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NOTES:

- METER TO BE FURNISHED AND INSTALLED BY TOWN OF MOORESVILLE. ALL COMPONENTS PROVIDED SHALL BE COMPATIBLE WITH A FORD METER.
- LEGEND:
 - SMITH-BLAIR MODEL 313 TAPPING SADDLE OR APPROVED EQUAL, NO DIRECT TAPS
 - MUELLER B-2500B CORPORATION STOP BALL VALVE WITH COMPRESSION FITTING OR APPROVED EQUAL
 - COPPER TUBING, TYPE K.
 - RESIDENTIAL USE: ANGLE DUAL CHECK VALVE FORD HHCA91-323 OR COMPATIBLE. COMMERCIAL USE WITH SEPARATE BACKFLOW DEVICE: CHECK VALVE
 - FORD METER YOKE Y502
 - ANGLE BALL VALVE OR ANGLE KEY VALVE
 - WHITE OR BLACK POLYETHYLENE METER BOX MANUFACTURED BY SOUTHEASTERN DISTRIBUTION
 3/4" SERVICE - MB16-176 & SOLID LID 170 WE-36
 1" SERVICE - MB17-178 & SOLID LID 174 WE-37
 - 6"-8" WASHED STONE BELOW METER BOX

TOWN OF MOORESVILLE STANDARD DETAIL	WATER SYSTEMS 3/4" & 1" SERVICE CONNECTION	March 2013 Revision 2	NTS	W - 3.0

LEGEND:

- APPROVED TAPPING SADDLE (Smith Blair Model 313 or approved equal)
- 2" THREADED BRASS NIPPLE
- COPPER TUBING TYPE K OR SDR 13.5 PVC PIPE
- CURB STOP BALL VALVE COMPRESSION X THREAD & VALVE BOX
- 3" SECTION THREADED BRASS PIPE
- PRE-CAST CONCRETE VAULT 24"W x 36"L x 31"H, H-20 LOAD RATED
- 1"-1.5" BYPASS
- BALL ANGLE METER VALVE
- 2" RESILIENT WEDGE THREAD X THREAD GATE VALVE & VALVE BOX
- 2" x 1-1/2" REDUCERS FOR 1-1/2" SERVICE LINES
- 1" BALL VALVE
- THREAD X COMPRESSION CONNECTION

NOTES:

- THE DISTANCE BETWEEN METER FLANGES VARIES. 1 1/2" METER IS 13 1/4" AND 2" METER IS 17 1/4".
- METER SETTER IS STABILIZED USING (2) 1" DIA. 18" LONG PIPES RESTING ON (4) BRICKS.
- WATER MUST DRAIN AWAY FROM CONCRETE VAULT. VAULT MUST BE LOCATED IN A GRASS OR LANDSCAPE AREA, AND NOT IN SIDEWALKS OR DRIVES.

TOWN OF MOORESVILLE STANDARD DETAIL	WATER SYSTEMS 1 1/2" TO 2" SERVICE CONNECTION	January 2015 Revision 1	NTS	W - 4.0

NOTES:

- MINIMUM PIPE DIAMETER OF 4 INCHES. USE FLANGED REDUCERS FOR 3" METERS CONNECTIONS.
- ALL PIPE MUST BE DUCTILE IRON PIPE WITH APPROVED RESTRAINED JOINTS AND FITTINGS.
- METER VAULT MUST BE BEHIND CURB AND/OR WALK AND OUT OF VEHICULAR TRAFFIC. PRE-CAST CONCRETE VAULT REQUIRED (H-20 LOAD RATING).
- MAIN LINE AND BYPASS VALVES WILL BE PER THE MATERIAL SECTION OF THE LAND DEVELOPMENT STANDARDS MANUAL. PROPERTY OWNER'S VALVE MUST BE LOCATED OUTSIDE OF TOWN OF MOORESVILLE'S METER VAULT.
- NOTCHES WHERE PIPING GOES THROUGH VAULT SHALL BE FILLED WITH MORTAR.
- THE TOP OF THE METER VAULT SHALL BE AT AN ELEVATION SUCH THAT THE SURROUNDING GROUND SLOPES AWAY FROM THE VAULT.

TOWN OF MOORESVILLE STANDARD DETAIL	WATER SYSTEMS 4" AND LARGER SERVICE CONNECTION	January 2014 Revision 3	NTS	W - 5.0

NOTES:

- HYDRANTS SHALL CONFORM TO AWWA SPEC. C-502.
- HYDRANTS SHALL HAVE MAIN VALVE OPENINGS OF 5 1/4" WITH (1) 5" STORZ PUMPER CONNECTION FACING THE STREET AND TWO 2.5 INCH HOSE OUTLETS.
- ALL HYDRANTS SHALL OPEN COUNTERCLOCKWISE
- PUBLIC HYDRANTS SHALL BE PAINTED WITH SAFETY YELLOW ENAMEL. PRIVATE HYDRANTS SHALL BE PAINTED SILVER.
- PUMP NOZZLE SHALL BE ONE-PIECE DESIGN COMPATIBLE WITH STORZ HOSE COUPLING. NOZZLE SHALL BE INTEGRAL TO THE FIRE HYDRANT ASSEMBLED AT THE FACTORY. STORZ ADAPTERS WILL NOT BE ACCEPTED.

TOWN OF MOORESVILLE STANDARD DETAIL	WATER SYSTEMS FIRE HYDRANT	January 2009 Revision 1	NTS	W - 1.0

NOTES:

- CONCRETE SHALL NOT CONTACT BOLTS OR ENDS OF FLANGE OUTLET FITTINGS.
- SEE APPROPRIATE STANDARD DETAIL FOR THRUST BLOCK DIMENSIONS.
- WHEN NEW WATER LINE AND WATER LINE BEING TAPPED ARE OF THE SAME SIZE, A DUCTILE IRON TAPPING SLEEVE WITH FLANGE OUTLET MUST BE USED. SEE W-2.0B.
- CONCRETE THRUST BLOCKING MAY BE REQUIRED AT THE DISCRETION OF THE TOWN.
- STAINLESS STEEL TAPPING SLEEVES SHALL BE SMITH-BLAIR 665 OR APPROVED EQUAL.

TOWN OF MOORESVILLE STANDARD DETAIL	WATER SYSTEMS TAPPING SLEEVE & VALVE ASSEMBLY	March 2013 Revision 2	NTS	W - 2.0A

NOTES:

- CONCRETE SHALL NOT CONTACT BOLTS OR ENDS OF FLANGE OUTLET FITTINGS.
- SEE APPROPRIATE STANDARD DETAIL FOR THRUST BLOCK DIMENSIONS.
- WHEN NEW WATER LINE AND WATER LINE BEING TAPPED ARE OF THE SAME SIZE, A DUCTILE IRON TAPPING SLEEVE WITH FLANGE OUTLET MUST BE USED.
- CONCRETE THRUST BLOCKING MAY BE REQUIRED AT THE DISCRETION OF THE TOWN.

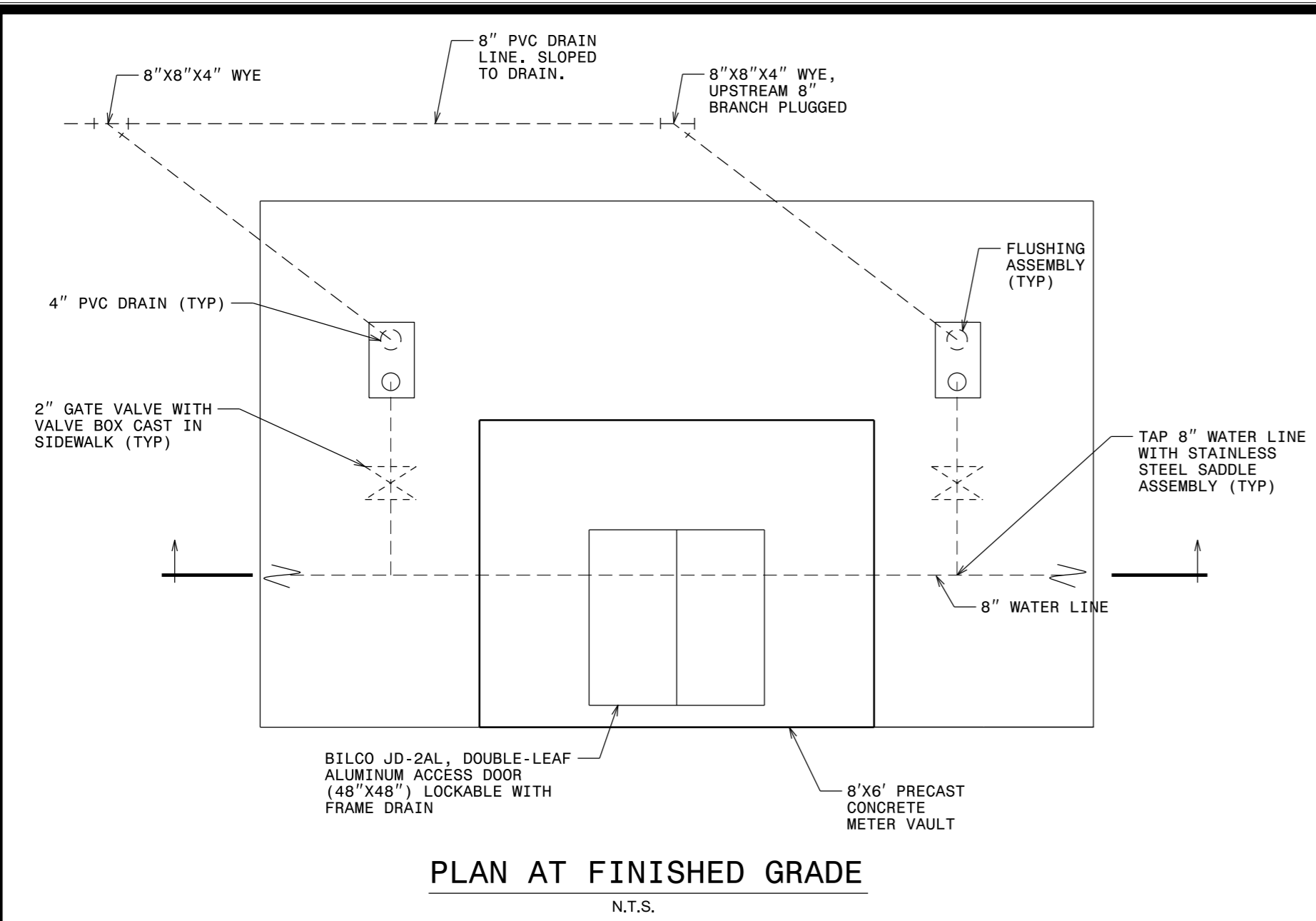
TOWN OF MOORESVILLE STANDARD DETAIL	WATER SYSTEMS TAPPING SLEEVE & VALVE ASSEMBLY (SIZE ON SIZE)	March 2013 Revision 3	NTS	W - 2.0B

PROJECT REFERENCE NO. R-2307B/I-5717	SHEET NO. UC-3E
DESIGNED BY: JFA	 J. P. News Professional Engineer No. 494645 State of North Carolina
DRAWN BY: ACB	
CHECKED BY: EPH	
APPROVED BY: JJW	
REVISED:	8/21/2024
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	UTILITY CONSTRUCTION PLANS ONLY

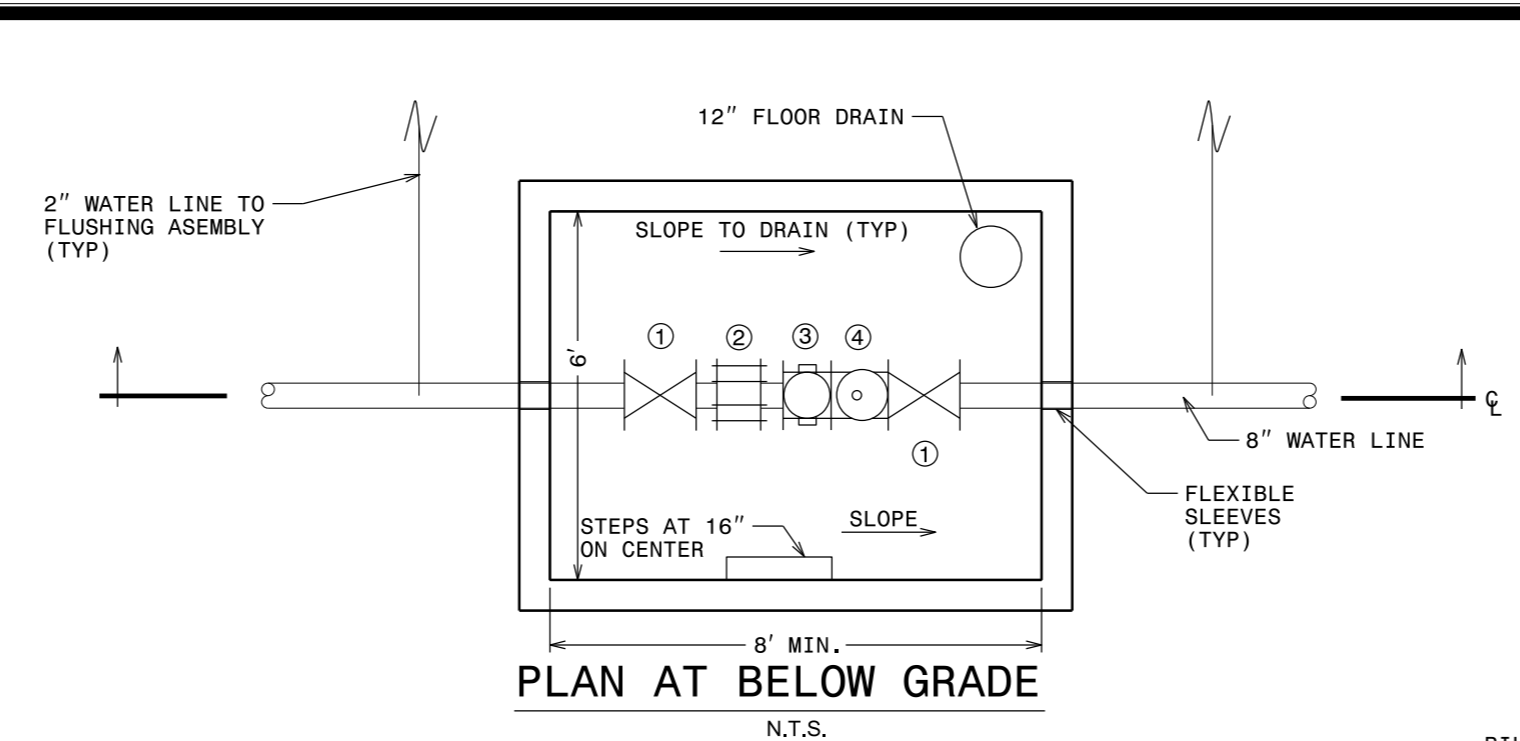
UTILITY CONSTRUCTION

PROJECT REFERENCE NO.	SHEET NO.
R-2307B/I-5717	UC-3F
DESIGNED BY: JFA	
DRAWN BY: ACB	
CHECKED BY: EPH	
APPROVED BY: JJW	
REVISED:	8/21/2024
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	UTILITY CONSTRUCTION PLANS ONLY

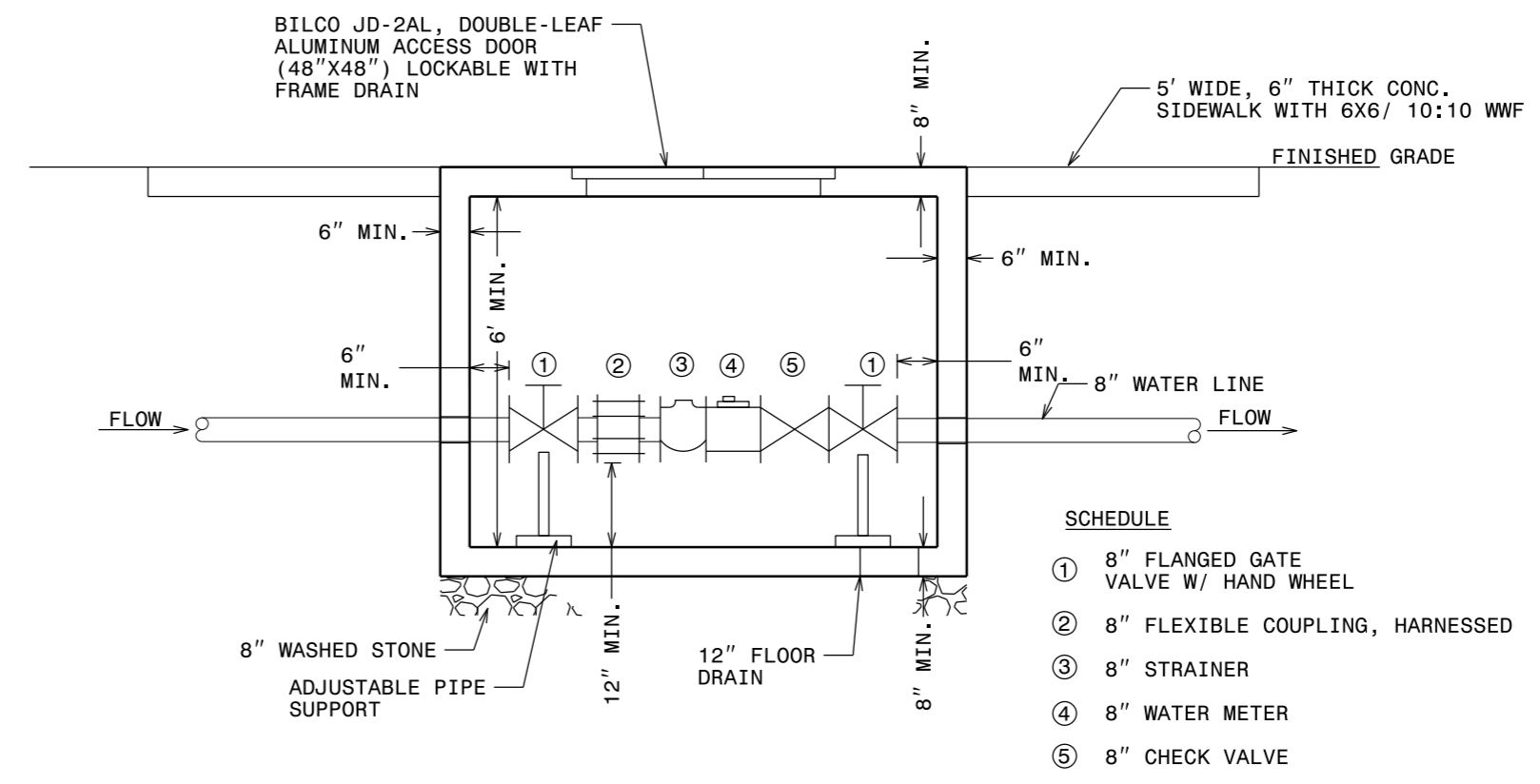
UTILITY CONSTRUCTION



PLAN AT FINISHED GRADE
N.T.S.



PLAN AT BELOW GRADE
N.T.S.

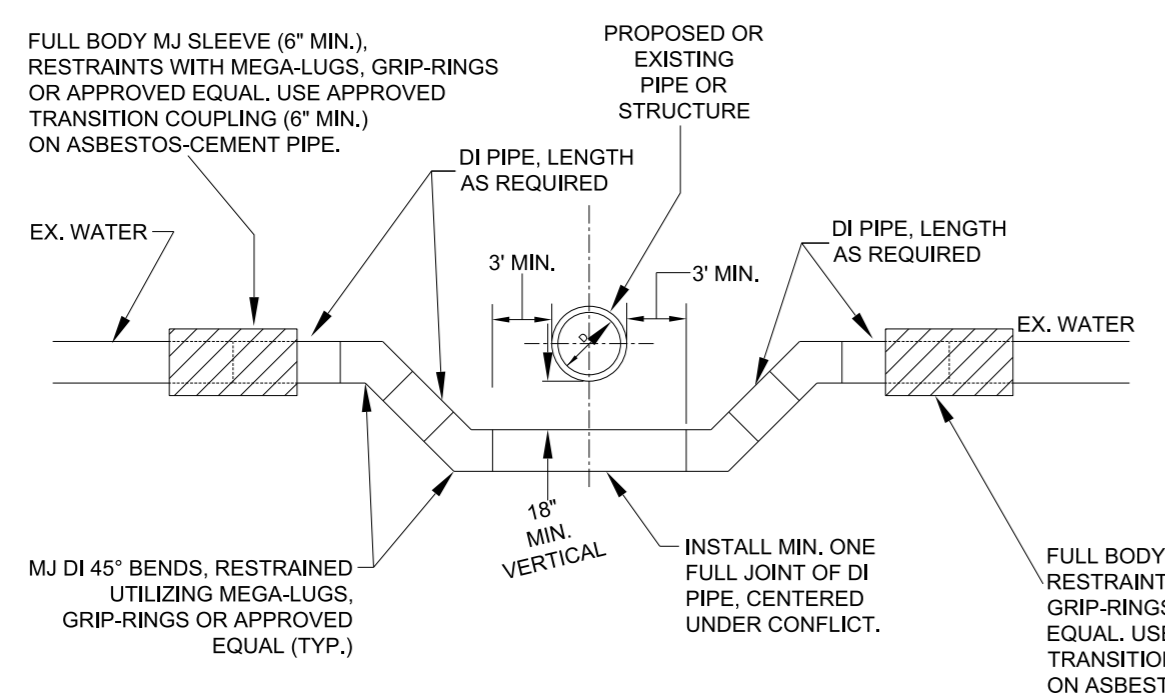


SECTION
N.T.S.

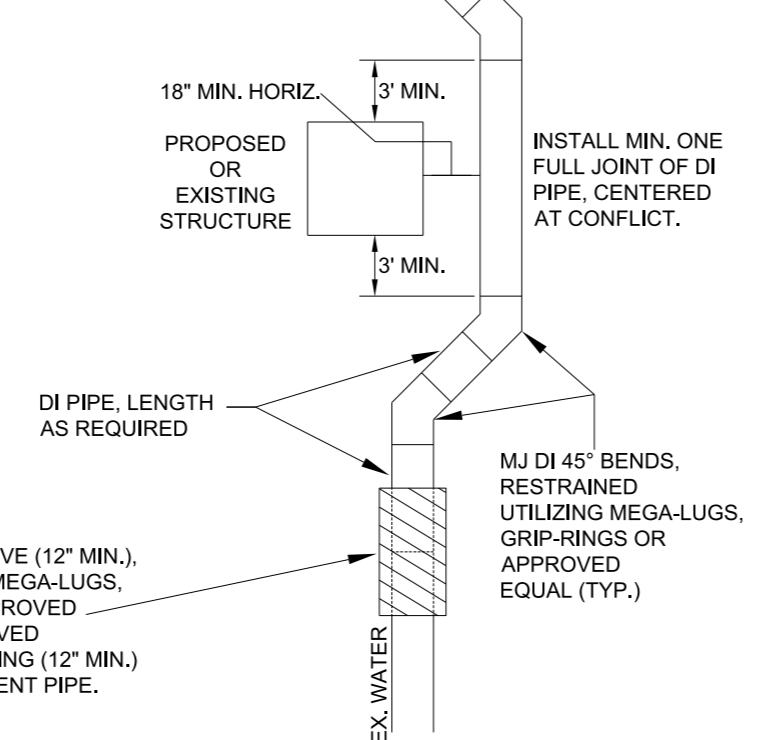
- SCHEDULE
- ① 8" FLANGED GATE VALVE W/ HAND WHEEL
 - ② 8" FLEXIBLE COUPLING, HARNESSED
 - ③ 8" STRAINER
 - ④ 8" WATER METER
 - ⑤ 8" CHECK VALVE

- NOTES:
- VAULT SHALL BE SIZED AS NEEDED FOR MINIMUM CLEARANCE SHOWN AND RATED FOR NCDOT HS-20 LOADING. SUBMIT SHOP DRAWINGS SEALED BY A P.E. FOR REVIEW.
 - ALL FLANGE HARDWARE (BOLT/WASHER/NUT) SHALL BE STAINLESS STEEL - TYPE 304 WITH ANTI-SEIZE COMPOUND.
 - ALL PIPE SHALL BE RESTRAINED JOINT DUCTILE IRON. ALL JOINTS WITHIN THE VAULT SHALL BE FLANGED.
 - METER CONFIGURATION AND LENGTH/WIDTH MAY VARY DUE TO BRAND - VERIFY DIMENSIONS TO DETERMINE MINIMUM VAULT SIZE.
 - ALL CONCRETE SHALL BE MINIMUM 4000 PSI COMPRESSIVE STRENGTH.
 - DESIGN SHALL CONFORM TO ASTM C855 - SPECIFICATIONS FOR "UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURE".
 - STEEL REINFORCING DESIGN SHALL CONFORM TO ASTM C857.
 - REBARS SHALL BE GRADE 60 PER ASTM A615.
 - WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
 - DIAGONAL REINFORCING SHALL BE ADDED AT ALL OPENINGS.
 - PIPE PENETRATIONS SHALL BE SEALED WITH WATERTIGHT MECHANICAL PENETRATION SEAL AND WALL SLEEVE.
 - FRAME TO BE FLUSH WITH GROUND OR CONCRETE SIDEWALK. GROUND SHALL SLOPE AWAY FROM VAULT.
 - ALL JOINTS SHALL BE MADE WATERTIGHT USING 2 RINGS OF BUTYL RUBBER JOINT MASTIC.

- NOTES:
- ALL PIPE AND FITTINGS SHALL BE APPROVED BY TOWN OF MOORESVILLE.
 - CONTRACTOR TO COORDINATE NECESSARY OUTAGES WITH TOWN OF MOORESVILLE AND AFFECTED CUSTOMERS. MINIMUM 48 HOUR NOTICE REQUIRED.
 - NEW WATER MAIN TO BE SWABBED WITH A CHLORINE SOLUTION AND FLUSHED PRIOR TO PLACING INTO SERVICE.
 - ALL NEW FITTINGS AND PIPE TO BE RESTRAINED UTILIZING MEGA-LUGS, GRIP-RINGS OR APPROVED EQUAL.
 - ALL PIPE AND FITTINGS TO BE DUCTILE IRON.
 - TOWN OF MOORESVILLE PROJECT COORDINATOR TO BE PRESENT DURING WORK.
 - BACKFILL AND COMPACT TO CITY OF FAYETTEVILLE OR N.C.D.O.T. REQUIREMENTS.
 - PROVIDE STONE BEDDING (NO. 5 OR NO. 57 STONE) TO SUPPORT RELOCATED WATER MAIN AND/OR NEW STORM DRAIN, AS APPROVED BY TOWN OF MOORESVILLE PROJECT COORDINATOR.
 - MJ RESTRAINTS NOT ALLOWED ON PVC PIPE.
 - DIMENSIONS ARE GIVEN AS GENERAL GUIDANCE, EXACT DIMENSIONS ARE SUBJECT TO CHANGE BASED ON FIELD CONDITIONS AND AS DIRECTED BY TOWN OF MOORESVILLE.



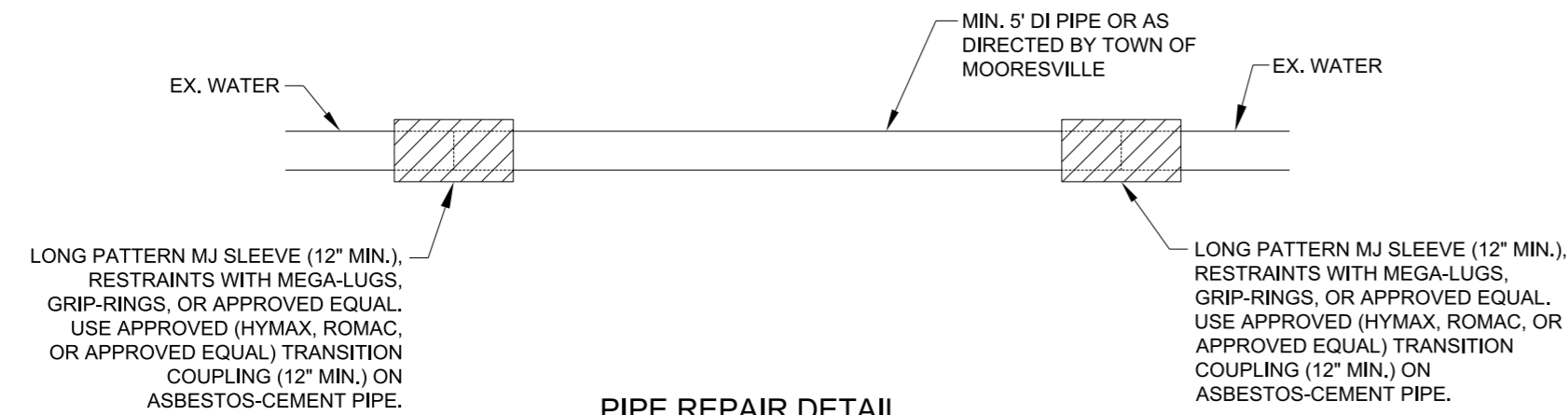
VERTICAL RELOCATION



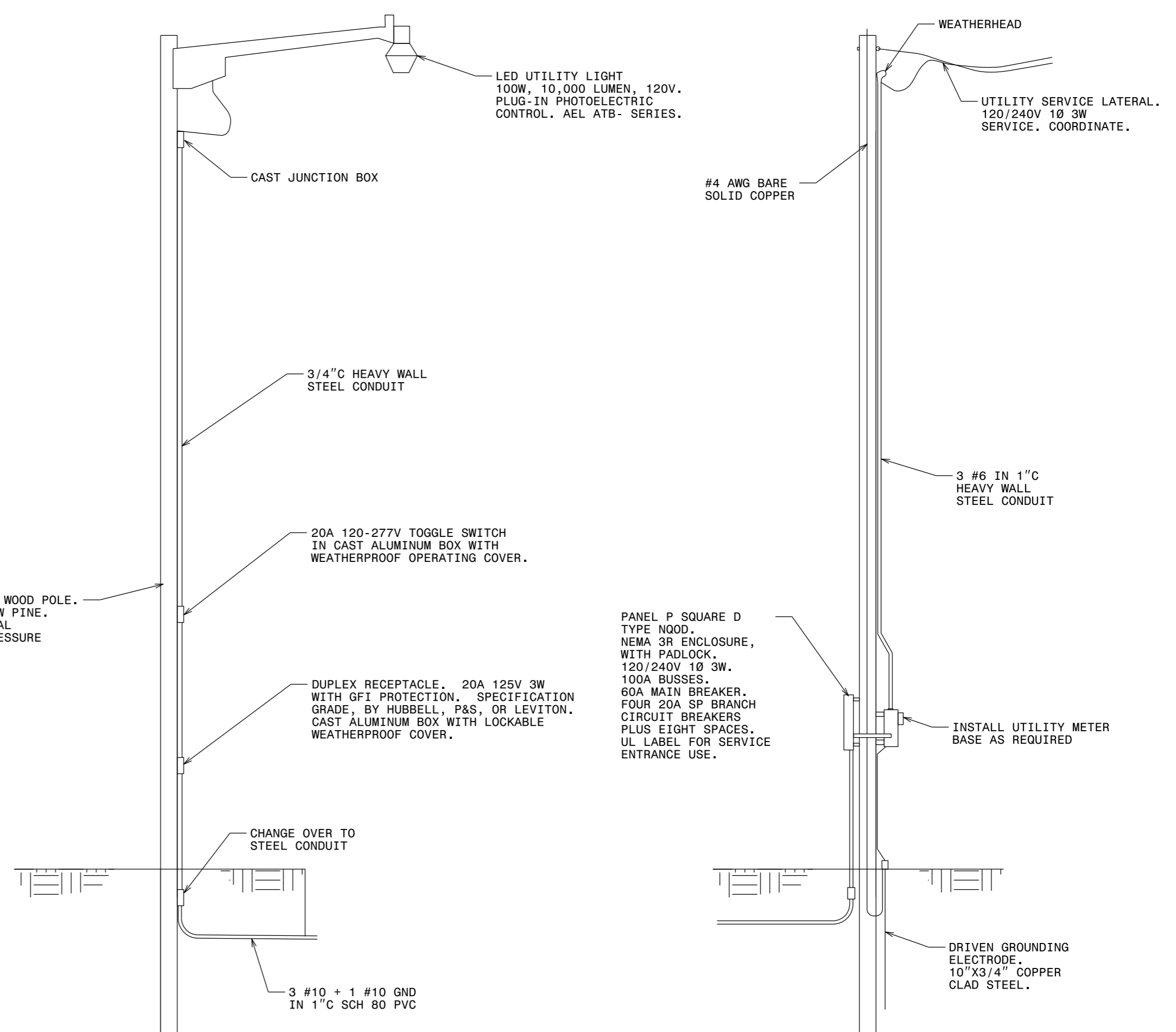
HORIZONTAL RELOCATION

PIPE RELOCATION DETAIL
N.T.S.

- NOTES:
- ALL PIPE AND FITTINGS SHALL BE APPROVED BY TOWN OF MOORESVILLE PUBLIC UTILITIES DIRECTOR.
 - CONTRACTOR TO COORDINATE NECESSARY OUTAGES WITH TOWN OF MOORESVILLE AND AFFECTED CUSTOMERS. MINIMUM 48 HOUR NOTICE REQUIRED.
 - NEW WATER MAIN TO BE SWABBED WITH A CHLORINE SOLUTION AND FLUSHED PRIOR TO PLACING INTO SERVICE.
 - ALL NEW FITTINGS AND PIPE TO BE RESTRAINED UTILIZING MEGA-LUGS, GRIP-RINGS, OR APPROVED EQUAL.
 - ALL PIPES TO BE DUCTILE IRON.
 - TOWN OF MOORESVILLE PROJECT COORDINATOR TO BE PRESENT DURING WORK.
 - BACKFILL AND COMPACT IN ACCORDANCE WITH THE APPLICABLE AGENCY REQUIREMENTS.
 - PROVIDE STONE BEDDING (NO. 5 OR NO. 57 STONE) TO SUPPORT REPAIRED WATER MAIN, AS APPROVED BY TOWN OF MOORESVILLE PROJECT COORDINATOR.
 - MJ RESTRAINTS ARE NOT ALLOWED ON PVC PIPE.
 - DIMENSIONS ARE GIVEN AS GENERAL GUIDANCE, EXACT DIMENSIONS ARE SUBJECT TO CHANGE BASED ON FIELD CONDITIONS AND AS DIRECTED BY TOWN OF MOORESVILLE.
 - ALL MATERIALS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF TOWN OF MOORESVILLE.
 - PIPE REPAIR SHALL EXHIBIT STRAIGHT HORIZONTAL AND VERTICAL ALIGNMENT. DEFLECTIONS OF HORIZONTAL AND VERTICAL ALIGNMENT ARE NOT ACCEPTABLE.
 - THERE SHALL BE NO MORE THAN 1/4" SPACE BETWEEN THE EXISTING WATER MAIN AND THE REPLACEMENT PIPE AT EACH END.
 - DAMAGED SECTION SHALL BE CUT OUT WITHOUT DAMAGING THE PIPE TO REMAIN.
 - PIPE REPAIRS ON MATERIALS OTHER THAN SHOWN, SHALL BE AS DIRECTED BY TOWN OF MOORESVILLE.
 - THE MINIMUM LENGTH OF REPAIR SHALL BE 5 FEET, UNLESS OTHERWISE DIRECTED BY TOWN OF MOORESVILLE.



PIPE REPAIR DETAIL
N.T.S.

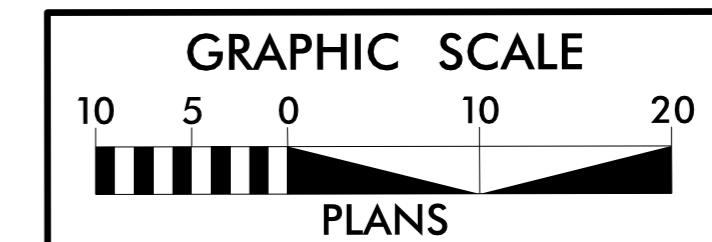


ELECTRICAL SERVICE

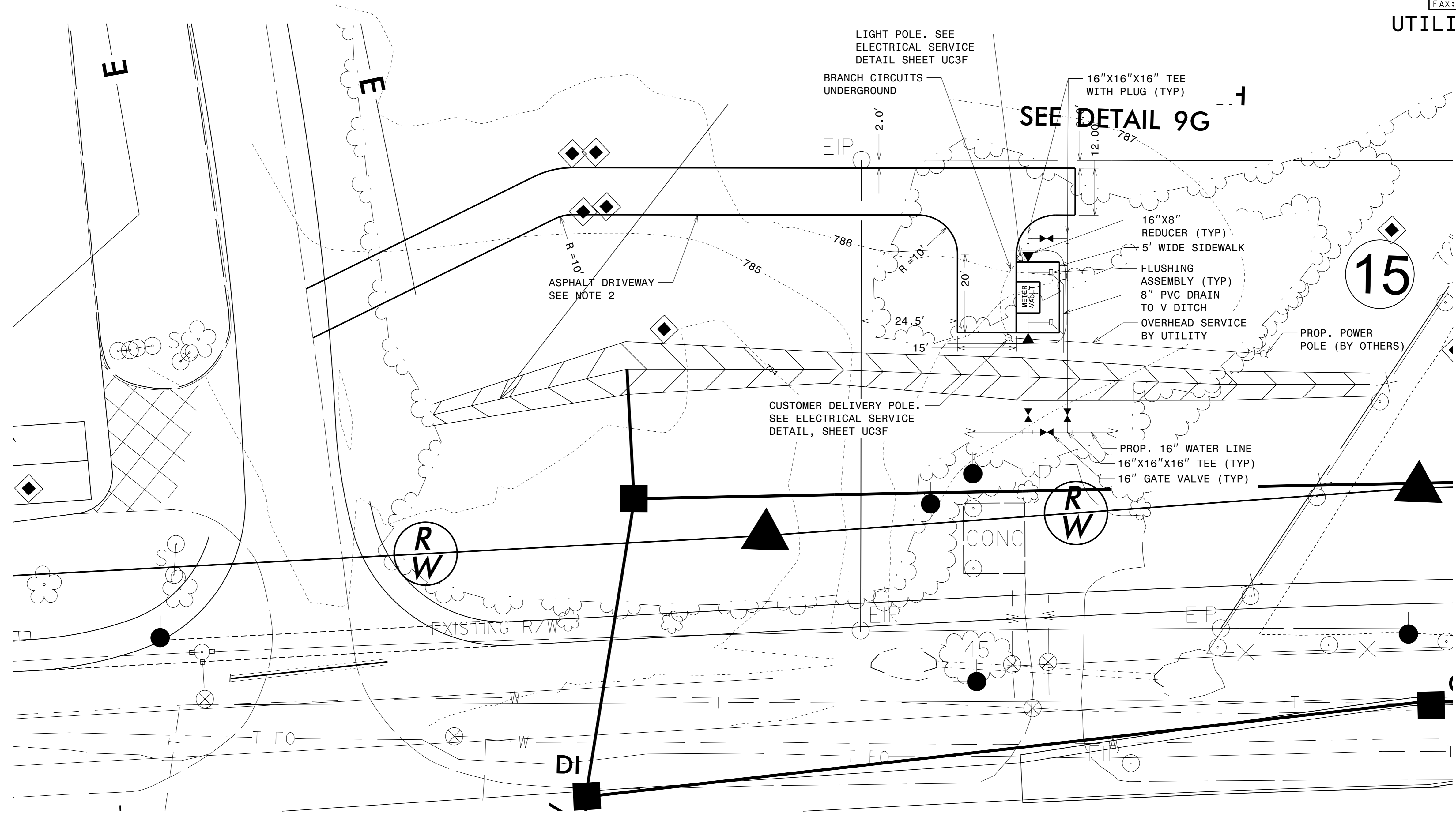
DESIGNED BY: JFA
DRAWN BY: ACB
CHECKED BY: EPH
APPROVED BY: JJW
REVISED:
NORTH CAROLINA
DEPARTMENT OF
TRANSPORTATION
8/21/2024
UTILITIES ENGINEERING SEC.
PHONE: (919) 707-6690
FAX: (919) 250-4151



UTILITY CONSTRUCTION
PLANS ONLY



UTILITY CONSTRUCTION



- NOTES:
1. ALL METER VAULT CONNECTION PIPING SHALL BE RESTRAINED JOINT DUCTILE IRON PIPE.
 2. ASPHALT DRIVEWAY SHALL BE 8" ABC STONE AND 2" ASPHALT (I-2). SLOPED TO DRAIN.
 3. GRASS LINED DITCH SHALL SERVE AS TEMPORARY DIVERSION DITCH DURING CONSTRUCTION.
 4. FILL SLOPE FROM TOP OF SLOPE SHALL BE 3H:1V.

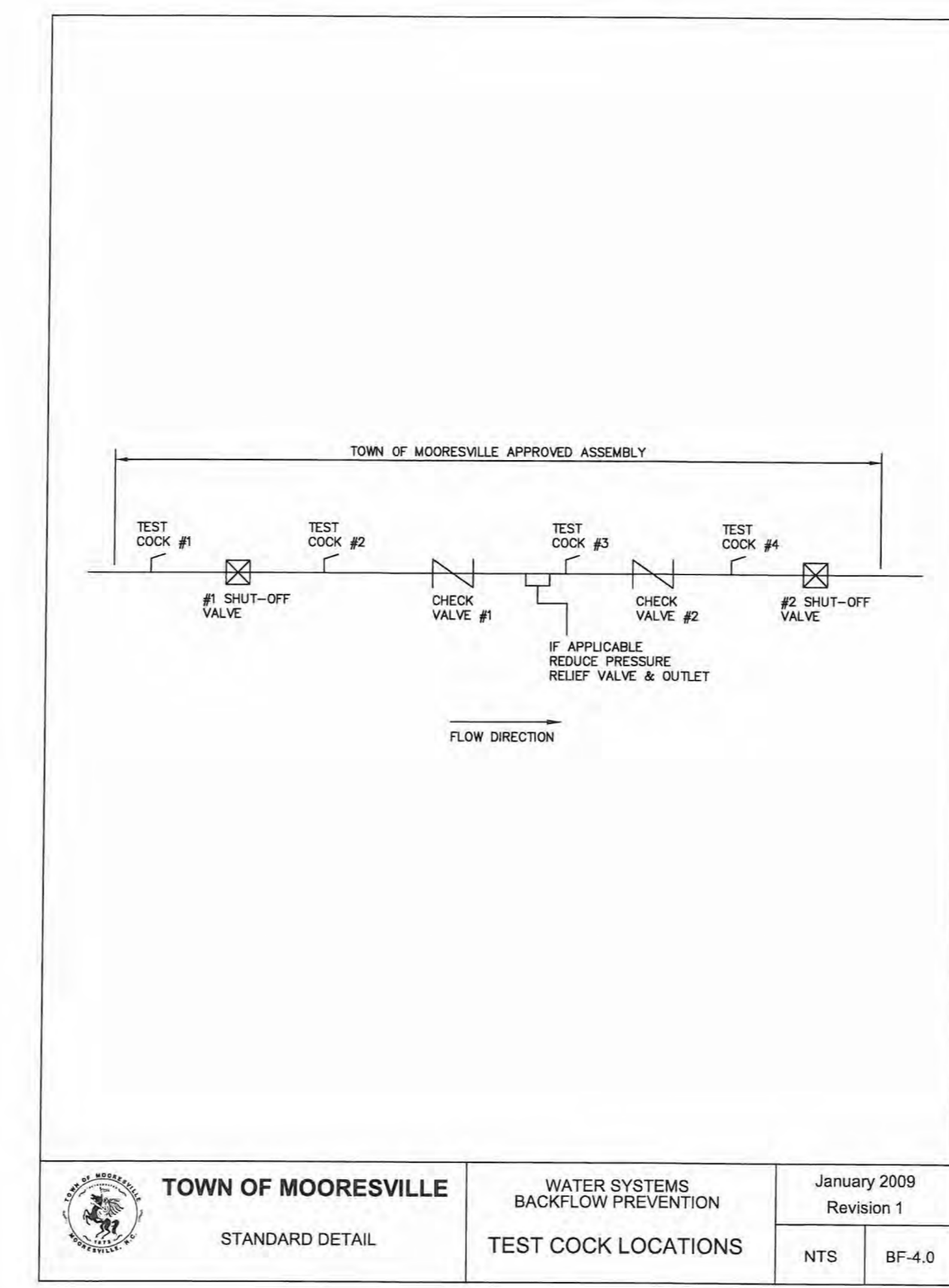
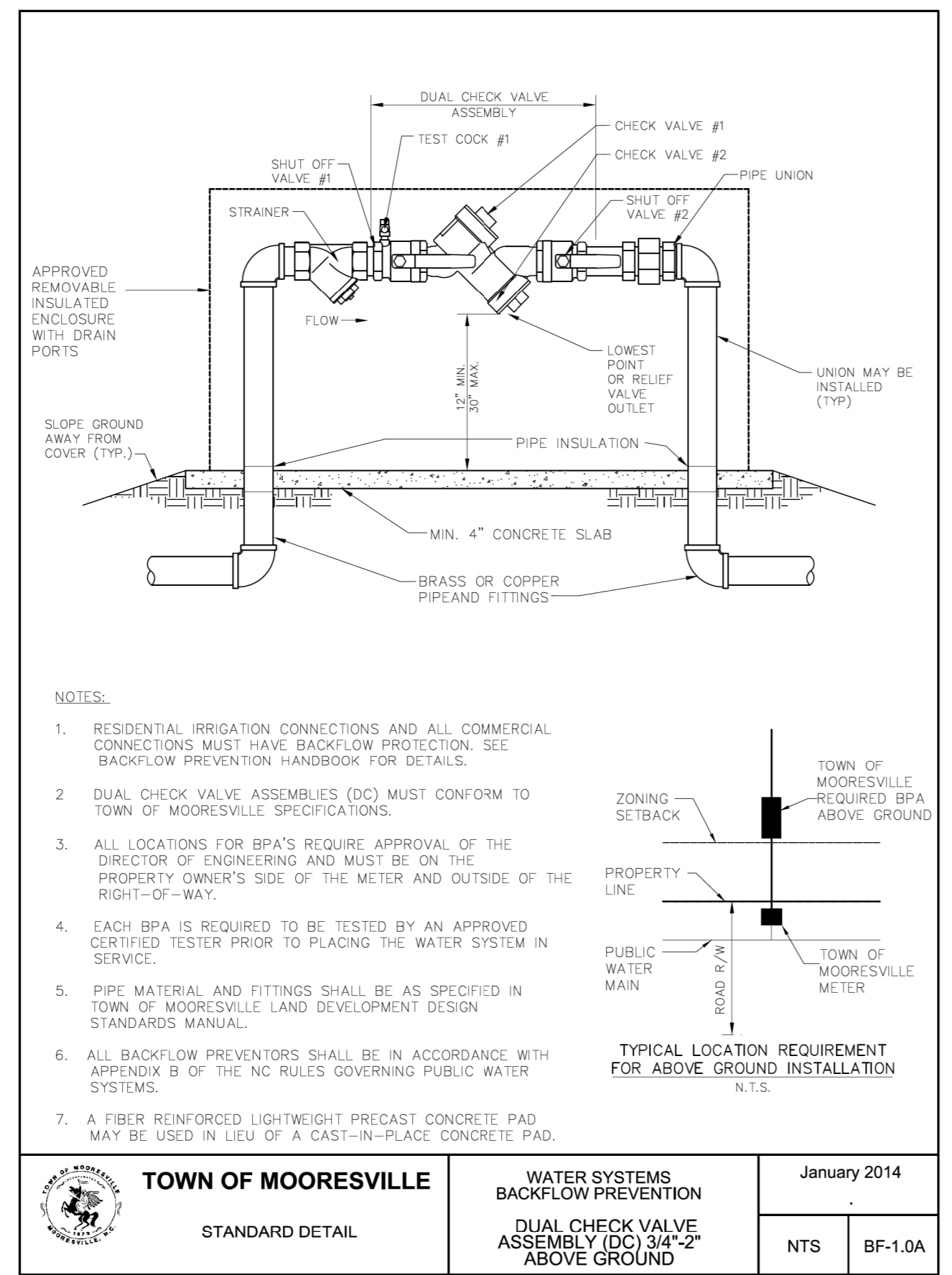
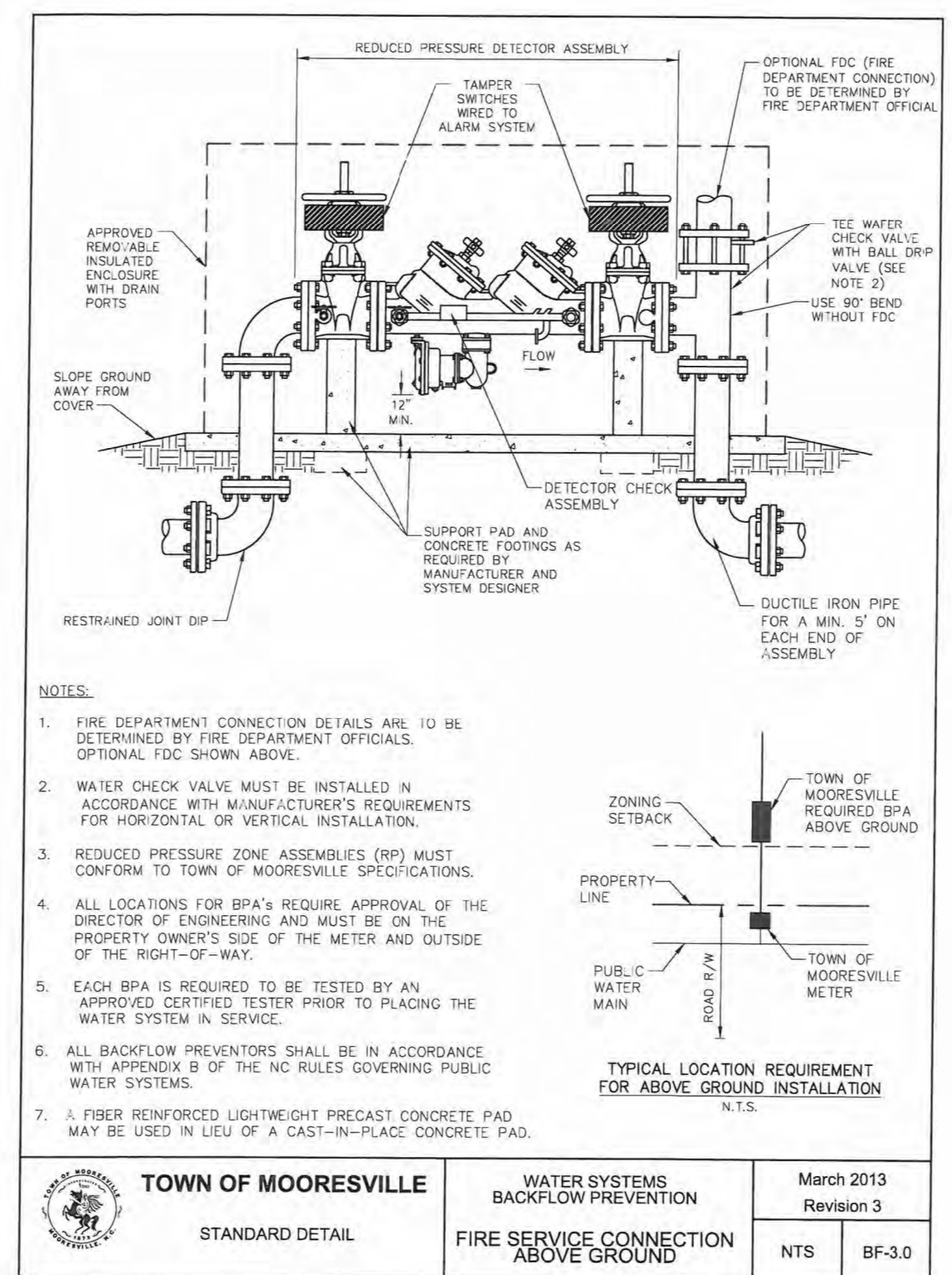
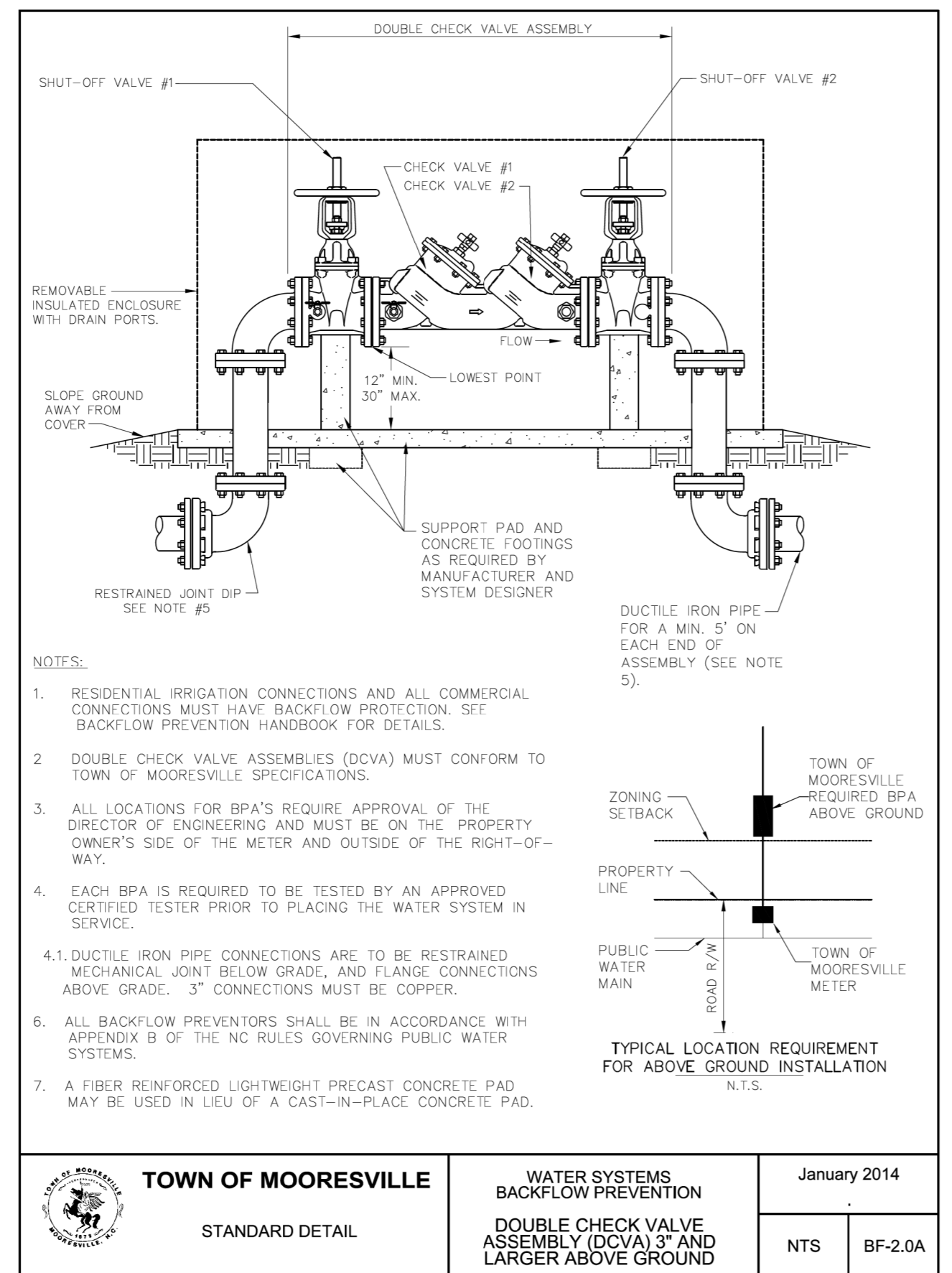
NAD 83/NRS 2007

5/14/24

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
R-2307B	UC-3H
DESIGNED BY: JFA	
DRAWN BY: ACB	
CHECKED BY: EPH	
APPROVED BY: JJW	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	8/21/2024
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION



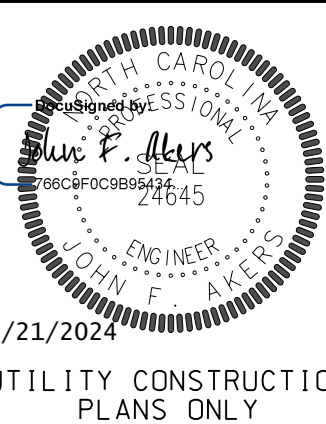
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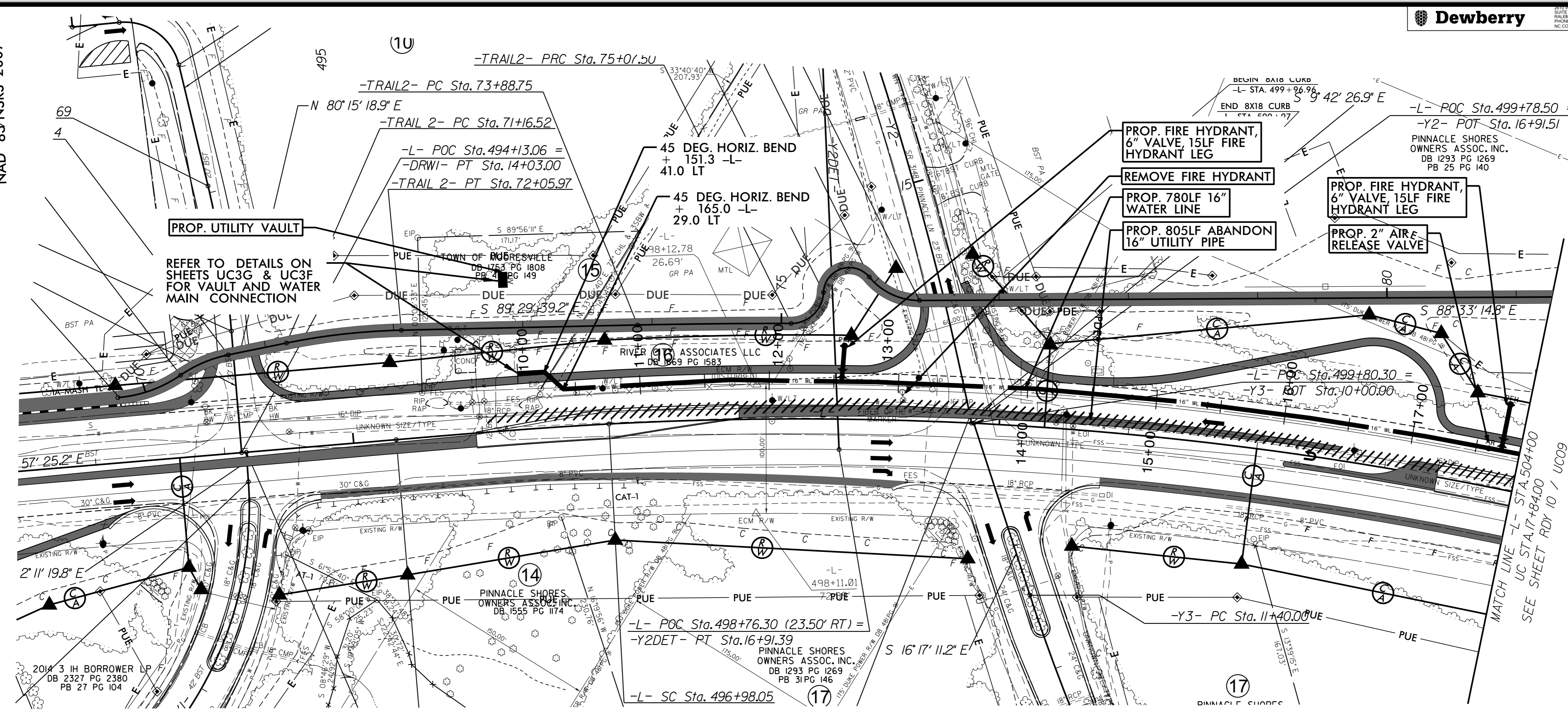
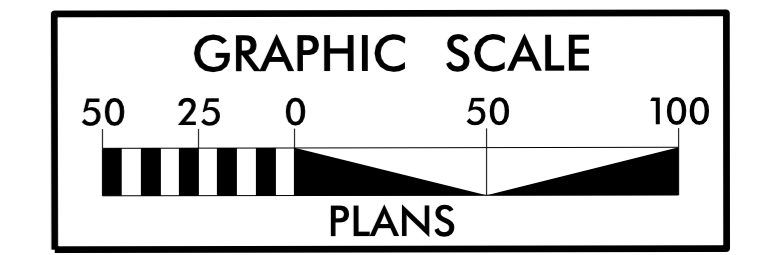
NAD 83 NSRS 2007



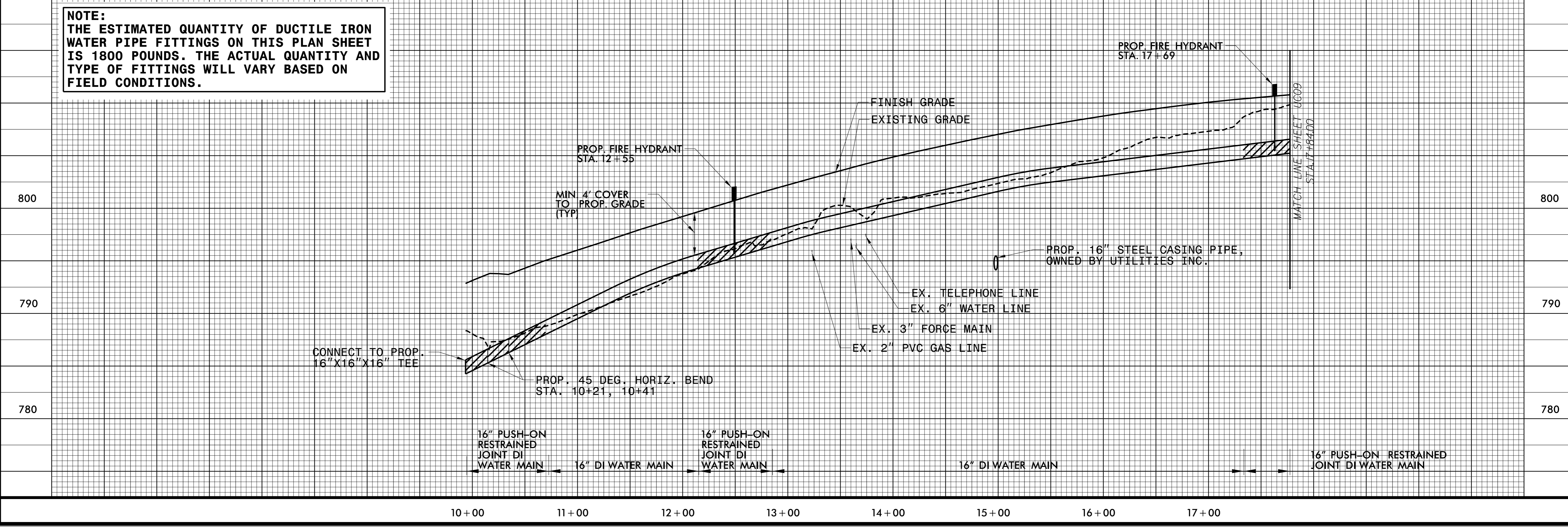
DESIGNED BY: JFA
DRAWN BY: ACB
CHECKED BY: EPH
APPROVED BY: JJW
REVISED:
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
UTILITIES ENGINEERING SEC.
PHONE: (919) 707-6690
FAX: (919) 250-4151



UTILITY CONSTRUCTION

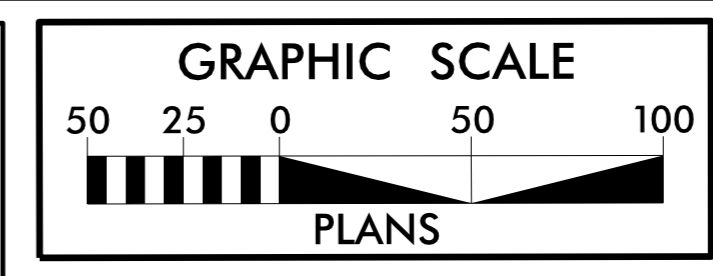


NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 1800 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.



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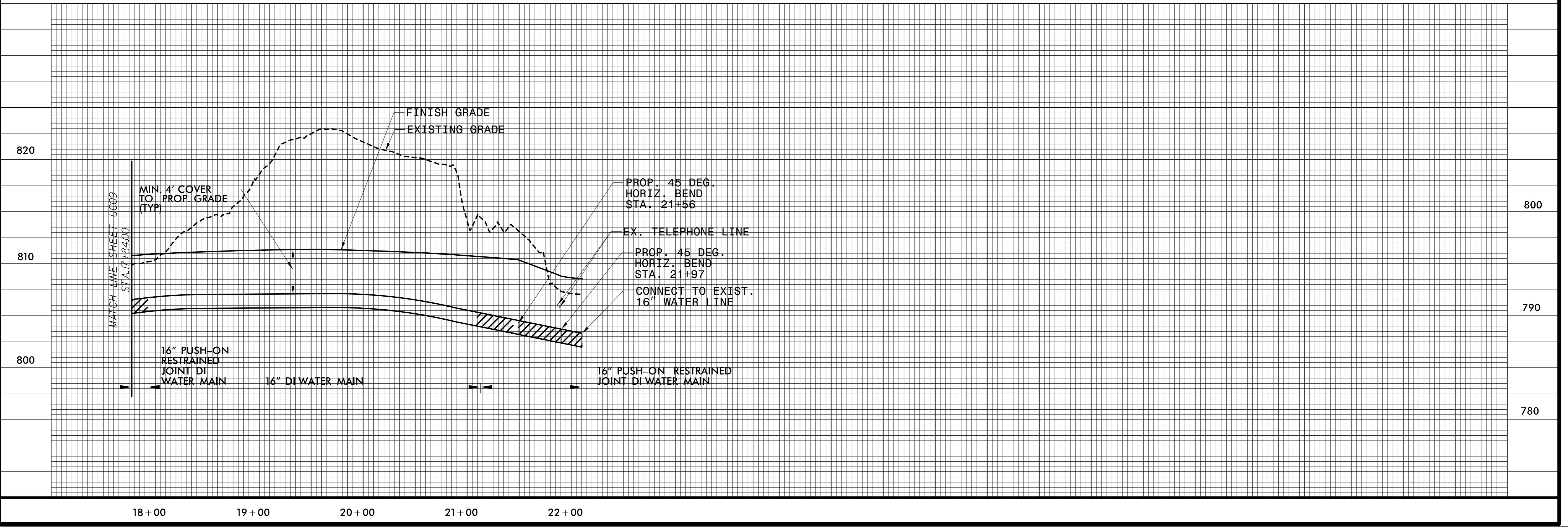
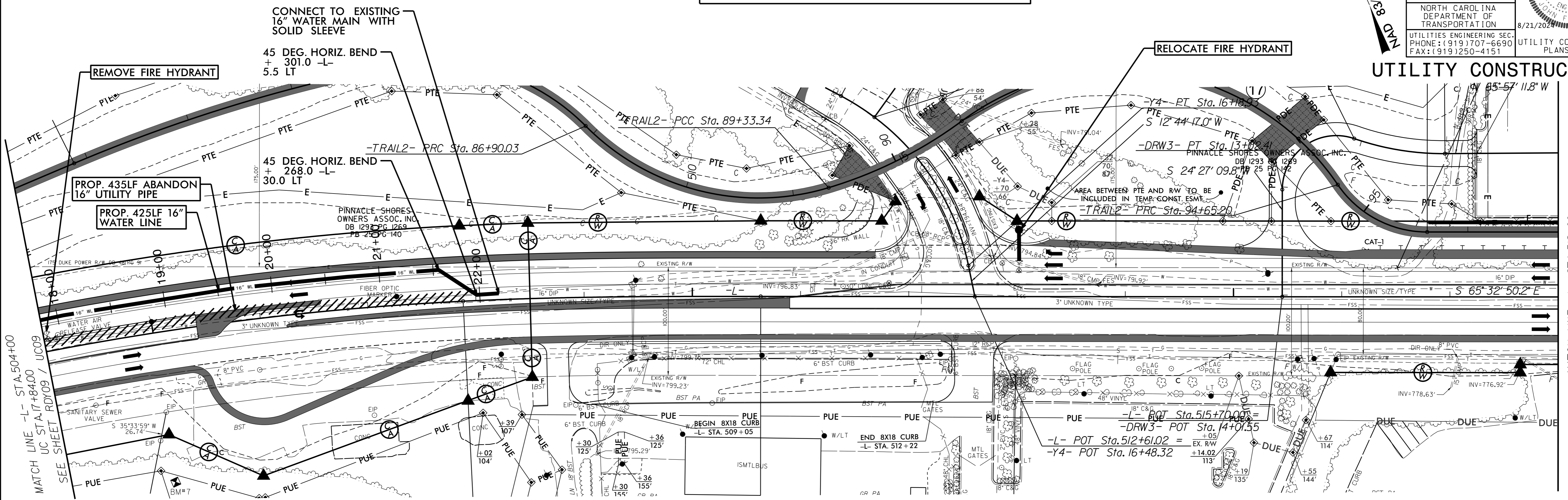
NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 800 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.



PROJECT REFERENCE NO. R-2307B / 1-5717	SHEET NO. UC10
DESIGNED BY: JFA	
DRAWN BY: ACB	
CHECKED BY: EPH	
APPROVED BY: J.J.W.	
REVISED:	8/21/2024
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	UTILITY CONSTRUCTION PLANS ONLY

MAY 2008 2007

UTILITY CONSTRUCTION


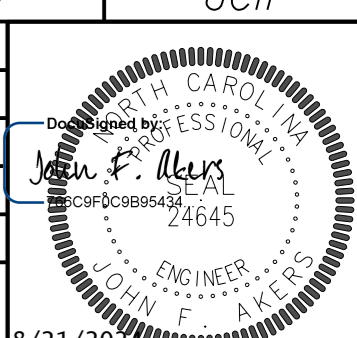


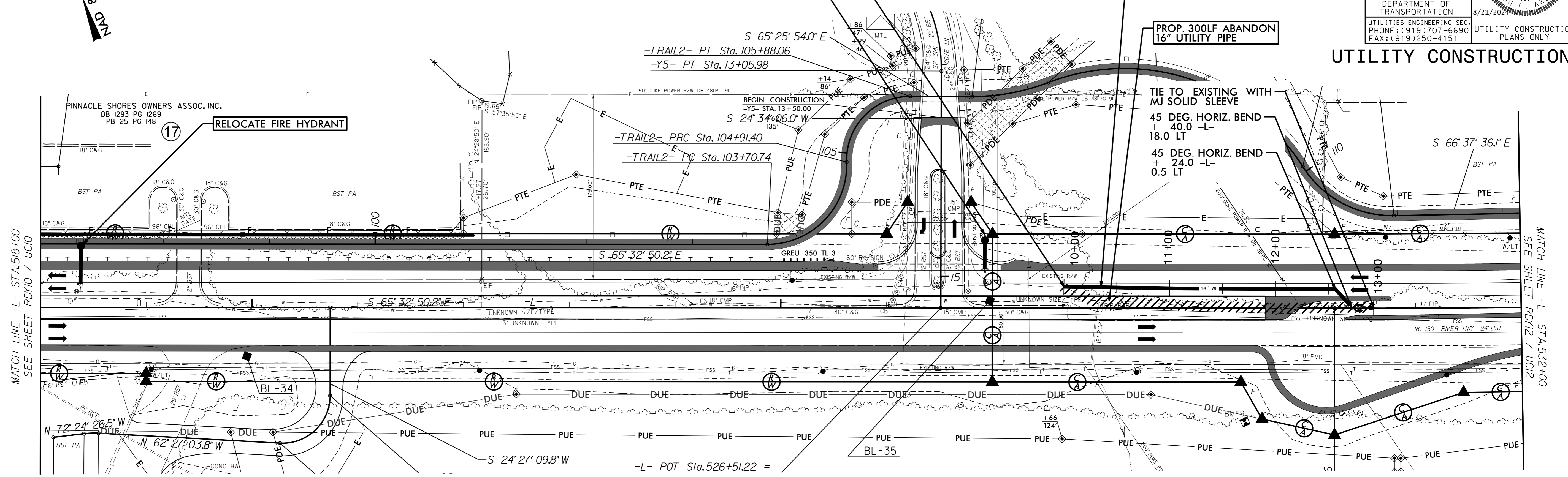
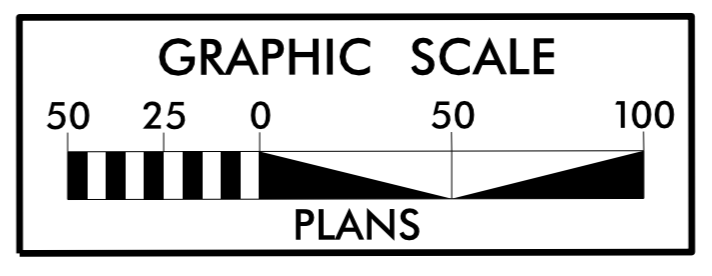
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5/14/2007

REVISED 2007
MAD 8/28/08

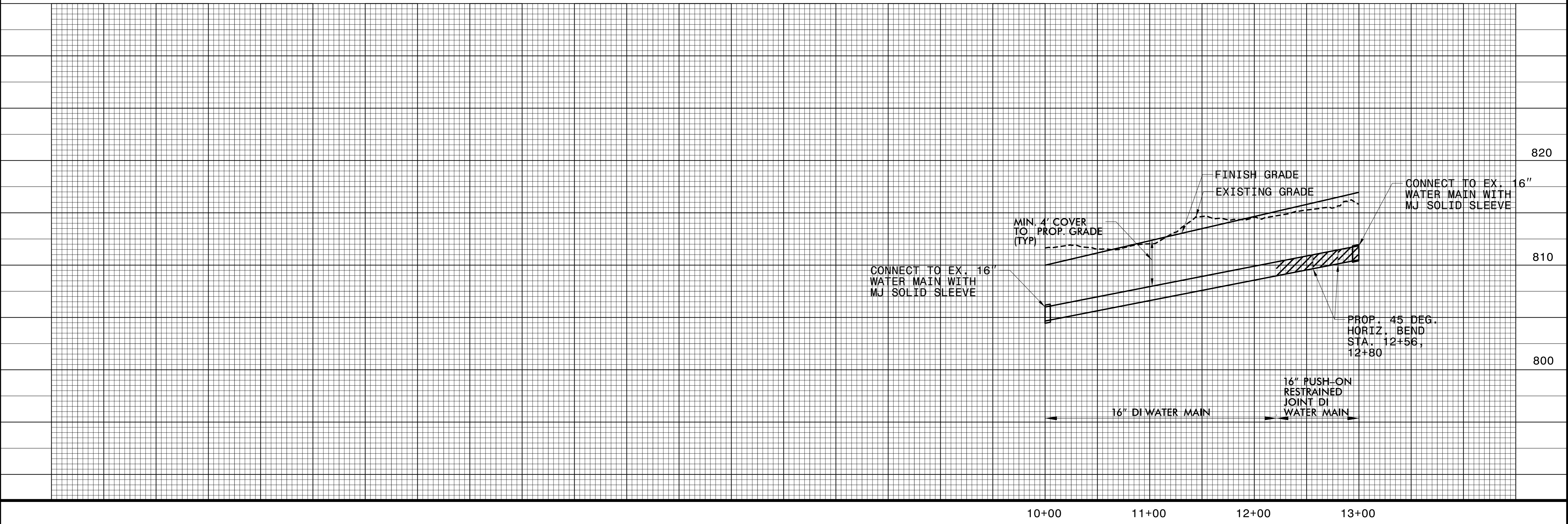
NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 500 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

	PROJECT REFERENCE NO.	SHEET NO.
	R-2307B / I-5717	UC11
	DESIGNED BY: JFA	
	DRAWN BY: ACB	
	CHECKED BY: EPH	
APPROVED BY: JJW		
REVISED:	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	



MATCH LINE -L- STA. 518+00
SEE SHEET RDY10 / UC10

MATCH LINE -L- STA. 532+00
SEE SHEET RDY12 / UC12

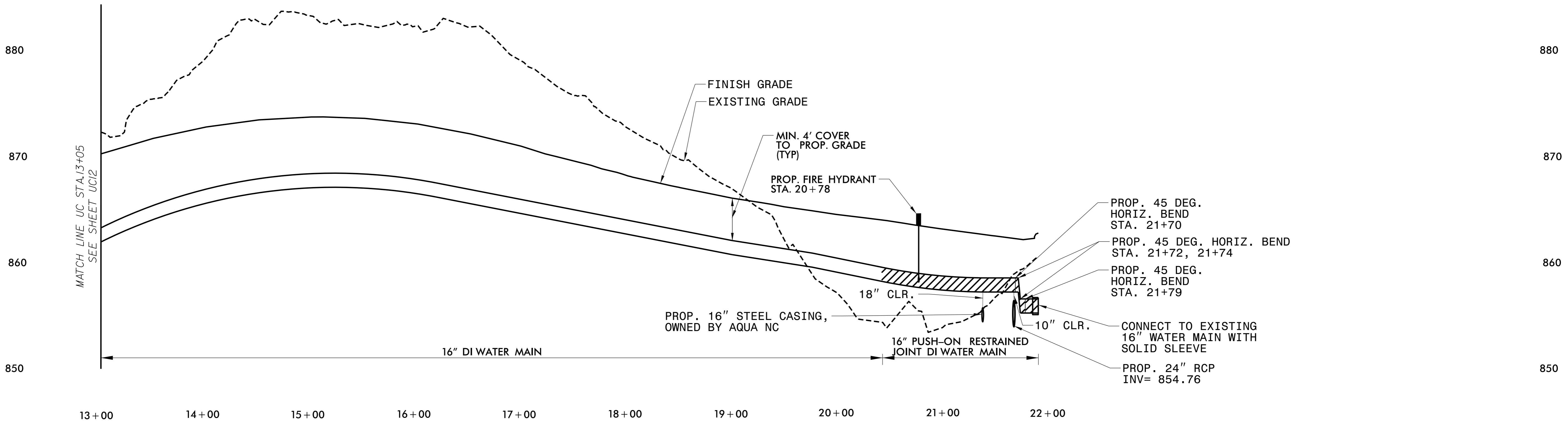
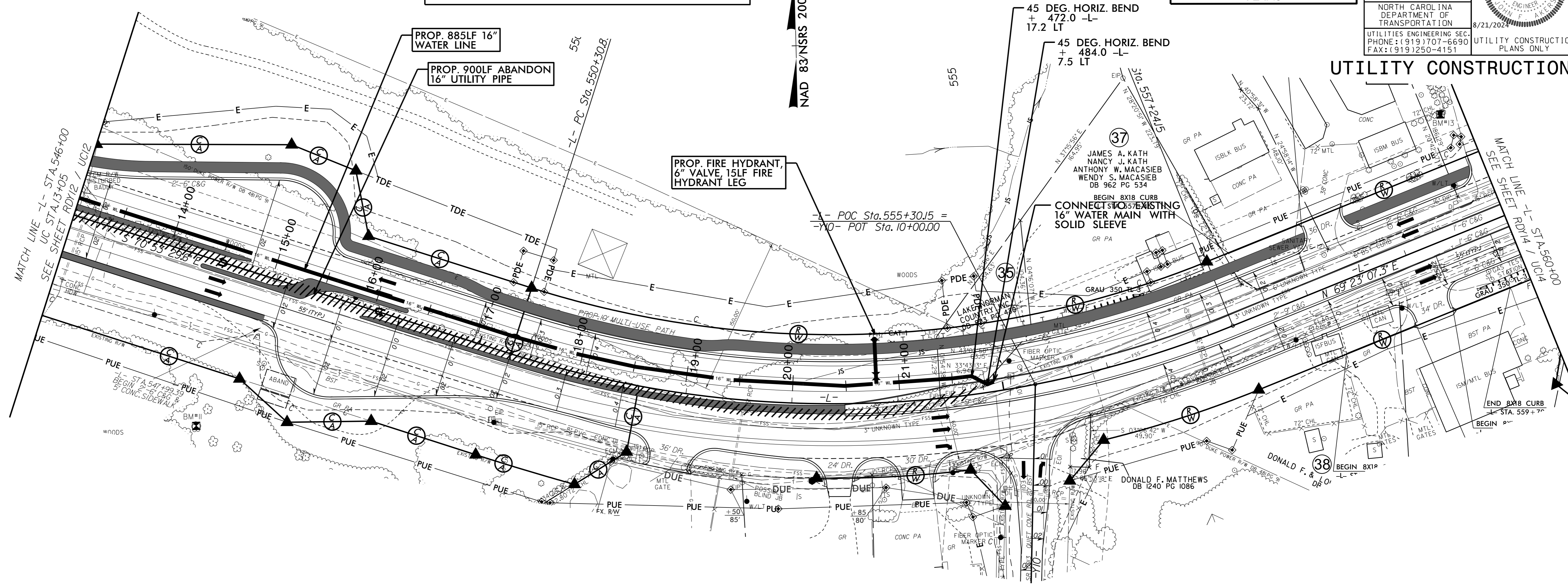
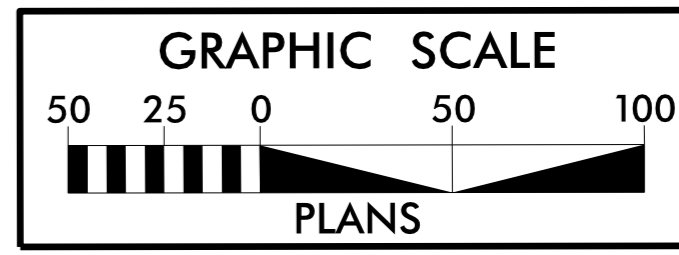


5/14/2007
MAD 8/28/08
REVISED 2007

NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 2000 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.



PROJECT REFERENCE NO. R-2307B / I-5717	SHEET NO. UC13
DESIGNED BY: JFA	
DRAWN BY: ACB	
CHECKED BY: EPH	
APPROVED BY: JJW	
REVISED:	8/21/2024
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SECTION PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

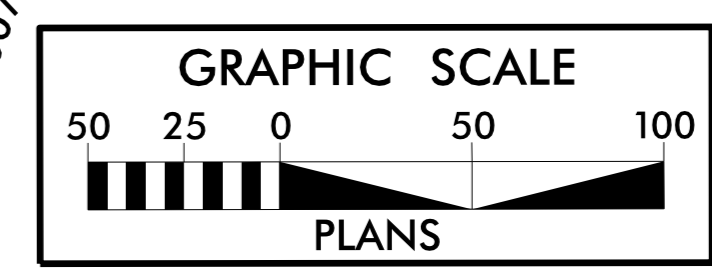


UC13 UC12 UC11 UC10 UC9 UC8 UC7 UC6 UC5 UC4 UC3 UC2 UC1

NOTE:
 THE ESTIMATED QUANTITY OF DUCTILE IRON
 WATER PIPE FITTINGS ON THIS PLAN SHEET
 IS 2800 POUNDS. THE ACTUAL QUANTITY AND
 TYPE OF FITTINGS WILL VARY BASED ON
 FIELD CONDITIONS.

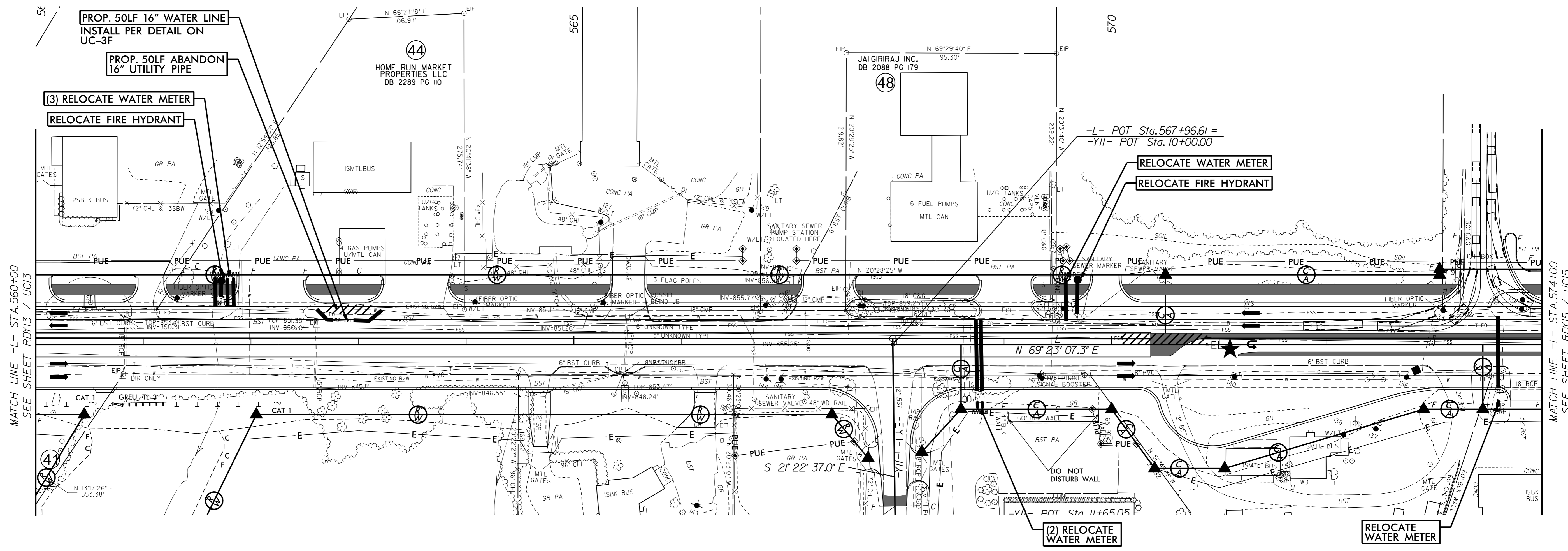


PROJECT REFERENCE NO. R-2307B / I-5717	SHEET NO. UC14
DESIGNED BY: JFA	
DRAWN BY: ACB	
CHECKED BY: EPH	
APPROVED BY: JJW	
REVISED:	8/21/2024
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	UTILITY CONSTRUCTION PLANS ONLY
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	



NAD 83 NRS 2007

UTILITY CONSTRUCTION



MATCH LINE -L- STA. 560+00
SEE SHEET RDY13 / UC13

MATCH LINE -L- STA. 574+00
SEE SHEET RDY15 / UC15

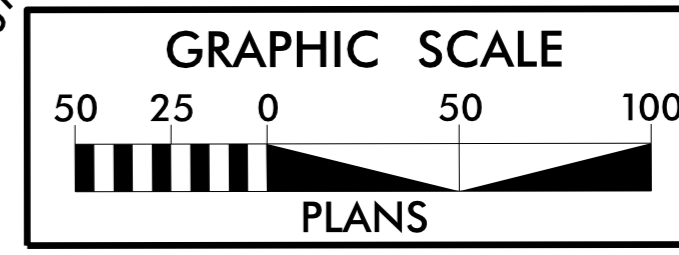
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5/14/2024



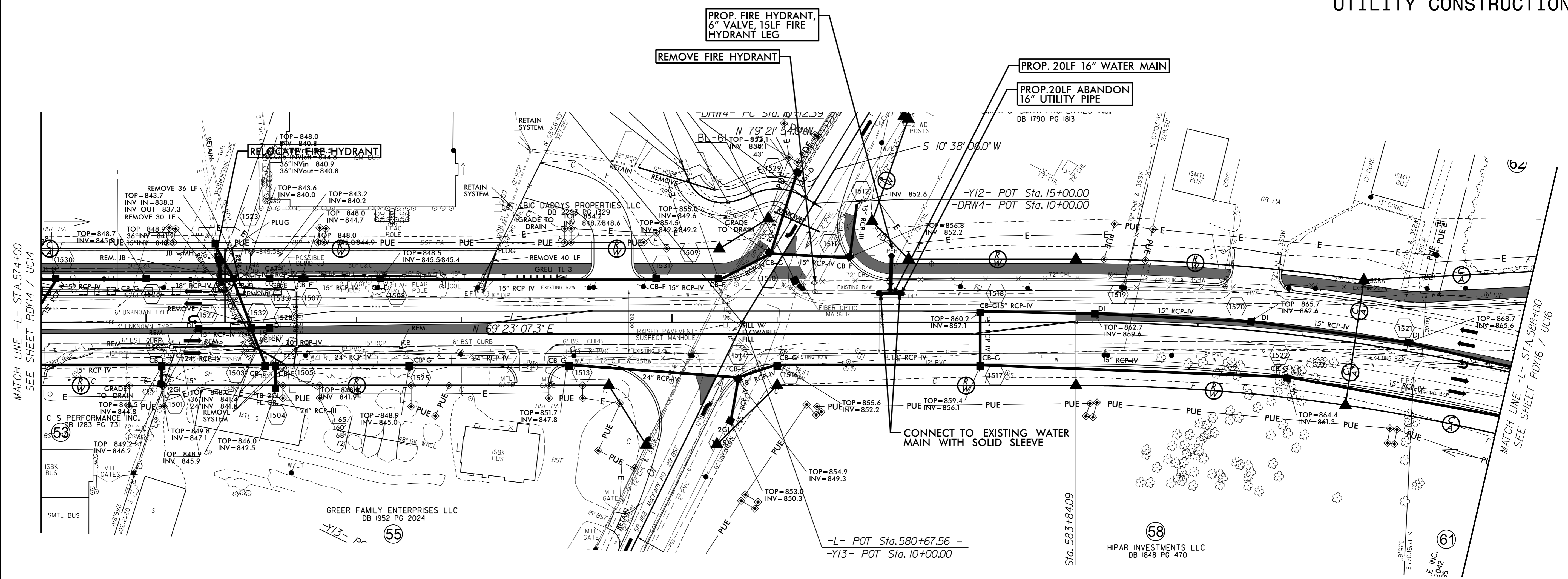
PROJECT REFERENCE NO. R-2307B / I-5717	SHEET NO. UC15
DESIGNED BY: JFA	
DRAWN BY: ACB	
CHECKED BY: EPH	
APPROVED BY: JJW	
REVISED:	8/21/2024
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 800 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.



NAD 83 NSRS 2007

UTILITY CONSTRUCTION



MATCH LINE -L- STA. 574+00
SEE SHEET RDY14 / UC14

MATCH LINE -L- STA. 588+00
SEE SHEET RDY16 / UC16

GREER FAMILY ENTERPRISES LLC
DB 1952 PG 2024

58
HIPAR INVESTMENTS LLC
DB 1848 PG 470

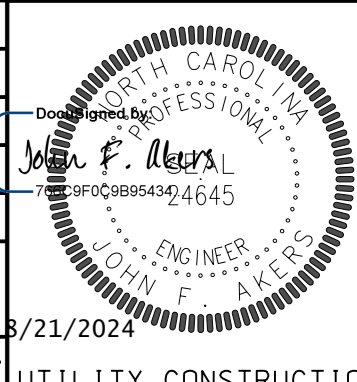
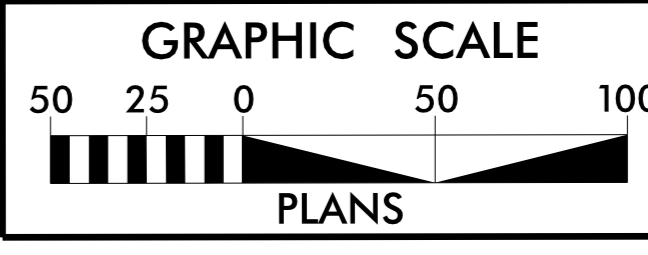
-L- POT Sta. 580+67.56 =
-Y13- POT Sta. 10+00.00

Sta. 583+84.09

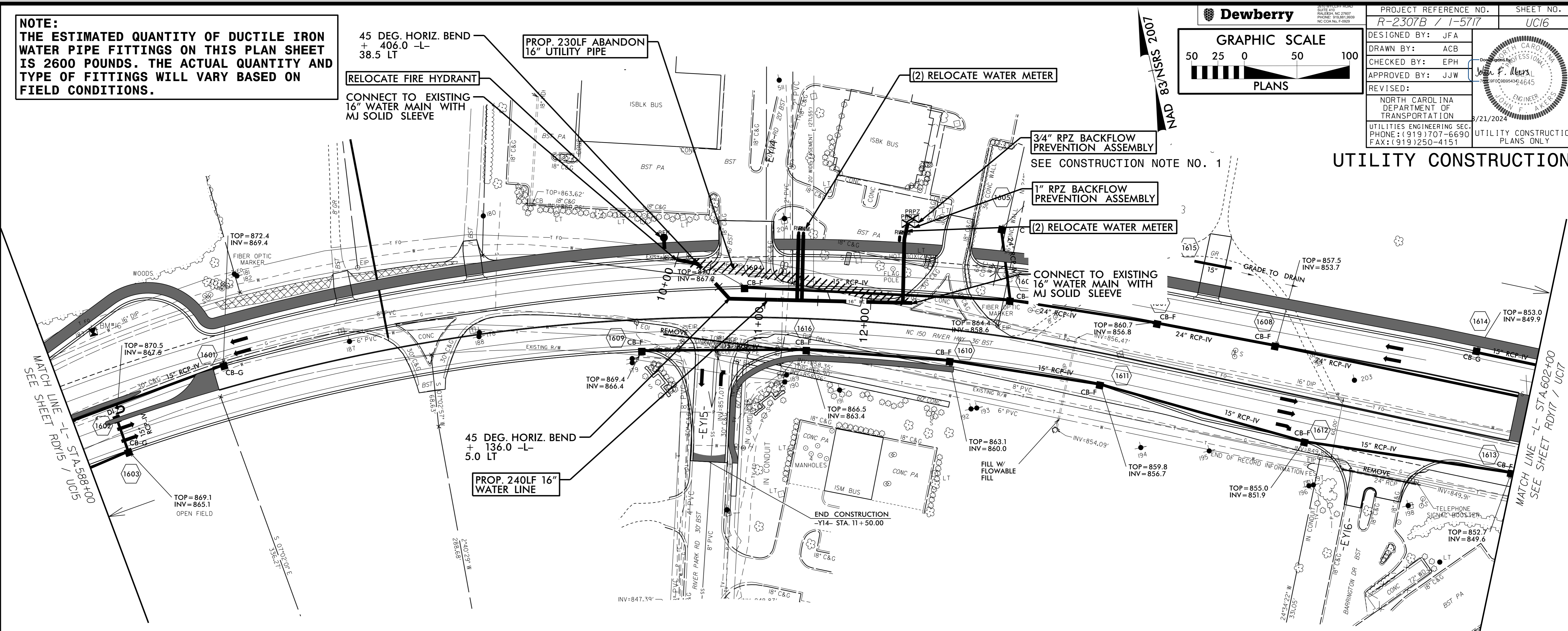
5/14/2024

NOTE:
 THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 2600 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

	PROJECT REFERENCE NO.	SHEET NO.
	R-2307B / 1-5717	UC16
DESIGNED BY: JFA	DRAWN BY: ACB	
CHECKED BY: EPH	APPROVED BY: JJW	
REVISED:	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC.	UTILITY CONSTRUCTION PLANS ONLY	

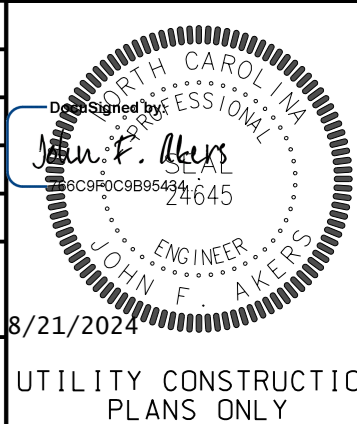


UTILITY CONSTRUCTION

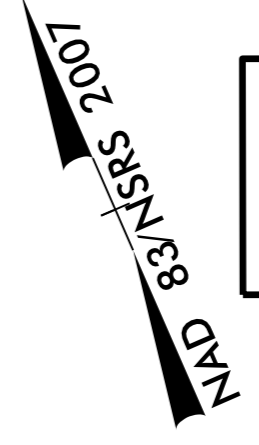
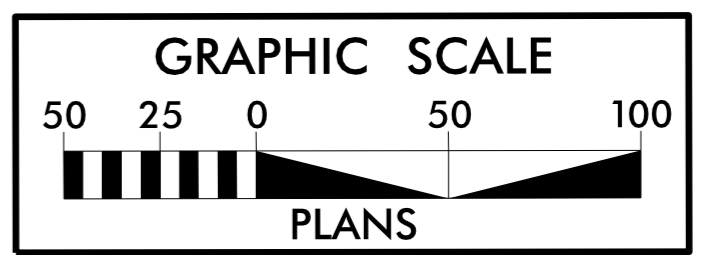


CONSTRUCTION NOTES:
 1. SHOWN PER RECORDS. BACKFLOW PREVENTOR WAS NOT FOUND IN THE FIELD. VERIFY LOCATION OF THE BACKFLOW PREVENTOR IN THE FIELD AND COORDINATE WITH THE TOWN AS NEEDED.

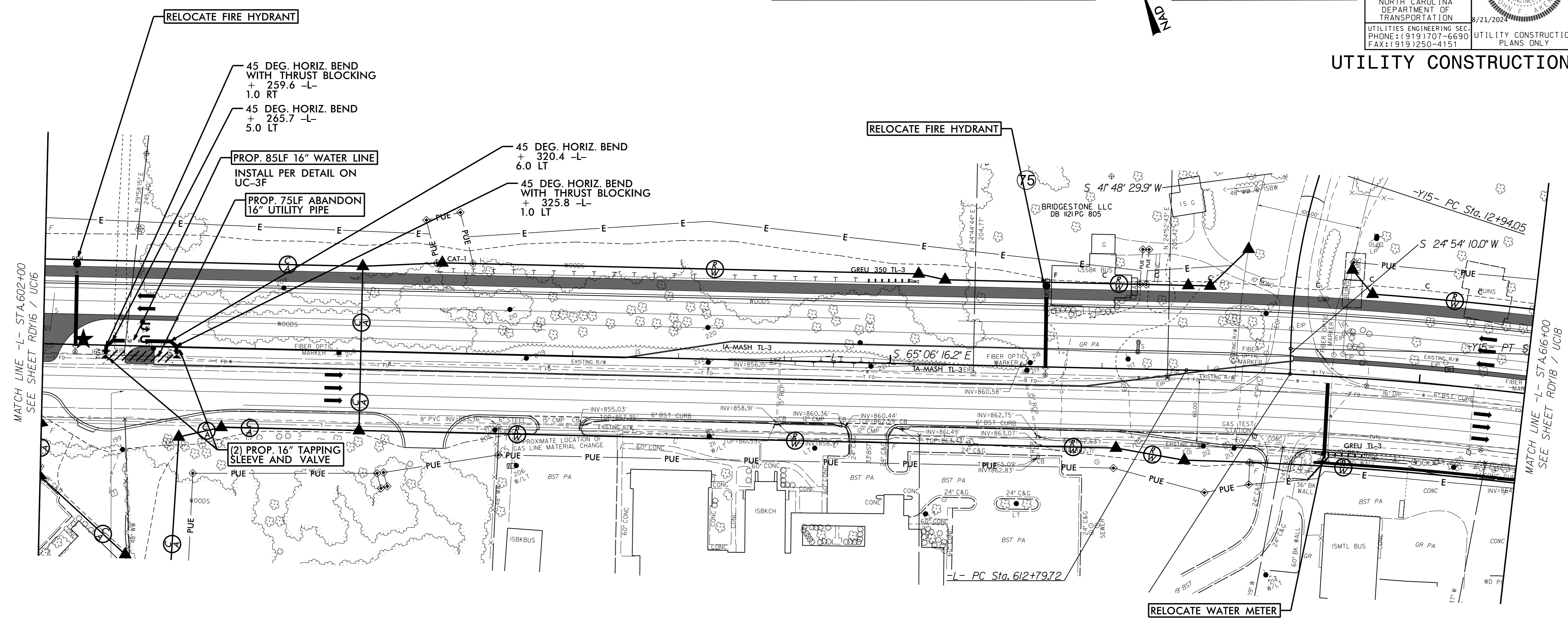
880		880
870		870
860		860
	10+00 11+00 12+00 13+00	



NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON
WATER PIPE FITTINGS ON THIS PLAN SHEET
IS 2800 POUNDS. THE ACTUAL QUANTITY AND
TYPE OF FITTINGS WILL VARY BASED ON
FIELD CONDITIONS.



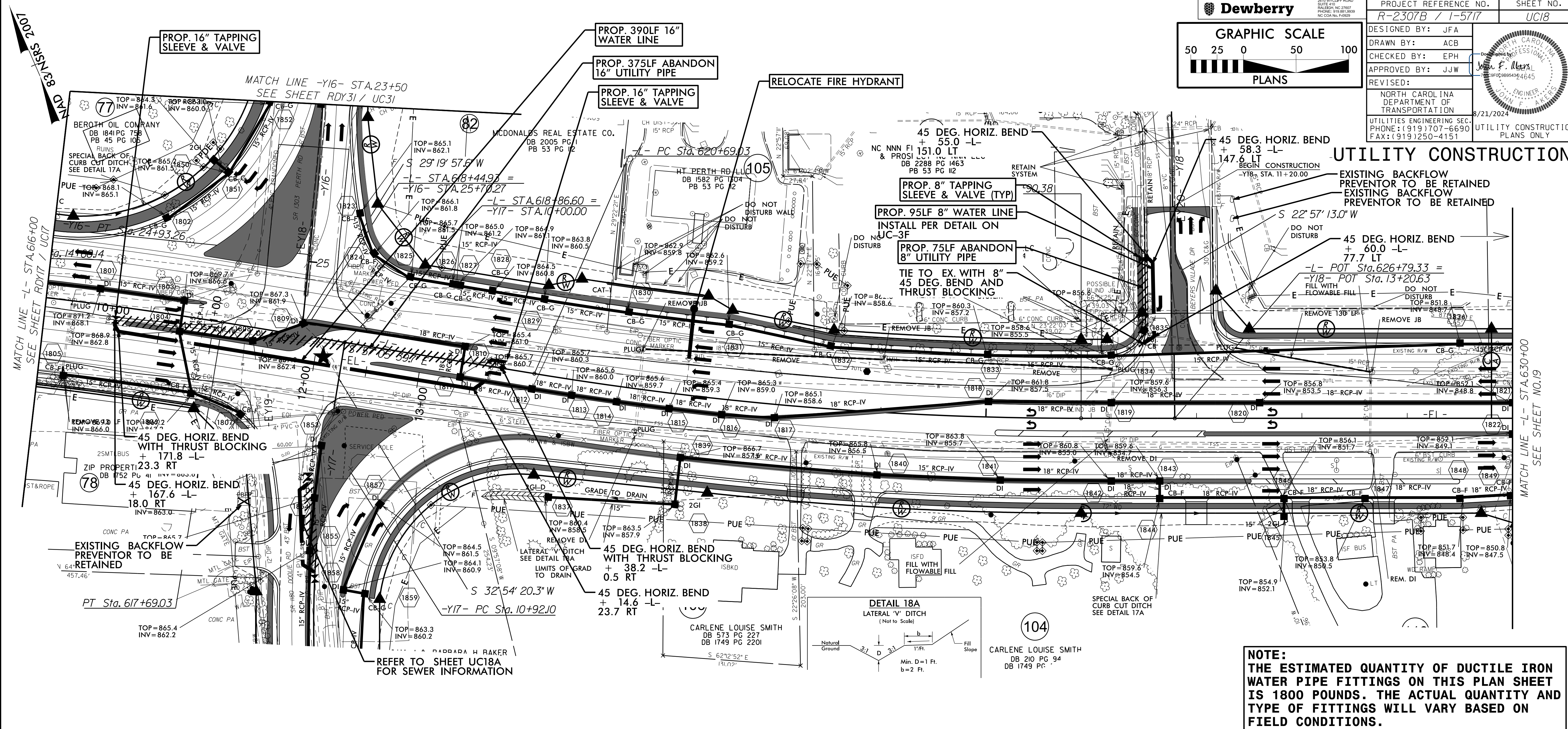
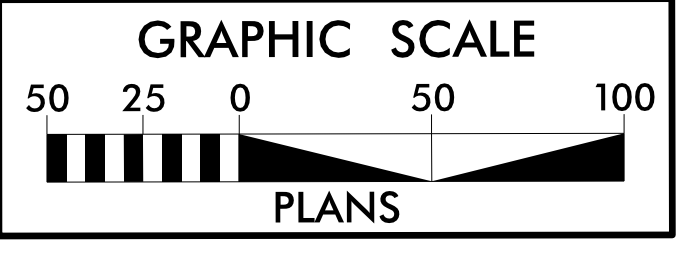
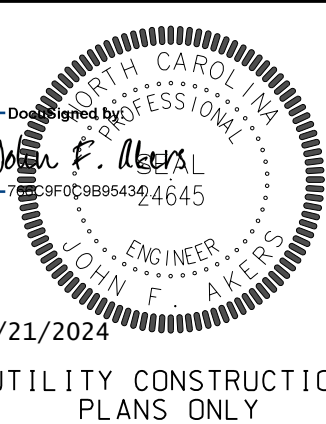
UTILITY CONSTRUCTION



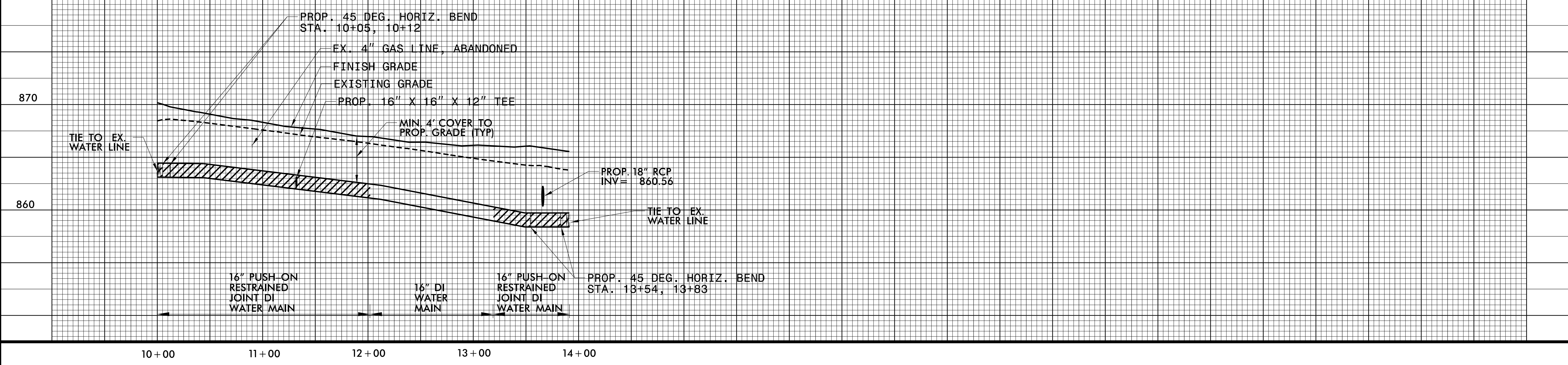
MATCH LINE -L- STA. 602+00
SEE SHEET RDY16 / UC16

MATCH LINE -L- STA. 616+00
SEE SHEET RDY18 / UC18

US
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11
US



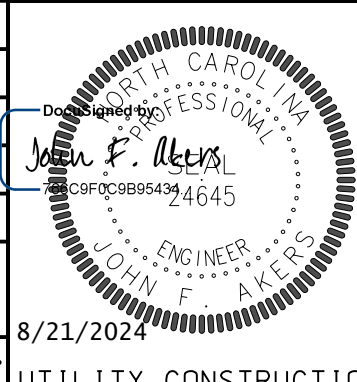
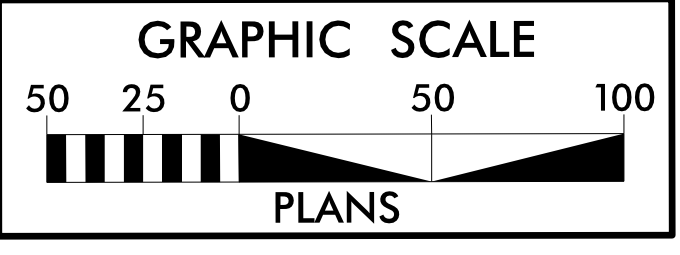
NOTE:
 THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 1800 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.



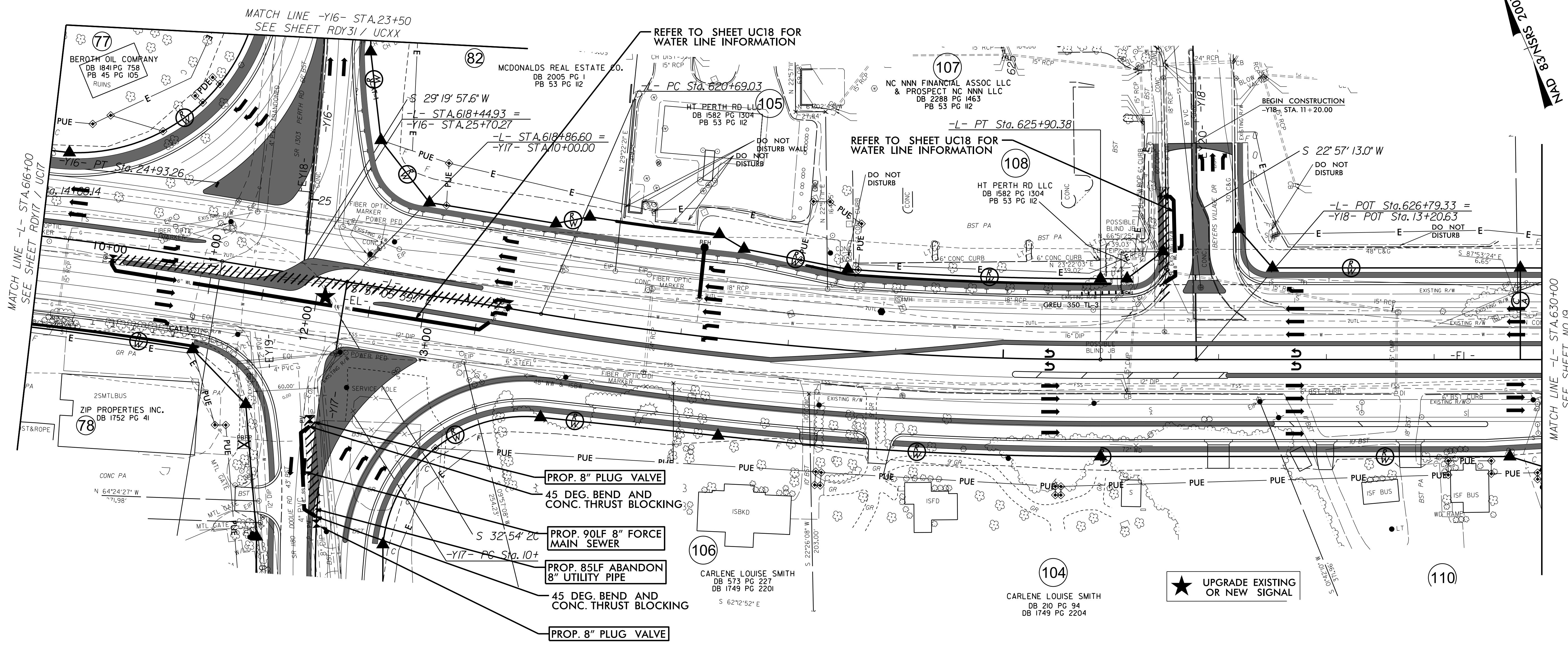


PROJECT REFERENCE NO. R-2307B / 1-5717		SHEET NO. UC18A
DESIGNED BY: JFA	DRAWN BY: ACB	
CHECKED BY: EPH	APPROVED BY: JJW	
REVISED:	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151		8/21/2024 UTILITY CONSTRUCTION PLANS ONLY

NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 500 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.



UTILITY CONSTRUCTION



5/14/2024
SHEET NO. UC18A
PROJECT NO. R-2307B / 1-5717
DATE PLOTTED: 8/21/2024
SCALE: 1" = 40'



PROJECT REFERENCE NO. R-2307B / 1-5717 SHEET NO. UC19

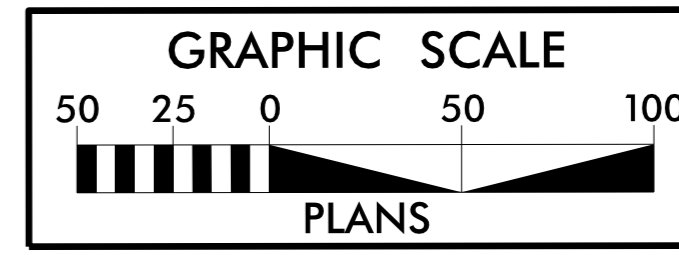
DESIGNED BY: JFA
DRAWN BY: ACB
CHECKED BY: EPH
APPROVED BY: JJW



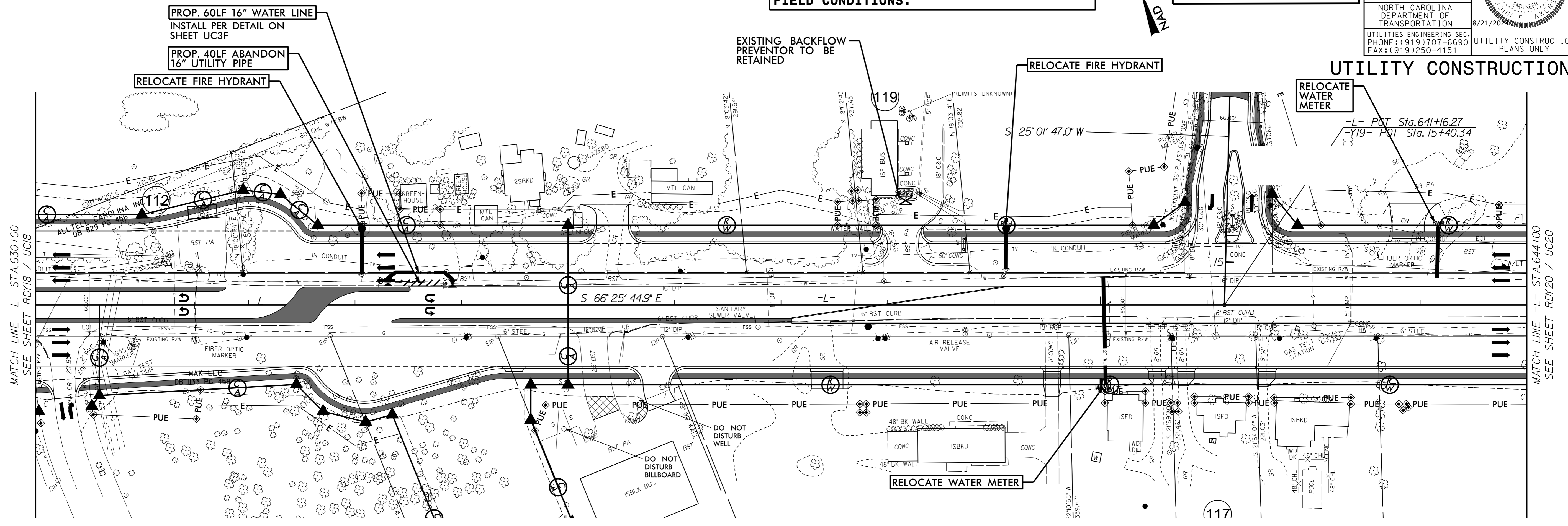
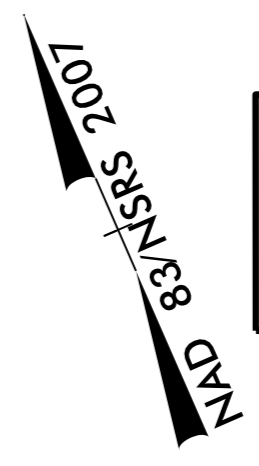
REVISED:
NORTH CAROLINA
DEPARTMENT OF
TRANSPORTATION
8/21/2019

UTILITY ENGINEERING SEC.
PHONE: (919) 707-6690
FAX: (919) 250-4151

UTILITY CONSTRUCTION
PLANS ONLY



NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON
WATER PIPE FITTINGS ON THIS PLAN SHEET
IS 2800 POUNDS. THE ACTUAL QUANTITY AND
TYPE OF FITTINGS WILL VARY BASED ON
FIELD CONDITIONS.



PROP. 60LF 16" WATER LINE
INSTALL PER DETAIL ON
SHEET UC3F

PROP. 40LF ABANDON
16" UTILITY PIPE

RELOCATE FIRE HYDRANT

EXISTING BACKFLOW
PREVENTOR TO BE
RETAINED

RELOCATE FIRE HYDRANT

RELOCATE
WATER
METER

-L- POST Sta. 641+16.27 =
-Y19- POT Sta. 15+40.34

MATCH LINE -L- STA. 630+00
SEE SHEET RDY18 / UC18

MATCH LINE -L- STA. 644+00
SEE SHEET RDY20 / UC20

DO NOT
DISTURB
WELL

DO NOT
DISTURB
BILLBOARD

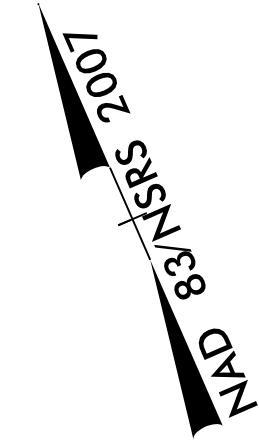
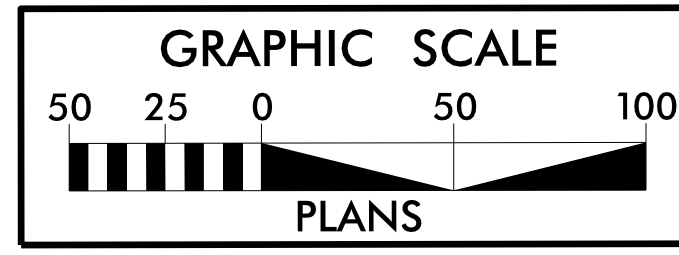
RELOCATE WATER METER

5/14/19

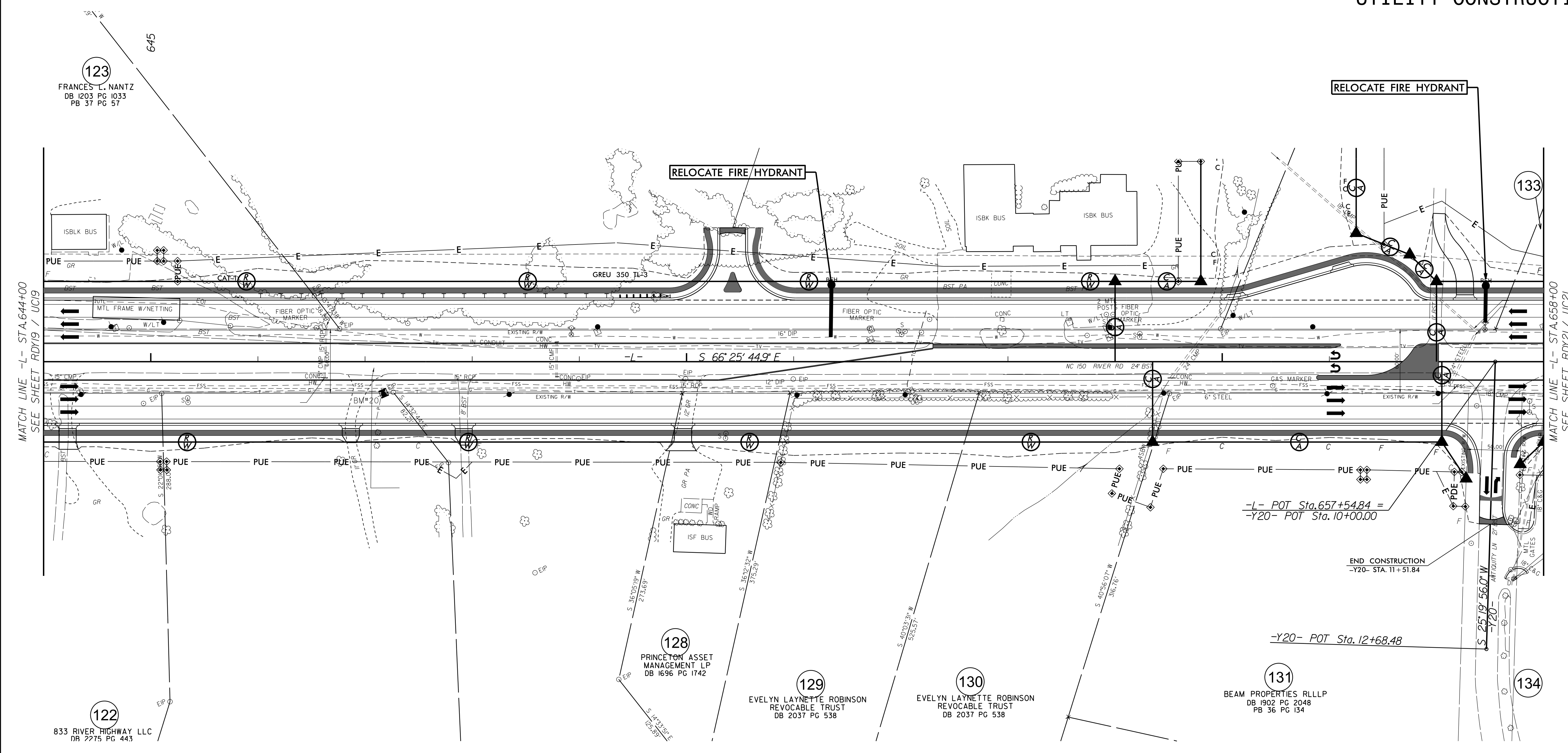
5/14/19



PROJECT REFERENCE NO. R-2307B / 1-5717	SHEET NO. UC20
DESIGNED BY: JFA	
DRAWN BY: ACB	
CHECKED BY: EPH	
APPROVED BY: JJW	
REVISED:	8/21/2019
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	



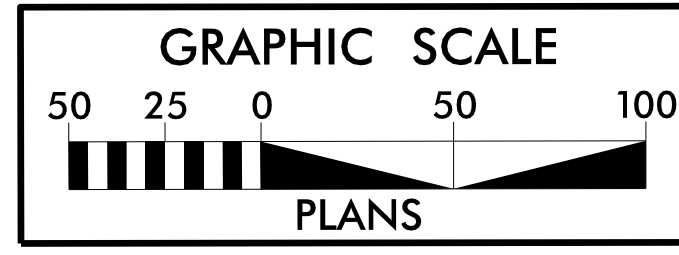
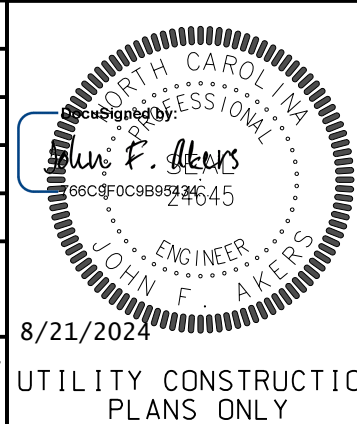
UTILITY CONSTRUCTION



UTILITY CONSTRUCTION PLANS ONLY



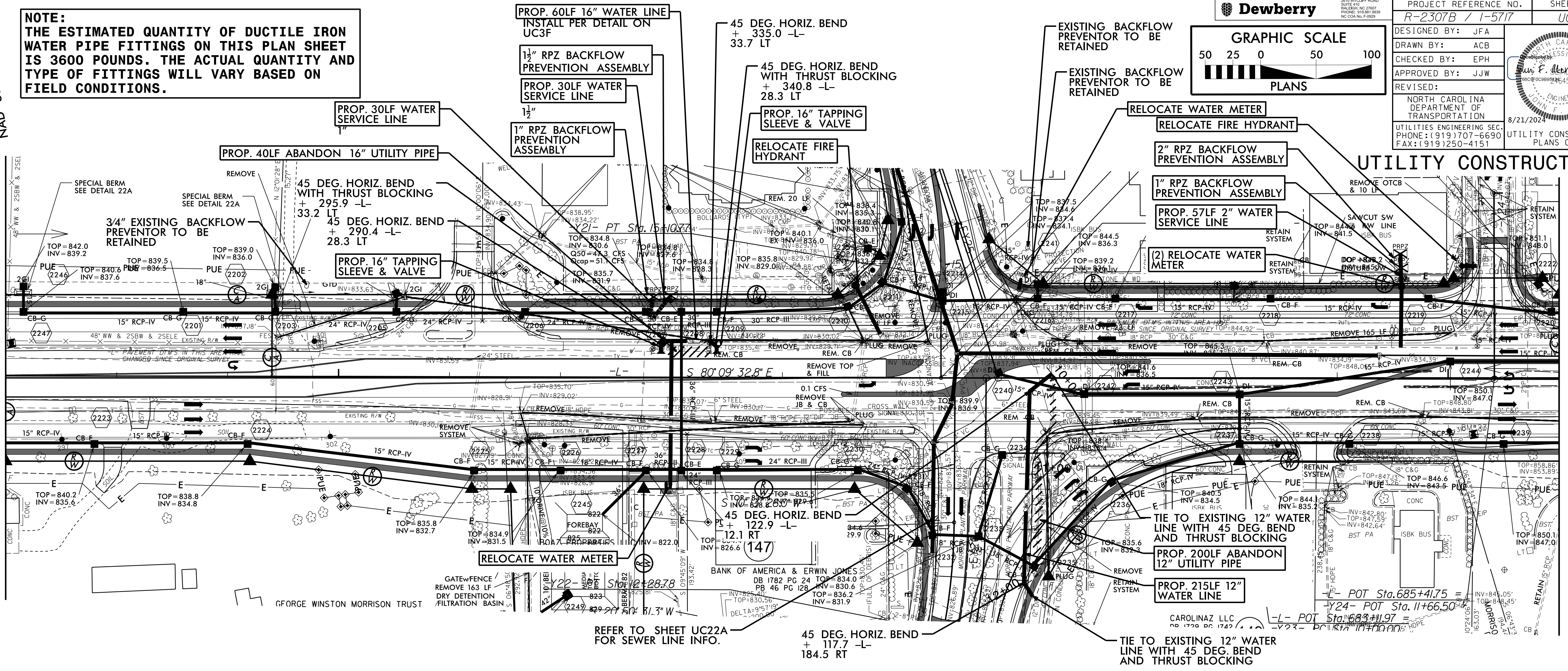
DESIGNED BY: JFA
DRAWN BY: ACB
CHECKED BY: EPH
APPROVED BY: JJW
REVISED:
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
UTILITIES ENGINEERING SEC.
PHONE: (919) 707-6690
FAX: (919) 250-4151
UTILITY CONSTRUCTION PLANS ONLY



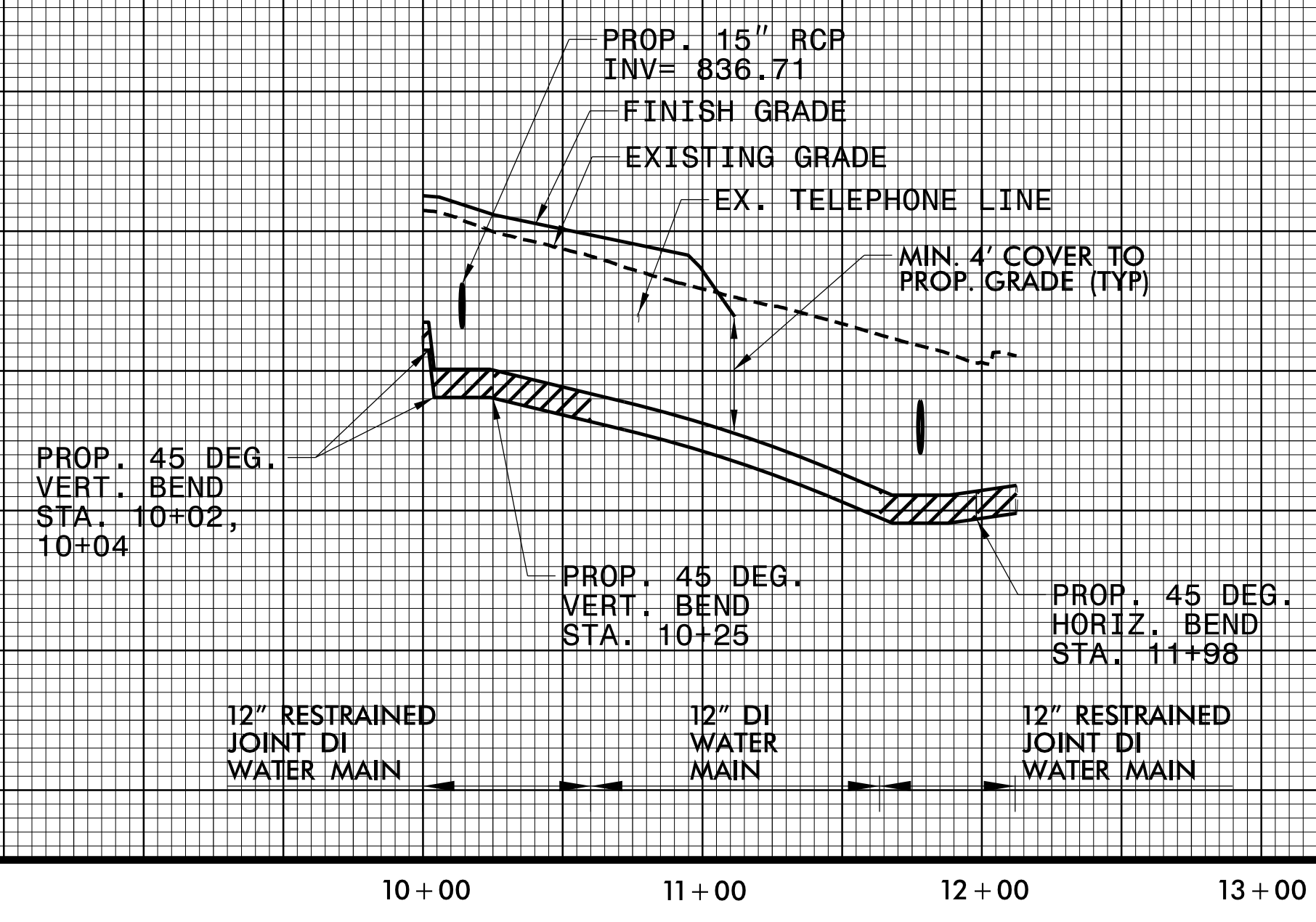
NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 3600 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

MATCH LINE -L- STA. 672+00
SEE SHEET NO. 21

MATCH LINE -L- STA. 686+00
SEE SHEET NO. 23



5/14/2007
83/NSRS 2007
NAD




840

830

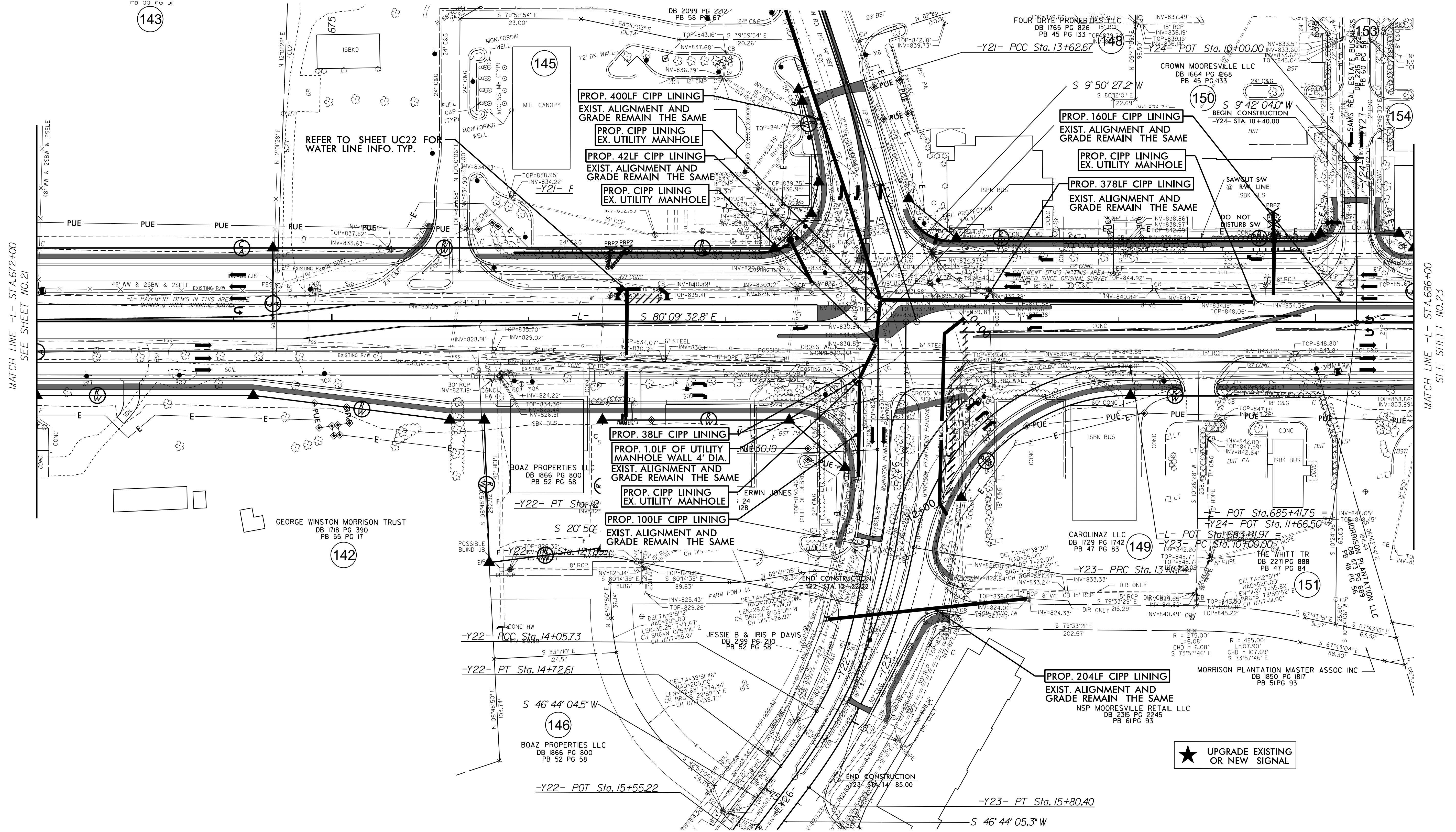
10+00 11+00 12+00 13+00

Dewberry

GRAPHIC SCALE
50 25 0 50 100
PLANS

PROJECT REFERENCE NO. R-2307B / I-5717	SHEET NO. UC22A
DESIGNED BY: JFA	
DRAWN BY: ACB	
CHECKED BY: EPH	
APPROVED BY: JJW	
REVISED:	8/21/2024
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION



MATCH LINE -L- STA. 672+00
SEE SHEET NO. 21

MATCH LINE -L- STA. 686+00
SEE SHEET NO. 23

143

142

146

149

151

154

153

5/14/1999

NAD 83 NSRS 2007

REFER TO SHEET UC22 FOR
WATER LINE INFO. TYP.

PROP. 400LF CIPP LINING
EXIST. ALIGNMENT AND
GRADE REMAIN THE SAME

PROP. CIPP LINING
EX. UTILITY MANHOLE

PROP. 42LF CIPP LINING
EXIST. ALIGNMENT AND
GRADE REMAIN THE SAME

PROP. CIPP LINING
EX. UTILITY MANHOLE

PROP. 160LF CIPP LINING
EXIST. ALIGNMENT AND
GRADE REMAIN THE SAME

PROP. CIPP LINING
EX. UTILITY MANHOLE

PROP. 378LF CIPP LINING
EXIST. ALIGNMENT AND
GRADE REMAIN THE SAME

PROP. 38LF CIPP LINING
PROP. 1.0LF OF UTILITY
MANHOLE WALL 4' DIA.
EXIST. ALIGNMENT AND
GRADE REMAIN THE SAME

PROP. CIPP LINING
EX. UTILITY MANHOLE

PROP. 100LF CIPP LINING
EXIST. ALIGNMENT AND
GRADE REMAIN THE SAME

PROP. 204LF CIPP LINING
EXIST. ALIGNMENT AND
GRADE REMAIN THE SAME

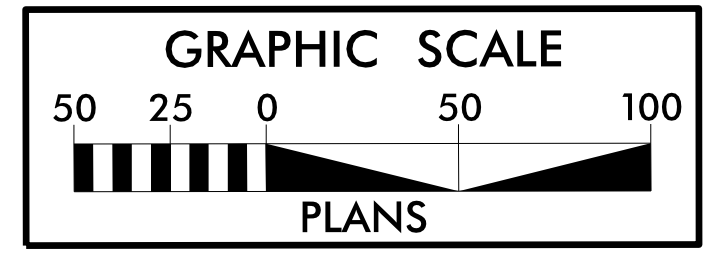
★ UPGRADE EXISTING
OR NEW SIGNAL

5/14/2024

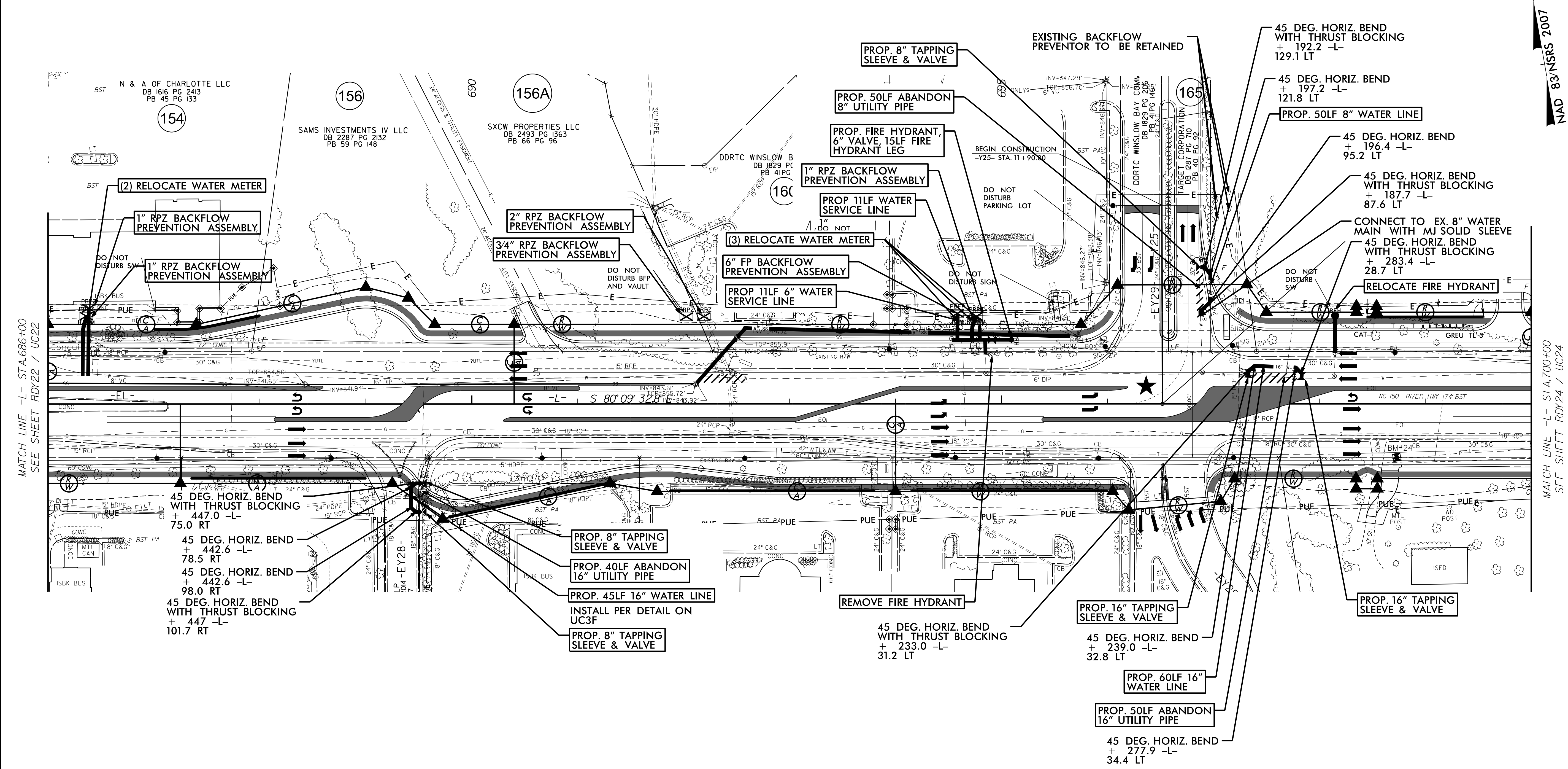


PROJECT REFERENCE NO. R-2307B / 1-5171	SHEET NO. UC23
DESIGNED BY: JFA	
DRAWN BY: ACB	
CHECKED BY: EPH	
APPROVED BY: JJW	
REVISED:	8/21/2024
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 5400 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.



UTILITY CONSTRUCTION



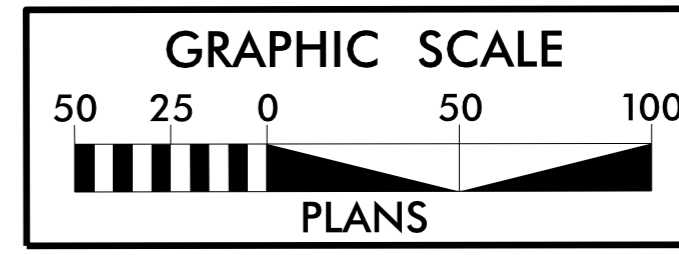
MATCH LINE -L- STA.686+00
SEE SHEET RDY22 / UC22

MATCH LINE -L- STA.700+00
SEE SHEET RDY24 / UC24

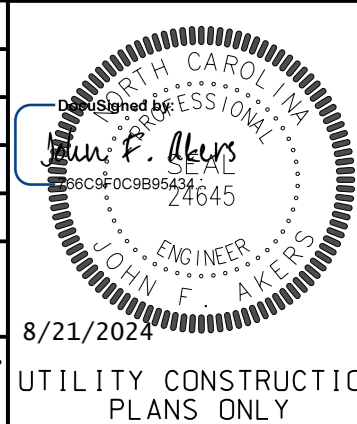
NAD 83/NSRS 2007

5/14/2024

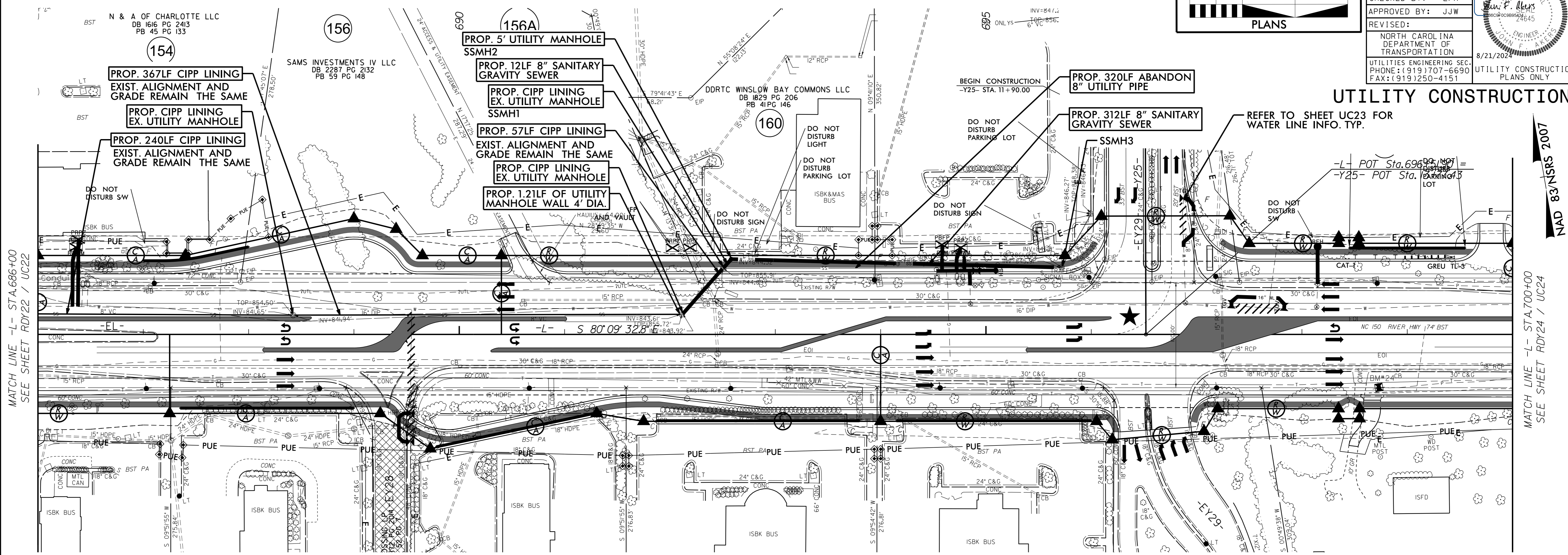
5/14/24



DESIGNED BY: JFA
DRAWN BY: ACB
CHECKED BY: EPH
APPROVED BY: JJW
REVISED:
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
UTILITIES ENGINEERING SEC.
PHONE: (919) 707-6690
FAX: (919) 250-4151
8/21/2024
UTILITY CONSTRUCTION PLANS ONLY



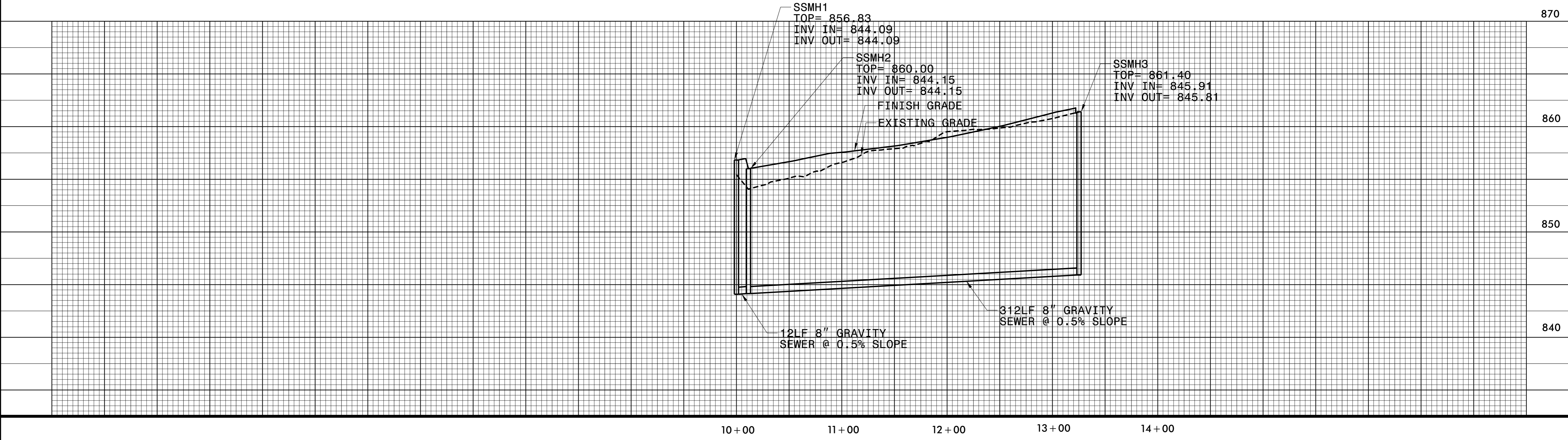
UTILITY CONSTRUCTION



MATCH LINE -L- STA. 686+00
SEE SHEET RDY22 / UC22

MATCH LINE -L- STA. 700+00
SEE SHEET RDY24 / UC24

NAD 83 NSRS 2007



SSMH1
TOP= 856.83
INV IN= 844.09
INV OUT= 844.09

SSMH2
TOP= 860.00
INV IN= 844.15
INV OUT= 844.15

SSMH3
TOP= 861.40
INV IN= 845.91
INV OUT= 845.81

12LF 8" GRAVITY SEWER @ 0.5% SLOPE

312LF 8" GRAVITY SEWER @ 0.5% SLOPE

10+00 11+00 12+00 13+00 14+00

870

860

850

840