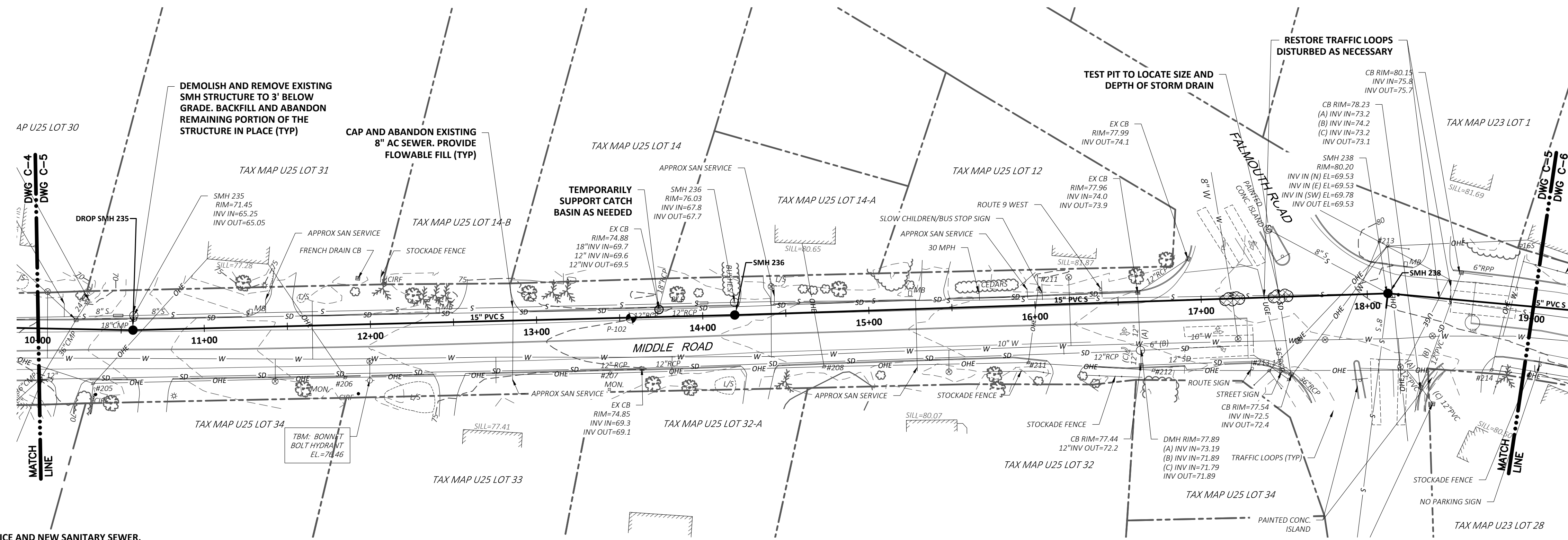
NO	REVISIONS	APPD DATE

PROJECT NO: 14070D
DESIGNED: CLEWIS
CAD COORD: D.SAVAGE
CAD: D.FUDA
CHECKED: B.DENIS
DATE: 02/2022
APPROVED: CLEWIS
DATE: 02/2022
SUBMISSION: CONTRACT DRAWINGS



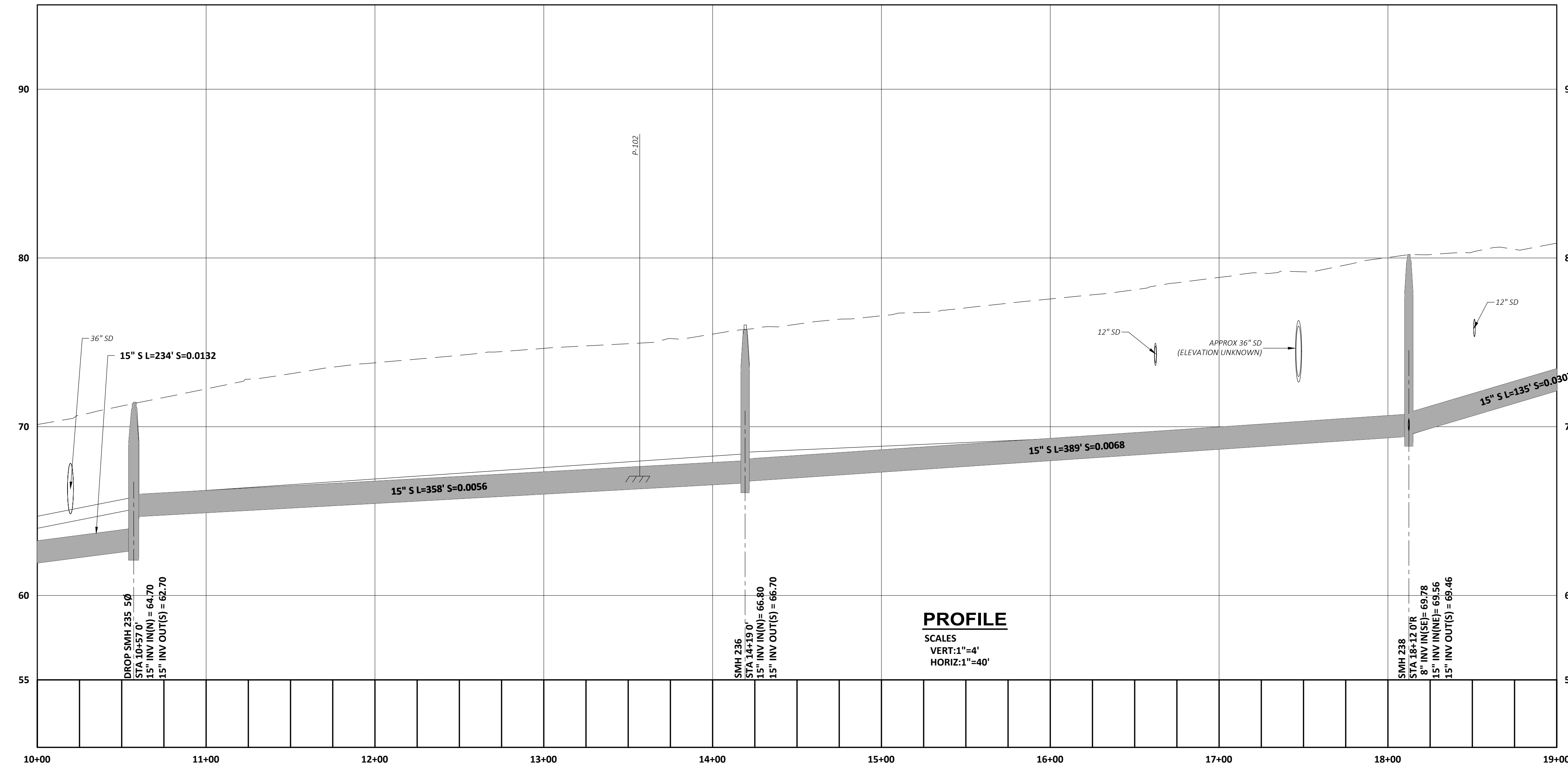
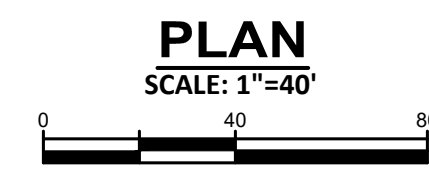
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TOWN OF FALMOUTH, MAINE
SEWER IMPROVEMENTS PHASE I
PLAN AND PROFILE
MIDDLE ROAD
STA 1+00 - 10+00
DRAWING
C-4



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PROFILE
SCALES
VERT: 1"=4'
HORIZ: 1"=40'

NO	REVISIONS	APPD DATE

PROJECT NO: 14070
 DESIGNED: CLEWIS
 CAD COORD: D.SAVAGE
 CAD: D.FUDA
 CHECKED: B.BENIS
 DATE: 02/2022
 APPROVED: CLEWIS
 DATE: 02/2022
 SUBMISSION: CONTRACT DRAWINGS

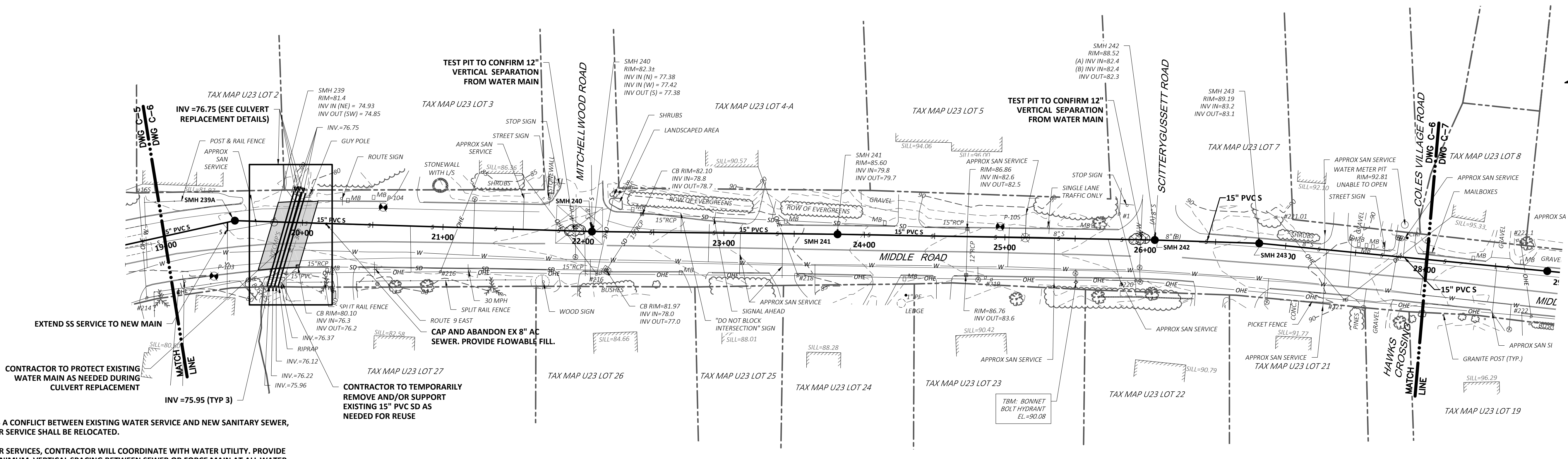
STATE OF MAINE
 COREY W. LEWIS
 No. 14224
 PROFESSIONAL ENGINEER
 2.7.11.2022

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TOWN OF FALMOUTH, MAINE
 SEWER IMPROVEMENTS PHASE I

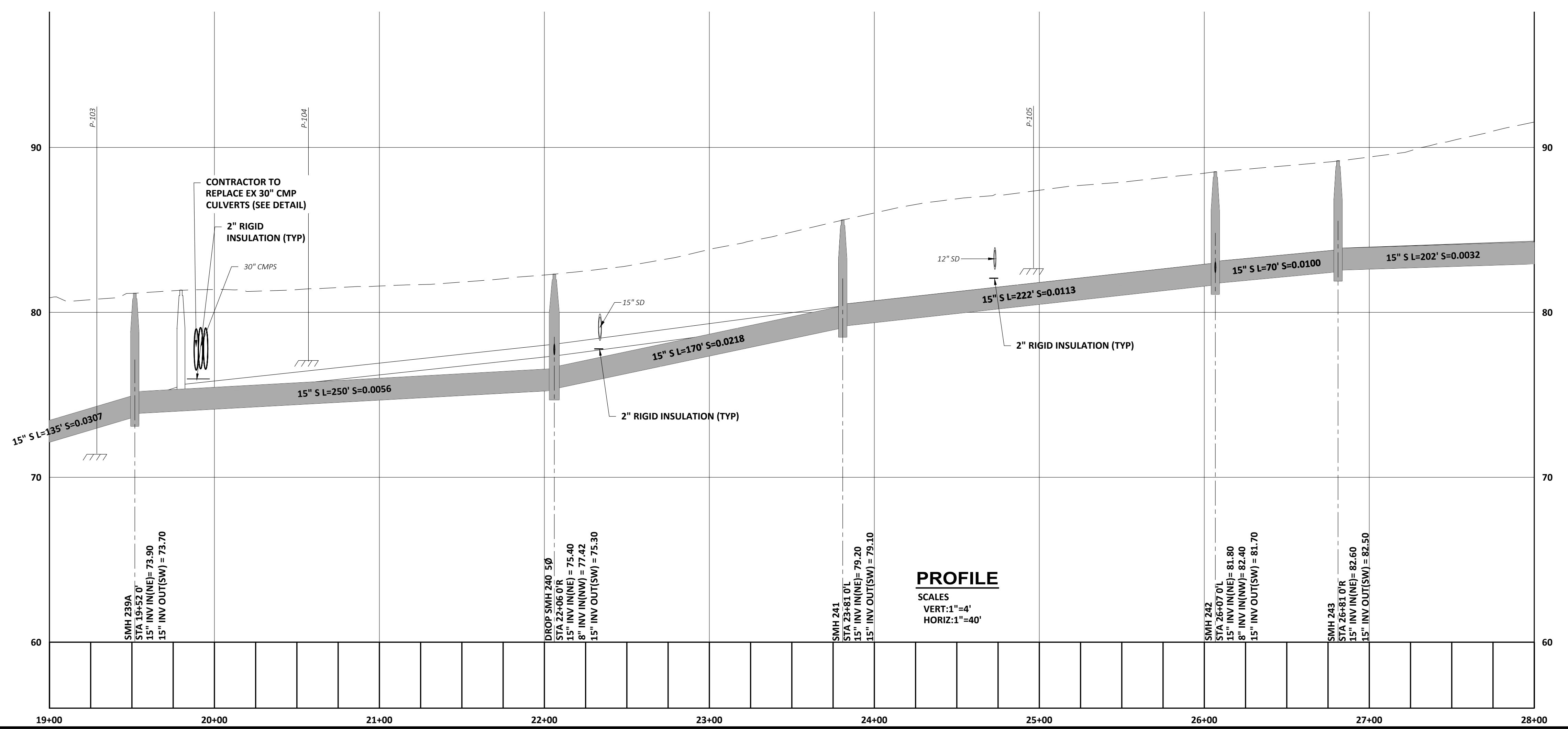
PLAN AND PROFILE
 MIDDLE ROAD
 STA 10+00 - 19+00

DRAWING
C-5



PLAN
SCALE: 1"=40'

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PROFILE
SCALES
VERT: 1"=4'
HORIZ: 1"=40'

NO	REVISIONS	APPD	DATE

PROJECT NO: 14070
 DESIGNED: CLEWIS
 CAD COORD: D.SAVAGE
 CAD: D.FUDA
 CHECKED: B.DUBOIS
 DATE: 02/2022
 APPROVED: CLEWIS
 DATE: 02/2022
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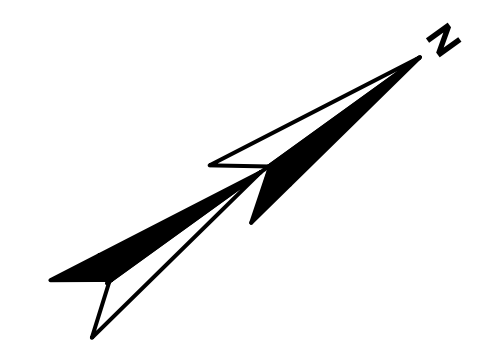
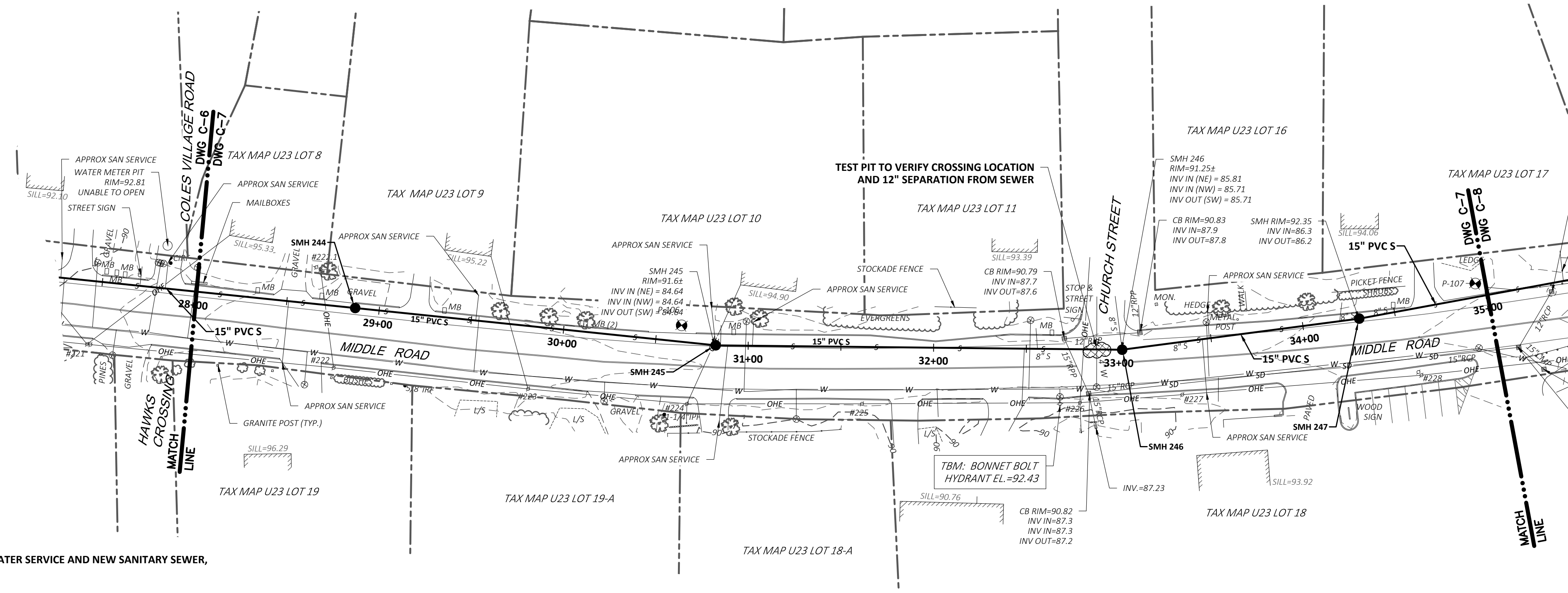
STATE OF MAINE
 COREY W. LEWIS
 No. 14224
 PROFESSIONAL ENGINEER
 5.1.1.2022

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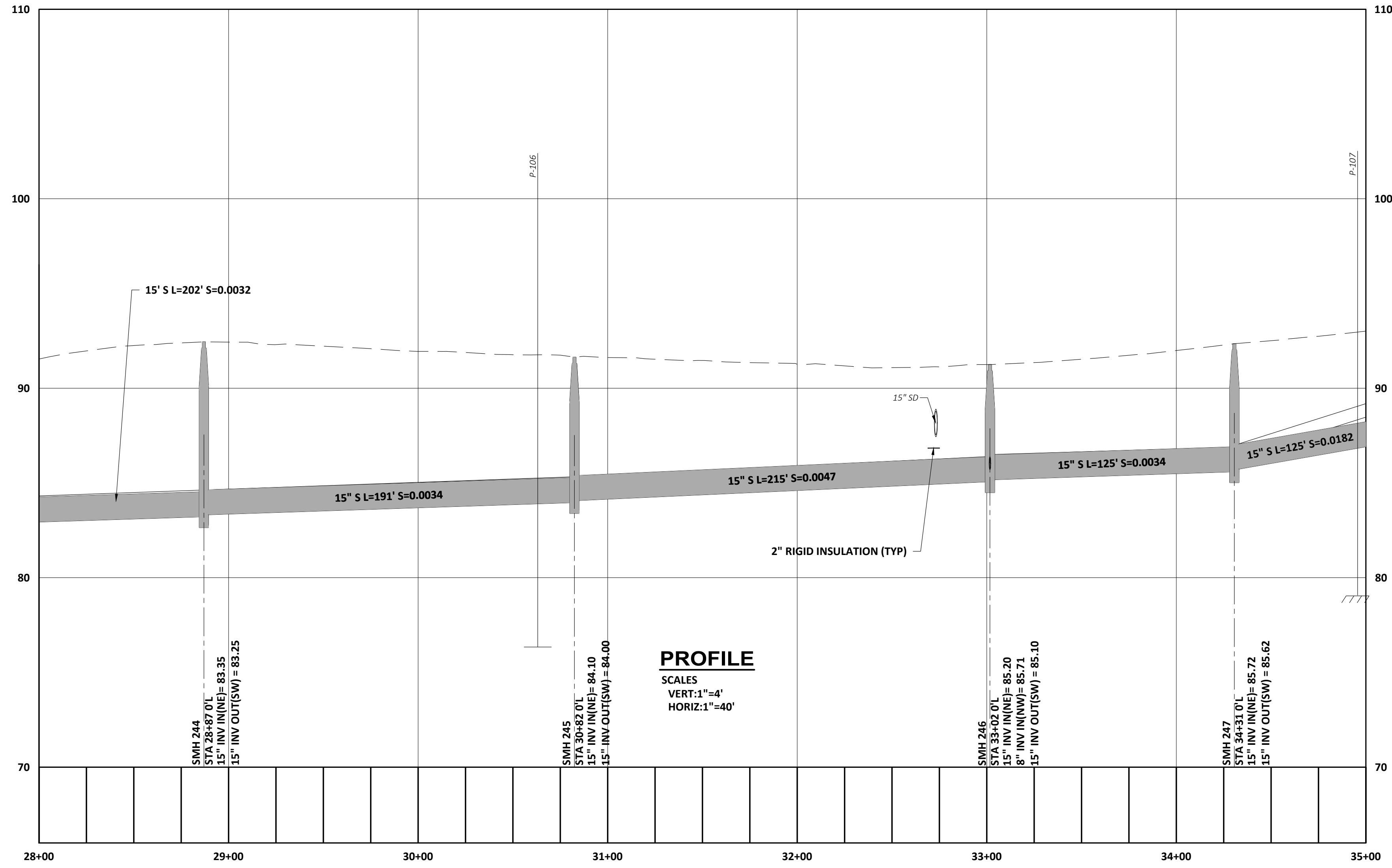
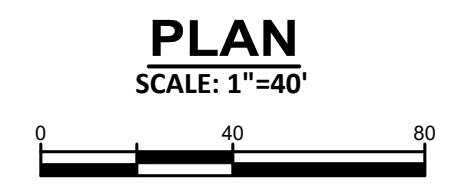
**TOWN OF FALMOUTH, MAINE
 SEWER IMPROVEMENTS PHASE I**

PLAN AND PROFILE
 MIDDLE ROAD
 STA 19+00 - 28+00

DRAWING
C-6



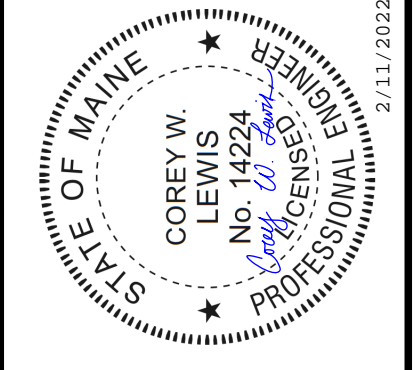
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PROFILE
SCALES
VERT: 1"=4'
HORIZ: 1"=40'

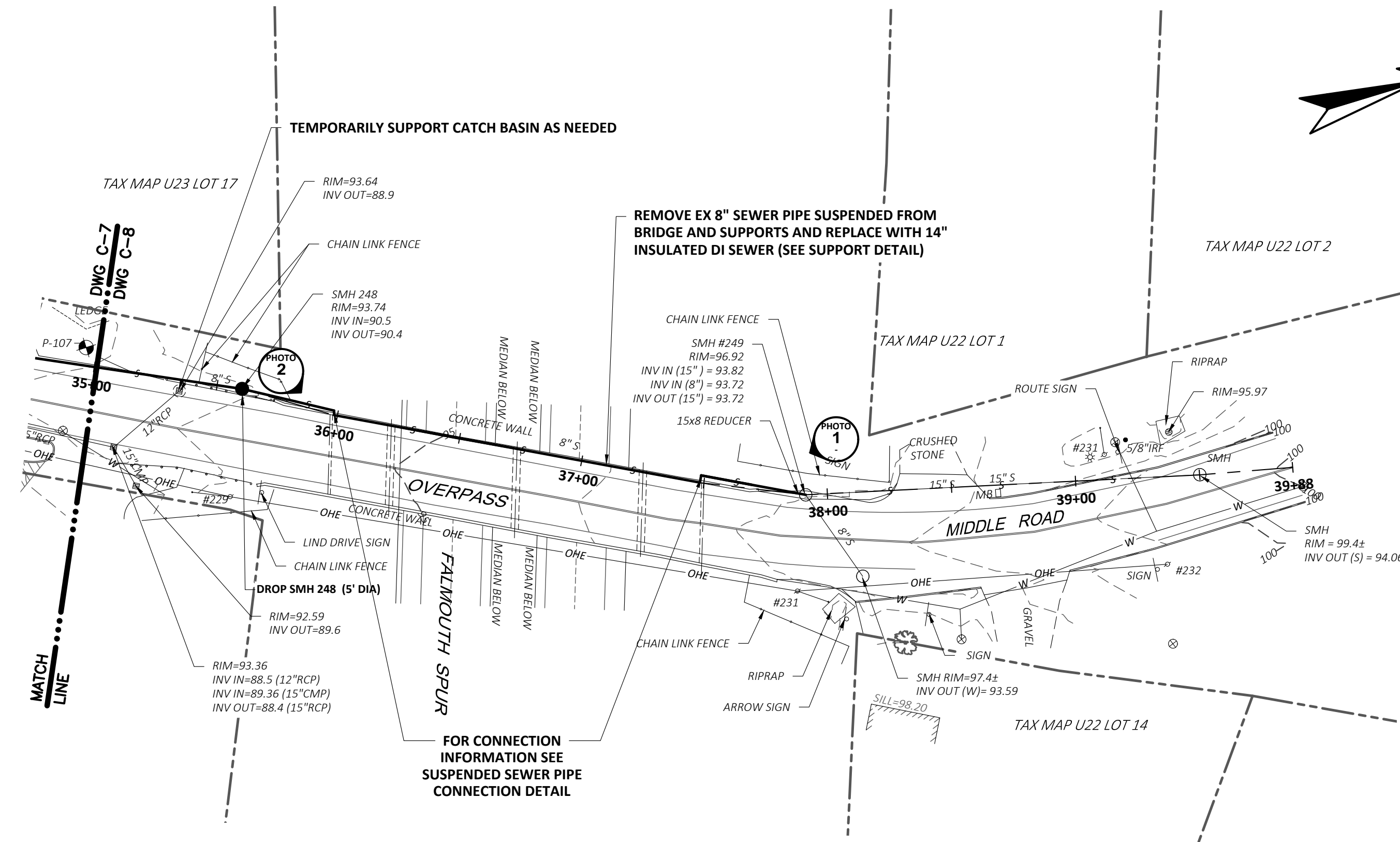
NO	REVISIONS	APPD	DATE

PROJECT NO: 14070
 DESIGNED: CLEWIS
 CAD COORD: D.SAVAGE
 CAD: D.FUDA
 CHECKED: B.DENIS
 DATE: 02/2024
 APPROVED: CLEWIS
 DATE: 02/2022
 SUBMISSION: CONTRACT DRAWINGS

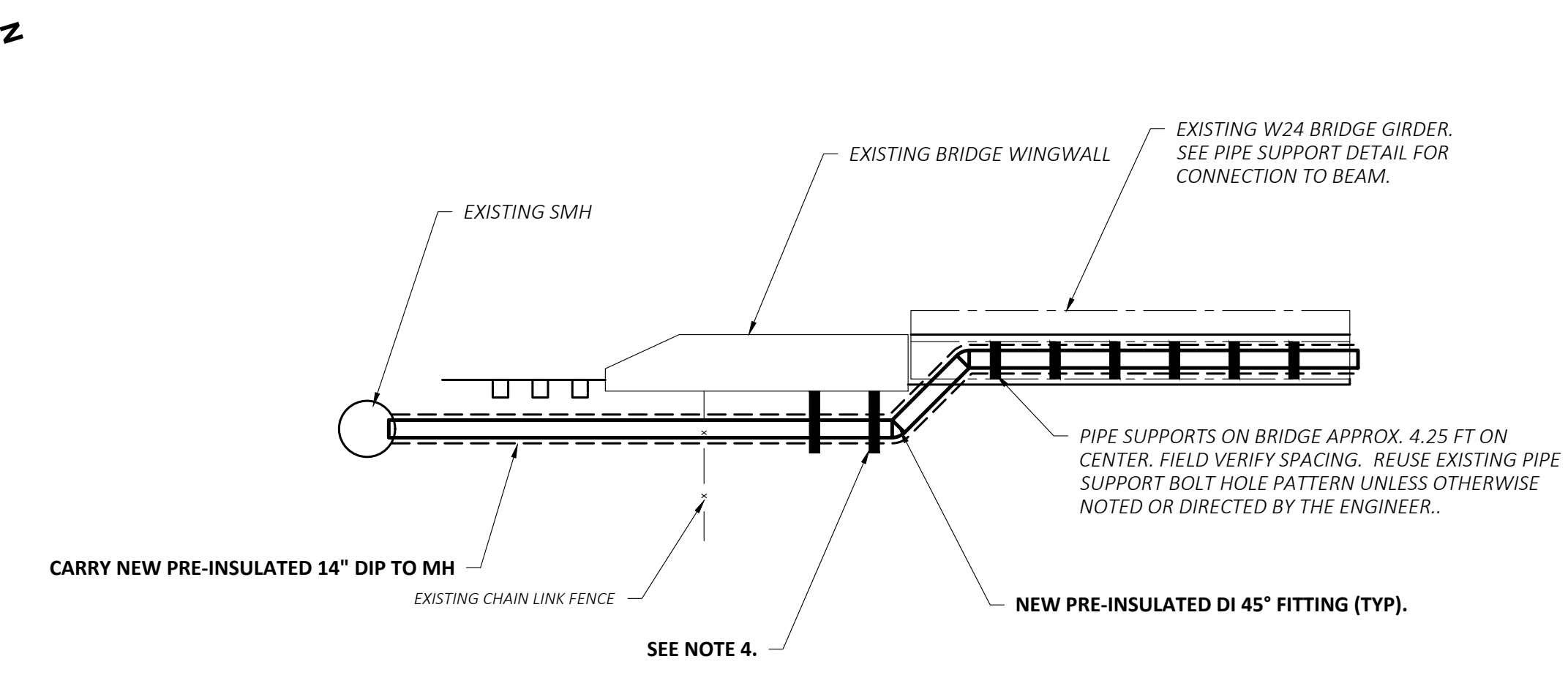


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TOWN OF FALMOUTH, MAINE
SEWER IMPROVEMENTS PHASE I
 PLAN AND PROFILE
 MIDDLE ROAD
 STA 28+00 - 35+00
 DRAWING
C-7

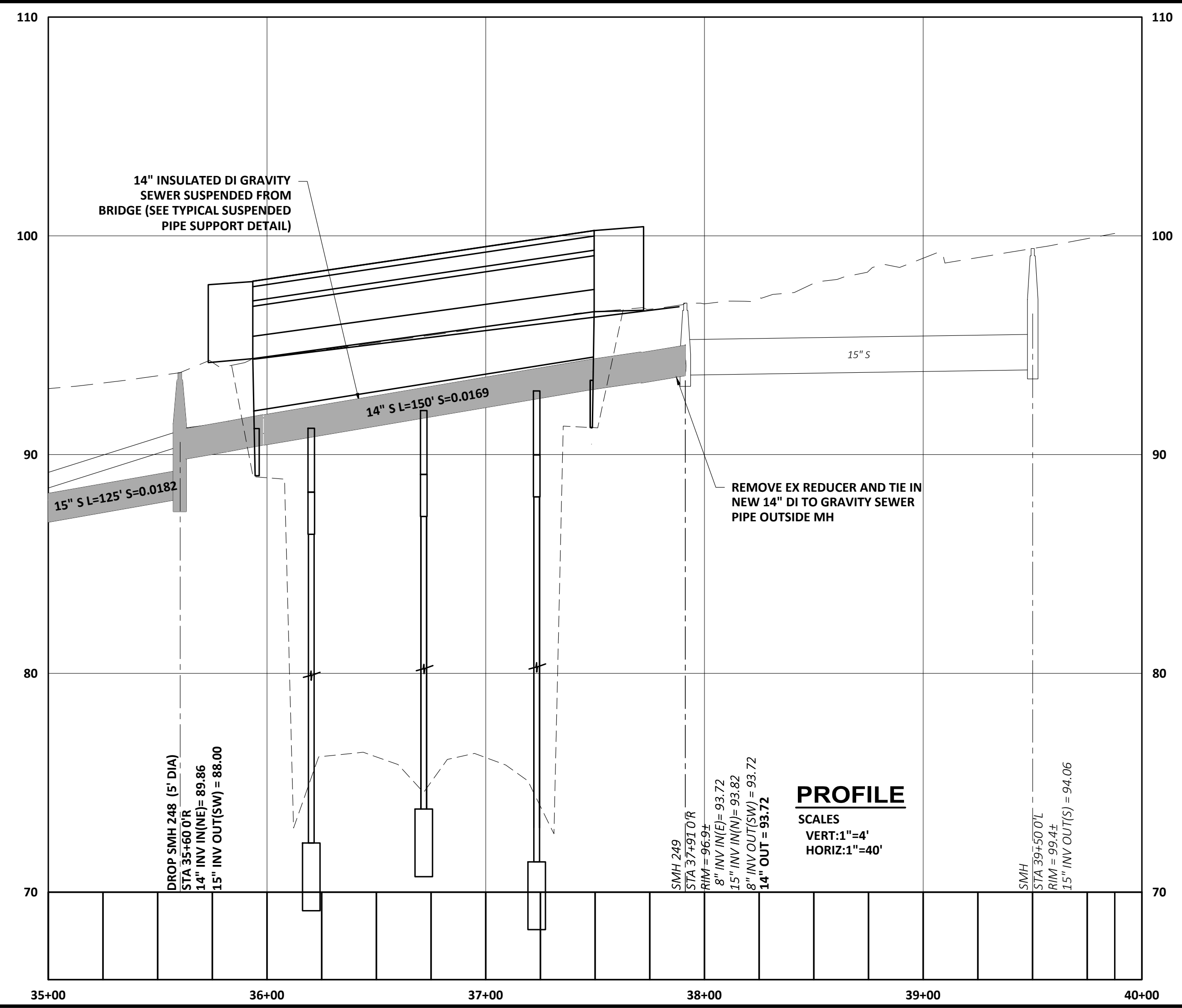


PLAN
SCALE: 1"=40'



SUSPENDED SEWER PIPE CONNECTION
SCALE: "NTS"

- NOTES:**
- DEMOLISH EXISTING SUSPENDED 8" PIPE, FITTING AND PIPE SUPPORTS AND REPLACE WITH NEW 15" PRE-INSULATED PIPE, FITTINGS AND SUPPORTS AS SHOWN. REUSE EXISTING PIPE SUPPORT BOLT HOLES ON EXISTING W24 BEAM UNLESS OTHERWISE NOTED. REFER TO PIPE SUPPORT CONNECTION DETAIL.
 - CONNECT NEW PRE-INSULATED 14" DI PIPE TO EXISTING SMH 249 ALONG NORTHWEST BRIDGE ABUTMENT, REMOVE FACTORY APPLIED INSULATION AND CLEAN OUTSIDE OF PIPE AS NEEDED TO PROPERLY INSTALL PIPE INTO SMH PENETRATION. PROVIDE NON-SHRINK GROUT AROUND PIPE ANNULUS TO PROVIDE WATER-TIGHT SEAL BETWEEN PIPE AND SMH PENETRATION.
 - PROVIDE FIELD-APPLIED INSULATION AT ALL JOINTS IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
 - SAW CUT EXISTING PIPE SUPPORT FASTENERS IN BRIDGE WINGWALLS. SEE PIPE SUPPORT DETAIL FOR THREADED ROD SPACING. COORDINATE FINAL SUPPORT LOCATIONS ON BRIDGE WINGWALLS WITH ENGINEER.
 - FOR WATER SERVICES, CONTRACTOR WILL COORDINATE WITH WATER UTILITY. PROVIDE 1-FOOT MINIMUM VERTICAL SPACING BETWEEN SEWER OR FORCE MAIN AT ALL WATER SERVICE CROSSINGS. REFER TO CIVIL DETAILS FOR WATER MAIN SPACING.



PROFILE
SCALE:
VERT: 1"=4'
HORIZ: 1"=40'

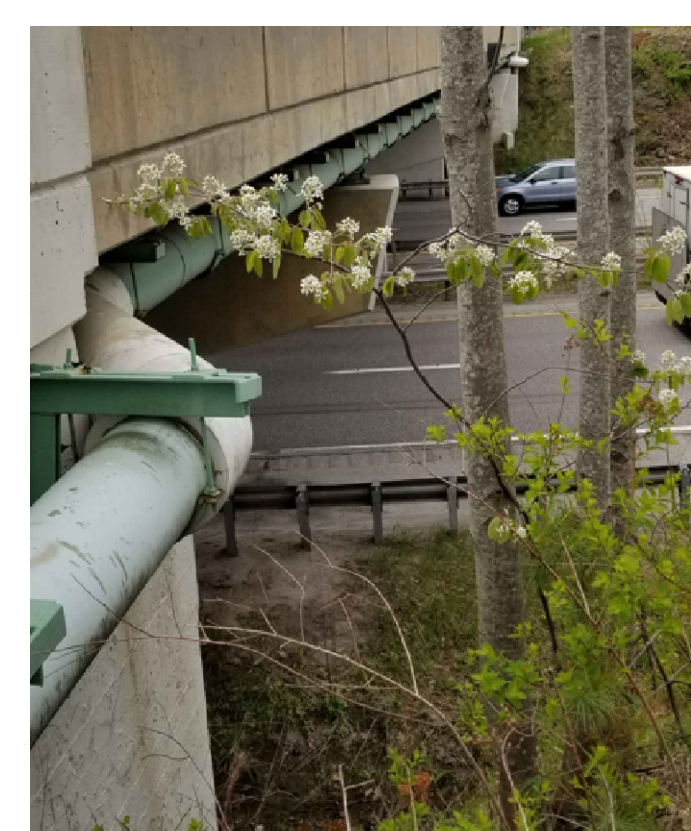


PHOTO 1
EXISTING BRIDGE CROSSING

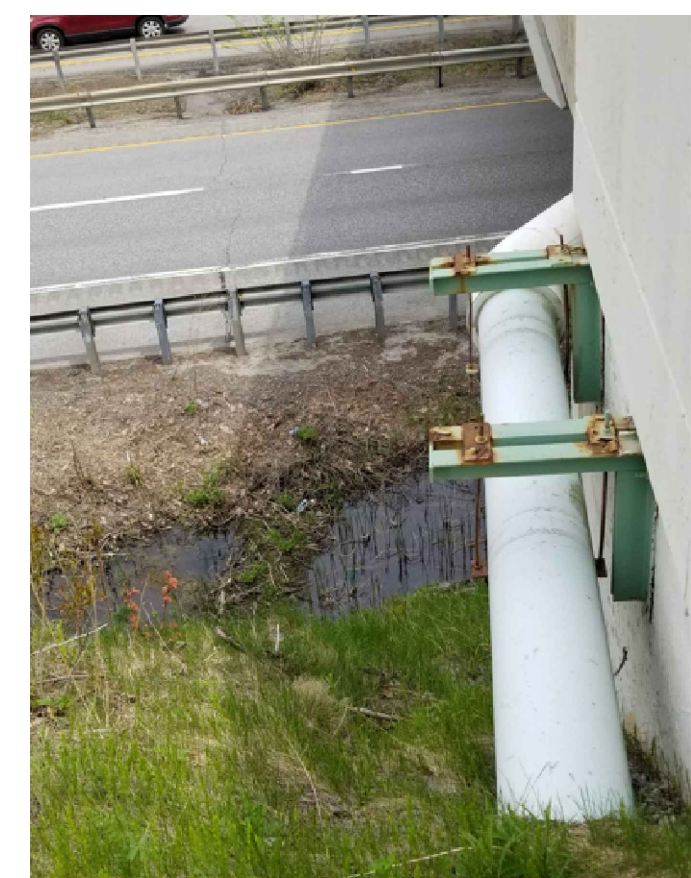
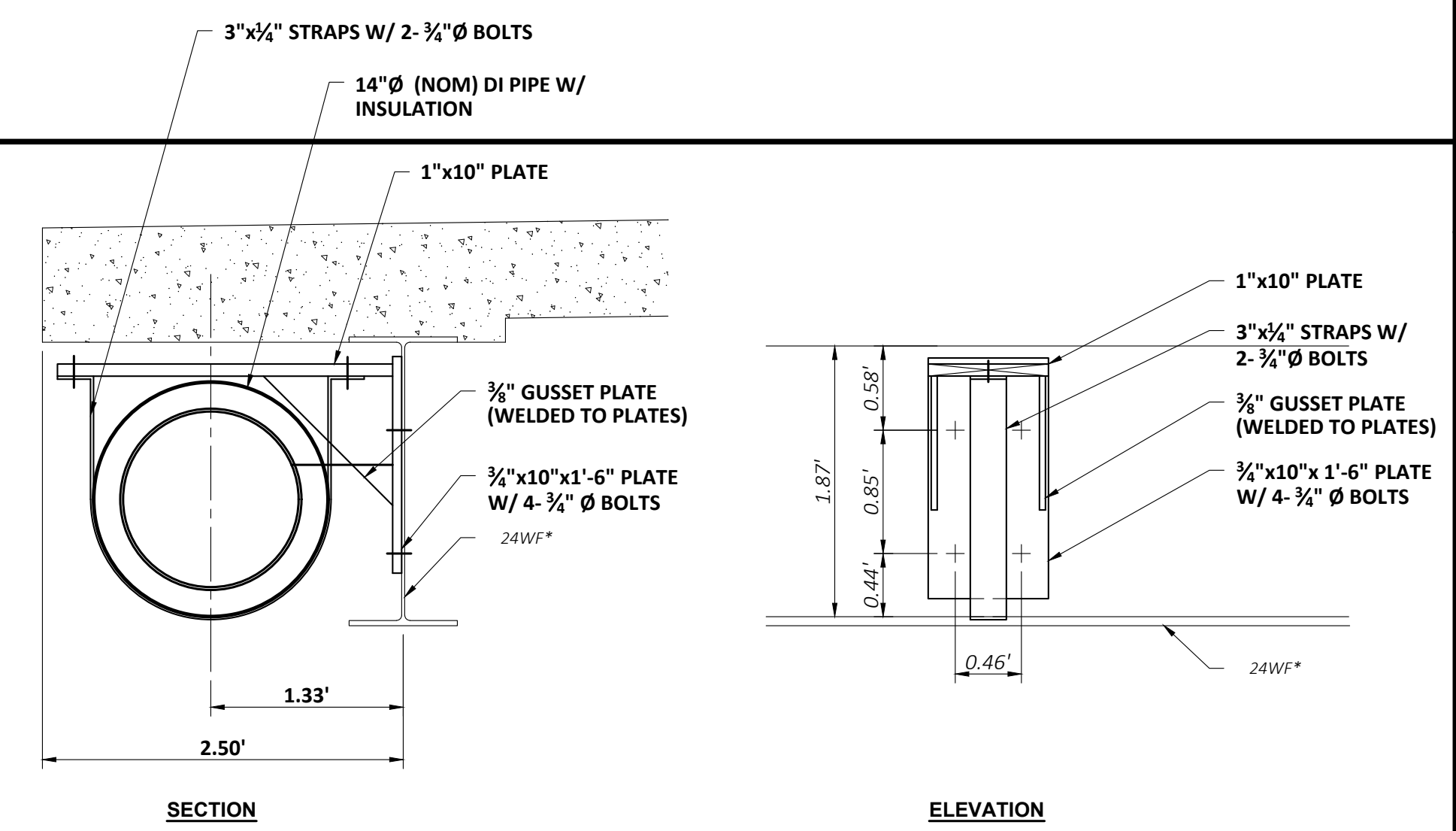


PHOTO 2
EXISTING BRIDGE CROSSING



TYPICAL SUSPENDED PIPE SUPPORT
SCALE: 1"=1'-0"

- NOTES:**
- THE INTENT IS TO REUSE EXISTING BOLT HOLES IN THE BRIDGE GIRDER WEB FOR THE NEW PIPE SUPPORTS. GENERAL CONTRACTOR TO FIELD VERIFY BOLT HOLE LOCATIONS PRIOR TO FABRICATION.
 - PIPE AND PIPE SUPPORT SHALL NOT EXTEND BELOW THE BOTTOM FLANGE OF THE BRIDGE GIRDER.
 - SLOTTED HOLES WILL BE PERMITTED IN THE BRACKET PLATE TO PERMIT FIELD ADJUSTMENTS.
 - THE FOLLOWING IS PROHIBITED:
 - BOLTING THROUGH THE EXISTING BRIDGE GIRDER FLANGES
 - FIELD WELDING TO ANY BRIDGE GIRDER COMPONENT.
 - MATERIALS:**
 - PLATES - ASTM A572
 - BOLTS - ASTM F3125 GRADE A325
 - ALL MATERIAL SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A123 AND ASTM A153.

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PROJECT NO:	14070
DESIGNED:	CLEWIS
CAD COORD:	D.SAVAGE
CAD:	D.FUDA
CHECKED:	B.DENIS
DATE:	02/20/22
APPROVED:	D.SKROGEL
DATE:	02/20/22
SUBMISSION:	CONTRACT DRAWINGS

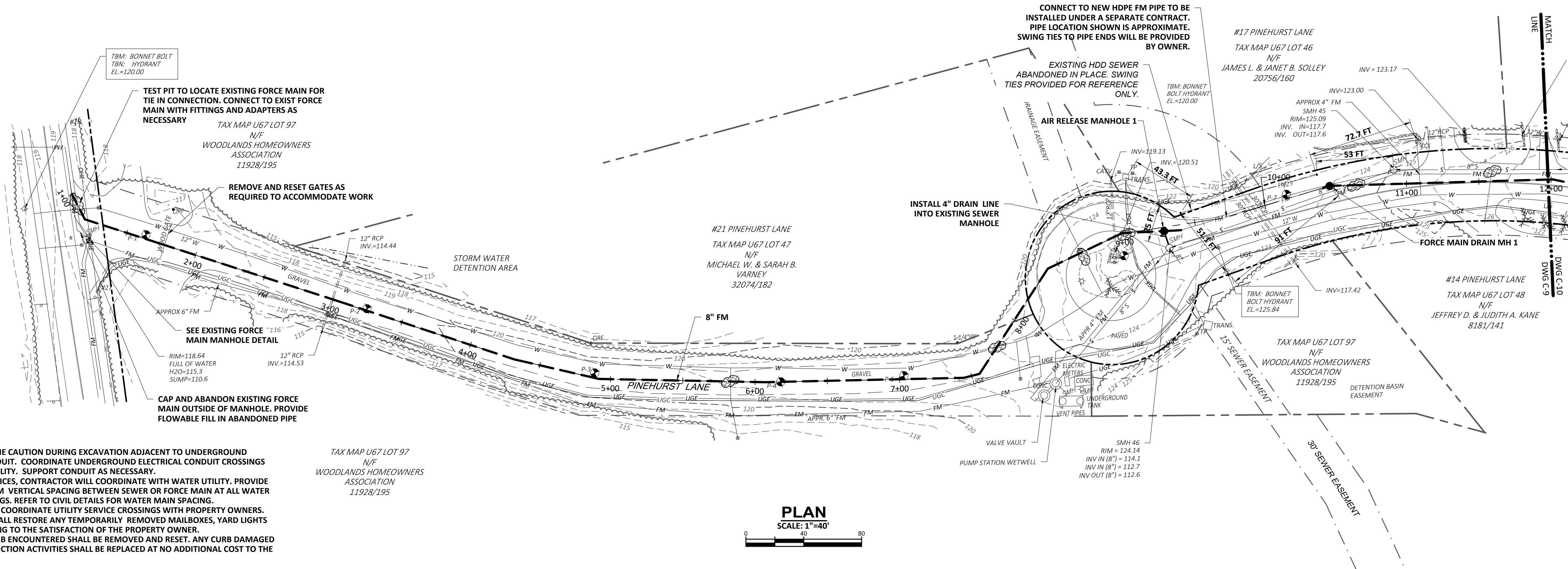
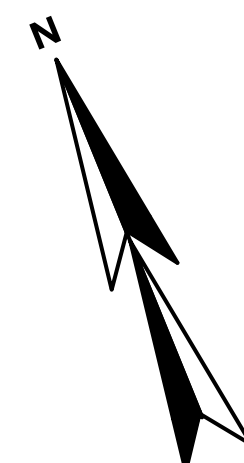
NO	REVISIONS	APPD	DATE

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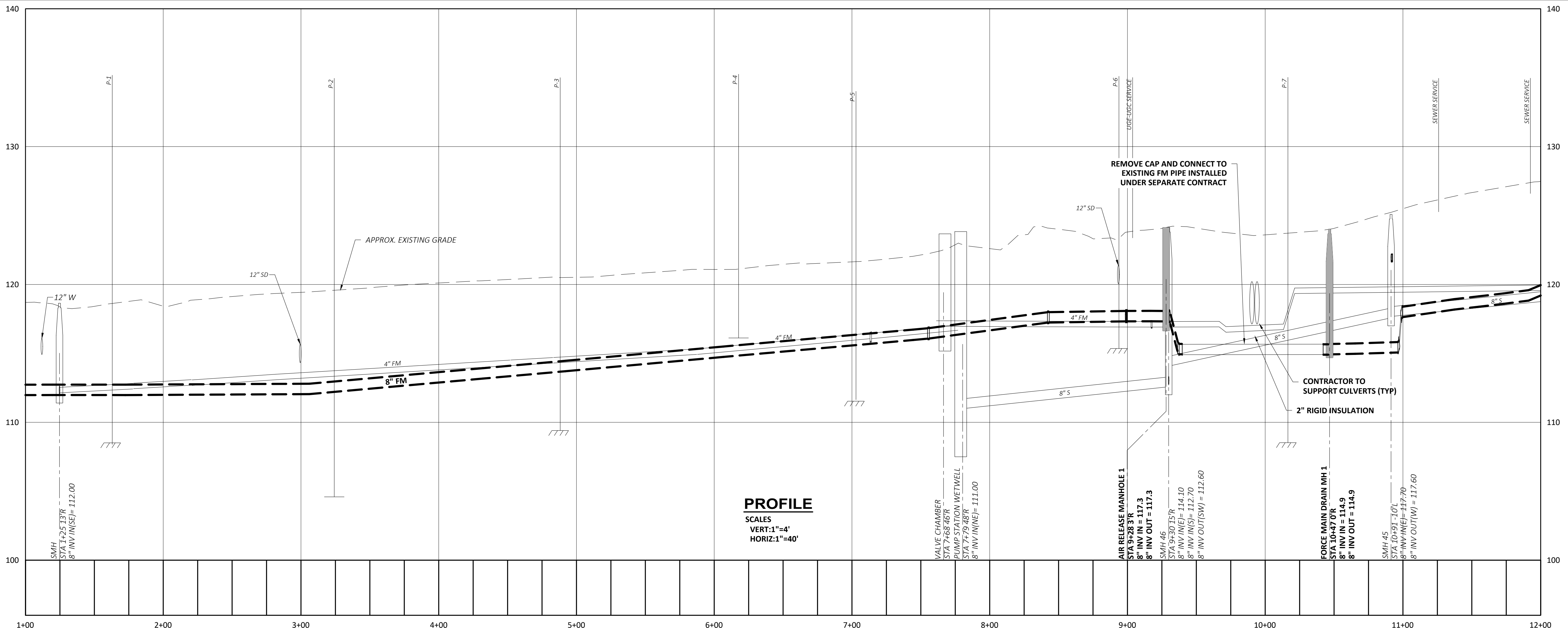
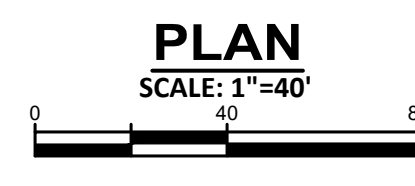
TOWN OF FALMOUTH, MAINE
SEWER IMPROVEMENTS PHASE I

PLAN AND PROFILE
MIDDLE ROAD
STA 35+00 - 40+00

DRAWING
C-8



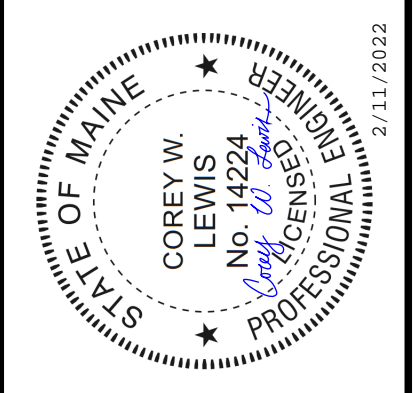
- GENERAL NOTES:**
1. EXERCISE EXTREME CAUTION DURING EXCAVATION ADJACENT TO UNDERGROUND ELECTRICAL CONDUIT. COORDINATE UNDERGROUND ELECTRICAL CONDUIT CROSSINGS WITH POWER UTILITY. SUPPORT CONDUIT AS NECESSARY.
 2. FOR WATER SERVICES, CONTRACTOR WILL COORDINATE WITH WATER UTILITY. PROVIDE 1-FOOT MINIMUM VERTICAL SPACING BETWEEN SEWER OR FORCE MAIN AT ALL WATER SERVICE CROSSINGS. REFER TO CIVIL DETAILS FOR WATER MAIN SPACING.
 3. CONTRACTOR TO COORDINATE UTILITY SERVICE CROSSINGS WITH PROPERTY OWNERS.
 4. CONTRACTOR SHALL RESTORE ANY TEMPORARILY REMOVED MAILBOXES, YARD LIGHTS AND LANDSCAPING TO THE SATISFACTION OF THE PROPERTY OWNER.
 5. ALL GRANITE CURB ENCOUNTERED SHALL BE REMOVED AND RESET. ANY CURB DAMAGED DUE TO CONSTRUCTION ACTIVITIES SHALL BE REPLACED AT NO ADDITIONAL COST TO THE OWNER.



PROFILE
 SCALES
 VERT: 1"=4'
 HORIZ: 1"=40'

NO	REVISIONS	APPD	DATE

PROJECT NO:	14070
DESIGNED BY:	CLEWIS
CAD COORD:	D.SAVAGE
CAD:	D.FUDA
CHECKED BY:	B.DENIS
DATE:	02/2022
APPROVED BY:	CLEWIS
DATE:	02/2022
SUBMISSION:	CONTRACT DRAWINGS

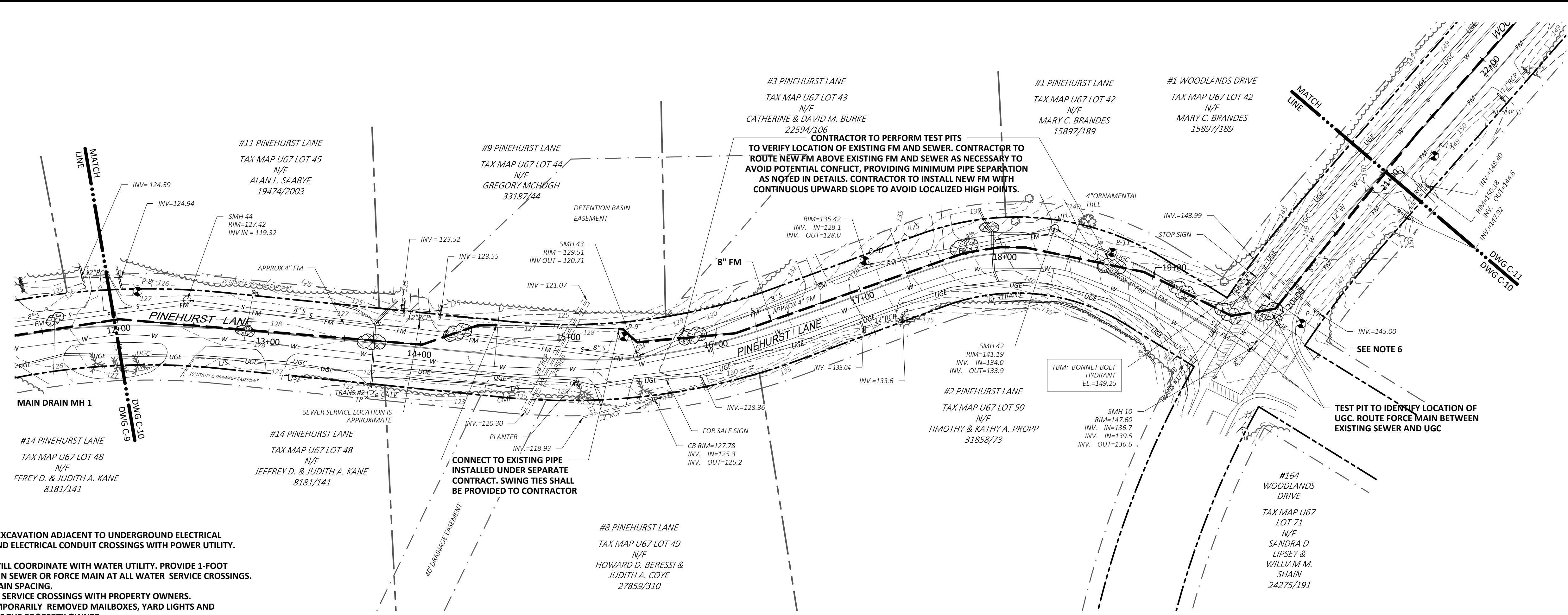


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TOWN OF FALMOUTH, MAINE
SEWER IMPROVEMENTS PHASE I

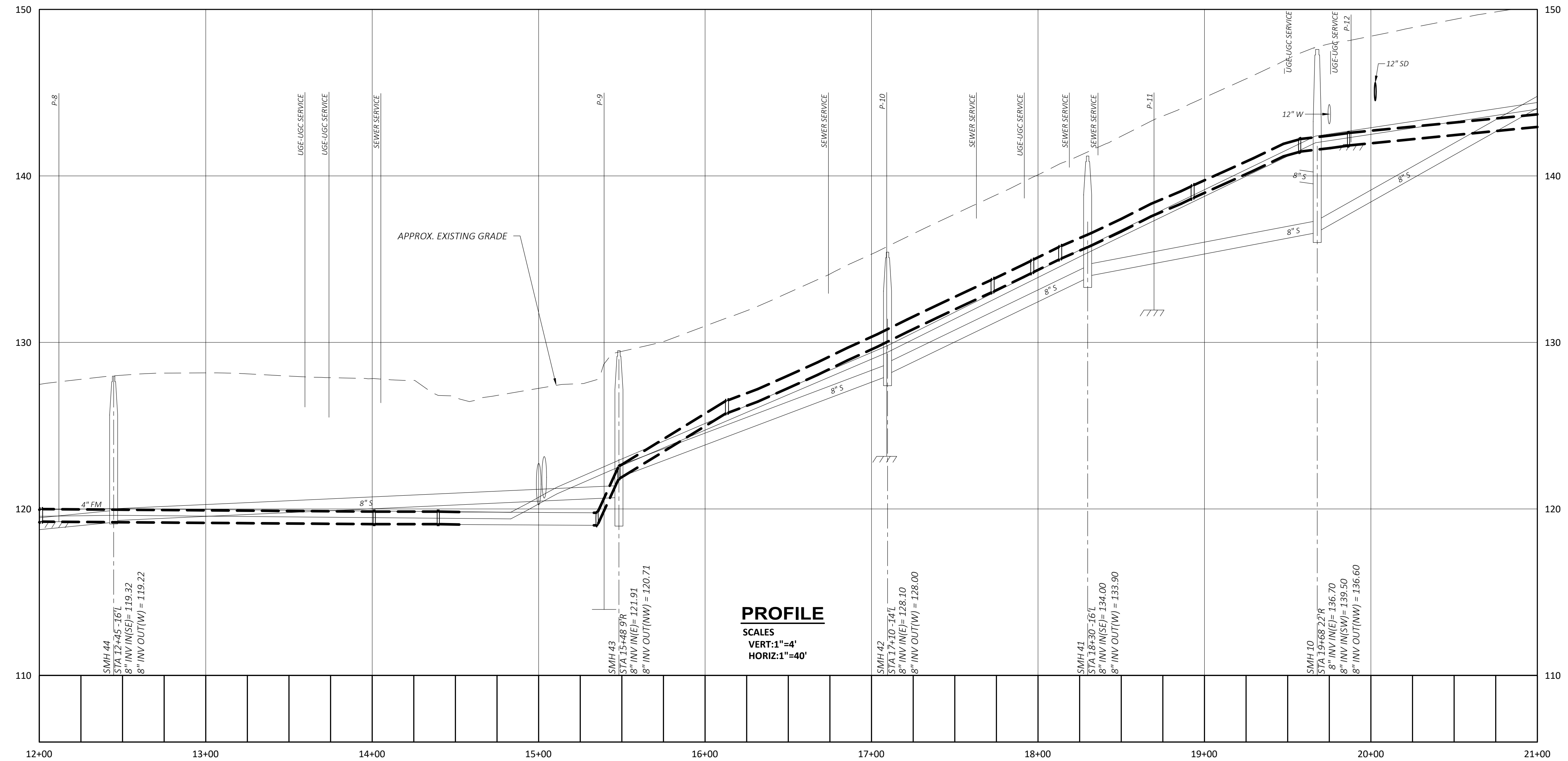
PLAN AND PROFILE
 PINEHURST LANE
 STA 1+00 - 12+00

DRAWING
C-9



PLAN
SCALE: 1"=40'

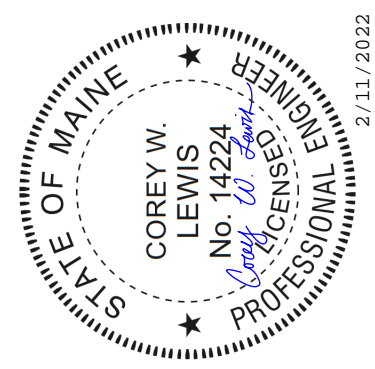
- GENERAL NOTES:**
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 - CONTRACTOR SHALL TAKE CARE TO AVOID DISTURBING WATER MAIN THRUST BLOCKING AT HYDRANT TEE FITTING. IF THRUST BLOCKING IS DISTURBED, BLOCKING SHALL BE REMOVED AND REPLACED AT NO ADDITIONAL COST TO THE OWNER. CONTRACTOR SHALL COORDINATE THRUST BLOCKING REPLACEMENT WITH WATER UTILITY.



PROFILE
SCALES
VERT: 1"=4'
HORIZ: 1"=40'

NO	REVISIONS	APPD DATE

PROJECT NO: 14070	DESIGNED: CLEWIS	CAD COORD: D.SAVAGE	CAD: D.FUDA	CHECKED: B.DENIS	DATE: 02/2024	APPROVED: CLEWIS	DATE: 02/2022	SUBMISSION: CONTRACT DRAWINGS
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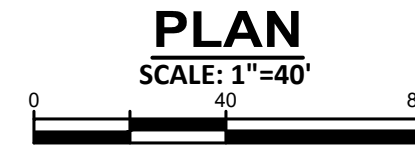
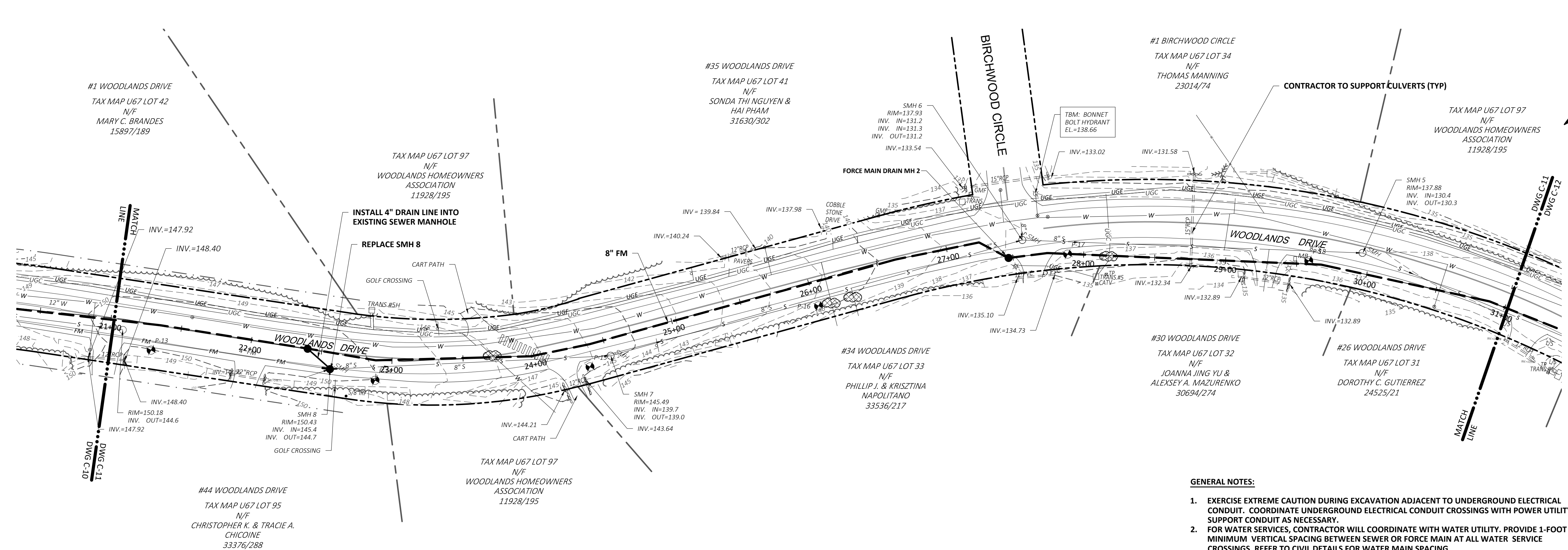


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TOWN OF FALMOUTH, MAINE
SEWER IMPROVEMENTS PHASE I

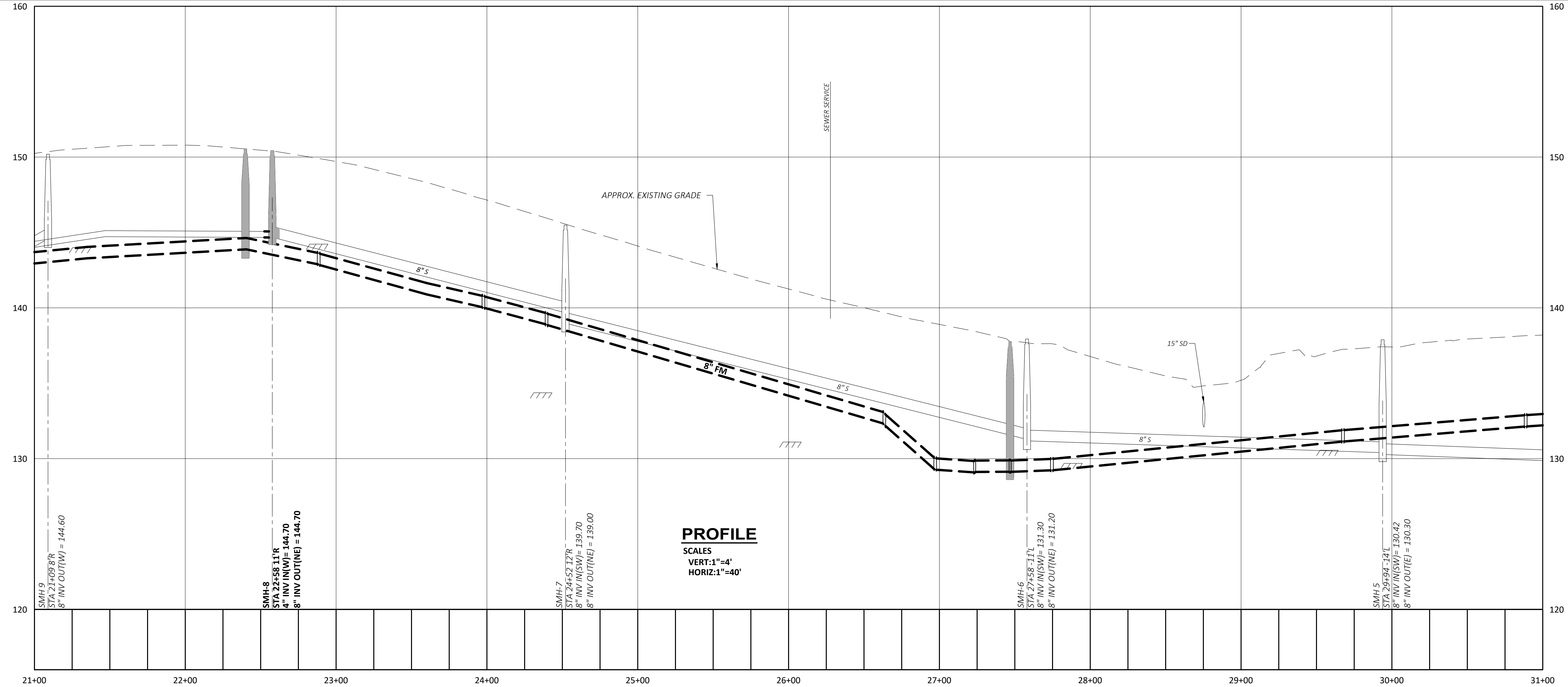
PLAN AND PROFILE
PINEHURST LANE
STA 12+00 - 21+00

DRAWING
C-10

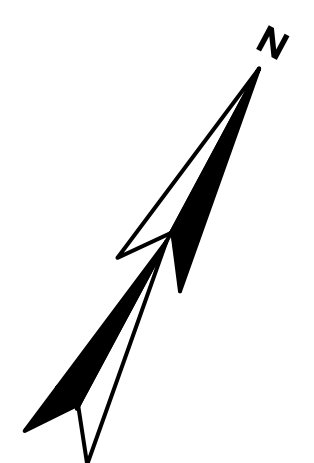


GENERAL NOTES:

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PROFILE
 SCALES
 VERT: 1"=4'
 HORIZ: 1"=40'



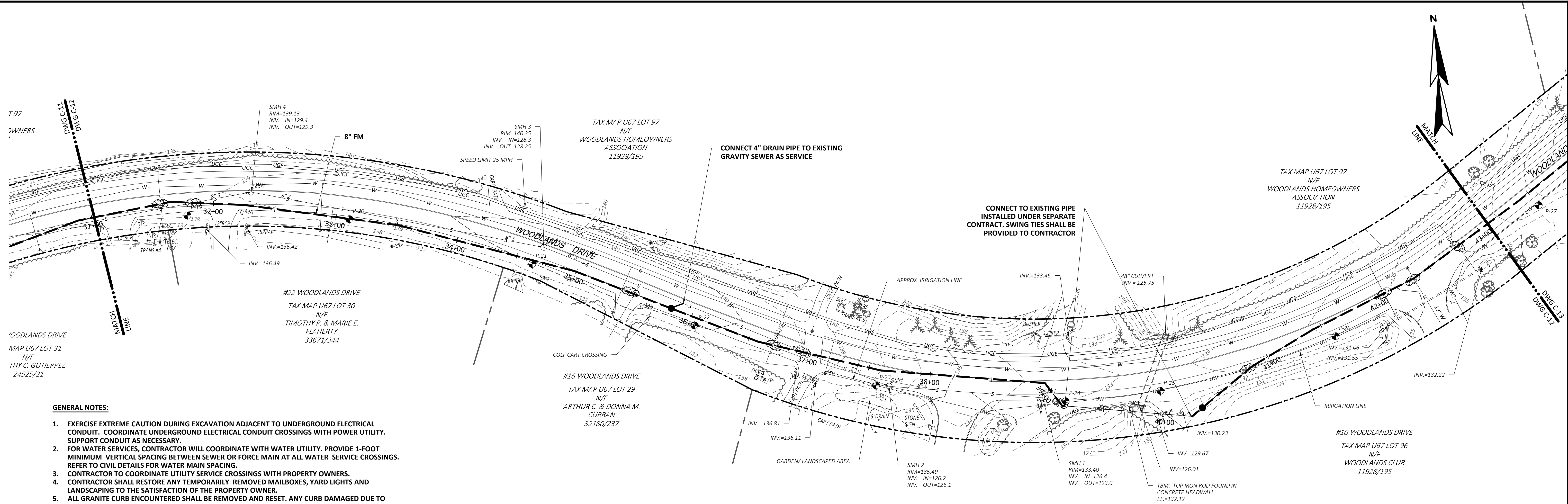
NO	REVISIONS	APPD	DATE

PROJECT NO: 14070
 DESIGNED: C LEWIS
 CAD COORD: D SAVAGE
 CAD: D FUDA
 CHECKED: B DENIS
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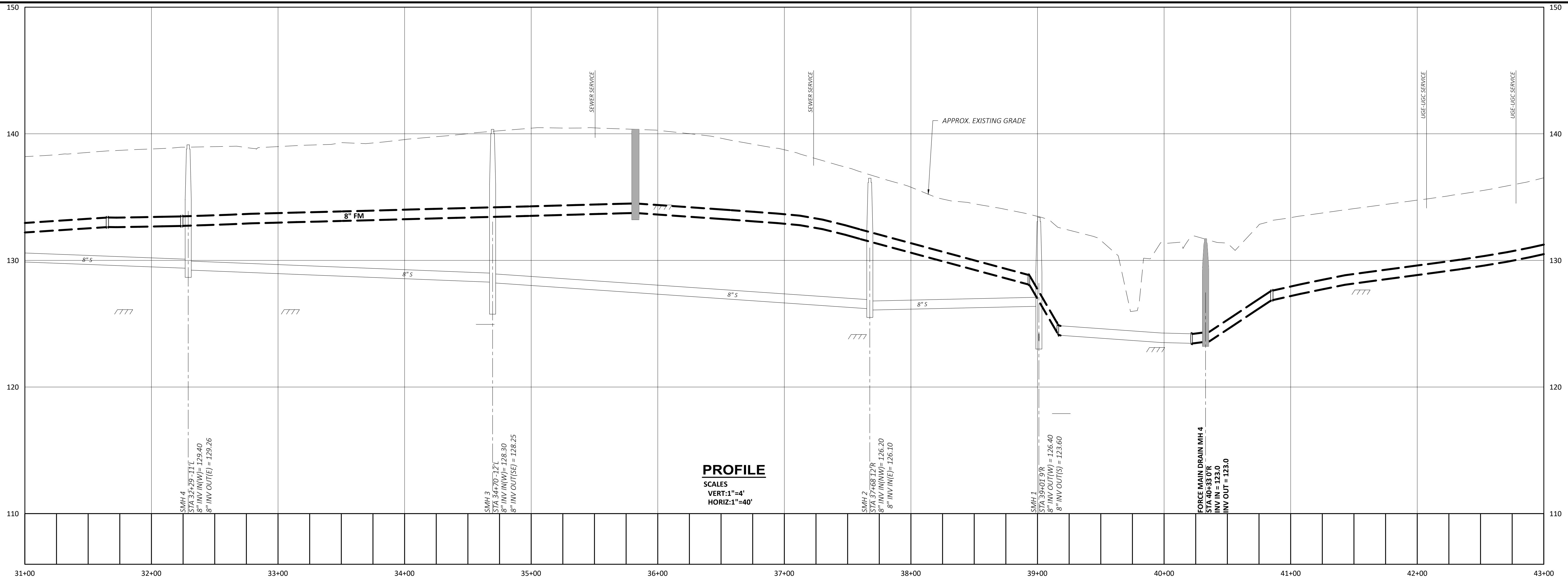
TOWN OF FALMOUTH, MAINE
 SEWER IMPROVEMENTS PHASE I
 PLAN AND PROFILE
 WOODLANDS DRIVE
 STA 21+00 - 31+00
 DRAWING
C-11



PLAN
SCALE: 1"=40'

GENERAL NOTES:

1. EXERCISE EXTREME CAUTION DURING EXCAVATION ADJACENT TO UNDERGROUND ELECTRICAL CONDUIT. COORDINATE UNDERGROUND ELECTRICAL CONDUIT CROSSINGS WITH POWER UTILITY. SUPPORT CONDUIT AS NECESSARY.
2. FOR WATER SERVICES, CONTRACTOR WILL COORDINATE WITH WATER UTILITY. PROVIDE 1-FOOT MINIMUM VERTICAL SPACING BETWEEN SEWER OR FORCE MAIN AT ALL WATER SERVICE CROSSINGS. REFER TO CIVIL DETAILS FOR WATER MAIN SPACING.
3. CONTRACTOR TO COORDINATE UTILITY SERVICE CROSSINGS WITH PROPERTY OWNERS.
4. CONTRACTOR SHALL RESTORE ANY TEMPORARILY REMOVED MAILBOXES, YARD LIGHTS AND LANDSCAPING TO THE SATISFACTION OF THE PROPERTY OWNER.
5. ALL GRANITE CURB ENCOUNTERED SHALL BE REMOVED AND RESET. ANY CURB DAMAGED DUE TO CONSTRUCTION ACTIVITIES SHALL BE REPLACED AT NO ADDITIONAL COST TO THE OWNER.
6. REMOVE AND REPLACE IRRIGATION WATER LINES AS NECESSARY. CONNECT TO EXISTING WATER MAIN WITH FITTINGS AND ADAPTERS AS NECESSARY. COORDINATE WITH WOODLANDS PERSONNEL.



PROFILE
SCALES
VERT: 1"=4'
HORIZ: 1"=40'

NO	REVISIONS	APPD	DATE

PROJECT NO: 14070
DESIGNED: CLEWIS
CAD COORD: D.SAVAGE
CAD: D.FUDA
CHECKED: B.DENIS
DATE: 02/2022
APPROVED: CLEWIS
DATE: 02/2022
SUBMISSION: CONTRACT DRAWINGS

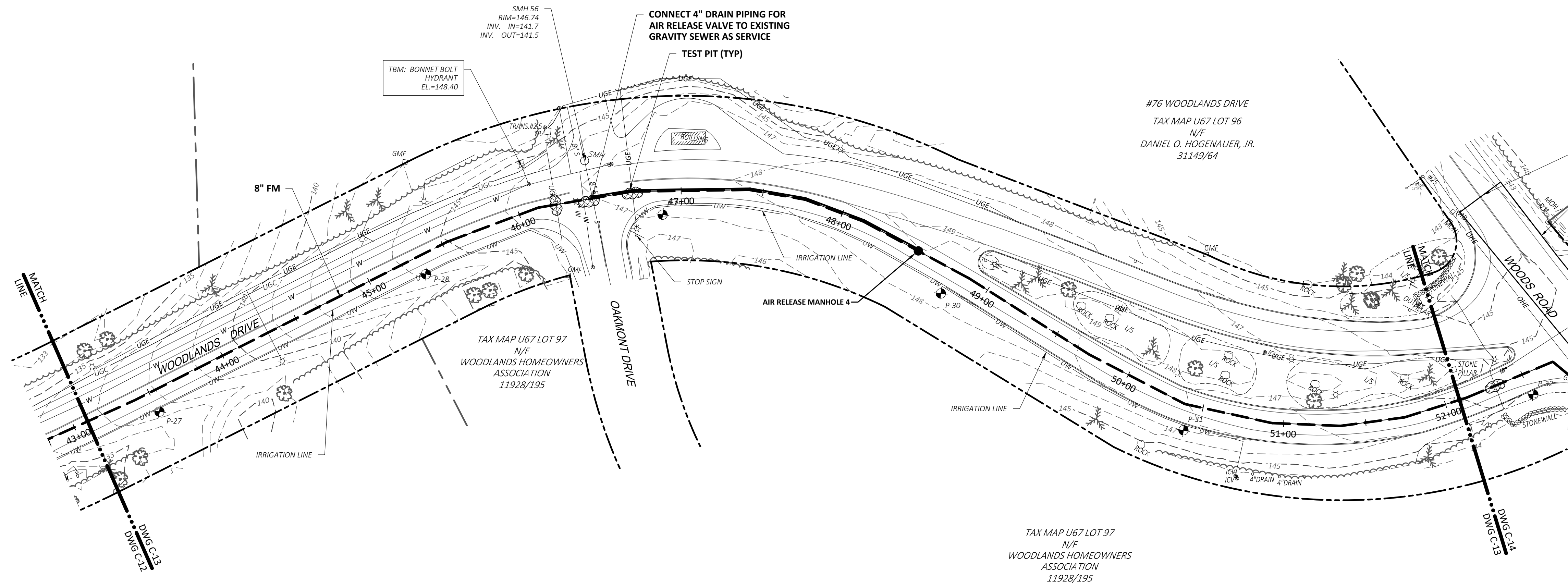
STATE OF MAINE
COREY W. LEWIS
No. 14224
Professional Engineer
2/11/2022

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207.725.8721 | www.wright-pierce.com
11 BOWDOIN MILL ISLAND, SUITE 140, TOPSHAM, ME 04086

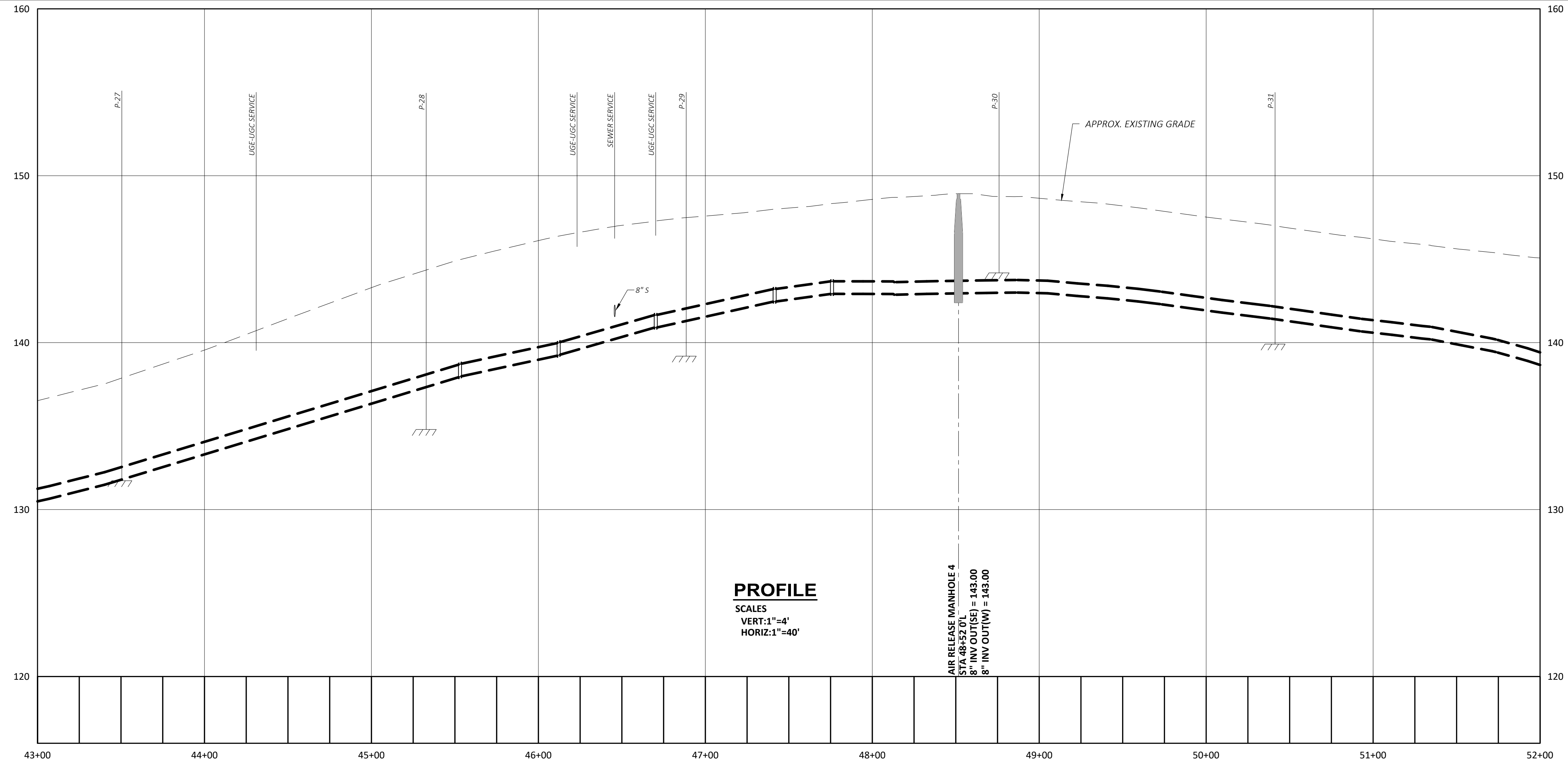
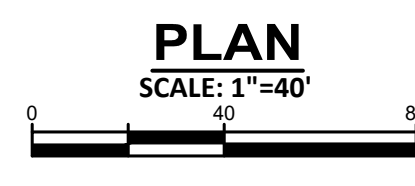
**TOWN OF FALMOUTH, MAINE
SEWER IMPROVEMENTS PHASE I**

PLAN AND PROFILE
WOODLANDS DRIVE
STA 31+00 - 43+00

DRAWING
C-12

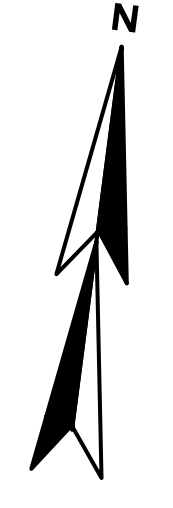


- GENERAL NOTES:**
1. EXERCISE EXTREME CAUTION DURING EXCAVATION ADJACENT TO UNDERGROUND ELECTRICAL CONDUIT. COORDINATE UNDERGROUND ELECTRICAL CONDUIT CROSSINGS WITH POWER UTILITY. SUPPORT CONDUIT AS NECESSARY.
 2. FOR WATER SERVICES, CONTRACTOR WILL COORDINATE WITH WATER UTILITY. PROVIDE 1-FOOT MINIMUM VERTICAL SPACING BETWEEN SEWER OR FORCE MAIN AT ALL WATER SERVICE CROSSINGS. REFER TO CIVIL DETAILS FOR WATER MAIN SPACING.
 3. CONTRACTOR TO COORDINATE UTILITY SERVICE CROSSINGS WITH PROPERTY OWNERS.
 4. CONTRACTOR SHALL RESTORE ANY TEMPORARILY REMOVED MAILBOXES, YARD LIGHTS AND LANDSCAPING TO THE SATISFACTION OF THE PROPERTY OWNER.
 5. ALL GRANITE CURB ENCOUNTERED SHALL BE REMOVED AND RESET. ANY CURB DAMAGED DUE TO CONSTRUCTION ACTIVITIES SHALL BE REPLACED AT NO ADDITIONAL COST TO THE OWNER.



PROFILE
 SCALES
 VERT: 1"=4'
 HORIZ: 1"=40'

AIR RELEASE MANHOLE 4
 8" INV (W) = 143.00
 8" INV OUT (W) = 143.00



NO	REVISIONS	APPD	DATE

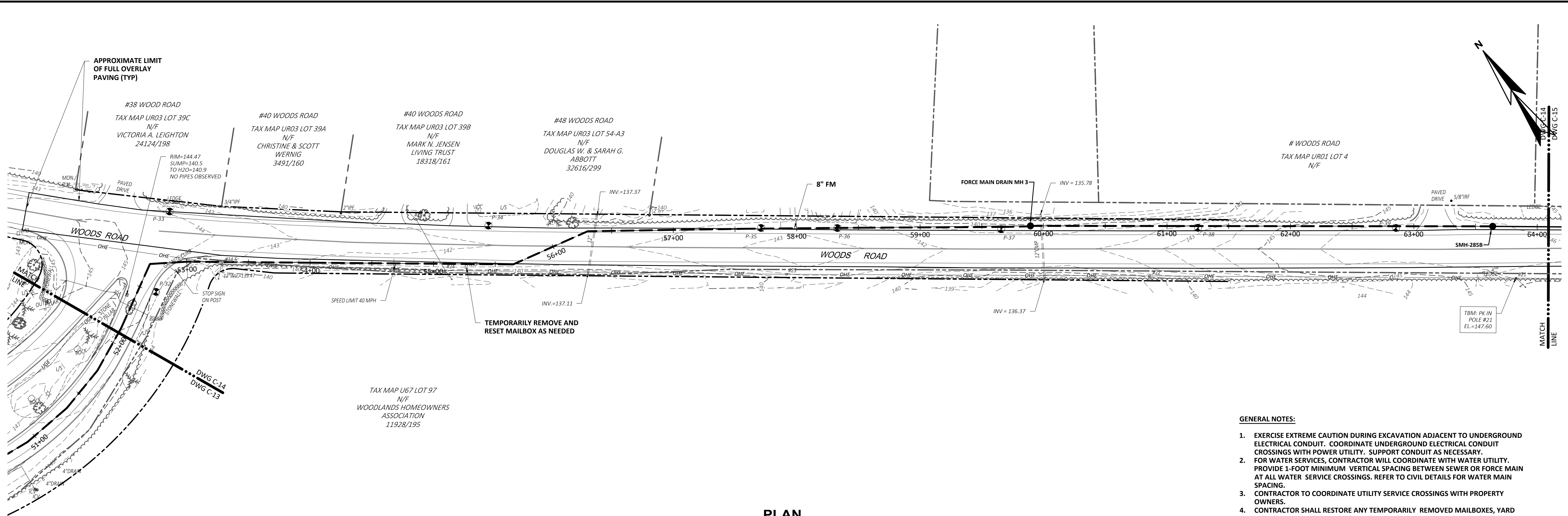
PROJECT NO: 14070
 DESIGNED: C. LEWIS
 CAD COORD: D. SAVAGE
 CAD: D. FUDA
 CHECKED: B. DENIS
 DATE: 02/2022
 APPROVED: C. LEWIS
 DATE: 02/2022
 SUBMISSION: CONTRACT DRAWINGS

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 207.725.8721 | www.wright-pierce.com
 11 BOWDOIN HILL ISLAND, SUITE 140, TOPSHAM, ME 04086

TOWN OF FALMOUTH, MAINE
 SEWER IMPROVEMENTS PHASE I

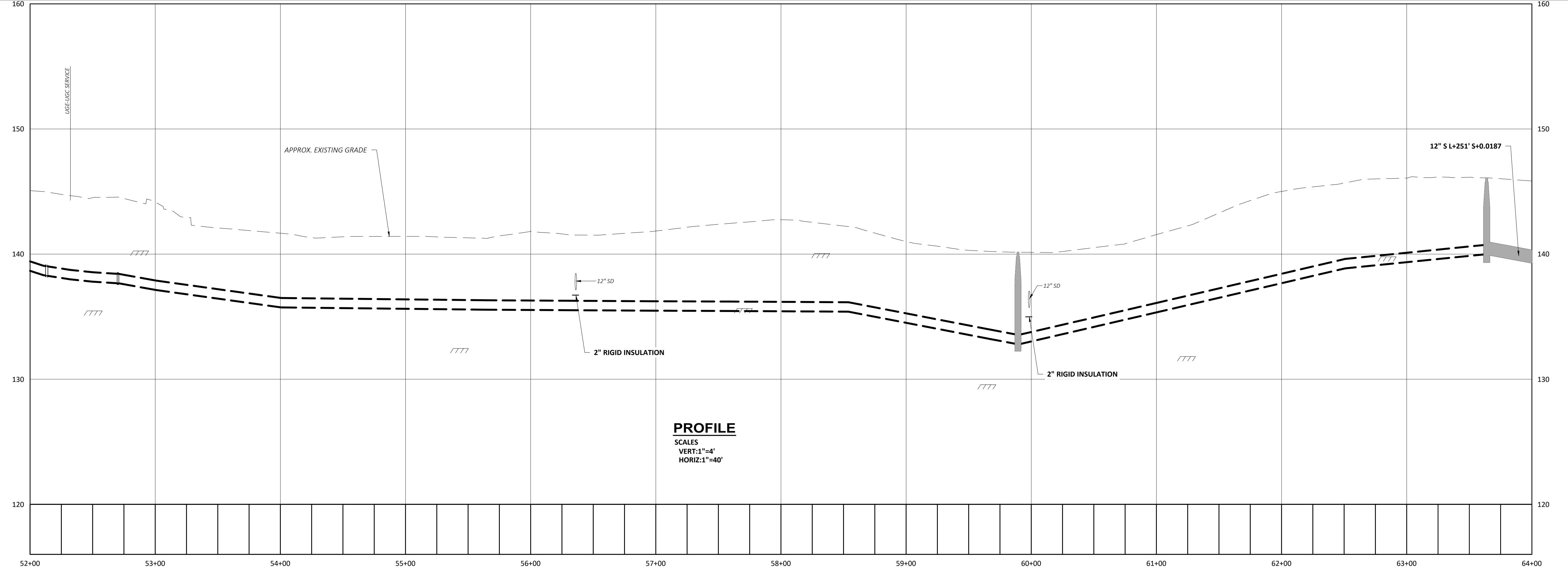
PLAN AND PROFILE
 WOODLANDS DRIVE
 STA 43+00 - 52+00

DRAWING
C-13



PLAN
SCALE: 1"=40'

- GENERAL NOTES:**
1. EXERCISE EXTREME CAUTION DURING EXCAVATION ADJACENT TO UNDERGROUND ELECTRICAL CONDUIT. COORDINATE UNDERGROUND ELECTRICAL CONDUIT CROSSINGS WITH POWER UTILITY. SUPPORT CONDUIT AS NECESSARY.
 2. FOR WATER SERVICES, CONTRACTOR WILL COORDINATE WITH WATER UTILITY. PROVIDE 1-FOOT MINIMUM VERTICAL SPACING BETWEEN SEWER OR FORCE MAIN AT ALL WATER SERVICE CROSSINGS. REFER TO CIVIL DETAILS FOR WATER MAIN SPACINGS.
 3. CONTRACTOR TO COORDINATE UTILITY SERVICE CROSSINGS WITH PROPERTY OWNERS.
 4. CONTRACTOR SHALL RESTORE ANY TEMPORARILY REMOVED MAILBOXES, YARD LIGHTS AND LANDSCAPING TO THE SATISFACTION OF THE PROPERTY OWNER.
 5. ALL GRANITE CURB ENCOUNTERED SHALL BE REMOVED AND RESET. ANY CURB DAMAGED DUE TO CONSTRUCTION ACTIVITIES SHALL BE REPLACED AT NO ADDITIONAL COST TO THE OWNER.



PROFILE
SCALES
VERT: 1"=4'
HORIZ: 1"=40'

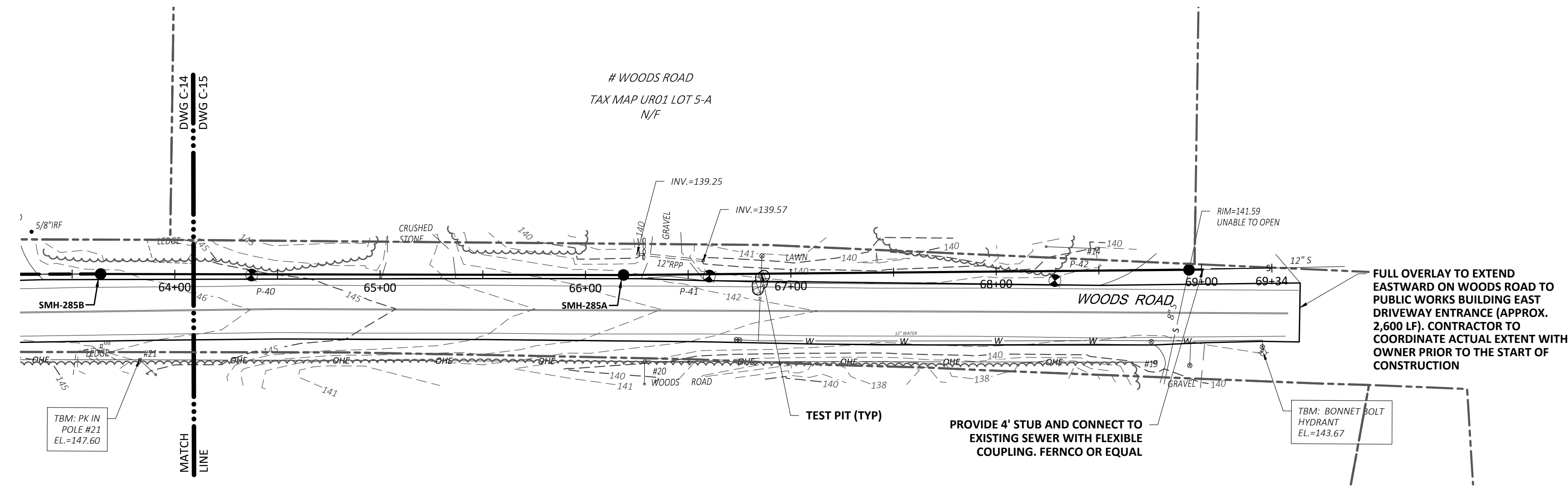
NO	REVISIONS	APPD	DATE

PROJECT NO: 14070
DESIGNED: C. LEWIS
CAD COORD: D. SAVAGE
CAD: D. FUDA
CHECKED: B. DENIS
DATE: 02/2022
APPROVED: C. LEWIS
DATE: 02/2022
SUBMISSION: CONTRACT DRAWINGS

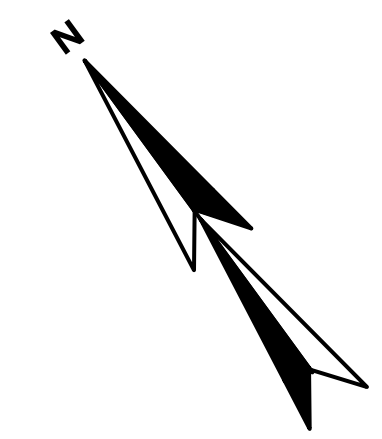
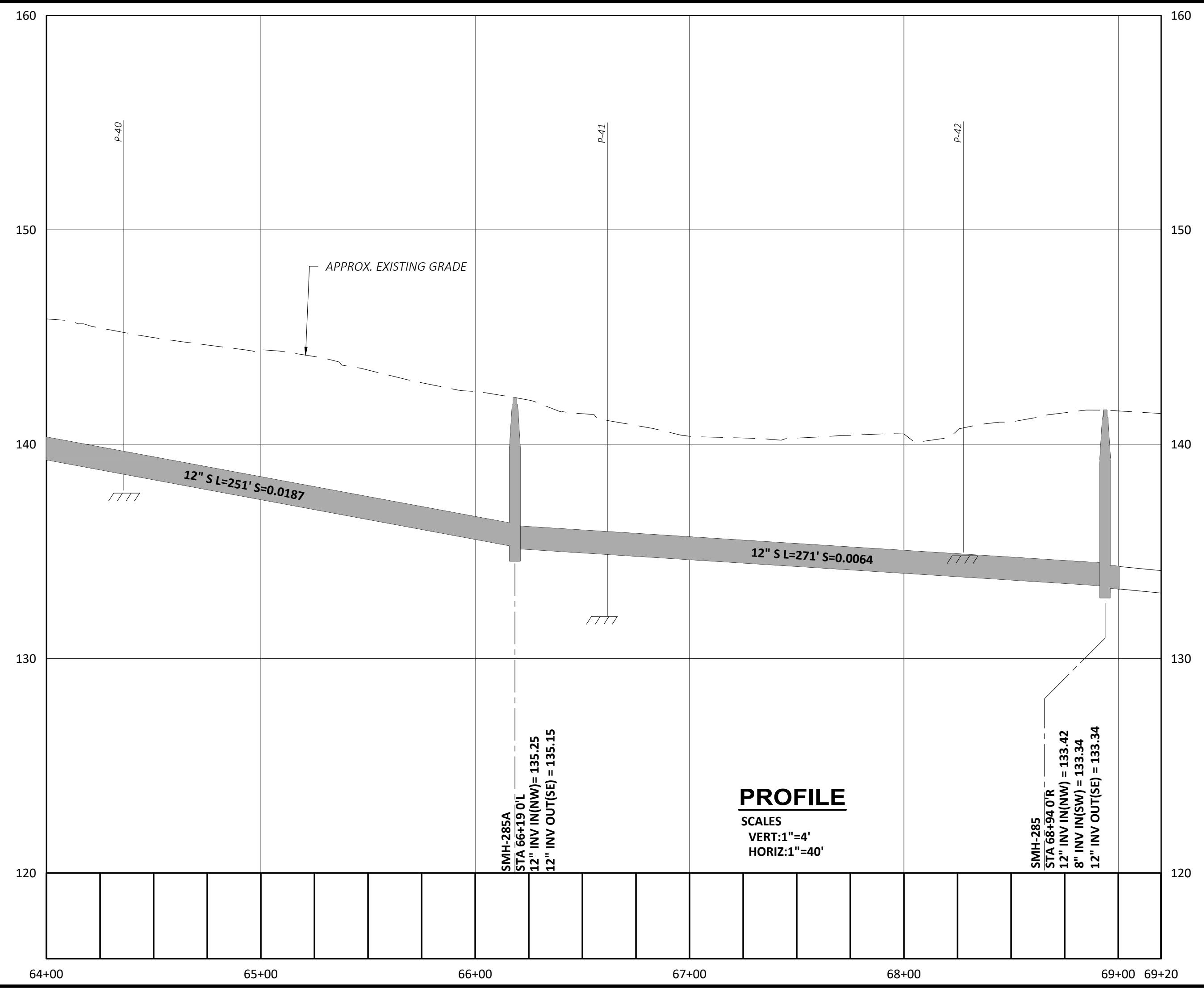
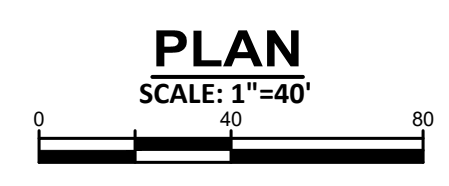


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TOWN OF FALMOUTH, MAINE
SEWER IMPROVEMENTS PHASE I
PLAN AND PROFILE
WOODS ROAD
STA 52+00 - 64+00
DRAWING
C-14



- GENERAL NOTES:**
- EXERCISE EXTREME CAUTION DURING EXCAVATION ADJACENT TO UNDERGROUND ELECTRICAL CONDUIT. COORDINATE UNDERGROUND ELECTRICAL CONDUIT CROSSINGS WITH POWER UTILITY. SUPPORT CONDUIT AS NECESSARY.
 - FOR WATER SERVICES, CONTRACTOR WILL COORDINATE WITH WATER UTILITY. PROVIDE 1-FOOT MINIMUM VERTICAL SPACING BETWEEN SEWER OR FORCE MAIN AT ALL WATER SERVICE CROSSINGS. REFER TO CIVIL DETAILS FOR WATER MAIN SPACING.
 - CONTRACTOR TO COORDINATE UTILITY SERVICE CROSSINGS WITH PROPERTY OWNERS.
 - CONTRACTOR SHALL RESTORE ANY TEMPORARILY REMOVED MAILBOXES, YARD LIGHTS AND LANDSCAPING TO THE SATISFACTION OF THE PROPERTY OWNER.
 - ALL GRANITE CURB ENCOUNTERED SHALL BE REMOVED AND RESET. ANY CURB DAMAGED DUE TO CONSTRUCTION ACTIVITIES SHALL BE REPLACED AT NO ADDITIONAL COST TO THE OWNER.



NO	REVISIONS	APPD	DATE

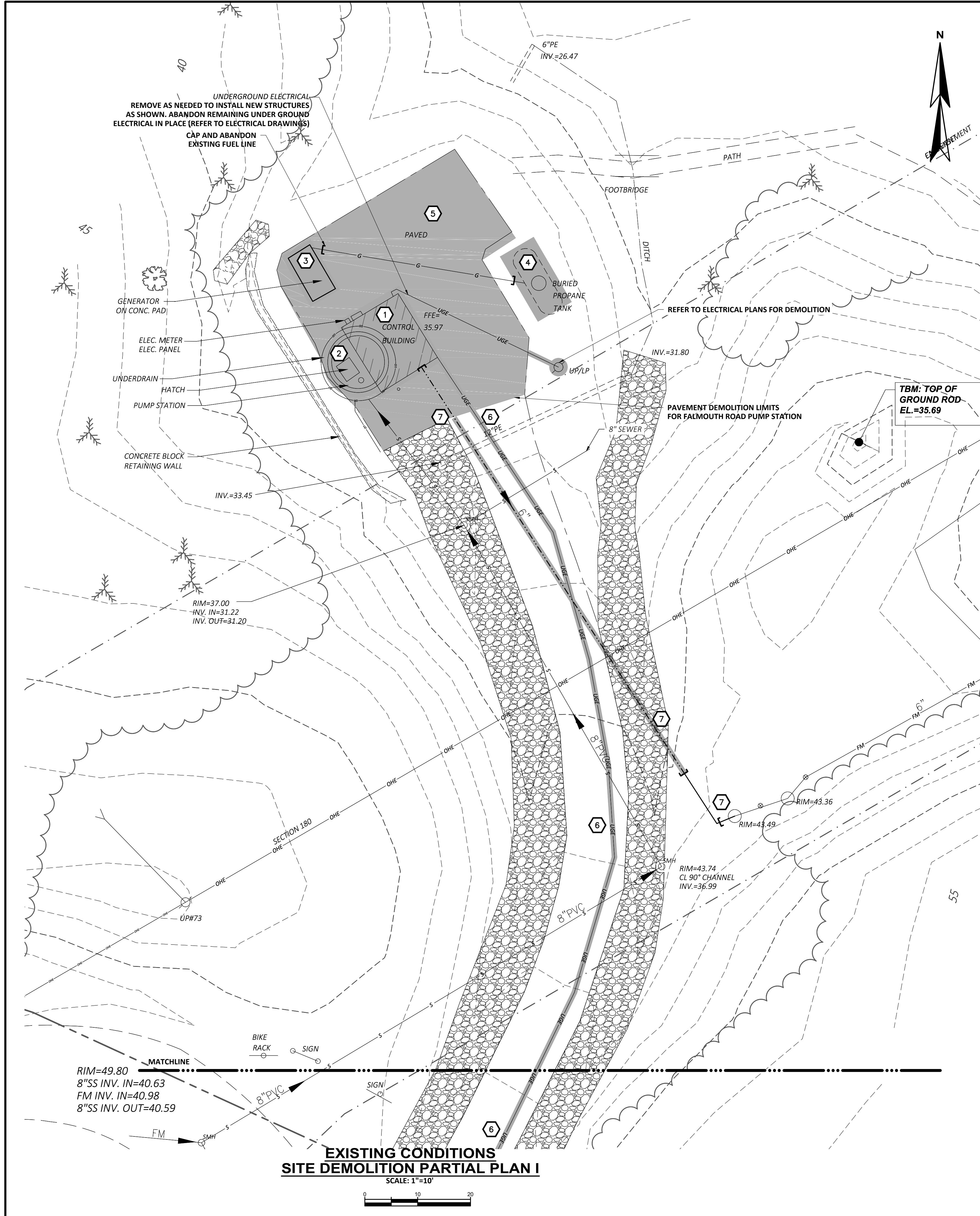
PROJECT NO: 14070
DESIGNED: CLEWIS
CAD COORD: D.SAVAGE
CAD: D.FUDA
CHECKED: B.DENIS
DATE: 02/2022
APPROVED: CLEWIS
DATE: 02/2022
SUBMISSION: CONTRACT DRAWINGS

WRIGHT-PIERCE
207.725.8721 | www.wright-pierce.com
11 BOWDOIN MILL ISLAND, SUITE 140, TOPSHAM, ME 04086

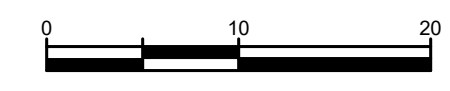
TOWN OF FALMOUTH, MAINE
SEWER IMPROVEMENTS PHASE I

PLAN AND PROFILE
WOODS ROAD
STA 64+00 - 69+20

DRAWING
C-15

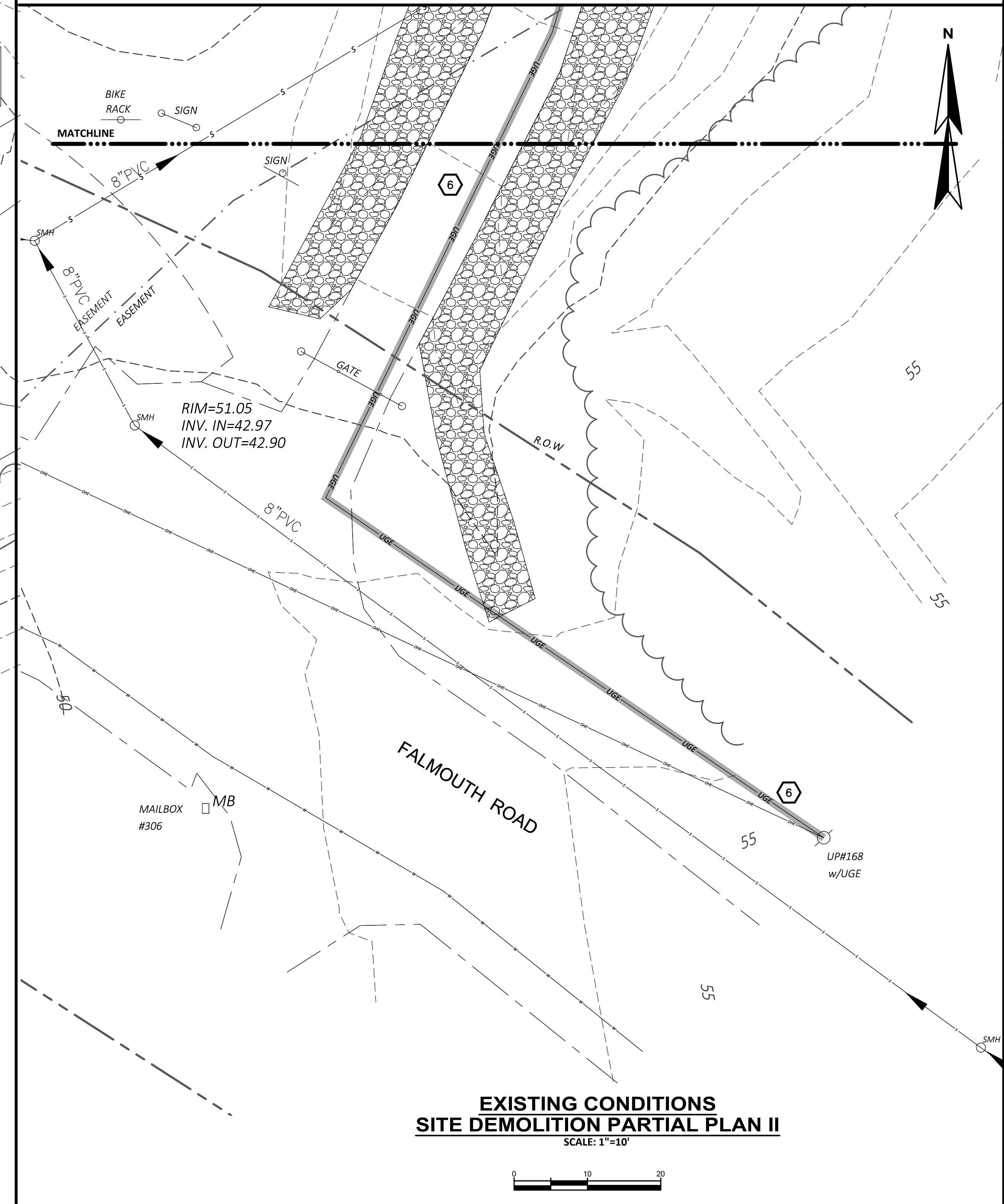


**EXISTING CONDITIONS
SITE DEMOLITION PARTIAL PLAN I**
SCALE: 1"=10'

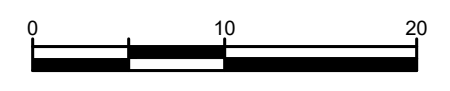


DEMOLITION NOTES:

- 1 REMOVE/DEMOLISH EXISTING PUMP STATION BUILDING IN ITS ENTIRETY INCLUDING BUT NOT LIMITED TO, ABOVE GRADE STRUCTURE, ELECTRICAL AND CONTROLS LOCATED ON OR WITHIN THE BUILDING, AND BELOW GRADE STRUCTURE.
- 2 REMOVE/DEMOLISH EXISTING CONCRETE WET WELL FLAT TOP IN ITS ENTIRETY INCLUDING BUT NOT LIMITED TO CONCRETE TOP, HATCHES, VENTS, AND ALL SUPPORTING ELEMENTS MOUNTED ON THE TOP.
- 3 REMOVE/DEMOLISH EXISTING GENERATOR INCLUDING BUT NOT LIMITED TO; GENERATOR, CONCRETE PAD, UNDERGROUND PIPING TO A POINT SHOWN, CAP/PLUG PIPING AND FILL WITH FLOWABLE FILL, ALL ELECTRICAL AND CONTROL COMPONENTS.
- 4 REMOVE/DEMOLISH THE EXISTING BURIED PROPANE TANK IN ITS ENTIRETY, INCLUDING BUT NOT LIMITED TO BURIED TANK, PIPING, CAP/PLUG EXISTING PIPING AND FILL WITH FLOWABLE FILL.
- 5 REMOVE/DEMOLISH EXISTING PAVED AREA TO THE LIMITS SHOWN
- 6 DEMOLISH/ABANDON EXISTING UNDER GROUND ELECTRICAL
- 7 DEMOLISH/ABANDON EXISTING FORCE MAIN PIPING. CAP BOTH ENDS. EXISTING FORCE MAIN FITTINGS INTO THE PIG LAUNCH SMH TO REMAIN FOR REUSE.



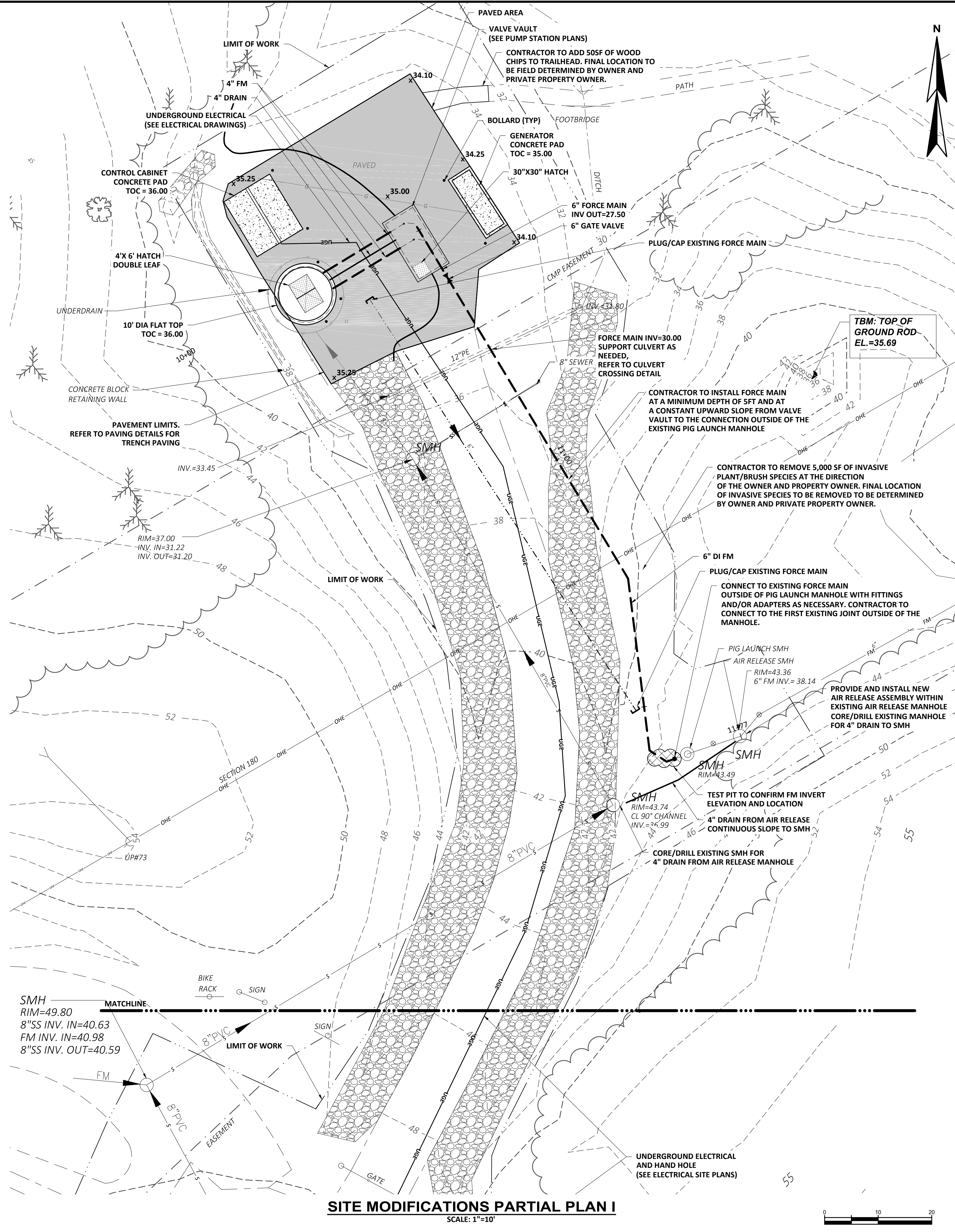
**EXISTING CONDITIONS
SITE DEMOLITION PARTIAL PLAN II**
SCALE: 1"=10'



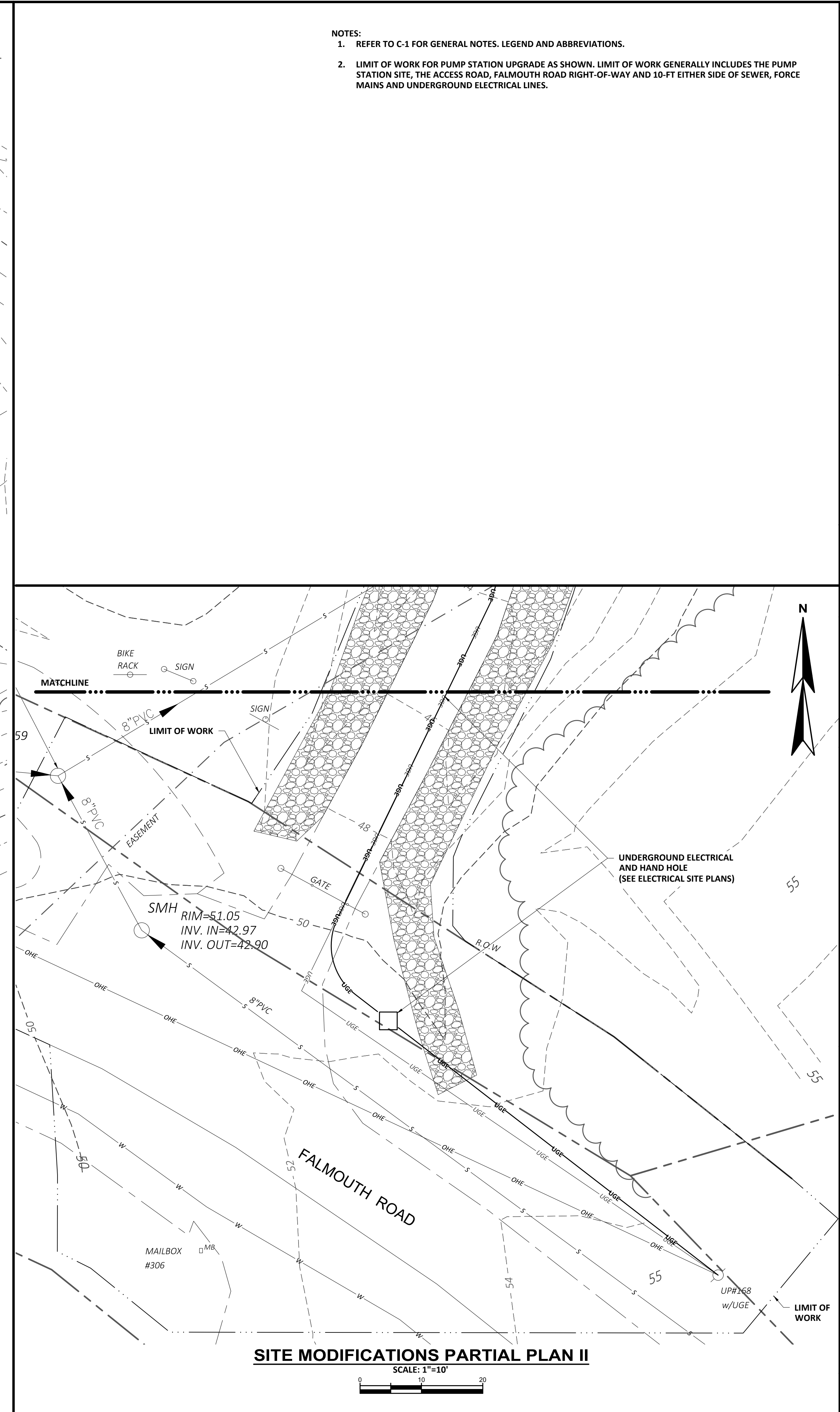
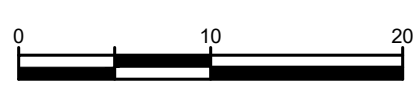
REVISIONS		APPD	DATE
NO	DESCRIPTION		

PROJECT NO: 14070D	DESIGNED: CLEWIS	CAD COORD: D.SAVAGE	CAD: D.SAVAGE	CHECKED: B.DENIS	DATE: 02/2022	APPROVED: CLEWIS	DATE: 02/2022	SUBMISSION: CONTRACT DRAWINGS
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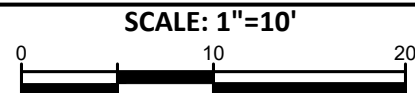
WRIGHT-PIERCE 207.725.8721 www.wright-pierce.com 11 BOWDOIN MILL ISLAND, SUITE 140, TOPSHAM, ME 04086	
TOWN OF FALMOUTH, MAINE SEWER IMPROVEMENTS PHASE I	FALMOUTH ROAD PUMP STATION EXISTING CONDITIONS AND SITE DEMOLITION PLAN
DRAWING C-16	



SITE MODIFICATIONS PARTIAL PLAN I
SCALE: 1"=10'



SITE MODIFICATIONS PARTIAL PLAN II
SCALE: 1"=10'



- NOTES:
- REFER TO C-1 FOR GENERAL NOTES, LEGEND AND ABBREVIATIONS.
 - LIMIT OF WORK FOR PUMP STATION UPGRADE AS SHOWN. LIMIT OF WORK GENERALLY INCLUDES THE PUMP STATION SITE, THE ACCESS ROAD, FALMOUTH ROAD RIGHT-OF-WAY AND 10-FT EITHER SIDE OF SEWER, FORCE MAINS AND UNDERGROUND ELECTRICAL LINES.

NO	REVISIONS	APPD	DATE

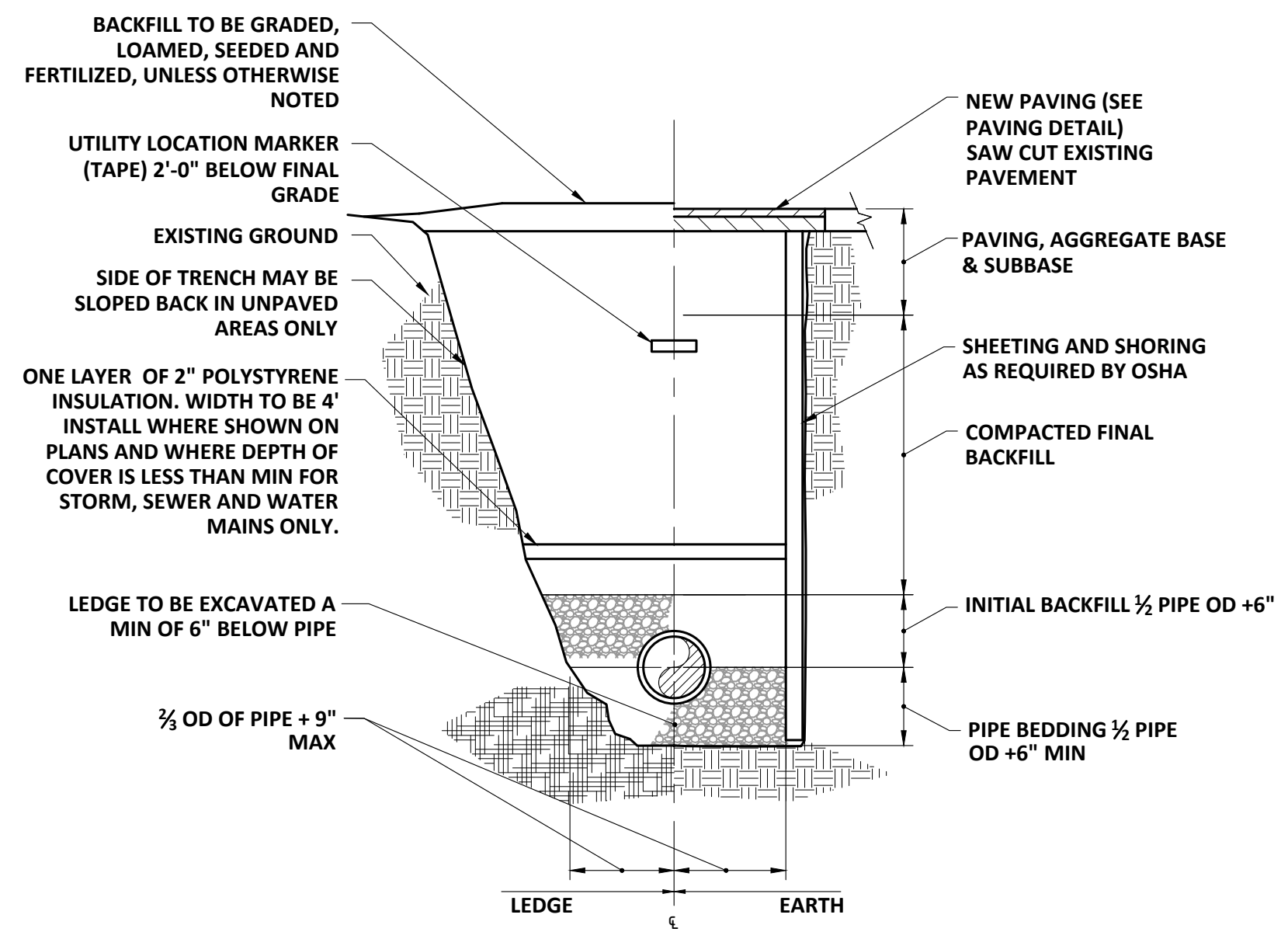
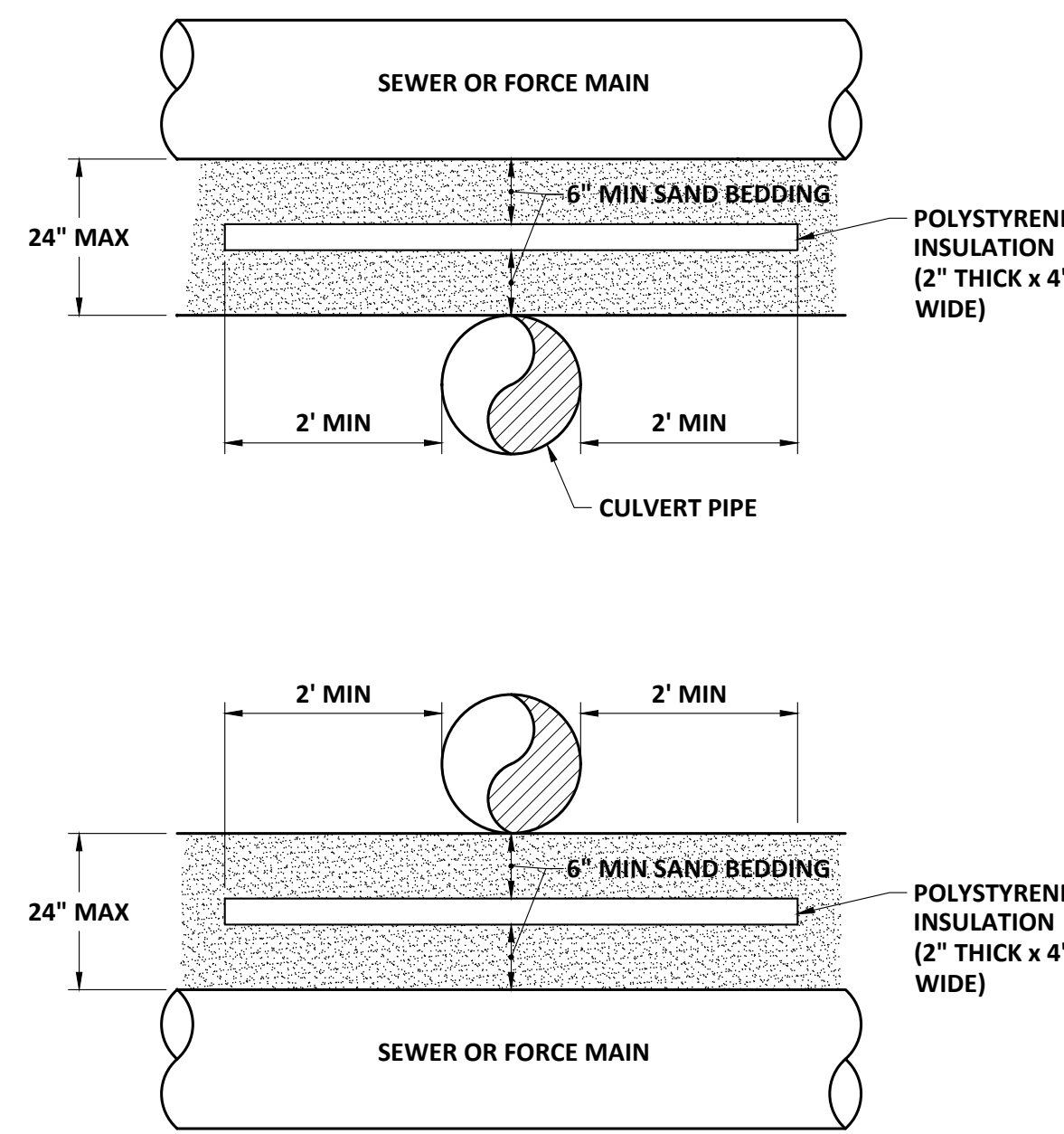
PROJECT NO:	14070
DESIGNED BY:	CLEWIS
CAD COORD:	D.SAVAGE
CAD:	D.SAVAGE
CHECKED BY:	B.DENIS
DATE:	02/2022
APPROVED BY:	CLEWIS
DATE:	02/2022
SUBMISSION:	CONTRACT DRAWINGS

COREY W. LEWIS
No. 14224
PROFESSIONAL ENGINEER
STATE OF MAINE

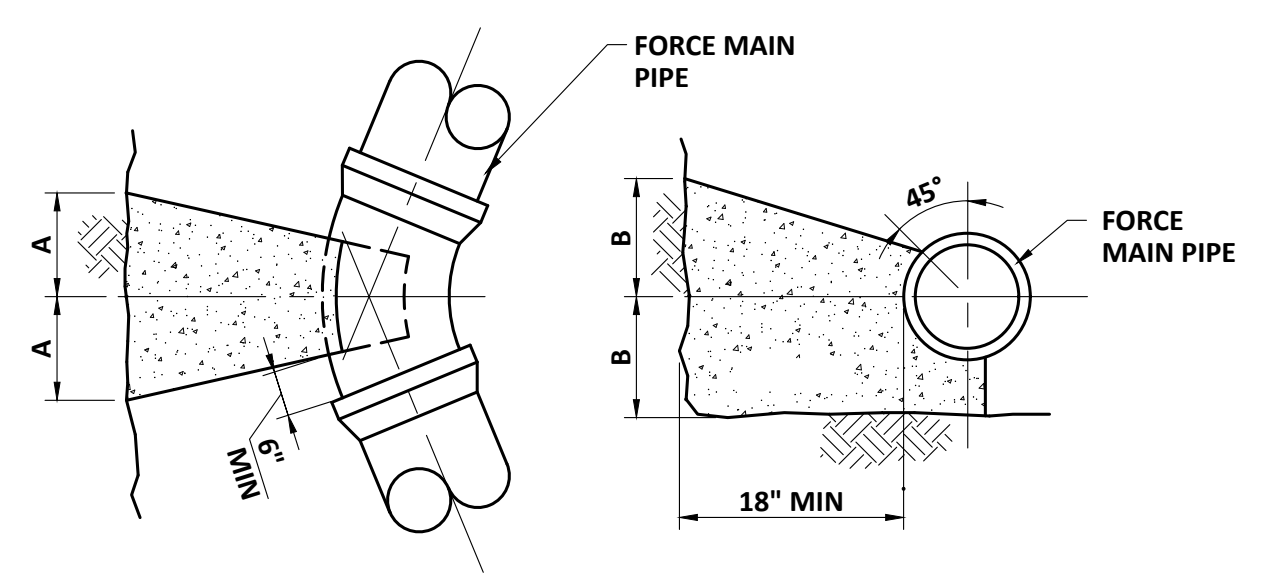
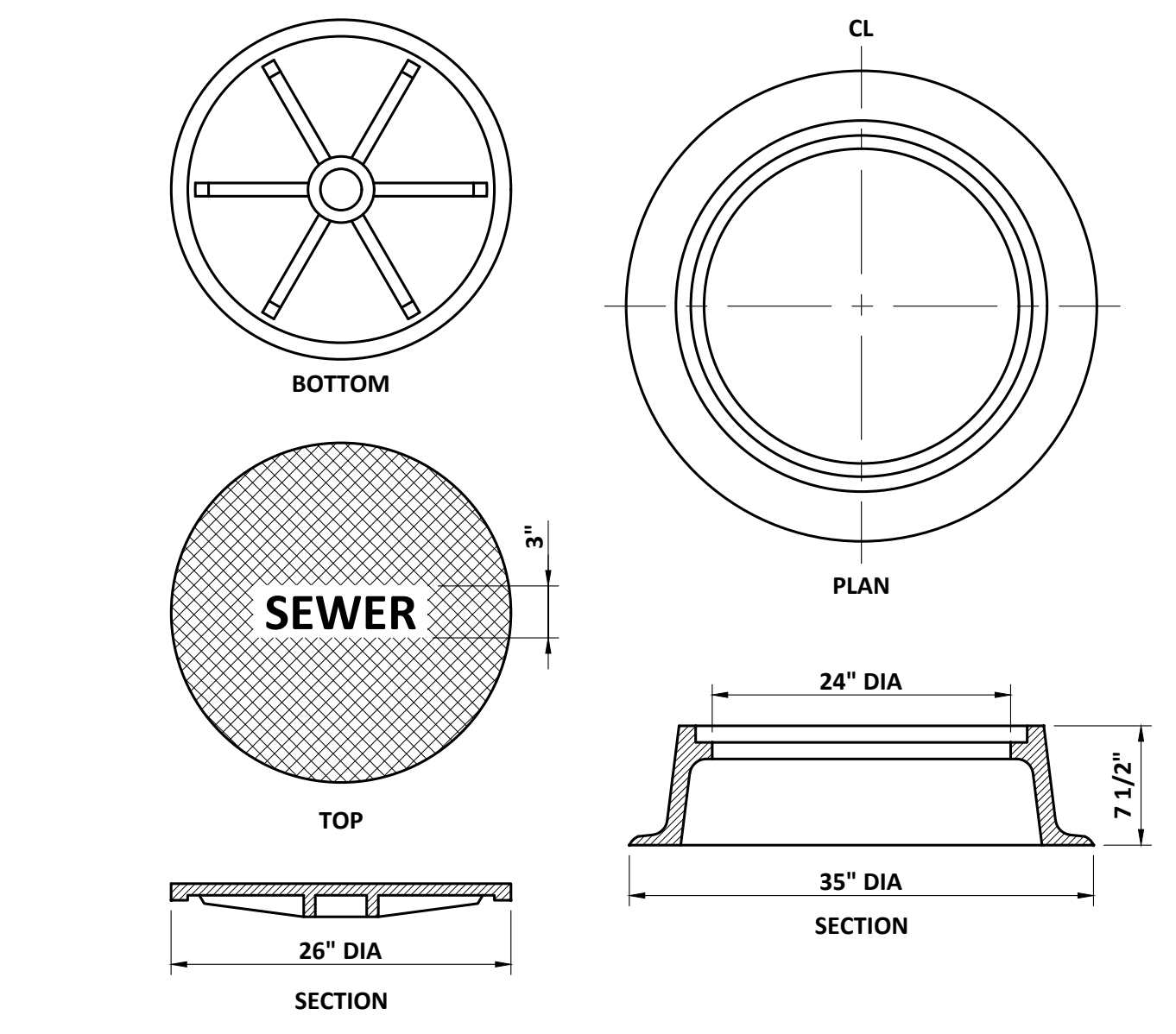
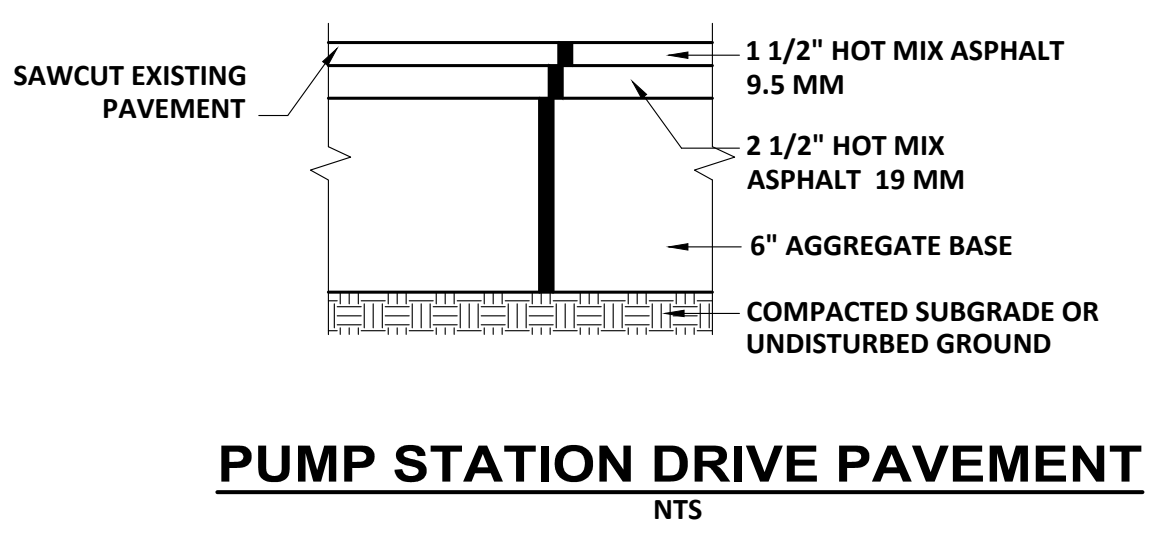
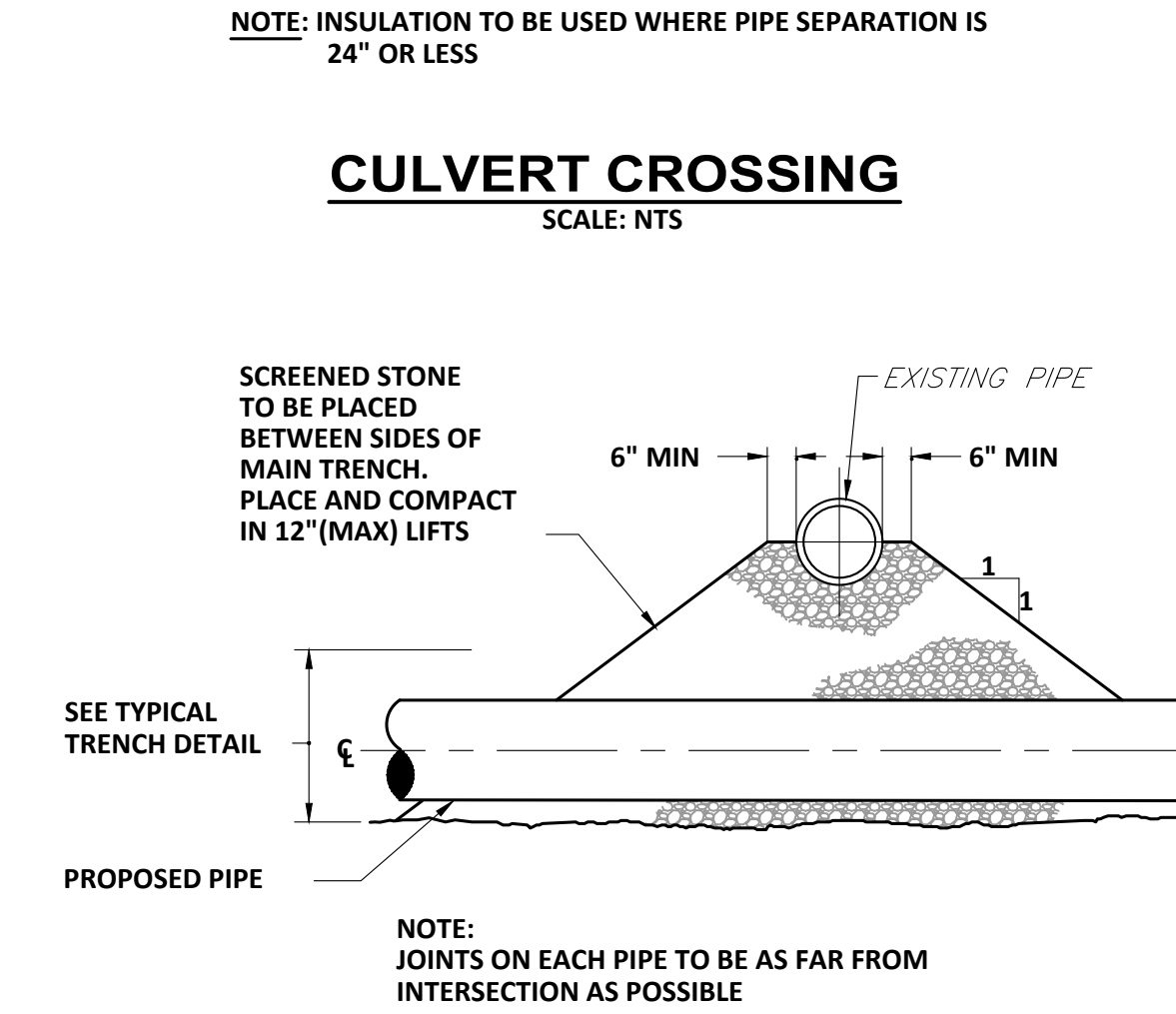
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11 BOWDOIN HILL ISLAND, SUITE 140, TOPSHAM, ME 04086

TOWN OF FALMOUTH, MAINE SEWER IMPROVEMENTS PHASE I	FALMOUTH ROAD PUMP STATION SITE MODIFICATIONS PLAN
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DRAWING	C-17
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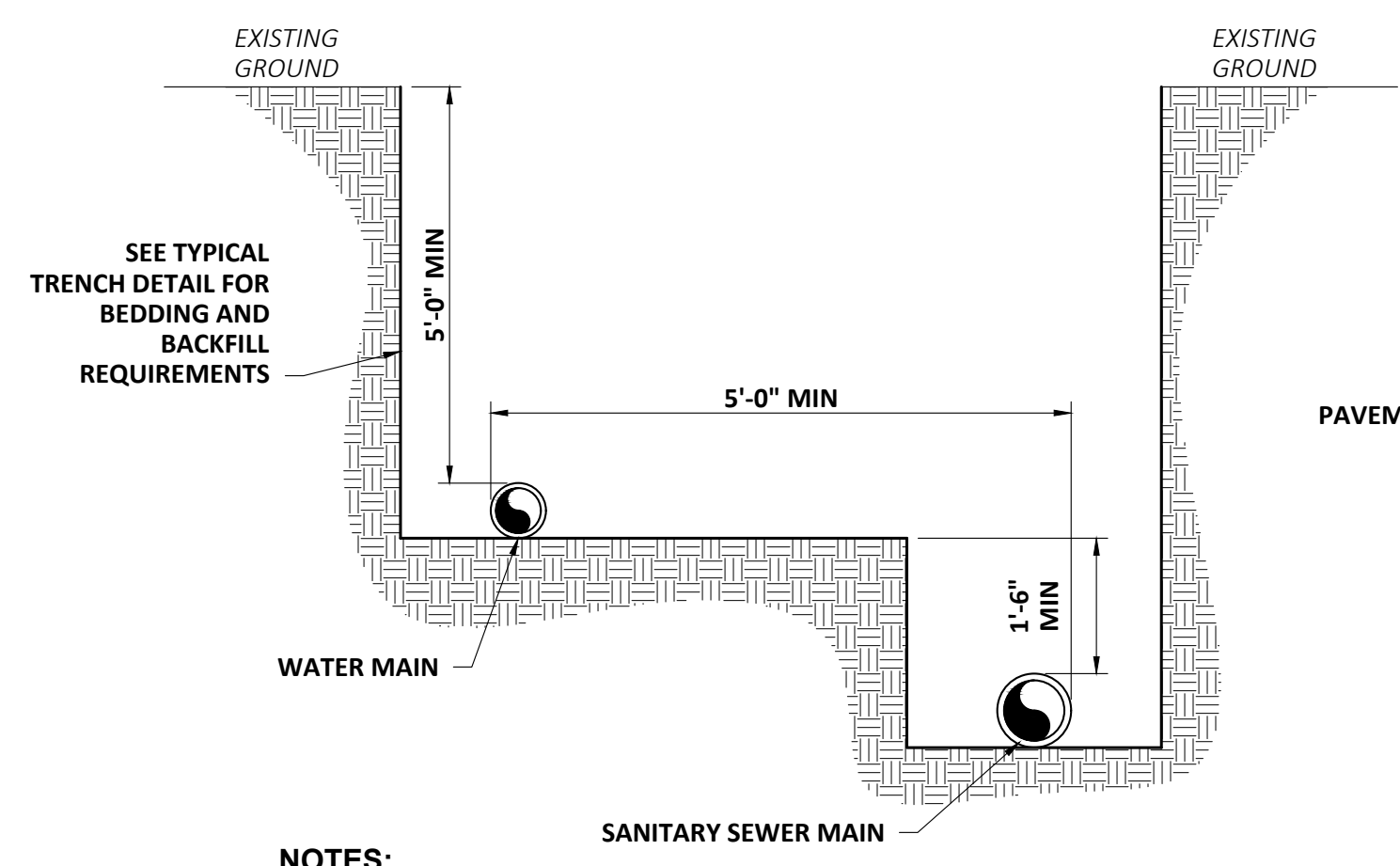


- NOTES:**
- ALL EXCAVATION MUST MEET OSHA STANDARDS.
 - INSTALL 3 FOOT LONG IMPERVIOUS MATERIAL DAM IN BEDDING/INITIAL BACKFILL MATERIAL EVERY 100' AND WHERE SHOWN ON PLANS TO PREVENT TRENCH GROUNDWATER FROM BEING CHANNELLED ALONG BEDDING/INITIAL BACKFILL.
 - SEE SPECIFICATIONS FOR BEDDING AND BACKFILL REQUIREMENTS.

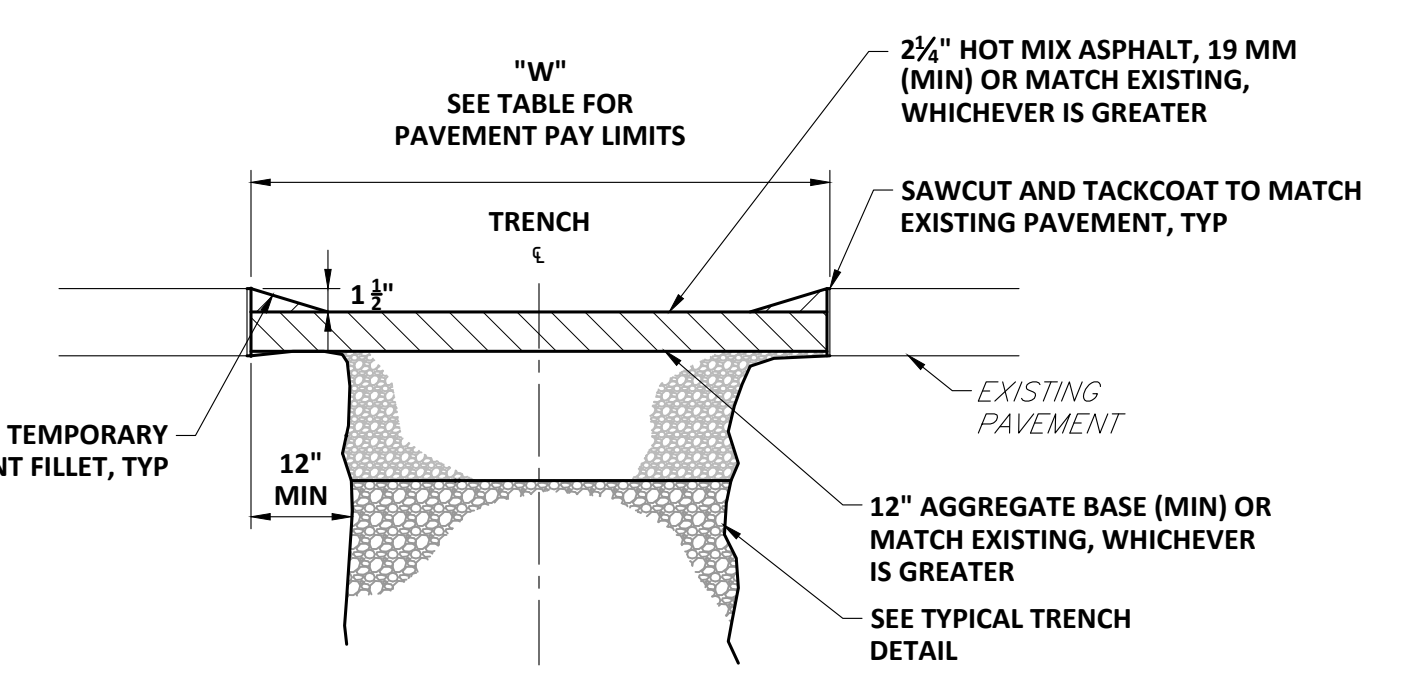


PIPE SIZE	90° BEND		45° BEND		22 1/2° BEND	
	A	B	A	B	A	B
2"	9"	9"	9"	9"	6"	6"
4"	18"	12"	12"	9"	9"	9"
6"	18"	12"	12"	9"	9"	9"
8"	24"	15"	15"	12"	12"	12"
10"	24"	20"	15"	15"	12"	12"
12"	24"	24"	18"	15"	15"	12"
14"	27"	27"	21"	21"	15"	15"
16"	30"	30"	24"	24"	18"	18"

- NOTES:**
- THRUST BLOCK SIZES ABOVE ARE BASED ON A SOIL BEARING CAPACITY OF 1000 PSF AND TEST PRESSURES OF 100 PSI. CONTRACTOR SHALL NOTIFY THE ENGINEER IF LOW BEARING STRENGTH SOILS ARE ENCOUNTERED.
 - RETAINER GLANDS MAY BE USED IN LIEU OF THRUST BLOCKS ON DUCTILE IRON FORCE MAINS ONLY. INSTALL IN COMPLIANCE WITH DUCTILE IRON & PIPE MANUFACTURERS STANDARDS.



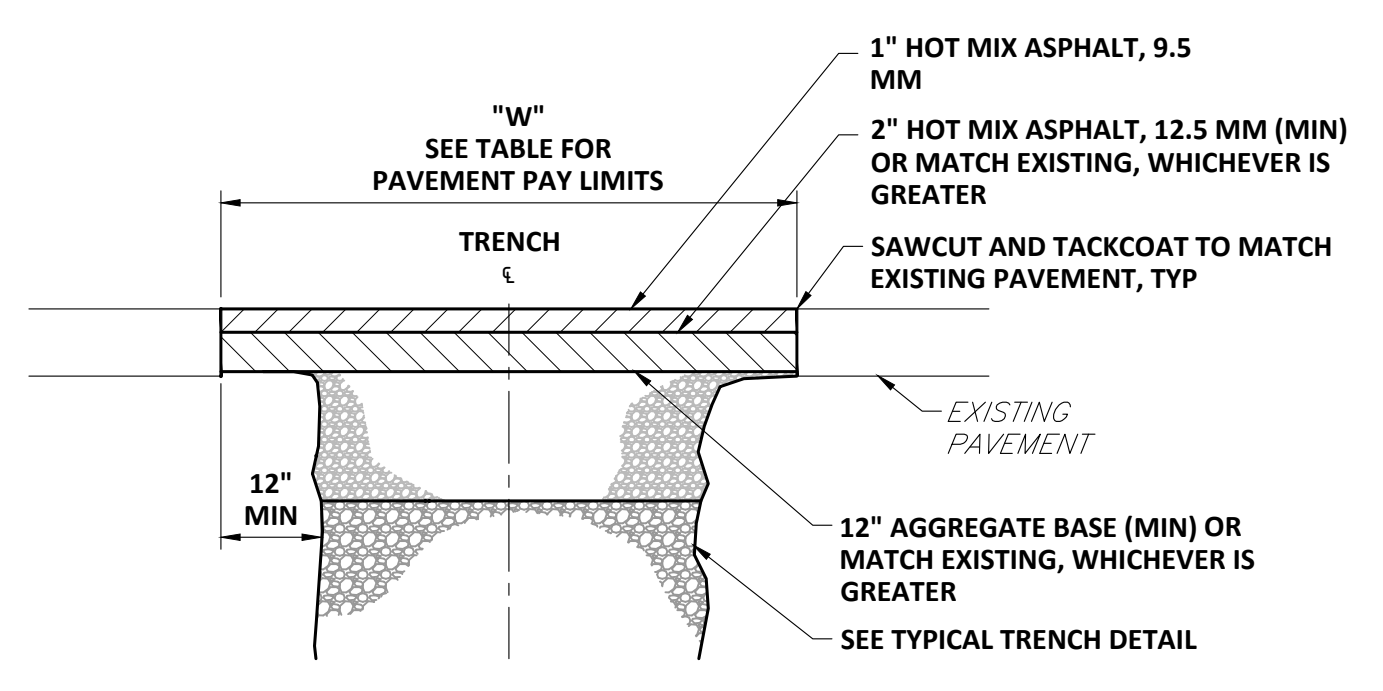
- NOTES:**
- INSTALL WATER AND SEWER MAINS WITH 10-FOOT SPACING WHERE POSSIBLE.



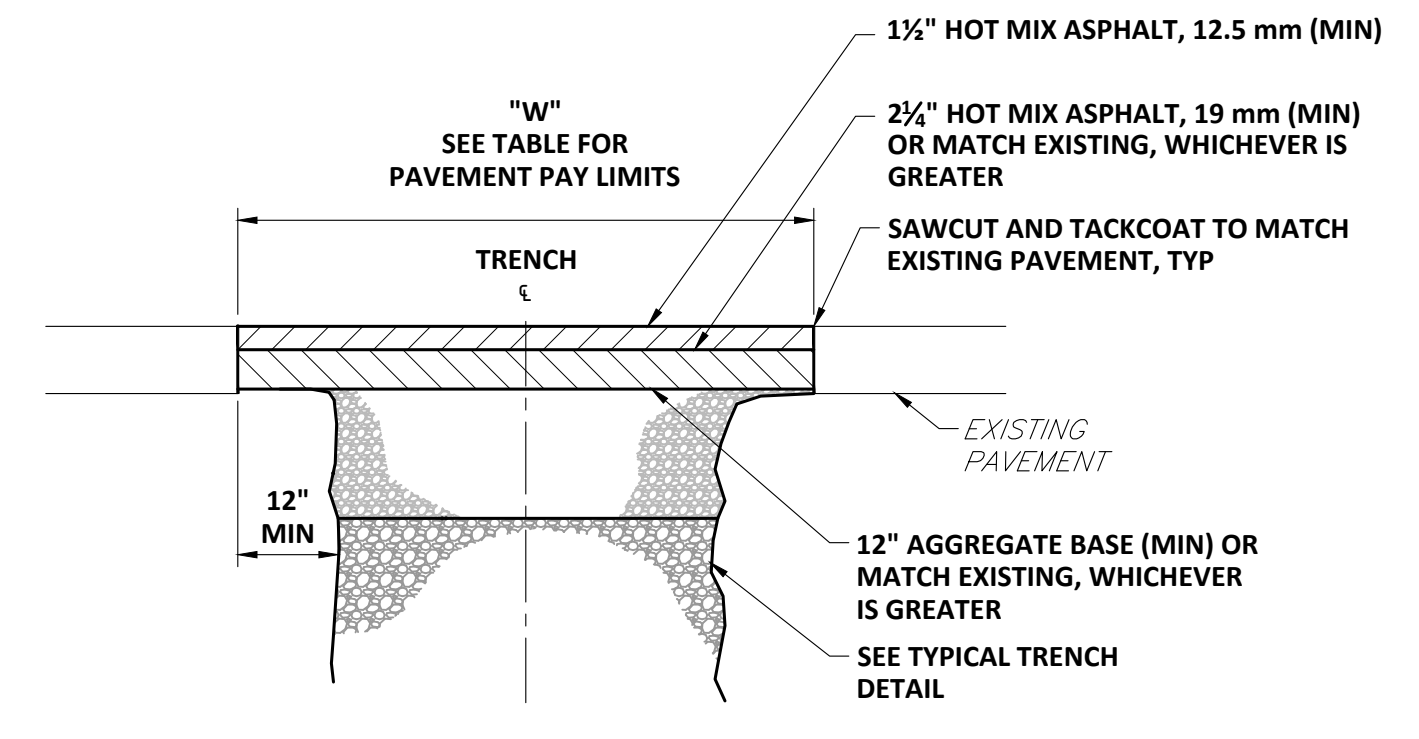
PAVEMENT PAY LIMITS

PIPE I.D.	"W" (FOR 0' - 10' DEEP)
2" - 15"	8'-0"
ELEC. DUCT BANK	2'-0"

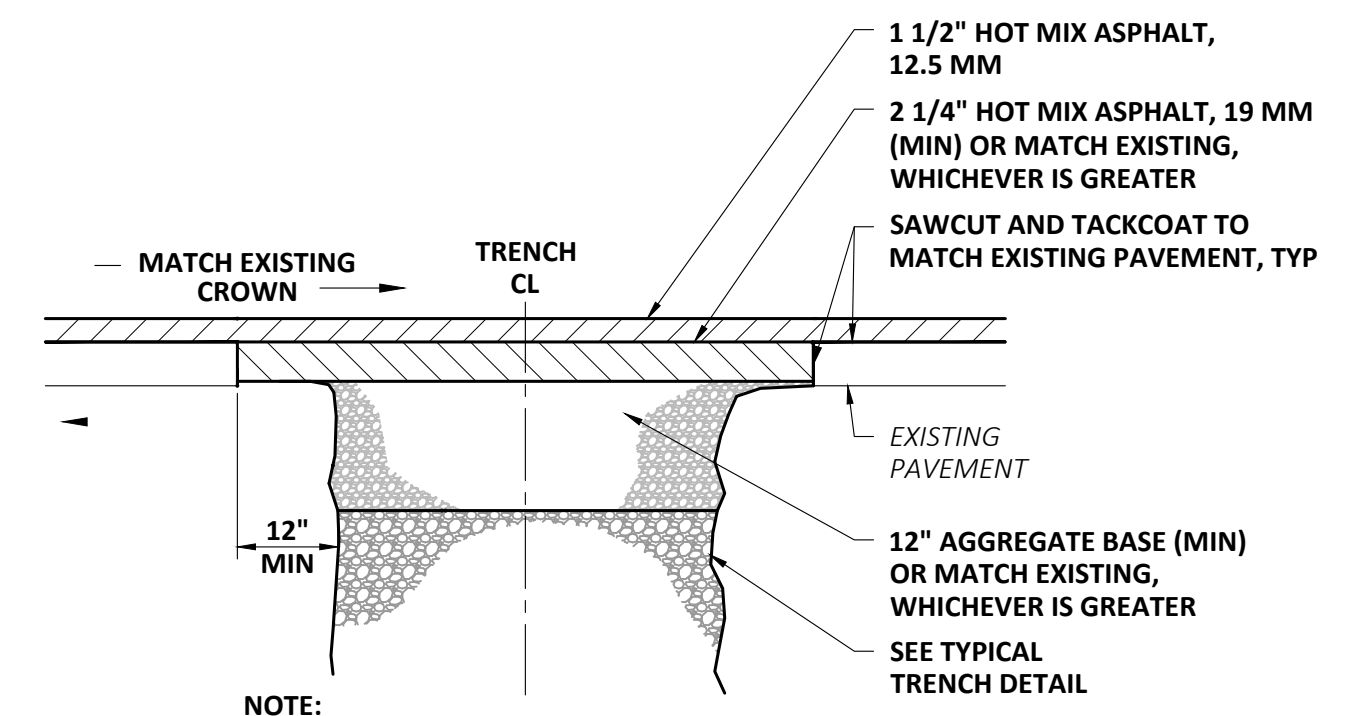
"W" SHALL BE INCREASED BY 1'-0" FOR TRENCHES 10' - 15' DEEP, AND BY 2'-0" FOR TRENCHES 15' - 20' DEEP.



- NOTE:** INITIAL TRENCH PAVING MAY BE USED AS THE BASE COURSE FOR FINAL PAVING IF IN GOOD REPAIR.

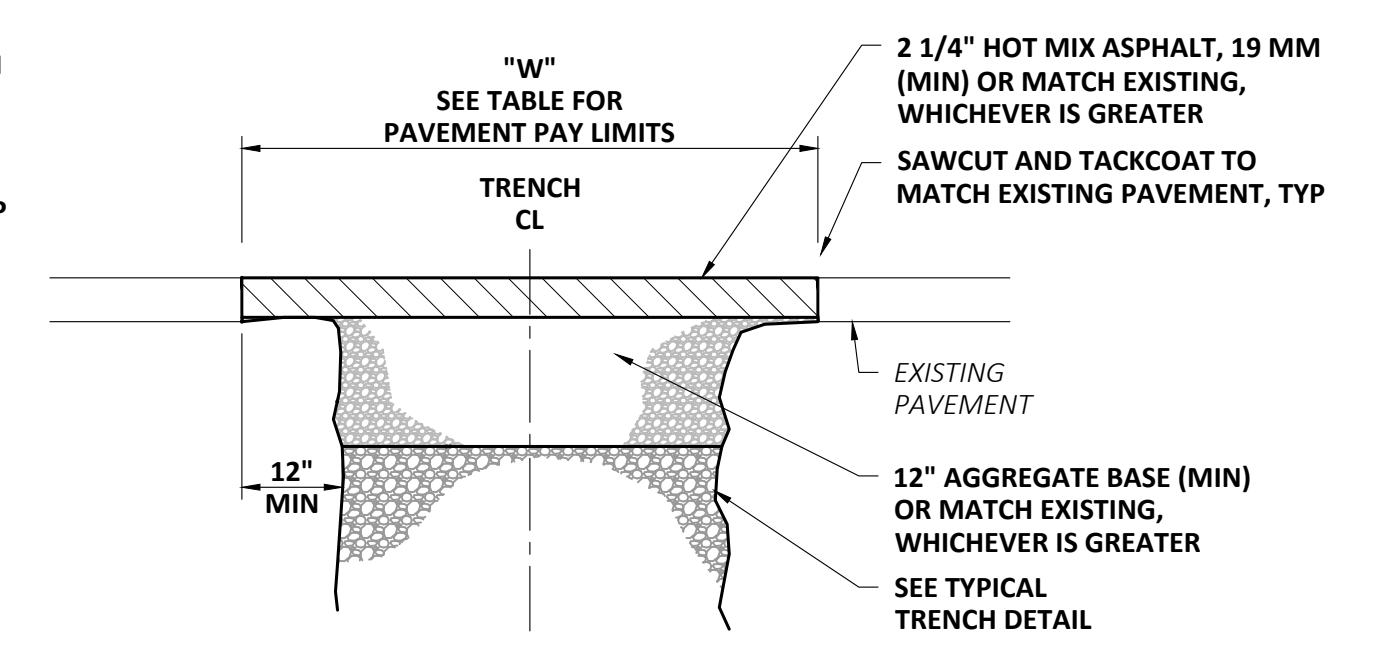


- NOTE:** INITIAL TRENCH PAVING MAY BE USED AS THE BASE COURSE FOR FINAL PAVING IF IN GOOD REPAIR.



- NOTE:** INITIAL TRENCH PAVING MAY BE USED AS THE BASE COURSE FOR FINAL PAVING IF IN GOOD REPAIR.

- NOTE:**
- AT DRIVEWAYS: MILL 5' WIDE BY 1-1/2" THICK TO BLEND IN OVERLAY TO EXISTING DRIVEWAY PAVEMENT OR PROVIDE BUTT JOINT TO MATCH EXISTING DRIVEWAY PAVEMENT AT THE DIRECTION OF THE OWNER.
 - AT EXTENTS OF OVERLAY, CORNERSTONE ST., WOODVILLE RD., PUBLIC WORKS DRIVEWAY AND POLICE STATION DRIVEWAY, PROVIDE 5' WIDE BUTT JOINT TO MATCH EXISTING PAVEMENT.



PAVEMENT PAY LIMITS

PIPE I.D.	"W" (FOR 0' - 10' DEEP)
6" - 15"	7'-0"
16" - 21"	8'-0"

"W" SHALL BE INCREASED BY 1'-0" FOR TRENCHES 10' - 15', AND BY 2'-0" FOR TRENCHES 15' - 20' DEEP.

NO	REVISIONS	APPD	DATE

PROJECT NO: 14070
DESIGNED: CLEWIS
CAD COORD: D.SAVAGE
CAD: D.FUDA
CHECKED: B.DENIS
DATE: 02/2022
APPROVED: CLEWIS
DATE: 02/2022
SUBMISSION: CONTRACT DRAWINGS

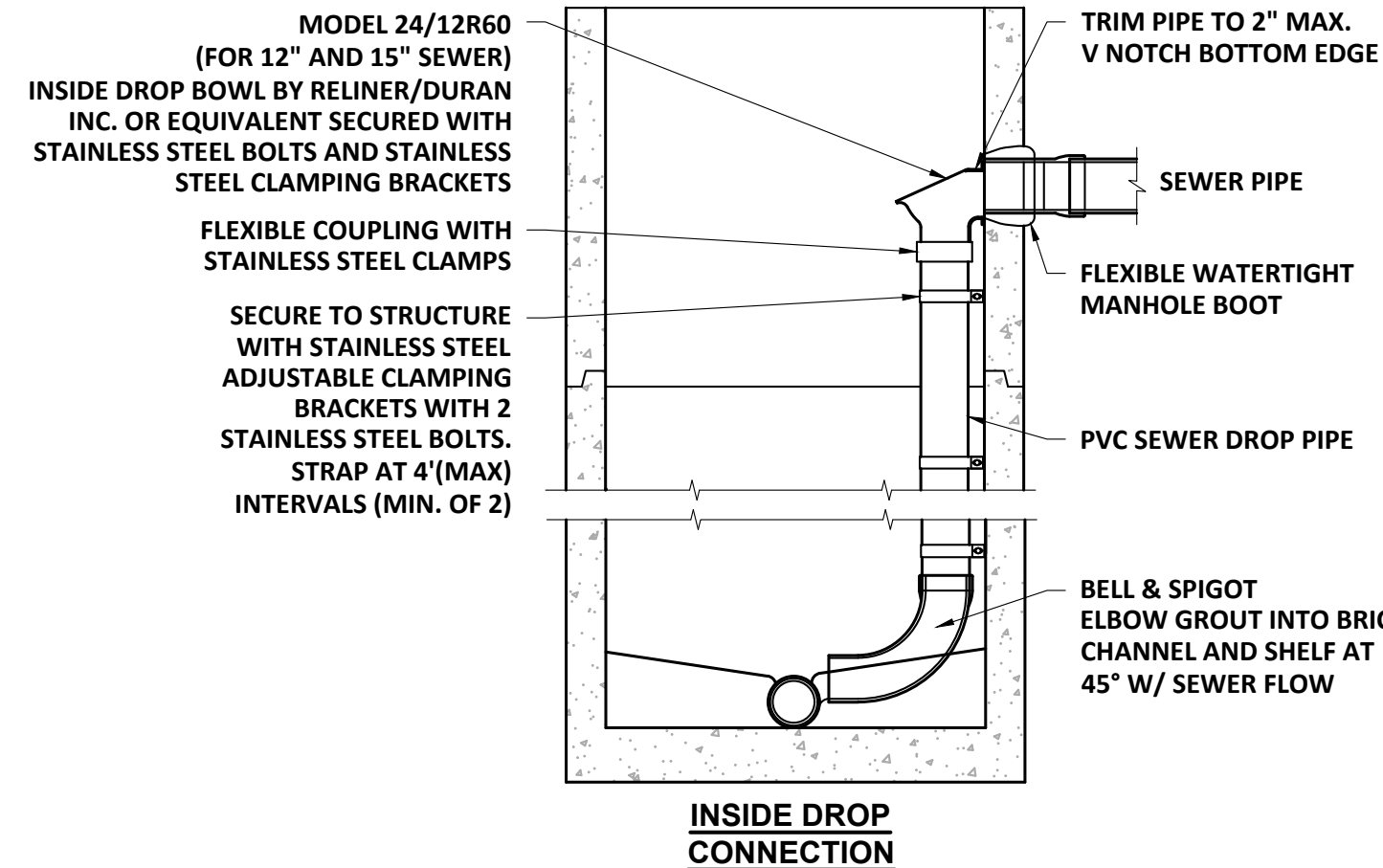
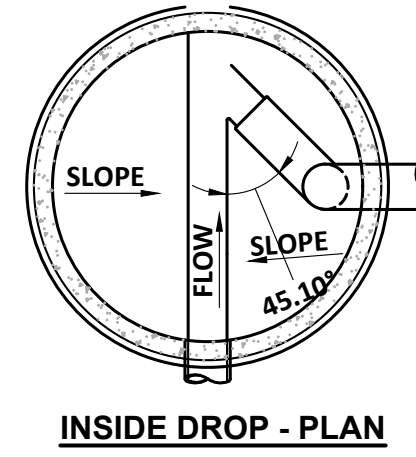
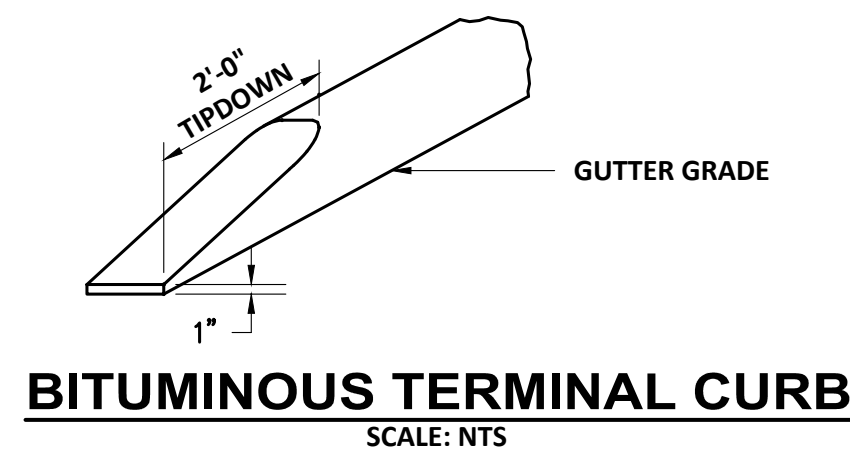
STATE OF MAINE
COREY W. LEWIS
No. 14224
REGISTERED PROFESSIONAL ENGINEER
2/11/2022

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207.725.8721 | www.wright-pierce.com
11 BOWDOIN HILL ISLAND, SUITE 140, TOPSHAM, ME 04086

**TOWN OF FALMOUTH, MAINE
SEWER IMPROVEMENTS PHASE I**

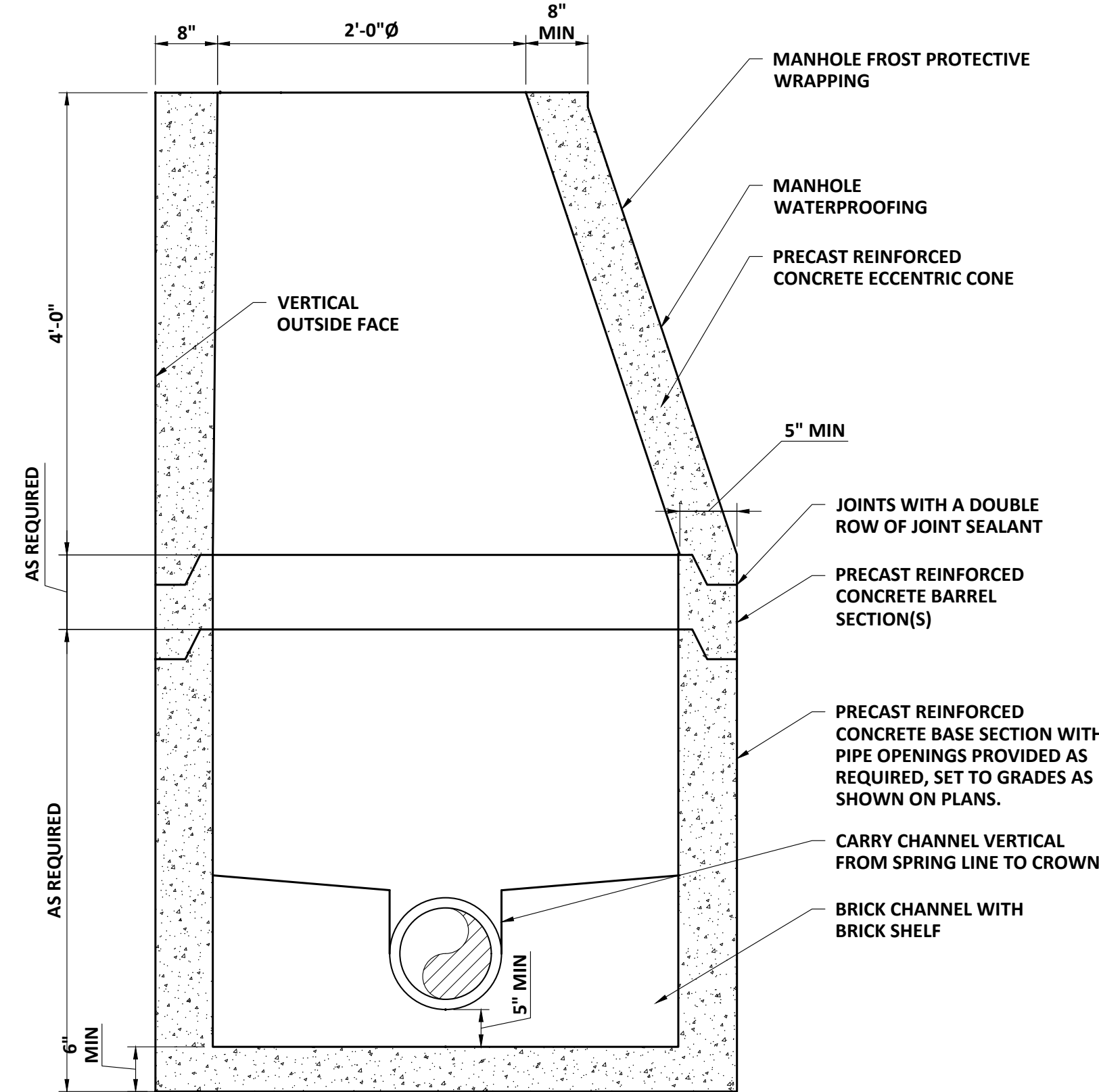
CIVIL DETAILS I

DRAWING
C-18

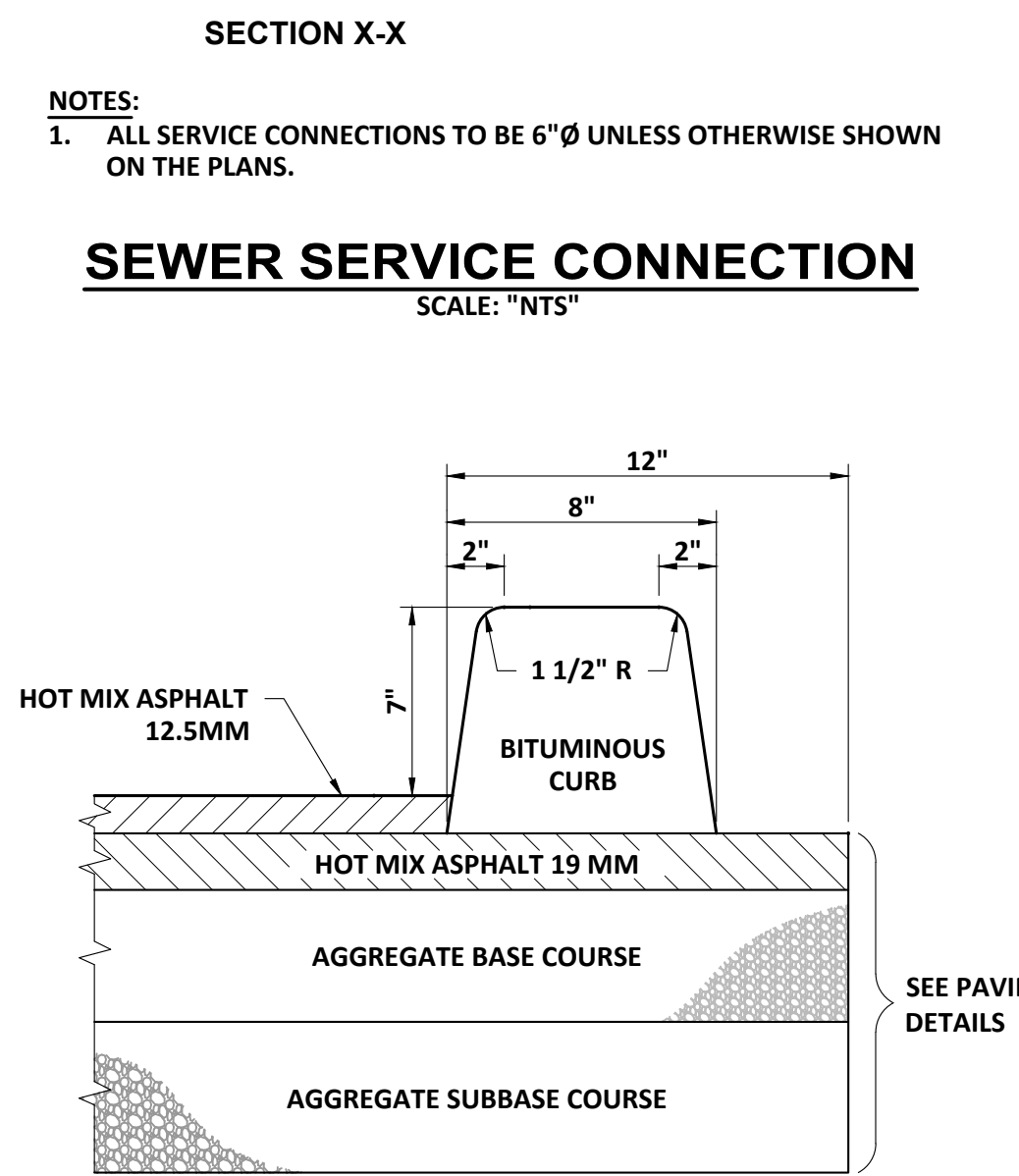
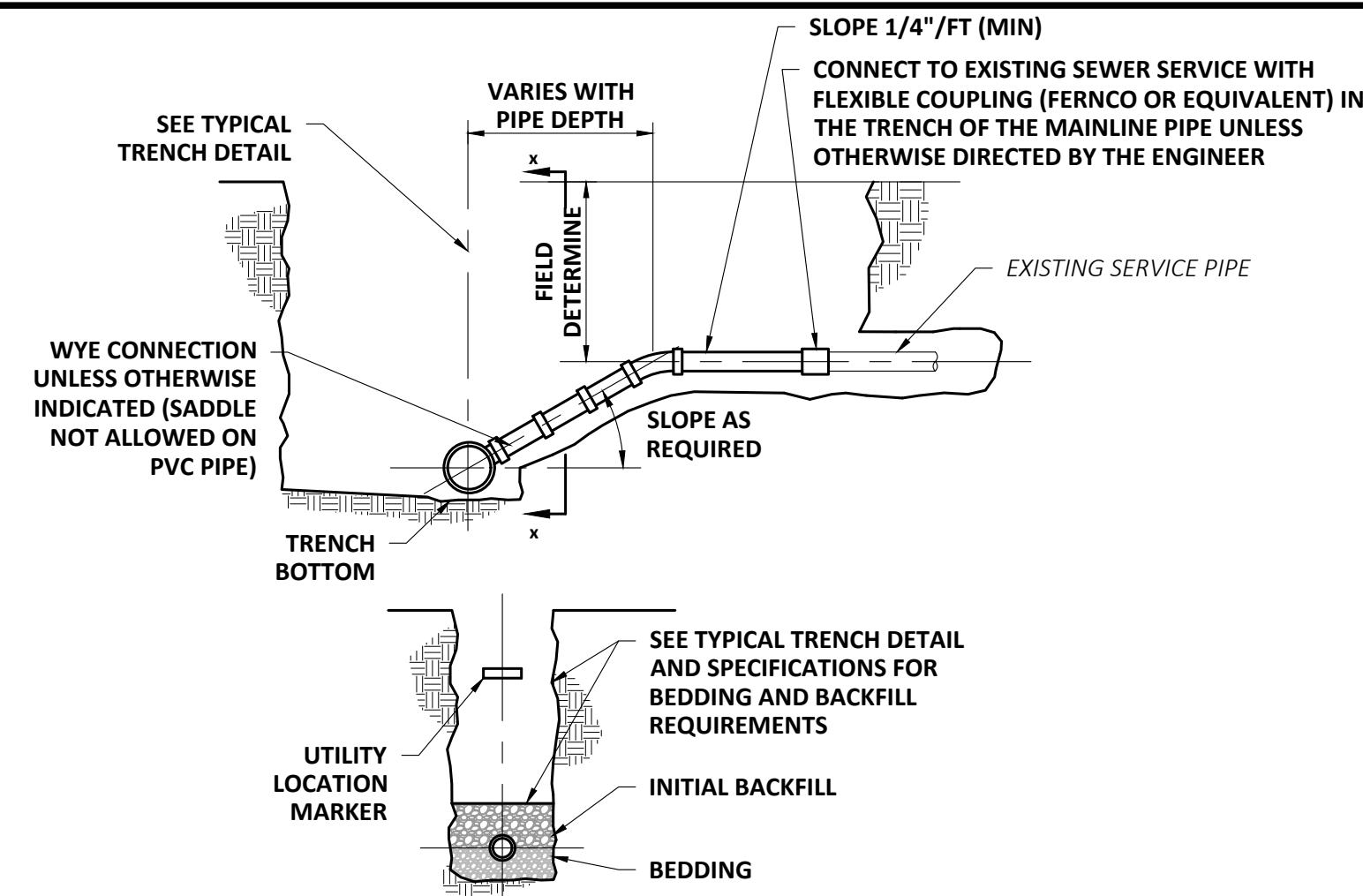


NOTE:
ALL INSIDE DROP CONNECTIONS FOR SERVICES AND COLLECTOR SEWERS SHALL USE THE DROP BOWL AS SHOWN.

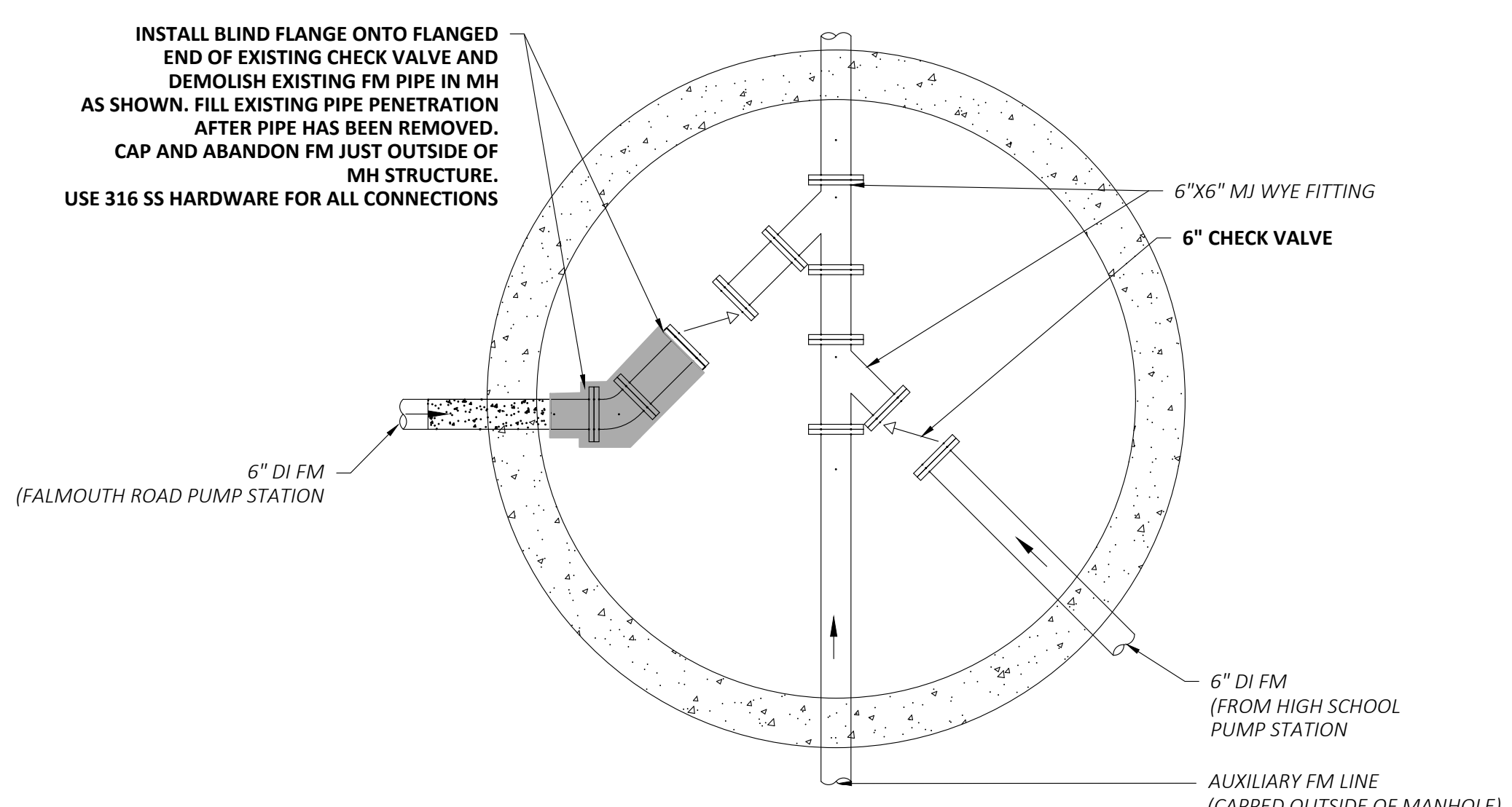
INSIDE DROP MANHOLE DETAIL WITH DROP BOWL
SCALE: NTS



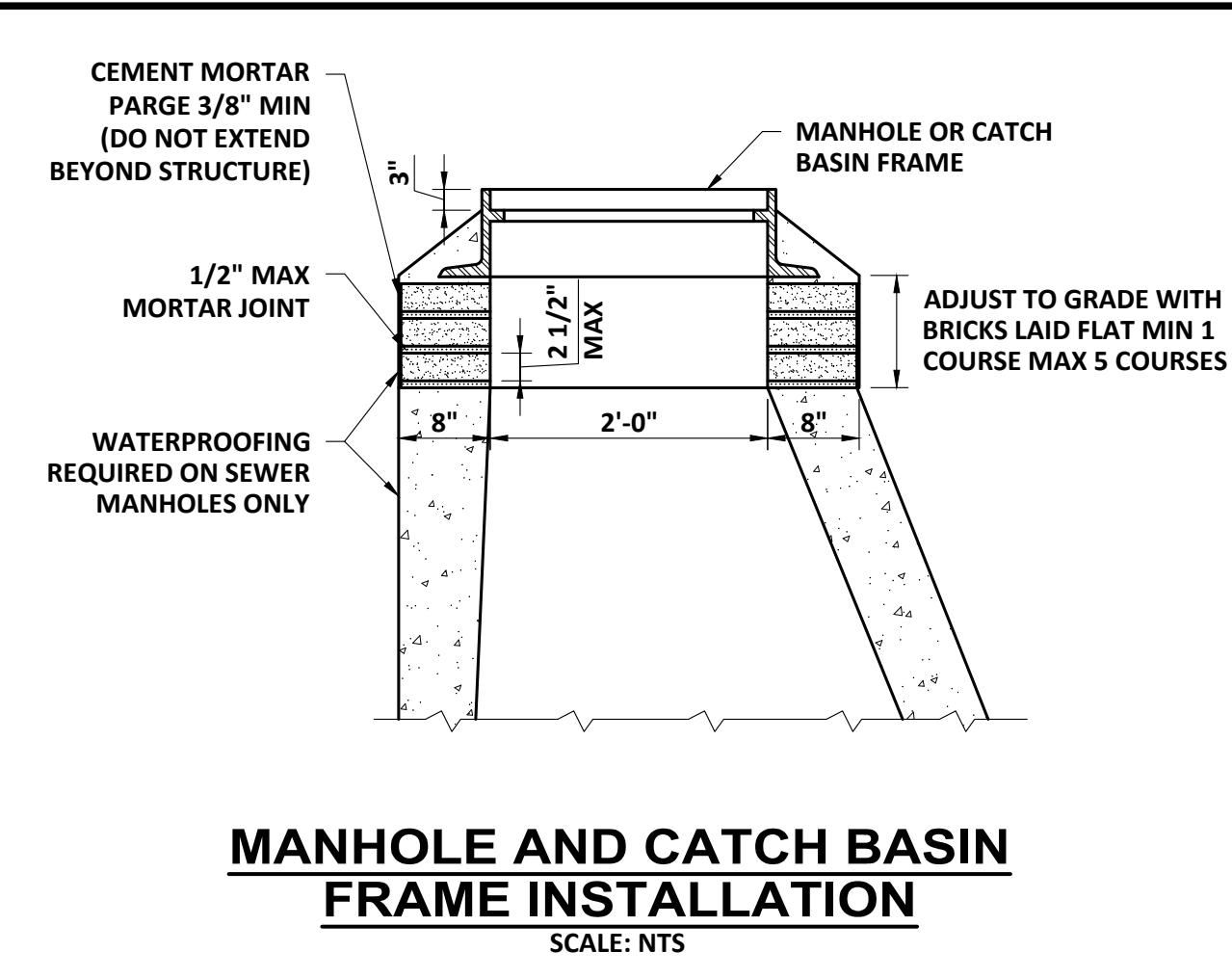
NOTES:
1. MANHOLE CHANNELS REQUIRING A CHANGE IN DIRECTION ARE TO BE BUILT ON A SMOOTH CURVE OF THE LONGEST POSSIBLE RADIUS. IF SIDE PIPES ENTER CHANNEL, SHAPE TO RECEIVE ADDED SIDE FLOW.
2. USE A FLAT SLAB TOP MANHOLE WHEN THE HEIGHT DIFFERENCE BETWEEN THE HIGHEST INVERT AND RIM IS LESS THAN 6'-0" AND WHEN MANHOLE DIAMETER IS GREATER THAN 4'-0".



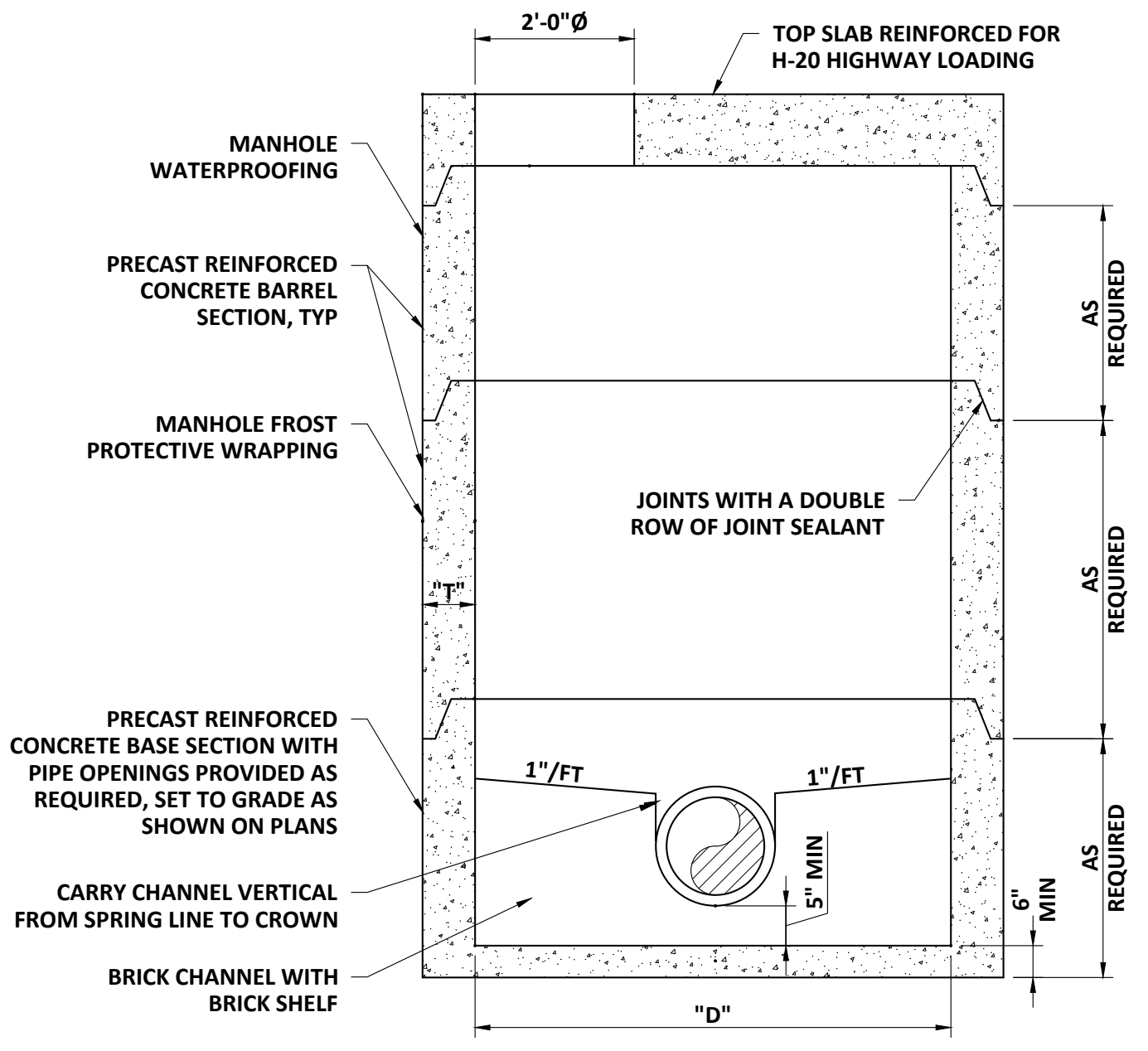
BITUMINOUS CURB
SCALE: NTS



EXISTING FORCE MAIN MANHOLE (PINEHURST DRIVE/WOODVILLE ROAD) DEMOLITION DETAIL
SCALE: "NTS"



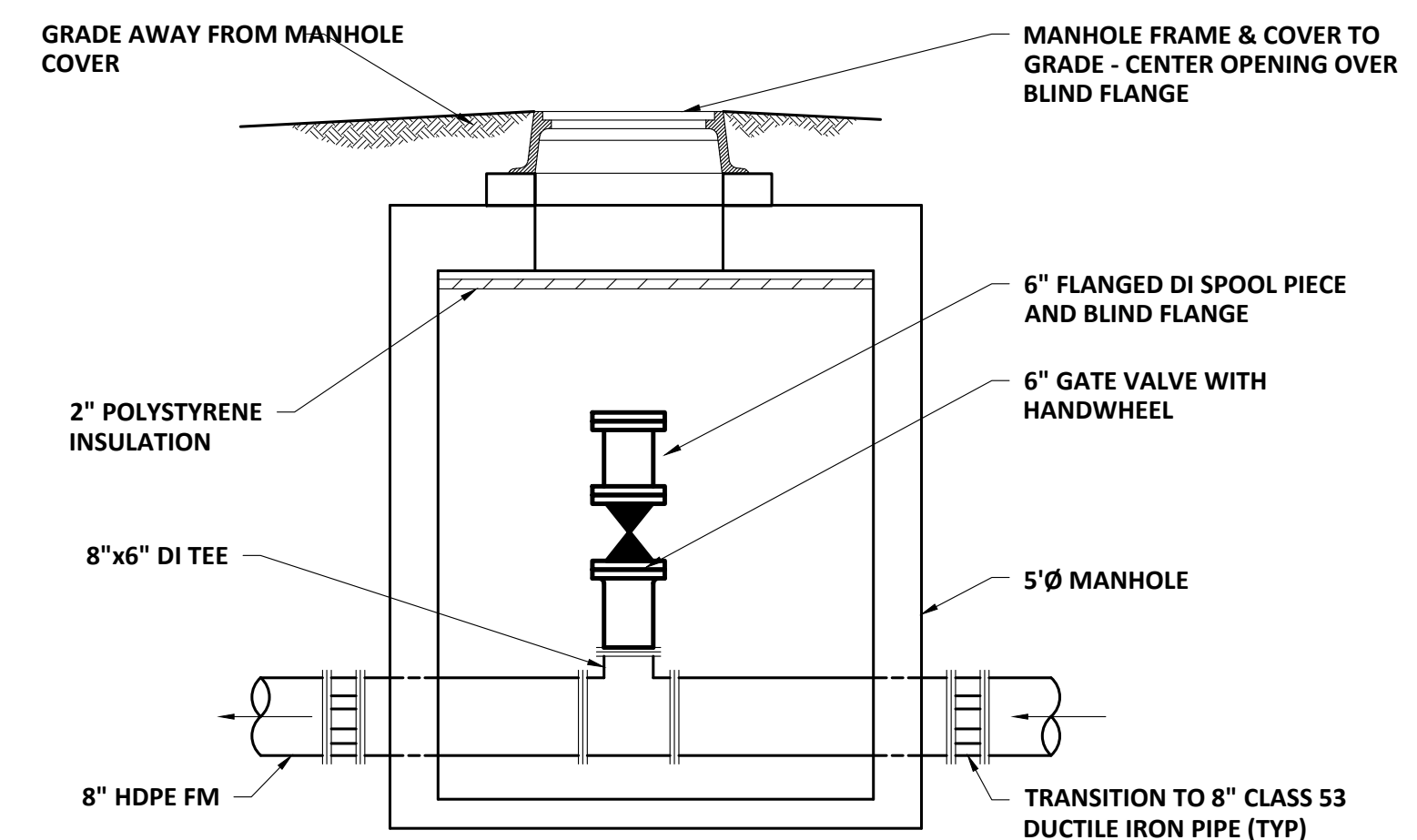
MANHOLE AND CATCH BASIN FRAME INSTALLATION
SCALE: NTS



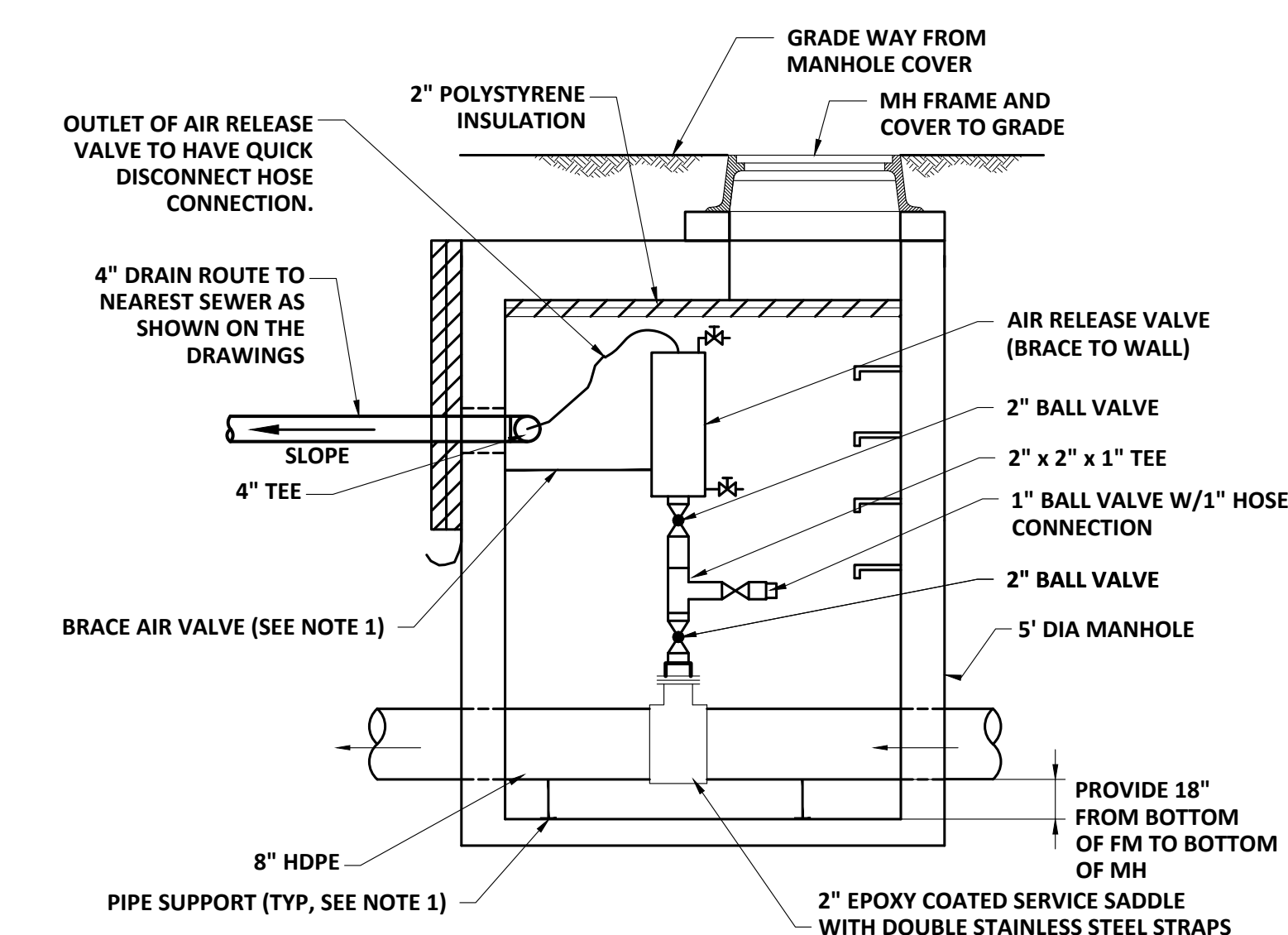
NOTE:
MANHOLE CHANNELS REQUIRING CHANGE IN ALIGNMENT ARE TO BE BUILT ON A SMOOTH RADIUS. IF SIDE PIPES ENTER CHANNEL, SHAPE TO RECEIVE ADDED SIDE FLOW.

DIAMETER ("D")	MAX PIPE DIAMETER STRAIGHT THRU TO 45° DEFLECTION	MINIMUM WALL THICKNESS ("T")
48"	UP TO 30" O.D.	5"
60"	UP TO 44" O.D.	6"
72"	UP TO 51" O.D.	7"
96"	UP TO 72" O.D.	9"

FLAT SLAB TOP MANHOLE
SCALE: NTS

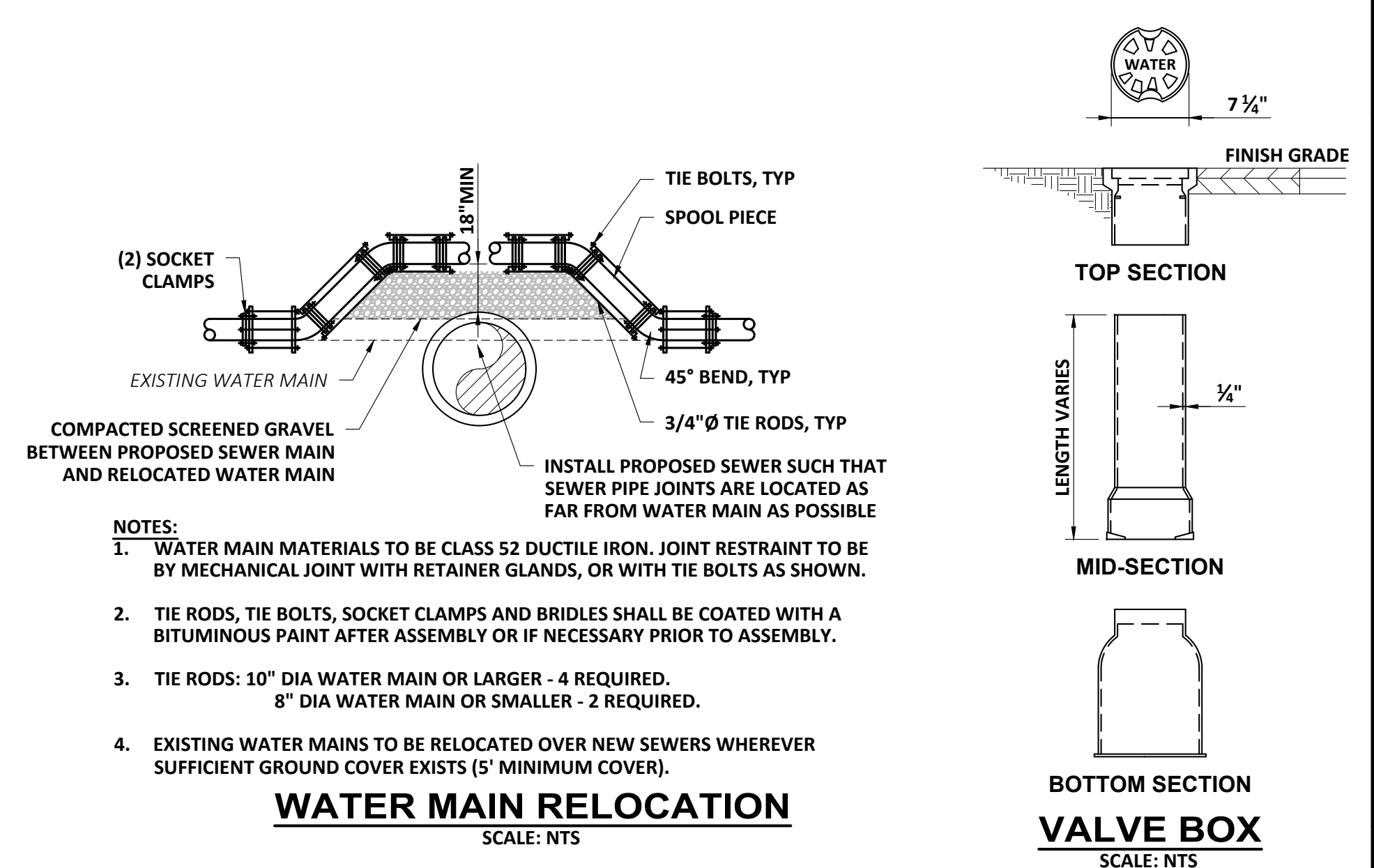


NOTE:
1. PROVIDE SS PIPE SUPPORTS AND BRACING FOR FM AND DRAIN PIPING AS REQUIRED.



NOTES:
1. PROVIDE SS PIPE SUPPORTS FOR FM AND AIR RELEASE VALVE AS REQUIRED.
2. FOR NEW AIR RELEASE MANHOLES: PROVIDE NEW AIR RELEASE ASSEMBLY AND MANHOLE AS INDICATED ON THIS DETAIL AND AS SPECIFIED. PROVIDE 4" DRAIN PIPING AND CONNECT TO EITHER: 1) NEAREST SANITARY SEWER WITH WYE FITTING AS INDICATED ON THE SEWER SERVICE CONNECTION DETAIL, OR 2) DIRECTLY TO EXISTING SMH AT THE DIRECTION OF THE ENGINEER. SLOPE OF DRAIN PIPING = 0.01 FT/FT (MIN.).
3. FOR EXISTING AIR RELEASE MANHOLES: AIR RELEASE ASSEMBLY IS TO BE REPLACED ON SELECT EXISTING AIR RELEASE MANHOLES AS INDICATED ON THE PLANS. CONTRACTOR TO PROVIDE FITTINGS/ADAPTERS AS NECESSARY TO PROVIDE ASSEMBLY FROM 2" BALL VALVE UP. AIR RELEASE DISCHARGE SHALL BE CONNECTED TO EXISTING DRAIN. IF NO DRAIN EXISTS, CORE DRILL AND DISCHARGE TO NEAREST SEWER MANHOLE AT THE DIRECTION OF THE ENGINEER.

AIR RELEASE MANHOLE
SCALE: NTS



WATER MAIN RELOCATION
SCALE: NTS

VALVE BOX
SCALE: NTS

PROJECT NO: 14070D	DESIGNED: CLEWIS	CAD COORD: D.SAVAGE	CHECKED: B.DENIS	DATE: 02/20/22	APPROVED: CLEWIS	DATE: 02/20/22	SUBMISSION: CONTRACT DRAWINGS
NO	REVISIONS	APPD	DATE				
1							
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<p>WRIGHT-PIERCE</p> <p>207.725.8721 www.wright-pierce.com</p> <p>11 BOWDOIN MILL ISLAND, SUITE 140, TOPSHAM, ME 04086</p>							
<p>TOWN OF FALMOUTH, MAINE SEWER IMPROVEMENTS PHASE I</p>							
<p>CIVIL DETAILS II</p>							
<p>DRAWING C-19</p>							

EROSION AND SEDIMENTATION CONTROL NOTES

THIS PLAN HAS BEEN DEVELOPED AS A STRATEGY TO CONTROL SOIL EROSION AND SEDIMENTATION DURING AND AFTER CONSTRUCTION. THIS PLAN IS BASED ON THE STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION IN DEVELOPING AREAS IN ACCORDANCE WITH OCTOBER 2016 REVISION TO THE 2003 MAINE EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs) MANUAL FOR DESIGNERS AND ENGINEERS, OR LATEST EDITION. EROSION CONTROL MIX SHALL BE AS SPECIFIED IN THIS CITATION, PAGE 40.

THE PROPOSED LOCATIONS OF SILTATION AND EROSION CONTROL STRUCTURES ARE SHOWN ON THE SITE PLAN.

- ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE DONE IN ACCORDANCE WITH 2016 REVISION TO THE 2003 MAINE EROSION AND SEDIMENT CONTROL FIELD GUIDE FOR CONTRACTORS, OR LATEST EDITION. ALL TEMPORARY MEASURES SHALL NOT BE REMOVED UNTIL SITE IS FULLY STABILIZED.
- IN AREAS ADJACENT TO NATURAL RESOURCES, LOCATIONS TO BE VEGETATED IN THEIR FINISH CONDITION SHALL BE STABILIZED WITH MULCH WITHIN 7 DAYS OF MOST RECENT DISTURBANCE.
- AREAS THAT WILL NOT RECEIVE FINAL GRADING FOR UP TO ONE YEAR SHALL BE STABILIZED WITH MULCH WITHIN 7 DAYS OF MOST RECENT DISTURBANCE.
- THOSE AREAS UNDERGOING ACTUAL CONSTRUCTION WILL BE MAINTAINED IN AN UNTREATED OR UNVEGETATED CONDITION FOR THE MINIMUM TIME REQUIRED. IN GENERAL AREAS TO BE VEGETATED SHALL BE PERMANENTLY STABILIZED WITHIN 15 DAYS OF FINAL GRADING AND TEMPORARILY STABILIZED WITHIN 30 DAYS OF INITIAL DISTURBANCE OF THE SOIL.
- SEDIMENT BARRIERS (SILT FENCE, STONE CHECK DAMS, ETC.) SHOULD BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF UPGRADIENT DRAINAGE AREAS. SEDIMENT BARRIERS SHALL BE INSTALLED DOWNGRADIENT OF STOCKPILES, AND STORMWATER SHALL BE PREVENTED FROM RUNNING ONTO THE STOCKPILES. PLASTIC SHEETING OR OTHER MATERIAL, WOVEN OR NON-WOVEN GEOTEXTILE FABRIC, MAY BE USED TO COVER STOCKPILES.
- INSTALL SILT FENCE AT TOE OF SLOPES TO FILTER SILT FROM RUNOFF. SEE SILT FENCE DETAIL FOR PROPER INSTALLATION. SILT FENCE WILL REMAIN IN PLACE PER NOTE #5.
- ALL EROSION CONTROL STRUCTURES WILL BE INSPECTED, REPLACED AND/OR REPAIRED EVERY 7 DAYS AND IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL OR SNOW MELT OR WHEN NO LONGER SERVICEABLE DUE TO SEDIMENT ACCUMULATION OR DECOMPOSITION. IF REPAIRS ARE IDENTIFIED, THEY SHALL BEGIN NO LATER THAN THE END OF THE FOLLOWING WORK DAY AND BE COMPLETE WITHIN 7 DAYS FROM INSPECTION. SEDIMENT DEPOSITS MUST BE REMOVED WHEN THEY REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER. SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL AREAS UPSLOPE ARE PERMANENTLY STABILIZED.
- NO SLOPES, EITHER PERMANENT OR TEMPORARY, SHALL BE STEEPER THAN TWO HORIZONTAL TO ONE VERTICAL (2 TO 1) UNLESS STABILIZED WITH RIPRAP OR OTHER STRUCTURAL MEANS. NO SLOPES IN EXCESS OF 1.5H:1V SHALL BE ALLOWED UNLESS STAMPED BY A PROFESSIONAL ENGINEER.
- IF FINAL SEEDING AND SODDING IS NOT EXPECTED PRIOR TO THE ANTICIPATED DATE OF THE FIRST KILLING FROST, USE TEMPORARY ANNUAL RYEGRASS SEEDING AND MULCHING ON ROUGH GRADED SUBSOIL TO PROTECT THE SITE AND DELAY PERMANENT LOAMING, FINE GRADING, AND SEEDING OR SODDING UNTIL SPRING.
- WHEN FEASIBLE, TEMPORARY SEEDING OF DISTURBED AREAS THAT HAVE NOT BEEN FINISH GRADED SHALL BE COMPLETED 30 DAYS PRIOR TO THE FIRST KILLING FROST.
- DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT WILL BE RETURNED TO THE SITE AND REGRADED ONTO OPEN AREAS. POST SEEDING SEDIMENT, IF ANY, WILL BE DISPOSED OF IN AN ACCEPTABLE MANNER.
- REVEGETATION MEASURES WILL COMMENCE UPON COMPLETION OF CONSTRUCTION EXCEPT AS NOTED ABOVE. ALL DISTURBED AREAS NOT OTHERWISE STABILIZED WILL BE GRADED, SMOOTHED, AND REVEGETATED.
- ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED ONCE THE SITE IS STABILIZED.
- EXCAVATION AND EARTHWORK SHALL BE DONE SUCH THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME.
- EXPOSED AREA SHOULD BE LIMITED SUCH THAT THE AREA CAN BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT.

STABILIZATION SCHEDULE BEFORE WINTER:

- SEPTEMBER 1:** ALL SLOPES GREATER THAN 15% MUST BE SEEDED AND MULCHED. ALL GRASS-LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED.
- SEPTEMBER 15:** ALL DISTURBED AREAS MUST BE SEEDED AND MULCHED. ALL SLOPES MUST BE STABILIZED, SEEDED AND MULCHED. SLOPES 3:1 OR GREATER TO BE STABILIZED WITH EROSION CONTROL MATTING AND SEEDED. ALL DISTURBED AREAS TO BE PROTECTED WITH AN ANNUAL GRASS MUST BE SEEDED AT A SEEDING RATE OF 3 POUNDS PER 1,000 SQUARE FEET AND MULCHED.
- OCTOBER 1:** ALL DISTURBED AREAS TO BE PROTECTED WITH WINTER RYE MUST BE APPLIED AT A RATE OF 3LBS PER 1000 SQUARE FEET, AND WITH HAY APPLIED AT A RATE OF 75LBS PER 1000 SQUARE FEET OR WITH AN EROSION CONTROL BLANKET.
- OCTOBER 15:** SOIL MUST BE SEEDED WITH WINTER RYE AND PROTECTED WITH EROSION CONTROL BLANKET IF NOT YET STABILIZED.
- NOVEMBER 1:** AREA SHOULD BE STABILIZED IF RYE HAS NOT GROWN THREE INCHES AND DOES NOT HAVE 75% COVERAGE.
- NOVEMBER 15:** ALL STONE-LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED. SLOPES THAT ARE COVERED WITH RIPRAP MUST BE CONSTRUCTED BY THAT DATE.
- DECEMBER 1:** ALL DISTURBED AREAS WHERE THE GROWTH OF VEGETATION FAILS TO BE AT LEAST THREE INCHES TALL OR AT LEAST 75% OF THE DISTURBED SOIL IS COVERED BY VEGETATION, MUST BE PROTECTED FOR OVER-WINTER.

- MULCH MAY REQUIRE ANCHORING TO ENSURE THAT MULCH REMAINS IN-PLACE. MULCH NETTING, CRIMPING, OR PUNCHING ARE ACCEPTABLE METHODS. MULCH NETTING SHALL BE TENAX RADIX EROSION CONTROL NETS OR APPROVED EQUAL, AND SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER REQUIREMENTS.
- SPILL PREVENTION: CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM BEING DISCHARGED FROM MATERIALS AND EQUIPMENT ON-SITE, INCLUDING STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER, AND APPROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING AND IMPLEMENTATION.
- GROUNDWATER PROTECTION: DURING CONSTRUCTION, LIQUID PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUNDWATER MAY NOT BE STORED OR HANDLED IN AREAS OF THE SITE DRAINING TO AN INFILTRATION AREA. AN "INFILTRATION AREA" IS ANY AREA OF THE SITE THAT BY DESIGN OR AS A RESULT OF SOILS, TOPOGRAPHY AND OTHER RELEVANT FACTORS, ACCUMULATES RUNOFF THAT INFILTRATES INTO THE SOIL. DIKES, BERMS, SUMPS, AND OTHER FORMS OF SECONDARY CONTAINMENT THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORAGE AND HANDLING OF THESE MATERIALS.
- MINIMIZE THE EXPOSURE OF CONSTRUCTION DEBRIS, BUILDING AND LANDSCAPING MATERIALS, TRASH, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE AND OTHER MATERIALS TO PRECIPITATION AND STORMWATER RUNOFF. THESE MATERIALS MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE.
- EXCAVATION DE-WATERING IS THE REMOVAL OF WATER FROM TRENCHES, FOUNDATIONS, COFFER DAMS, PONDS, AND OTHER AREAS WITHIN THE CONSTRUCTION AREA THAT RETAIN WATER AFTER EXCAVATION. IN MOST CASES THE COLLECTED WATER IS HEAVILY SILTED AND HINDERS CORRECT AND SAFE CONSTRUCTION PRACTICES. THE COLLECTED WATER REMOVED FROM THE PONDED AREA, EITHER THROUGH GRAVITY OR PUMPING, MUST BE SPREAD THROUGH NATURAL WOODED BUFFERS OR REMOVED TO AREAS THAT ARE SPECIFICALLY DESIGNED TO COLLECT THE MAXIMUM AMOUNT OF SEDIMENT POSSIBLE, LIKE A COFFERDAM SEDIMENTATION BASIN. AVOID ALLOWING THE WATER TO FLOW OVER DISTURBED AREAS OF THE SITE. EQUIVALENT MEASURES MAY BE TAKEN IF APPROVED BY THE DEPARTMENT.
- AUTHORIZED NON-STORMWATER DISCHARGES: IDENTIFY AND PREVENT CONTAMINATION BY NON-STORMWATER DISCHARGES. WHERE ALLOWED NON-STORMWATER DISCHARGES EXIST, THEY MUST BE IDENTIFIED AND STEPS SHOULD BE TAKEN TO ENSURE THE IMPLEMENTATION OF APPROPRIATE POLLUTION PREVENTION MEASURES FOR THE NON-STORMWATER COMPONENT(S) OF THE DISCHARGE. AUTHORIZED NON-STORMWATER DISCHARGES ARE:
 - DISCHARGES FROM FIREFIGHTING ACTIVITY;
 - FIRE HYDRANT FLUSHINGS;
 - VEHICLE WASHWATER IF DETERGENTS ARE NOT USED AND WASHING IS LIMITED TO THE EXTERIOR OF VEHICLES (ENGINE, UNDERCARRIAGE AND TRANSMISSION WASHING IS PROHIBITED);
 - DUST CONTROL RUNOFF IN ACCORDANCE WITH SPECIFICATIONS AND ANY APPLICABLE PERMIT CONDITIONS;
 - ROUTINE EXTERNAL BUILDING WASHDOWN, NOT INCLUDING SURFACE PAINT REMOVAL, THAT DOES NOT INVOLVE DETERGENTS;
 - PAVEMENT WASHWATER (WHERE SPILLS/LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED, UNLESS ALL SPILLED MATERIAL HAD BEEN REMOVED) IF DETERGENTS ARE NOT USED;
 - UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE;
 - UNCONTAMINATED GROUNDWATER OR SPRING WATER;
 - FOUNDATION OR FOOTER DRAIN-WATER WHERE FLOWS ARE NOT CONTAMINATED;
 - UNCONTAMINATED EXCAVATION DEWATERING;
 - POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHINGS; AND
 - LANDSCAPE IRRIGATION.

24. UNAUTHORIZED NON-STORMWATER DISCHARGES: THE MAINE DEP'S APPROVAL UNDER THIS CHAPTER DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON-STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH APPENDIX C (6). SPECIFICALLY, THE DEPARTMENT'S APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:

- WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;
- FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;
- SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND
- TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.

EROSION CONTROL - WINTER CONSTRUCTION

- WINTER CONSTRUCTION PERIOD DEFINED: NOVEMBER 1 THROUGH APRIL 15.
- CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED SUCH THAT NO LARGER AREA OF THE SITE IS WITHOUT EROSION CONTROL PROTECTION AS LISTED IN ITEM 2 ABOVE.
- AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW AT A RATE OF 100 LB. PER 1,000 SQUARE FEET (WITH OR WITHOUT SEEDING) OR DORMANT SEEDED, MULCHED AND ADEQUATELY ANCHORED BY AN APPROVED ANCHORING TECHNIQUE. IN ALL CASES, MULCH SHALL BE APPLIED SUCH THAT SOIL SURFACE IS NOT VISIBLE THROUGH THE MULCH. OVERWINTER HAY MULCH SHOULD BE APPLIED AT A RATE OF 150 LB. PER 1,000 SQUARE FEET. MULCH SHOULD BE ANCHORED WITH NETTING OR TACKIFIER TO PREVENT MOVEMENT BEFORE FREEZING.
- BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1ST, LOAM OR SEED WILL NOT BE REQUIRED. DURING PERIODS OF ABOVE-FREEZING TEMPERATURES, THE SLOPES SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1ST AND IF THE EXPOSED AREA HAS BEEN LOAMED, FINAL GRADED AND IS SMOOTH, THEN THE AREA MUST BE STABILIZED WITH MULCH. IF CONSTRUCTION CONTINUES DURING FREEZING WEATHER, ALL EXPOSED AREAS SHALL BE GRADED BEFORE FREEZING AND THE SURFACE TEMPORARILY PROTECTED FROM EROSION BY THE APPLICATION OF MULCH. SLOPES SHALL NOT BE LEFT EXPOSED OVER THE WINTER OR ANY OTHER EXTENDED TIME OF WORK SUSPENSION UNLESS TREATED IN THE ABOVE MANNER. UNTIL SUCH TIME AS WEATHER CONDITIONS ALLOW DITCHES TO BE FINISHED WITH THE PERMANENT SURFACE TREATMENT, EROSION SHALL BE CONTROLLED BY THE INSTALLATION OF BALES OF HAY OR STONE CHECK DAMS IN ACCORDANCE WITH THE STANDARD DETAILS.
- THE APPLICATION OF MULCH TO FINE GRADED AREAS WILL BE STABILIZED AS FOLLOWS:
 - BETWEEN THE DATES OF NOVEMBER 1ST AND APRIL 15TH ALL MULCH SHALL BE ANCHORED BY EITHER PEG LINE, MULCH NETTING, ASPHALT EMULSION, CHEMICAL TACK OR WOOD CELLULOSE FIBER.
 - MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH A SLOPE GREATER THAN 3% FOR SLOPES EXPOSED TO DIRECT WINDS AND FOR ALL OTHER SLOPES GREATER THAN 8%. THIS SHALL BE IN ADDITION TO EROSION CONTROL MATTING-DITCHES DETAIL.
 - MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL AREAS WITH SLOPES GREATER THAN 15%. AFTER OCTOBER 1ST, THE SAME APPLIES FOR ALL SLOPES GREATER THAN 8%.
- AFTER NOVEMBER 1ST THE CONTRACTOR SHALL APPLY MULCH AND ANCHORING ON ALL BARE EARTH AT THE END OF EACH WORKING DAY.
- DURING WINTER CONSTRUCTION PERIODS ALL SNOW SHALL BE REMOVED FROM AREAS OF MULCHING PRIOR TO PLACEMENT.
- THE INSPECTION FREQUENCY FOR AREAS BEING WORKED ON DURING WINTER CONSTRUCTION SHALL BE AFTER EACH RAINFALL, SNOWSTORM, OR THAWING, AND AT LEAST ONCE A WEEK.
 - CONTRACTOR SHALL NOT BE REQUIRED TO INSPECT AREAS OF THE SITE THAT ARE NOT VISIBLE DUE TO SNOW IF THOSE AREAS ARE NOT BEING ACTIVELY CONSTRUCTED, HAVE BEEN INSPECTED AND PROPERLY REPAIRED PRIOR TO THE SNOW EVENT.

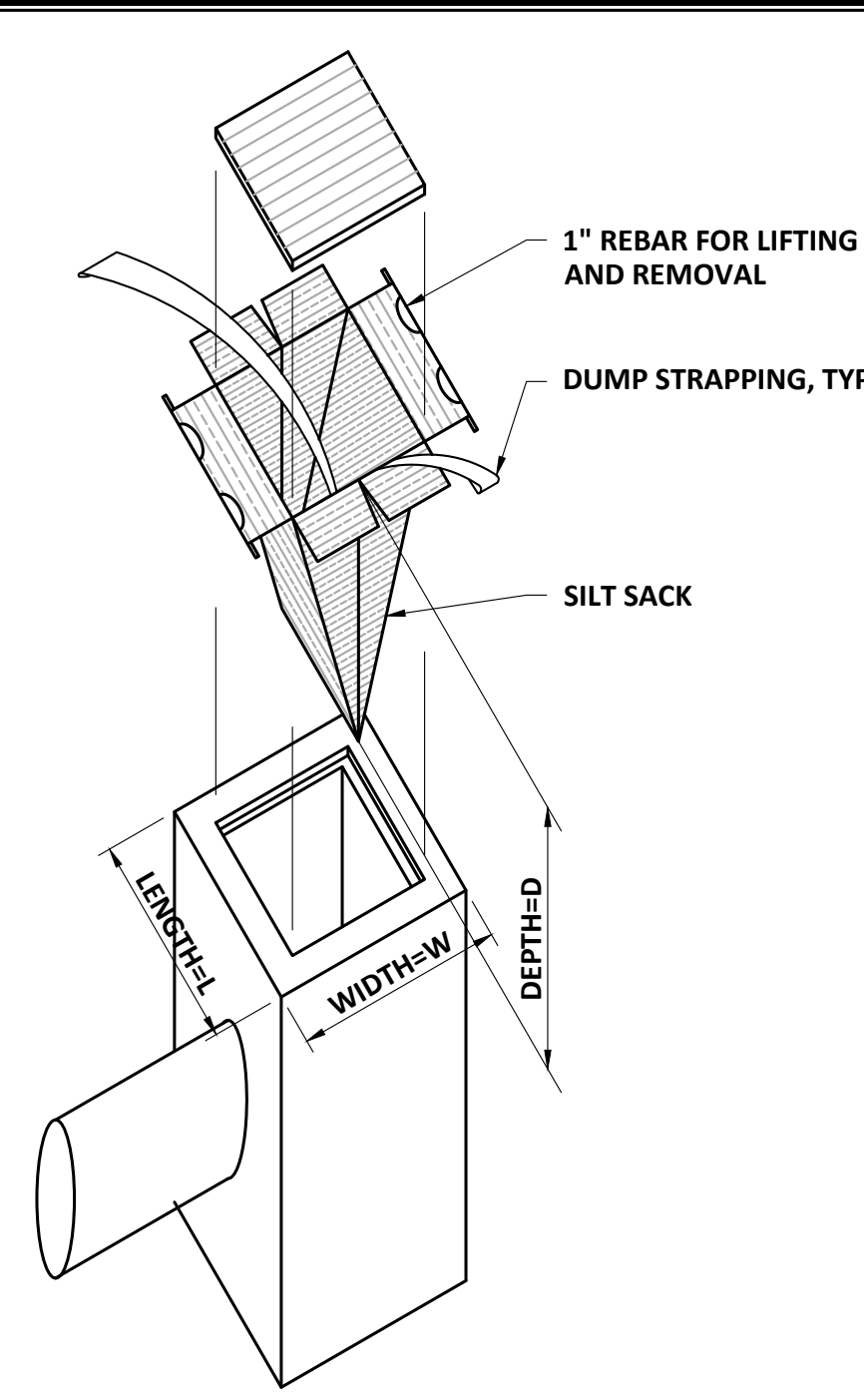
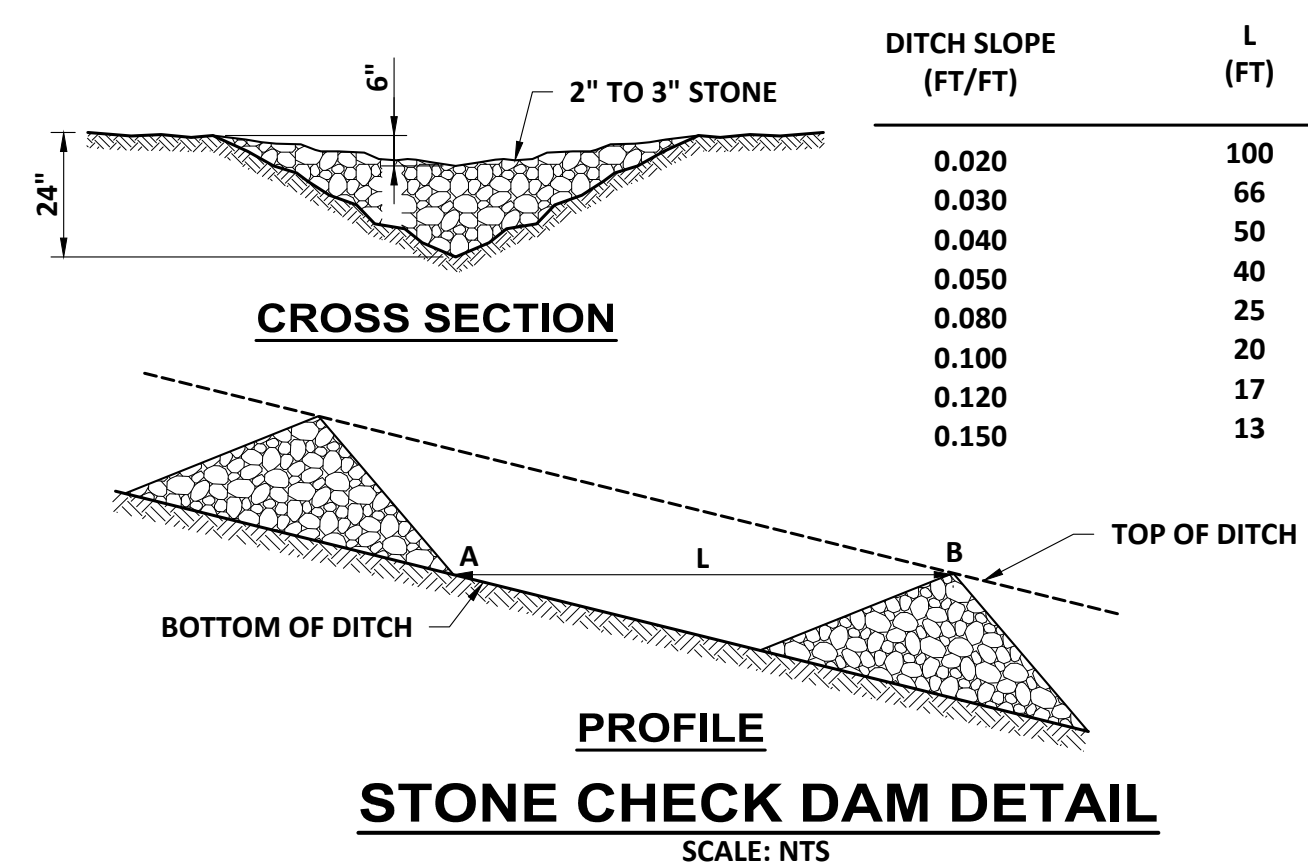
EROSION CONTROL - WETLAND NOTES

- WETLANDS AND SURFACE WATERS (EXCEPTING THOSE WHICH ARE TO BE FILLED IN ACCORDANCE WITH STATE AND FEDERAL REGULATIONS) WILL BE PROTECTED WITH SILT FENCE INSTALLED AT THE EDGE OF THE WETLAND OR THE BOUNDARY OF WETLAND DISTURBANCE.
- IF THE WORK INCLUDES CROSSING OF WETLANDS AND/OR STREAMS, THE CONTRACTOR SHALL TAKE SPECIAL PRECAUTIONS WORKING IN THESE AREAS.
- ANY WETLAND CROSSING WORK SHALL BE COMPLETED BETWEEN THE PERIOD OF MAY 1 AND SEPTEMBER 30.
- ALL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO COMMENCING CONSTRUCTION WITHIN OR ADJACENT TO WETLAND AREAS. ALL TEMPORARY MEASURES SHALL NOT BE REMOVED UNTIL SITE IS FULLY STABILIZED.
- WETLAND VEGETATIVE LAYERS SHALL BE REMOVED AND SALVAGED FOR RESTORATION OF THE DISTURBED AREAS.
- STORAGE AREAS FOR WETLAND MATERIALS SHALL BE PROPERLY PROTECTED AGAINST EROSION.
- SEEDING OF THE DISTURBED AREAS WITHIN WETLAND AREAS SHALL UTILIZE MIXTURES APPROPRIATE FOR WETLAND AREAS AS OUTLINED IN THE SPECIFICATIONS.

INSPECTIONS

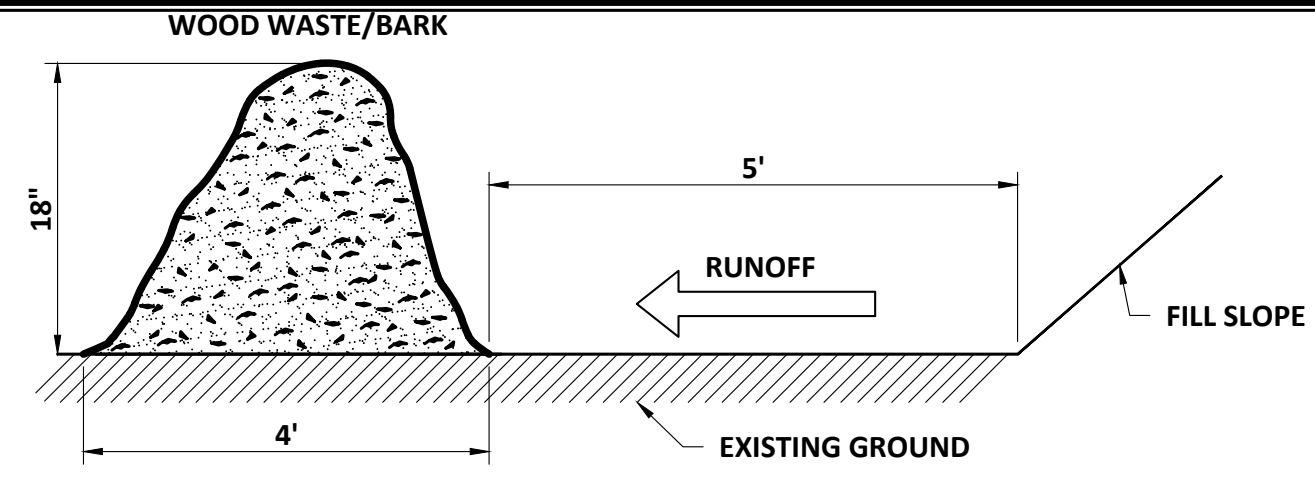
REGULAR INSPECTIONS OF ALL EROSION AND SEDIMENTATION CONTROLS SHALL BE MADE AT LEAST WEEKLY AND PRIOR TO AND FOLLOWING STORM EVENTS. MINIMUM INSPECTIONS SHALL BE MADE AS LISTED IN THE TABLE BELOW. SEE INSPECTIONS, MAINTENANCE AND HOUSEKEEPING PLAN FOR ADDITIONAL INFORMATION.

INSPECTED ITEM	EXAMPLE REPAIR INDICATORS
MULCHED SURFACES	THIN MULCH OR INADEQUATE APPLICATION. WIND MOVEMENT
SEEDED SURFACES	POOR SEED GERMINATION. LOSS OF MULCH. DEVELOPMENT OF RIVULETS.
SEDIMENT BARRIER	SEDIMENT BUILD-UP TO ONE HALF THE HEIGHT OF THE BARRIER. UNDERMINING OF THE BARRIER. SUPPORTING STAKES LOOSE, TOPPLED OR UNMARKED. BREAKS IN BARRIER.
PERIMETER DIVERSION	DISCHARGE IS TO STABILIZED AREA. EROSION OR BREAKS IN BARRIER. SUPPORTING STAKES LOOSE, TOPPLED OR UNMARKED.
CATCH BASIN PROTECTION	SEDIMENT BUILD-UP AND STRUCTURE BLOCKAGES. SLOW FLOW/PONDING WATER. BREAKS IN FABRIC OR VOIDS IN BARRIER.
DEWATERING FILTER	BREAKS IN FABRIC OR SUPPORTING STRUCTURE. SLOW FLOW, INDICATING HIGH SEDIMENT BUILD-UP.
CONSTRUCTION ENTRANCE	SEDIMENTATION OF ROADWAYS. OFF-SITE DUST COMPLAINTS.
STOCKPILE	BALLOONING OR BLOWOUTS, RUNOFF AND EROSION



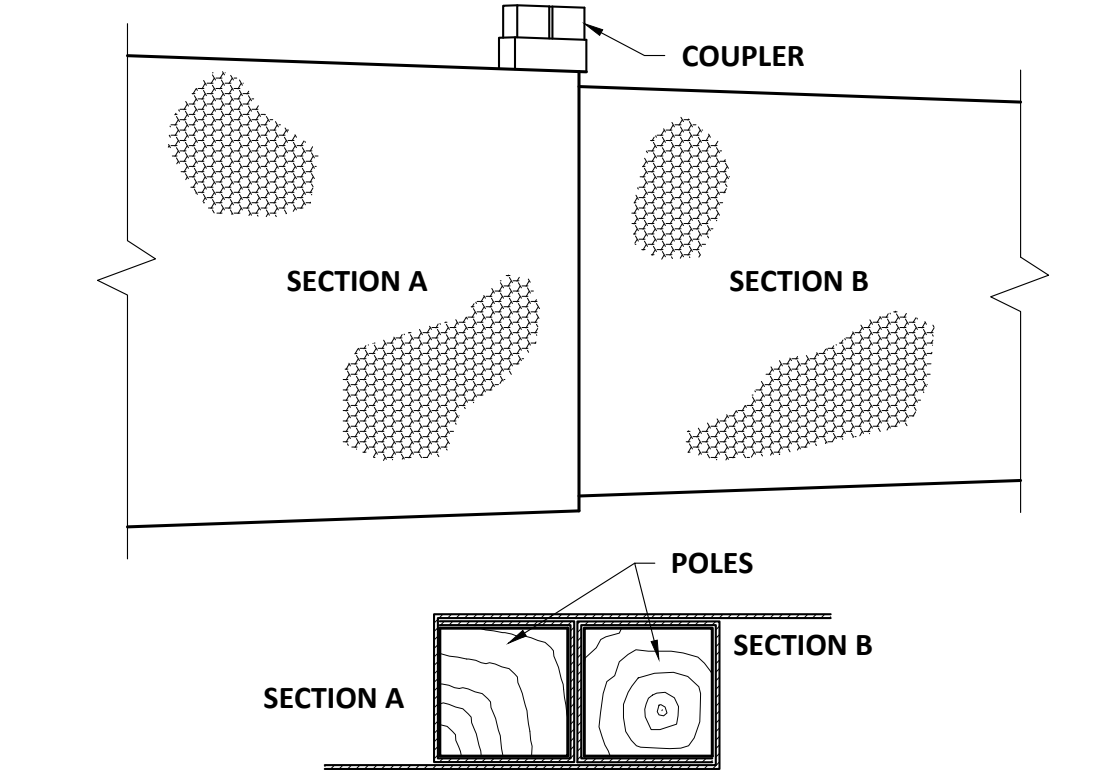
NOTE: INSTALL SILT SACK PER MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS. EMPTY OR REMOVE SEDIMENT FROM SILT SACK WHEN RESTRAINT CORD IS NO LONGER VISIBLE. CLEAN, RINSE, AND REPLACE AS NEEDED.

SILT SACK CATCH BASIN INLET
SCALE: NTS

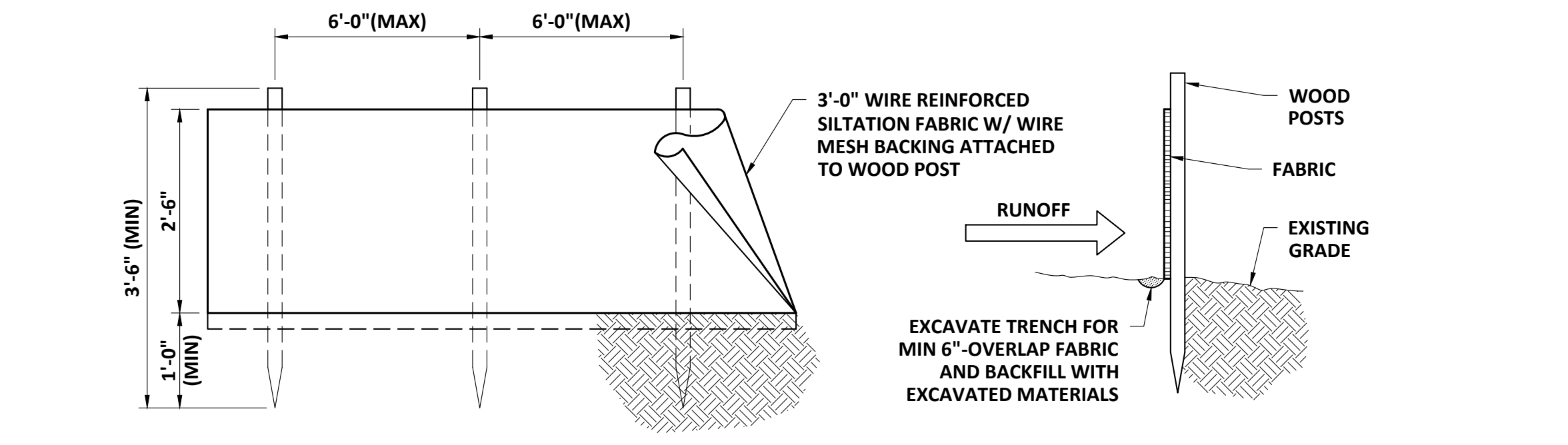


NOTE: 1. EROSION CONTROL MIX SHALL BE AS SPECIFIED ON PAGE 45 OF THE OCTOBER 2016 REVISION TO THE 2003 MAINE EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs) MANUAL FOR DESIGNERS AND ENGINEERS, OR LATEST EDITION.

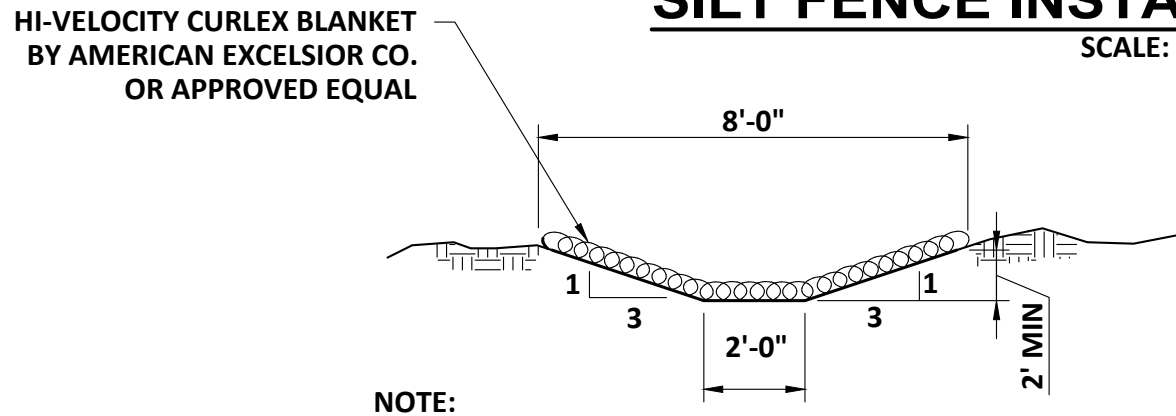
EROSION CONTROL MIX BERM
SCALE: "NTS"



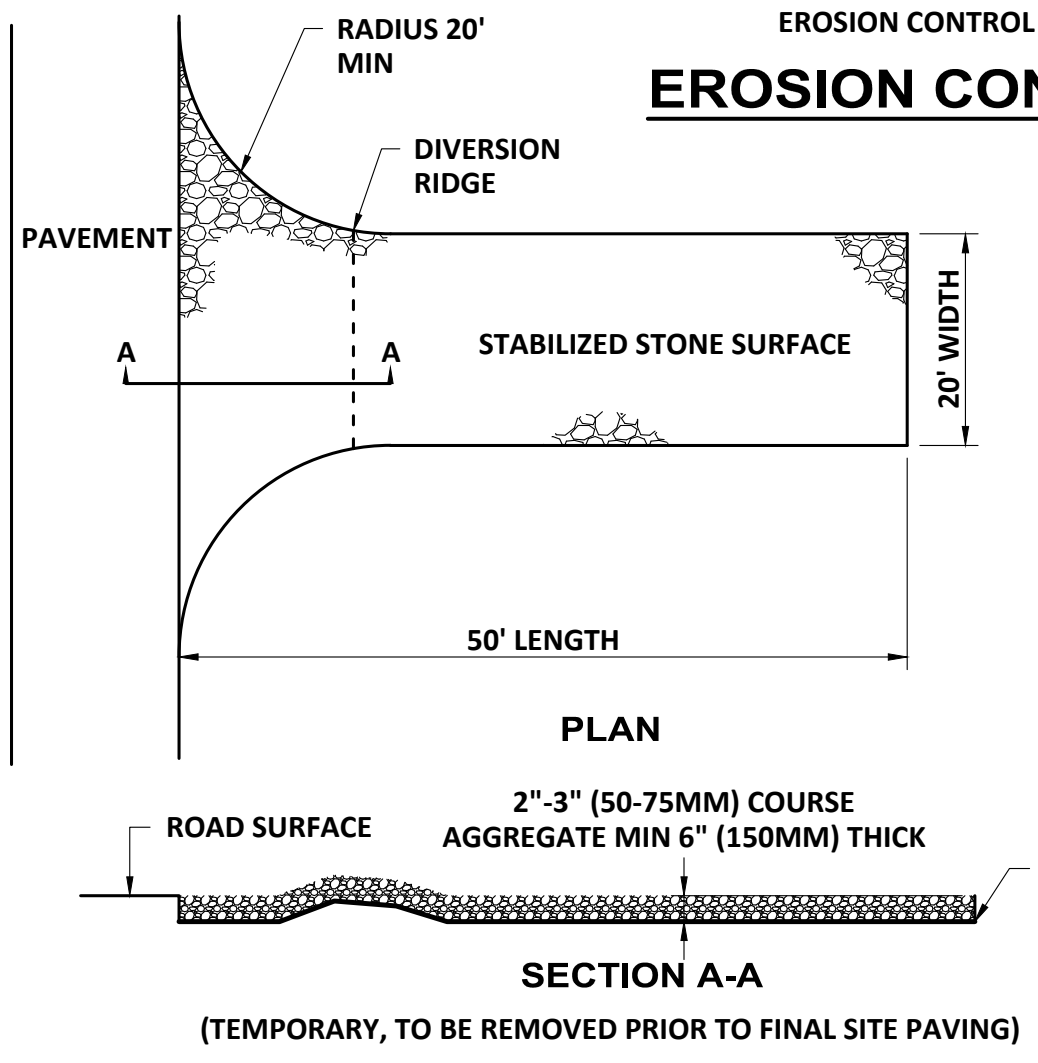
JOINING SILT FENCE SECTIONS
SCALE: "NTS"



SILT FENCE INSTALLATION DETAIL
SCALE: NTS

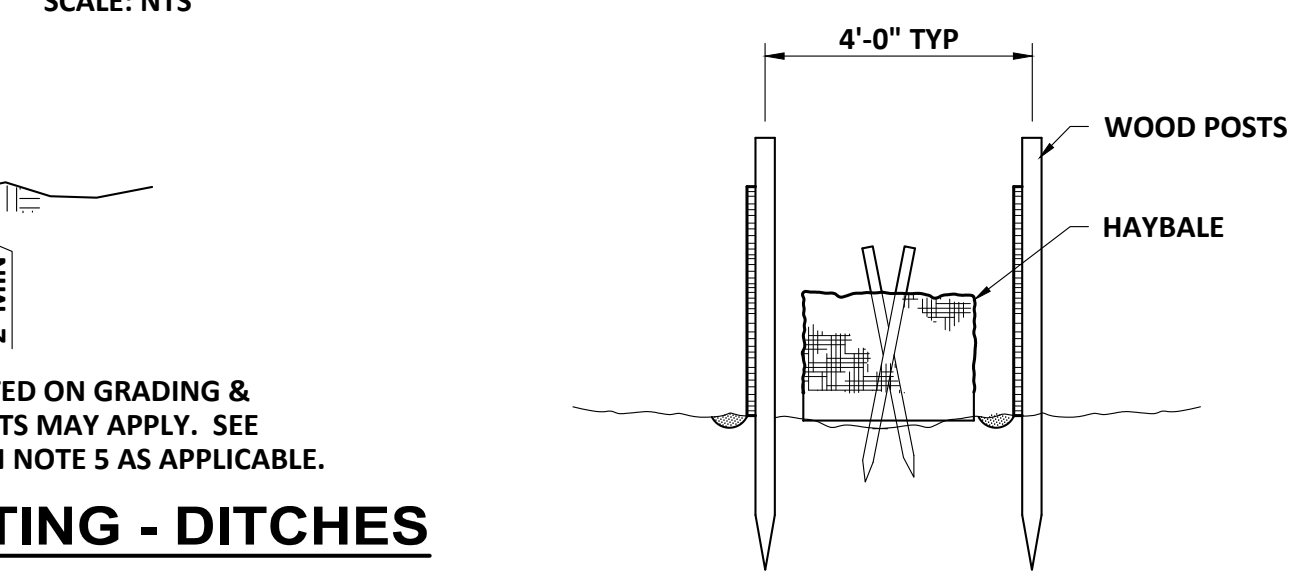


EROSION CONTROL MATTING - DITCHES
SCALE: "NTS"

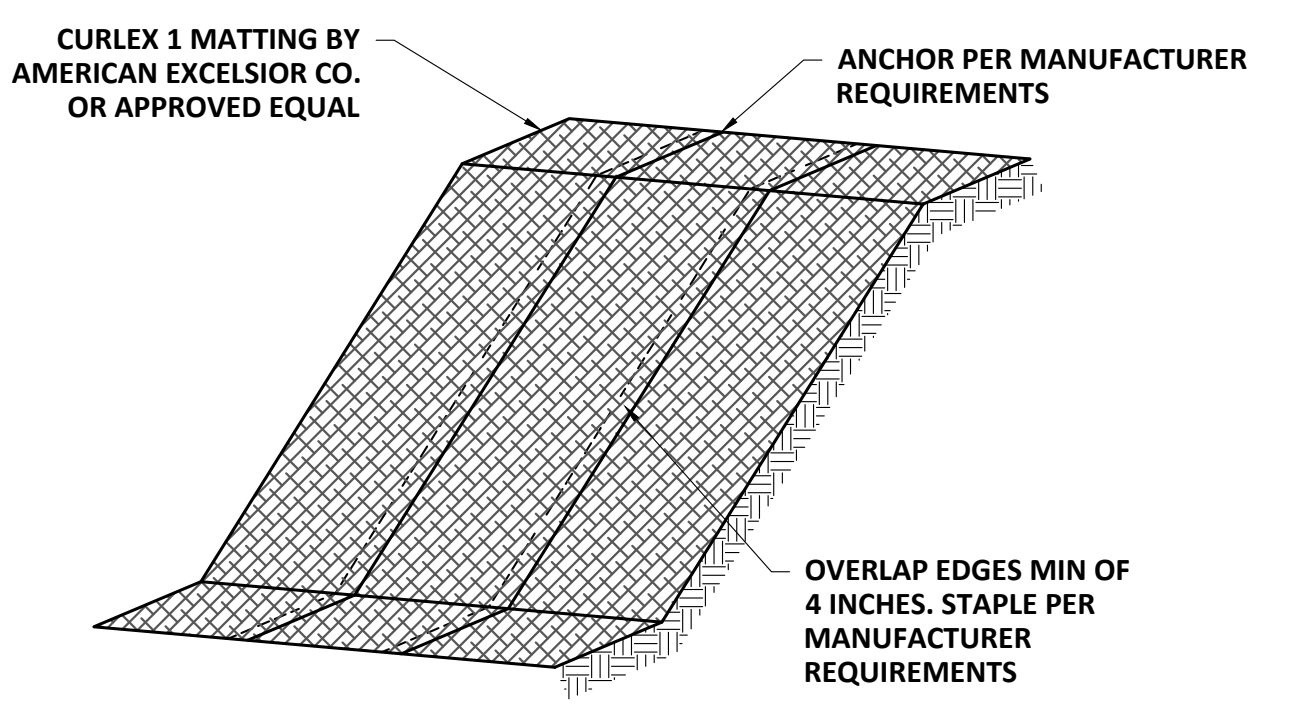


NOTE: 1. STABILIZED CONSTRUCTION ENTRANCE SHALL BE MAINTAINED DURING CONSTRUCTION AS REQUIRED TO PREVENT OFF-SITE TRACKING OF SEDIMENT. ANY SEDIMENT TRACKED OFF-SITE SHALL BE REMOVED AND DISPOSED OF IN A MANNER THAT SEDIMENTS DO NOT ENTER DOWN SLOPE WATER RESOURCES.

STABILIZED CONSTRUCTION ENTRANCE
SCALE: "NTS"



COMBINATION SILT FENCE AND HAY BALE BARRIER
SCALE: NTS

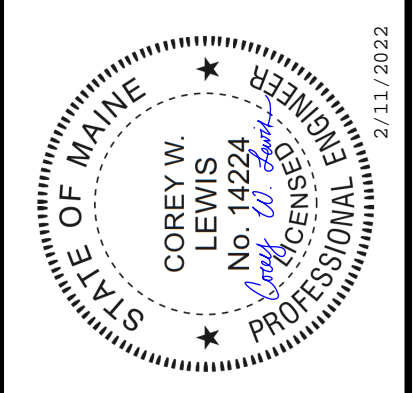


NOTE: INSTALL ON SLOPES 3:1 OR GREATER

EROSION CONTROL MATTING - SLOPES
SCALE: "NTS"

NO	REVISIONS	APPD	DATE

PROJECT NO: 140790
DESIGNED: C LEWIS
CAD: D.SAVAGE
CHECKED: B.DENIS
DATE: 02/2022
APPROVED: C LEWIS
DATE: 02/2022
SUBMISSION: CONTRACT DRAWINGS



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STRUCTURAL NOTES

GENERAL NOTES:

- 1. GENERAL CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES
2. * INDICATES THAT THE GENERAL CONTRACTOR SHALL COORDINATE EXACT DIMENSION AND/OR ELEVATION BASED ON EQUIPMENT SUPPLIED. ALL CHANGES SHALL BE REVIEWED WITH NO EXCEPTIONS TAKEN BY THE ENGINEER.
3. DO NOT SCALE DISTANCES OR DIMENSIONS FROM THE DRAWINGS. WRITTEN DIMENSIONS SHALL PREVAIL. REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ENGINEER.
4. ALL STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ALL OTHER CONTRACT DRAWINGS, SHOP DRAWINGS (REVIEWED WITH NO EXCEPTIONS TAKEN) AND SPECIFICATIONS. SEE ARCHITECTURAL, PROCESS, MECHANICAL AND ELECTRICAL DRAWINGS FOR PIPES, PIPE SLEEVES, CONDUITS OR OTHER ITEMS TO BE EMBEDDED OR PASSED THROUGH THE CONCRETE.
5. THE CONTRACTOR SHALL COORDINATE PREPARED OPENING SIZES AND LOCATIONS WITH THE VARIOUS CONSTRUCTION TRADES AND EQUIPMENT MANUFACTURERS. MANY SLEEVE SIZES AND PREPARED OPENING SIZES ARE LARGER THAN THE NOMINAL DIMENSION IN ORDER TO ACCOMMODATE THE EQUIPMENT.
6. THE DETAILS, STRUCTURAL NOTES, ABBREVIATIONS AND LEGEND SHOWN ON DRAWING S-1 SHOULD BE USED WHOLLY OR IN PART WHERE THEY APPLY EXCEPT WHERE MODIFIED BY THE DETAILED DRAWINGS OR SPECIFICATIONS.

CAST-IN-PLACE REINFORCED CONCRETE NOTES:

- 1. REFERENCE SPECIFICATIONS - 03300, 03305, 03346
2. REINFORCED CONCRETE WAS DESIGNED IN ACCORDANCE WITH THE LATEST EDITIONS OF THE FOLLOWING:
2.1 ACI 318 - BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND COMMENTARY
2.2 ACI 350 - CODE REQUIREMENTS FOR ENVIRONMENTAL CONCRETE STRUCTURES AND COMMENTARY
2.3 ACI 350.3 - SEISMIC DESIGN GUIDE FOR LIQUID-CONTAINING CONCRETE STRUCTURES AND COMMENTARY
3. MINIMUM CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS:
STRUCTURAL CONCRETE - f'c = 4,500 PSI
CONCRETE FILL, PIPE ENCASEMENTS - f'c = 4,000 PSI
4. REINFORCING STEEL SHALL BE NEW BILLET STEEL CONFORMING TO ASTM SPECIFICATION A615 GRADE 60 DEFORMED BARS. FABRICATION SHALL BE IN ACCORDANCE WITH THE CRSI CODE OF STANDARD PRACTICE.
5. REINFORCING STEEL SHALL HAVE THE FOLLOWING CLEAR CONCRETE COVER UNLESS OTHERWISE NOTED:
5.1 CONCRETE CAST AGAINST EARTH: 3 INCHES
5.2 ALL OTHER CONCRETE SURFACES: 2 INCHES
6. SPLICED BARS SHALL HAVE THE FOLLOWING MINIMUM SPLICE LENGTHS REGARDLESS OF LOCATION (UNLESS OTHERWISE INDICATED ON THE DRAWINGS):
#4 - 1'-8" #5 - 2'-0" #6 - 2'-5" #7 - 3'-6"
#8 - 4'-0" #9 - 4'-6" #10 - 5'-0" #11 - 5'-6"
7. SIZE AND LOCATION OF EQUIPMENT PADS AND ANCHOR BOLTS SHALL BE AS REQUIRED BY THE EQUIPMENT MANUFACTURER. (UNLESS OTHERWISE INDICATED ON THE DRAWINGS)
8. PROVIDE CHAMFERS AT ALL EXPOSED CORNERS AND EDGES.
9. PROVIDE A MINIMUM 4" THICK REINFORCED CONCRETE PAD BELOW ALL EQUIPMENT, PIPE SUPPORTS, STANCHIONS, CONTROL PANELS, TANKS, ETC. UNLESS OTHERWISE NOTED.
10. APPLY EPOXY BONDING AGENT TO ALL EXISTING CONCRETE BEFORE BONDING NEW CONCRETE TO IT. EXISTING SURFACES SHALL BE CLEANED AND ROUGHENED PRIOR TO PLACING CONCRETE.
11. ALL WASTEWATER PIPING (EXCLUDING BUILDING DRAINS/SEWER) AND PRESSURIZED PIPING INSTALLED BELOW SLABS SHALL BE ENCASED IN CONCRETE.
12. INDEPENDENT TESTING LABORATORY WILL PERFORM SLUMP AND AIR CONTENT TESTS FOR ALL CONCRETE TRUCKS AND PREPARE AND TEST CONCRETE CYLINDER SAMPLES.

FOUNDATION NOTES:

- 1. PRIOR TO APPLICATION OF CONCRETE COATINGS, ALL LIQUID CONTAINING STRUCTURES SHALL BE LEAK TESTED.
2. FOUNDATION DESIGN, SUBGRADE AND FILL DETAILS ARE BASED ON A MAXIMUM NET ALLOWABLE SOIL BEARING CAPACITY OF 2,000 PSF.
3. IF UNSUITABLE MATERIAL IS ENCOUNTERED AS DETERMINED BY THE ENGINEER, REMOVE AN ADDITIONAL 18 INCHES BELOW THE SUBGRADE LEVEL AND REPLACE WITH COMPACTED SELECT FILL.
4. ALL CONCRETE STRUCTURES SHALL BE COVERED, INSULATED AND HEATED AS REQUIRED TO PREVENT FROST PENETRATION BENEATH THE STRUCTURES UNTIL SUBSTANTIAL COMPLETION OR UNTIL STRUCTURES ARE COMPLETED AND BACKFILLED.
5. THE BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE BELOW THE FROST DEPTH (AS MEASURED FROM FINISH GRADE) UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
6. GENERAL CONTRACTOR SHALL PROVIDE SUPPORT BELOW EXISTING STRUCTURES WHEN EXCAVATION FOR NEW WORK MAY UNDERMINE OR CAUSES INSTABILITY OF THE EXISTING STRUCTURES.

METALS NOTES:

- 1. REFERENCE SPECIFICATION - 05500
2. STEEL BOLTS SHALL CONFORM TO ASTM F3125 GRADE 325 UNLESS OTHERWISE NOTED.
3. ALUMINUM SHAPES SHALL CONFORM TO ASTM B308 ALLOY 6061-T6 UNLESS OTHERWISE NOTED.
4. STAINLESS STEEL FASTENERS SHALL CONFORM TO ASTM F593 AND ASTM F594 (TYPE 316).
5. EPOXY AND EXPANSION ANCHORS SHALL BE TYPE 316 STAINLESS STEEL. EMBEDMENT DEPTH OF THESE ANCHORS SHALL BE NOT LESS THAN 6 INCHES UNLESS OTHERWISE NOTED.
6. NEOPRENE BEARING PADS SHALL BE HIGH GRADE WITH DUROMETER HARDNESS OF SHORE A SOFT (35-45).

LEAKAGE TEST NOTES:

- 1. REFERENCE SPECIFICATION - 03305
2. LEAKAGE TESTS SHALL BE PERFORMED PRIOR TO APPLICATION OF CONCRETE COATINGS OR INSTALLATION OF CONCRETE FILL. THE LEAKAGE TESTS SHALL NOT COMMENCE UNTIL THE FOLLOWING CONDITIONS ARE MET AS INDICATED FOR EACH STRUCTURE:
2.1 THE TOP SLAB MUST BE IN PLACE FOR A MINIMUM OF 7 DAYS AND ATTAIN A COMPRESSIVE STRENGTH OF 3,300 PSI.
3. LEAKAGE TESTS SHALL BE PERFORMED FOR ALL LIQUID CONTAINING STRUCTURES WITH CONDITIONS AS LISTED BELOW:
3.1 VALVE VAULT
3.2 WET WELL
4. EVERY TANK SHALL BE TESTED INDIVIDUALLY (ONE AT A TIME) UNLESS OTHERWISE NOTED.
5. CLOSE ALL OPENINGS, VALVES AND GATES TO THE STRUCTURE.
6. FILL EACH TANK WITH POTABLE WATER OR WATER THAT MEETS ASTM C1602/C1602M FURNISHED BY THE CONTRACTOR TO THE MAXIMUM WATER ELEVATION AS INDICATED ON THE STRUCTURAL DRAWINGS.
7. TANK SHALL BE KEPT FULL FOR AT LEAST 72 HOURS DURING PART 1 OF THE TEST- QUALITATIVE CRITERIA - PRIOR TO COMMENCEMENT OF PART 2 - QUANTITATIVE CRITERIA.
8. THE TEST PERIOD FOR PART 2 OF THE TEST SHALL BE PER ACI 350.1-10. LOSS OF TANK VOLUME SHALL NOT EXCEED 0.05% PER DAY. CHEMICAL CONTAINMENTS SHALL HAVE NO MEASURABLE LOSS OF VOLUME.
9. ALL VISIBLE LEAKS AND DAMP AREAS SHALL BE REPAIRED AND ELIMINATED BY A METHOD PROPOSED BY THE CONTRACTOR AND REVIEWED FOR INFORMATION ONLY BY AN ENGINEER.
10. SUBSEQUENT TO THE REPAIRS AND ELIMINATION OF ALL VISIBLE LEAKS AND DAMP AREAS, TANKS SHALL BE REFILLED AS PREVIOUSLY DESCRIBED.
11. ALL LIQUID CONTAINING STRUCTURES SHALL BE RETESTED SUBSEQUENT TO REPAIRS.
12. ADDITIONAL TESTS AND REPAIRS SHALL BE PERFORMED UNTIL SUCH TIME AS THE STRUCTURES CAN DEMONSTRATE COMPLIANCE WITH TESTING REQUIREMENTS.

WOOD FRAMING NOTES:

- 1. REFERENCE SPECIFICATION - 06100
2. ALL WOOD FRAMING WAS DESIGNED IN ACCORDANCE WITH THE LATEST EDITIONS OF THE "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" INCLUDING "DESIGN VALUES FOR WOOD CONSTRUCTION", BY THE AMERICAN WOOD COUNCIL.
4. ALL FRAMING SHALL BE SPRUCE-PINE-FIR (SPF) No. 2 OR EQUAL USED AT 19% MAXIMUM MOISTURE CONTENT.
5. NAILING SCHEDULE:
EACH END COLLAR TIE TO RAFTER 5-10d
ROOF RAFTER TO RIDGE 2-16d (LSSU28)
ROOF RAFTER TO PLATE 12" Ø SS BOLTS @ 24" OC
ROOF PLYWOOD @ DIAPHRAGM BOUNDARY 10d @ 6" OC
ROOF PLYWOOD @ ALL OTHER EDGES 10d @ 6" OC
ALL OTHER NAILING SHALL BE IN ACCORDANCE WITH REFERENCED BUILDING CODE. ALL FASTENERS SHALL BE THE BRIGHT COMMON TYPE.
6. WOOD TO STEEL AND WOOD TO WOOD BOLTED CONNECTORS SHALL BE AS FOLLOWS (UNLESS OTHERWISE NOTED):
6.1 WOOD TO STEEL: ASTM A307 OR ASTM F3125 GRADE A325N BOLTS (CONCEALED); TYPE 316 STAINLESS OR HOT-DIPPED GALVANIZED ASTM F3125 GRADE A325N BOLTS (EXPOSED)
6.2 WOOD TO WOOD: ASTM A307 OR ASTM F3125 GRADE A325N BOLTS (CONCEALED); TYPE 316 STAINLESS STEEL OR HOT-DIPPED GALVANIZED F3125 GRADE A325N BOLTS (EXPOSED)
7. USE FLAT WASHERS BETWEEN NUT AND WOOD. BOLT HOLES IN WOOD SHALL BE 1/32" LARGER THAN BOLT. WOOD NAILERS SHALL BE FASTENED TO STEEL BEAMS WITH 1/2" Ø BOLTS STAGGERED AT 2'-0" UNLESS OTHERWISE NOTED.
8. WOOD IN CONTACT WITH CONCRETE, EXPOSED TO THE EXTERIOR, OR INDICATED ON THE DRAWINGS TO BE PRESSURE TREATED SHALL BE TREATED WITH WATERBORNE PRESERVATIVES IN ACCORDANCE WITH AWWA STANDARD U1 TO THE REQUIREMENTS OF CATEGORY 2 (UC2).
9. PLYWOOD SHEATHING SHALL BE AS FOLLOWS:
9.1 ROOF: 5/8" APA RATED STRUCTURAL I SHEATHING, 40/20 SPAN RATING, EXPOSURE 1 (BLOCK ALL PLYWOOD EDGES WITH FULL DEPTH 2X BLOCKING).

PIPE SUPPORT NOTES:

- 1. THE FOLLOWING RESTRICTIONS FOR SUPPORTING PIPES FROM NEW AND EXISTING STRUCTURES IN THE TABLE BELOW SHALL APPLY TO ALL PIPE SUPPORTS:

Table with 3 columns: AREA, EXISTING STRUCTURES, NEW STRUCTURES. Row 1: SLAB-ON-GRADE, YES, YES

NOTE: "NO" INDICATES THAT PIPES MAY NOT BE SUPPORTED FROM THE INDICATED STRUCTURE AND "YES" INDICATES THAT PIPES MAY BE SUPPORTED FROM THE INDICATED STRUCTURE. THE RESTRICTIONS APPLY TO BEARING THE PIPE SUPPORT ABOVE, HANGING BELOW, OR HANGING THE PIPE FROM THE SIDE OF THE INDICATED STRUCTURAL ELEMENT. ALL PIPE SUPPORTS SUPPORTED FROM STRUCTURES SHALL BE SUBJECTED TO REVIEW WITH NO EXCEPTIONS TAKEN BY THE ENGINEER.

STRUCTURAL STEEL NOTES:

- 1. REFERENCE SPECIFICATIONS - 05120
2. STRUCTURAL STEEL AND STEEL LINTELS SHALL CONFORM TO THE FOLLOWING:
2.1 WIDE FLANGE BEAM ("W" SHAPES)
2.2 STANDARD BEAMS ("S" SHAPES) - ASTM A36 (ALL SHAPES EXCEPT LISTED OTHERWISE); ASTM A992 (ALL S12 SHAPES, S15x42.9 AND S18x54.7)
2.3 CHANNELS AND ANGLES - ASTM A36
2.4 PLATES - ASTM A572
2.5 STRUCTURAL STEEL TUBING ("HSS" SHAPES) - ASTM A500 (GRADE C)
3. STRUCTURAL STEEL SHALL BE IN COMPLIANCE WITH THE LATEST EDITION OF THE AISC STEEL CONSTRUCTION MANUAL.
4. CONNECTIONS:
4.1 FIELD BOLTED CONNECTIONS SHALL BE WITH ASTM F3125 GRADE 325 HIGH STRENGTH BOLTS EXCEPT AS NOTED. BOLTS SHALL BE 3/4" DIA IN 13/16" HOLES EXCEPT AS NOTED. ALL BOLTED CONNECTIONS SHALL BE CONSIDERED "SNUG TIGHTENED" UNLESS SPECIFICALLY INDICATED AS "SLIP-CRITICAL".
4.2 ALL SIMPLE BEAM CONNECTIONS THAT ARE NOT DETAILED ON THE DRAWINGS SHALL BE AS SHOWN IN THE TABLE 10-1, "ALL BOLTED DOUBLE ANGLE CONNECTIONS", OF THE 13TH EDITION OF THE AISC STEEL CONSTRUCTION MANUAL EXCEPT AS NOTED.
4.3 ALL BOLTED BEAM CONNECTIONS SHALL BE SIZED TO SUPPORT ONE-HALF THE TOTAL UNIFORM LOAD CAPACITY AS SHOWN IN TABLE 3-6, "MAXIMUM TOTAL UNIFORM LOAD", OF THE 13TH EDITION OF THE AISC STEEL CONSTRUCTION MANUAL EXCEPT AS NOTED.
5. ANCHOR RODS SHALL CONFORM TO ASTM F1554, GRADE 55, ANCHOR RODS SHALL HAVE A 3" THREADED PROJECTION ABOVE THE BASE PLATE AND A HEADED END WITH WELDED WASHER AT THE EMBEDDED END.
6. ALL WELDING SHALL BE PERFORMED IN THE SHOP USING E70XX ELECTRODES IN ACCORDANCE WITH AWS D1.1 STRUCTURAL WELDING CODE.
7. ALL STRUCTURAL STEEL BOLTS AND ANCHOR RODS SHALL BE HOT-DIPPED GALVANIZED. GALVANIZE STEEL PRIOR TO BOLTING TO OTHER ASSEMBLIES AND AFTER ALL WELDING (IF POSSIBLE). THE FOLLOWING GALVANIZED SYSTEMS ARE REQUIRED:
7.1 DURAGALV: ALL STRUCTURAL STEEL AND BOLTS UNLESS INDICATED AS PRIMERGALV
FLAME CUTTING OR BURNING OF STRUCTURAL STEEL IS NOT PERMITTED.
9. ALL SURFACES OF UNCOATED STRUCTURAL STEEL AND FASTENERS THAT ARE IN CONTACT WITH OR EMBEDDED IN CONCRETE, GROUT, OR MASONRY SHALL BE COATED WITH EPOXY PAINT (MIN 5 MIL DFT).
10. ALL SURFACES OF DISSIMILAR METALS IN CONTACT SHALL BE COATED WITH EPOXY PAINT (MIN 5 MIL DFT).
11. ALL COLUMNS SHALL BEAR ON A MINIMUM 1" GROUT PAD, UNLESS OTHERWISE NOTED.
12. ALL GALVANIZED COATINGS DAMAGED DURING SHIPMENT OR INSTALLATION SHALL BE COATED WITH A ZINC RICH COATING APPROPRIATE FOR THE APPLICATION.

STRUCTURAL DESIGN CRITERIA:

GEOTECHNICAL:

DESIGN GROUNDWATER ELEVATION: 1 FOOT BELOW FINISH GRADE
DESIGN FLOOD ELEVATION: EL 28.00'
LATERAL EARTH PRESSURES (BELOW GRADE STRUCTURES):
ABOVE GROUNDWATER = 65 PSF/FT (UNIFORM VARYING)
BELOW GROUNDWATER = 95 PSF/FT (UNIFORM VARYING)
SURCHARGE = 75 PSF/FT (BASED ON 300 PSF UNIFORM LOAD)
SEISMIC = 0.100(S_u)(F_u)(V_u)(H^2)(INVERTED UNIFORMLY VARYING)
ALLOWABLE SUBGRADE BEARING PRESSURE = 2,000 PSF
MINIMUM FROST DEPTH = 50 INCHES

LIVE LOADS:

REF:
ASCE 7-10 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
2015 INTERNATIONAL BUILDING CODE
MAINE UNIFORM BUILDING AND ENERGY CODE

WIND LOADS

BASIC WIND SPEED (V):
Vult = 125 MPH
Vasd = 96.8 MPH
IMPORTANCE FACTOR (I_w) = 1.1
EXPOSURE CATEGORY B
INTERNAL PRESSURE COEFFICIENT (GC_pi) = ±0.00

SNOW LOADS

GROUND SNOW LOAD (P_g) = 60 PSF
IMPORTANCE FACTOR (I_s) = 1.1
EXPOSURE FACTOR (C_e) = 1.0
THERMAL FACTOR (C_t) = 1.2
SLOPE FACTOR (C_s) = 1.0

SEISMIC LOADS

EQUIVALENT LATERAL FORCE ANALYSIS
IMPORTANCE FACTOR (I_e) = 1.25
SITE CLASSIFICATION D
SEISMIC DESIGN CATEGORY B
0.2s SPECTRAL RESPONSE ACCELERATION (S_u) = 0.243
1.0s SPECTRAL RESPONSE ACCELERATION (S_1) = 0.079
0.2s MCER SPECTRAL RESPONSE ACCELERATION (S_mcs) = 0.39
1.0s MCER SPECTRAL RESPONSE ACCELERATION (S_mcs) = 0.19
SEISMIC RESPONSE COEFFICIENT (C_s) = 0.259
RESPONSE MODIFICATION COEFFICIENT (R):
CANTILEVERED COLUMN SYSTEMS, R = 1.25

ROOF LIVE LOADS

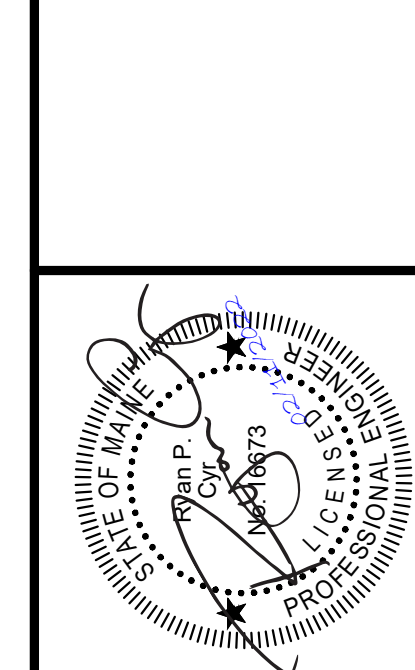
AS INDICATED ON THE DRAWINGS

ABBREVIATIONS

Table listing abbreviations and their full names: ALUMINUM AND, ANGLE, ARCHITECTURAL AT, BEAM, BOTTOM, CROSS BRACING, CENTER, CENTERLINE, CLEAR, COLUMN, CONCRETE, CONCRETE MASONRY UNIT, CONTINUOUS, CONTROL JOINT, CONTROL JOINT (TYPE 1), CONTROL JOINT (TYPE 2), CONSTRUCTION JOINT, DETAIL, DIAMETER, DOWEL BAR SPLICERS, DOWEL, EACH END, EACH FACE, EACH WAY, ELECTRICAL ELEVATION, EQUAL, EXPANSION JOINT, EXPANSION, EXTERIOR, FEET, FLOOR DRAIN, FIBERGLASS REINFORCED PLASTIC, GALVANIZED, GAUGE, GRATING, HIGH, HIGH POINT, HIGH STRENGTH, HORIZONTAL, HOT DIPPED GALVANIZED, INSIDE DIAMETER, INSIDE FACE, INSULATION, JOINT, LOW POINT, MANUFACTURER, MATCHING, MAXIMUM, MECHANICAL, MINIMUM, MODULAR OPENING, MOUNTED, NOT TO SCALE, NUMBER, ON CENTER, OPENING, OUTSIDE DIAMETER, OUTSIDE FACE, PERIMETER, PLATE, POUND, POUNDS PER SQUARE FOOT, POUNDS PER SQUARE INCH, PRESSURE RELIEF VALVE, PROCESS, PROJECTION, REINFORCING, REQUIRED, RISER, ROUGH OPENING, SCHEDULE, SECTION, SHEET, SIMILAR, SLOPE, SPACE(ING), SPECIFICATION, SQUARE, SYMMETRICAL, STANDARD, STRUCTURAL, STAINLESS STEEL, STEEL, THICKNESS, TOP, TOP & BOTTOM, TOP OF CONCRETE, TOP OF PLATE, TOP OF STEEL, TREAD, TYPICAL, UNLESS OTHERWISE NOTED, WELDED WIRE FABRIC, WIDE, WITH, WITHOUT, WOOD

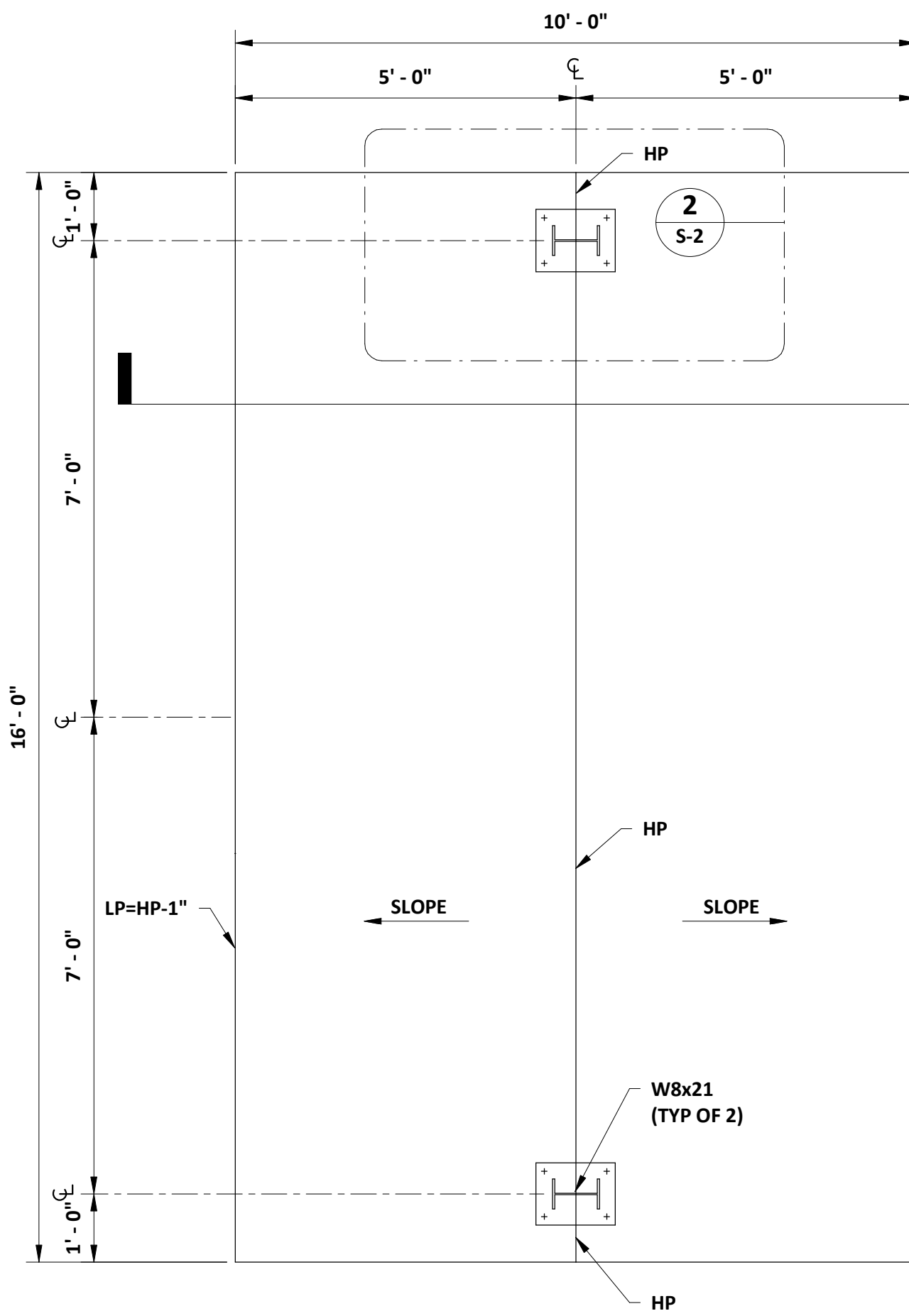
Table with columns: APPD, DATE, REVISIONS, NO, A, A, A, A, A

Table with project information: PROJECT NO: 14070, DESIGNED: K.BEMIS, CAD COORD: D.SAHOE, CAD: A.NESBIT, CHECKED: R.CYR, DATE: 02/2022, APPROVED: R.CYR, DATE: 02/2022, SUBMISSION: CONTRACT DRAWINGS

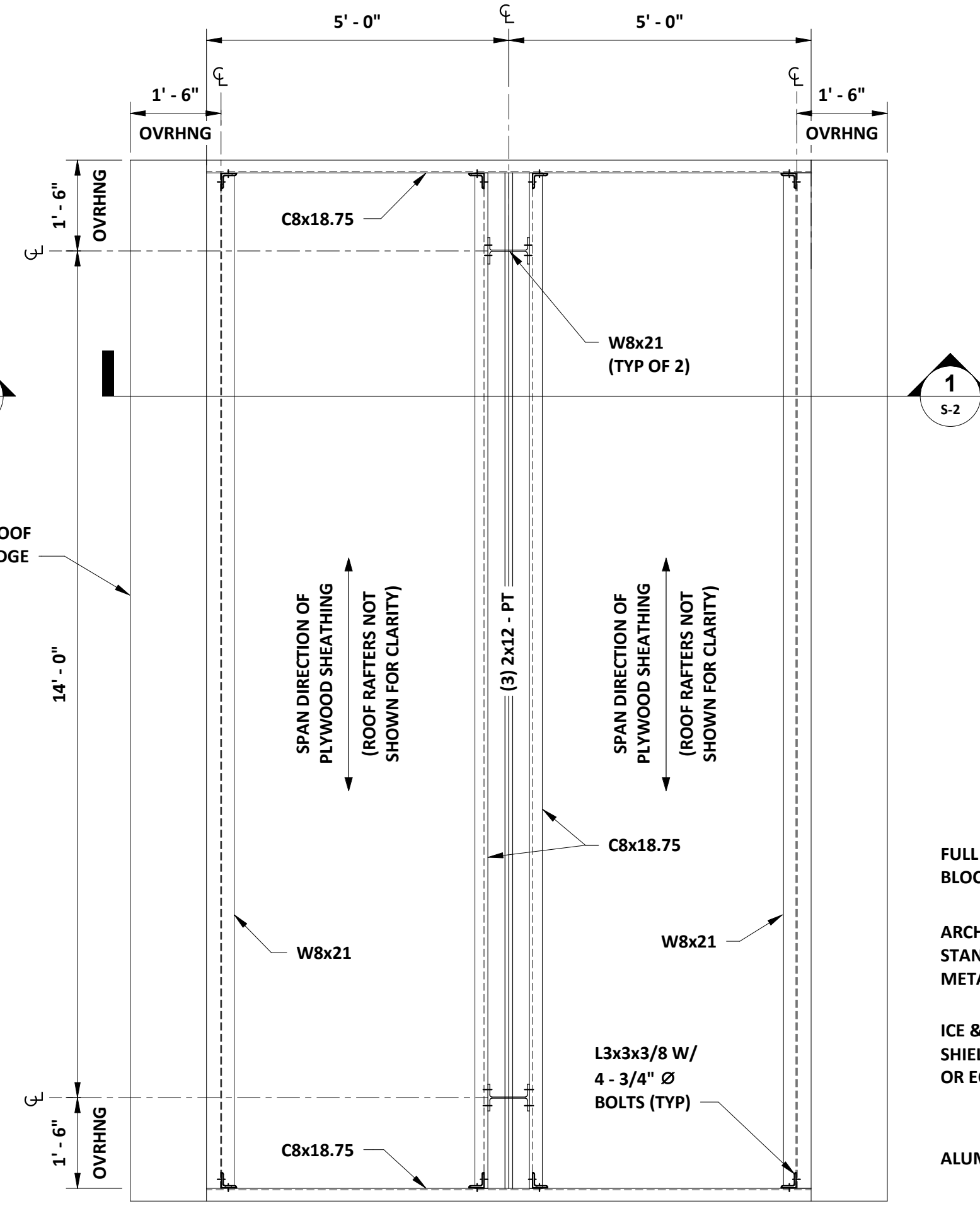


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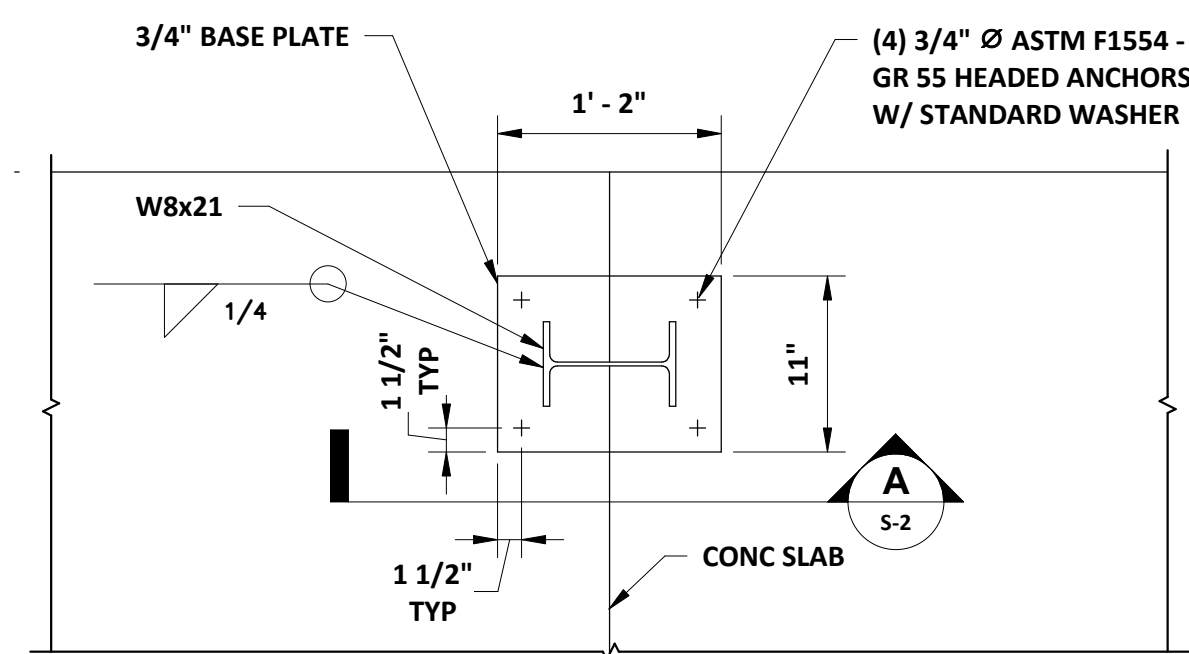
TOWN OF FALMOUTH, MAINE SEWER IMPROVEMENTS PHASE I, TYPICAL STRUCTURAL NOTES



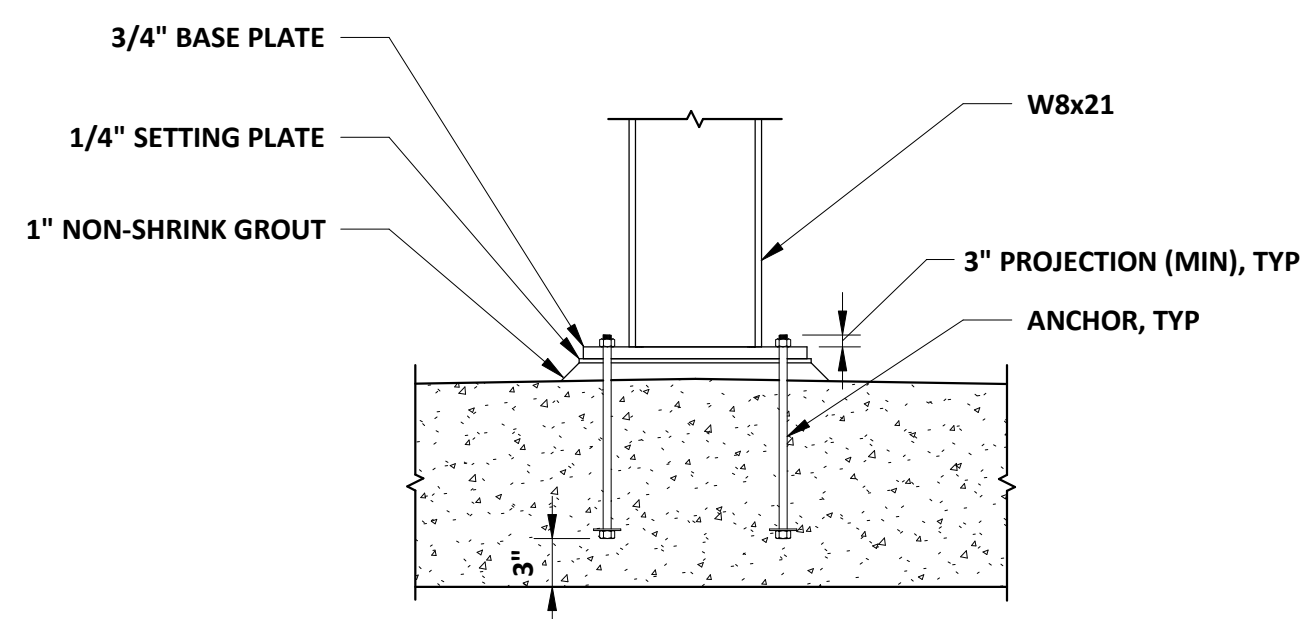
FOUNDATION PLAN
SCALE: 1/2" = 1'-0"



ROOF FRAMING PLAN
SCALE: 1/2" = 1'-0"



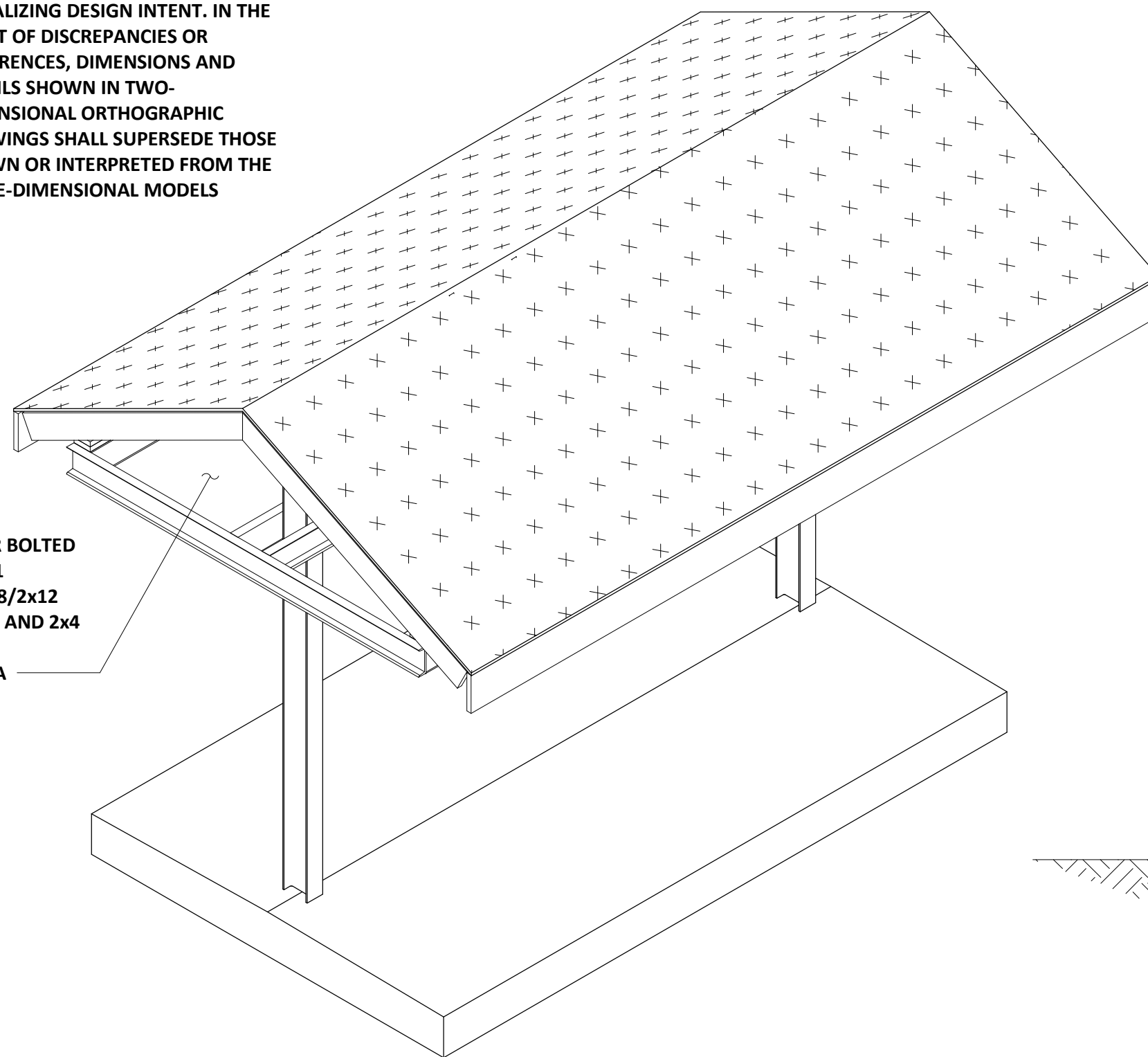
PARTIAL PLAN @ COLUMN BASE
SCALE: 1" = 1'-0"



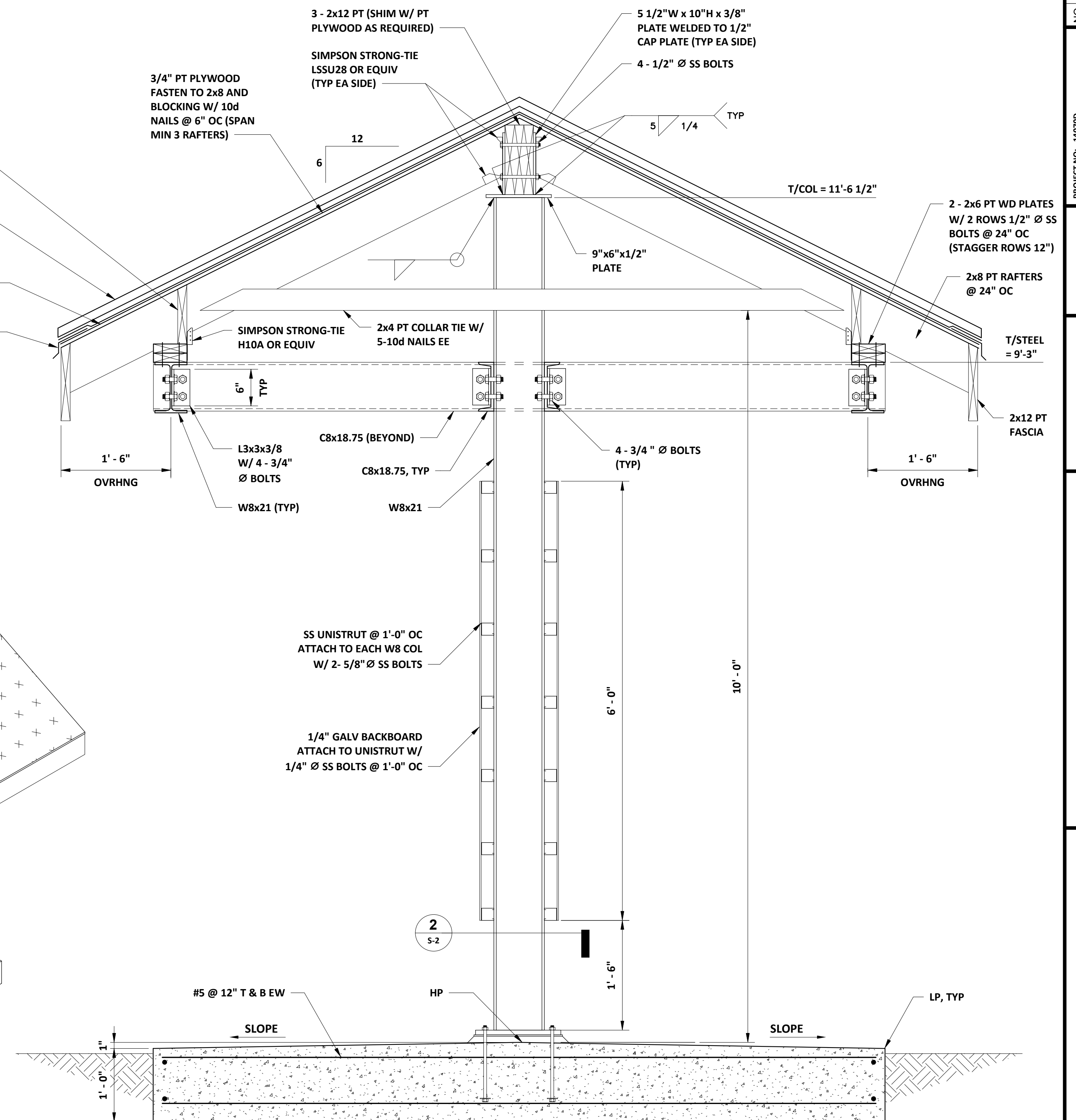
SECTION A
SCALE: 1" = 1'-0"

NOTE: THREE-DIMENSIONAL MODELS INTENDED TO SUPPLEMENT VISUALIZING DESIGN INTENT. IN THE EVENT OF DISCREPANCIES OR DIFFERENCES, DIMENSIONS AND DETAILS SHOWN IN TWO-DIMENSIONAL ORTHOGRAPHIC DRAWINGS SHALL SUPERSEDE THOSE SHOWN OR INTERPRETED FROM THE THREE-DIMENSIONAL MODELS

CLOSE SIDES WITH 2x4 PT NAILER BOLTED TO C8. INSTALL PAINTED PT T1-11 PLYWOOD, EXTEND TO BOT OF C8/2x12 FASCIA. ATTACH TO 2x8 RAFTERS AND 2x4 NAILER W/ 10d NAILS @ 6" OC. STAIN/SEAL TO MATCH PT FASCIA



ISOMETRIC



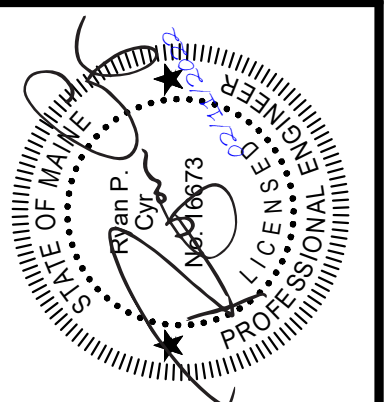
SECTION 1
SCALE: 1" = 1'-0"

NOTES:

- FOR GENERAL STRUCTURAL NOTES, SEE DRAWING S-1. FOR TYPICAL STRUCTURAL DETAILS, SEE DRAWING S-3.
- FINAL DIMENSIONS OF CONCRETE PAD AND W8 CANOPY COLUMN SPACING SHALL BE BASED ON EQUIPMENT SUPPLIED. GENERAL CONTRACTOR TO COORDINATE WITH ENGINEER FOR ANY AND ALL DIMENSIONAL ADJUSTMENTS PRIOR TO FABRICATION.

NO	REVISIONS	APPD	DATE

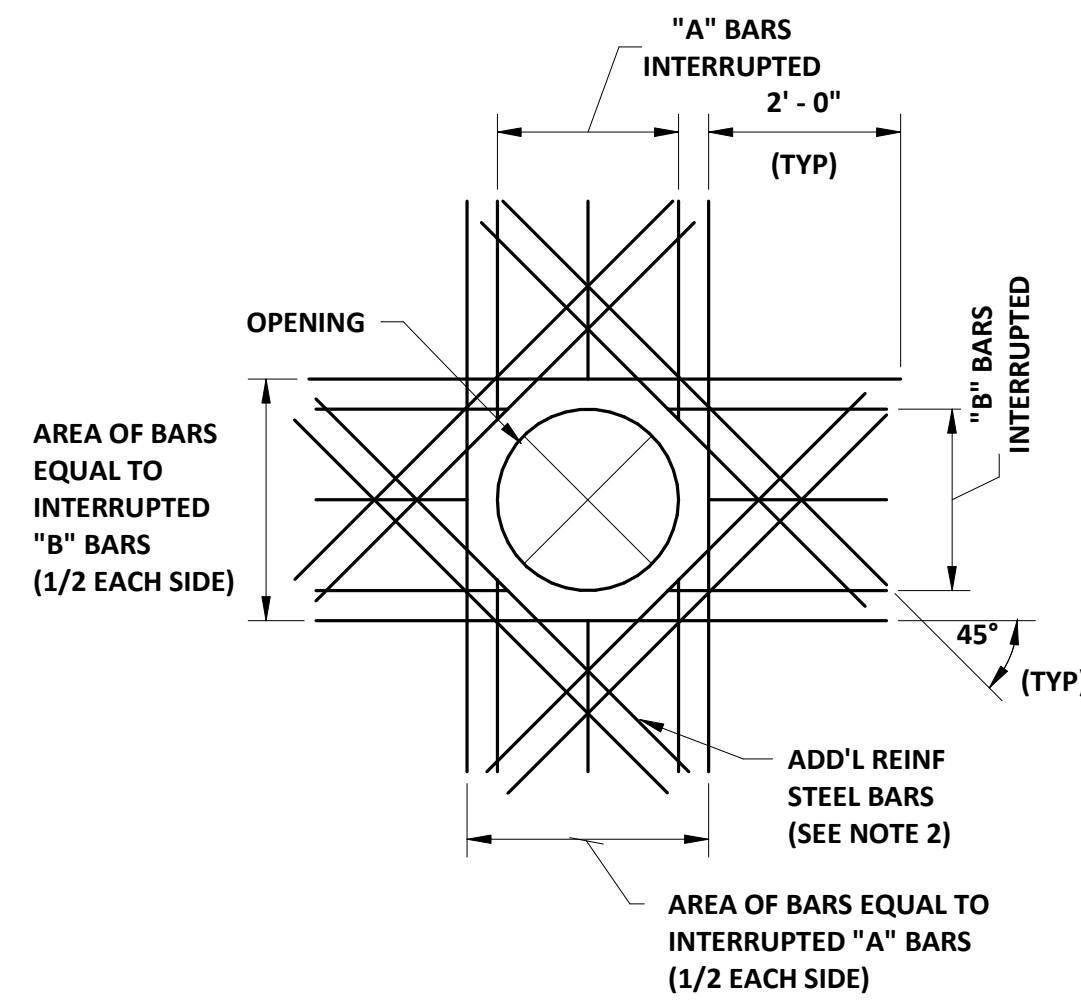
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**TOWN OF FALMOUTH, MAINE
SEWER IMPROVEMENTS PHASE I**

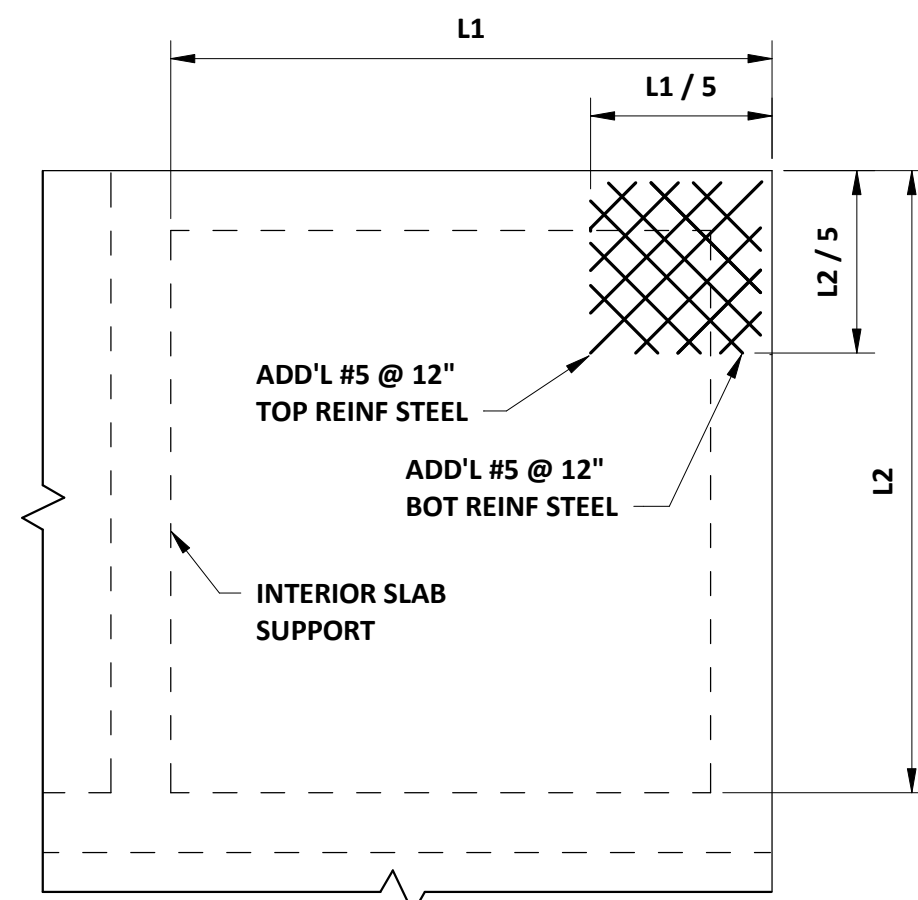
CONTROL CABINET - PLANS



- NOTES:**
- DETAILS ARE FOR OPENINGS 12" OR LARGER. SPREAD NORMAL REINFORCEMENT AT SMALLER OPENINGS. (* UNLESS OTHERWISE SHOWN ON DRAWINGS)
 - PROVIDE ADDITIONAL BARS AS FOLLOWS:
 - CONCRETE LESS THAN 12" THICK: 2-#5 CENTER
 - CONCRETE GREATER THAN OR EQUAL TO 12" THICK: 2-#5 EACH FACE

REINFORCEMENT AT ROUND OPENING

NTS

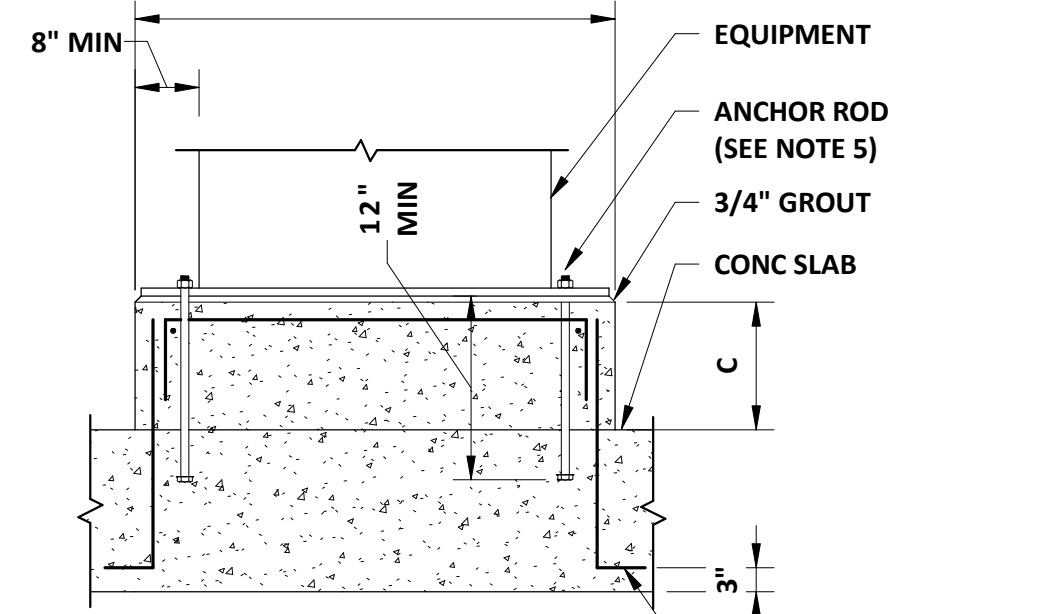


NOTE: EXTERIOR CORNER DETAIL IS APPLICABLE FOR ALL ELEVATED SLABS. INTERIOR CORNER DETAIL IS APPLICABLE FOR ELEVATED SLABS AND SLABS-ON-GRADE

EXTERIOR CORNER

REINFORCING STEEL AT SLAB CORNERS

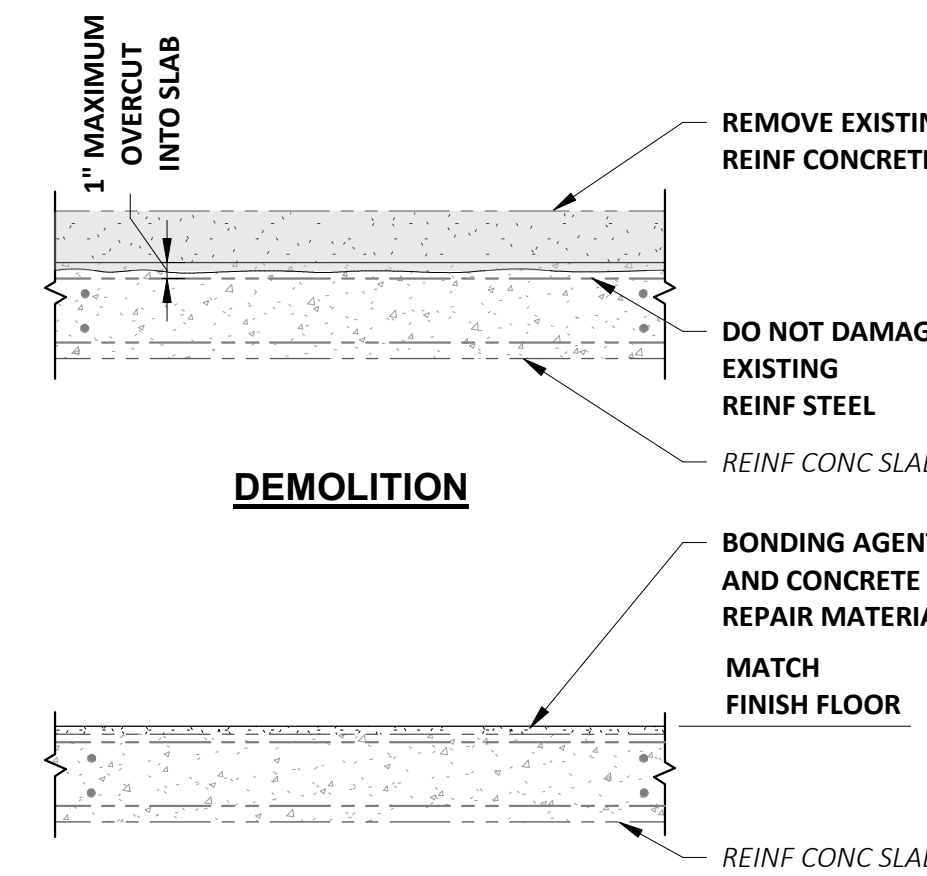
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- NOTES:**
- PROVIDE A MINIMUM 4" THICK REINFORCED CONCRETE PAD BELOW ALL EQUIPMENT, PIPE SUPPORTS, STANCHIONS, CONTROL PANELS, TANKS, ETC. UNLESS OTHERWISE NOTED.
 - A, B AND C DIMENSIONS SHALL BE DETERMINED BY THE GENERAL CONTRACTOR BASED ON EQUIPMENT SUPPLIED (OR AS INDICATED ON THE DRAWINGS).
 - CONCRETE PAD SHALL ATTAIN A COMPRESSIVE STRENGTH OF 4500 PSI PRIOR TO STARTUP OF EQUIPMENT.
 - FOR CONCRETE PADS PLACED ON EXISTING CONCRETE, DRILL HOLES AND INSTALL #5 @ 12" W/ HS EPOXY (MIN 8" EMBEDMENT).
 - FOR CONCRETE PADS PLACED ON EXISTING CONCRETE, USE SS EPOXY ANCHORS.
 - APPLY EPOXY BONDING AGENT ON CLEANED, ROUGHENED SURFACE PRIOR TO PLACING CONCRETE PAD.

EQUIPMENT PAD

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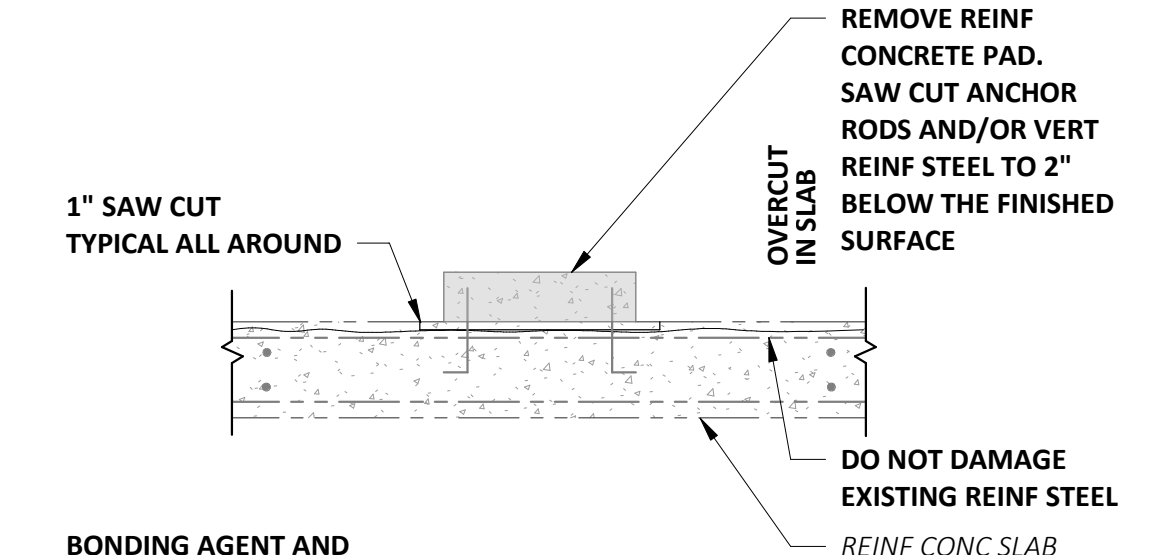


DEMOLITION

MODIFICATIONS

CONCRETE FILL REMOVAL

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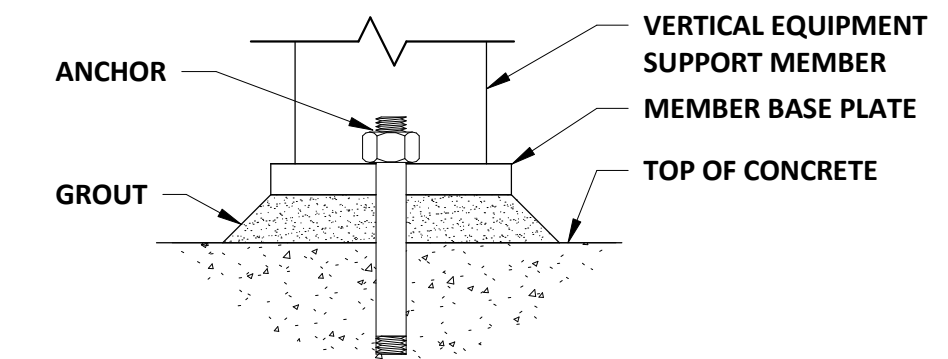


DEMOLITION

MODIFICATIONS

CONCRETE PAD REMOVAL

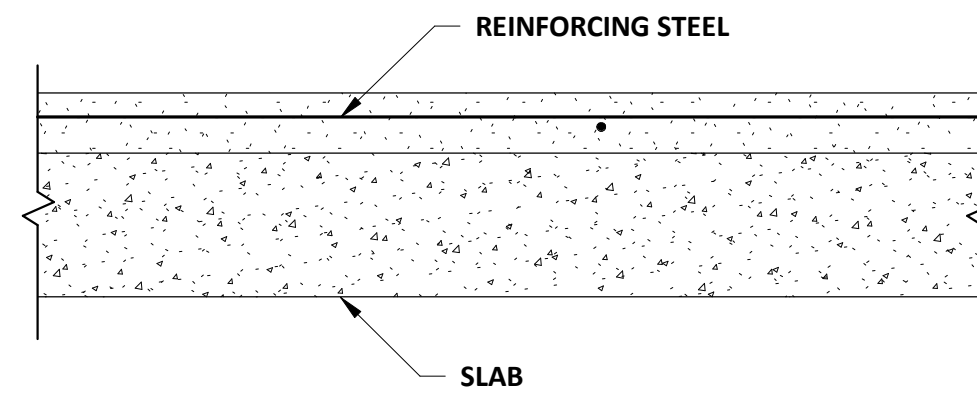
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- NOTES:**
- PROVIDE 1" NON-SHRINK GROUT BELOW ALL VERTICAL EQUIPMENT SUPPORT MEMBERS, INCLUDING CONTROL PANELS, PIPES, CONDUIT AND OTHER EQUIPMENT SUPPORTED BY VERTICAL MEMBERS.
 - EQUIPMENT BEARING DIRECTLY ON THE SLAB SHALL BE SUPPORTED BY A CONCRETE PAD

EQUIPMENT VERTICAL SUPPORT BASE

NTS

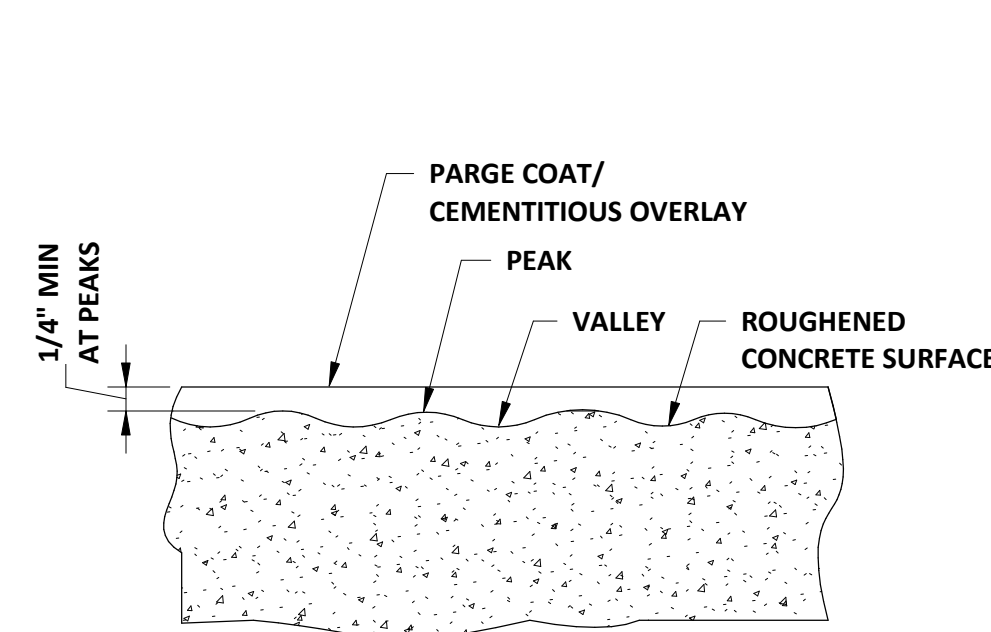


DEPTH (D)	REINFORCING STEEL
3" AND BELOW	NO REINFORCING STEEL
3" TO 5"	6x6-W 2.0 x 2.0 WWF
> 5"	#4 @ 12" T EW

NOTE: PROVIDE REINFORCING STEEL IN CONC FILL AS INDICATED IN THE TABLE UNLESS OTHERWISE INDICATED ON THE DRAWINGS.

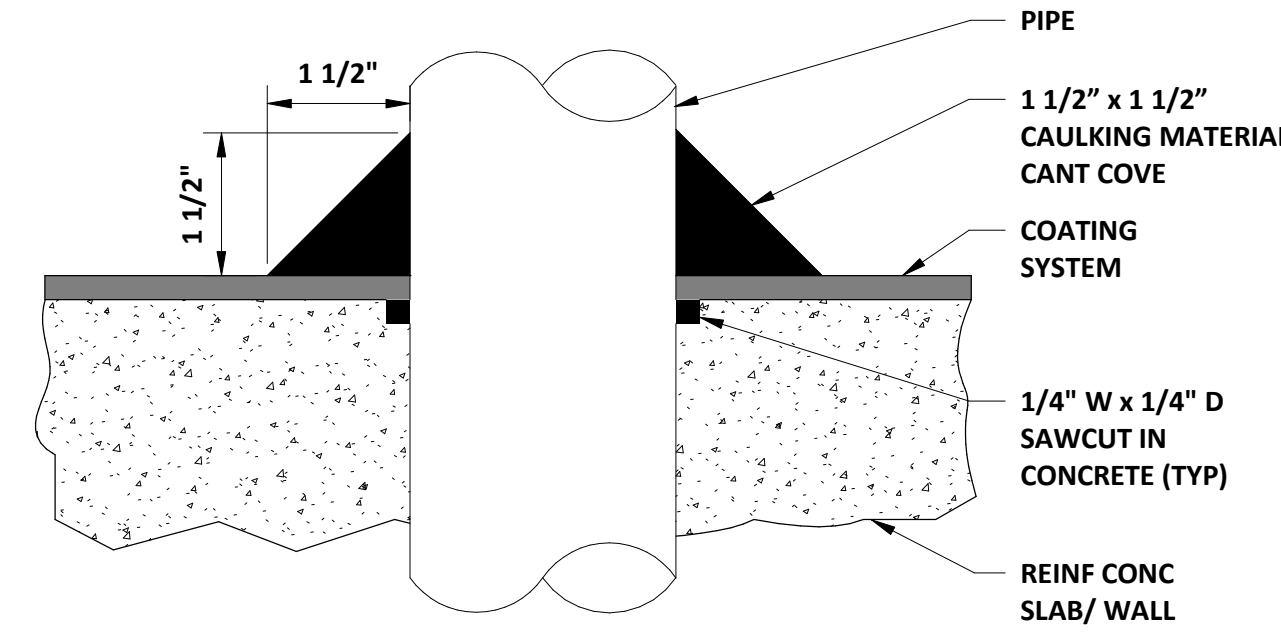
REINFORCING STEEL FOR CONCRETE FILL

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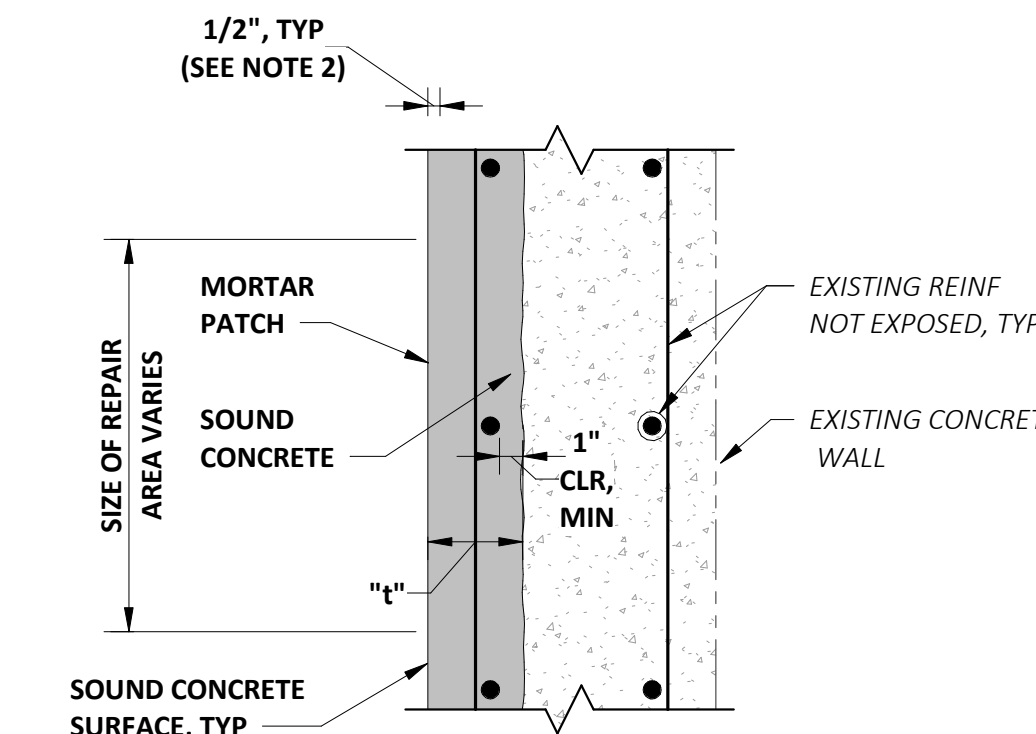
TYPE 1 AND TYPE 2 COATINGS

NTS



COATING TERMINATION AT PIPE PENETRATION

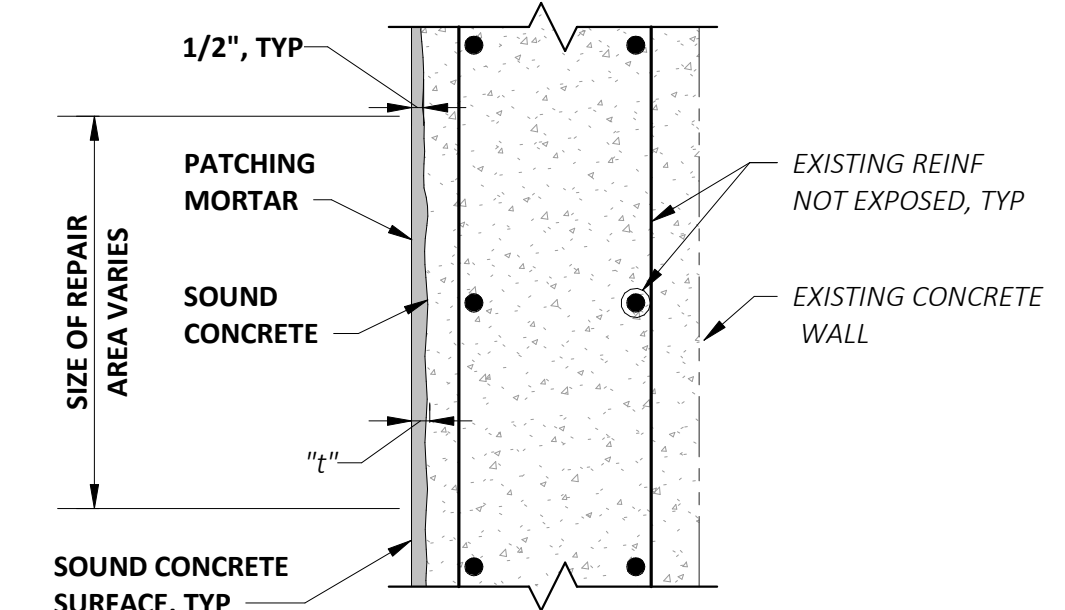
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- NOTES:**
- THIS DETAIL IS TO BE USED FOR REPAIRS WHERE THE CONCRETE SURFACE DETERIORATION IS GREATER THAN 1 1/2" IN DEPTH TO SOUND CONCRETE. SOUND CONCRETE IS HARD AND DOES NOT EXHIBIT A HOLLOW SOUND WHEN STRUCK WITH A HAMMER.
 - PROVIDE A 1/2" DEEP PERIMETER SAWCUT AROUND THE ENTIRE AREA TO BE REPAIRED. ALL SAWCUTS ARE TO BE PERPENDICULAR TO THE SURFACE PLANE OF THE WALL. ALL CUTS SHALL FORM 90 DEGREE INTERSECTIONS. DO NOT CUT THE STEEL REINFORCEMENT.
 - REMOVE ALL DETERIORATED CONCRETE BY USING CHIPPING HAMMERS OR BY HAND OR OTHER MEANS NECESSARY TO REMOVE THE DEFECTED CONCRETE TO SOUND CONCRETE. STOP ALL CONCRETE REMOVAL WHEN SOUND OR SOLID CONCRETE IS UNCOVERED.
 - REMOVE ALL CONCRETE 1" BEYOND ALL EXPOSED REINFORCEMENT. IF CORROSION IS OBSERVED ON THE STEEL REINFORCEMENT, REMOVE ALL CONCRETE TO 1" BEYOND THE CORRODED PORTIONS OF THE STEEL. USE CAUTION NOT TO DAMAGE THE REINFORCEMENT THAT WILL REMAIN. SAND BLAST ALL STEEL SURFACES AND CLEAN ALL CONCRETE SURFACES IN THE REPAIR AREA IN ACCORDANCE TO SPECIFICATIONS 03010 & 03930. IF THE STEEL REINFORCEMENT HAS MORE THAN 25% OF SECTION LOSS AFTER SANDBLASTING, CONTACT THE STRUCTURAL ENGINEER TO CONDUCT A VISUAL ASSESSMENT AND FOR SPlicing REQUIREMENTS AND DETAILS.
 - COAT ALL CONCRETE SURFACES AND STEEL REINFORCEMENT TO RECEIVE PATCHING MORTAR WITH A CONCRETE BONDING AGENT/PRIMER/RUST INHIBITOR SUCH AS SIKA ARMETEC EPOCEM 110 (OR APPROVED EQUAL). PROVIDE A MINIMUM OF TWO COATS ON THE STEEL REINFORCEMENT.
 - REBUILD WALL WITH TYPE 1 PATCHING MORTAR. REFER TO SPECIFICATIONS 03010 & 03930 FOR ADDITIONAL DETAILS AND RECOMMENDED PATCHING MORTAR MANUFACTURERS. BUILD UP ALL REPAIRS TO BRING THE WALL BACK TO A 12" THICKNESS, AND TO MATCH THE SURFACE PLANE TEXTURE OF THE EXISTING CONCRETE WALL. FOR ALL SPALLS GREATER THAN 4" IN DEPTH, ADD PEA GRAVEL (OR 3/8" STONE) TO THE PATCHING MORTAR PER THE MANUFACTURER'S RECOMMENDATIONS. ALL REPAIR MORTAR SHALL BE CURED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
 - THE DEEP CONCRETE REPAIR WORK IS IDENTIFIED AS BID ITEM NO. 4.

DEEP CONCRETE REPAIR DETAIL (t > 1 1/2")

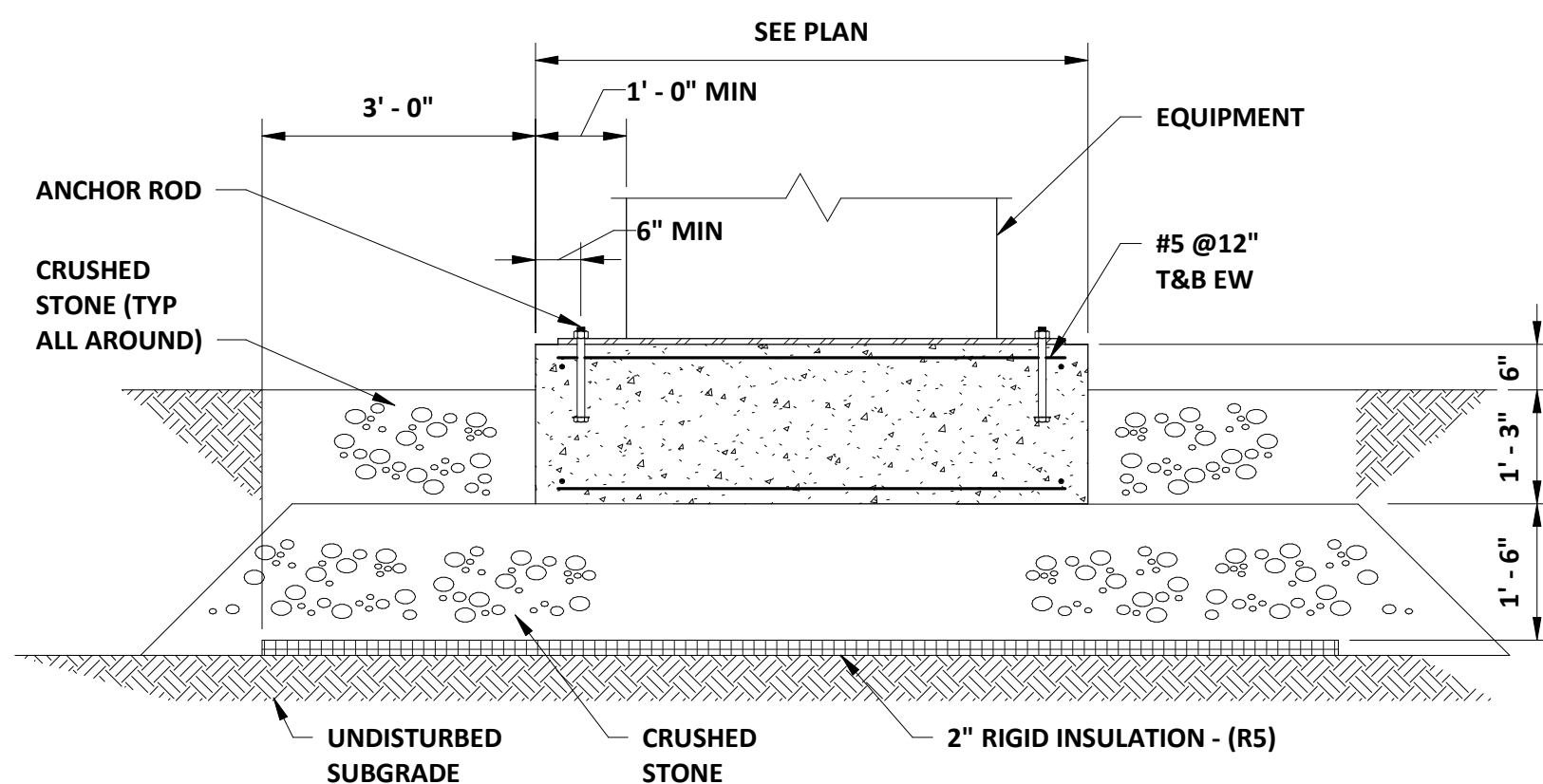
NTS



- NOTES:**
- THIS DETAIL IS TO BE USED FOR REPAIRS WHERE SURFACE DETERIORATION IS 1 1/2" OR LESS, REINFORCEMENT IS NOT EXPOSED AND IS ADJACENT TO SOUND CONCRETE. SOUND CONCRETE IS HARD AND DOES NOT EXHIBIT A HOLLOW SOUND WHEN STRUCK WITH A HAMMER.
 - PROVIDE A 1/2" DEEP PERIMETER SAWCUT AROUND THE ENTIRE AREA TO BE REPAIRED. ALL SAWCUTS ARE TO BE PERPENDICULAR TO THE SURFACE PLANE OF THE WALL. ALL CUTS SHALL FORM 90 DEGREE INTERSECTIONS. DO NOT CUT THE STEEL REINFORCEMENT.
 - REMOVE ALL DETERIORATED CONCRETE BY USING CHIPPING HAMMERS OR BY HAND OR OTHER MEANS NECESSARY TO REMOVE THE DEFECTED CONCRETE TO SOUND CONCRETE. STOP ALL CONCRETE REMOVAL WHEN SOUND OR SOLID CONCRETE IS UNCOVERED.
 - COAT ALL CONCRETE SURFACES TO RECEIVE PATCHING MORTAR WITH A CONCRETE BONDING AGENT SUCH AS SIKA ARMETEC EPOCEM 110 (OR APPROVED EQUAL).
 - REBUILD WALL WITH PATCHING MORTAR. REFER TO SPECIFICATIONS 03010 & 03930 FOR ADDITIONAL DETAILS AND RECOMMENDED PATCHING MORTAR MANUFACTURERS. BUILD UP ALL REPAIRS TO MATCH THE SURFACE PLANE AND TEXTURE OF THE EXISTING CONCRETE WALL. ALL REPAIR MORTAR SHALL BE CURED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
 - THE SHALLOW CONCRETE REPAIR WORK IS IDENTIFIED AS BID ITEM NO. 3.

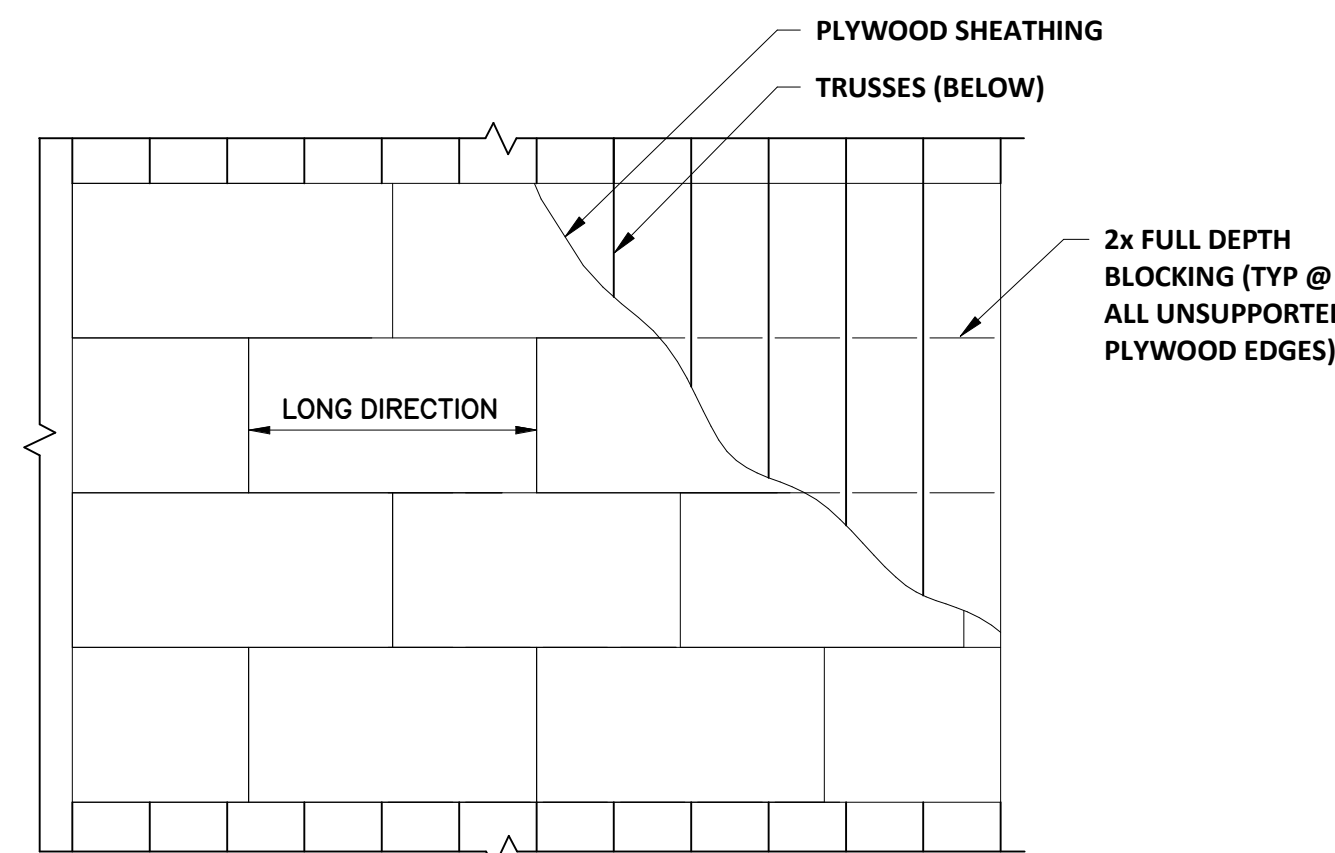
SHALLOW CONCRETE REPAIR DETAIL (t ≤ 1 1/2")

NTS



- NOTES:**
- DETAIL IS APPLICABLE FOR ALL EXTERIOR EQUIPMENT UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
 - CONCRETE PAD SHALL ATTAIN THE SPECIFIED COMPRESSIVE STRENGTH PRIOR TO STARTUP OF EQUIPMENT.

EXTERIOR CONCRETE PAD ZONE II



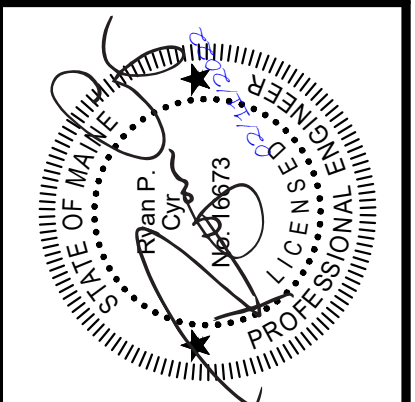
NOTE: PLACE PLYWOOD LONG DIRECTION PERPENDICULAR TO TRUSS SPAN DIRECTION.

PLYWOOD ROOF SHEATHING

NTS

NO	REVISIONS	DATE
1		
2		
3		
4		
5		

PROJECT NO: 14070
 DESIGNED: K.BEMIS
 CAD COORD: D.SAVAGE
 CAD: A.NESBIT
 CHECKED: R.CYR
 DATE: 02/2022
 APPROVED: R.CYR
 DATE: 02/2022
 SUBMISSION: CONTRACT DRAWINGS



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TOWN OF FALMOUTH, MAINE
 SEWER IMPROVEMENTS PHASE I

TYPICAL STRUCTURAL DETAILS

PROCESS GENERAL NOTES

- 1. ALL EQUIPMENT AND PIPING LAYOUT DIMENSIONS SHALL BE FIELD VERIFIED AND COORDINATED WITH EQUIPMENT SUPPLIED, AND/OR EXISTING CONDITIONS. SOME INFORMATION ASSOCIATED WITH EXISTING STRUCTURES, PIPING AND EQUIPMENT LOCATIONS, ELEVATIONS AND SIZES, WERE TAKEN FROM THE RECORD DRAWINGS FOR "EXIT 10 SEWER EXTENSION, FALMOUTH, ME", DATED DECEMBER 1998 BY MILLETT ASSOCIATES. CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD AS REQUIRED PRIOR TO BEGINNING CONSTRUCTION OF NEW FACILITIES, EQUIPMENT OR PIPING THAT MAY BE AFFECTED. IN SOME SPECIFIC INSTANCES, WHERE SPECIAL ATTENTION MAY BE REQUIRED BY THE CONTRACTOR, SOME DIMENSIONS, ELEVATIONS, ETC. HAVE BEEN NOTED WITH AN " * ". THIS DOES NOT HOWEVER, LIMIT THE CONTRACTOR'S RESPONSIBILITY TO VERIFY AND COORDINATE ALL NECESSARY INFORMATION FOR CONSTRUCTION.
2. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DIMENSIONS, LAYOUT OR ELEVATION CHANGES REQUIRED TO SUIT THE SPECIFIC EQUIPMENT BEING PROVIDED UNDER THIS CONTRACT. WHEN SUCH EQUIPMENT REQUIRES PADS, PIERS, CURBING, ETC., THAT DIFFERS FROM THAT SHOWN ON THE CONSTRUCTION DRAWINGS, THE CONTRACTOR SHALL COORDINATE THE STEEL REINFORCING SHOP DRAWINGS ACCORDINGLY.
3. PROVIDE CAST OR DUCTILE IRON WALL CASTINGS, OR GALVANIZED STEEL PIPE SLEEVES, FOR ALL PIPE PENETRATIONS MADE THROUGH CONCRETE FOUNDATIONS, WALLS AND SLABS, UNLESS OTHERWISE NOTED ON THE DRAWINGS. ALL WALL SLEEVES AND WALL CASTINGS SHALL HAVE SEALING/ANCHORING COLLARS. SEE PROCESS DRAWINGS FOR LOCATIONS OF PENETRATIONS. NEW PENETRATIONS THROUGH EXISTING STRUCTURE WALLS SHALL BE BY CORING MACHINE AND LINK TYPE COMPRESSION SEALS, UNLESS OTHERWISE INDICATED. OPENINGS TO BE COMPATIBLE WITH REQUIRED PIPING AND STANDARD LINK SEAL SIZES. FOR ADDITIONAL INFORMATION, REFER TO SPECIFICATION SECTION 15092.
4. FOR PIPING MATERIAL, SEE THE PIPE SCHEDULE IN SPECIFICATION SECTION 15050.
5. ALL PIPES SHALL BE ADEQUATELY RESTRAINED AND SUPPORTED IN ACCORDANCE WITH SPECIFICATION SECTION 15094.
6. AFTER INSTALLATION, ALL PIPELINES SHALL BE PRESSURE TESTED FOR TIGHTNESS IN ACCORDANCE WITH SPECIFICATION SECTIONS 15050. ALL LEAKS SHALL BE CORRECTED AND RETESTED UNTIL PRESSURE TEST IS SATISFACTORILY COMPLETED.
7. ALL PIPING SHALL BE CLEANED, TO THE SATISFACTION OF THE ENGINEER, BEFORE TESTING.
8. PROVIDE 4-INCH HIGH (MIN.) REINFORCED CONCRETE PAD UNDER ALL EQUIPMENT, CONTROL PANELS, PIPE AND EQUIPMENT SUPPORTS, TANKS, ETC. UNLESS OTHERWISE INDICATED.
9. REFER TO SPECIFICATION SECTION 01070 AND THIS DRAWING FOR A LISTING OF COMMONLY USED ABBREVIATIONS.
10. ALL REDUCERS SHALL BE CONCENTRIC TYPE UNLESS DESIGNATED AS ECCENTRIC (ECC) ON THE DRAWINGS. ECCENTRIC REDUCERS SHALL BE INSTALLED WITH FLAT SIDE UP.
11. ALL PENETRATIONS BETWEEN CLASS 1, DIVISION 1 AREAS AND UNCLASSIFIED AREAS SHALL BE GAS TIGHT.
12. WHERE NEW PIPING IS TO BE CONNECTED TO EXISTING PIPING, THE CONTRACTOR SHALL FURNISH, AND INSTALL ADAPTERS, FITTINGS AND ADDITIONAL PIPE AS REQUIRED TO COMPLETE THE INSTALLATION. THE USE OF UNI-FLANGES WILL NOT BE ALLOWED UNLESS INDICATED ON THE DRAWINGS.
13. ALL STAINLESS STEEL FASTENERS FOR PIPING, EQUIPMENT, SUPPORTS, ETC., SHALL BE HAND TIGHTENED IN ORDER TO LIMIT THE POTENTIAL FOR GALLING.
14. CONTRACTOR TO NOTE THAT ALL EXISTING INFORMATION ON THE DRAWINGS IS SHOWN WITH A LIGHTER LINE WEIGHT AND INDICATED WITH A SLANTED TYPE TEXT. THE EXCEPTION IS WHEN SCANNED IMAGES ARE UTILIZED FROM THE PREVIOUS CONSTRUCTION PROJECTS NOTED IN GENERAL NOTE NO. 1, ABOVE. WHEN REVIEWING DRAWINGS NOTED AS "SCANNED" UNDER DRAWING TITLE, THE CONTRACTOR SHALL IGNORE ANY REFERENCE TO PREVIOUS CONTRACT WORK. SCANNED IMAGES ARE NOT TO SCALE; HOWEVER, AN APPROXIMATE SCALE MAY BE GIVEN FOR CONVENIENCE.
15. CONTRACTOR SHALL COORDINATE INSTRUMENTATION MOUNTING DETAILS WITH THE INSTRUMENTATION SUPPLIER AND THE ELECTRICAL CONTRACTOR. REFER TO DETAILS ON THE INSTRUMENTATION/ELECTRICAL DRAWINGS, AND/OR EQUIPMENT MANUFACTURER MOUNT DETAILS AND REQUIREMENTS.
16. ALL CHECK VALVES SHALL BE SWING TYPE CHECK VALVES UNLESS SPECIFICALLY CALLED OUT ON THE DRAWINGS.

GENERAL DEMOLITION NOTES

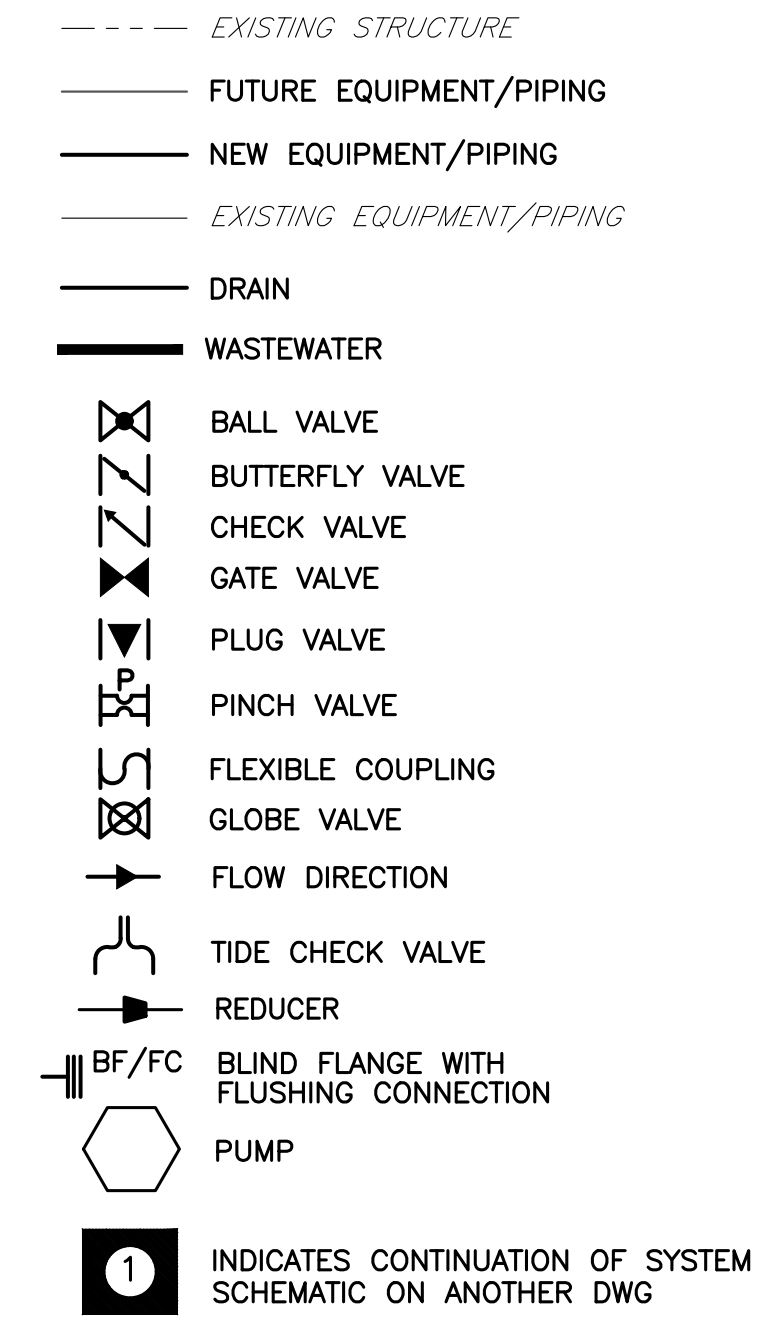
- 1. [Symbol] INDICATES EXISTING PIPING/EQUIPMENT TO REMAIN FOR RE-USE.
[Symbol] INDICATES EXISTING PIPING/EQUIPMENT TO BE DEMOLISHED.
[Symbol] INDICATES EXISTING PIPING/EQUIPMENT TO BE RELOCATED.
2. THE CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO ENSURE THAT ALL FLOWS, AND LEVEL CONTROLS ARE MAINTAINED DURING CONSTRUCTION. GRAVITY, PUMPED BYPASSES OR OTHER MEANS OF FLOW MAINTENANCE SHALL BE REVIEWED WITH, AND ACCEPTABLE TO, THE ENGINEER. THE CONTRACTOR SHALL COORDINATE ANY TEMPORARY STOPPAGES WITH THE OWNER AND ENGINEER. CONTRACTOR SHALL VERIFY WITH OWNER/ENGINEER ALL VALVES, GATES, EQUIPMENT, ETC., ARE FUNCTIONAL PRIOR TO ASSUMING UTILIZATION FOR FLOW ISOLATION.
3. WHERE PIPING OR CONDUIT THAT IS TO BE REMOVED PASSES THROUGH THE WALL OF THE STRUCTURE, IT SHALL BE CUT OFF AS NEAR TO THE WALL AS PRACTICAL AND PROPERLY SEALED ON EACH SIDE OF THE WALL, OR AS SHOWN ON THE DRAWINGS. SEAL METHOD SHALL BE SUBJECT TO REVIEW AND ACCEPTANCE OF THE ENGINEER.
4. ALL WALL AND/OR FLOOR PENETRATIONS REMAINING AFTER THE REMOVAL OF PIPING OR CONDUIT ARE TO BE PATCHED AND FINISHED FLUSH TO MATCH EXISTING SURFACES.
5. REMOVE ALL PUMP AND EQUIPMENT PADS NOT BEING RE-USED AND CONTROL BUILDING FOUNDATION FLOOR SLAB AND WALLS TO A MINIMUM OF 1 FEET BELOW GRADE TO FACILITATE INSTALLING PAVING BASE MATERIAL UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
6. REMOVE ALL WALL BRACKETS, PIPE HANGERS AND PIPE SUPPORTS NOT BEING RE-USED. PATCH BOLT HOLES TO MATCH THE EXISTING SURFACE.
7. ALL WALL AND FLOOR SURFACES DAMAGED OR DISTURBED AS A RESULT OF DEMOLITION BY THE CONTRACTOR OR ITS SUB-CONTRACTORS, SHALL BE PATCHED AND PAINTED PER SPECIFICATION SECTION 09900.
8. WHERE PIPING AND/OR EQUIPMENT THAT IS NOTED AS ABANDONED INTERFERES WITH THE CONTRACTOR'S CONSTRUCTION ACTIVITIES, CONTRACTOR SHALL REMOVE AND DISPOSE OF AS NECESSARY AT NO ADDITIONAL COST TO THE OWNER.

ALL ANCHOR BOLTS TO BE REMOVED SHALL BE CUT/MELTED TO A MINIMUM OF 3/4-INCH BELOW EXISTING CONCRETE OR MASONRY SURFACES AND PATCHED/FILLED FLUSH TO SURFACE WITH NON-SHRINK GROUT.

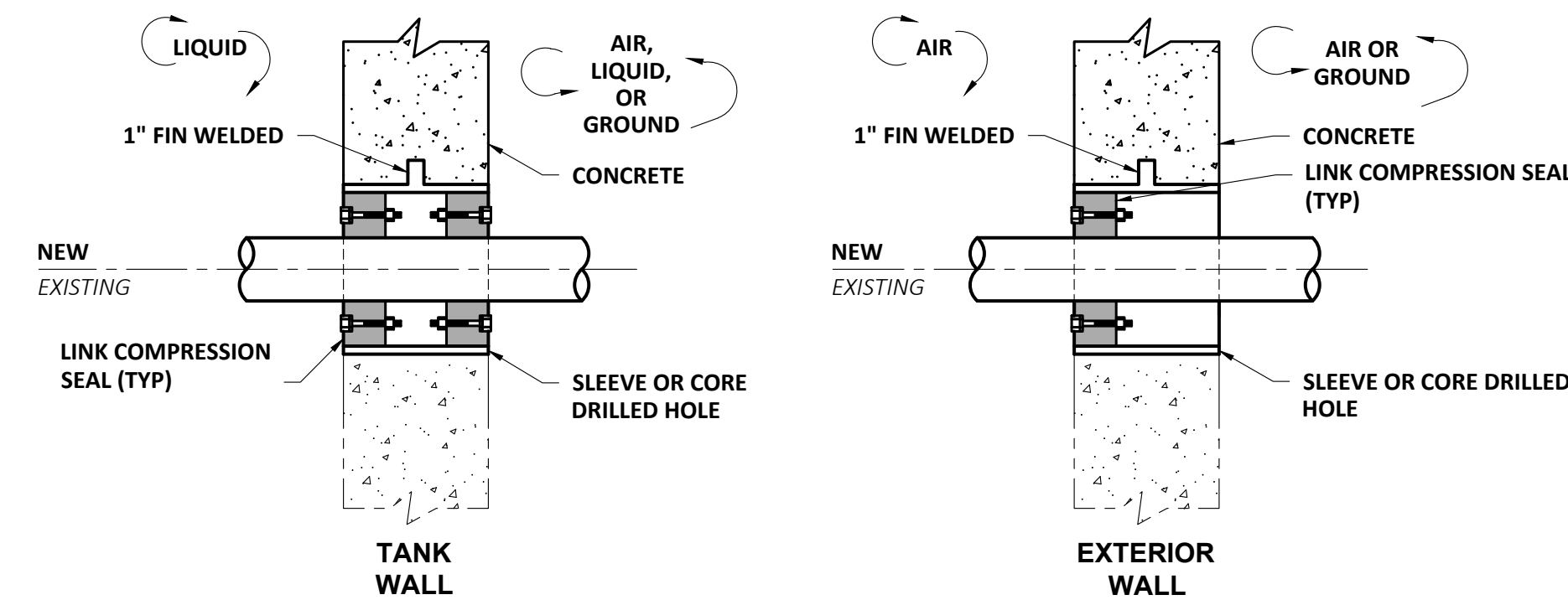
ABBREVIATIONS

Table listing abbreviations and their corresponding full names, such as AE ANALYZING ELEMENT, ALUM ALUMINUM BUILDING, BLDG CATCH BASIN, CI CAST IRON, CO CLEANOUT, CONC CONCRETE, CONT CONTINUED, CPL COUPLING, DET DETAIL, DIA DIAMETER, DMH DRAIN MANHOLE, DI DUCTILE IRON, DN DOWN, ECC ECCENTRIC, EFF EFFLUENT (FINAL), EL ELEVATION, ELB ELBOW, EQUIP EQUIPMENT, EXIST EXISTING, EXP EXPANSION, FC FLUSHING CONNECTION, FD FLOOR DRAIN, FIT FLOW INDICATING TRANSMITTER, FLG FLANGE, FLR FLOOR, FM FORCE MAIN, FRP FIBERGLASS REINFORCED POLYESTER, GA GAUGE, GALV GALVANIZED, HP HIGH POINT, HYD HYDRANT, HYP HYPOCHLORITE, ID INSIDE DIAMETER, INF INFLEUNT, INV INVERT, JT JOINT, KV KNIFE GATE VALVE, LE LEVEL ELEMENT, LIT LEVEL INDICATING TRANSMITTER, LR LONG RADIUS, MAX MAXIMUM, MECH MECHANICAL, MFG MANUFACTURER, MH MANHOLE, MIN MINIMUM, MJ MECHANICAL JOINT, MTD MOUNTED, NS NITROGEN, NO SODIUM HYDROXIDE, NPT NATIONAL PIPE THREAD, OC ON CENTER, OD OUTSIDE DIAMETER, OH OVERHEAD, PE POLYETHYLENE, PRI PRIMARY, PRV PRESSURE REGULATING VALVE, PVC POLYVINYL CHLORIDE, RED REDUCER, REQ'D REQUIRED, S SAM, SCH SCHEDULE, SD STORM DRAIN, SECT SECTION, SEP SEPTAGE, SHEET SHEET, SMH SANITARY SEWER MANHOLE, SP SUMP PUMP, SPD SUMP PUMP DISCHARGE, SS STAINLESS STEEL, STD STANDARD, STL STEEL, SW SEAL WATER, THK THICKNESS, TYP TYPICAL, UD UNDERDRAIN, V VENT, VERT VERTICAL, W POTABLE WATER.

PROCESS FLOW/ SCHEMATIC LEGEND



NOTE: SOLID FILLED, BOLD SYMBOLS/ VALVES REPRESENT PROPOSED EQUIPMENT VERSUS NON-FILLED, LIGHTER LINE WEIGHT SYMBOLS/ VALVES REPRESENT EXISTING/ RE-USED EQUIPMENT.

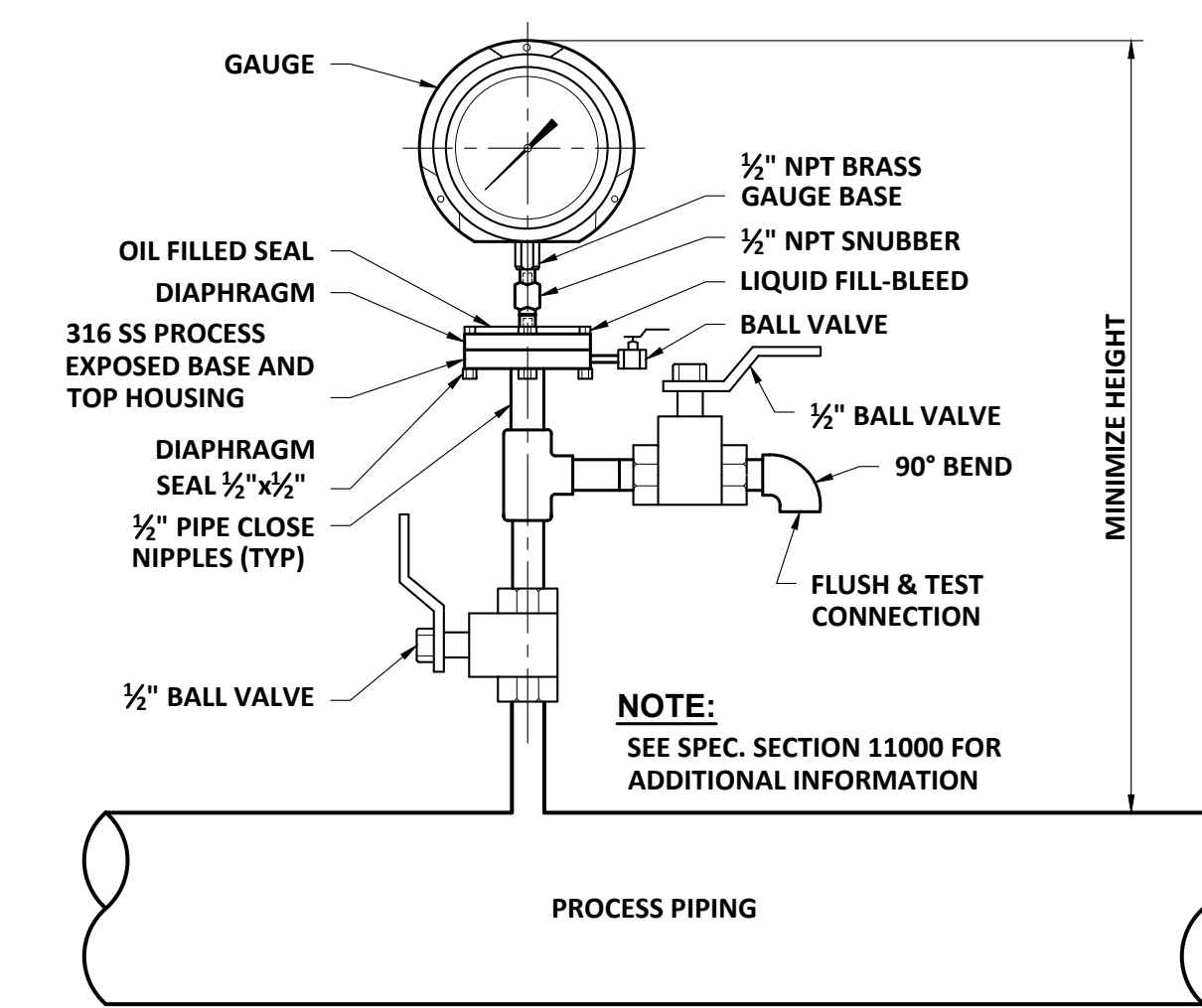


CONSTRUCTION PIPING PENETRATION DETAILS

SCALE: NTS

NOTES:

- 1. REFER TO SPECIFICATION SECTION 15092 FOR REQUIREMENTS AND INFORMATION.
2. WALL CASTING CONNECTION SHOWN IS FLG TO MJ. PROVIDE TYPE OF WALL CASTING AS REQUIRED.
3. LINK SEAL SHALL NOT BE USED TO SUPPORT PIPE. THREADED ROD SHALL BE SIZED AS REQUIRED TO SUPPORT PIPE BOTH VERTICALLY AND HORIZONTALLY.

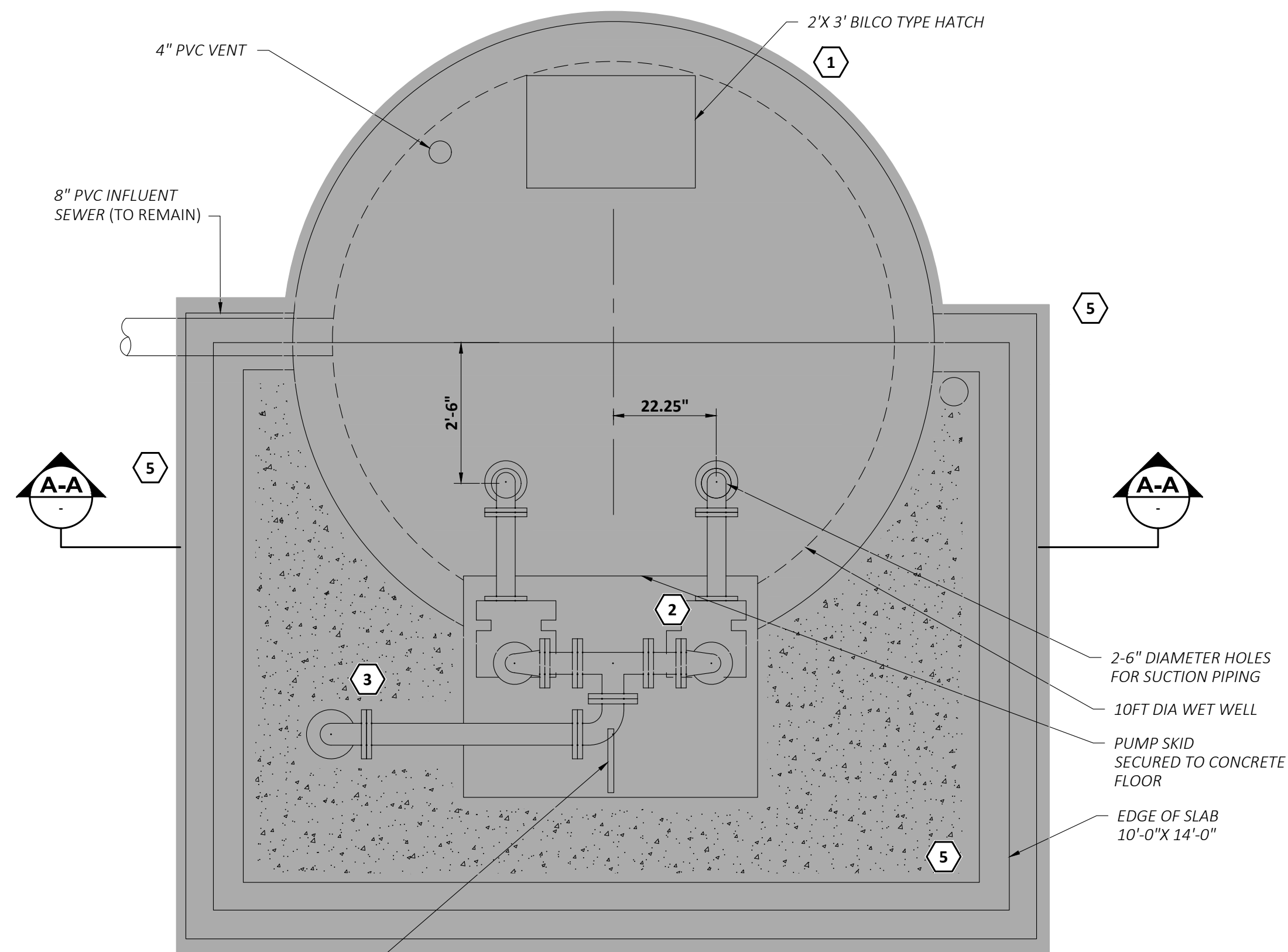


PRESSURE GAUGE ASSEMBLY

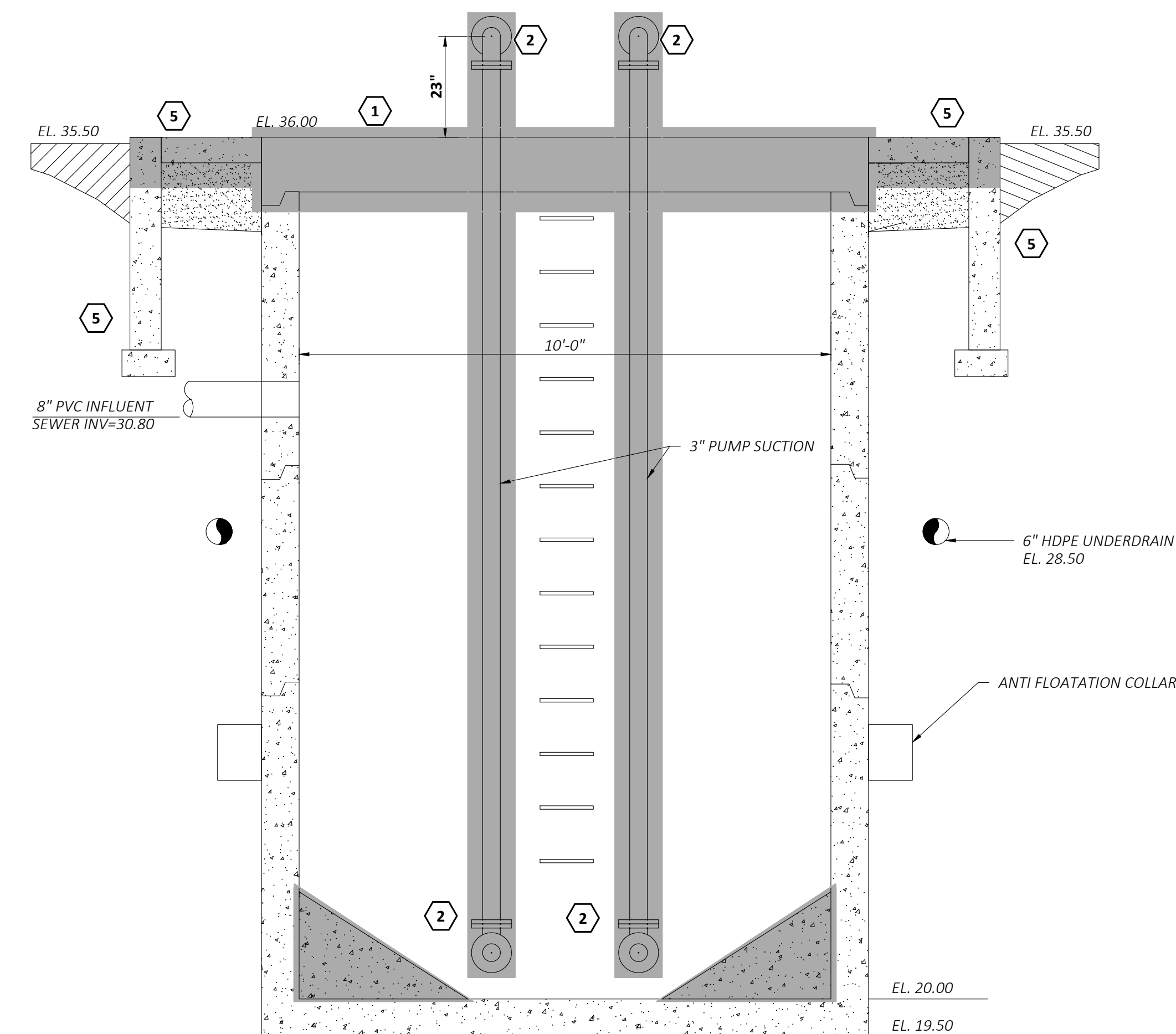
SCALE: NTS

NOTE: SEE SPEC. SECTION 11000 FOR ADDITIONAL INFORMATION

Project information and title block including: PROJECT NO: 14070, DESIGNED: CLEWIS, CAD COORD: D.SAVAGE, CAD: D.SAVAGE, CHECKED: B.DENIS, DATE: 02/2022, APPROVED: B.DENIS, DATE: 02/2022, SUBMISSION: CONTRACT DRAWINGS, TOWN OF FALMOUTH, MAINE SEWER IMPROVEMENTS PHASE I, 207.725.8721 | www.wright-pierce.com, 11 BOWDOIN MILL ISLAND, SUITE 140, TOPSHAM, ME 04086, WRIGHT-PIERCE logo, and a professional engineer seal for Corey W. Lewis, No. 14224, State of Maine, Professional Engineer, dated 2/11/2022.



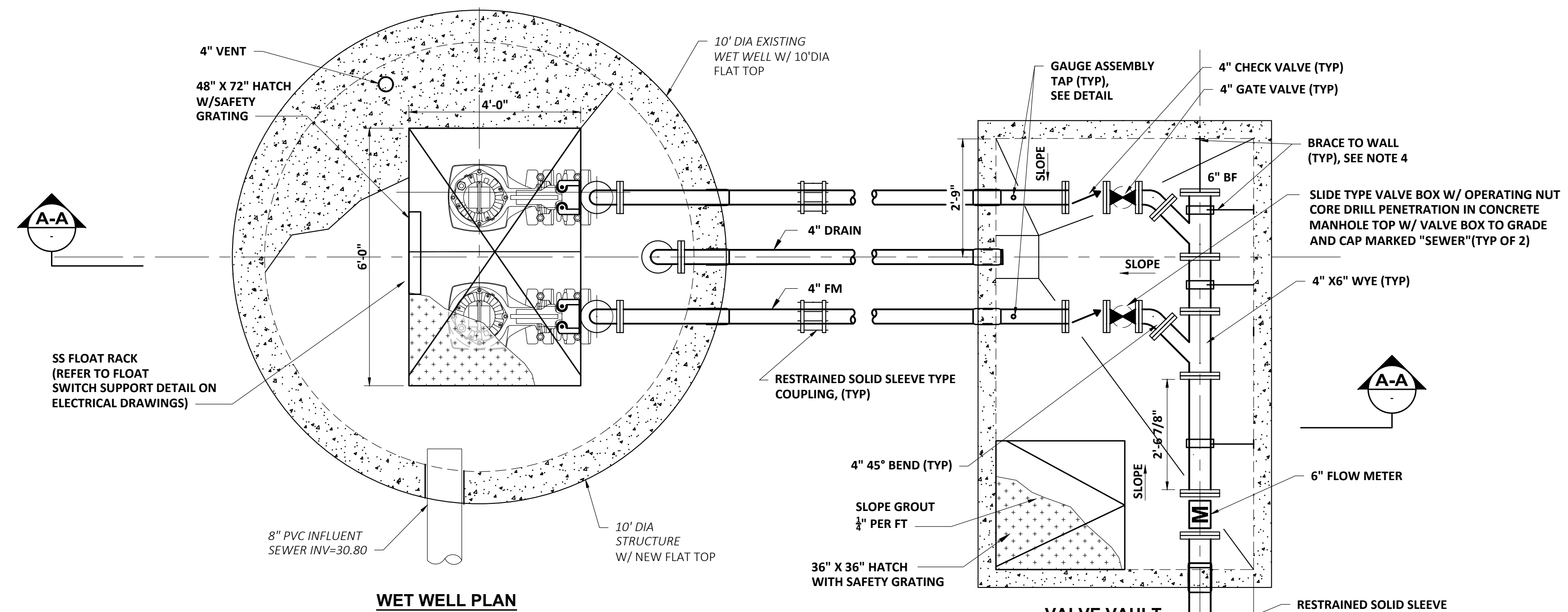
EXISTING PUMP STATION PLAN
SCALE: NTS



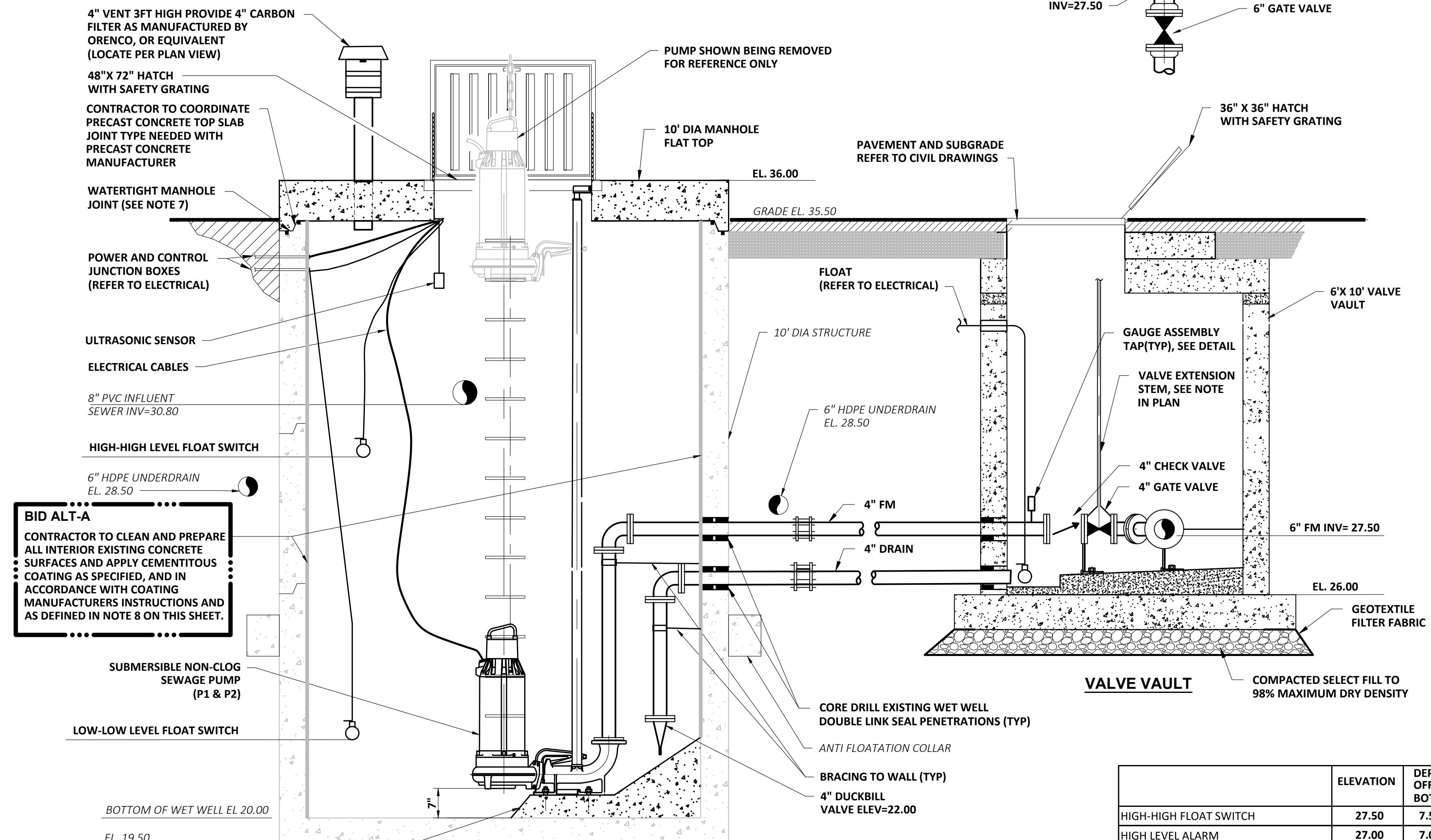
EXISTING PUMP STATION SECTION A-A
SCALE: NTS

DEMOLITION NOTES:

- 1 REMOVE/DEMOLISH EXISTING WET WELL CONCRETE TOP SLAB INCLUDING HATCH.
- 2 REMOVE/DEMOLISH EXISTING PUMP SKID IN ITS ENTIRETY INCLUDING BUT NOT LIMITED TO; PUMPS, PUMP SUPPORTS, PIPING, PIPING SUPPORTS, ELECTRICAL, ASSOCIATED ELECTRICAL COMPONENTS, AND ALL INSTRUMENTATION.
- 3 DEMOLISH EXISTING FORCE MAIN TO THE EXTENTS SHOWN ON THE CIVIL DRAWINGS.
- 4 REMOVE/DEMOLISH EXISTING WET WELL CONCRETE FILLET TO THE LIMITS SHOWN.
- 5 REMOVE/DEMOLISH EXISTING CONTROL BUILDING IN ITS ENTIRETY INCLUDING BUILDING SUPERSTRUCTURE, FLOOR SLAB AND FROST WALLS TO A DEPTH OF 1' BELOW GRADE REFER TO THE CIVIL DRAWINGS



PUMP STATION MODIFICATION PLAN
SCALE: 1/2" = 1'-0"



PUMP STATION MODIFICATION SECTION A-A
SCALE: 1/2" = 1'-0"

NOTES:

1. FOR CIVIL GENERAL NOTES REFER TO C-1
2. FOR ELECTRICAL AND INSTRUMENTATION INFORMATION, REFER TO ELECTRICAL AND INSTRUMENTATION DRAWINGS.
3. LOCATION OF PUMPS, HATCHES, AND VENT SHALL BE ADJUSTED TO SUIT PUMP PROVIDED AND ENSURE EASY NON-BINDING REMOVAL OF PUMPS WITHOUT CONFLICT WITH HATCH. LOCATION SHALL BE SUBJECT TO PRIOR REVIEW AND ACCEPTANCE BY THE ENGINEER.
4. RESTRAIN PIPING WITH 304 STAINLESS STEEL SUPPORTS AND HARDWARE TO PREVENT LATERAL MOVEMENT IN WET WELL AND VALVE PIT. SOME SUPPORTS ARE SHOWN AND ADDITIONAL SUPPORTS MAY BE REQUIRED TO PROVIDE ADEQUATE SUPPORT.
5. SEE CIVIL SITE DRAWINGS FOR FINISH GRADE, LOCATION AND ORIENTATION OF WET WELL AND VALVE PIT.
6. ON THE UNDERSIDE OF THE HATCH SPRAY PAINT USING A STENCIL AND SAFETY YELLOW PAINT THE FOLLOWING: "WARNING HAZARDOUS AREA, ENTER ONLY WITH PROPER EQUIPMENT"
7. CONTRACTOR TO ENSURE AFTER REMOVING THE EXISTING WET WELL CONCRETE TOP AS NOTED ON THE DEMOLITION PLAN THAT THE CONCRETE IS FREE OF DEBRIS, CLEAN, AND ABLE TO BOND WITH A WATER TIGHT FIT TO THE NEW 10FT DIA TOP SLAB.
8. IF BID ALTERNATE A IS NOT ACCEPTED BY OWNER: TYPE 1 COATING. IF BID ALTERNATE A IS ACCEPTED BY OWNER: TYPE 2 COATING. REFER TO CONCRETE REPAIR NOTES ON STRUCTURAL DRAWINGS AND SECTION 03930.

	ELEVATION	DEPTH OFF BOTTOM
HIGH-HIGH FLOAT SWITCH	27.50	7.50
HIGH LEVEL ALARM	27.00	7.00
LAG PUMP ON	27.00	7.00
LEAD PUMP ON	26.50	6.50
PUMP MAX SPEED	26.00	6.00
PUMP MIN. SPEED	25.00	5.00
LAG PUMP OFF	24.00	4.00
LEAD PUMP OFF	23.50	3.50
LOW LEVEL ALARM	23.00	3.00
LOW-LOW FLOAT SWITCH	22.50	2.50
BOTTOM OF WET WELL	20.00	0.00

WET WELL CONTROL ELEVATIONS

NO.	REVISIONS	APPD.	DATE

PROJECT NO: 140700
 DESIGNED: CLEWIS
 CAD COORD: D.SAVAGE
 CHECKED: B.DENIS
 DATE: 02/2022
 APPROVED: B.DENIS
 DATE: 02/2022
 SUBMISSION: CONTRACT DRAWINGS

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**TOWN OF FALMOUTH, MAINE
 SEWER IMPROVEMENTS PHASE I**

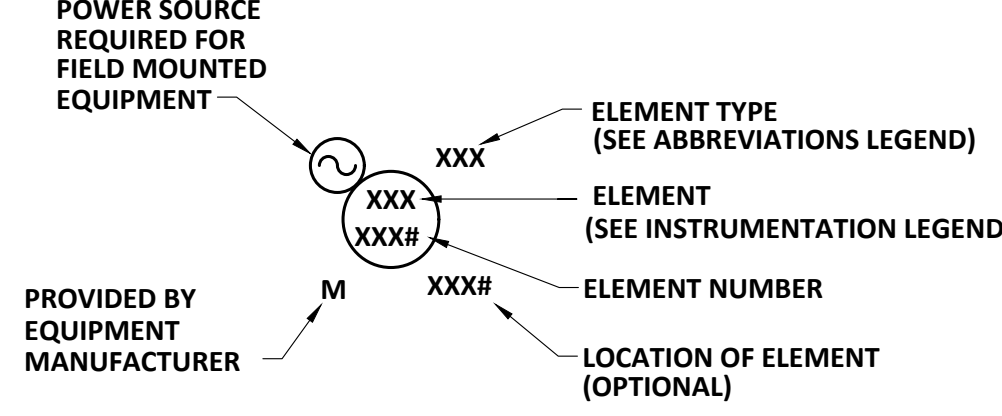
**PUMP STATION DEMOLITION AND
 MODIFICATIONS PLAN AND SECTIONS**

DRAWING
PR-2

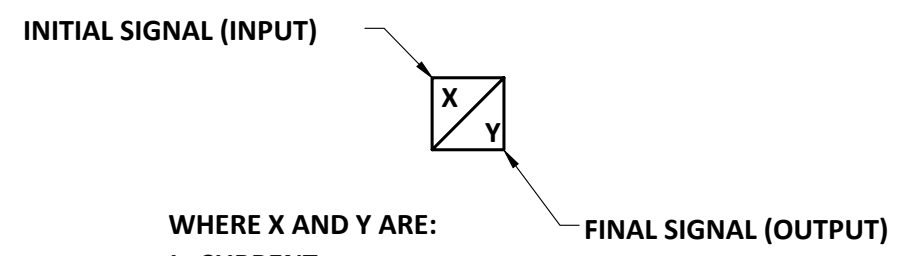
INSTRUMENTATION SYMBOL LEGEND

DESCRIPTION	EXISTING	NEW	FUTURE
PROCESS FLOW			
ELECTRICAL POWER OR PROCESS CONNECTION			
ELECTRICAL SIGNAL			
DATA LINK			
PLC INPUT/OUTPUT			
PNEUMATIC SIGNAL			
VENDOR CABLE			
DISCRETE OUTPUT SIGNAL			
ANALOG OUTPUT SIGNAL			
DISCRETE INPUT SIGNAL			
ANALOG INPUT SIGNAL			
HARDWIRE INTERLOCK			
PROGRAMMABLE LOGIC CONTROLLER			
OPERATOR TERMINAL INTERFACE			
LOCAL (FIELD MOUNTED)			
FRONT PANEL MOUNTED			
REAR PANEL MOUNTED			
INTEGRAL EQUIPMENT			
SIGNAL SPLITTER CONVERTER/ BOOSTER (SEE BELOW)			
MOTOR			
ALARM/ STATUS LIGHT			
STROBE LIGHT			

TYPICAL INSTRUMENTATION SYMBOL



TYPICAL SIGNAL CONVERTER SYMBOL



* ALSO USED AS A MODIFIER AFTER FIRST LETTER (i.e. PDIT: PRESSURE DIFFERENTIAL INDICATING TRANSMITTER)
 ** ALSO USED AS A MODIFIER AFTER LAST LETTER (i.e. LSHH: LEVEL SWITCH HIGH HIGH)

INSTRUMENTATION LEGEND

FIRST LETTER	SUCCEEDING LETTER	
1	2	3
A	ANALYSIS	ALARM
B	CONTROL	CONTROL
C	DIFFERENTIAL*	DETECT
D	VOLTAGE	ELEMENT
E	FLOW	--
F	--	--
G	GAS	GLASS
H	HAND (MANUAL)	HIGH**
I	CURRENT	INDICATE
J	POWER	--
K	TIME*	--
L	LEVEL	LIGHT
M	MOTOR	INTERMEDIATE
N	PRESSURE	--
P	QUANTITY OR TOTALIZE*	QUANTITY
Q	RECORD	RECORD
R	--	--
S	SPEED OR FREQUENCY	SWITCH
T	TEMPERATURE	TRANSMIT
V	VIBRATION	VALVE
W	TORQUE, WEIGHT, FORCE	--
X	--	--
Y	STATUS	RELAY, COMPUTE, OR CONVERT
Z	POSITION	--

ABBREVIATIONS LEGEND

AMD	ADMITTANCE
CAP	CAPACITANCE
CL	CHLORINE
CP	CONTROL PANEL
CR	CONTROL RELAY
DO	DISSOLVED OXYGEN
ESTOP	EMERGENCY STOP
FOR	FORWARD-OFF-REVERSE
FNR	FORWARD-NEUTRAL-REVERSE
FRSA	FORWARD-STOP-REVERSE-AUTO
FX	ACCESSORY
HOA	HAND-OFF-AUTO
I	CURRENT
INF	INFLUENT
LOE	LOSS OF ECHO
LOR	LOCAL-OFF-REMOTE
LT	PILOT LIGHT
MES	MANAGED ETHERNET SWITCH
MBS	MAINTENANCE BY-PASS SWITCH
MCC	MOTOR CONTROL CENTER
O/L	OVERLOAD
OCA	OPEN-CLOSE-AUTO
OIT	OPERATOR TERMINAL
ONC	OPEN-NEUTRAL-CLOSE
PB	PUSH BUTTON
PLC	PROGRAMMABLE LOGIC CONTROLLER
RESET	RESET ALARM
ROL	RAISE OFF LOWER
ROR	RUN-OFF-REMOTE
SCR	SPEED CONTROL RECTIFIER
SS	SELECTOR SWITCH
TR	TIMER RELAY
TURB	TURBIDITY
ULT	ULTRASONIC
UPS	UNINTERRUPTIBLE POWER SUPPLY
VFD	VARIABLE FREQUENCY DRIVE

VALVES AND FITTINGS

DESCRIPTION	EXISTING	NEW	FUTURE
GATE VALVE			
BALL VALVE			
PLUG VALVE			
GLOBE VALVE			
BUTTERFLY VALVE			
CHECK VALVE			
DOUBLE DISC CHECK VALVE			
DIAPHRAGM VALVE			
MUD VALVE			
TIDE CHECK VALVE			
NEEDLE VALVE			
PINCH VALVE			
3-WAY VALVE			
KNIFE GATE			
TELESCOPING VALVE			
CONCENTRIC REDUCER			
ECCENTRIC REDUCER			
FLOW ARROW			
UNION			
PRESSURE SAFETY VALVE			
VACUUM RELIEF			
BACKPRESSURE VALVE			
PRESSURE REDUCING VALVE			
BACKFLOW PREVENTER			
DUPLEX STRAINER			
SIMPLEX STRAINER			
WYE STRAINER			
IN-LINE MIXER			
EXPANSION JOINT			
ROTAMETER			
PULSTATION DAMPENER			
DIAPHRAGM ISOLATOR			
WAFER ISOLATOR			

ACTUATORS

CONTROL ACTUATOR			
SOLENOID ACTUATOR			
PNEUMATIC DIAPHRAGM ACTUATOR			
PNEUMATIC/HYDRAULIC CYLINDER			

INDICATOR LIGHT COLOR LEGEND

RUN/OPEN	GREEN
STOP/CLOSED	RED
WARNING	AMBER
ALARM	RED
POWER	WHITE

PUMPS

DESCRIPTION	EXISTING	NEW
POSITIVE DISPLACEMENT		
PROGRESSIVE CAVITY		
SCREW PUMP		
CENTRIFUGAL		
SUBMERSIBLE PUMP		
HOSE		
CHEMICAL METERING		
CHEMICAL TRANSFER		

BLOWERS

CENTRIFUGAL		
POSITIVE DISPLACEMENT		
COMPRESSOR/TURBO		
AIR INTAKE FILTER		

MISCELLANEOUS SYMBOLS

MIXER		
IN-LINE STATIC MIXER		
GRINDER		
WEIR		
STOP GATE		
SLIDE GATE		
SHEAR GATE		
CHEMICAL INJECTION NOZZLE		

FIELD INSTRUMENTS

DESCRIPTION	EXISTING	NEW	FUTURE
FIELD PIPE MOUNTED DEVICE			
PADDLE OR LEVER TYPE PROBE			
SUBMERSIBLE PRESSURE TRANSDUCER			
FLOAT SWITCH			
CAPACITANCE OR ADMITTANCE TYPE PROBE			
BUBBLE LIQUID LEVEL ELEMENT			
ULTRASONIC LEVEL TRANSDUCER			
RADAR LEVEL TRANSDUCER			
GUIDED WAVE RADAR			

FLOW METERS

MAGNETIC FLOW METER			
VENTURI FLOW METER			
PARSHALL FLUME			
ULTRASONIC FLOW METER			
PITOT FLOW METER			
AVERAGING PITOT FLOW METER			
THERMAL MASS FLOW METER			
TURBINE FLOW METER			
ORIFICE PLATE			

NOTES:

- REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- PROVIDE DRIP SHIELDS TO PROTECT ALL PANELS LOCATED UNDERNEATH PIPES OR OTHER LIQUID-CONTAINING STRUCTURES.
- REFERENCE PROCESS AND ELECTRICAL DRAWINGS FOR LOCATION OF PANELS AND FIELD INSTRUMENTATION.
- CONTRACTOR TO COORDINATE NEEDED VOLTAGE BASED UPON EQUIPMENT SUPPLIED.
- ALL FLOOR MOUNTED CONTROL PANELS SHALL BE INSTALLED ON 4" HIGH CONCRETE EQUIPMENT PADS.
- WHERE INPUT AND OUTPUT SIGNALS TO A PLC IS REQUIRED, PROVIDE PROPER TYPE AND QUANTITY OF INPUT/OUTPUT MODULES (I/O).
- CONTRACTOR SHALL COORDINATE THE TYPE OF ANALOG SIGNAL PROVIDED BY THE EQUIPMENT OR FIELD DEVICES WITH THE PROPER TYPE PLC I/O.
- ALL ANALOG SIGNALS WILL BE 4-20mA, UNLESS OTHERWISE INDICATED OR REQUIRED.
- ALL FIELD INSTRUMENTS SHALL BE POWERED FROM THEIR RESPECTIVE CONTROLS PANELS WITH UPS POWER.
- CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR WHEN MODIFYING AND/OR REPLACING EXISTING CONTROL PANELS AND FIELD INSTRUMENT LOCAL PANELS INTO TERMINATION BOXES.
- ALL LOCAL CONTROL STATION ARE PROVIDED BY OTHERS UNLESS STATED OTHERWISE.

NO	REVISIONS	APPD	DATE

PROJECT NO: 14070D	DESIGNED: Q.SNYDER
CAD COORD: D.SAVAGE	CAD: Q.SNYDER
CHECKED: P.DENIS	DATE: 02/20/22
APPROVED: P.DENIS	DATE: 02/20/22
SUBMISSION: CONTRACT DRAWINGS	



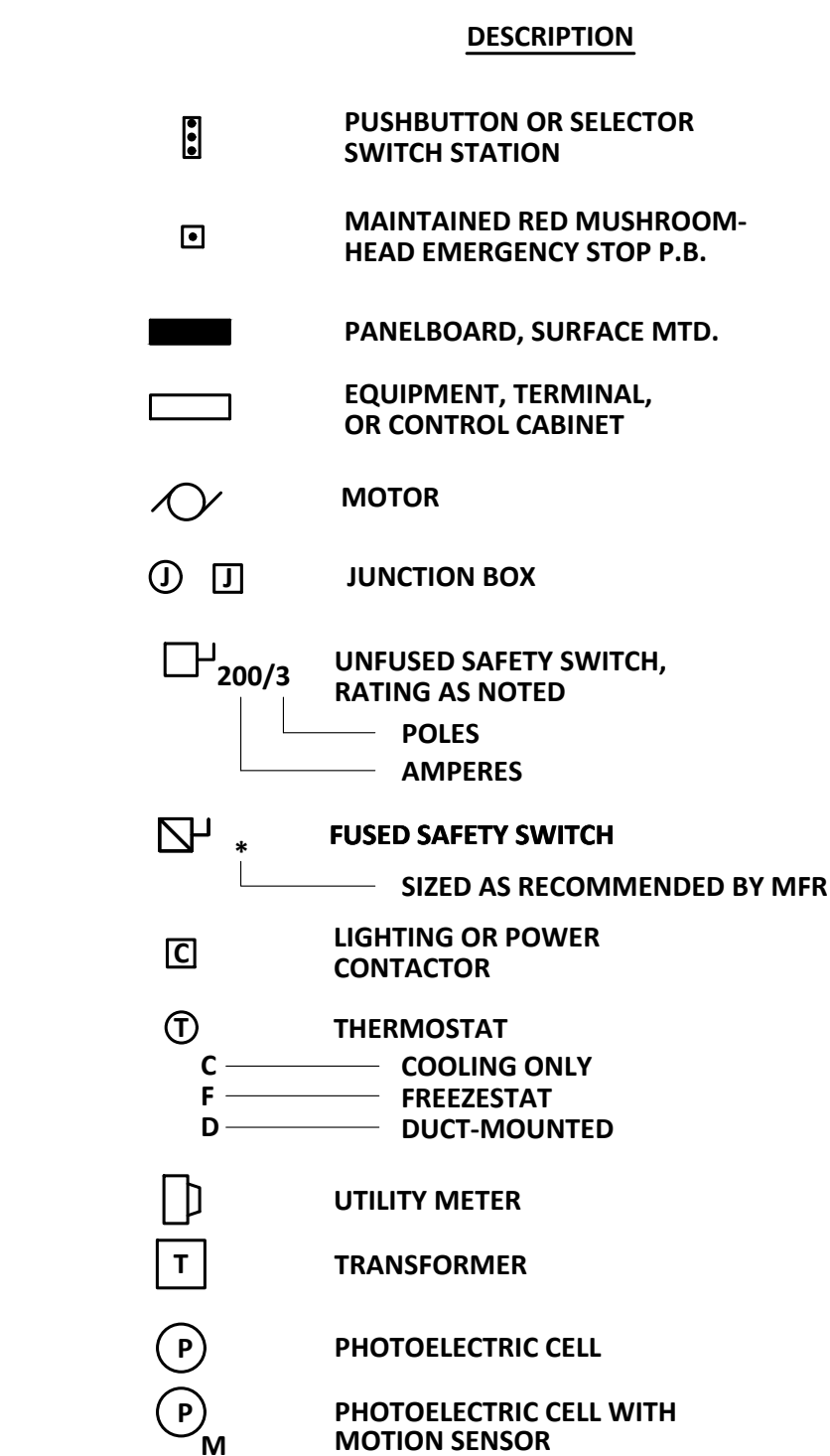
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TOWN OF FALMOUTH, MAINE
 SEWER IMPROVEMENTS PHASE I
 LEGEND, ABBREVIATIONS,
 AND NOTES

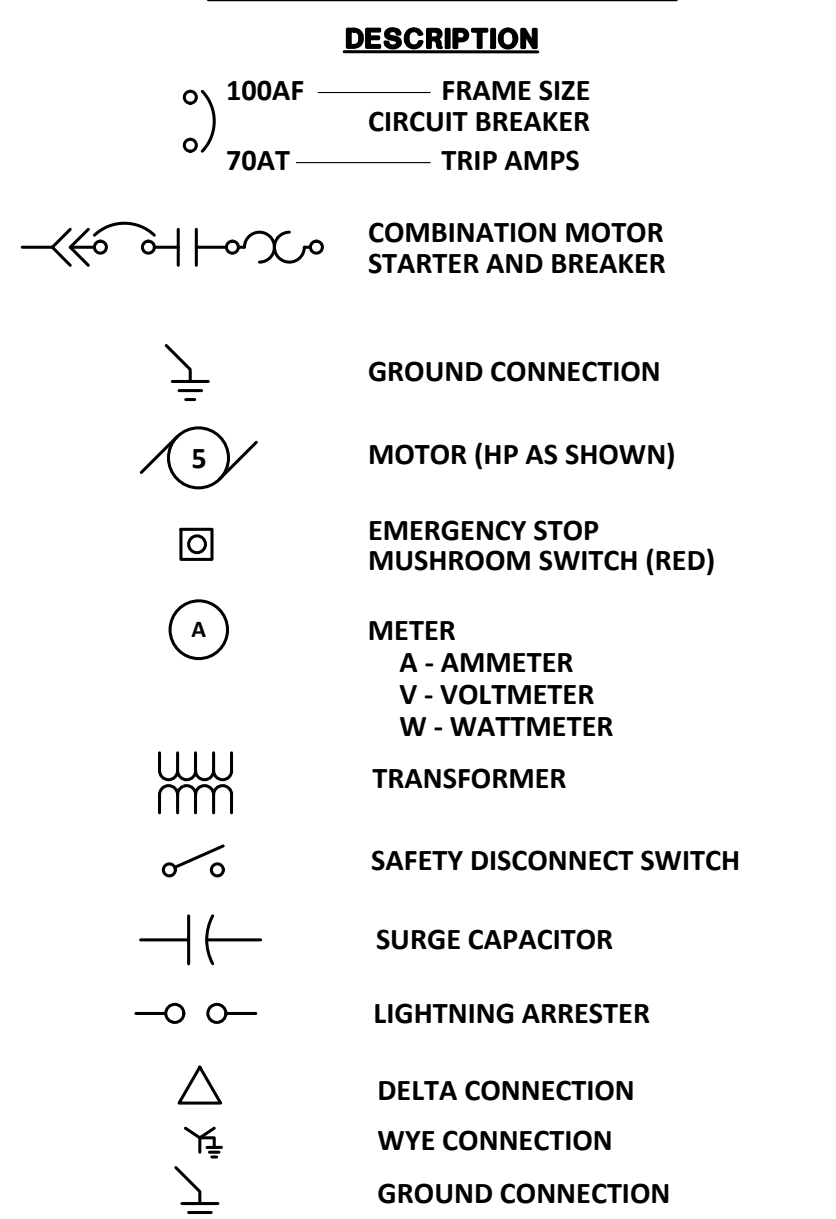
DRAWING I-1

ELECTRICAL LEGEND

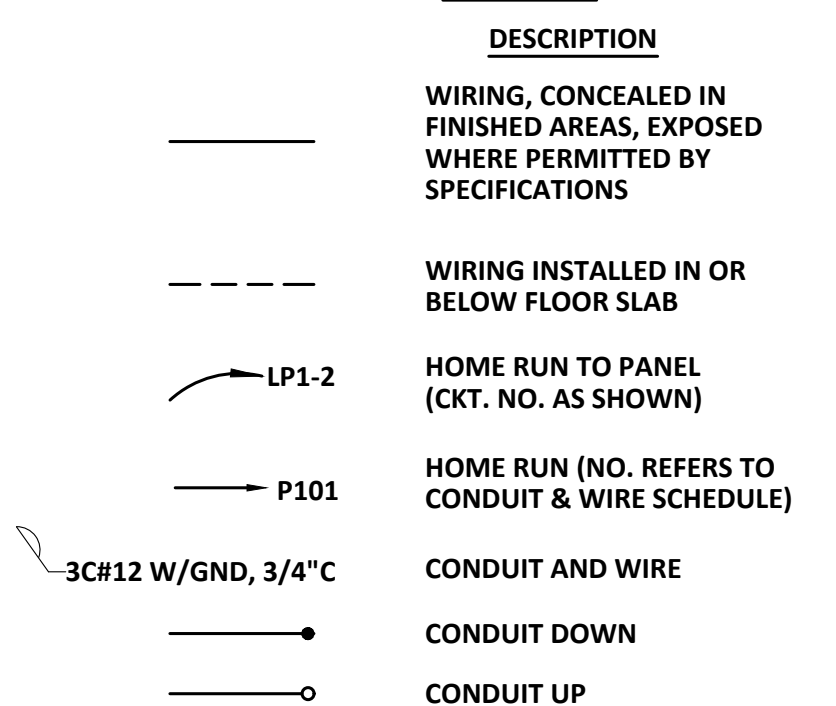
POWER



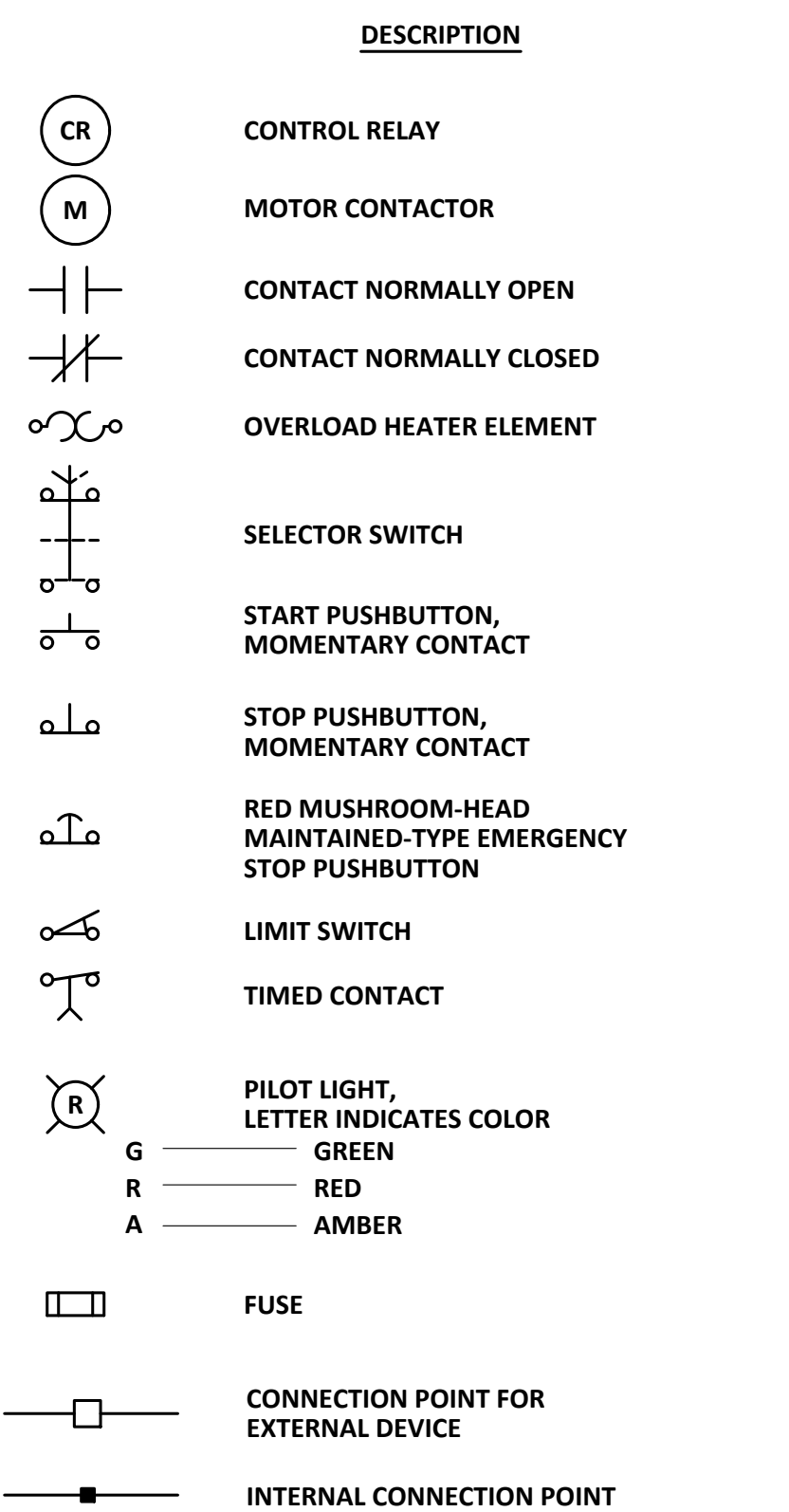
SINGLE LINE DIAGRAM



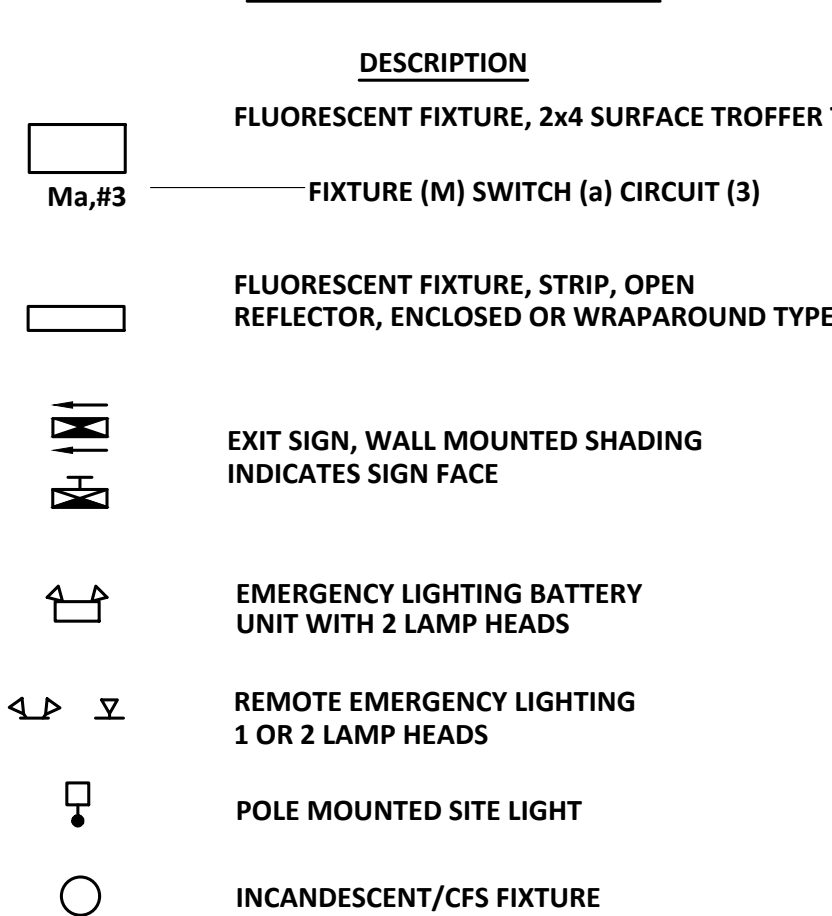
WIRING



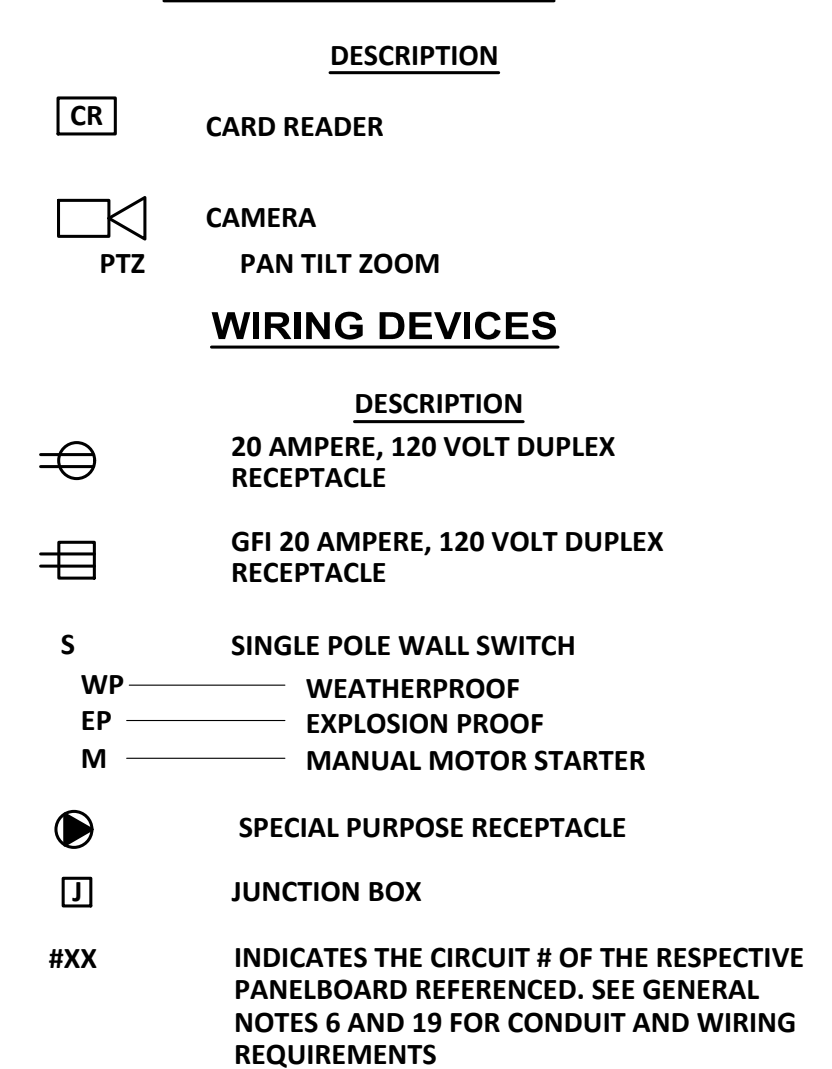
SCHEMATIC DIAGRAM



LIGHTING FIXTURES



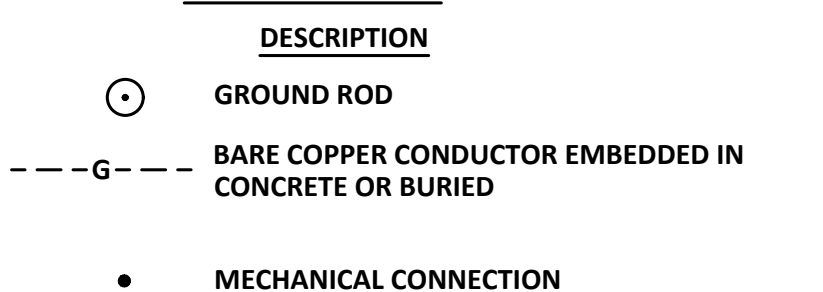
SECURITY SYSTEM



ABBREVIATIONS

- AMPERE, ALTERNATING CURRENT, ANALOG INPUT (PLC), AMPERE INTERRUPTING CAPACITY, ANALOG OUTPUT (PLC) AS REQUIRED, AUXILIARY, AMERICAN WIRE GAUGE, CIRCUIT BREAKER, CIRCUIT CONTROL PANEL, CONTROL RELAY, CONTROL POWER TRANSFORMER, COPPER, DIRECT CURRENT, DIGITAL INPUT (PLC), DIGITAL OUTPUT (PLC), ELECTRICAL CONTRACTOR EMERGENCY, ELECTRICAL METALLIC TUBING EXPLOSION PROOF CL I DIV 1 GR D, ETHYLENE PROPYLENE RUBBER EQUIPMENT, EMERGENCY STOP EXTERIOR EXISTING, FURNISHED BY OTHERS, FLOW ELEMENT, FLOW INDICATOR TRANSMITTER, FORWARD NEUTRAL REVERSE FLOW SWITCH, FUSE, FULL VOLTAGE REVERSING VOLTAGE NON-REVERSING, FURNISHED WITH EQUIPMENT, FULL VOLTAGE NON-REVERSING GROUND, HAND-OFF-AUTOMATIC HORSEPOWER, HERTZ, INTERMEDIATE METAL CONDUIT, INTRINSICALLY SAFE RELAY JUNCTION BOX, KILO, THOUSAND CIRCULAR MILS, KILOVOLT, KILOVOLT-AMPERE LOCAL, LOCAL CONTROL PANEL, LOCAL CONTROL STATION, LEVEL ELEMENT, LEVEL INDICATOR, LEVEL INDICATOR TRANSMITTER, LIGHTING PANEL, LEVEL SWITCH, L=LOW, H=HIGH, LL=LOW LOW, HH=HIGH HIGH, LEVEL TRANSMITTER, MAIN CIRCUIT BREAKER, MOTOR CONTROL CENTER, MOTOR CIRCUIT PROTECTOR, MANUFACTURER, MAIN LUG ONLY, MOTOR STARTER MOUNTED, NORMALLY CLOSED, NEGATIVE, NEUTRAL, NORMALLY OPEN, NOT TO SCALE, OVERHEAD, OVERLOAD, POLE, PUSHBUTTON, PRESSURE ELEMENT, POWER FACTOR, PHASE, PRESSURE INDICATOR TRANSMITTER, PROGRAMMABLE LOGIC CONTROLLER, PANEL, PRIMARY, PRESSURE TRANSMITTER, POLYVINYL CHLORIDE, REMOTE, RIGID GALVANIZED STEEL CONDUIT, RIGID STEEL CONDUIT, SURFACE, SECONDARY, SHIELDED CABLE, SPEED INDICATOR, SOLID NEUTRAL SPARE, SURGE PROTECTIVE DEVICE, SWITCH, SYMMETRICAL TRANSFORMER, TERMINAL BLOCKS, TIME DELAY RELAY, TEMPERATURE ELEMENT, TEMPERATURE INDICATING TRANSMITTER, TEMPERATURE LOW TRANSFORMER, TEMPERATURE SWITCH, TWISTED SHIELDED CABLE, VOLT, VOLT-AMPERE, VARIABLE FREQUENCY DRIVE, WIRE, CROSS LINKED POLYETHYLENE TRANSFORMER, LIMIT SWITCH CLOSED, LIMIT SWITCH OPEN.

GROUNDING



GENERAL NOTES

- 1. ALL CONDUIT AND EQUIPMENT SHALL BE INSTALLED AND GROUNDED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE CURRENT NATIONAL ELECTRICAL CODE.
2. CONDUIT RUNS ARE SHOWN DIAGRAMMATICALLY ONLY AND SHALL BE INSTALLED IN A MANNER TO PREVENT CONFLICTS WITH EQUIPMENT AND STRUCTURES. EXPOSED CONDUITS SHALL BE INSTALLED PARALLEL TO BEAMS AND WALLS.
3. CONDUITS SHALL BE PROPERLY TERMINATED WITH NEAT CONNECTIONS TO ALL ASSOCIATED EQUIPMENT.
4. CONTROL AND INSTRUMENTATION CONDUIT SIZES AND NUMBER OF CONDUCTORS ARE TO BE DETERMINED FROM SCHEMATIC DIAGRAMS, INSTRUMENTATION DIAGRAMS, AND/OR SPECIFICATIONS, IF NOT DIRECTLY SHOWN ON POWER PLANS. THE WIRING DIAGRAMS, QUANTITY AND SIZE OF WIRES AND CONDUIT REPRESENT A SUGGESTED ARRANGEMENT BASED UPON SELECTED STANDARD COMPONENTS OF ELECTRICAL AND INSTRUMENTATION EQUIPMENT. MODIFICATIONS REVIEWED BY THE ENGINEER WITH NO EXCEPTIONS TAKEN, MAY BE MADE BY THE CONTRACTOR TO ACCOMMODATE EQUIPMENT ACTUALLY PURCHASED. THE BASIC SEQUENCE AND METHOD OF CONTROL MUST BE MAINTAINED AS INDICATED ON THE DRAWINGS AND SPECIFICATIONS. EACH CONTROL AND INSTRUMENTATION CONDUIT SHALL ALSO CONTAIN 10 PERCENT SPARE CONDUCTORS, WITH A MINIMUM OF TWO SPARES, UP TO THE LIMIT OF CONDUIT FILL AS SPECIFIED BY THE NATIONAL ELECTRICAL CODE. INSTRUMENTATION SHIELDED CABLES SHALL BE INSTALLED IN RGS CONDUIT. SEPARATE FROM OTHER POWER WIRING.
5. EACH CONDUIT TO CARRY GROUND WIRE(S) IN ADDITION TO NUMBER OF CONDUCTORS SHOWN ON DRAWINGS OR PER NOTE 4 ABOVE. ALL GROUNDING MUST CONFORM TO ARTICLE 250 OF CURRENT NATIONAL ELECTRICAL CODE.
6. MINIMUM CONDUIT SIZE SHALL BE 3/4" TRADE SIZE, UNLESS OTHERWISE NOTED ON THE ELECTRICAL DRAWINGS. GENERAL LIGHTING, RECEPTACLE AND HVAC POWER CIRCUITS MAY BE 1/2" TRADE SIZE CONDUIT INSTALLED PER NEC. MINIMUM POWER WIRING SHALL BE 2CH12 AWG WITH GROUND AND 2CH14 AWG FOR CONTROL. MINIMUM INSTRUMENTATION CABLE SHALL BE 2/CH16 AWG TWS AND 3CH16 AWG TWS FOR SPEED POTENTIOMETERS AND RTD'S. PROVIDE CONDUIT AND WIRING AS INDICATED.
7. ALL SURFACE MOUNTED PANELS ON THE INSIDE OF EXTERIOR WALLS ABOVE GRADE, OR IN OTHER LOCATIONS CONSIDERED AS DAMP, SHALL BE MOUNTED TO MAINTAIN A 1/4" AIR SPACE BETWEEN THE ENCLOSURE AND THE WALL.
8. ELECTRICAL EQUIPMENT LOCATIONS ARE APPROXIMATE ONLY. COORDINATE LOCATIONS WITH PROCESS PIPING AND OTHER DRAWINGS. CONTRACTOR SHALL COORDINATE MANUFACTURER'S EQUIPMENT REQUIREMENTS WITH SPACE AVAILABLE. FINAL CONTROL PANEL LOCATIONS SHALL BE FIELD COORDINATED.
9. ALL FIELD CONTROL CONDUCTORS WILL TERMINATE AT INDIVIDUAL TERMINAL BLOCKS WITHIN THE CONTROL ENCLOSURE. SERIES AND PARALLEL CONNECTION OF FIELD CONTROL CONDUCTORS WILL BE MADE ONLY AT CONTROL PANEL OR MOTOR CONTROL CENTER TERMINAL BLOCKS.
10. GROUND ALL CONDUCTOR SHIELDS AT CONTROL PANEL ONLY - DO NOT GROUND SHIELDS AT BOTH ENDS.
11. AT THE FOLLOWING LOCATIONS, UNLESS OTHERWISE NOTED, PULL, JUNCTION, TERMINAL, SWITCH, AND OUTLET BOXES SHALL BE CAST IRON WHERE STEEL CONDUIT IS TERMINATED; OR SHALL BE CAST ALUMINUM WHERE ALUMINUM CONDUIT IS TERMINATED:
A - AT LOCATIONS WHERE VAPORTIGHT LIGHTING FIXTURES AND/OR WATERTIGHT RECEPTACLES ARE INDICATED.
B - AT LOCATIONS ON OR IN ALL OUTSIDE WALLS.
C - OUTDOORS
12. NAMEPLATES SHALL CONFORM STRICTLY TO INSTRUCTIONS IN THE ELECTRICAL SPECIFICATIONS AND ON THE DRAWINGS. THE FOLLOWING SHALL HAVE NAMEPLATES:
A - ALL LOCAL CONTROL STATIONS AT OR NEAR EQUIPMENT
B - ALL PANELBOARDS, MOTOR CONTROL CENTERS
C - GANGED LIGHT SWITCHES
D - PROCESS CONTROL PANELS
13. PIPE SLEEVES FOR CONDUITS PASSING FROM NON-HAZARDOUS AREAS TO HAZARDOUS AREAS SHALL HAVE CAULKING APPLIED TO MAKE THE INSTALLATION GASTIGHT.
14. CONTRACTOR SHALL PROVIDE ALL CONDUIT, WIRING, EQUIPMENT, AND CONTROL DEVICES AS INDICATED BY SCHEMATICS, SINGLE LINE DIAGRAMS, SCHEDULES, PLANS, SPECIFICATIONS, AND VENDOR DOCUMENTATION TO PROVIDE A COMPLETE WORKING SYSTEM. SINCE NOT ALL HOME RUNS ARE SHOWN ON PLANS, THE CONTRACTOR SHALL REFERENCE ALL SINGLE LINE AND SCHEMATIC DIAGRAMS, SCHEDULES, AND VENDOR DOCUMENTATION TO DETERMINE CONDUIT AND WIRING REQUIREMENTS.
15. PROVIDE CONCRETE HOUSEKEEPING PADS (4" HIGH) UNDER ELECTRICAL AND INSTRUMENTATION EQUIPMENT THAT IS DESIGNED TO BE FLOOR MOUNTED. PROVIDE SUBMITTAL SKETCH FOR ENGINEER REVIEW.
16. CONTRACTOR SHALL PROVIDE A COMPLETE WORKING OPERATING SYSTEM IN ACCORDANCE WITH ALL DRAWINGS, SPECIFICATIONS, CODES AND STANDARDS.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING ALL OF THE ELECTRICAL DRAWINGS AND CONDUIT AND WIRE SCHEDULES RELATIVE TO THE CONDUIT AND WIRE TO BE PROVIDED ON THIS PROJECT. THE INTENT OF THE CONTRACT DOCUMENTS IS TO PROVIDE DETAILED INFORMATION OF SPECIFIC INDIVIDUAL RUNS OF CONDUIT AND WIRE TO SPECIFIC EQUIPMENT. THE CONTRACTOR IS DIRECTED TO COMBINE CONDUIT AND WIRE RUNS AS MUCH AS POSSIBLE. THE LIMITING FACTOR FOR COMBINING CONDUIT AND WIRE SHALL BE BASED ON THE DERATING FACTORS ALLOWED PER THE NATIONAL ELECTRICAL CODE (NEC) BASED ON EQUIPMENT RATINGS AND REQUIRED AMPACITY RATINGS. CONTRACTOR IS DIRECTED TO USE THE MOST COST-EFFECTIVE CONDUIT AND WIRE RUNS CONSISTENT WITH THESE REQUIREMENTS. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
18. 120V CIRCUITS EXCEEDING 100 FEET IN LENGTH SHALL BE NO 10 AWG WIRING, MINIMUM.
19. POWER CONDUITS FOR THREE PHASE AND SINGLE PHASE CIRCUITS (DESIGNATED WITH "P" NUMBERS) ARE SHOWN ON POWER PLANS, WITH CONDUIT SIZES AND WIRING INFORMATION INDICATED IN THE CONDUIT AND WIRE SCHEDULES.
20. CONTROL AND INSTRUMENTATION SIGNAL CONDUITS (DESIGNATED WITH "C" AND "S" NUMBERS OR, ALTERNATIVELY, INDICATED BY WAY OF A LEGEND) ARE SHOWN ON CONTROL AND INSTRUMENTATION WIRING DIAGRAMS, WITH CONDUIT SIZES AND WIRING INFORMATION INDICATED EITHER IN THE LEGEND OR IN CONDUIT AND WIRE SCHEDULES. THE CONTRACTOR SHALL NOTE THAT THE MAJORITY OF CONTROL AND INSTRUMENTATION SIGNAL CONDUITS AND WIRING REQUIRED FOR THIS CONTRACT IS INDICATED IN THE AFOREMENTIONED LEGEND AND DOES NOT APPEAR IN THE CONDUIT AND WIRE SCHEDULES. FOR INSTRUMENTS REQUIRING 120V POWER SUPPLIES, THIS INFORMATION IS ALSO SHOWN ON THE CONTROL AND INSTRUMENTATION WIRING DIAGRAMS.
21. PROVIDE CONDUIT EXPANSION PROTECTION FOR ALL EXTERIOR CONDUIT SYSTEMS.
22. FOR ALL OUTDOOR ELECTRICAL EQUIPMENT AND INSTRUMENTATION, CONTRACTOR SHALL USE CONDUIT INSTALLATION MEANS AND METHODS NECESSARY TO MITIGATE MOISTURE AND CONDENSATION PER NEC AND INSTALLATION METHODS LISTED IN SPECIFICATIONS. MITIGATION METHODS INCLUDE DRIP LOOPS, AVOIDING TOP ENTRY, USE OF BREATHERS, DRAINS, AND DUCT SEALANT AS NECESSARY.
23. DO NOT SCALE DISTANCES OR DIMENSIONS FROM THE DRAWINGS. WRITTEN DIMENSIONS SHALL PREVAIL. REPORT ANY DISCREPANCIES TO THE ENGINEER.

GENERAL DEMOLITION NOTES:

- 1. THE EXISTING ELECTRICAL PLAN FOR THIS PROJECT IS BASED ON INFORMATION PROVIDED BY OTHERS AND FIELD SURVEY OF THE SITE. GENERAL CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
2. FIELD VERIFY ALL CONDITIONS AFFECTING THE WORK PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
3. PROTECT ALL EXISTING ITEMS AND EQUIPMENT ADJACENT TO THE WORK AREA. ALL EXISTING ITEMS, EQUIPMENT AND MATERIALS DAMAGED OR AFFECTED BY THE WORK SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.
4. THE EXISTING FACILITY SHALL REMAIN OPERATIONAL DURING CONSTRUCTION. SEE SPECIFICATION FOR ADDITIONAL DETAILS. THE ELECTRICAL CONTRACTOR SHALL COORDINATE DEMOLITION AND CONSTRUCTION WITH THE OWNER'S REQUIREMENTS TO MAINTAIN FACILITY OPERATION. ELECTRICAL CONTRACTOR SHALL PROVIDE TEMPORARY SERVICES AS NECESSARY.
5. PATCH, REPAIR AND REFINISH ALL EXISTING SURFACES AFFECTED BY THE WORK, TO THE SATISFACTION OF THE ENGINEER.
6. ALL ITEMS SHOWN ON THE PLANS WITH SHADING ARE TO BE REMOVED AND DISPOSED OF, UNLESS OTHERWISE INDICATED. THIS SHALL INCLUDE ALL ASSOCIATED CONDUIT, WIRING, BOXES, DEVICES, CONTROLS, ETC. UNLESS OTHERWISE NOTED. THE OWNER RESERVES THE RIGHT TO RETAIN ANY EQUIPMENT OR MATERIALS. THE CONTRACTOR WILL STORE ON SITE AND PROTECT SUCH ITEMS IN A MANNER ACCEPTABLE TO THE OWNER AND ENGINEER. ALSO REFER TO THE STRUCTURAL, MECHANICAL, PROCESS AND ELECTRICAL DRAWINGS FOR A COMPLETE REQUIREMENT OF DEMOLITION WORK FOR THIS PROJECT.

NEMA CLASSIFICATIONS FOR NEW ELECTRICAL EQUIPMENT AND ENCLOSURES (UNLESS OTHERWISE NOTED)

Table with 2 columns: AREA NAME, NEMA RATING. Rows include WETWELL, VALVE VAULT, GENERAL OUTDOORS with their respective NEMA ratings and foot radius requirements.

NOTES:

- 1. THE AREAS NOTED SHALL BE RATED AS INDICATED, EXCEPT THAT EQUIPMENT SUCH AS MOTOR CONTROL CENTERS, SWITCHBOARDS, AND TRANSFORMERS SHALL BE RATED AS SPECIFIED. PANELBOARDS AND TRANSFORMERS SHALL BE, AT A MINIMUM, RATED NEMA 12 IF NOT SPECIFIED.
2. AREAS WITHIN 3' OF VENTS ARE RATED NEMA 7(CLASS 1, DIV. 1) AND BETWEEN 3' AND 5' ARE RATED NEMA 7(CLASS 1, DIV. 2). AREAS 18" ABOVE AND WITHIN 3' FROM HATCH OPENINGS ARE RATED NEMA 7(CLASS 1, DIV. 2). AREAS WITHIN A 3' ENVELOPE FROM DOORS ARE RATED NEMA 7(CLASS 1, DIV. 2).

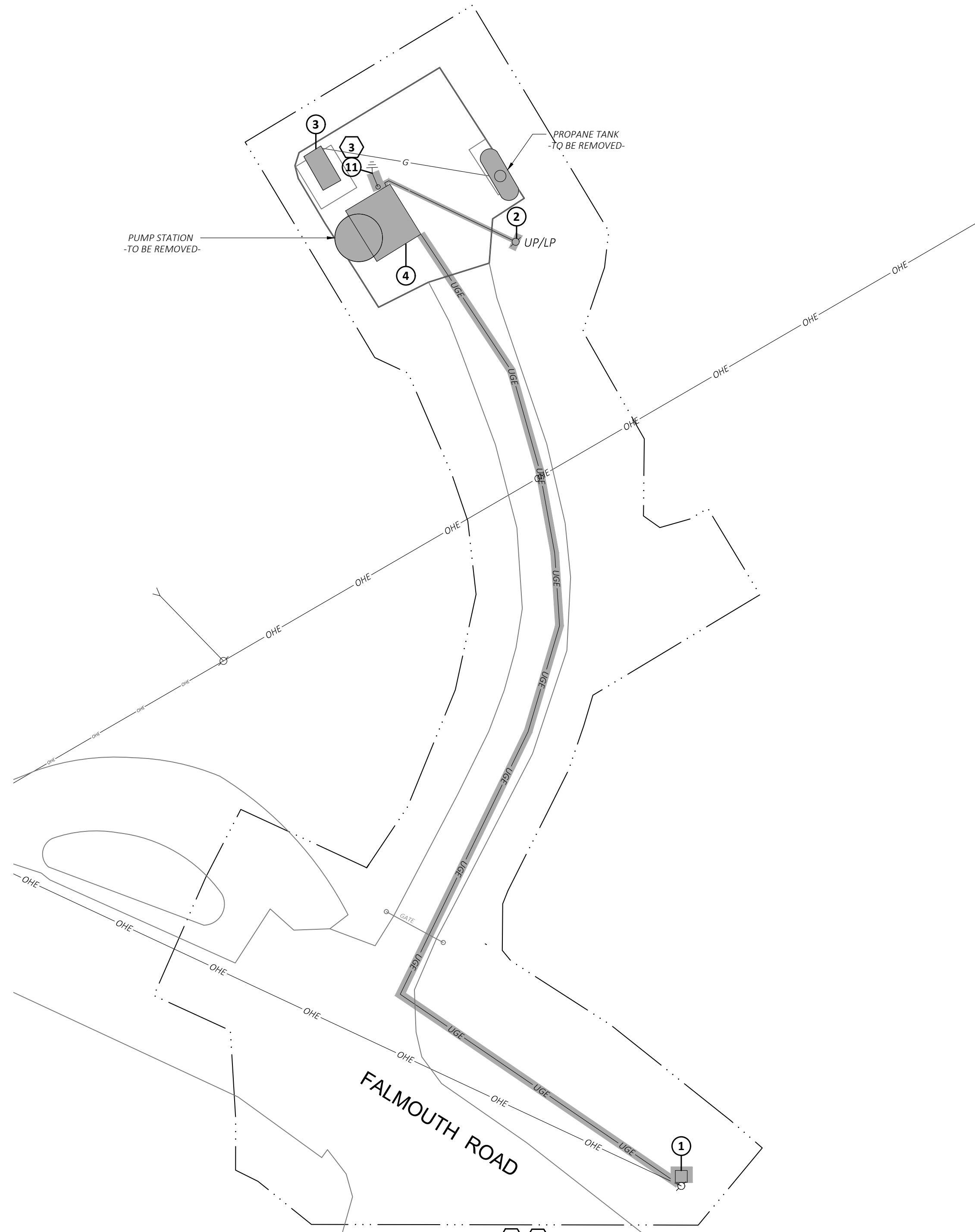
** CONDUIT INSTALLATION SCHEDULE

Table with 4 columns: AREA NEMA RATING PER E-1, CONDUIT REQUIRED IN EXPOSED AREAS, CONDUIT REQUIRED IN NON EXPOSED AREAS, CONDUITS EMERGING FROM GRADE OR SLAB 12" AFF. Rows list various area ratings and their corresponding conduit requirements.

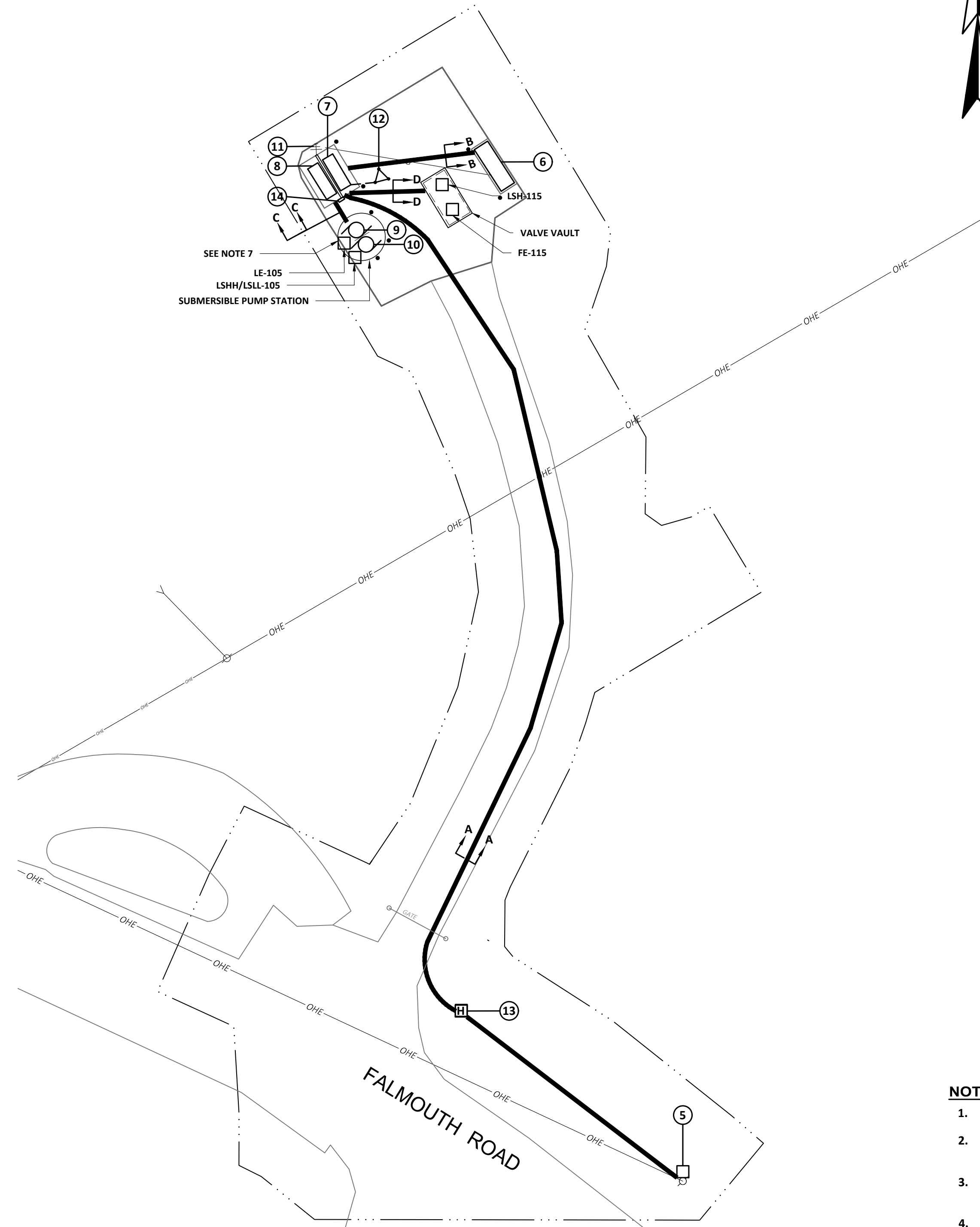
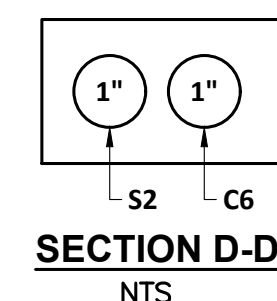
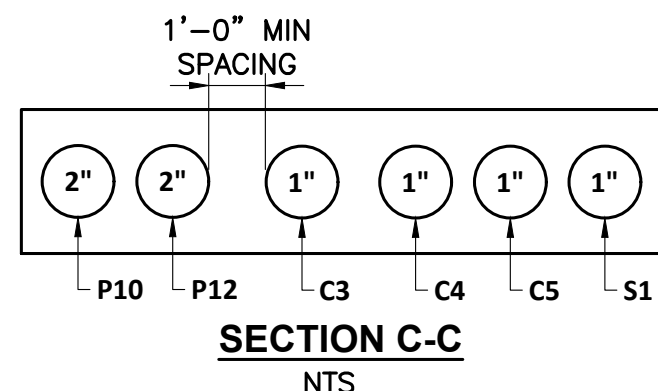
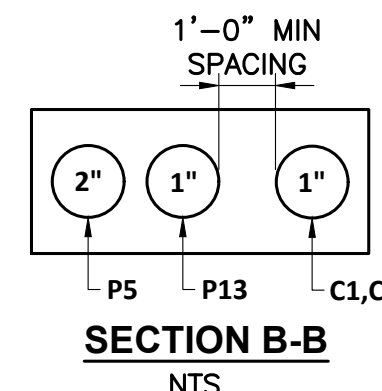
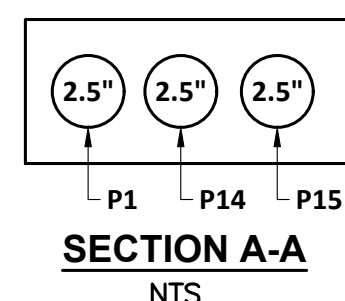
** SEE SPECIFICATIONS FOR FURTHER INFORMATION
* SIGNAL CONDUITS SHALL BE RGS

NOTE: ALL NOTES AND SYMBOL LISTS SHALL BE CONSIDERED AS APPLICABLE TO ALL ELECTRICAL DRAWINGS FOR THIS PROJECT. SYMBOLS SHOWN ON THIS SHEET ARE FOR REFERENCE ONLY AND DO NOT INDICATE THEIR INCORPORATION IN THE DESIGN.

Project information block including: PROJECT NO. 14070, DESIGNED BY: C. ABELL, CAD COORD: D. SNAPE, CHECKED BY: A. ROBERT, DATE: 02/2022, APPROVED BY: C. ABELL, DATE: 02/2022, SUBMISSION: CONTRACT DRAWINGS. Includes a circular professional seal for Christopher N. Abell, License No. 13021, State of Maine. Wright-Pierce logo and contact information: 207.725.8721 | www.wright-pierce.com, 11 BOWDOIN MILL ISLAND, SUITE 140, TOPSHAM, ME 04086. Drawing title: TOWN OF FALMOUTH, MAINE SEWER IMPROVEMENTS PHASE I CONDUIT INSTALLATION SCHEDULE. Drawing number: E-1.



ELECTRICAL SITE DEMOLITION PLAN
SCALE: 1"=20'



ELECTRICAL SITE MODIFICATION PLAN
SCALE: 1"=20'

- EQUIPMENT LEGEND:**
- ① POLE MOUNTED TRANSFORMER - TO BE REMOVED
 - ② POLE AND STREET LIGHT - TO BE REMOVED
 - ③ GENERATOR - TO BE REMOVED
 - ④ CONTROL BUILDING TO BE REMOVED -SEE NOTE 4-
 - ⑤ POLE MOUNTED TRANSFORMERS (SET OF 3)
 - ⑥ STAND-BY GENERATOR
 - ⑦ ELECTRICAL EQUIPMENT FRONT -SEE NOTE 3-
 - ⑧ ELECTRICAL EQUIPMENT BACK -SEE NOTE 3-
 - ⑨ SUBMERSIBLE SEWAGE PUMP P-1 (LE/TE-110)
 - ⑩ SUBMERSIBLE SEWAGE PUMP P-2 (LE/TE-111)
 - ⑪ RADIO ANTENNA AND MAST TO BE RELOCATED -SEE NOTE 4
 - ⑫ SERVICE GROUND
 - ⑬ HANDHOLE - SEE NOTES 5 AND 6 -
 - ⑭ LIGHT FIXTURE -SEE NOTE 3-

- NOTES:**
1. FOR ELECTRICAL LEGEND, ABBREVIATIONS AND NOTES, REFER TO DRAWINGS E-1.
 2. FOR INFORMATION REGARDING CONDUIT AND WIRING REQUIREMENTS, REFER TO GENERAL NOTES 19 AND 20 ON DRAWING E-1.
 3. REFER TO DETAILS SHEET FOR LAYOUT REQUIREMENT AND ADDITIONAL INFORMATION FOR ELECTRICAL EQUIPMENT.
 4. THE EXISTING TELEMTRY CONTROL PANEL WITHIN THE EXISTING PUMP CONTROL PANEL AND CELLULAR RADIO ANTENNA AND MAST ARE TO BE RE-USED AND REINSTALLED ON THE NEW EQUIPMENT STRUCTURE. REFER TO DETAILS FOR ADDITIONAL INFORMATION.
 5. FIELD COORDINATE LOCATION OF HAND HOLE WITH OWNER PRIOR TO INSTALLING.
 6. UTILITY COMPANY TO ASSIST INSTALLING WIRES FROM HAND HOLE TO THE TRANSFORMERS. CONTRACTOR SHALL CONTACT UTILITY SERVICE PROVIDER TO COORDINATE ASSISTANCE IN INSTALLING CONDUCTORS TO THE TRANSFORMER.
 7. JUNCTION BOXES ARE NOT SHOWN FOR CLARITY. PROVIDE POWER JUNCTION BOX, CONTROL JUNCTION BOX, AND INTRINSICALLY SAFE JUNCTION BOX. COORDINATE LOCATIONS WITH OWNER. REFER TO DETAILS FOR ADDITIONAL INFORMATION.

- DEMOLITION NOTES:**
- ① ELECTRICAL EQUIPMENT INDICATED WITH SHADING SHALL BE DISCONNECTED AND REMOVED ALONG WITH ALL OF THE ASSOCIATED CONDUIT, WIRE, PULLBOXES, ETC. IN ITS ENTIRETY FOR A COMPLETE DEMOLITION, UNLESS OTHERWISE NOTED. ALL ABANDONED BELOW GRADE CONDUIT SHALL BE CUT AND CAPPED AT GRADE LEVEL. REFER TO TO NOTE 1 ON THIS DRAWING FOR ADDITIONAL DEMOLITION NOTES.
 - ② INFORMATION CONTAINED IN THESE PLANS AND DIAGRAMS HAS BEEN OBTAINED IN PART FROM EXISTING PLANT ELECTRICAL DRAWINGS, SITE CONDITIONS AND SHOP DRAWINGS. THE CONTRACTOR SHALL FIELD VERIFY ALL INFORMATION AND CIRCUITRY AFFECTING HIS OR HER WORK PRIOR TO COMMENCING THE WORK FOR THIS CONTRACT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
 - ③ RELOCATE ANTENNA AND MAST TO NEW EQUIPMENT STRUCTURE.



REVISIONS		APPD	DATE
NO	DESCRIPTION		

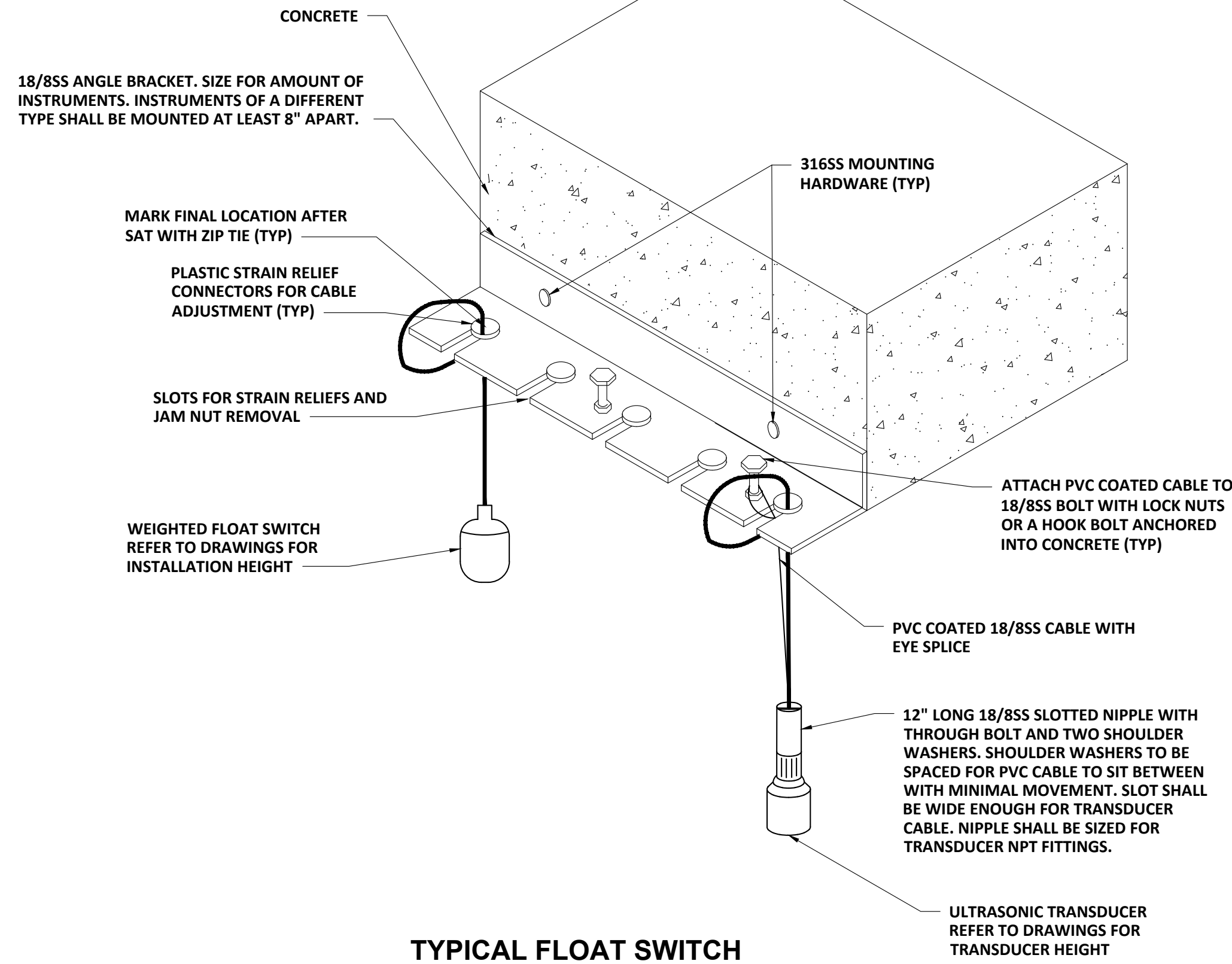
PROJECT NO: 14070D	DESIGNED: C. ABELL	CAD COORD: D. SAVAGE	CAD: A. ROBERT	CHECKED: A. MEDJAMIA	DATE: 02/2022	APPROVED: C. ABELL	DATE: 02/2022	SUBMISSION: CONTRACT DRAWINGS
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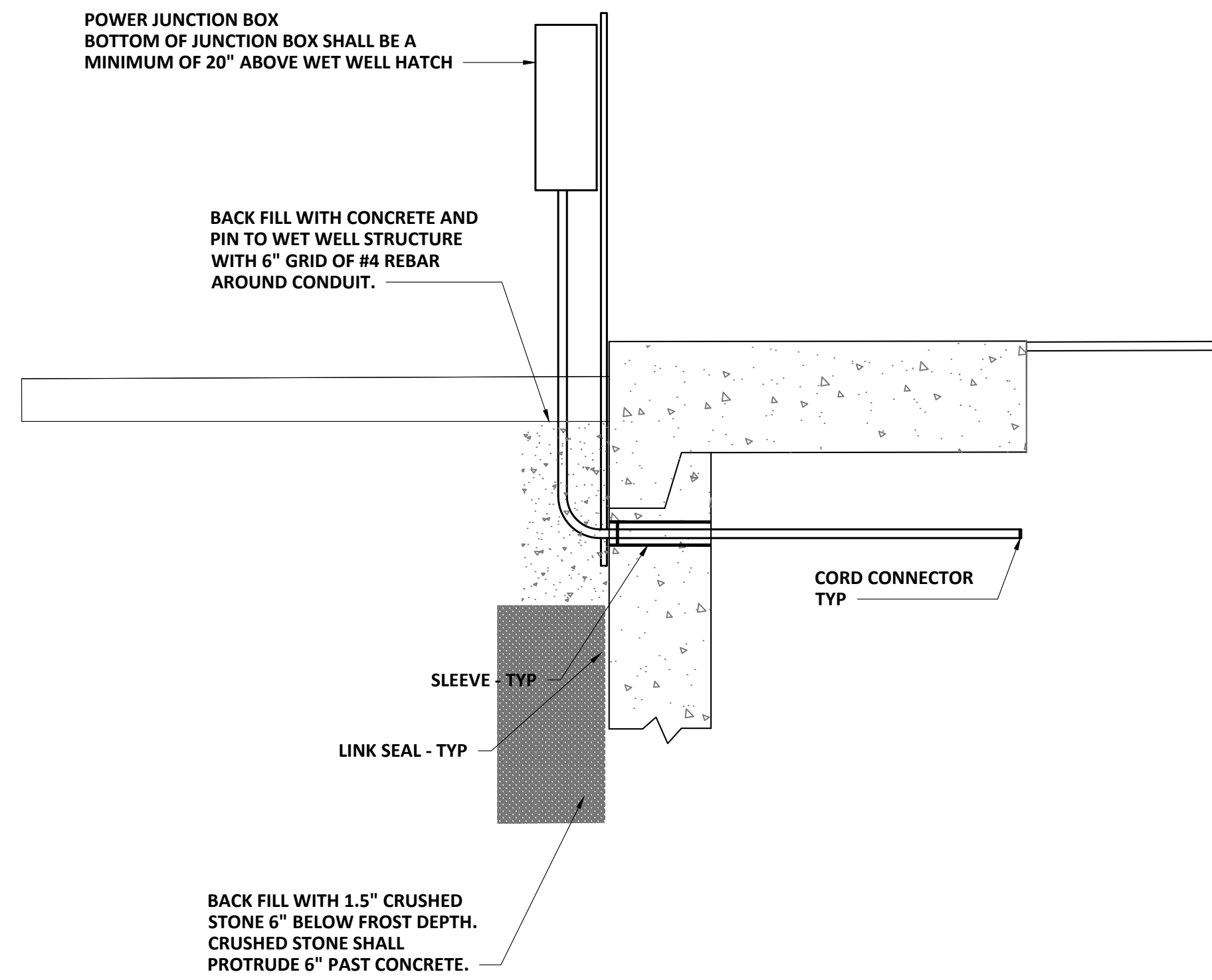
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TOWN OF FALMOUTH, MAINE SEWER IMPROVEMENTS PHASE I	FALMOUTH ROAD PUMP STATION SITE DEMOLITION AND MODIFICATION PLAN
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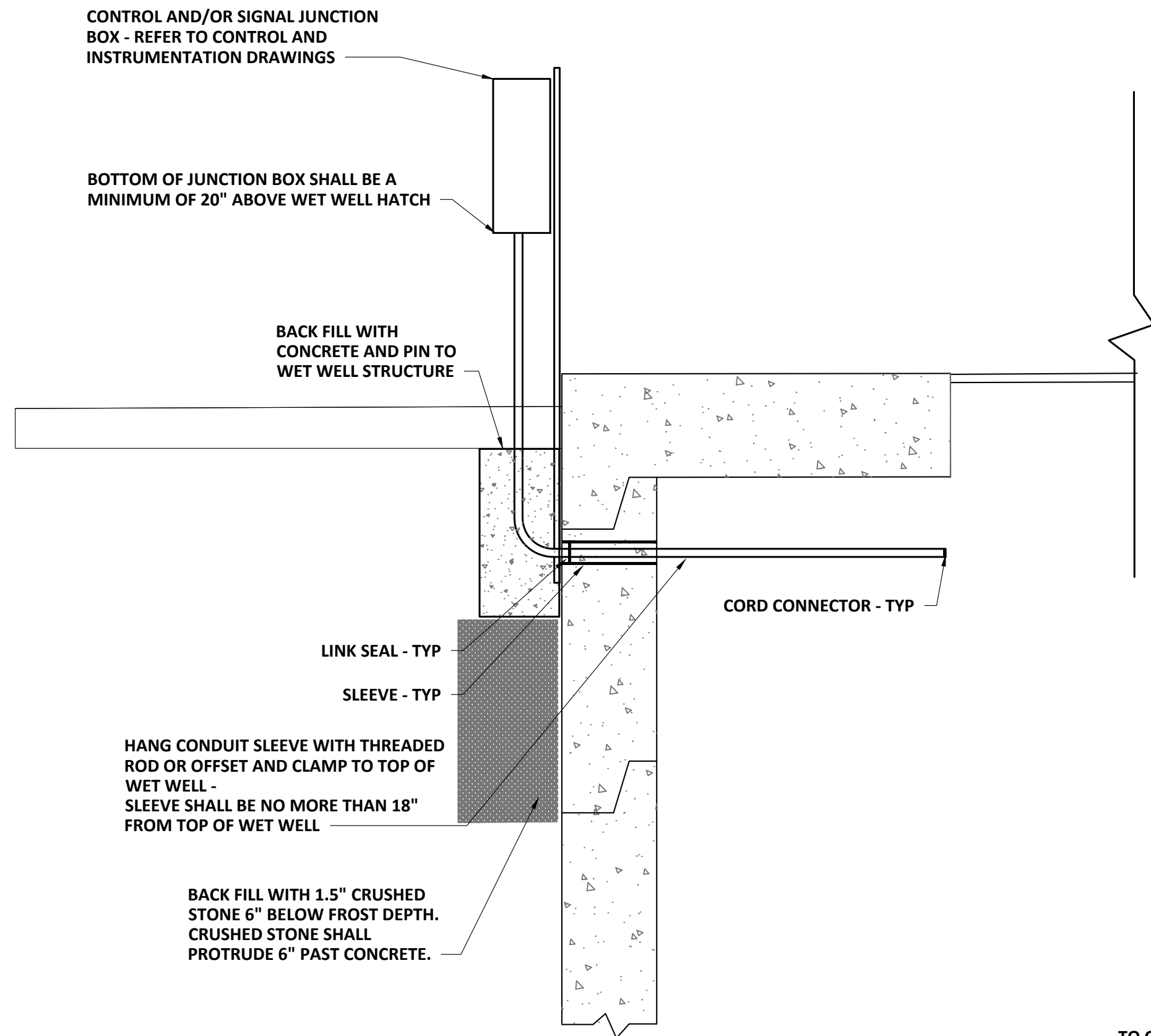
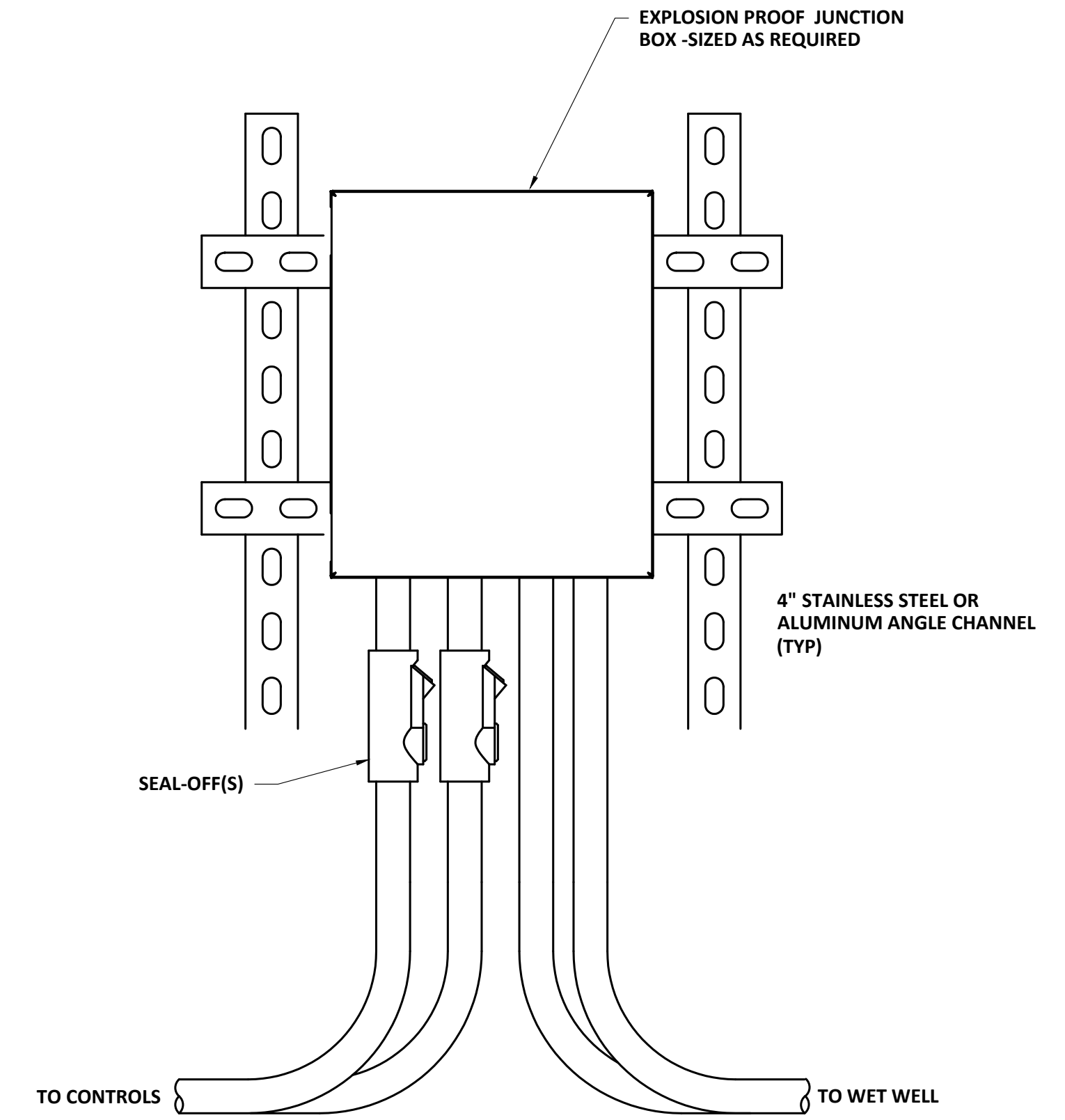
DRAWING	E-2
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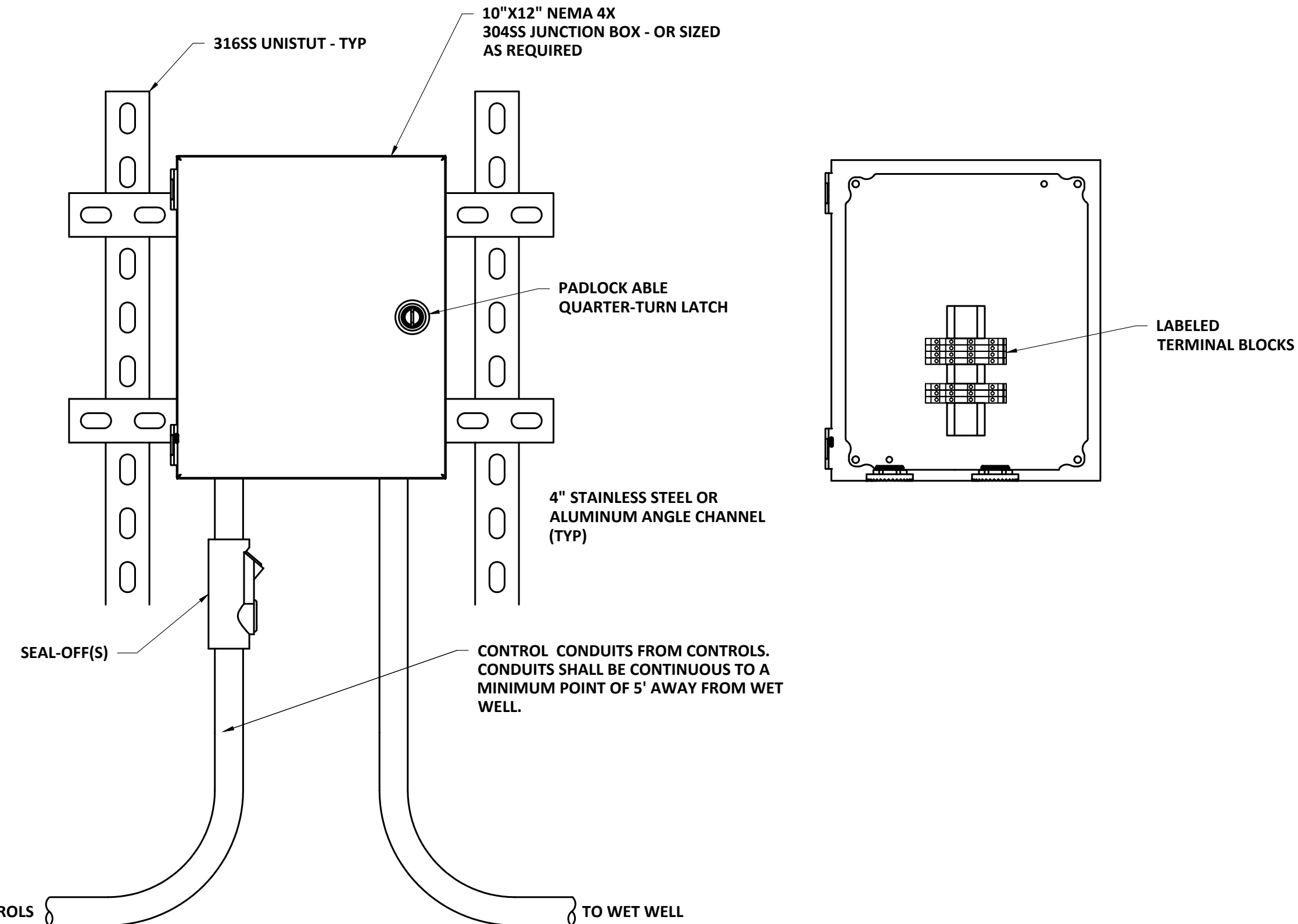
TYPICAL FLOAT SWITCH SUPPORT AND INSTALLATION DETAIL
NTS



TYPICAL POWER AND CONTROL WET WELL JUNCTION BOX DETAIL - PLAN AND SECTION VIEW
NTS



TYPICAL CONTROL AND SIGNAL (INTRINSICALLY SAFE) WET WELL JUNCTION BOX DETAIL - PLAN AND SECTION VIEW
NTS

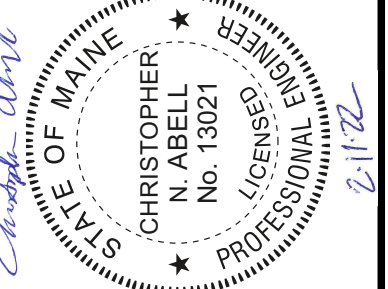


NOTES:

1. FOR ELECTRICAL LEGEND, ABBREVIATIONS AND NOTES, REFER TO DRAWINGS E-1.
2. FOR INFORMATION REGARDING CONDUIT AND WIRING REQUIREMENTS, REFER TO GENERAL NOTES 27 AND 28 ON DRAWING E-1.
3. CIRCUIT NUMBERS INDICATED ON THIS DRAWING REFER TO PANELBOARD LP-1, UNLESS OTHERWISE NOTED.

NO	REVISIONS	APPD	DATE

PROJECT NO:	14070D
DESIGNED:	C.ABELL
CAD COORD:	D.SAVAGE
CAD:	A.ROBERT
CHECKED:	A.MEDJAMIA
DATE:	02/20/22
APPROVED:	C.ABELL
DATE:	02/20/22
SUBMISSION:	CONTRACT DRAWINGS



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TOWN OF FALMOUTH, MAINE
SEWER IMPROVEMENTS PHASE I

ELECTRICAL DETAILS II

