

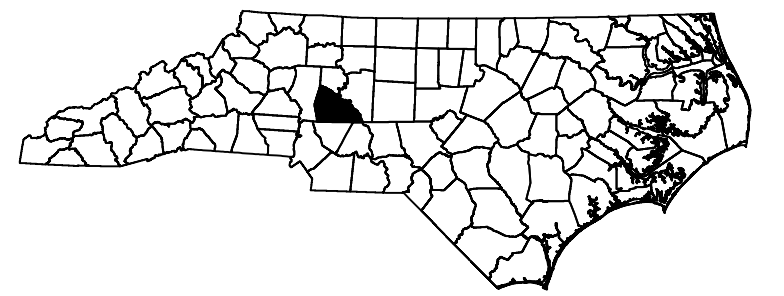
**This electronic collection of documents is provided
for the convenience of the user
and is Not a Certified Document –**

**The documents contained herein were originally issued
and sealed by the individuals whose names and license
numbers appear on each page, on the dates appearing
with their signature on that page.**

**This file or an individual page
shall not be considered a certified document.**

TIP PROJECT: B-5772

T.I.P. NO.	SHEET NO.
B-5772	UC-1

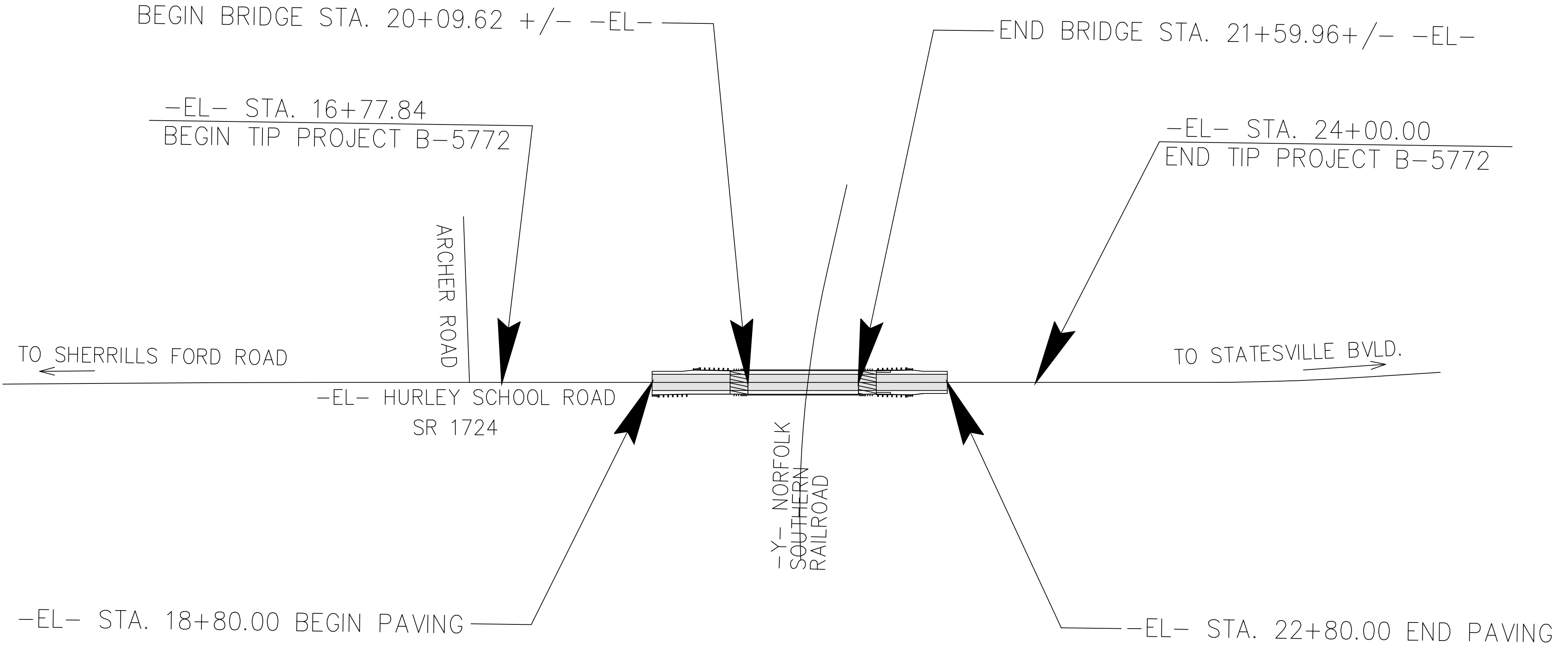
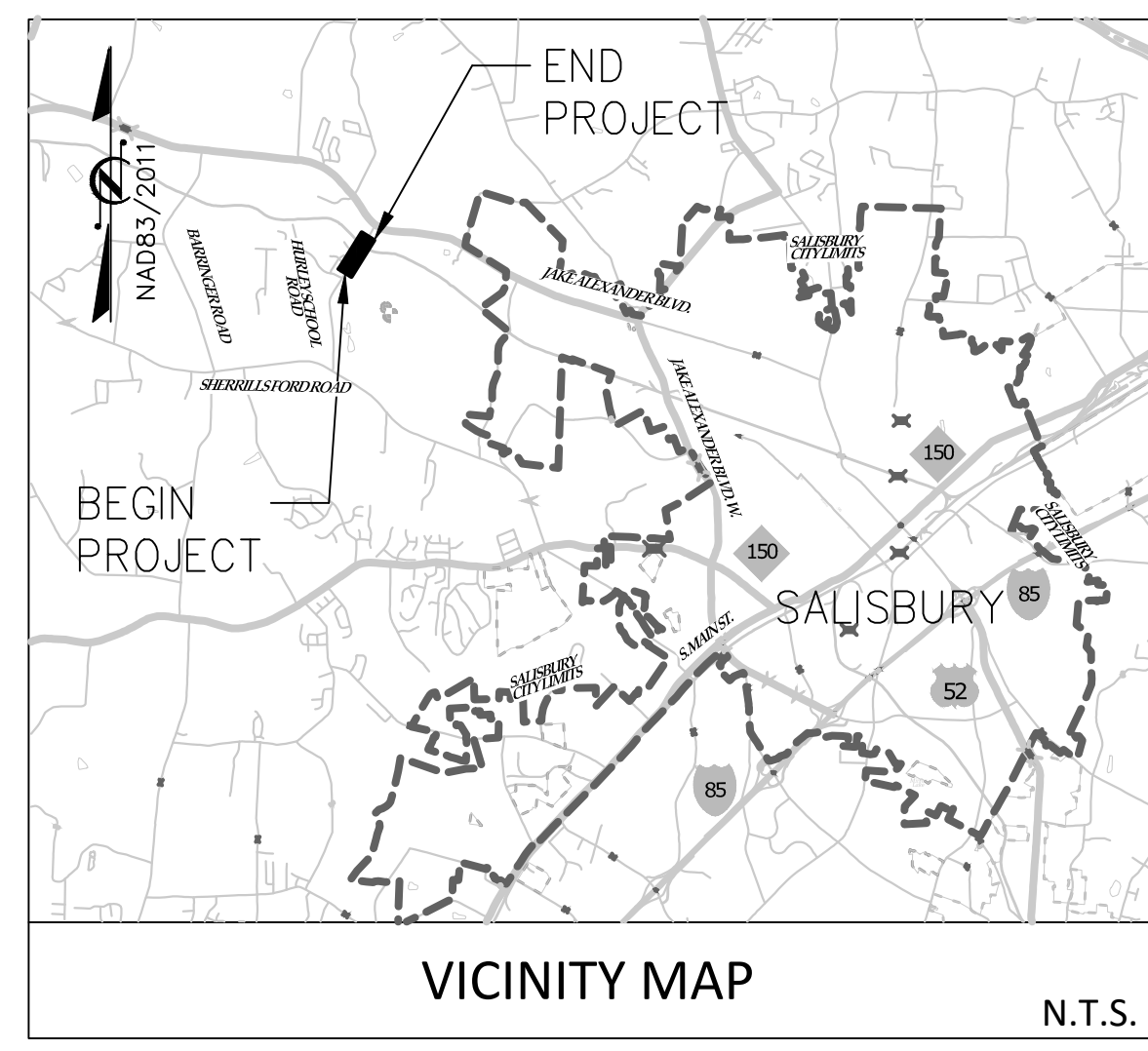


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

UTILITY CONSTRUCTION PLANS
ROWAN COUNTY

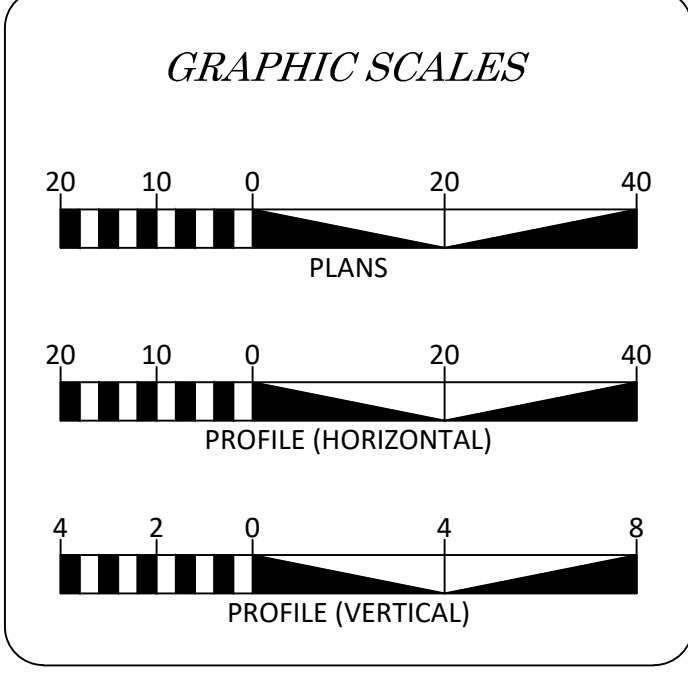
LOCATION: HURLEY SCHOOL ROAD IN SALISBURY

TYPE OF WORK: UTILITY CONSTRUCTION



CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.
THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



SHEET NO.	DESCRIPTION
UC-1	TITLE SHEET
UC-2	UTILITY SYMBOLOLOGY SHEET
UC-3	NOTES SHEET
UC-3A THRU UC-3H	DETAIL SHEETS
UC-4 THRU UC-4A	TEMP. UTILITY PLAN & PROFILE SHEETS
UC-5 THRU UC-5A	PERM. UTILITY PLAN & PROFILE SHEETS
UC-6A THRU UC-6C	TEMP. WATERLINE SUPPORT BRIDGE SHEETS

WATER AND SEWER OWNERS ON PROJECT

(1) WATER - SALISBURY-ROWAN UTILITIES (SRU)

Jason Wilson, PE
Assistant Utilities Director
(704) 216-7553

PREPARED IN THE OFFICE OF:

alw **ck** **alley, williams, carmen, & king, inc.**
CONSULTING ENGINEERS
FIRM LICENSE No. F-0203
120 SOUTH MAIN STREET P.O. BOX 1248
KANNAPOLIS, NC 28082 704/938-1515

Jeffery D. Moody, PE UTILITIES PROJECT ENGINEER

SEAL:

3/11/2022

DIVISION OF HIGHWAYS UTILITIES UNIT
1555 MAIL SERVICE CENTER
RALEIGH NC 27699-1555
PHONE (919) 707-6680
FAX (919) 250-4151

Amy York	CENTRAL UTILITIES MANAGER
Ali Koucheqi, PE	REGIONAL UTILITIES ENGINEER
Jon Loughry	SENIOR UTILITIES ENGINEER
Dayton Martin	REGIONAL UTILITY COORDINATOR
Tanga Sampson	UTILITY COORDINATOR

UTILITIES PLAN SHEET SYMBOLS

PROPOSED WATER AND SEWER SYMBOLS

WATER LINE	————— 12 WL —————
11 1/4 DEGREE BEND	┌───┐
22 1/2 DEGREE BEND	┌───┐
45 DEGREE BEND	┌───┐
90 DEGREE BEND	└───┘
PLUG	┆
TEE	┌───┐
CROSS	┌───┐
REDUCER	▶
GATE VALVE	⊗
BUTTERFLY VALVE	⊗
TAPPING VALVE	⊗
BLOW OFF	BO ■
FIRE HYDRANT	PFH ●
RELOCATE FIRE HYDRANT	RFH ●
WATER METER	PWM ●
RELOCATE WATER METER	RWM ●
REMOVE WATER METER	REM WWM
ABANDON UTILITY MANHOLE	ABMH
ABANDON WATER VALVE	ABWV
GRAVITY SEWER LINE	————— 8 SS —————
MANHOLE	○
SANITARY SEWER CLEANOUT	PCO ●

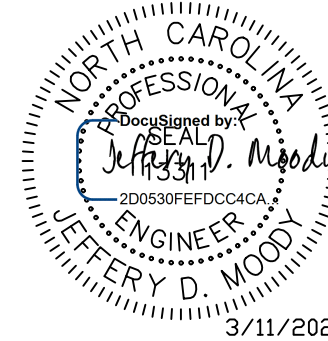
PROPOSED MISCELLANEOUS UTILITIES SYMBOLS

THRUST BLOCK	┆
PLAN NOTE	← NOTE
ENCASEMENT	————— 18" ENCASEMENT —————
TO BE ABANDONED	(TBA)

EXISTING UTILITIES SYMBOLS

POWER POLE	●	ABANDONED ACCORDING TO UTILITY RECORDS	AATUR
POWER POLE TO BE REMOVED	● REM	END OF INFORMATION	E.O.I.
TELEPHONE POLE	●	UNDERGROUND POWER LINE	—U—U—U—U—U—U—U—
TELEPHONE POLE TO BE REMOVED	● REM	UNDERGROUND POWER SUE	—U—U—U—U—U—U—U—
JOINT USE POLE	●	ABOVEGROUND POWER LINE	—U—U—U—U—U—U—U— OHP
JOINT USE POLE TO BE REMOVED	● REM	UNDERGROUND TELEPHONE CABLE	—T—T—T—T—T—T—T—
UTILITY POLE	●	UNDERGROUND TELEPHONE CONDUIT	—————
UTILITY POLE TO BE REMOVED	● REM	UNDERGROUND TELEPHONE SUE	—T—T—T—T—T—T—T—
UTILITY POLE WITH BASE	□	UNDERGROUND FIBER OPTICS TELEPHONE CABLE	—————
WATER MANHOLE	⊗	UNDERGROUND TV CABLE	—T—T—T—T—T—T—T—
POWER MANHOLE	⊗	UNDERGROUND GAS PIPELINE	—G—G—G—G—G—G—G—
TELEPHONE MANHOLE	⊗	UNDERGROUND GAS PIPELINE SUE	—G—G—G—G—G—G—G—
SANITARY SEWER MANHOLE	⊗	UNDERGROUND WATER LINE	—V—V—V—V—V—V—V—
HAND HOLE	⊗	UNDERGROUND WATER LINE SUE	—V—V—V—V—V—V—V—
POWER TRANSFORMER	⊗	UNDERGROUND GRAVITY SANITARY SEWER LINE	—S—S—S—S—S—S—S—
TELEPHONE PEDESTAL	⊗	UNDERGROUND SS FORCED MAIN LINE	—S—S—S—S—S—S—S—
TELEPHONE BOOTH	⊗	UNDERGROUND UNKNOWN UTILITY LINE	—————
TRAFFIC SIGNAL BOX	⊗	WATER METER	○
CATV PEDESTAL	⊗	WATER VALVE	⊗
TV SATELLITE DISH	⊗	FIRE HYDRANT	●
GAS VALVE	◇	SANITARY SEWER CLEANOUT	○
LOCATED MISCELLANEOUS UTILITY OBJECT	⊗		

UTILITY CONSTRUCTION

PROJECT REFERENCE NO. <i>B-5772</i>	SHEET NO. <i>UC-3</i>
DESIGNED BY: JDM	
DRAWN BY: RCC	
CHECKED BY:	
APPROVED BY:	
REVISED:	3/11/2022
UTILITIES ENGINEERING SEC. PHONE: (919)707-6690 FAX: (919)250-4151	UTILITY CONSTRUCTION PLANS ONLY
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

GENERAL NOTES:

1. NCDOT PROVIDED THE EXISTING CONDITIONS SURVEY DATA, AND PROPOSED ROADWAY DESIGN PLANS AND DETAILS IN AUTOCAD FORMAT TO AWCK FOR THE DESIGN OF PROPOSED SALISBURY WATERLINE UTILITY TO BE REPLACED UNDER THIS CONTRACT.
2. THE PROPOSED UTILITY CONSTRUCTION SHALL MEET THE APPLICABLE REQUIREMENTS OF THE NC DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" DATED JANUARY 2018, THE CITY OF SALISBURY UTILITY CONSTRUCTION STANDARDS MANUAL, NORFOLK SOUTHERN CORPORATION SPECIFICATIONS FOR PIPELINE OCCUPANCY NSCE-8.
3. BLASTING IS NOT PERMITTED WITHIN THE NORFOLK-SOUTHERN RAILROAD RIGHT-OF-WAY.
4. CONFLICTS BETWEEN SPECIFICATION SHALL BE DECIDED IN FAVOR OF THE MOST RESTRICTIVE SPECIFICATION.
5. THE EXISTING WATER LINES BELONG TO SALISBURY-ROWAN UTILITIES (SRU).
6. ALL WATER LINES SHALL BE INSTALLED IN COMPLIANCE OF THE RULES AND REGULATIONS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL AND NATURAL RESOURCES, DIVISION OF WATER RESOURCES, PUBLIC WATER SUPPLY SECTION. PERFORM ALL WORK IN ACCORDANCE WITH THE APPLICABLE PLUMBING CODES.
7. THE UTILITY OWNER OWNS THE EXISTING UTILITY FACILITIES AND WILL OWN THE NEW UTILITY FACILITIES AFTER ACCEPTANCE BY THE DEPARTMENT. THE DEPARTMENT OWNS THE CONSTRUCTION CONTRACT AND HAS ADMINISTRATIVE AUTHORITY. COMMUNICATIONS AND DECISIONS BETWEEN THE CONTRACTOR AND UTILITY OWNER ARE NOT BINDING UPON THE DEPARTMENT OR THIS CONTRACT UNLESS AUTHORIZED BY THE ENGINEER. AGREEMENTS BETWEEN THE UTILITY OWNER AND CONTRACTOR FOR THE WORK THAT IS NOT PART OF THIS CONTRACT OR IS SECONDARY TO THIS CONTRACT ARE ALLOWED, BUT ARE NOT BINDING UPON THE DEPARTMENT.
8. PROVIDE ACCESS FOR THE DEPARTMENT PERSONNEL AND THE OWNER'S REPRESENTATIVES TO ALL PHASES OF CONSTRUCTION. NOTIFY DEPARTMENT PERSONNEL AND THE UTILITY OWNER TWO WEEKS PRIOR TO COMMENCEMENT OF ANY WORK AND ONE WEEK PRIOR TO SERVICE INTERRUPTION. KEEP UTILITY OWNERS' REPRESENTATIVES INFORMED OF WORK PROGRESS AND PROVIDE OPPORTUNITY FOR INSPECTION OF CONSTRUCTION AND TESTING.
9. THE PLANS DEPICT THE BEST AVAILABLE INFORMATION FOR THE LOCATION, SIZE, AND TYPE OF MATERIAL FOR ALL EXISTING UTILITIES. MAKE INVESTIGATIONS FOR DETERMINING THE EXACT LOCATION, SIZE, AND TYPE MATERIAL OF THE EXISTING FACILITIES AS NECESSARY FOR THE FACILITIES AS NECESSARY FOR THE CONSTRUCTION OF THE PROPOSED UTILITIES AND FOR AVOIDING DAMAGE TO EXISTING FACILITIES. REPAIR ANY DAMAGE INCURRED TO EXISTING FACILITIES TO THE ORIGINAL OR BETTER CONDITION AT NO ADDITIONAL COST TO THE DEPARTMENT.
10. MAKE FINAL CONNECTIONS OF THE NEW WORK TO THE EXISTING SYSTEM WHERE INDICATED ON THE PLANS, AS REQUIRED TO FIT THE ACTUAL CONDITIONS, OR AS DIRECTED.
11. MAKE CONNECTIONS BETWEEN EXISTING AND PROPOSED UTILITIES AT TIMES MOST CONVENIENT TO THE PUBLIC, WITHOUT ENDANGERING THE UTILITY SERVICE, AND IN ACCORDANCE WITH THE UTILITY OWNER'S REQUIREMENTS. MAKE CONNECTIONS ON WEEKENDS, AT NIGHT, AND ON HOLIDAYS IF NECESSARY.
12. ALL UTILITY MATERIALS SHALL BE APPROVED PRIOR TO DELIVERY TO THE PROJECT. SEE 1500-7, "SUBMITTALS AND RECORDS" IN SECTION 1500 OF THE STANDARD SPECIFICATIONS.

PROJECT SPECIFIC NOTES:

CITY OF SALISBURY GENERAL NOTES

2.03 WATER LINES - GENERAL NOTES

1. CONCRETE BLOCKING (3000 PSI) TO BE PLACED AT ALL BENDS OR AS REQUIRED UNLESS MEGA LUGS OR RESTRAINED JOINTS ARE USED.
2. STANDARD DEPTH OF COVER TO BE 3 FEET EXCEPT AT VALVE OR HYDRANT LOCATIONS OR OTHER SPECIAL SITUATIONS. COVER IS BASED ON ELEVATION BELOW EDGE OR PAVEMENT OR AS INDICATED ON THE PLANS.
3. PROVIDE POURED IN PLACE CONCRETE PADS (18" X 18" X 6") (OR CONCRETE "DONUTS" MAY BE USED AS AN ALTERNATIVE AT THE DISCRETION OF THE UTILITIES INSPECTOR) AT ALL VALVE BOXES.
4. EXTENSIONS FOR VALVE BOXES, WHEN REQUIRED, ARE TO BE VALVE BOXES OR DIP (NO PVC OR C900). 5-8
5. ALL PAVEMENT CUTS, CONCRETE OR ASPHALT, ARE TO BE REPLACED ACCORDING TO THE STANDARD DETAILS OR AS REQUIRED BY THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION.
6. PAVEMENT CUTS ARE TO BE REPLACED IMMEDIATELY AFTER BACKFILLING OF INITIAL CUT EITHER WITH PERMANENT REPLACEMENT OR A TEMPORARY REPLACEMENT OF 10" OF BASE IF APPROVED BY THE CITY (FOR CITY MAINTAINED STREETS) OR DOT (FOR STATE MAINTAINED STREETS).
7. REPAIRS TO MAIN BREAKS:
 - a) SOLID SLEEVES TO BE USED FOR CONNECTING SPIGOT ENDS SHALL BE OF THE LONG BODY TYPE.
 - b) ALL REPAIRS SHALL BE INSPECTED BY CITY BEFORE BACKFILLING.
8. IN ANY INSTANCE WHERE IT WILL BE NECESSARY TO HAVE THE WATER SHUT OFF ON EXISTING MAINS IN ORDER TO MAKE A TIE-IN, THE WORK MUST BE DONE BY CITY FORCES OR A CONTRACTOR WORKING FOR THE CITY, SCHEDULED 48 HOURS TO 7 DAYS IN ADVANCE DEPENDING ON THE LOCATION AND TYPES OF BUSINESSES THAT WILL BE AFFECTED.
9. WHEN A WATER MAIN CROSSES AN EXISTING SEWER MAIN, THE CONTRACTOR IS TO REPLACE THE SEWER PIPE SPANNING THE DITCH WITH DUCTILE PIPE WHEN THE FOLLOWING CONDITIONS OCCUR:
 - a) ANYTIME A WATER MAIN IS INSTALLED UNDER A SEWER MAIN.
 - b) WHEN A WATER MAIN IS OVER A SEWER MAIN AND THE VERTICAL DISTANCE BETWEEN THE TWO MAINS IS 18" OR LESS (MINIMUM 12" CLEARANCE BETWEEN WATER AND SEWER LINES).
10. WATER MAINS SHALL BE INSTALLED WITH A MINIMUM OF 10' HORIZONTAL SEPARATION FROM SEWER LINES. WHERE THIS IS NOT POSSIBLE, BOTH THE WATER LINE AND SEWER LINE SHALL BE DUCTILE IRON PIPE.
11. WATER LINES SHALL BE DISINFECTED AND HYDROSTATICALLY TESTED IN ACCORDANCE WITH ALL STATE AND CITY OF SALISBURY REQUIREMENTS.
12. ALL PLANS SHALL MEET ALL FEDERAL, STATE, CITY OF SALISBURY, AND SALISBURY-ROWAN UTILITIES REGULATIONS, DESIGN CRITERIA, AND CONSTRUCTION STANDARDS.

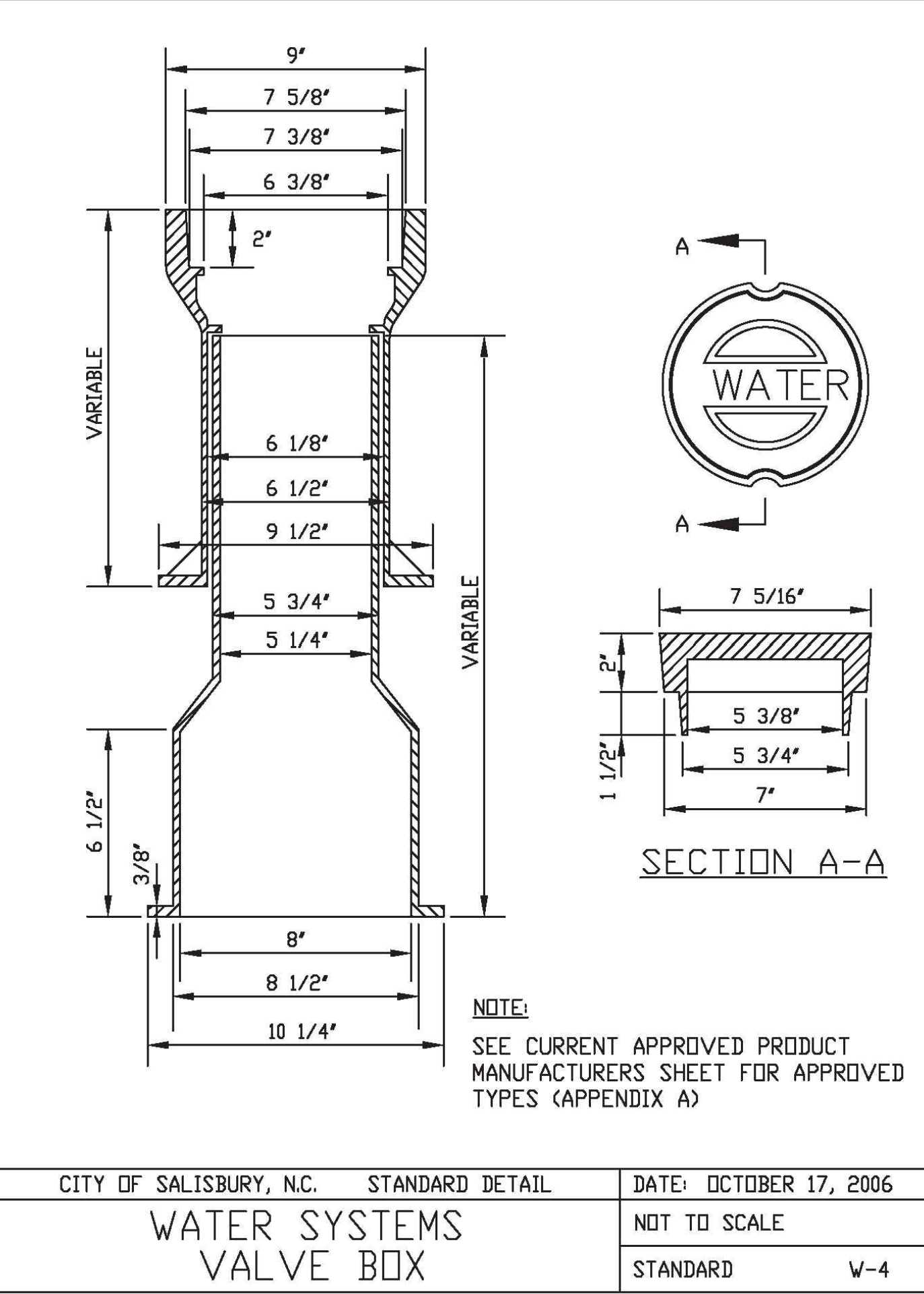
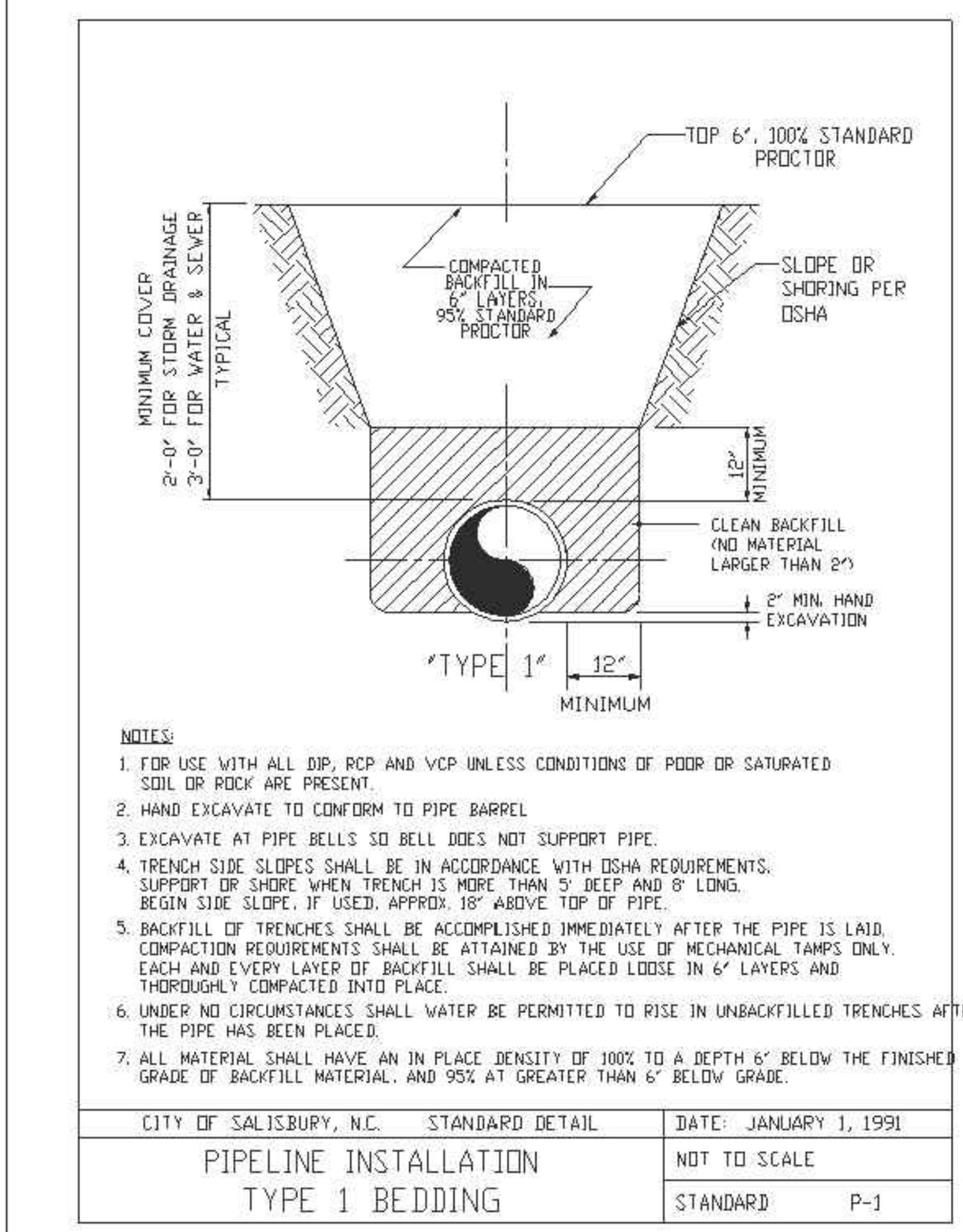
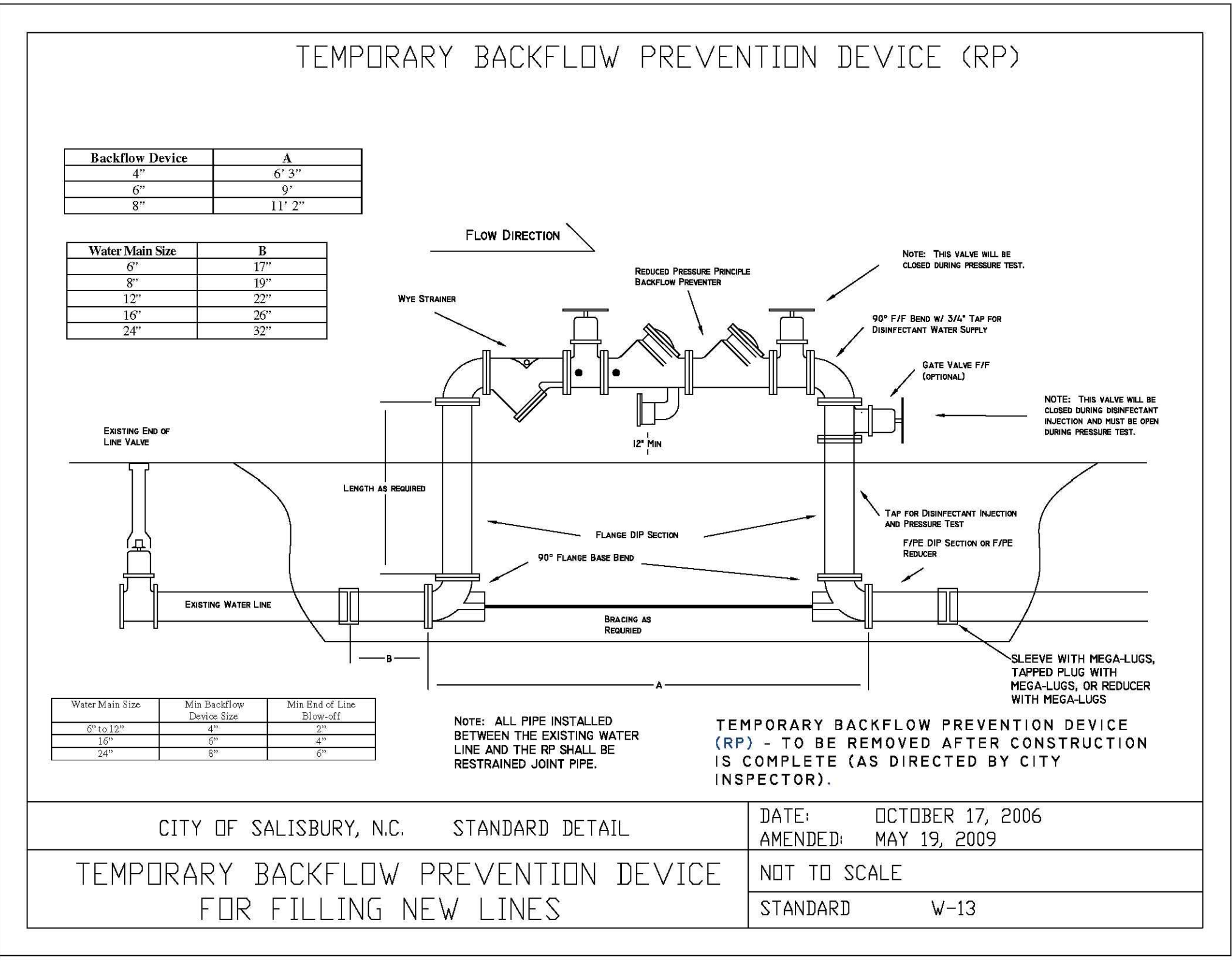
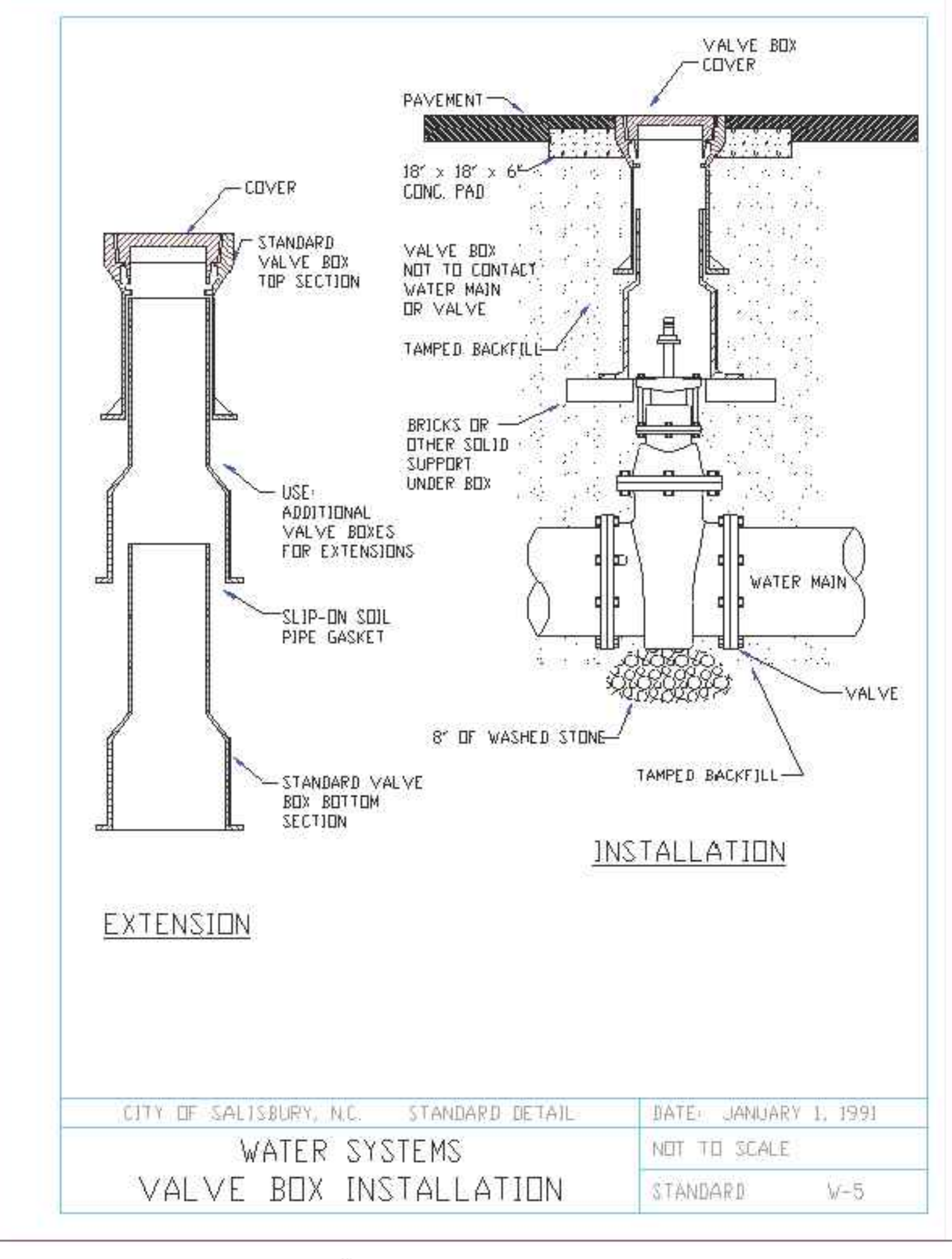
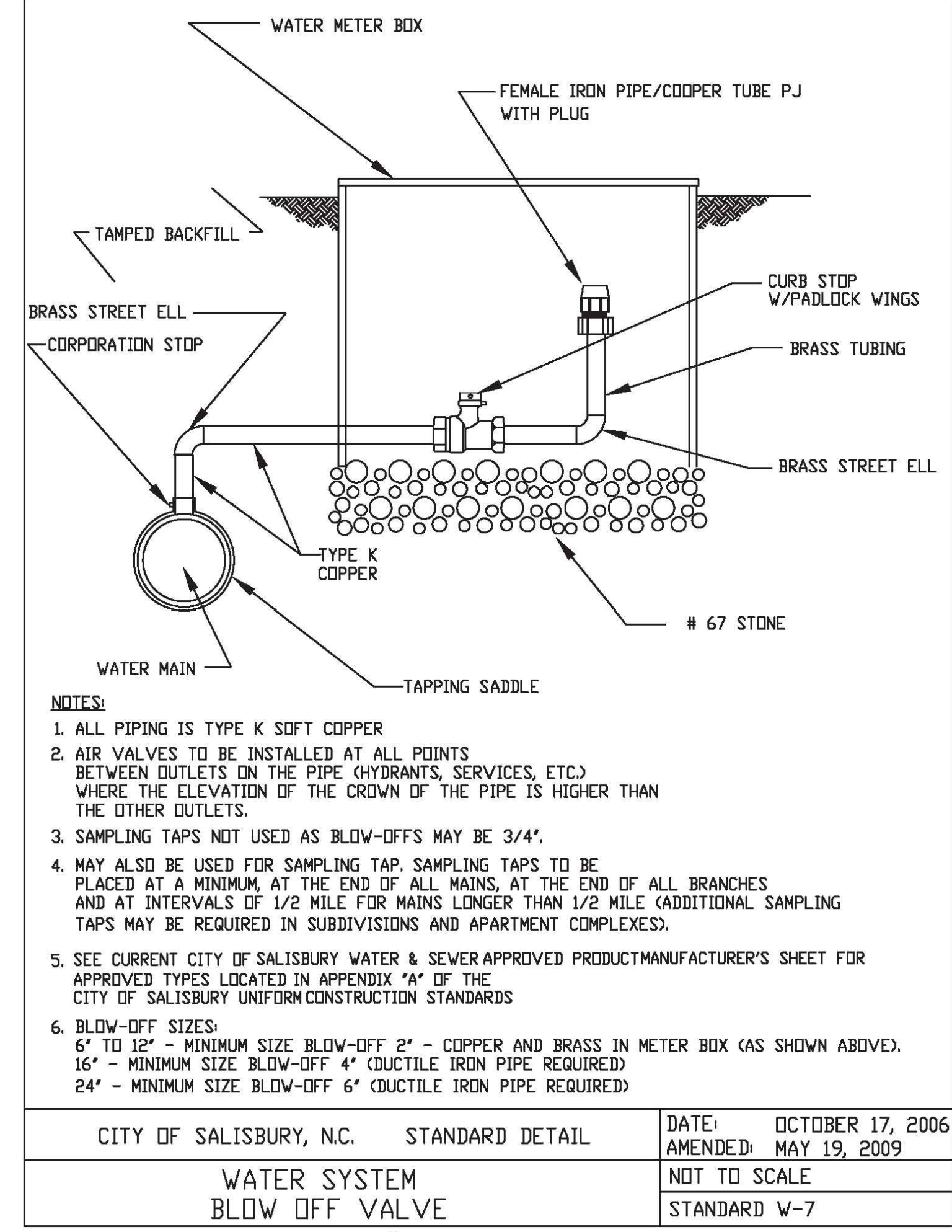
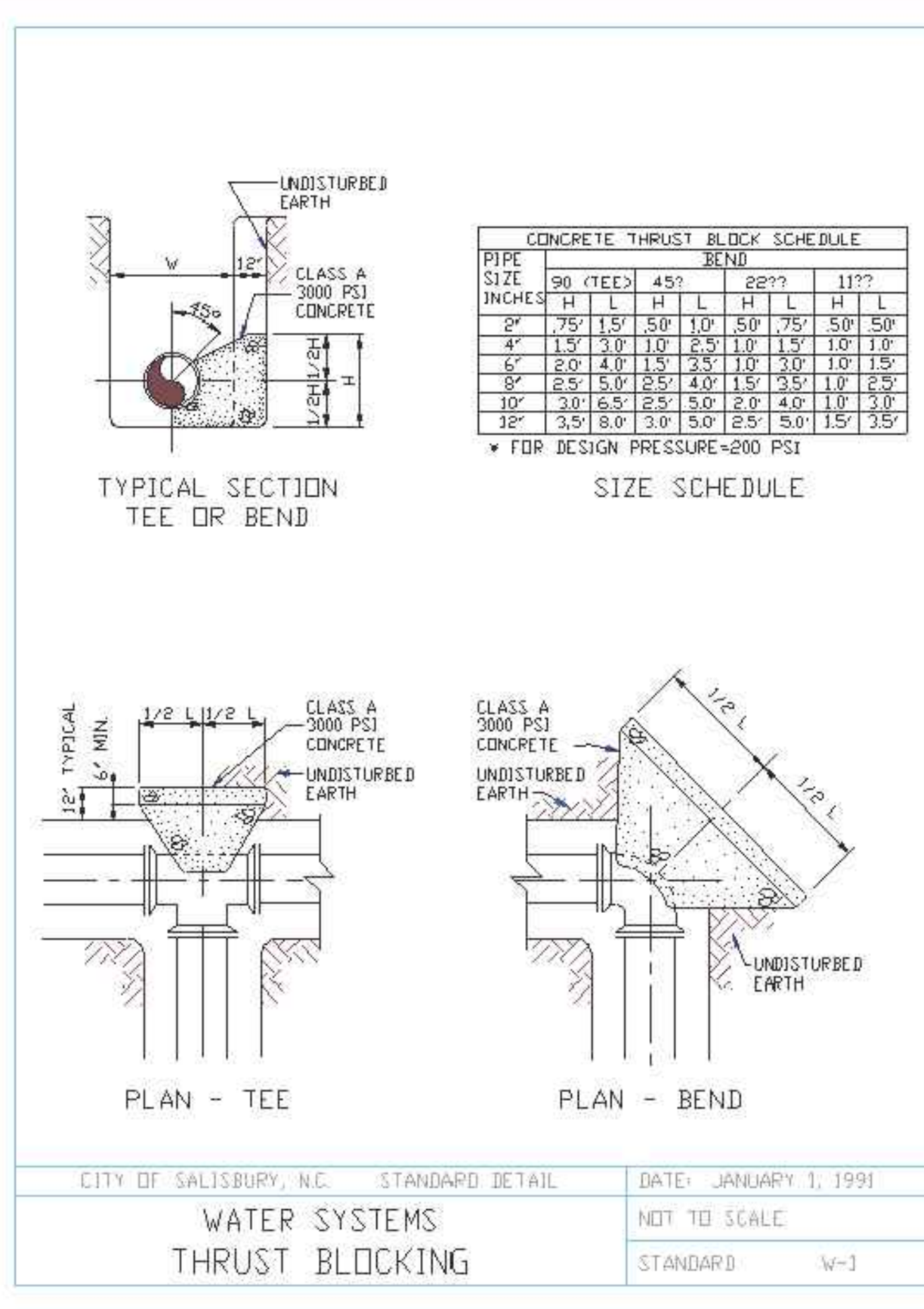
NORFOLK SOUTHERN GENERAL NOTES:

1. CONTRACTOR SHALL FOLLOW ALL REQUIREMENTS OF NORFOLK SOUTHERN'S NSCE-8 SPECIFICATIONS.
2. PIPELINE AND CROSSING TO BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH LAST APPROVED AMERICAN RAILWAY ENGINEERING AND MAINTENANCE-OF-WAY ASSOCIATION SPECIFICATIONS FOR PIPELINES CONVEYING FLAMMABLE AND NON-FLAME SUBSTANCES.
3. BLASTING NOT PERMITTED.

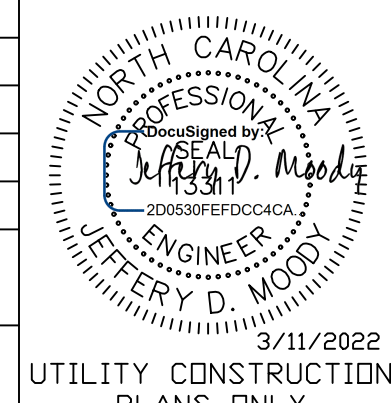
	alley, williams, carmen, & king, inc. CONSULTING ENGINEERS FIRM LICENSE No. F-0203
	120 SOUTH MAIN STREET KANNAPOLIS, NC 28082 P.O. BOX 1248 704/938-1515

DESIGNED BY: JDM
 DRAWN BY: RCC
 CHECKED BY:
 APPROVED BY:
 REVISED:
 NORTH CAROLINA PROFESSIONAL ENGINEER
 JEFFERY D. MOODY
 LICENSE NO. 27053
 3/11/2022
 UTILITY CONSTRUCTION PLANS ONLY

UTILITY ENGINEERING SEC. PHONE: (919)707-6690 FAX: (919)250-4151
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED
 alley, williams, carmen, & king, inc. CONSULTING ENGINEERS
 FIRM LICENSE No. F-0203
 120 SOUTH MAIN STREET KANNAPOLIS, NC 28082 P.O. BOX 1248 704/335-1515

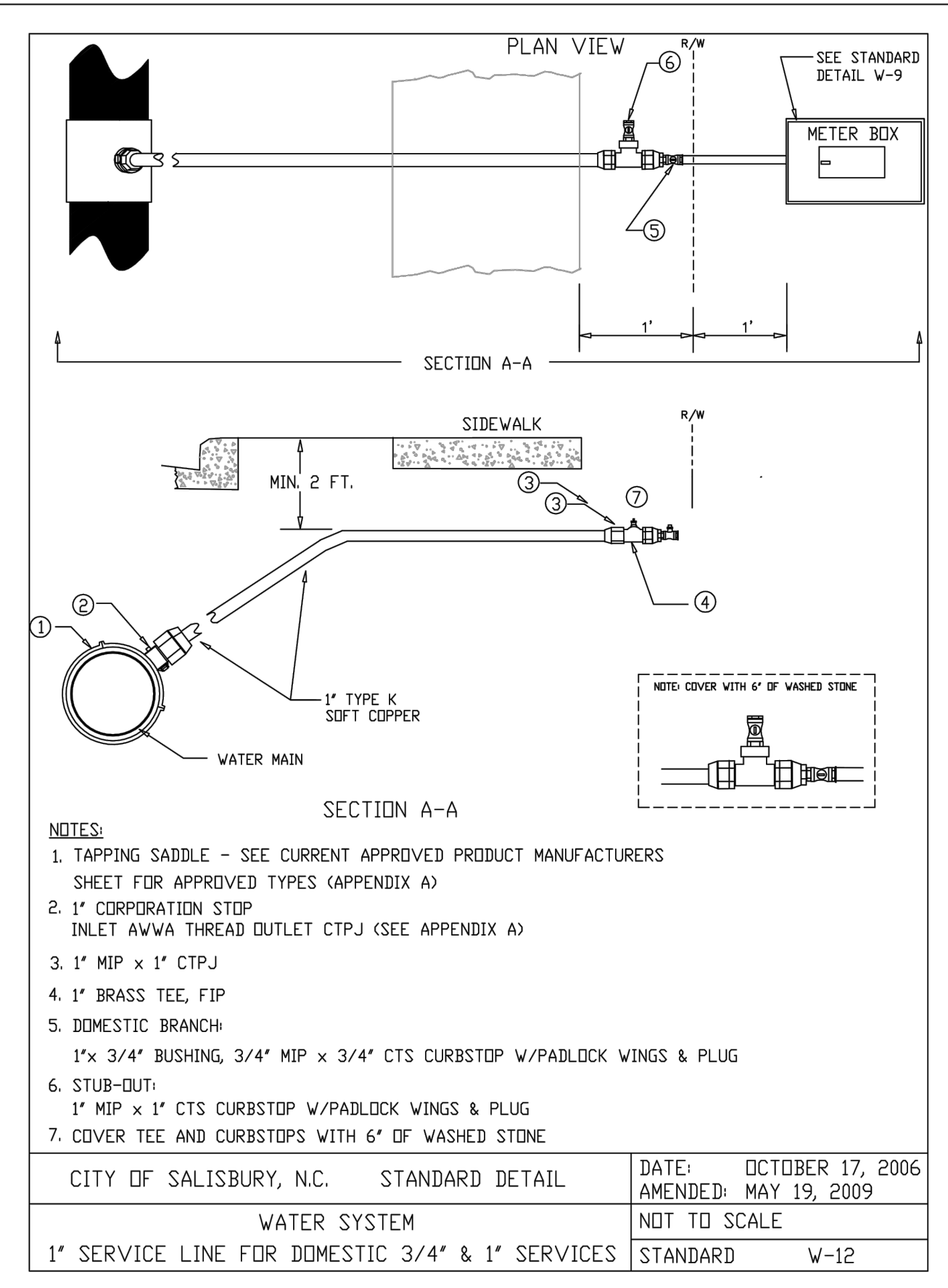
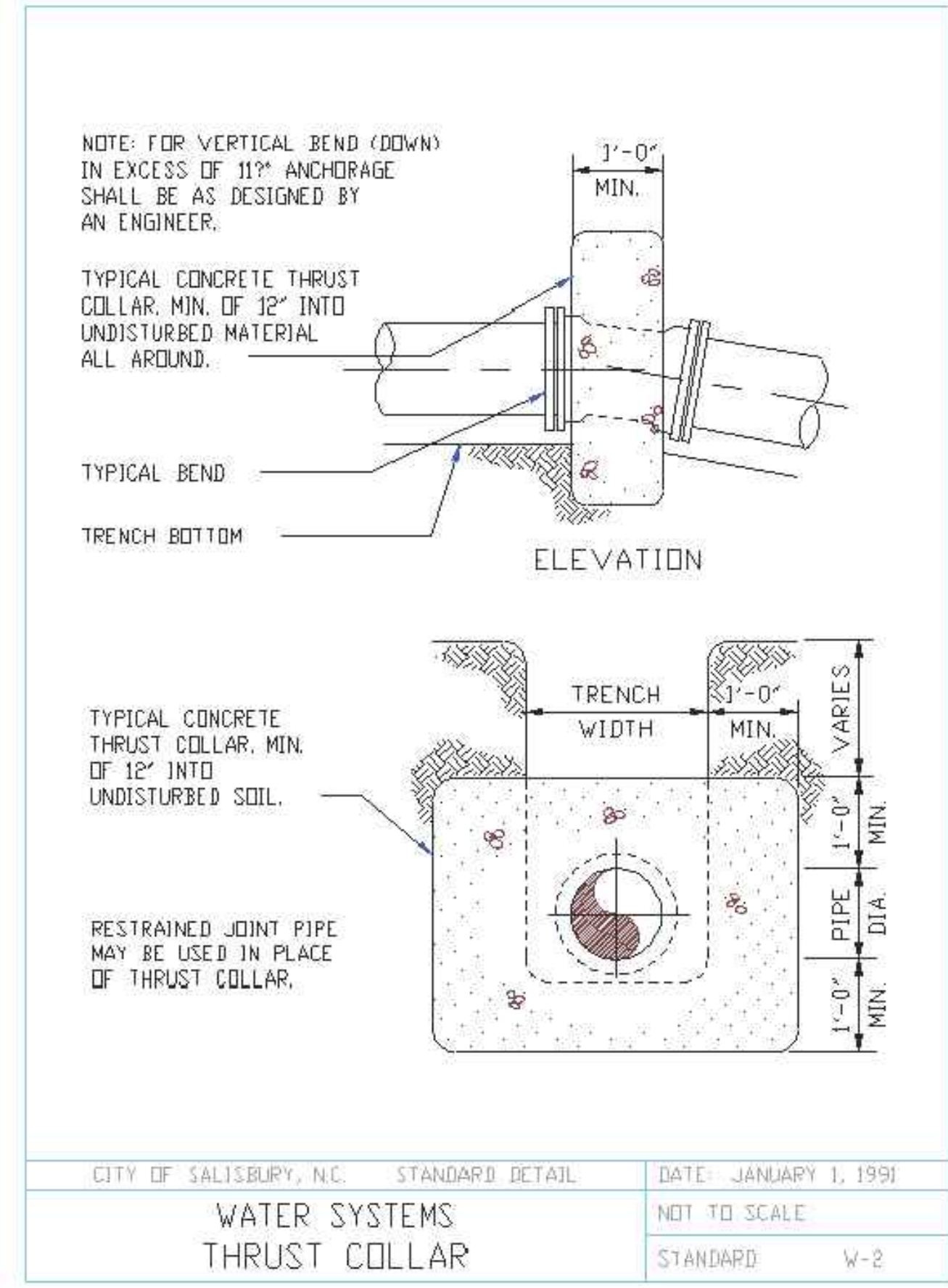


DESIGNED BY: JDM
DRAWN BY: RCC
CHECKED BY:
APPROVED BY:
REVISED:
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
UTILITIES ENGINEERING SEC. PHONE: (919)707-6690 FAX: (919)250-4151
3/11/2022
UTILITY CONSTRUCTION PLANS ONLY



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

awwac alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE No. F-0203
120 SOUTH MAIN STREET P.O. BOX 1248
KANNAPOLIS, NC 28082 704/938-1515



Appendix A

04-12-2018

City of Salisbury Water Sewer Maintenance Department
Approved Product Manufacturers (Domestic Products Only)

- Ductile Iron Pipe - Domestic, Pressure Class 350, AWWA C-151/ANSI A21.51, ANSI C-111/AWWA A21.11, AWWA C-150/ANSI A21.50:**
 - American Cast Iron Pipe Co.*
 - Griffin Pipe*
 - Tyler Pipe / Union Foundry*
 - U S Pipe*
 - Atlantic States*
- Ductile Iron Mechanical Joint Fittings - Domestic, Pressure Class 350, AWWA C-153/ANSI A21.53, AWWA C-111/ANSI A21.11, AWWA C-104/ANSI A21.4:**
 - Griffin Pipe*
 - Tyler Pipe / Union Foundry*
 - U S Pipe*
- Gate Valves - Resilient Seated, NRS, (3" - 16") 200 PSI Rating, (Open Left):**
 - American Flow Control Series 500 or 2500 (With Slotted Bolt Holes at 11:00 & 1:00 position Only)*
 - Clow Series F-6100 (With Slotted Bolt Holes at 11:00 & 1:00 position Only)*
 - Mueller Series 2360 (With Slotted Bolt Holes at 11:00 & 1:00 position)*
- Tapping Valves - Resilient Seated, NRS (4" - 16") Flange x M.J. 200 PSI Rating, (Open Left):**
 - American Flow Control Series 500 or 2500 (No Slots on Flange side)*
 - Clow F-6114 (No Slots on Flange side)*
 - Mueller T-2360*
- Ductile Iron Tapping Sleeve - Two-Piece (4" through 12") M.J. 200 PSI Rating:**
 - American Flow Control Series 2800 (No Slots on Tapping Flange side)*
 - Mueller H-615 (No Slots on Tapping Flange side)*
 - Tyler/Union*
- Cast Iron Valve Boxes - Two-Piece:**
 - Tyler Series 6855 Slip-Type with 5 1/4" Drop Lid*
- Fire Hydrants - 200 PSI minimum Rating, Grease Filled, Painted Silver, 6" M.J. Shoe, (2) 2-1/2" Hose & (1) 4-1/2" Pumper Nozzles (bronze) with NST Threads, 4-1/2" Main Valve Opening (Open Left), UL Listed & FM Approved:**
 - American Flow Control MK-73*
 - Clow Medallion*
 - Mueller Super Centurion*

1

Appendix A

04-12-2018

- Curb Stops - Full Port Ball Valve, (Brass with Padlock Wings):**
 - Ford B11W & B41W* No Lead
 - McDonald 6101W & 6102W* No Lead
- Corporation Stops - Ball Valve, (3/4" - 1", Brass, AWWA/CC Thread Inlet x Copper Tube Compression Nut Outlet):**
 - Ford FB1000G* No Lead
 - McDonald 4701BT* No Lead
 - Mueller B-25008* No Lead
- Corporation Stops - Ball Valve, (1-1/2" - 2", Brass, AWWA/CC Thread Inlet x Copper Tube Pack Nut Outlet):**
 - Ford FB1000* No Lead
 - McDonald 4701B-22* No Lead
 - Mueller P-25008* No Lead
- Service Saddles for AC/CI/DI Pipe - (Stainless Steel Double Strap, Nylon Coated Ductile Iron Saddle):**
 - Romac 202NS*
 - Smith-Blair 317*
- Service Saddles for PVC Pipe - (Brass):**
 - Ford S70 & S90*
 - McDonald 3801, 3805, 3891 & 3895*
- Copper Meter Setters:**
 - Ford CS-VBEHC72-95157-05 for 3/4" Services* No Lead
 - McDonald 21U207WNTT33 for 3/4" Services* No Lead
 - Ford CS-VBEHC74-95319-03 for 1" Services* No Lead
 - McDonald 21U412WNTT44 for 1" Services* No Lead
 - Ford VBHH77-15HBHC-41-77 for 2" Services* No Lead
 - McDonald 26R715WD2F7754 for 2" Services* No Lead
- Copper Tubing:**
 - Type "K" soft, ASTM B-88*
- Miscellaneous Brass Couplings:**
 - Ford* No Lead
 - McDonald* No Lead
 - Mueller* No Lead

2

Appendix A

04-12-2018

- Meter Boxes:**
 - DFW Plastics Inc. - DFW1324C-18-BODY with DFW Plastics Inc. - DFW1324C-1CF ORION-LID for 3/4" & 1" Services (meter box lids shall be plastic lids with recessed knockouts for cellular transmitters)*
 - DFW Plastics Inc. - DFW1730C-18-BODY with DFW Plastics Inc. - DFW1730C-1CF ORION-LID for 2" services (meter box lids shall be plastic lids with recessed knockouts for cellular transmitters)*
- Joint Restraint:**
 - EBAA Megalug 1100 Series for DI/CI Pipe*
 - EBAA Megalug 2000PV Series for PVC Pipe*
 - Romac GripRing PVC/DI/CI Pipe*
 - UNI-FLANGE 1400 ("U" domestic) Series for DI/CI Pipe*
 - UNI-FLANGE 1500 ("U" domestic) Series for PVC Pipe*
- Cast Couplings, Straight & Transition:**
 - Ford FC1 & FC2*
 - Romac 501*
 - Smith-Blair 441*
- Repair Clamps: (repair only - not approved for new construction)**
 - Romac Stainless Steel SS1 & SS2*
 - Smith-Blair Stainless Steel 261 & 262*
- RP Backflows - University of Southern California Foundation for Cross-Connection Control & Hydraulic Research Approval:**
 - Ames*
 - Cobraco*
 - Febco*
 - Wilkins*
- Sewer Manholes - Domestic, Gray Iron Castings Conform to ASTM-A48 Class 35B, Ductile Iron Casting Conform to ASTM-A536, NCDOT 840.54 Standard, Support H20 Wheel Load, Cover dimension of 23-1/2" x 1" thick across the top with a minimum weight of 125Lbs. Marked "Sanitary Sewer". Frame dimension of 7-1/2" tall x 33-1/4" across the bottom with a minimum weight of 189Lbs:**
 - East Jordan Iron Works #41384173*
 - U.S. Foundry 669KL*
- PVC Pipe & Fittings - Pressure Rated Water Distribution, ASTM D-1784, ASTM D-2241:**

3

Appendix A

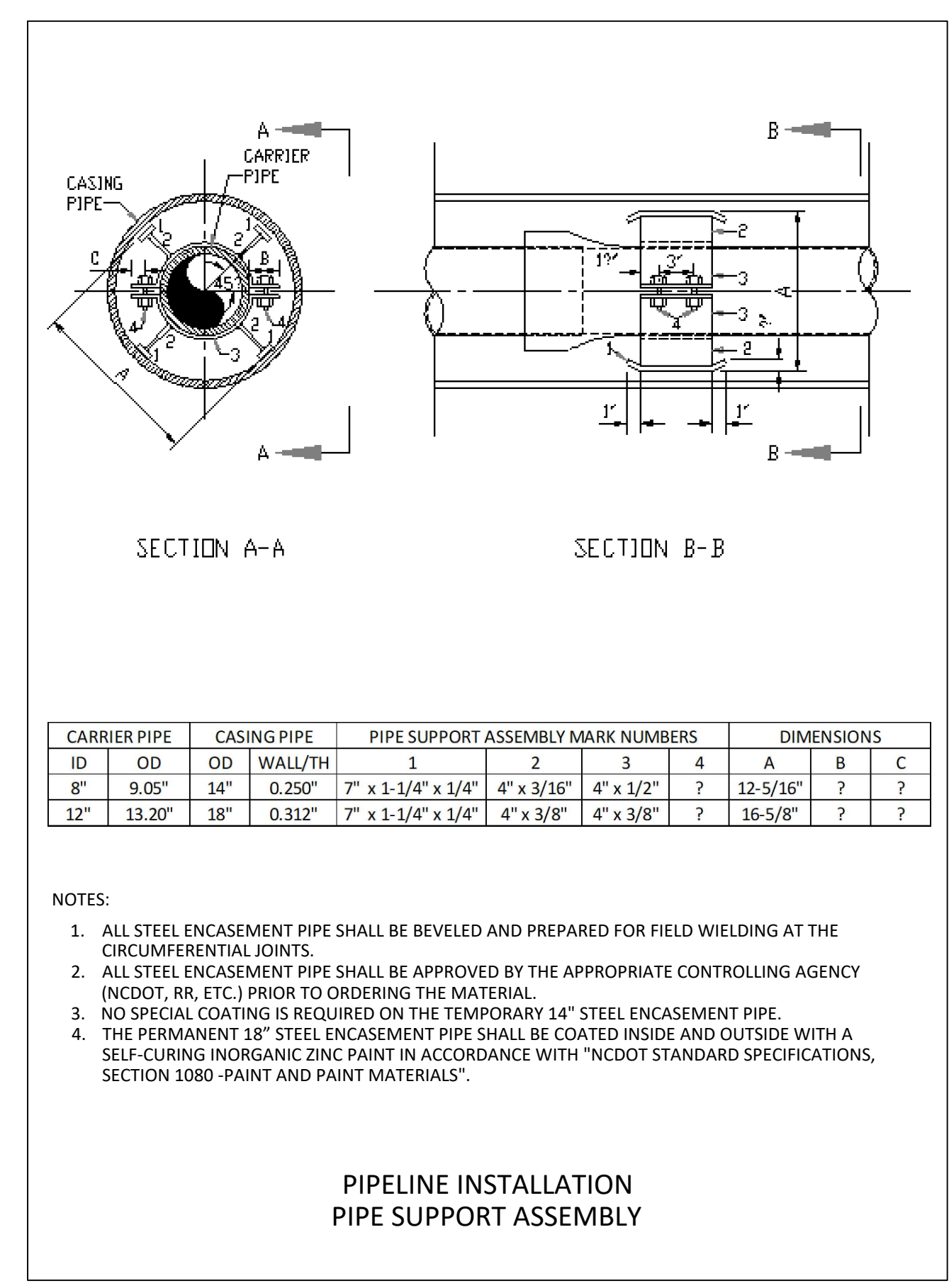
04-12-2018

- 2" - SDR 13.5, Class 315*
- 6" - 8" AWWA C900 - DR14, Class 200*

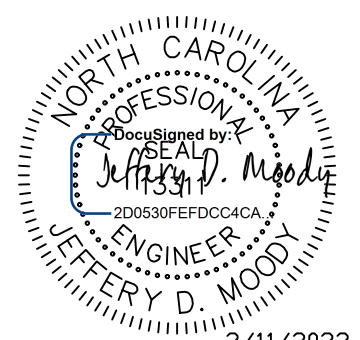
- PVC Pipe & Fittings - Gravity Sewer, ASTM D-3034, ASTM F-679, ASTM D-2665 (Charlotte Pipe, North American, or approved equal):**
 - 4" - 30" SDR-35*
 - 4" - 6" SCH 40 NSF-DW*
- Sewer Transition Couplings - (repair only - not allowed on new construction):**
 - Femco Strong Back - RC Coupling Series*
 - Mission Rubber Company, Flex - Seal ARC MR Series Couplings
- Sewer Wyes:**
 - Saddle Wye - Contech PFSP & PFTP style*
 - Adapter - Harco 35-4004 (4") & 35-4006 (6") Plastic Trends P1213 (4") P1215 (6")*
 - Wye - Lasco, Charlotte Pipe, Spears, or approved equal*

*Note: Some manufacturers are producing both domestic and import materials. In some instances the part numbers may be the same or have just a letter or number difference (example - the Ford Uni-Flange 1400 series joint restraint - a "U" has been added to the part number for USA made). **Only the domestic manufactured materials will be accepted.** Suppliers and contractors should verify the materials are domestically manufactured before installation. Shop drawings are required to be submitted and approved prior to the start of construction.


4



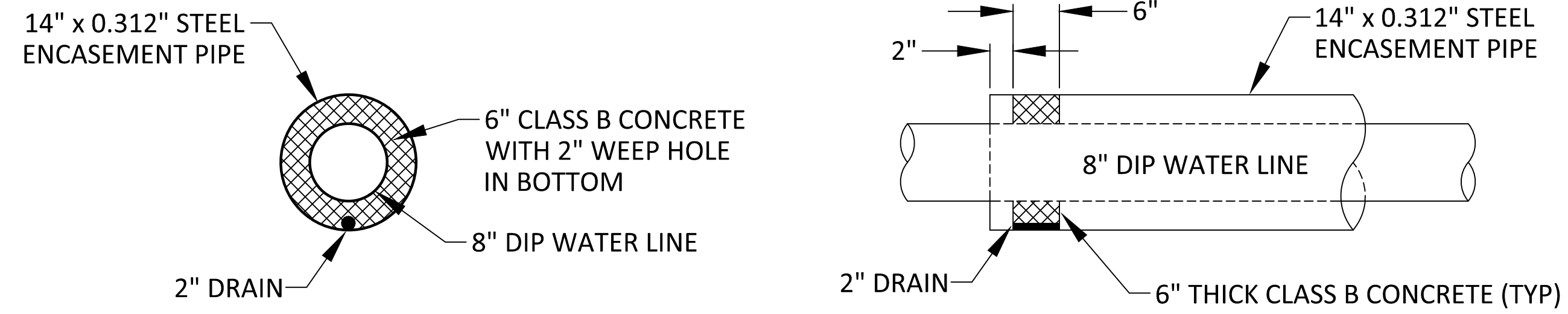
TEMPORARY WATER LINE DETAILS

PROJECT REFERENCE NO. <i>B-5772</i>	SHEET NO. <i>UC-3C</i>
DESIGNED BY: JDM	
DRAWN BY: RCC	
CHECKED BY:	
APPROVED BY:	
REVISID:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	3/11/2022
UTILITIES ENGINEERING SEC. PHONE: (919)707-6690 FAX: (919)250-4151	UTILITY CONSTRUCTION PLANS ONLY

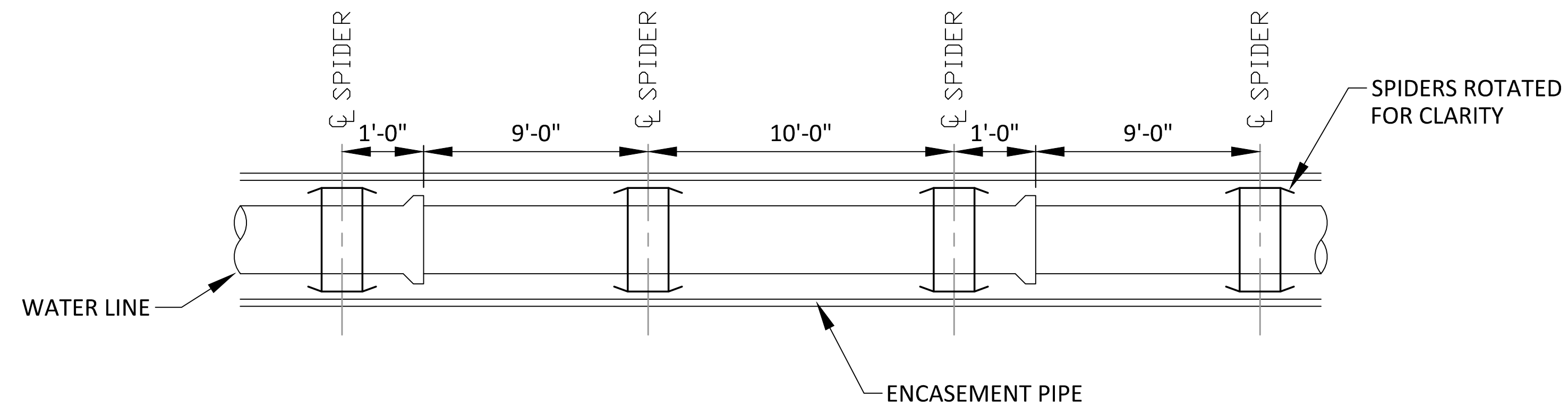
**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**



alley, williams, carmen, & king, inc.
CONSULTING ENGINEERS
FIRM LICENSE No. F-0203
120 SOUTH MAIN STREET P.O. BOX 1248
KANNAPOLIS, NC 28082 704/938-1515



14" TEMPORARY ENCASEMENT PIPE END SEALS



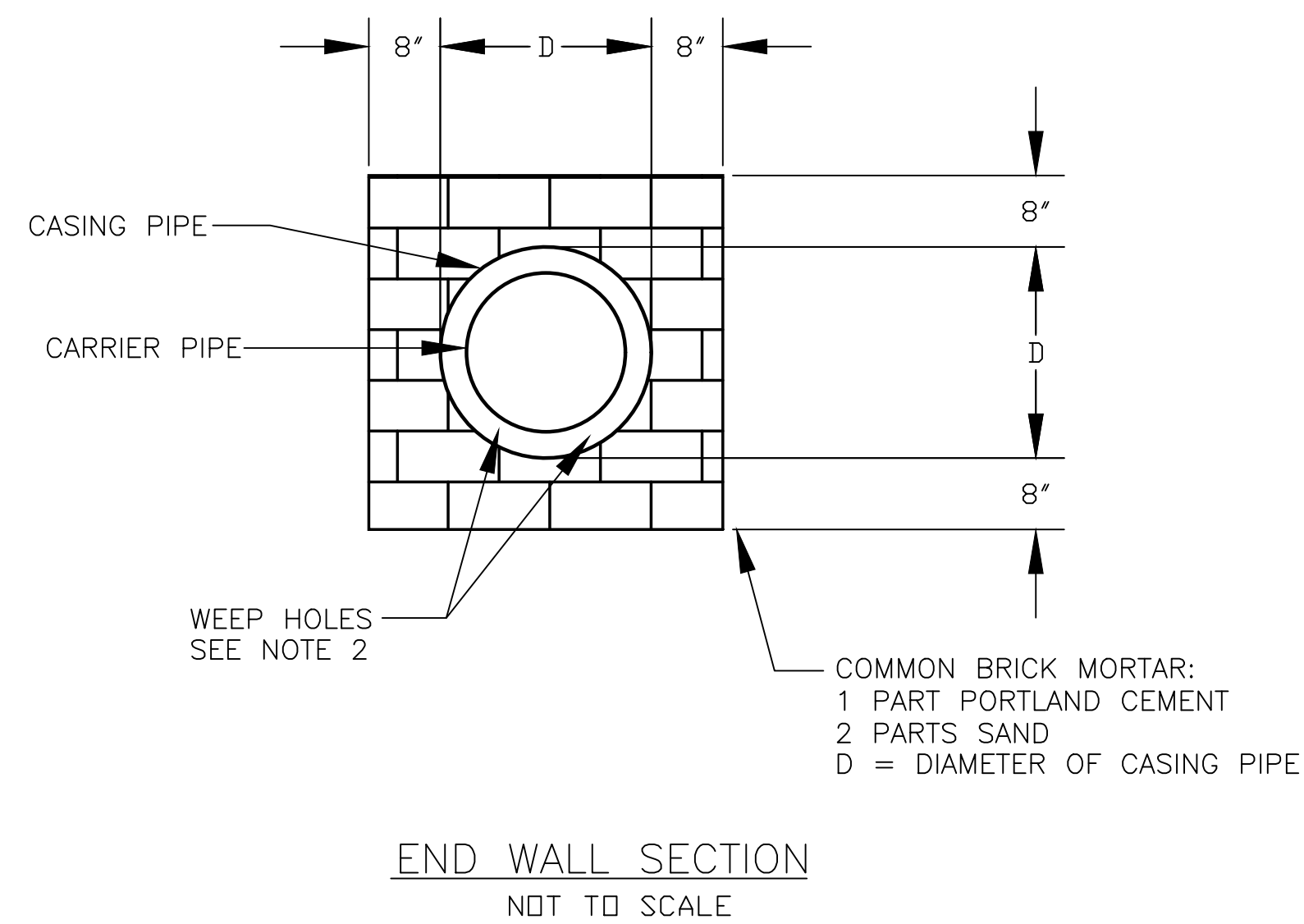
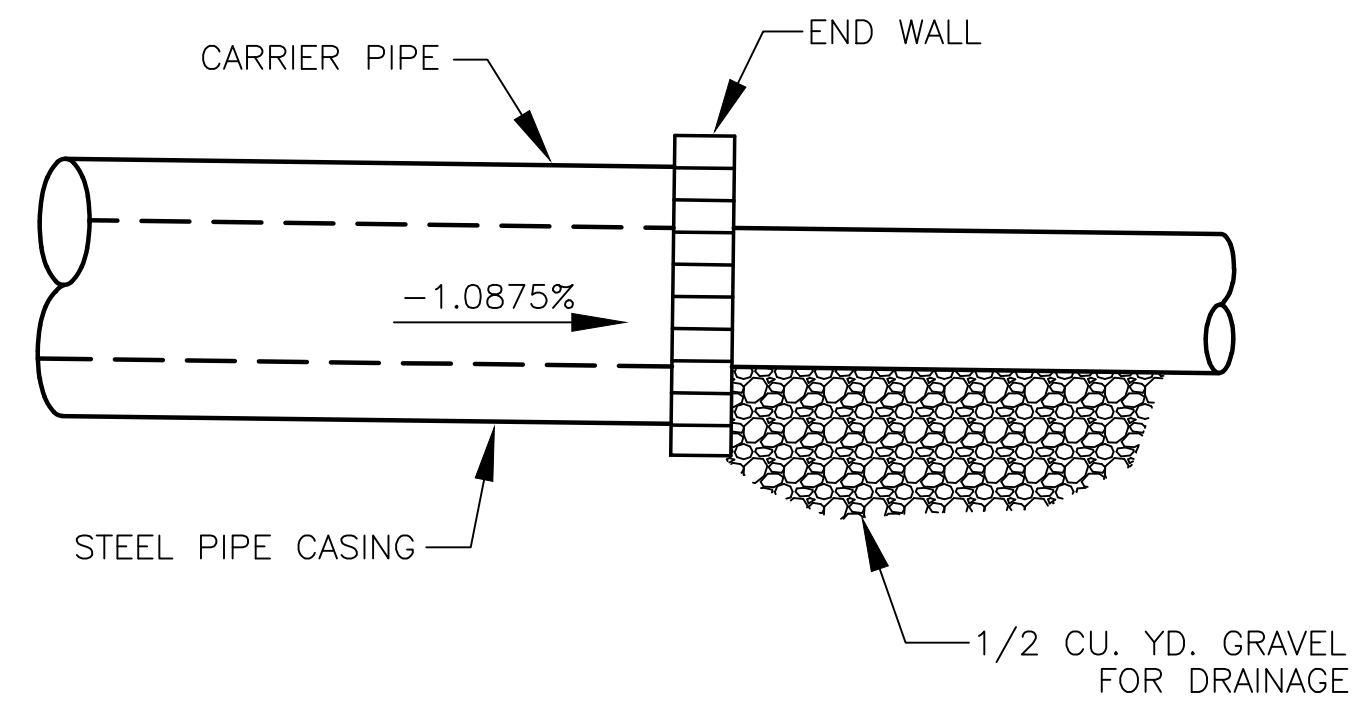
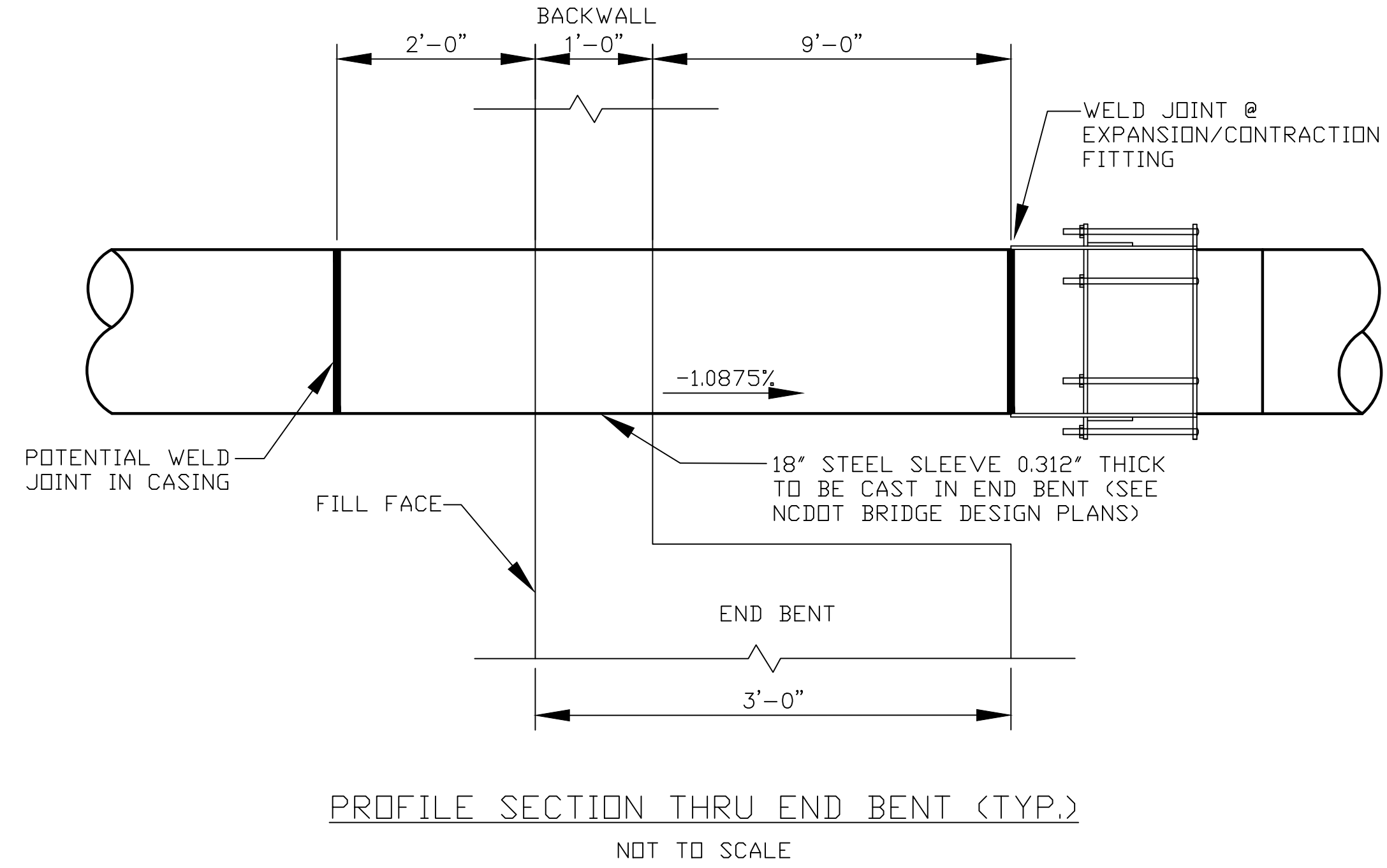
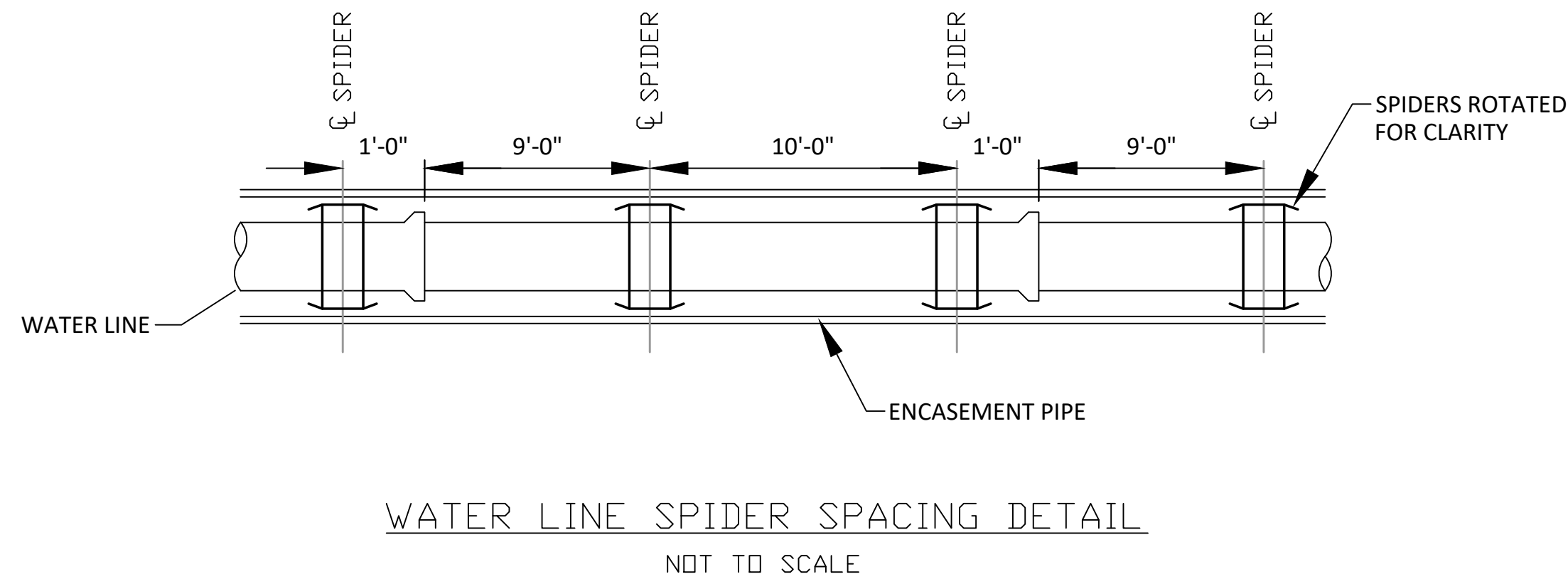
WATER LINE SPIDER SPACING DETAIL

PERMANENT WATER LINE DETAILS

PROJECT REFERENCE NO. B-5772	SHEET NO. UC-3D
DESIGNED BY: JDM	
DRAWN BY: RCC	
CHECKED BY:	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919)707-6690 FAX: (919)250-4151	
3/11/2022 UTILITY CONSTRUCTION PLANS ONLY	

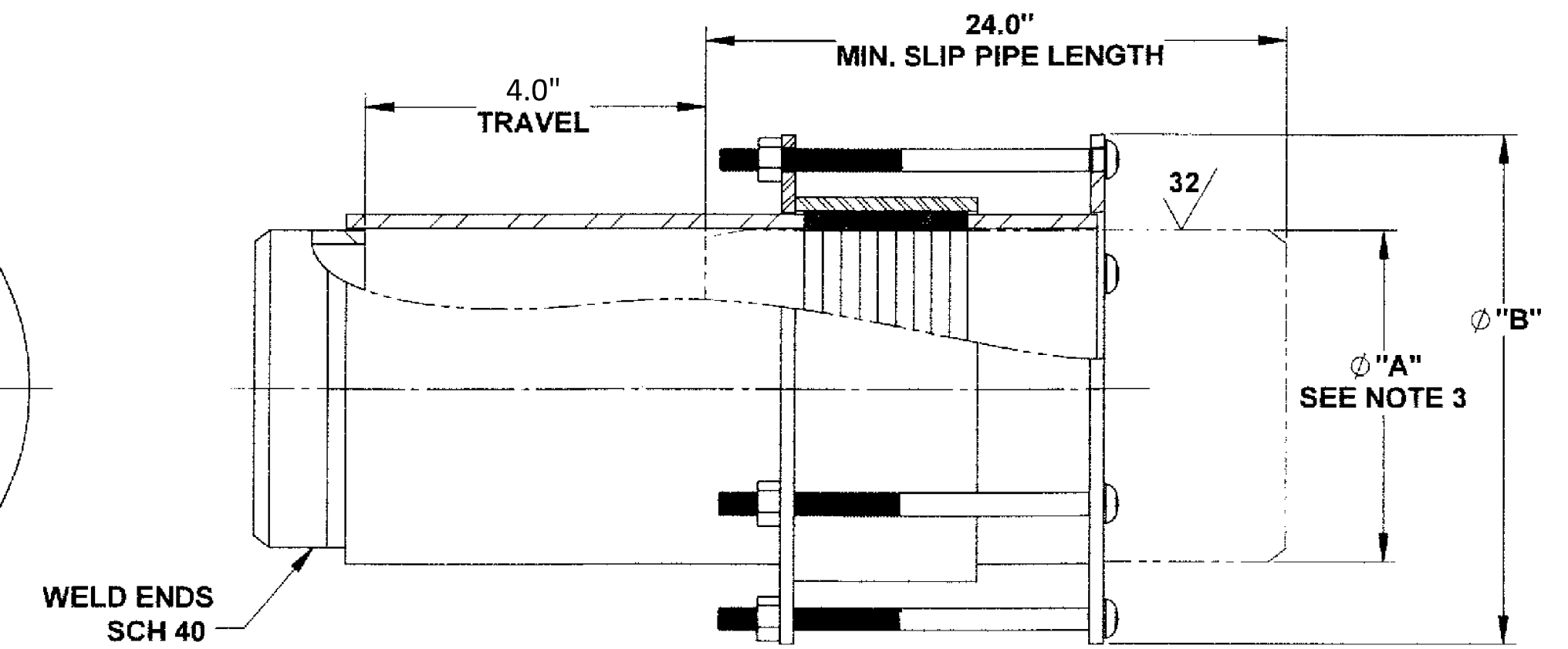
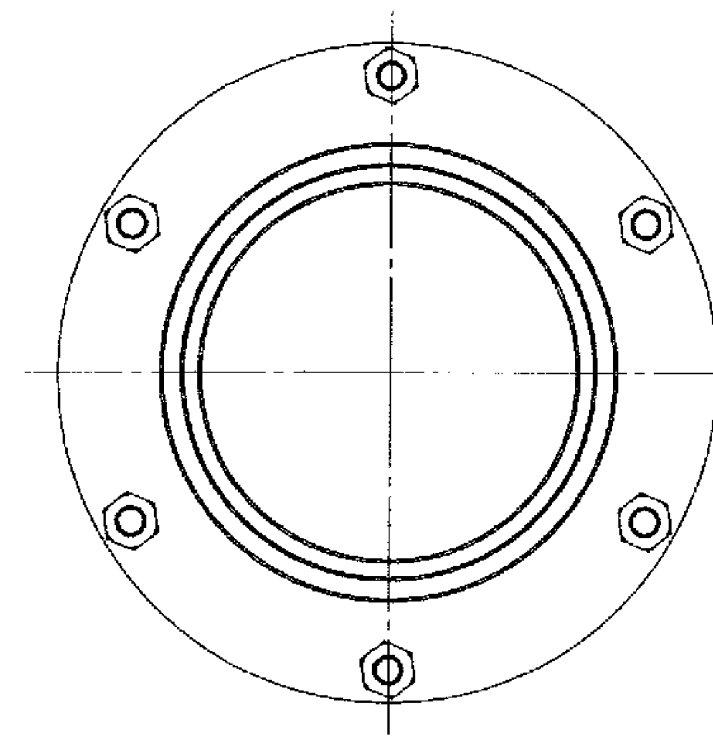
**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

alley, williams, carmen, & king, inc.
 CONSULTING ENGINEERS
 FIRM LICENSE No. F-0203
 120 SOUTH MAIN STREET
 KANNAPOLIS, NC 28082
 P.O. BOX 1248
 704/938-1515



- NOTES:
- SEE DRAWINGS FOR LOCATION, SIZE AND LENGTH OF STEEL PIPE CASINGS.
 - INSTALL TWO (2) 1" DRAINS EACH SIDE OF CARRIER PIPE IN DOWNHILL END WALL.

WRENCH SIZE CHART	
NUT	SIZE
5/8"-11UNC HH	1-1/16"



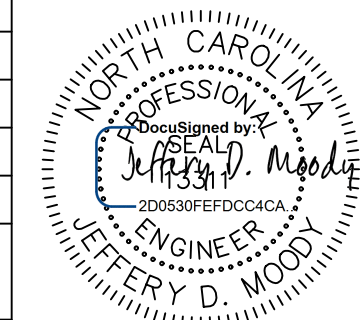

WELD END WITHOUT SLIP PIPE - WITHOUT LIMIT RODS

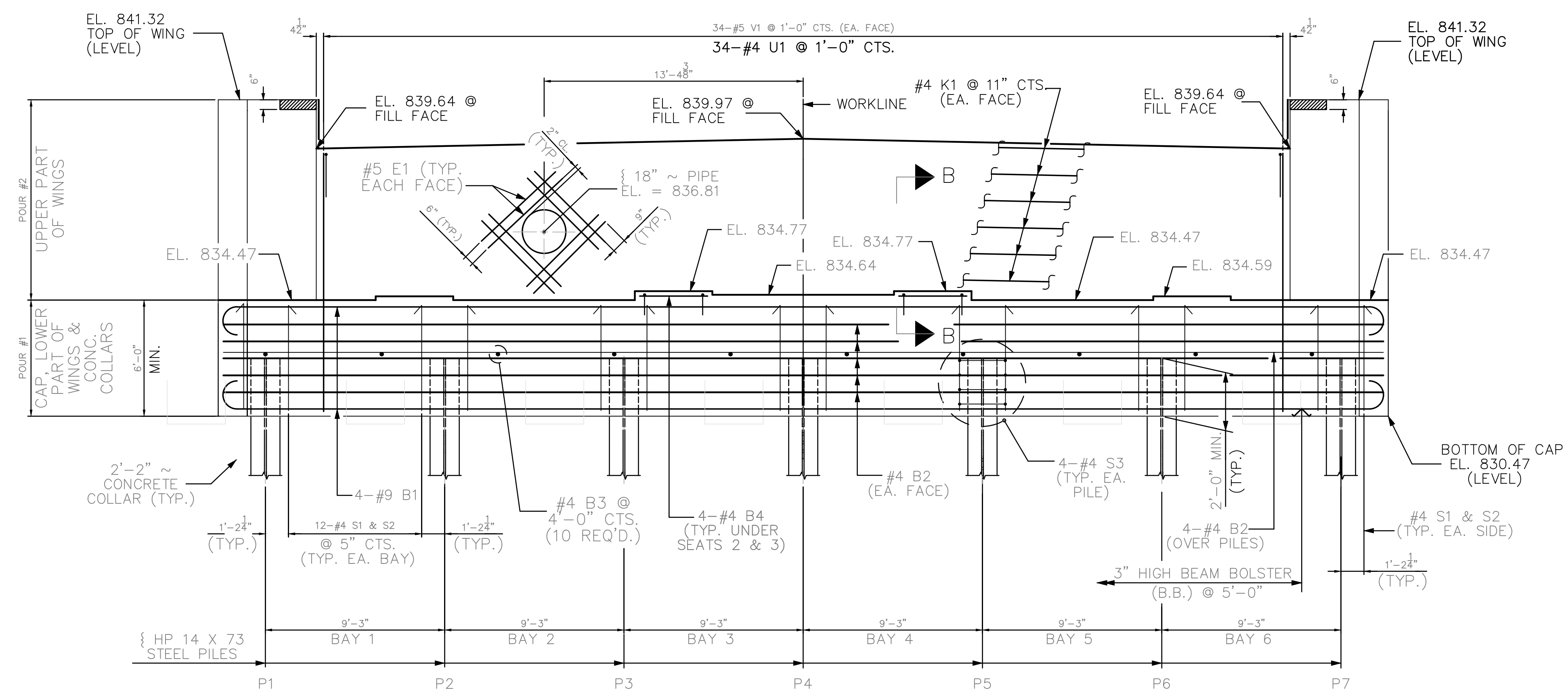
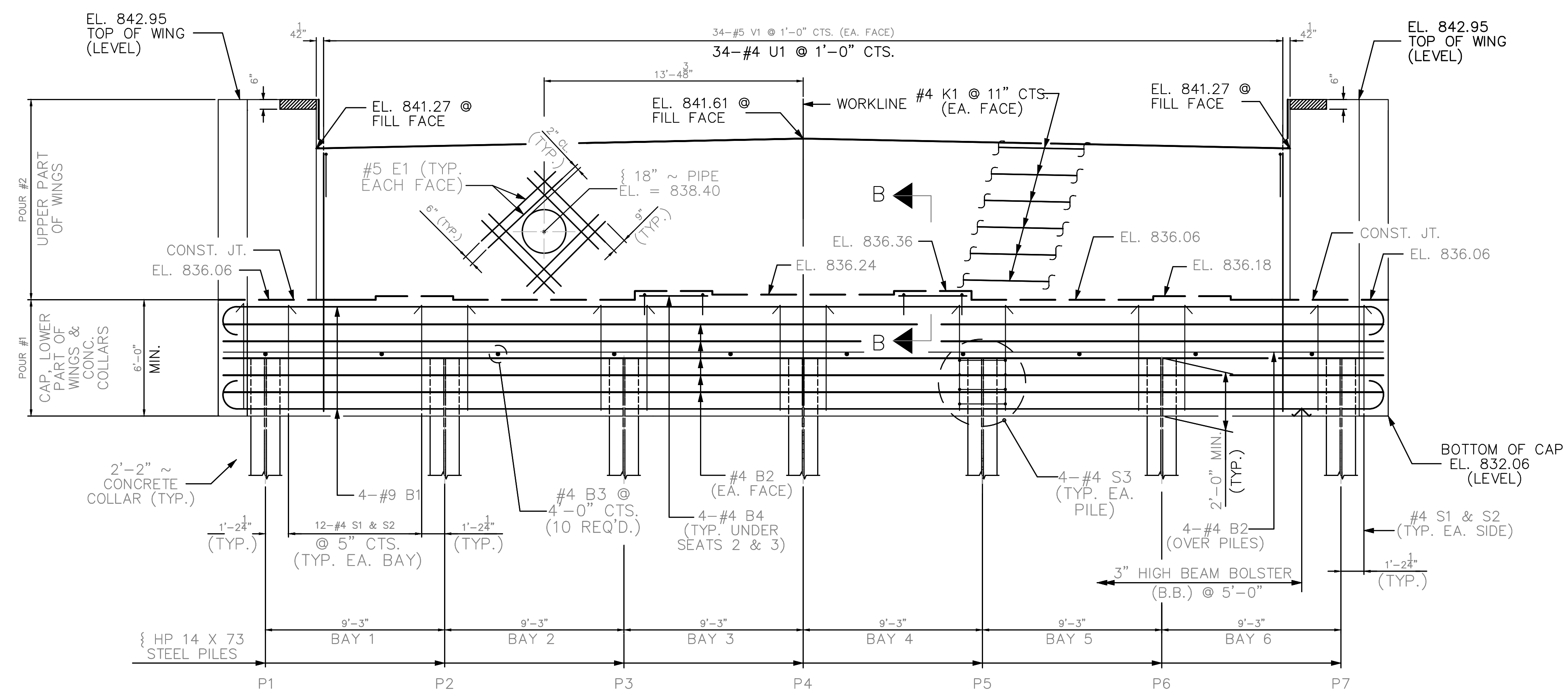
NOM. PIPE SIZE	SLIP PIPE O.D. "A"	MAX O.D. "B"	APPROX. WEIGHT (LBS)
3	3.50	8.38	50
4	4.50	9.63	65
6	6.63	11.88	90
8	8.63	13.88	125
10	10.75	16.00	185
12	12.75	18.00	195
14	14.00	19.25	220
16	16.00	21.25	250
18	18.00	23.25	280
20	20.00	25.25	310
22	22.00	27.25	340
24	24.00	29.31	370

- NOTES:
- SEE MANUFACTURER'S CATALOG FOR ADDITIONAL DETAILS.
 - 8" WELD END EXPANSION JOINT SHOWN OTHER SIZES SIMILAR
 - CUSTOMER FURNISHED SLIP PIPE MUST HAVE A PREPARED END AT LEAST 24IN IN LENGTH THAT IS ROUND, SURFACE ROUGHNESS OF 32μIN OR BETTER 18IN MIN. FROM STAB END, AND NO GREATER THAN +.030" OR -.010" FROM NOMINAL SIZE.
 - ENGINEERED FOR AXIAL PIPE MOVEMENT ONLY

EXPANSION COUPLING DETAIL
NOT TO SCALE

PERMANENT WATER LINE DETAILS

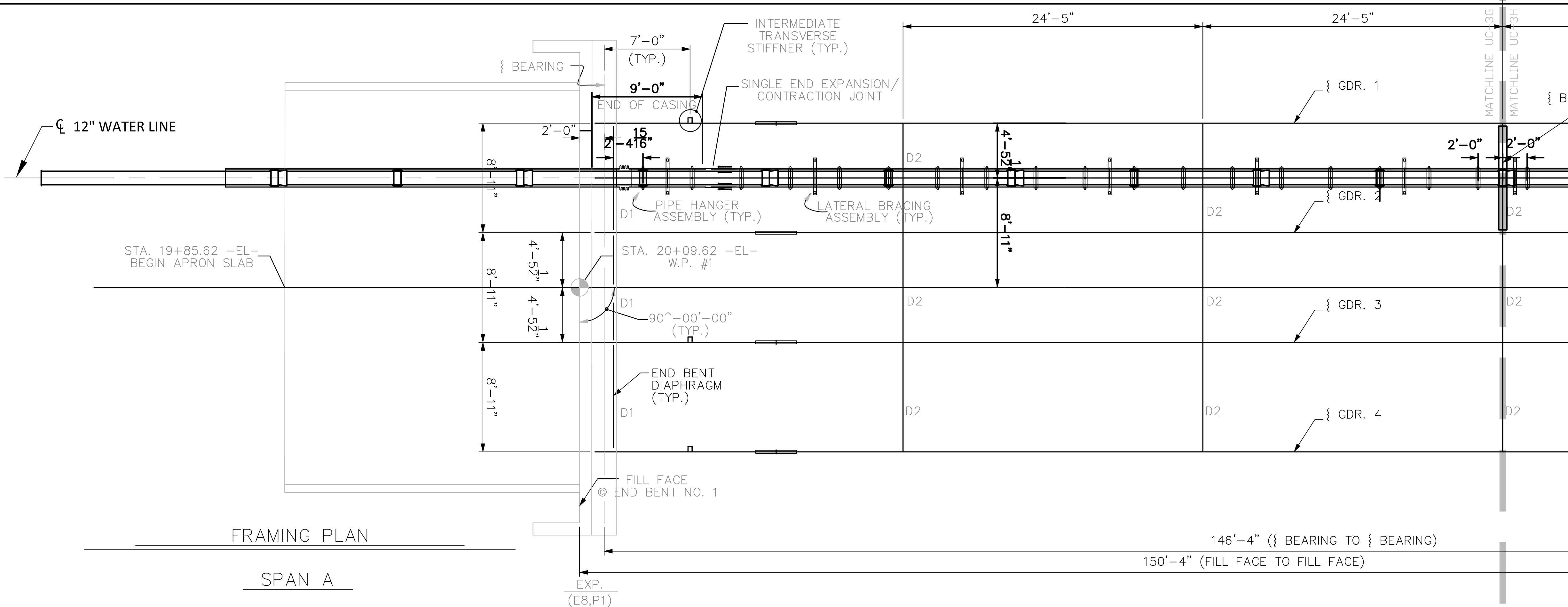
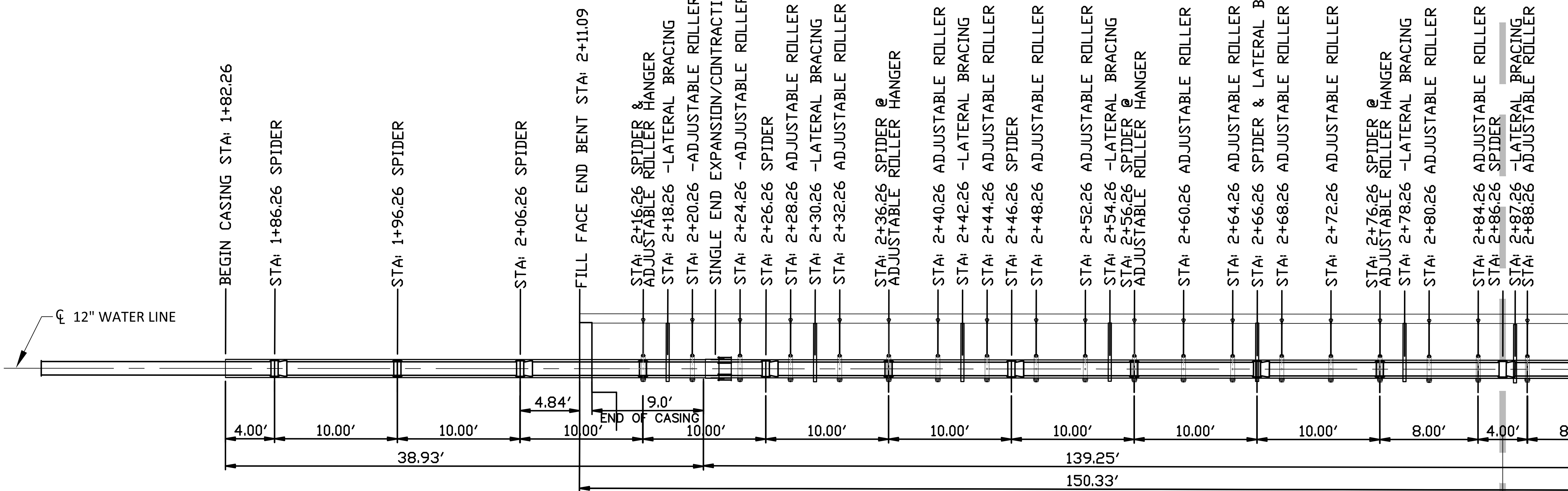
PROJECT REFERENCE NO. B-5772	SHEET NO. UC-3E
DESIGNED BY: JDM	
DRAWN BY: RCC	
CHECKED BY:	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919)707-6690 FAX: (919)250-4151	
3/11/2022 UTILITY CONSTRUCTION PLANS ONLY	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
 alley, williams, carmen, & king, inc. CONSULTING ENGINEERS FIRM LICENSE No. F-0203 120 SOUTH MAIN STREET KANNAPOLIS, NC 28082 P.O. BOX 1248 704/938-1515	



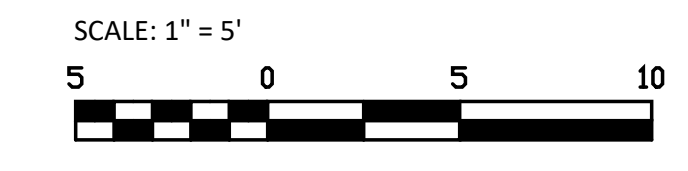
NOTE:
 END BENT ELEVATIONS THAT ARE SHOWN ON THIS SHEET WERE DESIGNED BY NCDOT STRUCTURAL UNIT.

PERMANENT WATER LINE DETAILS

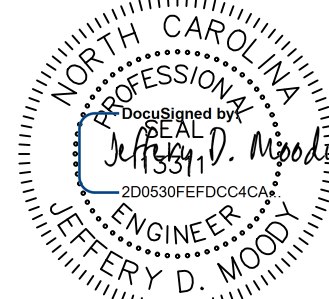
PERMANENT 18" ENCASEMENT PIPE PROFILE SUPPORT DETAIL



PROJECT REFERENCE NO. B-5772	SHEET NO. UC-3G
DESIGNED BY: JDM	
DRAWN BY: RCC	
CHECKED BY:	
APPROVED BY:	
REVISED:	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919)707-6690 FAX: (919)250-4151
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
alley, williams, carmen, & king, inc. CONSULTING ENGINEERS FIRM LICENSE No. F-0203 120 SOUTH MAIN STREET KANNAPOLIS, NC 28082	




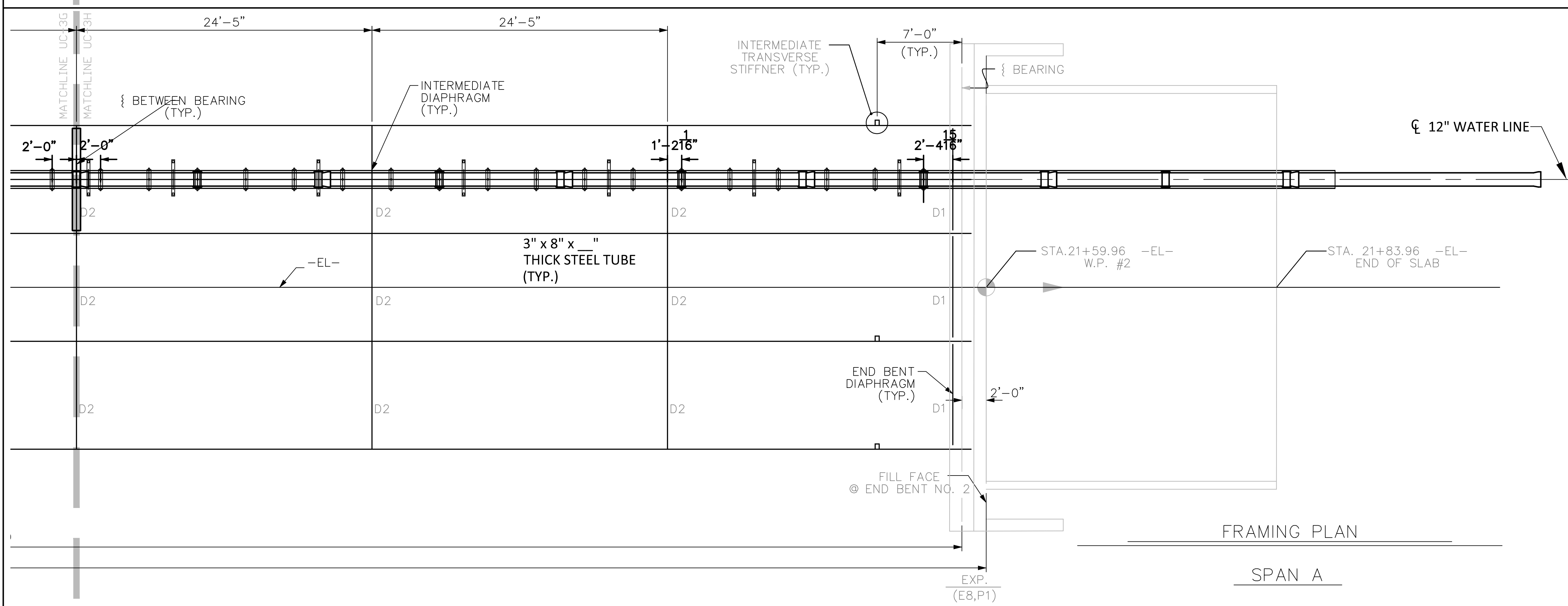
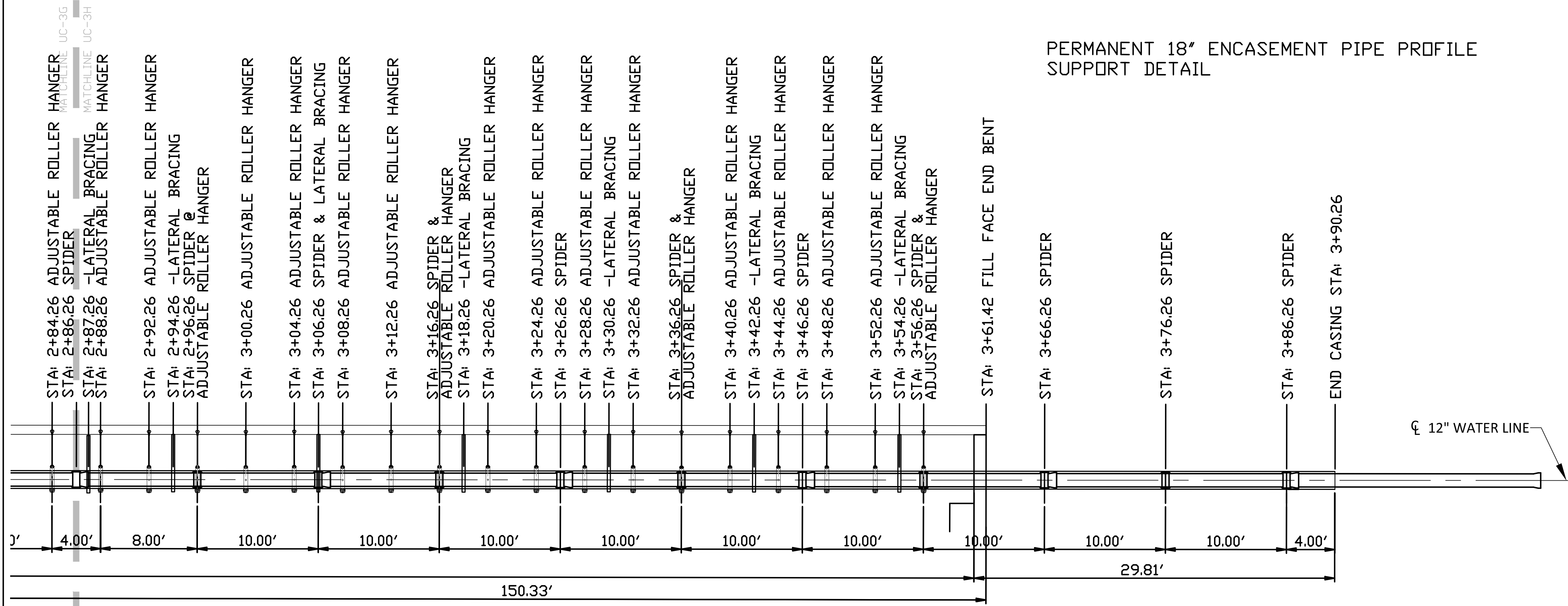
PERMANENT WATER LINE DETAILS

PROJECT REFERENCE NO. B-5772	SHEET NO. UC-3H
DESIGNED BY: JDM	
DRAWN BY: RCC	
CHECKED BY:	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919)707-6690 FAX: (919)250-4151	3/11/2022 UTILITY CONSTRUCTION PLANS ONLY

PERMANENT 18" ENCASEMENT PIPE PROFILE SUPPORT DETAIL

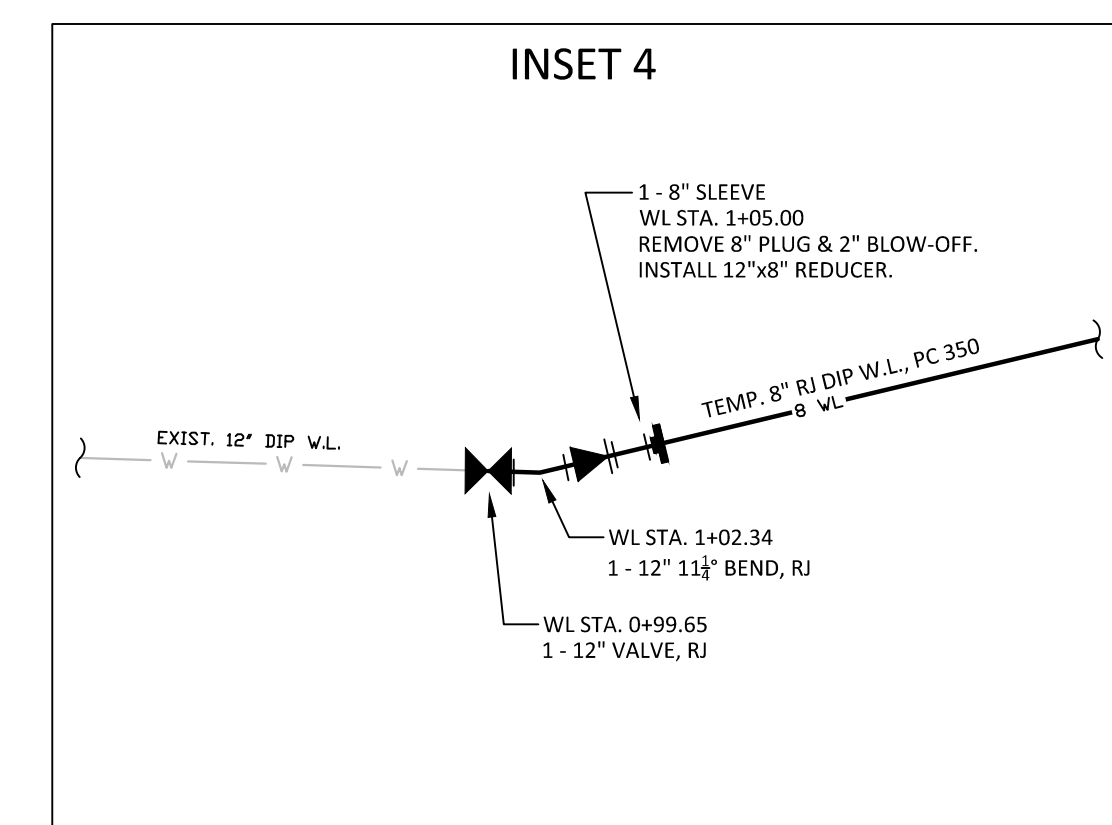
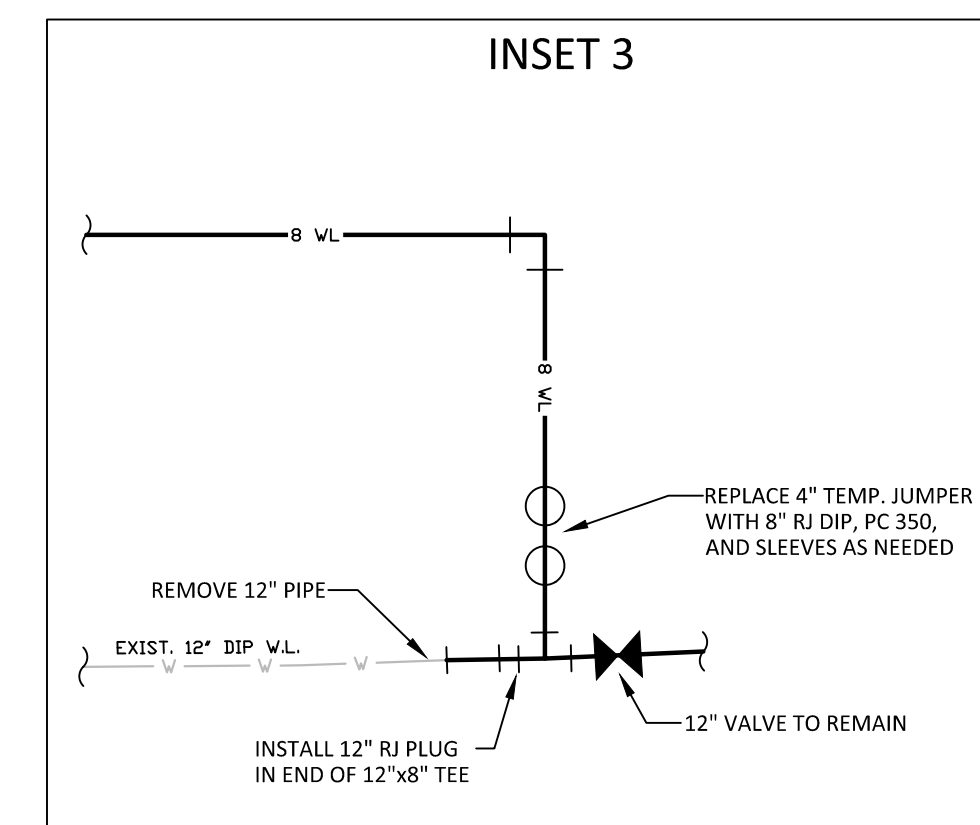
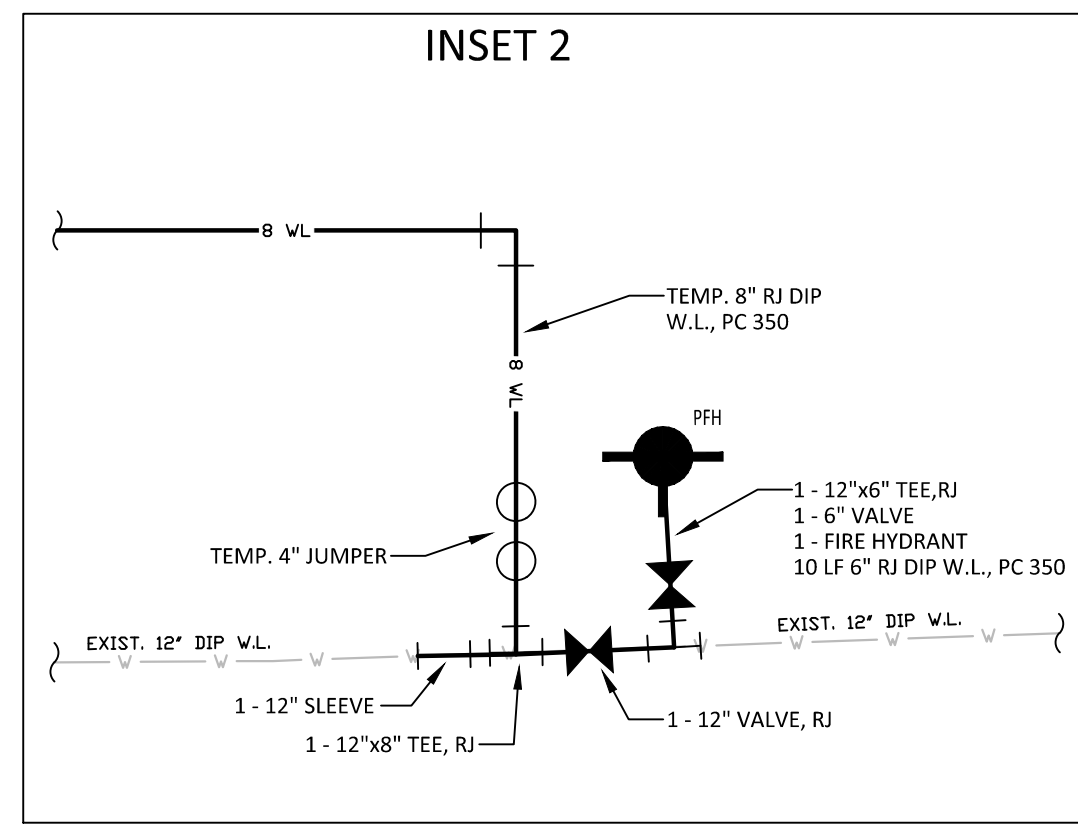
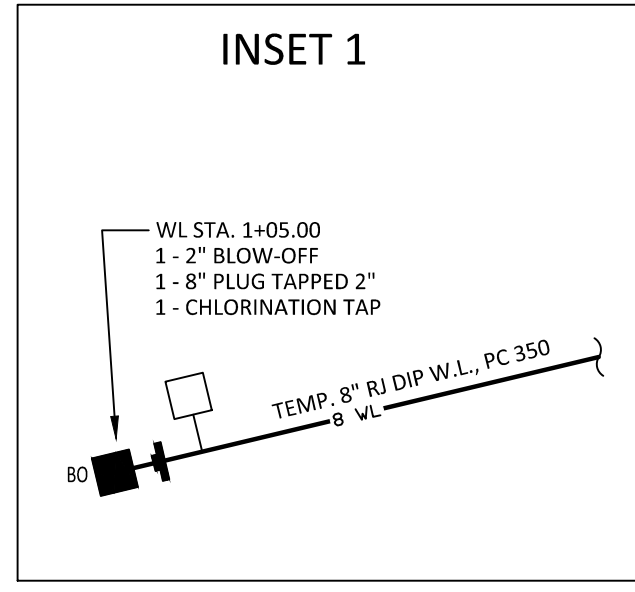
**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**


alley, williams, carmen, & king, inc.
 CONSULTING ENGINEERS
FIRM LICENSE No. F-0203
 120 SOUTH MAIN STREET
 KANNAPOLIS, NC 28082
P.O. BOX 1248
704/938-1515



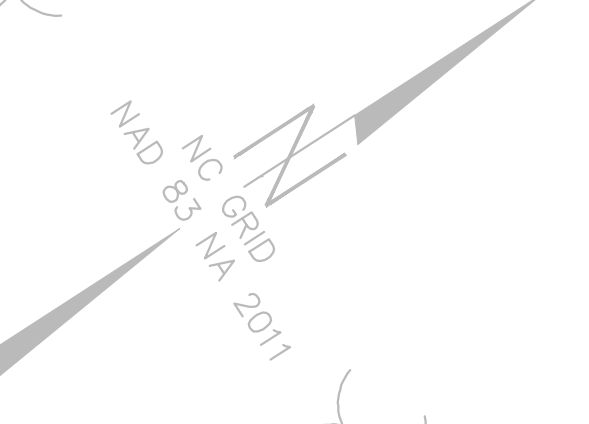
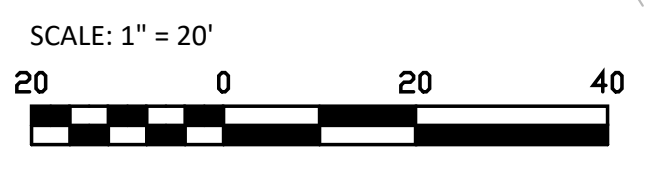
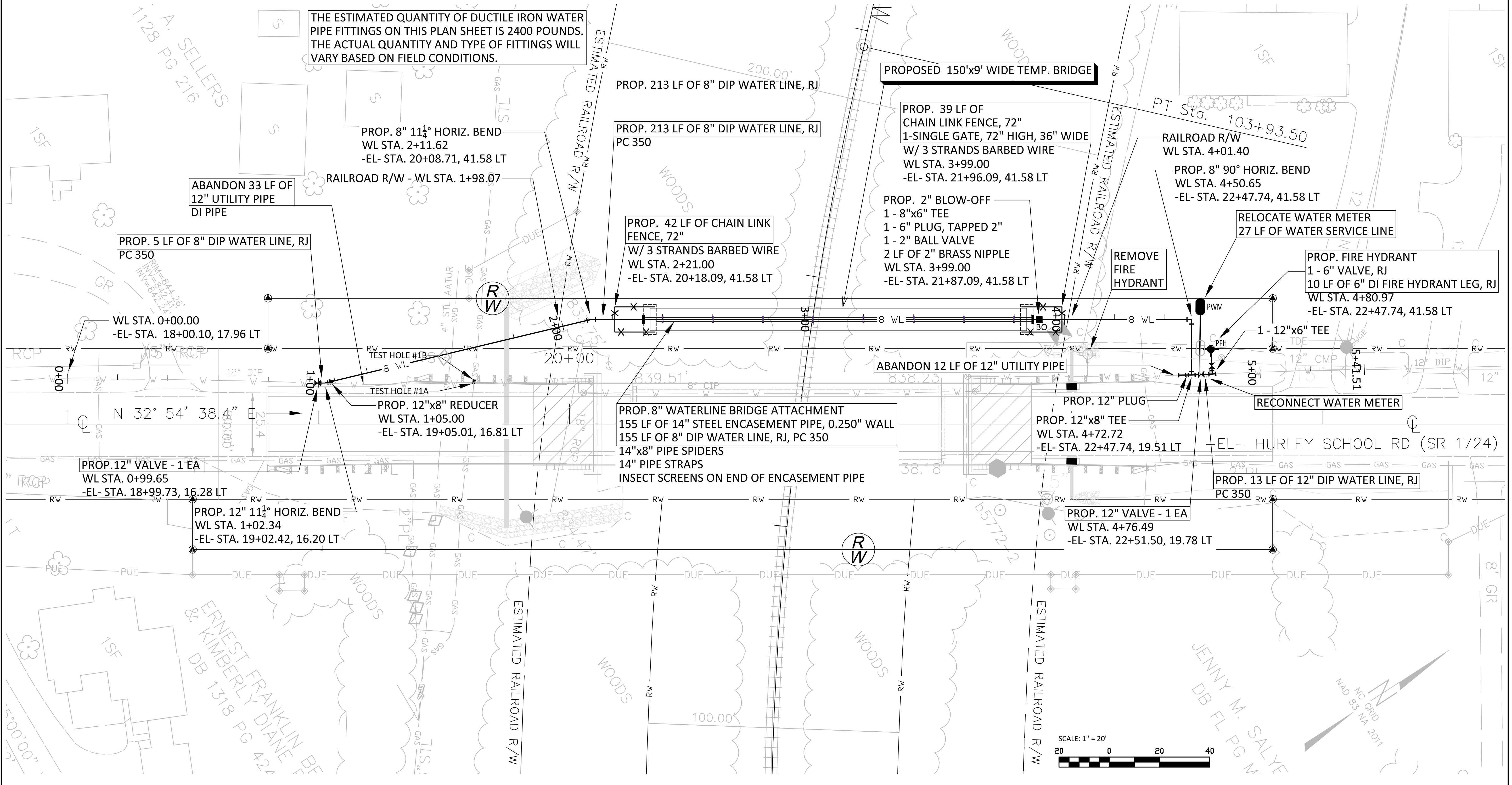
TEMPORARY WATER LINE SEQUENCE OF CONSTRUCTION:

1. CONSTRUCT TEMPORARY BRIDGE AND ATTACH 14" X 0.312" STEEL CASING TO BRIDGE DECKING AS DETAILED.
2. INSTALL 2" BLOW-OFF AND 8" PLUG AT STA. 1+05 AS SHOWN IN INSET 1 AND INSTALL 8" DIP WATER LINE ACROSS TEMPORARY BRIDGE.
3. CUT-OFF WATER AT THE 12" MAIN LINE VALVE AT THE INTERSECTION OF HURLEY SCHOOL ROAD AND PINE VALLEY. COORDINATE THE CUT-OFF WITH SALISBURY-ROWAN UTILITIES. THIS CUT-OFF AND SUBSEQUENT TIE-IN WILL NEED TO BE COMPLETED DURING NON-SCHOOL HOURS OR WHEN EXTRA-CURRICULAR ACTIVITIES ARE BEING HELD AT THE SCHOOL. INSTALL 4" JUMPER CONNECTION, FIRE HYDRANT ASSEMBLY AND TIE-IN TO THE EXISTING 12" WATER LINE AS SHOWN IN INSET 2.
4. AFTER PRESSURE TESTING, CHLORINATION, FLUSHING AND BACTERIAL TESTING IS COMPLETED ON TEMPORARY WATER LINE, CUT-OFF WATER, REMOVE TEMPORARY JUMPER CONNECTION AND PLUG EXISTING 12"x8" TEE AS SHOWN IN INSET 3 AND INSTALL 12" GATE VALVE AND TIE-IN TO EXISTING 12" WATER LINE BETWEEN STA. 0+94 AND STA. 1+05 AS SHOWN IN INSET 2.
5. FLUSH TEMPORARY LINE TO REMOVE AIR AND SEDIMENT AND AIR THAT MAY HAVE INTERFERED WITH THE SYSTEM WHILE MAKING THE TIE-INS AND PLACE THE TEMPORARY WATER LINE IN SERVICE.
6. ABANDON/REMOVE THE EXISTING 12" AND 8" WATER LINES CROSSING THE EXISTING BRIDGE.



PROJECT REFERENCE NO. B-5772	SHEET NO. UC-4
DESIGNED BY: JDM	
DRAWN BY: RCC	
CHECKED BY:	
APPROVED BY:	
REVISED:	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
UTILITIES ENGINEERING SEC. PHONE: (919)707-6690 FAX: (919)230-4151	5/19/2022 UTILITY CONSTRUCTION PLANS ONLY
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
alley, williams, carmen, & king, inc. CONSULTING ENGINEERS FIRM LICENSE No. F-0203 120 SOUTH MAIN STREET RANNAPOLE, NC 28082 P.O. BOX 1248 704/938-1515	

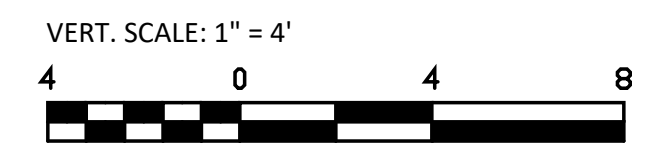
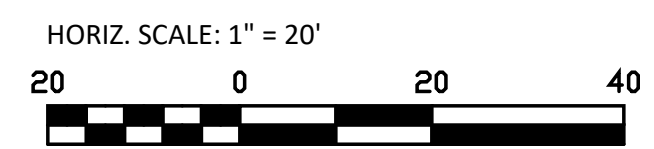
TEMPORARY WATER LINE PLAN



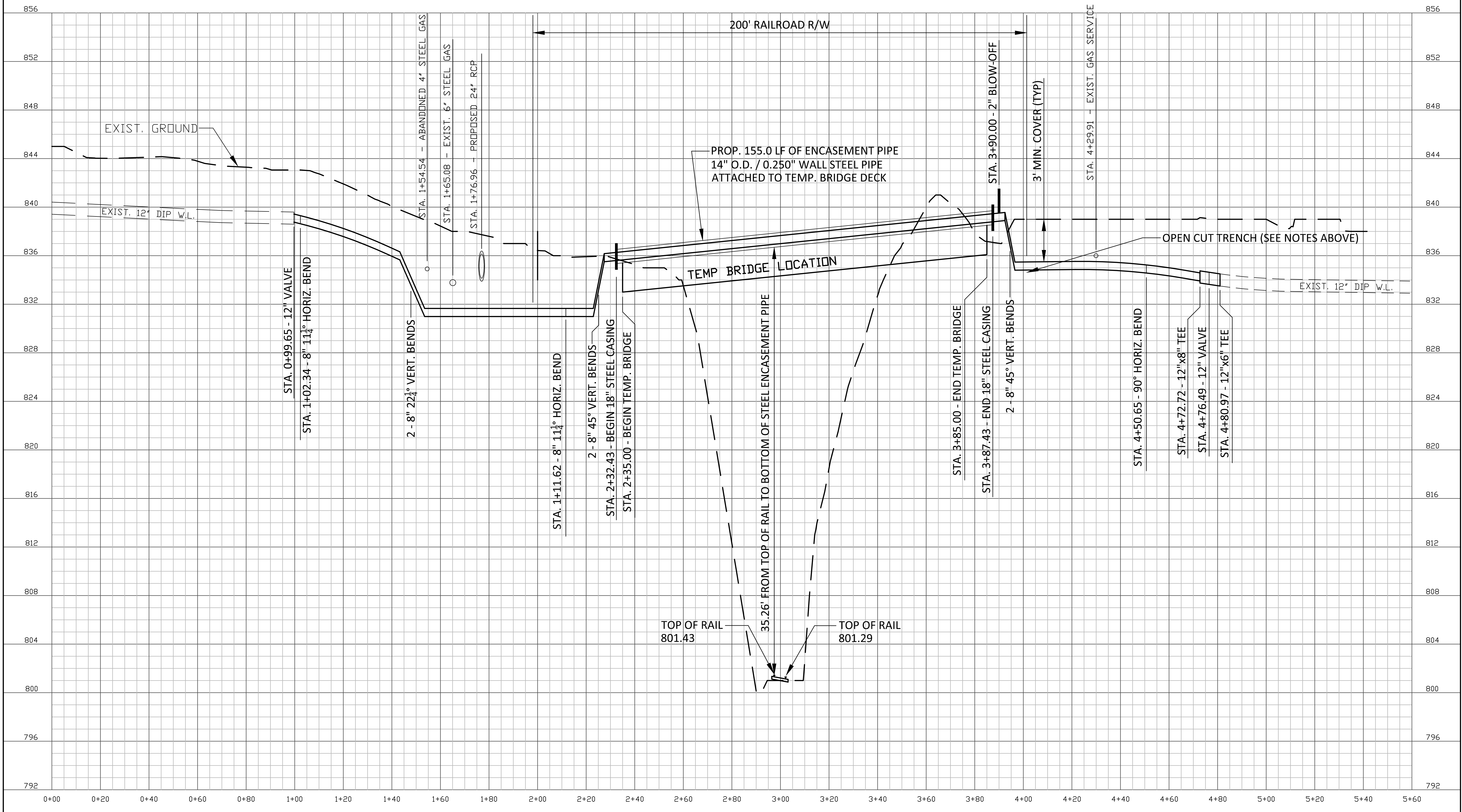
PROJECT REFERENCE NO.	SHEET NO.
B-5772	UC-4A
DESIGNED BY: JDM	
DRAWN BY: RCC	
CHECKED BY:	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919)707-6690 FAX: (919)250-4151	
3/11/2022 UTILITY CONSTRUCTION PLANS ONLY	

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

awc alley, williams, carmen, & king, inc.
 CONSULTING ENGINEERS
 FIRM LICENSE No. F-0203
 120 SOUTH MAIN STREET
 KANNAPOLIS, NC 28082
 P.O. BOX 1248
 704/838-1515

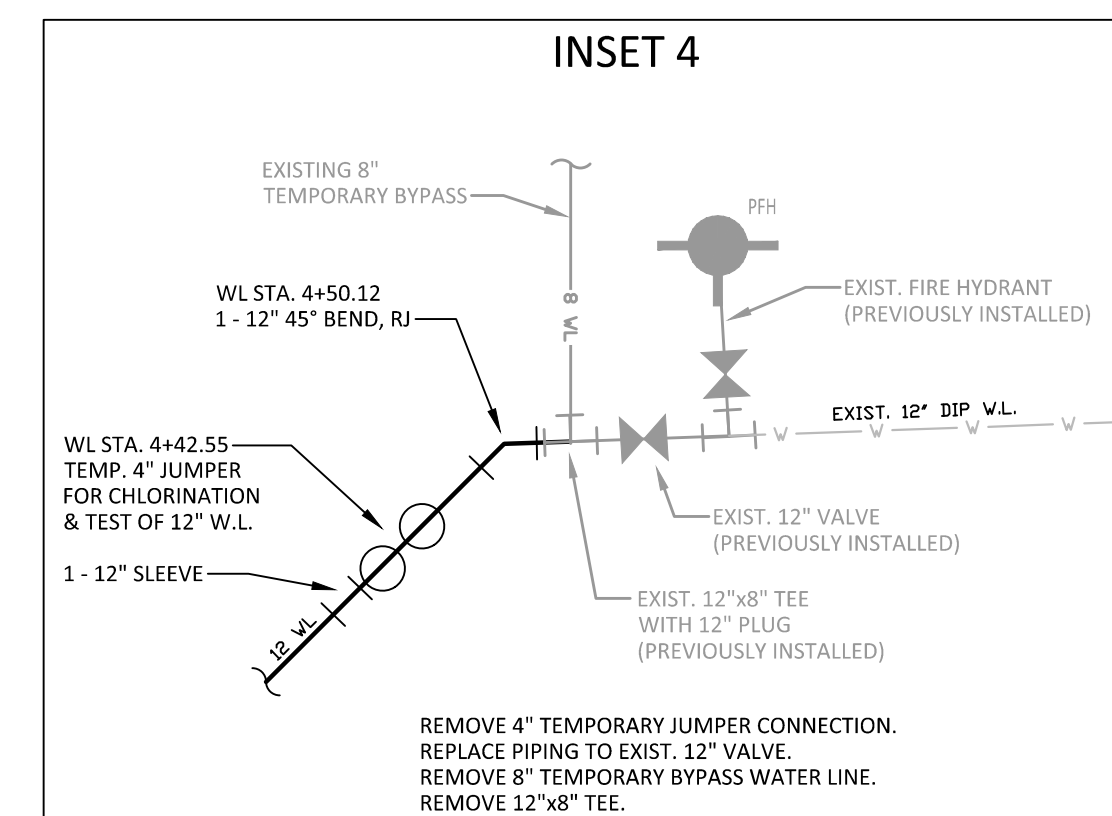
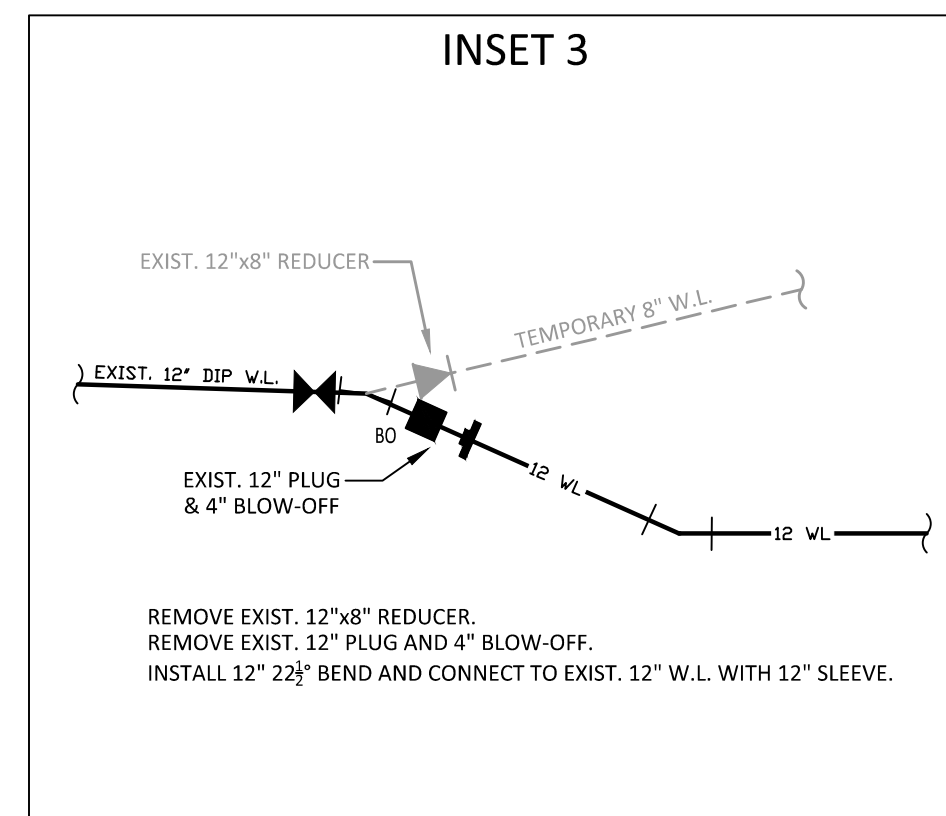
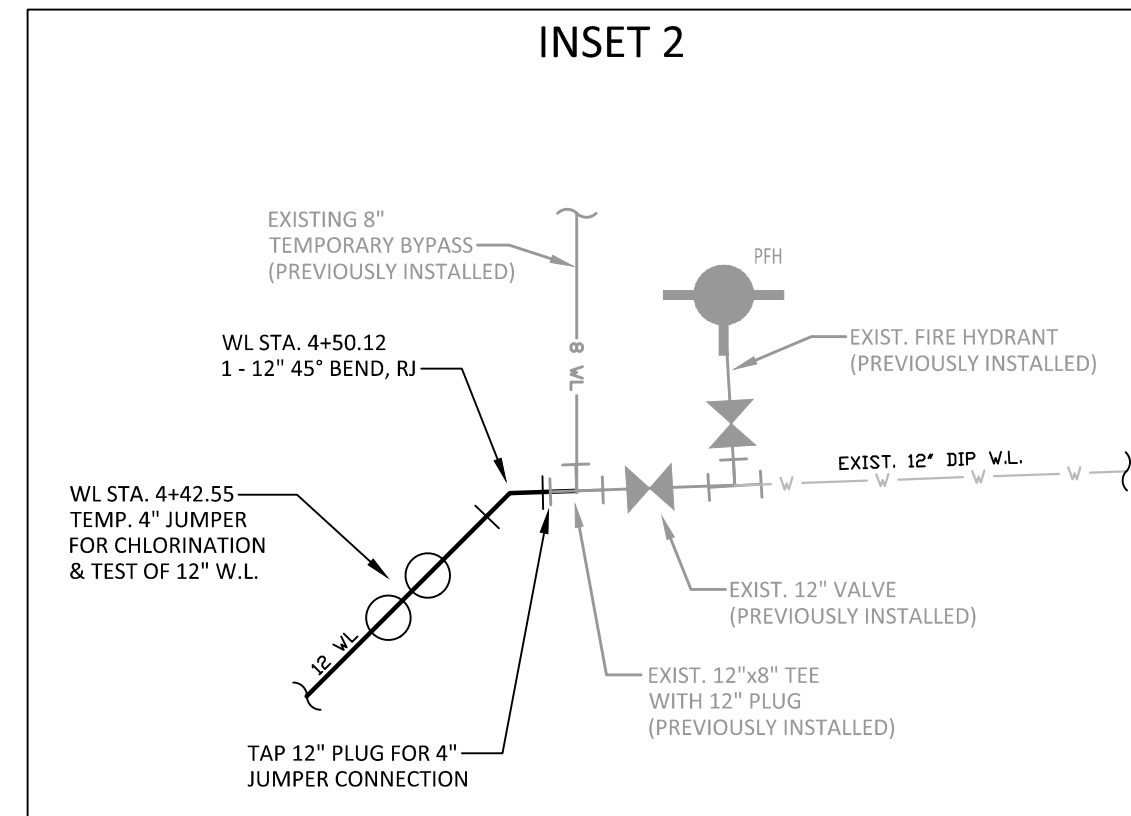
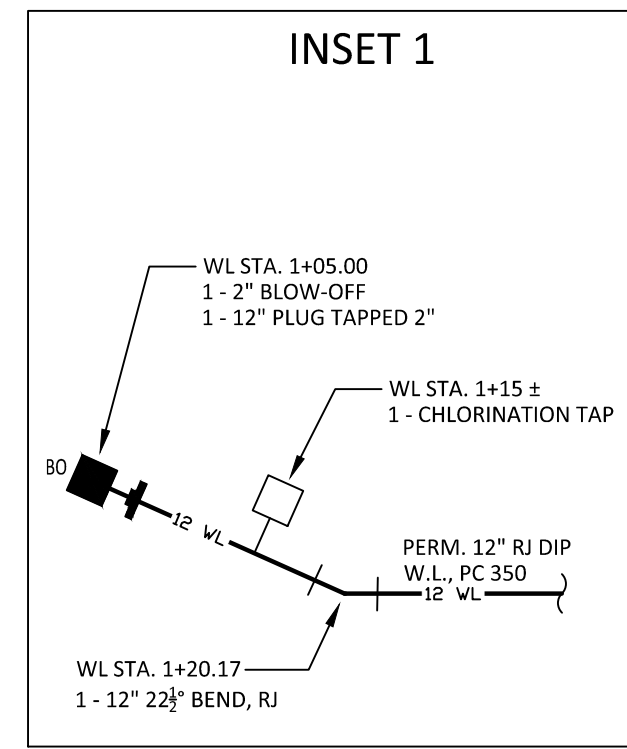


TEMPORARY WATER LINE PROFILE



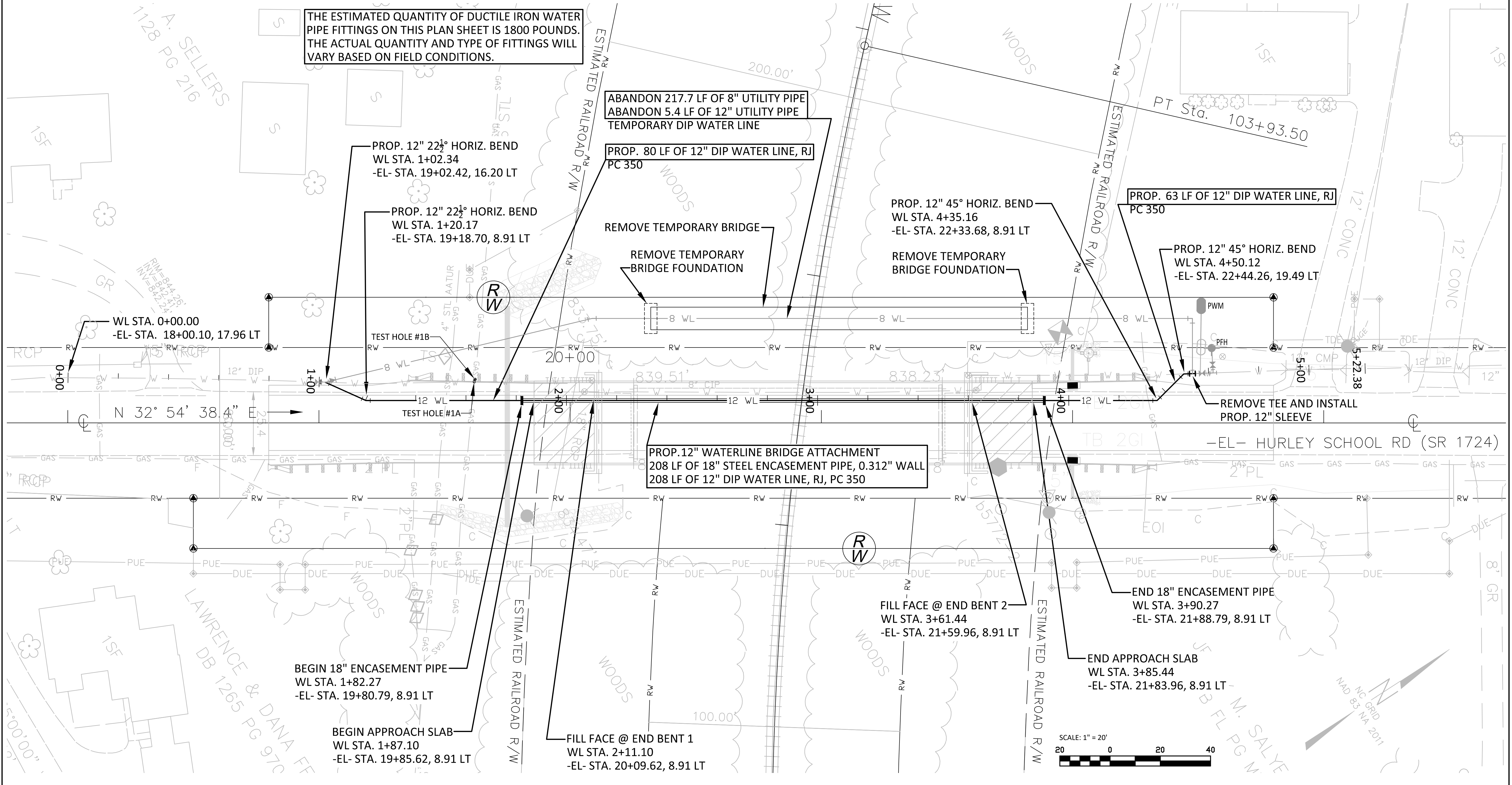
PERMANENT WATER LINE SEQUENCE OF CONSTRUCTION:

1. CONSTRUCT PERMANENT 12" DIP RESTRAINED JOINT WATERLINE ATTACHMENT TO PROPOSED BRIDGE WITH 18" X 0.375" STEEL CASING, USING 18" SHORT PIPE ROLLERS AND STEEL STRUCTURAL TUBING SUSPENDED BETWEEN BRIDGE GIRDERS NO. 1 AND 2 AS SHOWN ON THE PLANS AND AS DETAILED.
2. INSTALL 4" BLOW-OFF AND 8" PLUG AT STA. 1+05 AS SHOWN IN INSET 1 AND INSTALL 12" DIP WATER LINE ACROSS PERMANENT BRIDGE.
3. CUT-OFF WATER AT THE EXISTING 12" GATE VALVE (PREVIOUSLY INSTALLED DURING THE CONSTRUCTION OF THE TEMPORARY 8" WATERLINE) ON THE SOUTH END OF THE BRIDGE. COORDINATE THE CUT-OFF WITH SALISBURY ROWAN UTILITIES. THIS CUT-OFF AND SUBSEQUENT TIE-IN WILL NEED TO BE COMPLETED DURING NON-SCHOOL HOURS NOR WHEN EXTRA-CURRICULAR ACTIVITIES ARE BEING HELD AT THE SCHOOL. INSTALL 4" JUMPER CONNECTION AND CONNECT TO THE PERMANENT 12" WATERLINE ATTACHED TO THE PERMANENT BRIDGE AS SHOWN IN INSET 2.
4. AFTER PRESSURE TESTING, CHLORINATION, FLUSHING AND BACTERIAL TESTING IS COMPLETED ON THE PERMANENT 12" WATERLINE, CUT-OFF WATER AND REMOVE THE 12" PLUG AND 4" BLOW-OFF ALONG WITH THE TEMPORARY 8" WATERLINE WITH 12" X 8" REDUCER AND RECONNECT THE PERMANENT 12" WATERLINE TO THE EXISTING 12" GATE VALVE AS SHOWN IN INSET 3. ALSO REMOVE THE 4" TEMPORARY JUMPER CONNECTION AND 4" WATERLINE BACK TO THE EXISTING 12" GATE VALVE AND REPLACE WITH 12" WATERLINE AS SHOWN IN INSET 4.
5. FLUSH TEMPORARY LINE TO REMOVE AND SEDIMENT AND AIR THAT MAY HAVE INTERFERED THE SYSTEM WHILE MAKING THE TIE-INS AND PLACE THE PROPOSED WATERLINE IN SERVICE.
6. ONCE THE PERMANENT 12" WATERLINE IS IN SERVICE, THE 8" TEMPORARY WATERLINE AND THE TEMPORARY BRIDGE STRUCTURE SHALL BE REMOVED.



PROJECT REFERENCE NO. B-5772	SHEET NO. UC-5
DESIGNED BY: JDM	
DRAWN BY: RCC	
CHECKED BY:	
APPROVED BY:	
REVISER:	3/11/2022
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919)707-6690 FAX: (919)250-4151	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
ally, williams, carmen, & king, inc. CONSULTING ENGINEERS FIRM LICENSE No. F-0203 120 SOUTH MAIN STREET P.O. BOX 1248 KANNAPOLIS, NC 28082 704/938-1515	

PERMANENT WATER LINE PLAN



THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 1800 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

ABANDON 217.7 LF OF 8" UTILITY PIPE
ABANDON 5.4 LF OF 12" UTILITY PIPE
TEMPORARY DIP WATER LINE

PROP. 80 LF OF 12" DIP WATER LINE, RJ
PC 350

PROP. 63 LF OF 12" DIP WATER LINE, RJ
PC 350

REMOVE TEMPORARY BRIDGE
REMOVE TEMPORARY BRIDGE FOUNDATION

PROP. 12" 45° HORIZ. BEND
WL STA. 4+35.16
-EL- STA. 22+33.68, 8.91 LT

PROP. 12" 45° HORIZ. BEND
WL STA. 4+50.12
-EL- STA. 22+44.26, 19.49 LT

PROP. 12" WATERLINE BRIDGE ATTACHMENT
208 LF OF 18" STEEL ENCASEMENT PIPE, 0.312" WALL
208 LF OF 12" DIP WATER LINE, RJ, PC 350

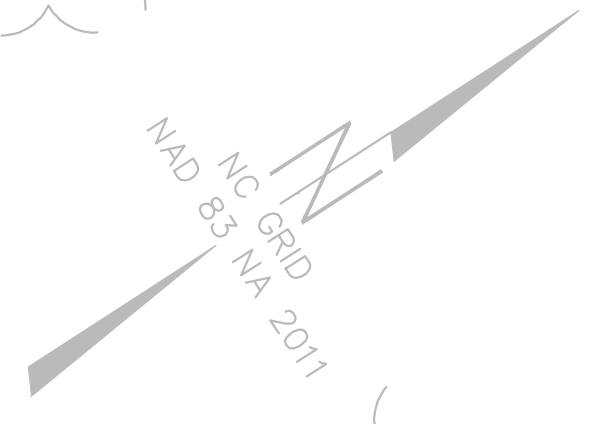
FILL FACE @ END BENT 2
WL STA. 3+61.44
-EL- STA. 21+59.96, 8.91 LT

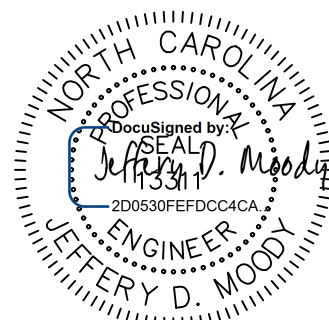
END 18" ENCASEMENT PIPE
WL STA. 3+90.27
-EL- STA. 21+88.79, 8.91 LT

BEGIN 18" ENCASEMENT PIPE
WL STA. 1+82.27
-EL- STA. 19+80.79, 8.91 LT

BEGIN APPROACH SLAB
WL STA. 1+87.10
-EL- STA. 19+85.62, 8.91 LT

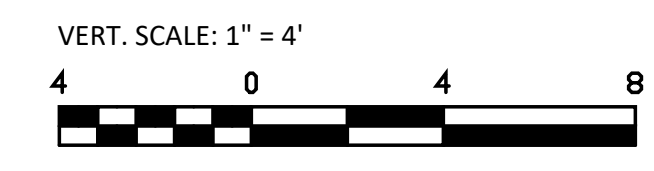
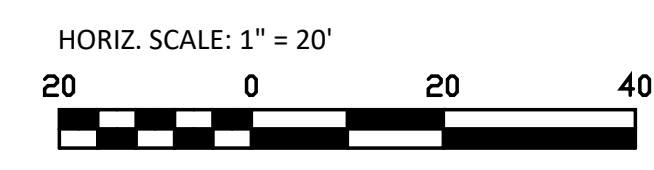
FILL FACE @ END BENT 1
WL STA. 2+11.10
-EL- STA. 20+09.62, 8.91 LT



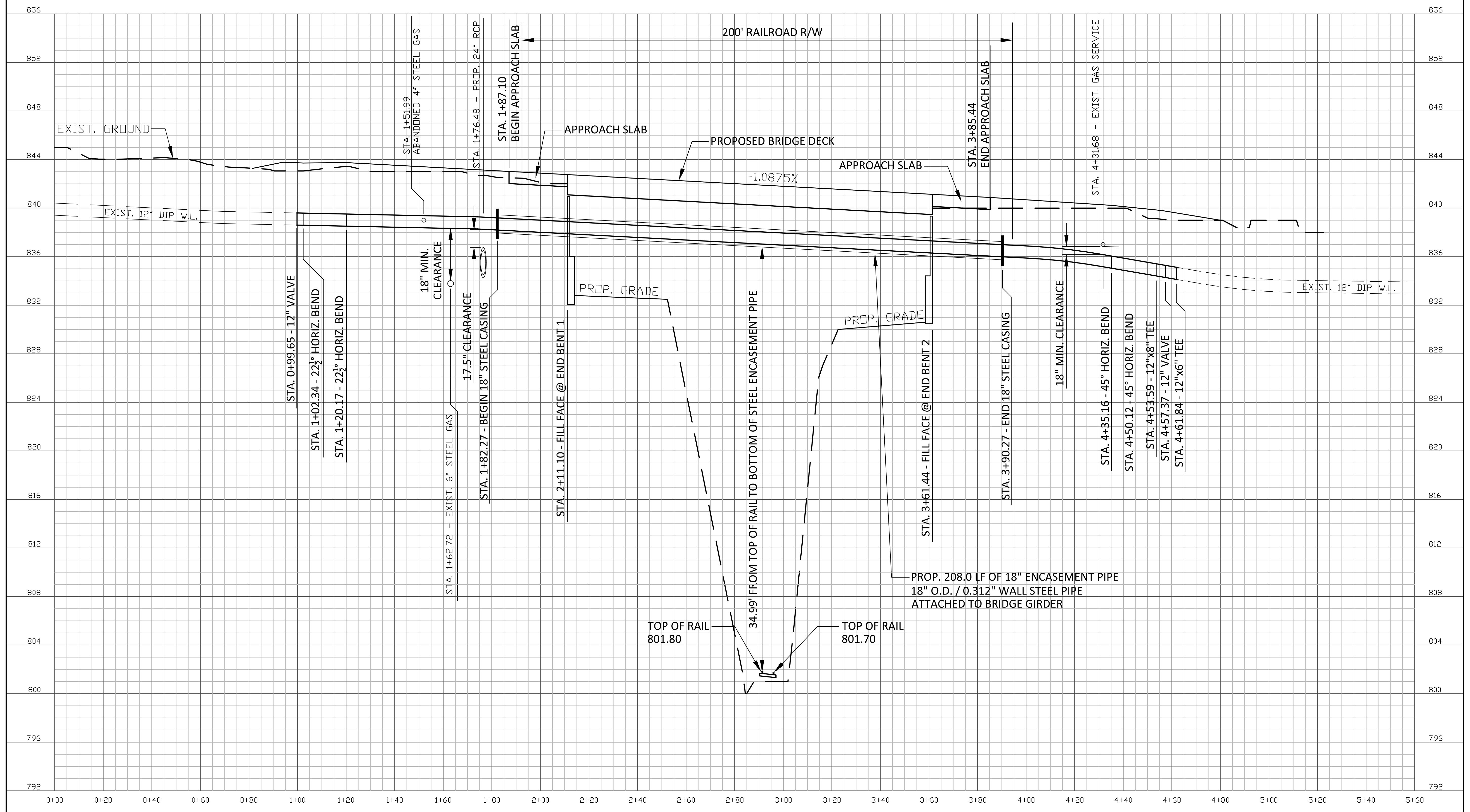
PROJECT REFERENCE NO.	SHEET NO.
B-5772	UC-5A
DESIGNED BY: JDM	
DRAWN BY: RCC	
CHECKED BY:	
APPROVED BY:	
REVISIONS:	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919)707-6690 FAX: (919)250-4151
3/11/2022 UTILITY CONSTRUCTION PLANS ONLY	

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

aw alley, williams, carmen, & king, inc.
 CONSULTING ENGINEERS
 FIRM LICENSE No. F-0203
 120 SOUTH MAIN STREET
 KANNAPOLIS, NC 28062
 P.O. BOX 1248
 704/938-1515



PERMANENT WATER LINE PROFILE



PROJECT REFERENCE NO. B-5772	SHEET NO. UC-6A
DESIGNED BY: NEA	
DRAWN BY: JDC/JRM	
CHECKED BY:	
APPROVED BY:	
REVISED:	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919)707-6690 FAX: (919)250-4151
UTILITY CONSTRUCTION PLANS ONLY	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
alley, williams, carmen, & king, inc. CONSULTING ENGINEERS FIRM LICENSE No. F-0203 120 SOUTH MAIN STREET KANNAPOLIS, NC 28082 P.O. BOX 1248 704/938-1515	
 7327-G WEST FRIENDLY AVENUE GREENSBORO, NC 27410 PH. (336) 854-8135 FIRM LICENSE NO. F-0869	

TEMPORARY BRIDGE FOR SUPPORT OF WATER LINE
 THE BRIDGE STRUCTURE SHOWN ON THESE DRAWINGS IS FOR THE TEMPORARY SUPPORT OF THE WATER LINE THAT IS TO REMAIN IN SERVICE DURING THE CONSTRUCTION OF THE BRIDGE REPLACEMENT. THE DESIGN AND CONSTRUCTION OF THE TEMPORARY BRIDGE SHALL CONFORM TO THE FOLLOWING STANDARDS.

DESCRIPTION
 THE CONTRACTOR SHALL FURNISH DESIGN CALCULATIONS AND DRAWINGS REQUIRED; FURNISH MEMBERS AND DECK MATERIALS FOR STRUCTURES AND ANY OTHER MATERIALS NECESSARY. ERECT, MAINTAIN, REMOVE AND DISPOSE OF TEMPORARY STRUCTURES REQUIRED FOR THE MAINTENANCE OF THE WATER LINE AND FOR MAINTENANCE PERSONNEL ACCESS. THE BRIDGE STRUCTURE DOES NOT NEED TO BE DESIGNED FOR PEDESTRIAN, HIGHWAY AND OTHER TRAFFIC LOADINGS. CONSTRUCT TEMPORARY STRUCTURES IN ACCORDANCE WITH THE CONTRACT.

MATERIALS
 USE MATERIALS FOR TEMPORARY STRUCTURES THAT CONFORM TO DIVISION 10 OR PREVIOUSLY USED MATERIALS CONFORMING TO THE CONTRACT. OBTAIN APPROVAL FOR THE USE OF SALVAGED MATERIALS AND MATERIALS NOT COVERED BY DIVISION 10 BEFORE THEIR USE.

PLANS

- A. FURNISHING PLANS:**
- USE THE PLANS FOR THE TEMPORARY STRUCTURE FURNISHED IN THESE DRAWINGS AND SUBMIT A DESIGN IN ACCORDANCE WITH PARAGRAPH B.
 - FOR ALL CONTRACTOR DESIGNS, FURNISH ONE SET OF DESIGN CALCULATIONS AND DETAIL DRAWINGS OF THE STRUCTURE IN ACCORDANCE WITH PARAGRAPH B.
 - SUBMIT DETAIL DRAWINGS AND DESIGN CALCULATIONS FOR TEMPORARY STRUCTURES FOR REVIEW AND COMMENT BEFORE BEGINNING WORK. DO NOT PERFORM ANY WORK UNTIL THE DETAIL DRAWINGS ARE REVIEWED AND ACCEPTED.

ACCEPTANCE OF SUCH DRAWINGS DOES NOT RELIEVE THE CONTRACTOR OF ANY RESPONSIBILITY FOR SAFETY AND CONTINUOUSLY MAINTAINING SUPPORT FOR THE WATER LINE.

- B. DESIGN REQUIREMENTS FOR CONTRACTOR FURNISHED DRAWINGS:**
- PROVIDE TEMPORARY STRUCTURES OF SUCH CARRYING CAPACITY, DIMENSIONS, GRADES AND ALIGNMENT AS REQUIRED BY THESE DRAWINGS. DESIGN TEMPORARY STRUCTURE TO CARRYING THE UTILITY LOADS AND UNIFORM LIVE LOADS IN THE FOLLOWING MAGNITUDES:
 - UTILITY LOADING (WATER LINE + ENCASEMENT): 90 POUNDS PER LINEAR FOOT* UNIFORM LIVE LOADING;
 - *UNIFORM LINE LOAD PLACED AT CENTERLINE OF BRIDGE
 - ENSURE AN ENGINEER LICENSED BY THE STATE OF NORTH CAROLINA DESIGNS AND DETAILS THE TEMPORARY STRUCTURE. CONSTRUCT THE TEMPORARY STRUCTURE IN ACCORDANCE WITH THIS DESIGN. THE DRAWINGS SHALL BE SEALED AND SIGNED BY THE DESIGN ENGINEER.
 - INDICATE IN THE PLANS, THE SPECIFICATIONS FOR THE MATERIALS USED IN THE TEMPORARY STRUCTURE.
 - FOUNDATIONS SHALL BEAR ON RESIDUAL SOIL OR ENGINEERED FILL HAVING A MINIMUM NET ALLOWABLE BEARING CAPACITY OF 2,000 PSF. THE CONTRACTOR SHALL HAVE THE FOUNDATION BEARING SOILS VERIFIED BY AN INDEPENDENT TESTING COMPANY PRIOR TO CASTING CONCRETE.

CONSTRUCTION METHODS

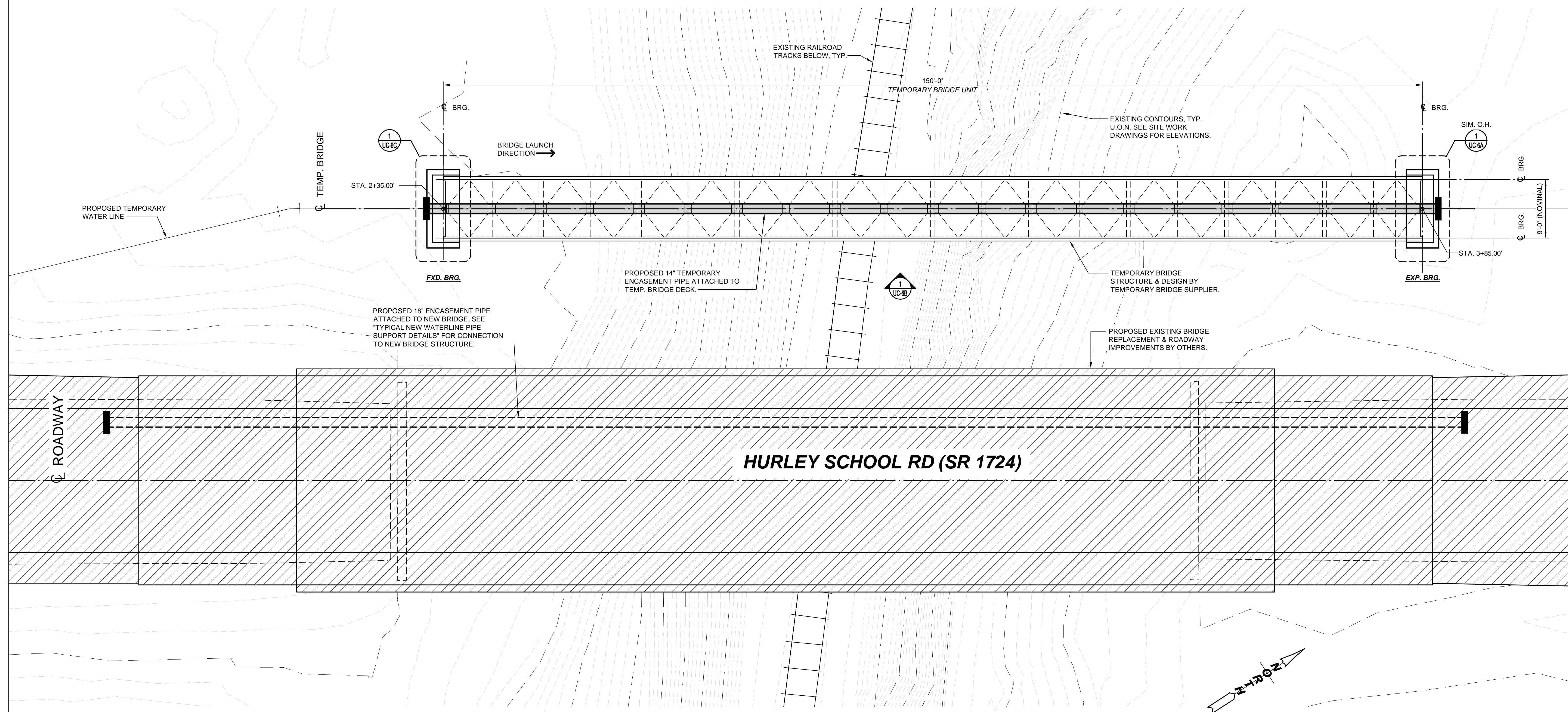
- CONSTRUCT AND MAINTAIN TEMPORARY STRUCTURE TO ADEQUATELY AND SAFELY CARRY SPECIFIED LOADING DURING THE ENTIRE PERIOD FOR WHICH THEY ARE REQUIRED.

- REMOVE AND DISPOSE OF THE TEMPORARY STRUCTURES AFTER THEY ARE NO LONGER REQUIRED IN ACCORDANCE WITH THE SECTION BELOW.
 - UPON REMOVAL OF THE TEMPORARY STRUCTURE, ALL MATERIAL FURNISHED BY THE CONTRACTOR FOR USE IN THIS STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE PROVIDED IN THE CONTRACT.
 - UNLESS OTHERWISE SPECIFIED IN THE CONTRACT, REMOVE TEMPORARY PILING TO THE STREAMBED LEVEL OR TO ONE FOOT BELOW EXISTING GROUND.
- MEASUREMENT AND PAYMENT**
- THE PRICE AND PAYMENT BELOW WILL BE FULL COMPENSATION FOR ALL WORK REQUIRED TO PROVIDE TEMPORARY STRUCTURES.
 - THE WORK COVERED BY THIS SECTION WILL BE PAID AT THE CONTRACT LUMP SUM PRICE FOR 8" TEMPORARY WATER LINE BRIDGE ATTACHMENT.
 - PAYMENT WILL BE MADE UNDER:
 PAY ITEM PAY UNIT
 8" TEMPORARY WATERLINE BRIDGE ATTACHMENT LUMP SUM

REMOVAL OF TEMPORARY STRUCTURES

- EXCAVATE AS NECESSARY TO REMOVE THE STRUCTURE; DISMANTLE, SALVAGE AND STOCKPILE MATERIALS AND COMPONENTS OF THE TEMPORARY STRUCTURE.
- MAINTAIN ACCESS AND SUPPORT OVER THE TEMPORARY STRUCTURE IN ACCORDANCE WITH DIVISION 11 UNLESS OTHERWISE STIPULATED BY THE CONTRACT. COMPLY WITH THE POSTED LOAD LIMITS OF THE TEMPORARY STRUCTURE. THE MAINTENANCE OF THE TEMPORARY STRUCTURE IS THE RESPONSIBILITY OF THE CONTRACTOR.

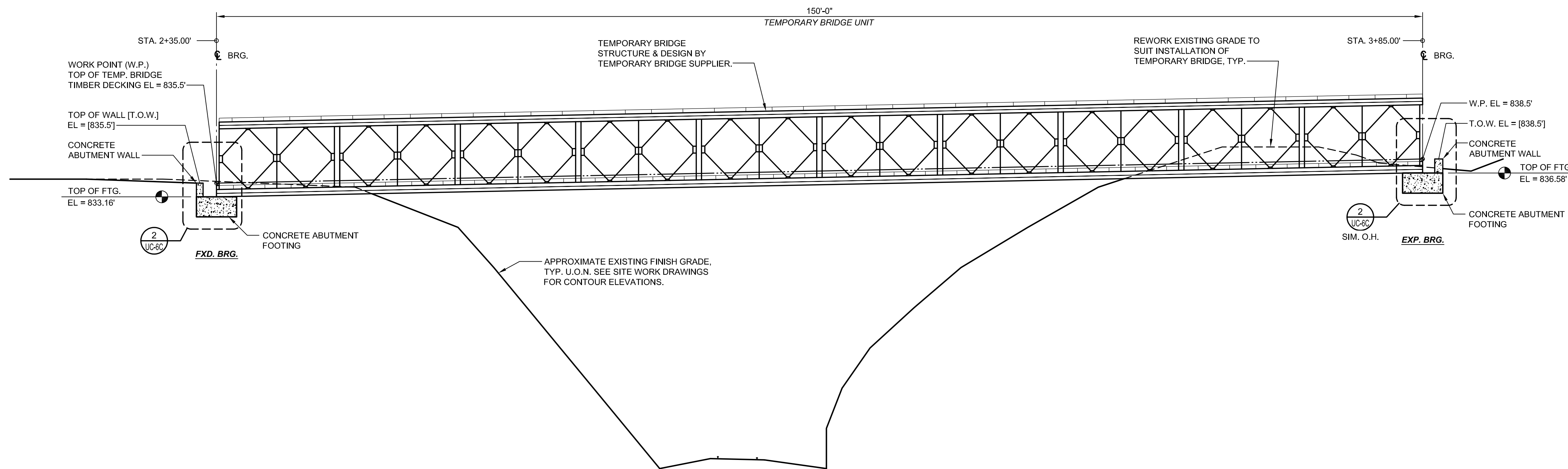
- USE APPROVED METHODS AND OPERATIONS FOR REMOVAL OF THE TEMPORARY STRUCTURE. UPON REMOVAL, ALL MATERIALS BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE INDICATED IN THE CONTRACT. DISPOSE OF WASTE AND DEBRIS FROM THE TEMPORARY STRUCTURE IN ACCORDANCE WITH SECTION 802.
- PERFORM REMOVAL OPERATIONS WHILE PREVENTING DAMAGE TO ADJACENT PROPERTY. PROTECT NEW CONSTRUCTION DURING OTHER OPERATIONS NECESSARY FOR THE REMOVAL OF THE TEMPORARY STRUCTURE.
- UNLESS OTHERWISE REQUIRED BY THE CONTRACT, REMOVE TEMPORARY SUBSTRUCTURE DOWN TO ONE FOOT BELOW THE NATURAL GROUND SURFACE. REMOVE THE SUBSTRUCTURE AS NECESSARY TO AVOID INTERFERENCE WITH CONSTRUCTION OF THE PROPOSED STRUCTURE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, THE DESIGN OF, ERECTING, AND REMOVING ANY TEMPORARY SHORING AND BRACING DURING CONSTRUCTION (INCLUDING SUPPORT OF ALL EXCAVATIONS).
- ALL SAFETY REGULATIONS SHALL BE STRICTLY FOLLOWED. WITH THE EXCEPTION OF SPECIFIC DIRECTION PROVIDED IN THE CONSTRUCTION DOCUMENTS HEREIN, THE ENGINEER SHALL NOT HAVE CONTROL OR CHARGE OF AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. FOR ACTS OF OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL PROTECT FROM DAMAGE EXISTING BUILDING(S), OWNER EQUIPMENT, ROADS, WALKS, AND UTILITIES. HE SHALL MAINTAIN THEM DURING THE COURSE OF WORK AND REPAIR ALL DAMAGES AT HIS OWN EXPENSE.



TEMPORARY WATERLINE SUPPORT BRIDGE FOUNDATION PLAN - STATION 3+10.00'

1/8" = 1'-0"
 FY216011-PLNS

PROJECT REFERENCE NO. B-5772	SHEET NO. UC-6B
DESIGNED BY: RGK	
DRAWN BY: JDC	
CHECKED BY:	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919)707-6690 FAX: (919)250-4151	
UTILITY CONSTRUCTION PLANS ONLY	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
alley, williams, carmen, & king, inc. CONSULTING ENGINEERS FIRM LICENSE No. F-0203 120 SOUTH MAIN STREET KANNAPOLIS, NC 28082	
7327-G WEST FRIENDLY AVENUE GREENSBORO, NC 27410 PH. (336) 854-8135 FIRM LICENSE NO. F-0869	



TEMPORARY WATERLINE SUPPORT BRIDGE
ELEVATION
 1
 UC-6B
 1/8" = 1'-0"
 FY216011-ELEV

PROJECT REFERENCE NO.	SHEET NO.
B-5772	UC-6C
DESIGNED BY: RGK	
DRAWN BY: JDC	
CHECKED BY:	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919)707-6690 FAX: (919)250-4151	
UTILITY CONSTRUCTION PLANS ONLY	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
alley, williams, carmen, & king, inc. CONSULTING ENGINEERS FIRM LICENSE No. F-0203 120 SOUTH MAIN STREET KANNAPOLIS, NC 28082	
7327-G WEST FRIENDLY AVENUE GREENSBORO, NC 27410 PH. (336) 854-8135 FIRM LICENSE NO. F-0869	

