

09/08/99

TIP PROJECT: R-2707C

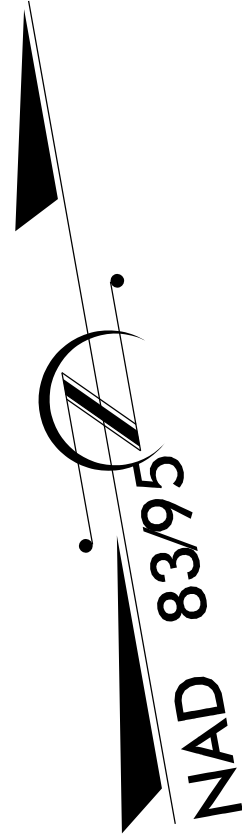
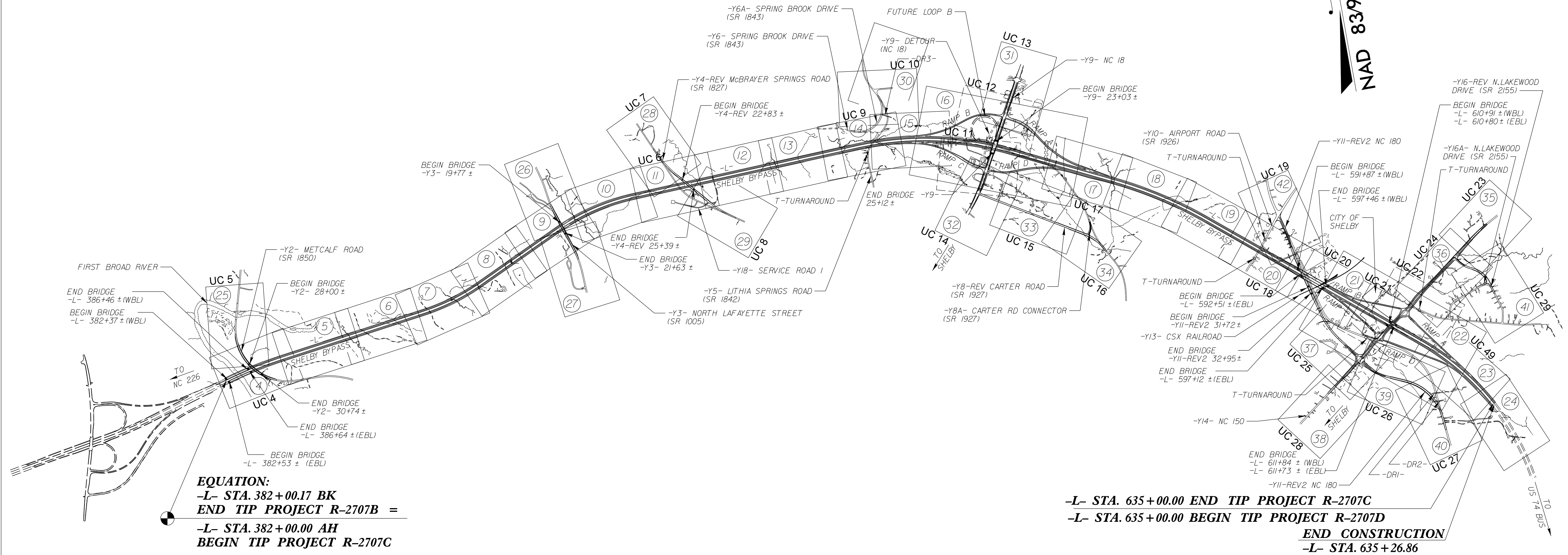
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

T.I.P. NO.	SHEET NO.
R-2707C	UC-1

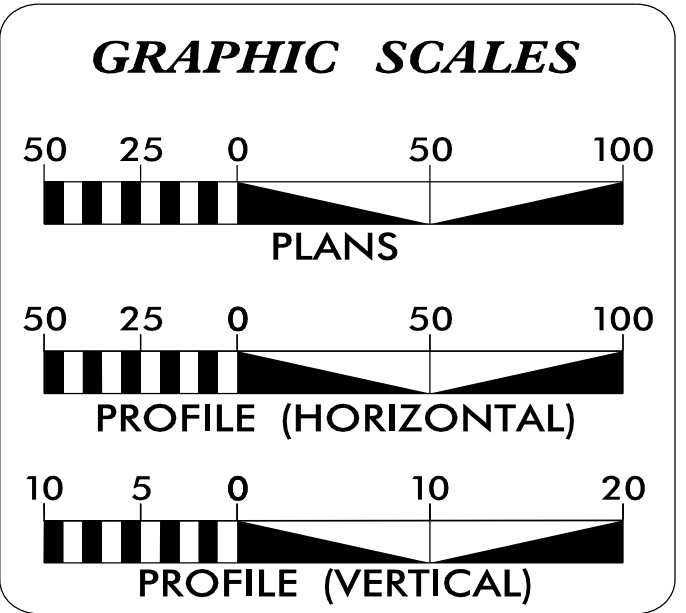
UTILITY CONSTRUCTION PLANS CLEVELAND COUNTY

LOCATION: US 74 SHELBY BYPASS FROM EAST OF NC 226
TO EAST OF NC 150

TYPE OF WORK: WATER LINE AND SEWER FORCE MAIN



DOCUMENT NOT CONSIDERED FINAL
UNTIL ALL SIGNATURES ARE COMPLETED



INDEX OF SHEETS

SHEET NO.:	DESCRIPTION:
UC-1	TITLE SHEET
UC-2	UTILITY SYMBOLOGY
UC-3	NOTES
UC-3A THRU UC-3D	DETAILS
UC-4 THRU UC-29	UTILITY PLAN SHEETS
UC-30 THRU UC-41	UTILITY PROFILES

WATER, SEWER AND GAS OWNERS ON PROJECT

(A) WATER - CLEVELAND COUNTY WATER
 (B) WATER - CITY OF SHELBY
 (C) SANITARY SEWER FORCE MAIN - CITY OF SHELBY
 (D) GAS - CITY OF SHELBY

WATER AND SEWER FORCE MAIN RELOCATIONS
PREPARED IN THE OFFICE OF:

McGill ASSOCIATES
ENGINEERING · PLANNING · FINANCE
55 BROAD STREET ASHEVILLE, NC 28801 PH. (828) 252-0575 FIRM LICENSE # C-0459

MICHAEL J. WARESAK, PE CONSULTANT CONTACT #1
VANN WATERS, ENG. TECH. CONSULTANT CONTACT #2

SEAL

DIVISION OF HIGHWAYS UTILITIES UNIT
 1555 MAIL SERVICES CENTER
 RALEIGH NC 27699-1555
 PHONE (919) 707-6690
 FAX (919) 250-4151

CARL BARCLAY UTILITIES REGIONAL ENGINEER
JAMES SWINSON UTILITIES ENGINEER
AMY DUPREE UTILITIES AREA COORDINATOR
STEVE TREXLER UTILITIES COORDINATOR

UTILITIES PLAN SHEET SYMBOLS

PROPOSED WATER SYMBOLS

Water Line (Sized as Shown)	..... 12" WL
11¼ Degree Bend ++
22½ Degree Bend	..... +x
45 Degree Bend	..... +x
90 Degree Bend +
Plug	..... |
Tee +
Cross +
Reducer ▶
Gate Valve	..... GV
Butterfly Valve	..... BV
Tapping Valve	..... TGV
Line Stop	..... LS
Line Stop with Bypass	..... LS/BP
Blow Off	..... BO
Fire Hydrant	..... PFH
Relocate Fire Hydrant	..... RPH
Remove Fire Hydrant	..... REM FH
Water Meter	..... PWM
Relocate Water Meter	..... RWM
Remove Water Meter	..... REM WM
Water Pump Station	..... PS(W)
RPZ Backflow Preventer	..... PRPZ
DCV Backflow Preventer	..... PBFV
Relocate RPZ Backflow Preventer	..... RRPZ
Relocate DCV Backflow Preventer	..... RBFP

PROPOSED SEWER SYMBOLS

Gravity Sewer Line (Sized as Shown)	..... 12" SS
Force Main Sewer Line (Sized as Shown)	..... 12" FSS
Manhole (Sized per Note) •
Sewer Pump Station	..... PS(SS)

PROPOSED MISCELLANEOUS UTILITIES SYMBOLS

Power Pole ○
Telephone Pole ○
Joint Use Pole ○
Telephone Pedestal	..... TEL PED
Utility Line by Others (Type as Shown)	..... PROP. O/H POW LINES
Trenchless Installation	..... 12" TL INSTALL
Encasement by Open Cut	..... 24" ENCAS BY OC
Encasement	..... 24" ENCASEMENT

Thrust Block	..... |
Air Release Valve	..... AR
Utility Vault	..... UV
Concrete Pier	..... CP
Steel Pier	..... SP
Plan Note	..... NOTE
Pay Item Note	..... PAY ITEM

EXISTING UTILITIES SYMBOLS

Power Pole	..... •	*Underground Power Line	.....
Telephone Pole	..... •	*Underground Telephone Cable	.....
Joint Use Pole	..... •	*Underground Telephone Conduit	.....
Utility Pole	..... •	*Underground Fiber Optics Telephone Cable	.....
Utility Pole with Base	..... □	*Underground TV Cable	.....
H-Frame Pole	..... •—•	*Underground Fiber Optics TV Cable	.....
Power Transmission Line Tower	..... ☒	*Underground Gas Pipeline	.....
Water Manhole	..... ⊗	Aboveground Gas Pipeline	..... A/G Gas
Power Manhole	..... ⊗	*Underground Water Line	.....
Telephone Manhole	..... ⊗	Aboveground Water Line	..... A/G Water
Sanitary Sewer Manhole	..... ⊗	*Underground Gravity Sanitary Sewer Line	..... ss
Hand Hole for Cable	..... ☒	Aboveground Gravity Sanitary Sewer Line	..... A/G Sanitary Sewer
Power Transformer	..... ☒	*Underground SS Forced Main Line	.....
Telephone Pedestal	..... ☒	Underground Unknown Utility Line	.....
CATV Pedestal	..... ☒	SUE Test Hole ⊕
Gas Valve	..... ◇	Water Meter ○
Gas Meter	..... ◇	Water Valve ⊗
Located Miscellaneous Utility Object	..... ○	Fire Hydrant ◇
Abandoned According to Utility Records	..... AATUR	Sanitary Sewer Cleanout ⊗
End of Information	..... E.O.I.		

*For Existing Utilities
 Utility Line Drawn from Record (Type as Shown)
 Designated Utility Line (Type as Shown)

UTILITY CONSTRUCTION

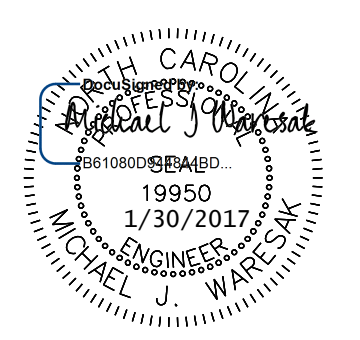
GENERAL NOTES:

1. THE PROPOSED UTILITY CONSTRUCTION SHALL MEET THE APPLICABLE REQUIREMENTS OF THE NC DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" DATED JANUARY 2012.
2. THE EXISTING UTILITIES BELONG TO CLEVELAND COUNTY WATER DISTRICT AND CITY OF SHELBY AS NOTED ON THE PLANS .
3. ALL WATER LINES TO BE INSTALLED WITHIN COMPLIANCE OF THE RULES AND REGULATIONS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY, DIVISION OF WATER RESOURCES, PUBLIC WATER SUPPLY SECTION. ALL SEWER LINES TO BE INSTALLED WITHIN COMPLIANCE OF THE RULES AND REGULATIONS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT QUALITY, DIVISION OF WATER RESOURCES, WATER QUALITY SECTION. PERFORM ALL WORK IN ACCORDANCE WITH THE APPLICABLE PLUMBING CODES.
4. 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.
5. 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.

6. 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 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.
7. 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.
8. 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.
9. 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:

1. PROPOSED WATER LINE FOR CLEVELAND COUNTY WATER LINES SHALL BE CLASS 350 DUCTILE IRON PIPE.
2. PROPOSED WATER LINE FOR CITY OF SHELBY WATER AND FORCE MAINS SHALL BE CLASS 52 DUCTILE IRON PIPE.
3. PROPOSED WATER LINE LINES AND FORCE MAINS INSTALLED IN ENCASEMENTS AND ON CUT SLOPES SHALL BE DIRJ (DUCTILE IRON RESTRAINED JOINT).
4. ALL ENCASEMENTS INSTALLED FOR CLEVELAND COUNTY WATER AND THE CITY OF SHELBY SHALL BE INSTALLED BY OPEN CUT. ENCASEMENTS SHALL EXTEND APPROXIMATELY 5' BEYOND FILL SLOPES AND DITCH LINES.
5. ALL ENCASEMENTS INSTALLED FOR FUTURE USE BY THE CITY OF SHELBY SHALL BE INSTALLED WITH A MIN. OF 5' COVER FROM FINAL GRADES'
6. ALL CROSSINGS OF SEWER LINES AND WATER SHALL MAINTAIN 18" MIN. CLEARANCE BETWEEN WATER AND SEWER LINES, WITH THE SEWER LINE BELOW THE WATER LINE.
7. ALL UTILITIES SHALL BE INSTALLED SO THAT 3' MIN. COVER IS MAINTAINED FROM FINAL GRADE.
8. EXCEPT AS SHOWN, ALL WATER LINES AND FORCE MAIN SHALL BE INSTALLED 5' INSIDE R/W WHERE POSSIBLE.
9. ALL WATER METERS NOTED TO BE REMOVED FOR CCW SHALL HAVE METER REMOVED AND RETURNED TO CCW. METER BOX AND PIPING SHALL BE ABANDONED.
10. ALL FIRE HYDRANTS NOTED TO BE REMOVED FOR CCW SHALL HAVE THE FIRE HYDRANT REMOVED AND RETURNED TO CCW. VALVE AND PIPING SHALL BE ABANDONED.

PROJECT REFERENCE NO.	SHEET NO.
R-2707C	UC-3
DESIGNED BY: VW	
DRAWN BY: VW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 1/30/17	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

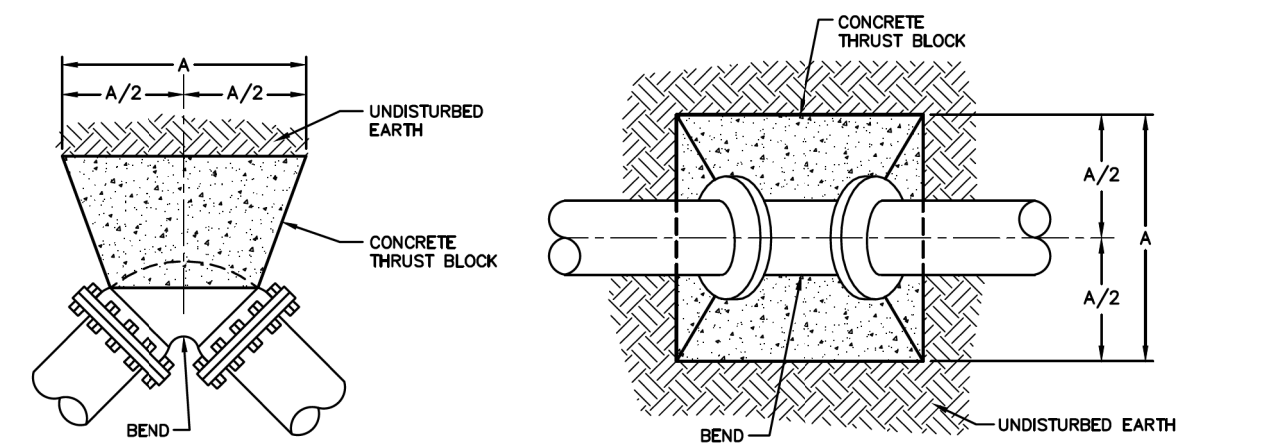


UTILITY CONSTRUCTION

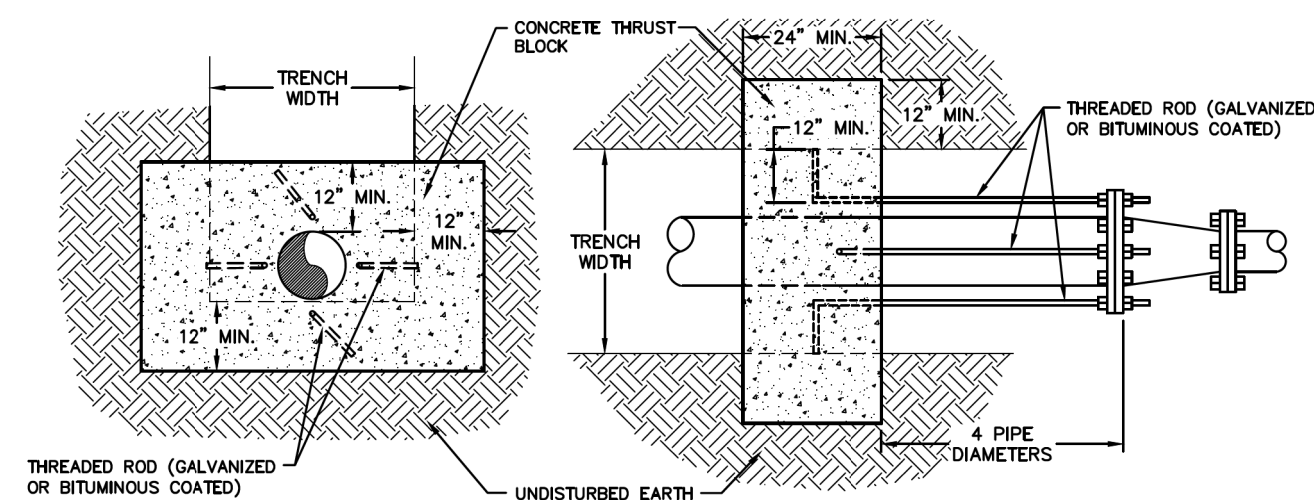
PROJECT TYPICAL DETAILS CLEVELAND COUNTY WATER

UTILITY CONSTRUCTION

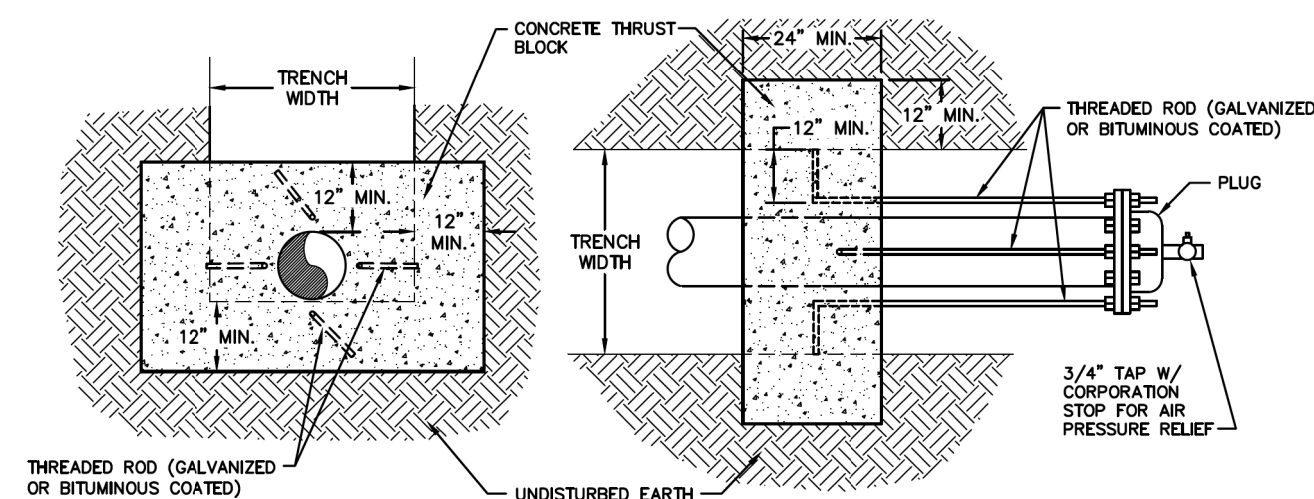
PROJECT REFERENCE NO.	SHEET NO.
R-2707C	UC-3A
DESIGNED BY: VW	
DRAWN BY: VW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 1/30/17	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	



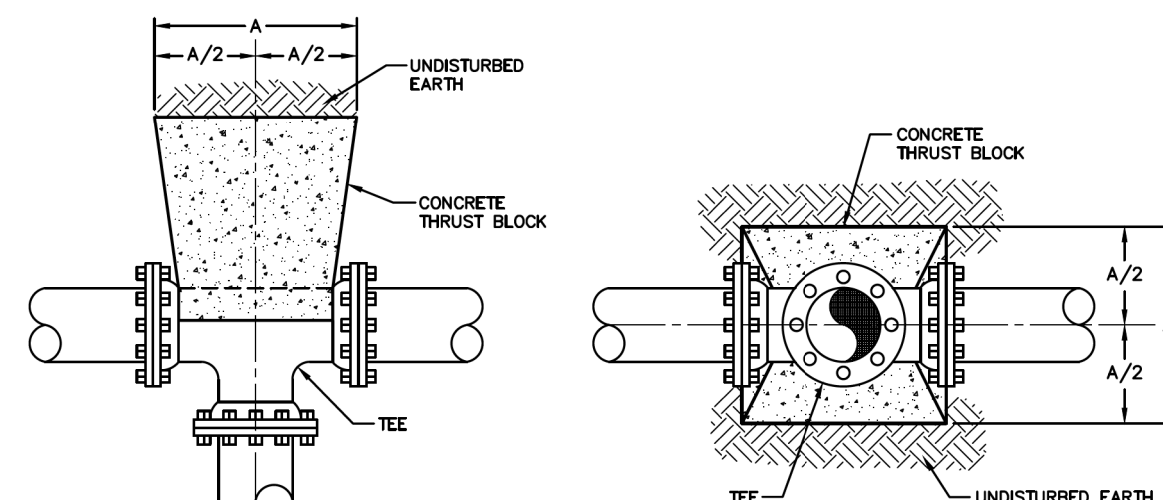
TYPICAL THRUST BLOCKS FOR BENDS



TYPICAL THRUST BLOCK FOR REDUCERS



TYPICAL THRUST BLOCK FOR PLUGS



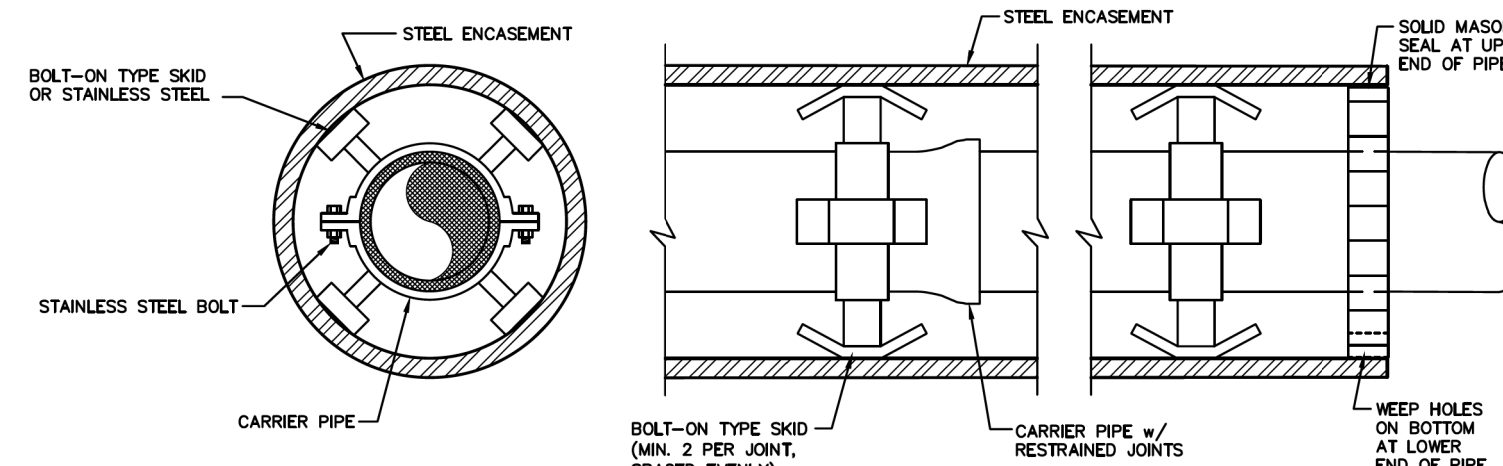
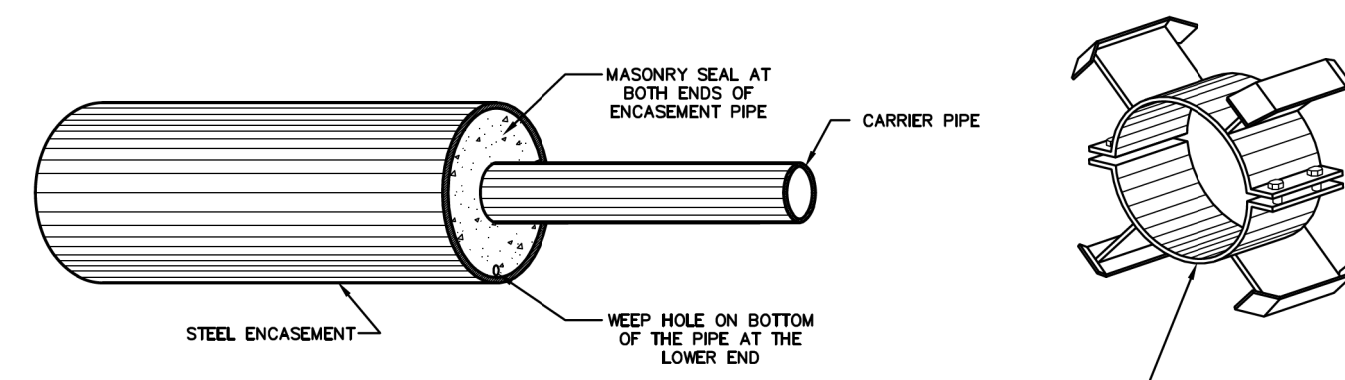
TYPICAL THRUST BLOCKS FOR TEES

- NOTES:
- FITTING JOINTS SHALL NOT BE POURED IN CONCRETE OR HAVE CONCRETE SPILLED ON THE BOLTS OR NUTS. THE FITTING SHALL BE WRAPPED IN A LAYER OF POLYETHYLENE PLASTIC PRIOR TO POURING THE THRUST BLOCK.
 - ROD AND EYE BOLT DIAMETER SHALL BE A MINIMUM OF 3/4" AND SHALL MATCH THE SIZE OF THE BOLT PROVIDED WITH THE FITTING.
 - CONTRACTOR SHALL REPLACE FITTING BOLTS WITH THREADED ROD FOR 1/2 OF THE BOLTS SUPPLIED WITH EACH FITTING. RODS SHALL BE EQUALLY SPACED.
 - ALL DIMENSIONS SHOWN ARE IN INCHES.

SIZE	TYPE					
	11-1/4" BEND	22-1/2" BEND	45° BEND	90° BEND	TEE	PLUG
2-6	12	12	12	16	16	14
8	12	12	18	22	22	18
10	12	14	20	26	26	22
12	12	18	24	32	32	28
14	14	20	28	38	38	32
16	16	24	32	42	42	36
18	18	26	36	48	48	40
20	20	28	40	52	52	44
24	24	34	48	64	64	54
30	30	42	58	78	78	66
36	36	50	70	94	94	80
42	40	58	80	108	108	92
48	46	66	90	124	124	104

THRUST BLOCK DIMENSION "A"

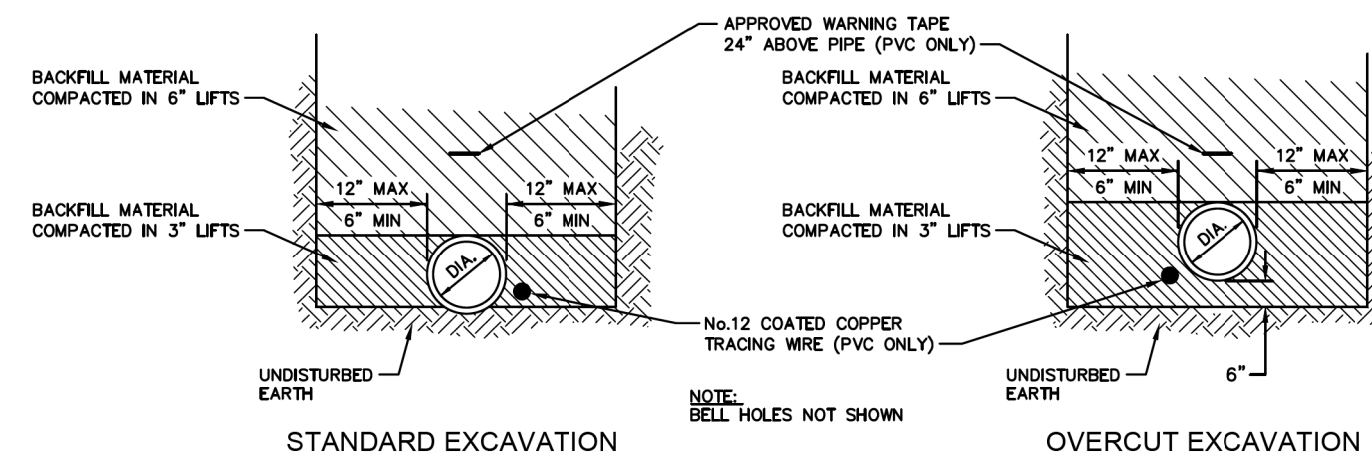
THRUST BLOCKING - ALL
MODIFIED FOR THIS PROJECT



NOTE: FOR PRESSURE CARRIER PIPES, IF SUITABLE UNDISTURBED EARTH IS NOT AVAILABLE FOR THRUST BLOCKS DUE TO EXCAVATION, CONTRACTOR SHALL ATTACH THREADED RODS AS SPECIFIED IN THRUST BLOCK DETAILS TO THE ENCASEMENT AND ROD FITTINGS DIRECTLY TO THE ENCASEMENT PIPE. ATTACHMENT OF THE RODS SHALL BE BY WELDING DIRECTLY TO THE ENCASEMENT PIPE OR BY WELDING EYE BOLTS TO THE ENCASEMENT FOR ATTACHMENT OF THREADED RODS WITH NUTS. MINIMUM OF THREE RODS REQUIRED PER FITTING.

ENCASEMENT DETAIL - STANDARD

MODIFIED FOR THIS PROJECT



NOTE:
1. CONSTRUCTION OF TRENCHES SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL SAFETY AND HEALTH REGULATIONS WHICH HAVE JURISDICTION AT THE PROJECT SITE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE FAMILIAR WITH THE APPLICABLE REGULATIONS AND FOLLOW THEM ACCORDINGLY.

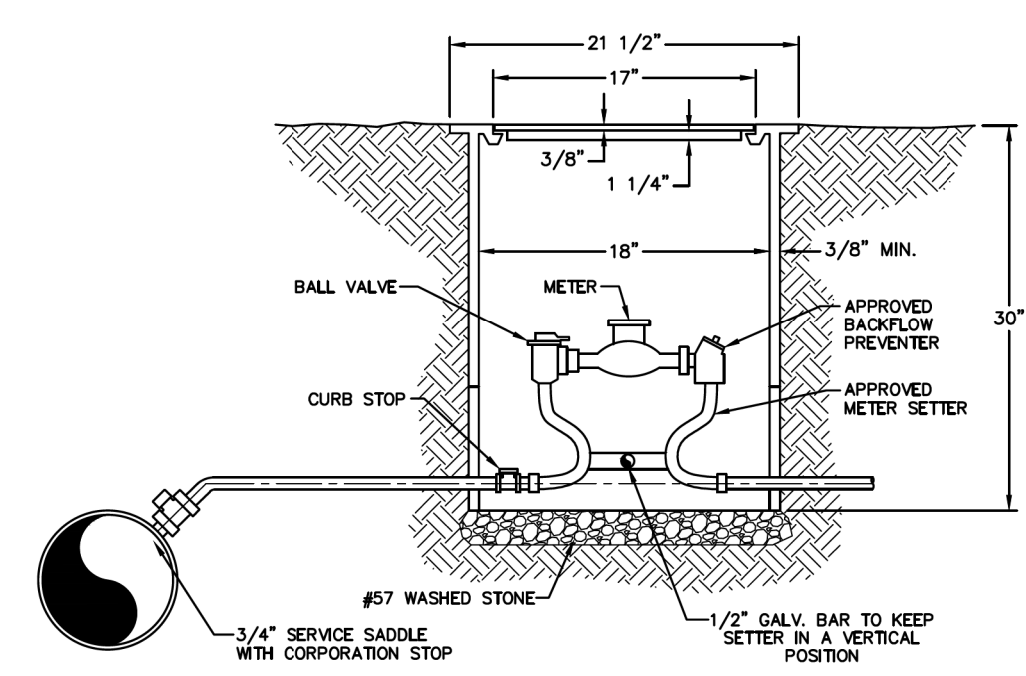
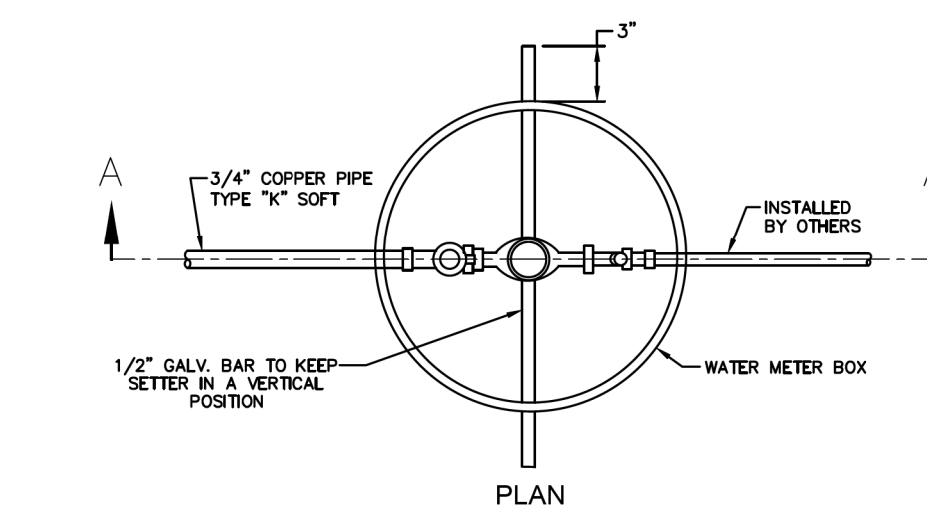
WATER LINE TRENCHING

MODIFIED FOR THIS PROJECT

GENERAL WATER NOTES

MODIFIED FOR THIS PROJECT

- ALL CONSTRUCTION SHALL TAKE PLACE WITHIN THE NCDOT RIGHT-OF-WAYS SHOWN.
- CONTRACTOR SHALL REPAIR ALL DISTURBED AREAS TO EQUAL OR BETTER CONDITION THAN THE ORIGINAL SITE, OR AS NOTED.
- LOCATIONS OF EXISTING UTILITIES AS SHOWN ARE APPROXIMATE ONLY. EXACT LOCATIONS ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR AT LEAST THREE DAYS PRIOR TO CONSTRUCTION. CONTRACTOR MUST NOTIFY EXISTING UTILITY OWNERS, CALL 811 BEFORE YOU DIG.
- ALL WORK NEAR AND AROUND WATERWAYS MUST CONFORM TO THE RULES OF THE STATE OF NORTH CAROLINA.
- CONTRACTOR MUST PROVIDE EROSION CONTROL DEVICES TO CONTROL RUNOFF FROM THE CONSTRUCTION SITE. CONTRACTOR WILL BE RESPONSIBLE FOR ANY FINES THAT MAY BE LEVIED DUE TO POLLUTION CREATED DURING CONSTRUCTION.
- CONTRACTOR SHALL FOLLOW ALL FEDERAL, STATE AND LOCAL HEALTH AND SAFETY REGULATIONS PERTAINING TO CONSTRUCTION OPERATIONS.
- WATER LINES SHALL HAVE 3'-0" MINIMUM COVER UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
- WATER AND SEWER LINES SHALL HAVE A MINIMUM 10' HORIZONTAL SEPARATION OR A MINIMUM 18" VERTICAL SEPARATION WITH THE WATER OVER SEWER, OR BOTH WATER AND SEWER LINES SHALL BE DUCTILE IRON PIPE 10' EITHER SIDE OF THE CROSSING.
- WATER AND STORM SEWER LINES SHALL HAVE A MINIMUM 18" SEPARATION EXCEPT UNDER NCDOT STORM DRAINS WHICH SHALL HAVE 24" VERTICAL SEPARATION. IF SEPARATION IS NOT OBTAINABLE, DUCTILE IRON PIPE SHALL BE USED FOR THE WATER LINE OR A SUPPORTING MATERIAL SUCH AS FLOWABLE FILL SHALL BE INSTALLED BETWEEN THE PIPES.
- SEE PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- LEGAL DESCRIPTIONS FOR PROPOSED EASEMENTS BY OTHERS.
- CONTRACTOR SHALL NOTIFY THE PROPER LOCAL AUTHORITIES 24 HOURS PRIOR TO ANY ROAD BEING CLOSED FOR CONSTRUCTION, INCLUDING BUT NOT LIMITED TO LOCAL NEWSPAPER, RADIO STATION, FIRE DEPARTMENT, COUNTY SHERIFF'S DEPARTMENT, AMBULANCE, AND COUNTY EMERGENCY AGENCY. ALL TRAFFIC CONTROL SHALL CONFORM TO THE REQUIREMENTS OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION.
- CONTRACTOR SHALL NOTIFY THE ENGINEER AFTER EXISTING BURIED UTILITIES HAVE BEEN LOCATED AND 24 HOURS PRIOR TO CONSTRUCTION.
- ALL FENCE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH LIKE MATERIALS IN A WORKMANLIKE MANNER AND IN ACCORDANCE WITH STANDARD FENCE CONSTRUCTION PRACTICES AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL FIELD LOCATE ALL BURIED TELEPHONE LINE IN CONFLICT WITH THE PROPOSED WATER LINE. WHERE NECESSARY, EXISTING BURIED TELEPHONE LINE SHALL BE TEMPORARILY MOVED DURING CONSTRUCTION OF THE PROPOSED WATER LINE AND RE-LAID AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING ROADS DURING CONSTRUCTION AND SHALL REPAIR ROADS PER REQUIREMENTS OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION. NO OPEN CUTS OF EXISTING ROADS SHALL BE ALLOWED EXCEPT WHERE INDICATED ON THE DRAWINGS OR WHERE SPECIFIC PERMISSION IS GRANTED BY THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION. SAND OR A SIMILAR MATERIAL APPROVED BY THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION SHALL BE PLACED ON THE ROAD TO AID IN THE CLEAN UP AFTER CONSTRUCTION. A MINIMUM OF 2" OF SAND SHALL BE PLACED ON THE ROAD PRIOR TO STOCKPILING SPOIL MATERIAL ON THE ROAD SURFACE TO FACILITATE CLEANUP.



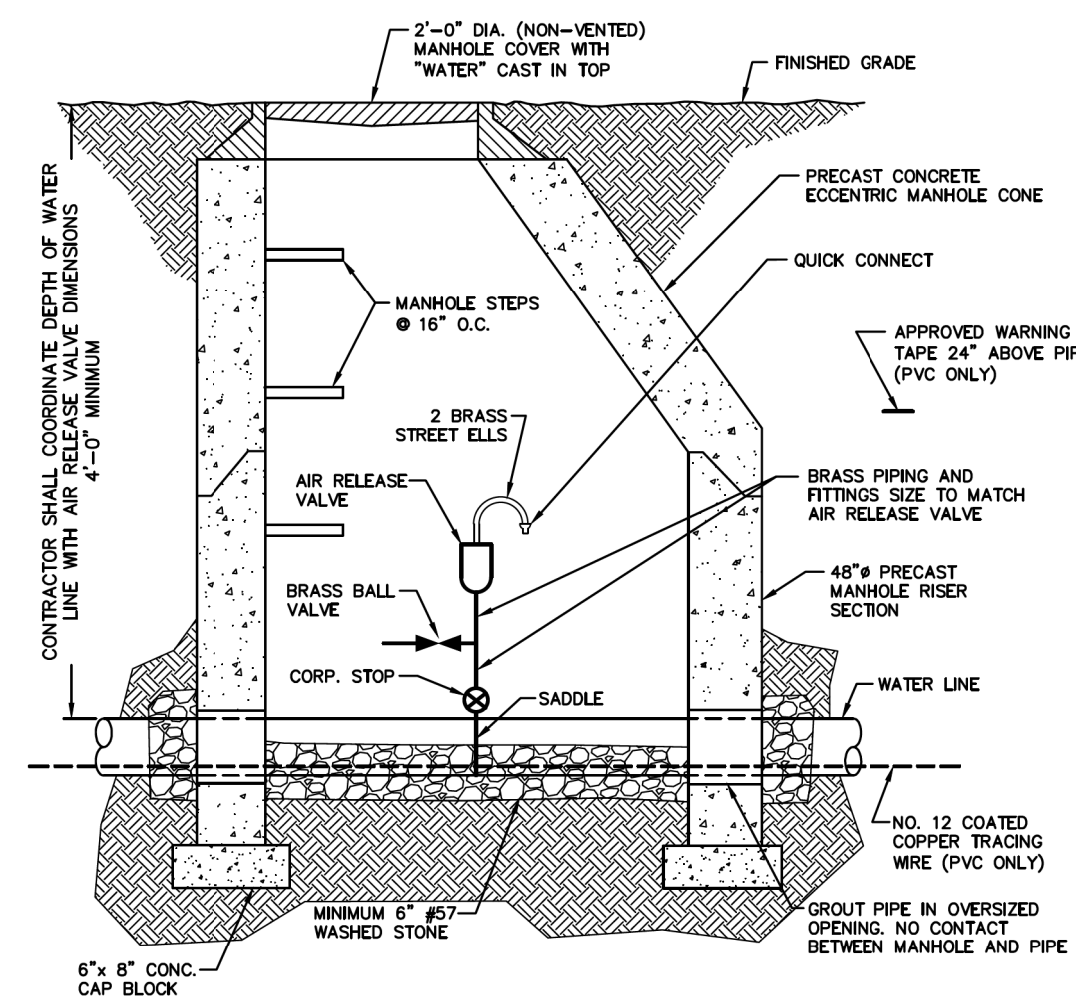
WATER METER BOX DETAIL

MODIFIED FOR THIS PROJECT

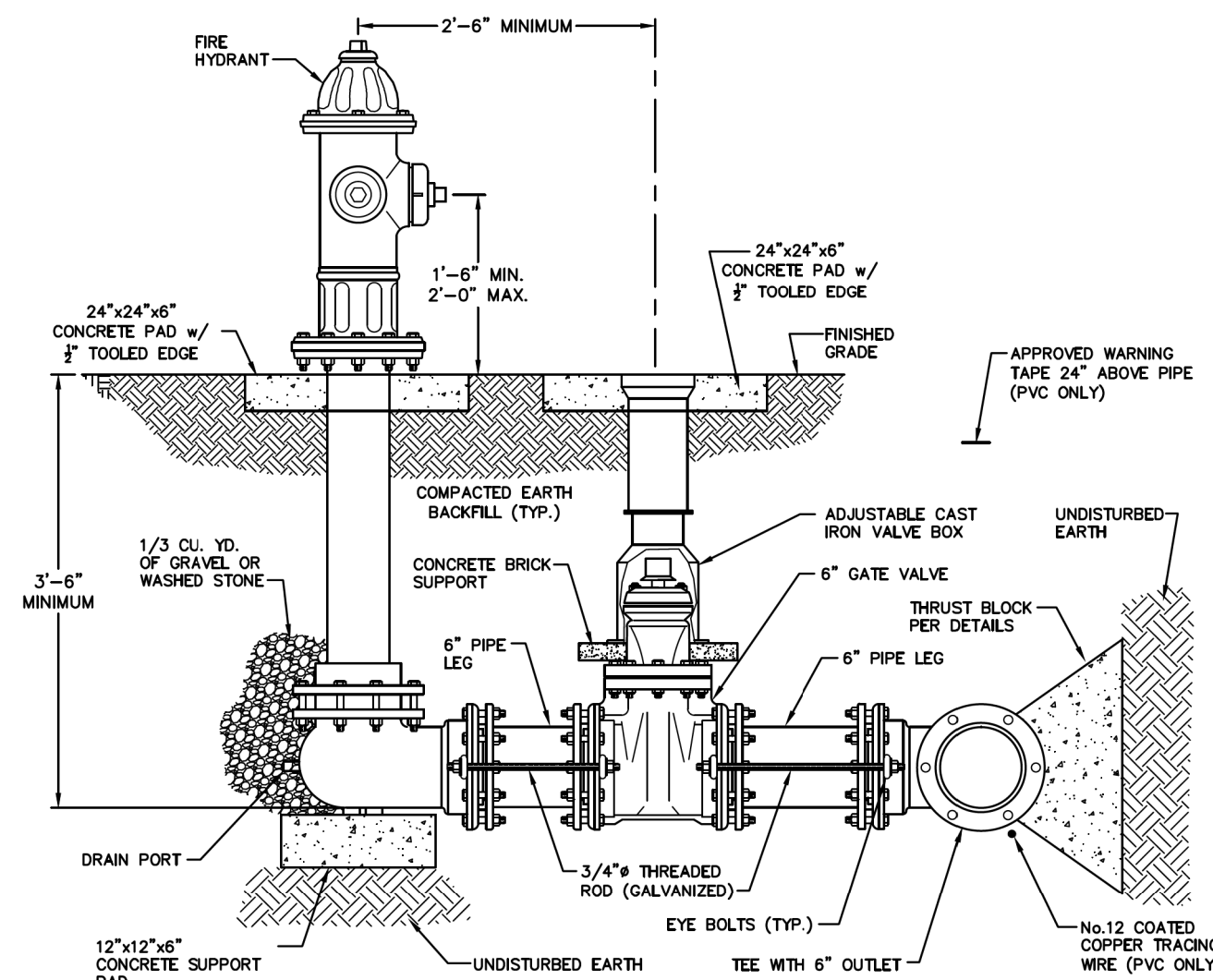
PROJECT TYPICAL DETAILS CLEVELAND COUNTY WATER

UTILITY CONSTRUCTION

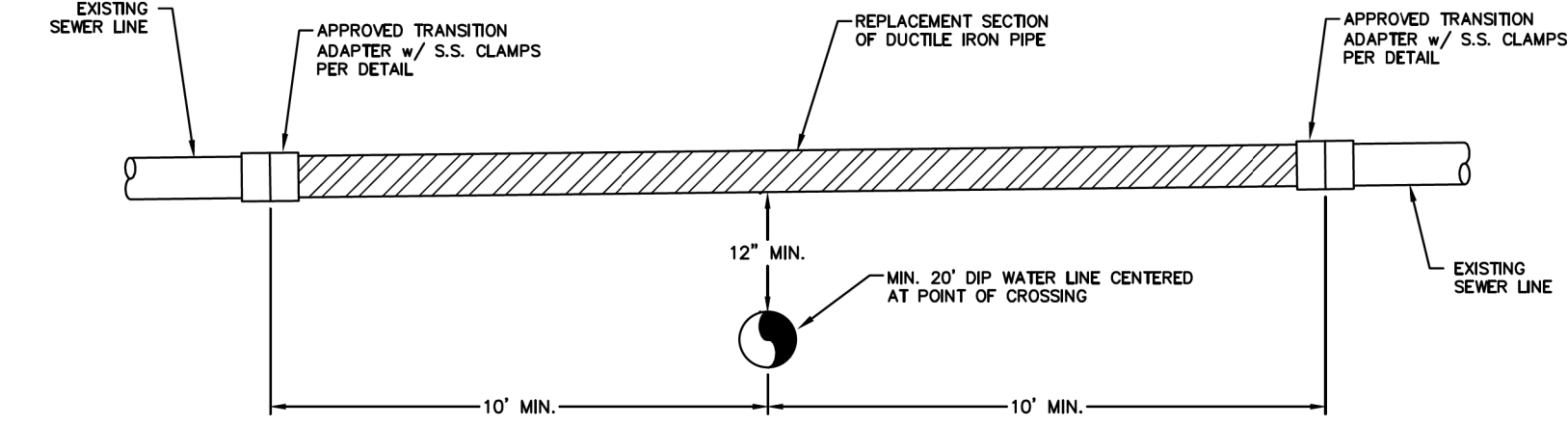
PROJECT REFERENCE NO. R-2707C	SHEET NO. UC-3B
DESIGNED BY: VW	
DRAWN BY: VW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 1/30/17	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	



AIR RELEASE VALVE INSTALLATION
MODIFIED FOR THIS PROJECT

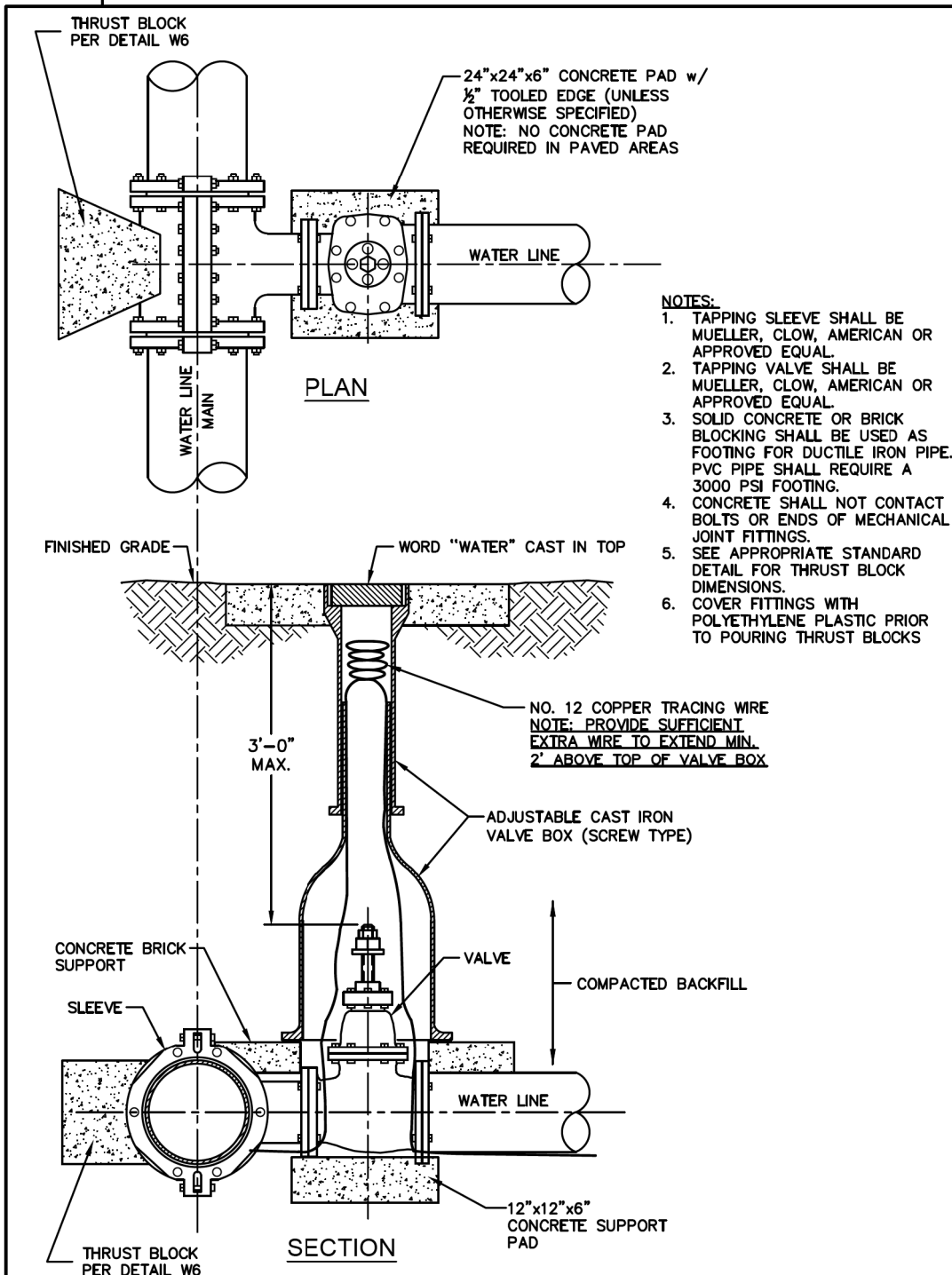


FIRE HYDRANT ASSEMBLY
MODIFIED FOR THIS PROJECT

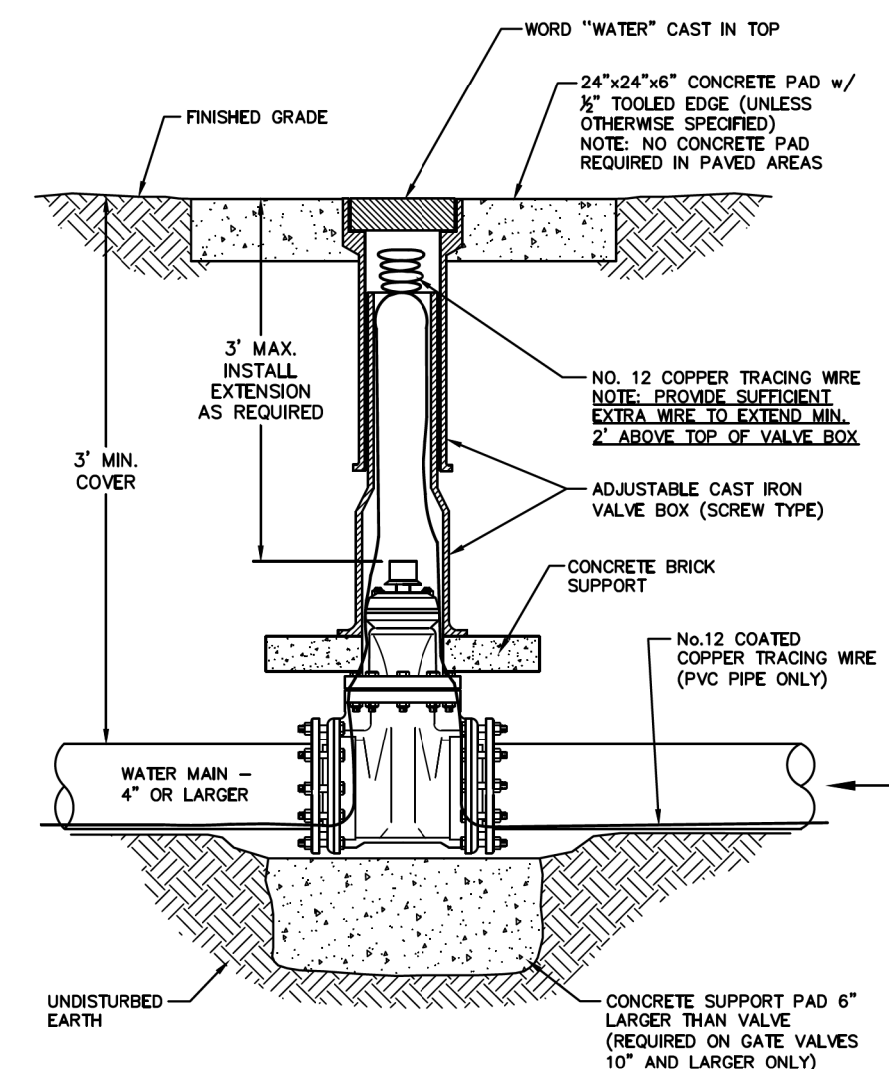


NOTE: THIS DETAIL SHALL ONLY BE USED IF WATER AND SEWER SEPARATIONS AS REQUIRED IN NOTE 8 OF THE GENERAL WATER NOTES CANNOT BE MET

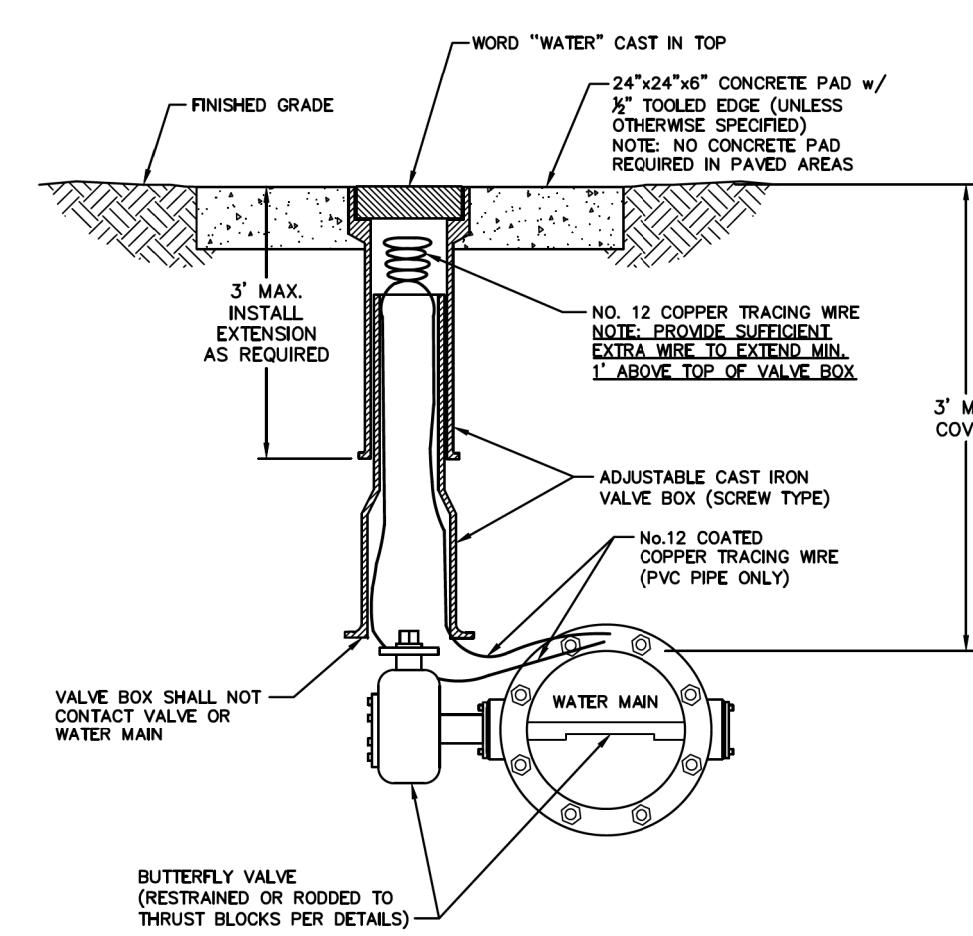
WATER AND SEWER CROSSING
MODIFIED FOR THIS PROJECT



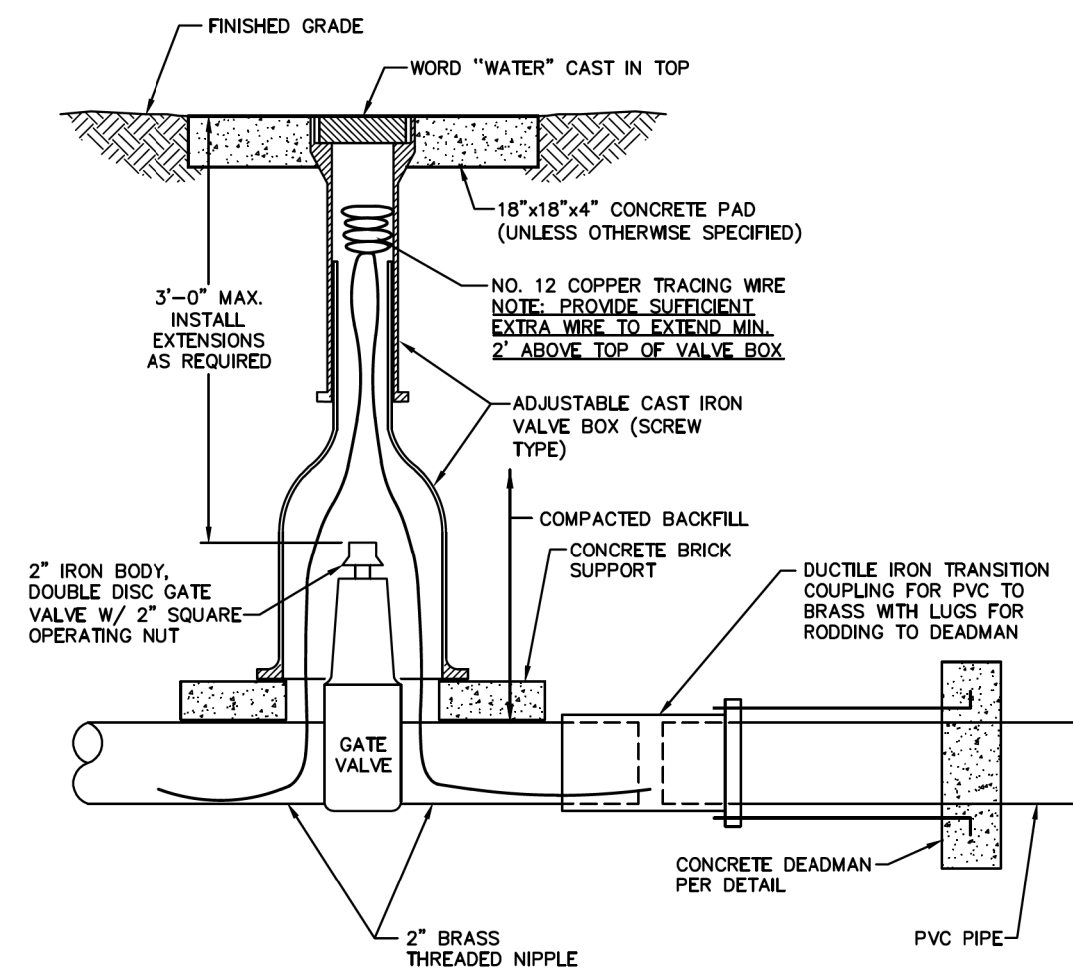
TAPPING SLEEVE AND VALVE WITH BOX
MODIFIED FOR THIS PROJECT



GATE VALVE - LARGE (6" AND LARGER)
MODIFIED FOR THIS PROJECT



BUTTERFLY VALVE
MODIFIED FOR THIS PROJECT



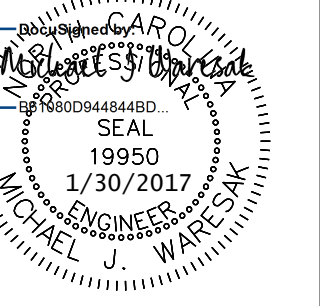
2" GATE VALVE INSTALLATION
REVISION DATE - JULY 21, 2010

PROJECT TYPICAL DETAILS

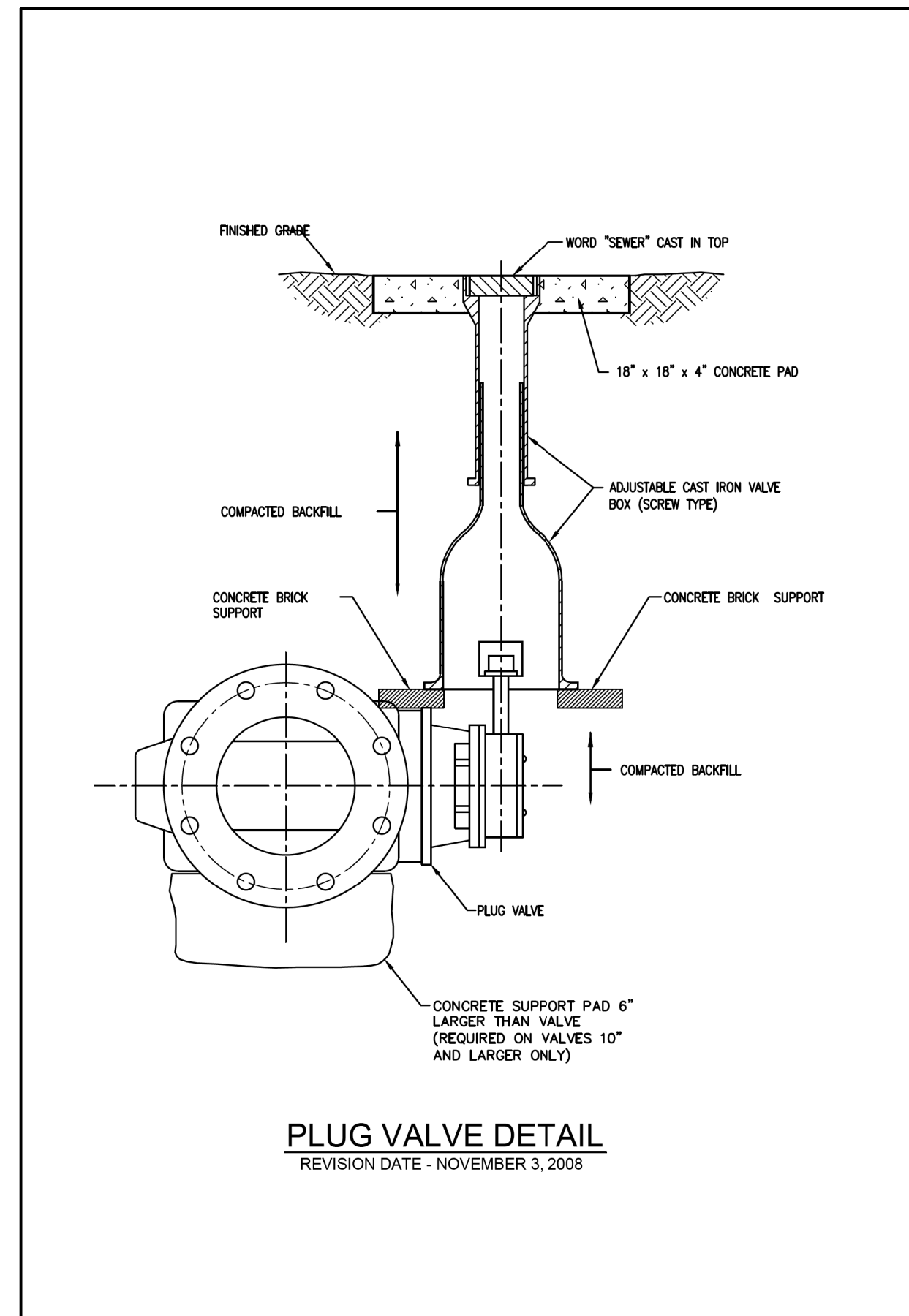
CITY OF SHELBY

UTILITY CONSTRUCTION

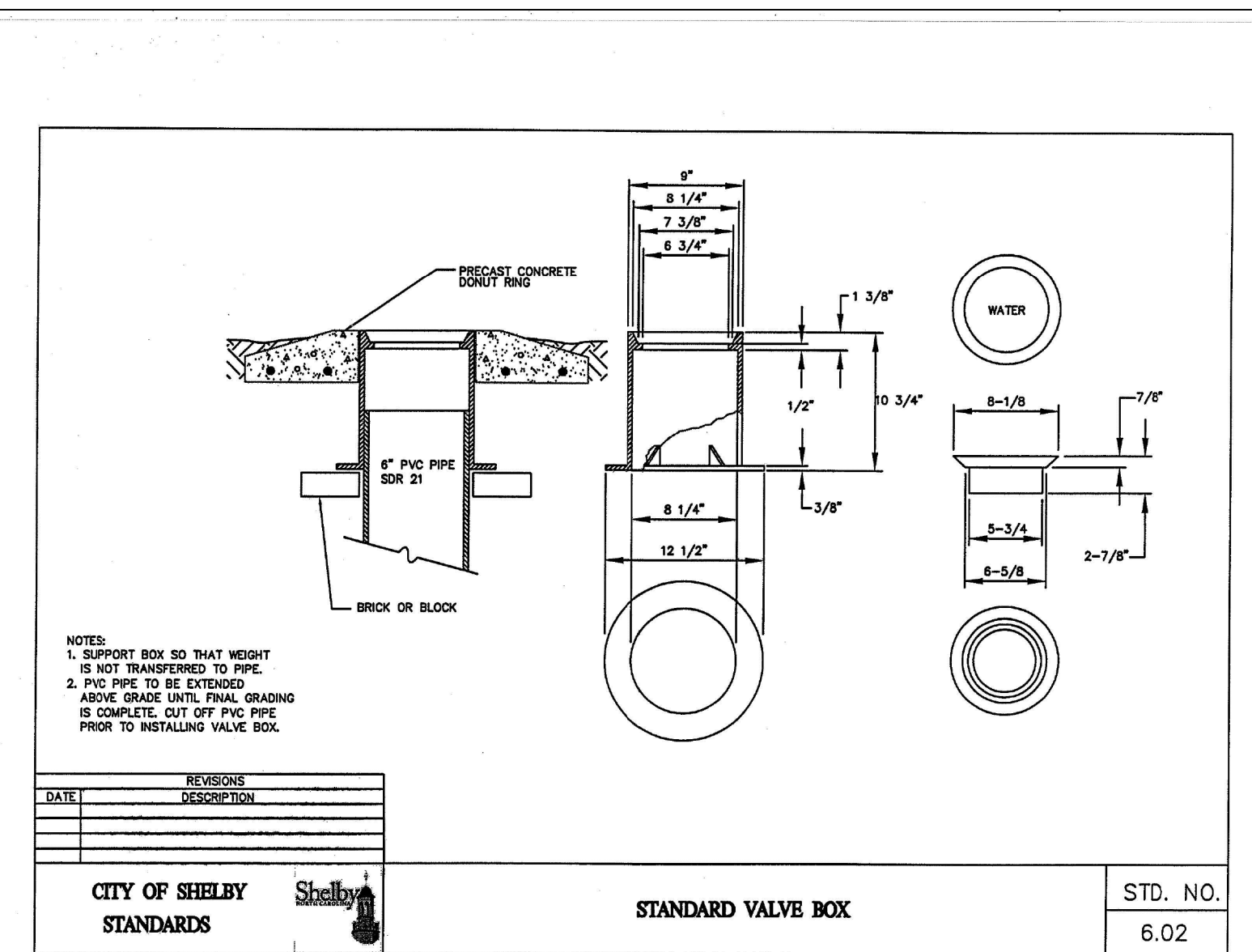
PROJECT REFERENCE NO.	SHEET NO.
R-2707C	UC-3C
DESIGNED BY: VW	
DRAWN BY: VW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 1/30/17	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	



UTILITY CONSTRUCTION
PLANS ONLY



PLUG VALVE DETAIL
REVISION DATE - NOVEMBER 3, 2008



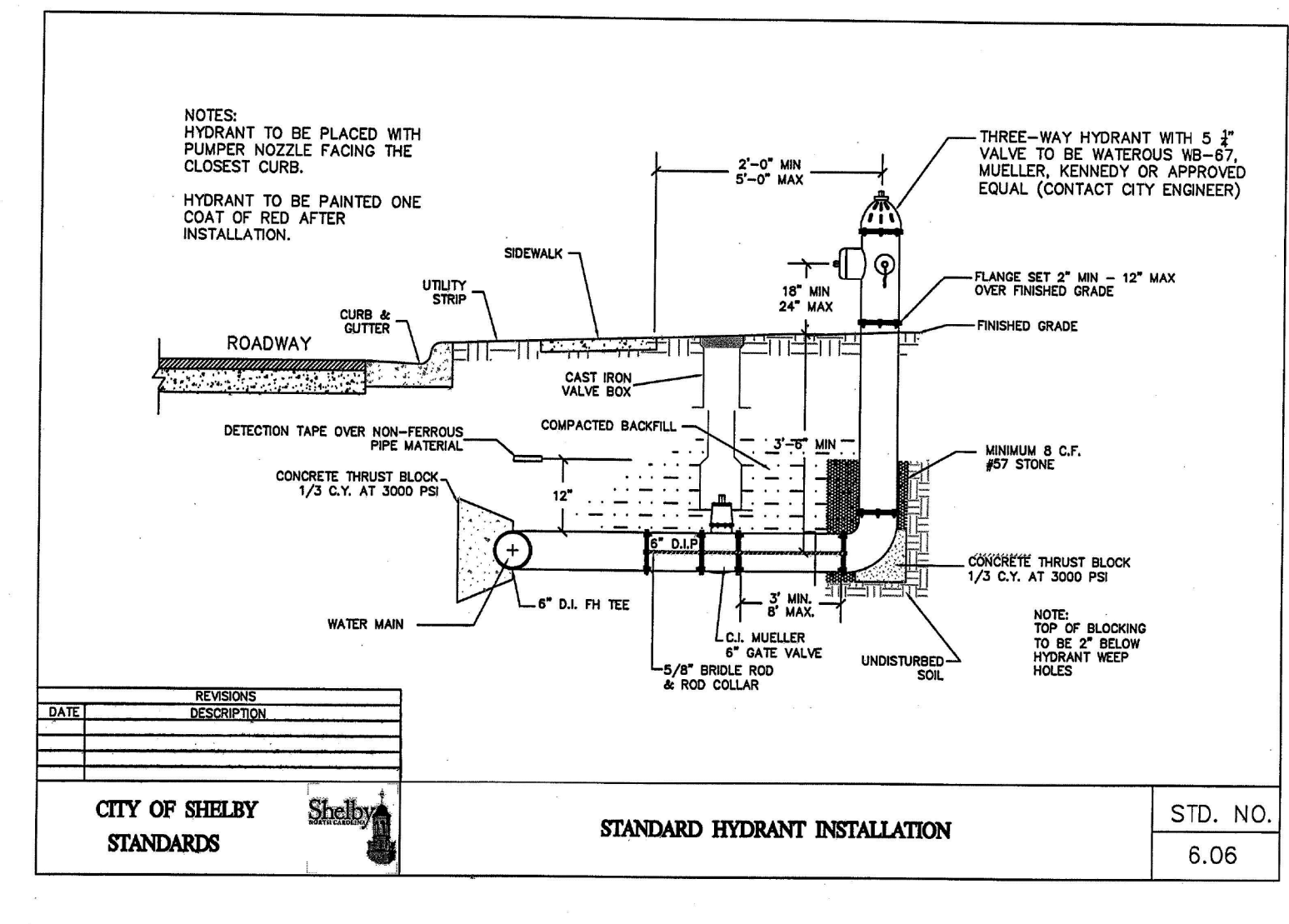
NOTES:
1. SUPPORT BOX SO THAT HEIGHT IS NOT TRANSFERRED TO PIPE.
2. PVC PIPE TO BE EXTENDED ABOVE GRADE UNTIL FINAL GRADING IS COMPLETE. CUT OFF PVC PIPE PRIOR TO INSTALLING VALVE BOX.

REVISIONS	DATE	DESCRIPTION

CITY OF SHELBY
STANDARDS

STANDARD VALVE BOX

STD. NO.
6.02



NOTES:
HYDRANT TO BE PLACED WITH PUMPER NOZZLE FACING THE CLOSEST CURB.
HYDRANT TO BE PAINTED ONE COAT OF RED AFTER INSTALLATION.

REVISIONS	DATE	DESCRIPTION

CITY OF SHELBY
STANDARDS

STANDARD HYDRANT INSTALLATION

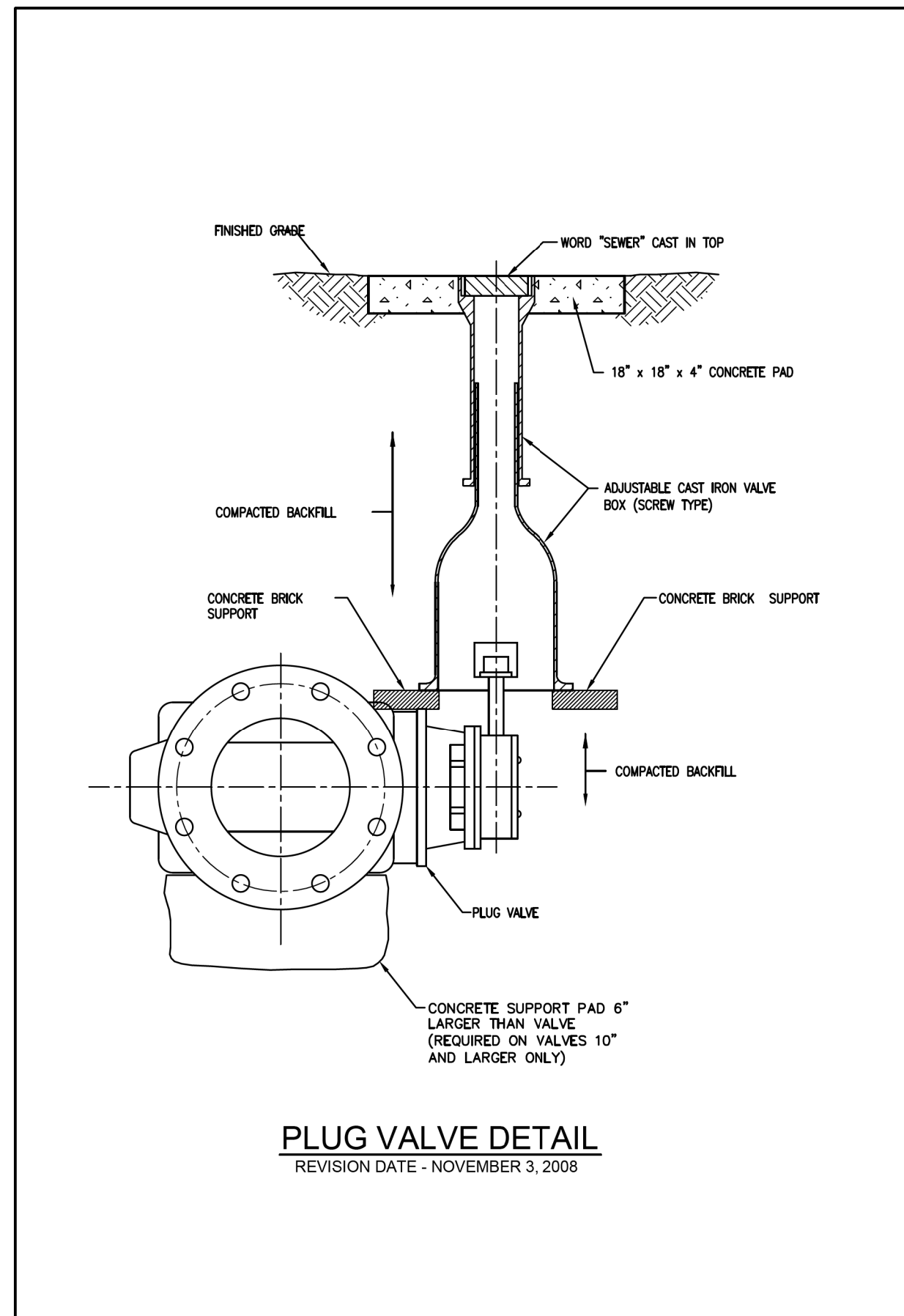
STD. NO.
6.06

PROJECT TYPICAL DETAILS

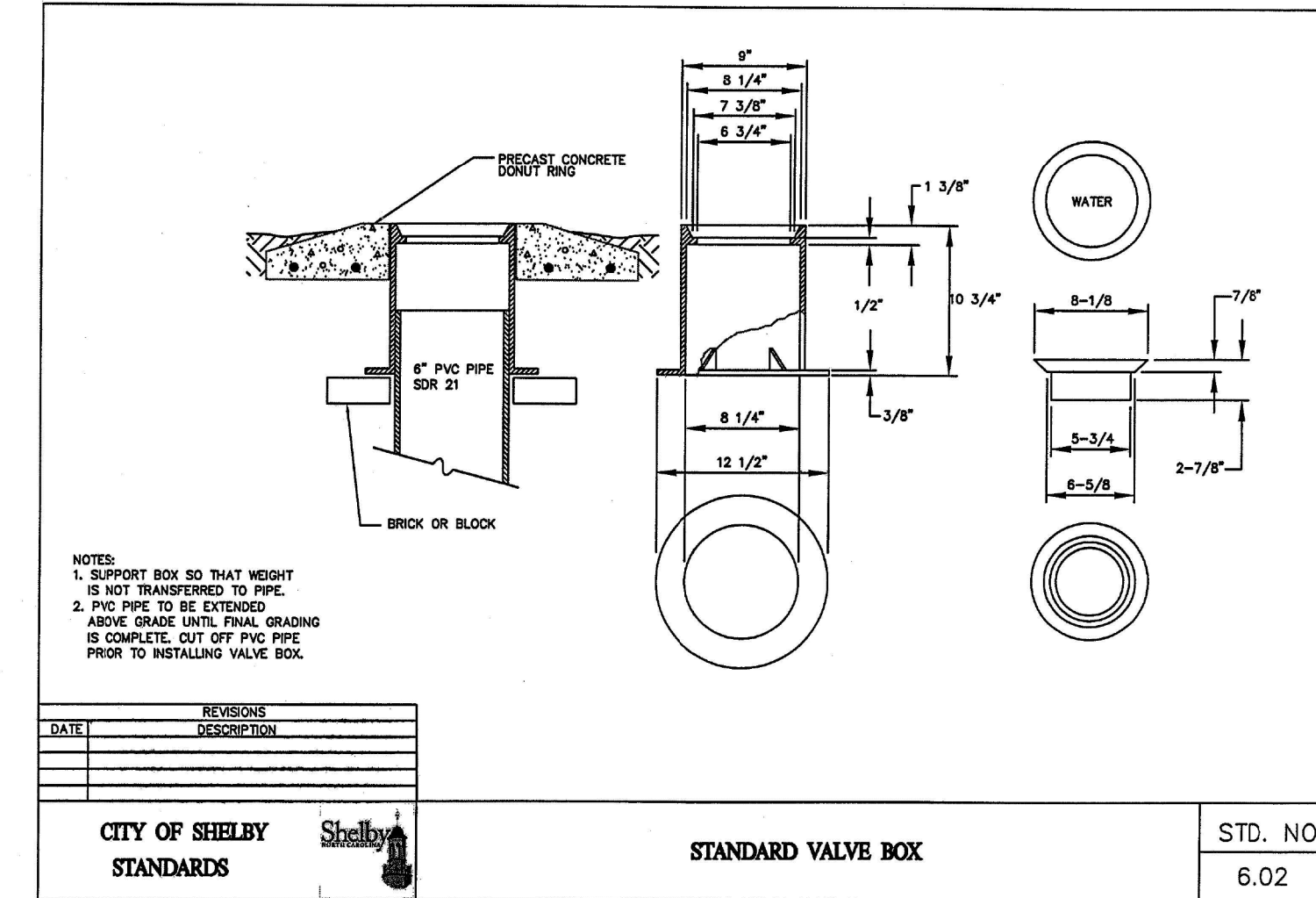
CITY OF SHELBY

UTILITY CONSTRUCTION

PROJECT REFERENCE NO. R-2707C	SHEET NO. UC-3D
DESIGNED BY: VW	
DRAWN BY: VW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 1/30/17	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	



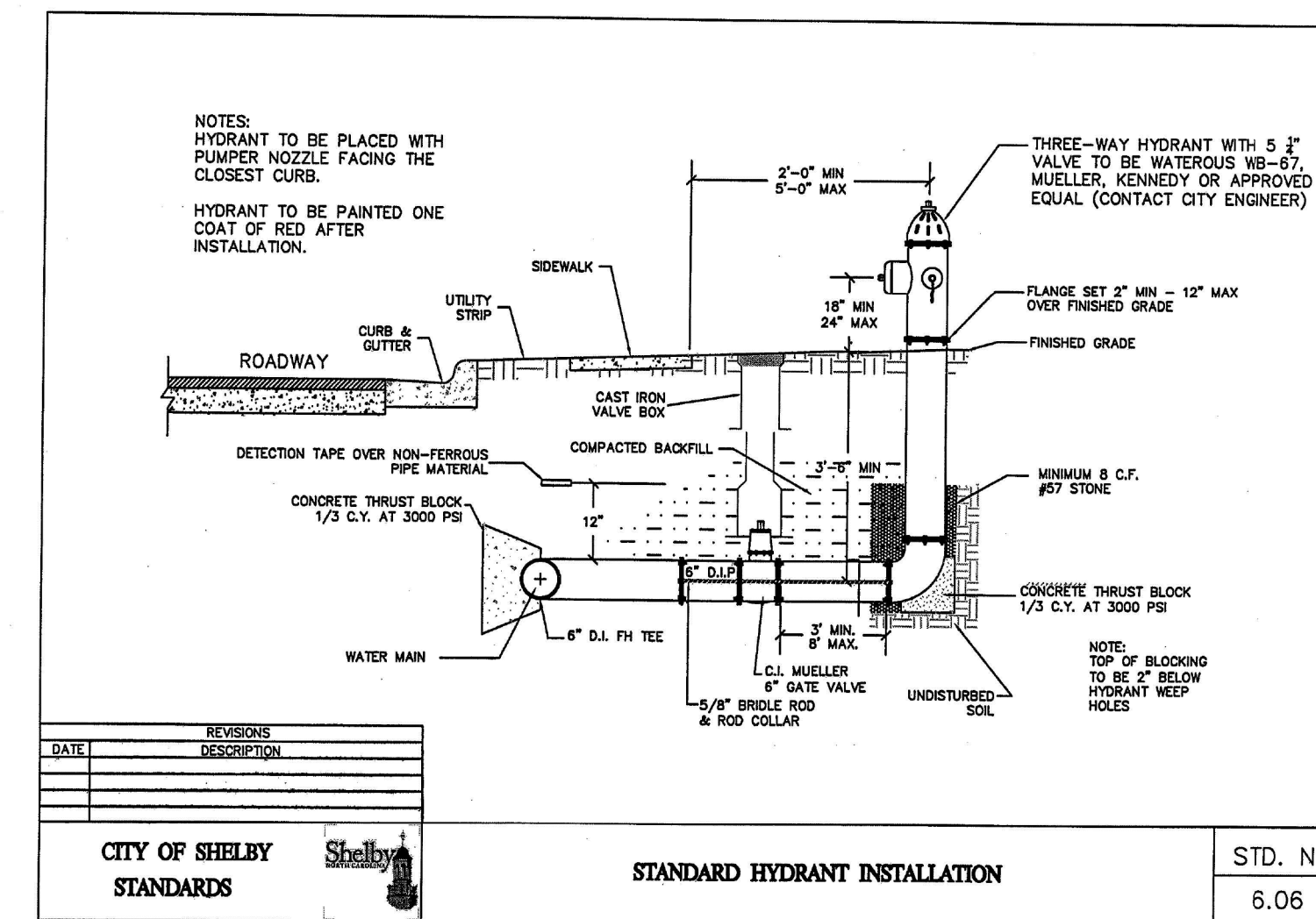
PLUG VALVE DETAIL
REVISION DATE - NOVEMBER 3, 2008



NOTES:
1. SUPPORT BOX SO THAT HEIGHT IS NOT TRANSFERRED TO PIPE.
2. PVC PIPE TO BE EXTENDED ABOVE GRADE UNTIL FINAL GRADING IS COMPLETE. CUT OFF PVC PIPE PRIOR TO INSTALLING VALVE BOX.

REVISIONS	DATE	DESCRIPTION

CITY OF SHELBY STANDARDS **STANDARD VALVE BOX** STD. NO. 6.02



NOTES:
HYDRANT TO BE PLACED WITH PUMPER NOZZLE FACING THE CLOSEST CURB.
HYDRANT TO BE PAINTED ONE COAT OF RED AFTER INSTALLATION.
THREE-WAY HYDRANT WITH 5 1/2\"/>

REVISIONS	DATE	DESCRIPTION

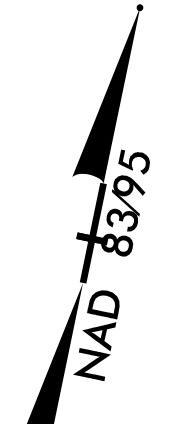
CITY OF SHELBY STANDARDS **STANDARD HYDRANT INSTALLATION** STD. NO. 6.06

NOTE:
 THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 1185 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

PROP
 1167 LF 8" WATER LINE
 INSTALLED 5' INSIDE
 R/W WHERE POSSIBLE

MATCHLINE STA 25+00 -Y2- SEE SHEET UC 05

DEBBIE ANN WEBBER
 DB 1240 PG 632



WATER LINE ON THIS SHEET IS OWNED BY CITY OF SHELBY

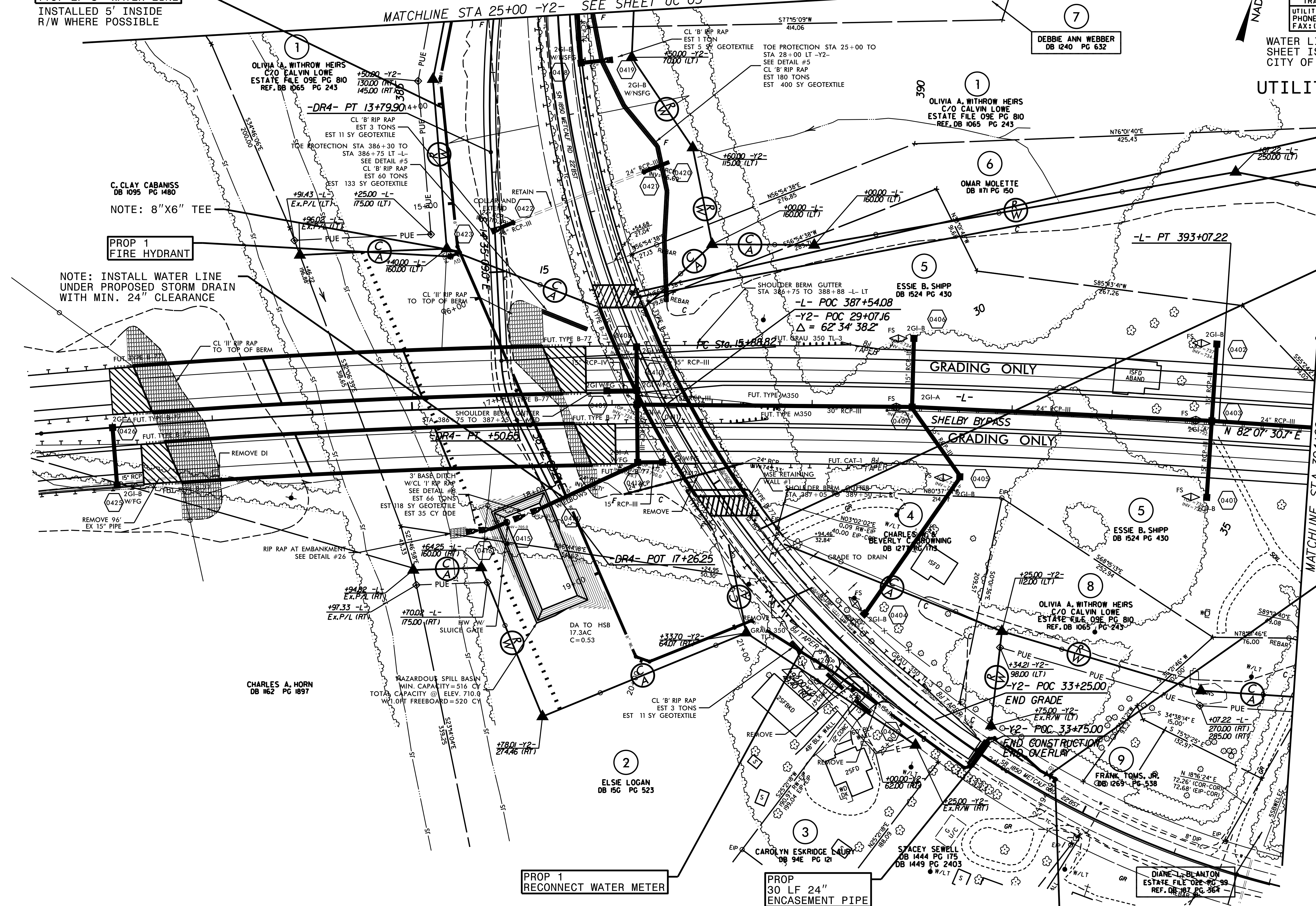
UTILITY CONSTRUCTION

PROP 1
 RELOCATE EXISTING
 FIRE HYDRANT

NOTE: EXISTING 8" DIP ENDS AT FIRE HYDRANT AND BECOMES 2" PVC

PROP
 635 LF ABANDON
 8" UTILITY PIPE

PROP 1
 8" VALVE
 GATE VALVE



NOTE: INSTALL WATER LINE UNDER PROPOSED STORM DRAIN WITH MIN. 24" CLEARANCE

PROP 1
 FIRE HYDRANT

NOTE: 8"x6" TEE

PROP 1
 RECONNECT WATER METER

PROP
 30 LF 24"
 ENCASEMENT PIPE
 INSTALLED BY OPEN CUT
 W/ RESTRAINED JOINT PIPE
 SEAL BOTH ENDS

NOTE: CONNECT TO EXISTING 8" DIP WATER LINE WITH 8" SLEEVE

MATCHLINE STA 394+00 SEE SHEET 5

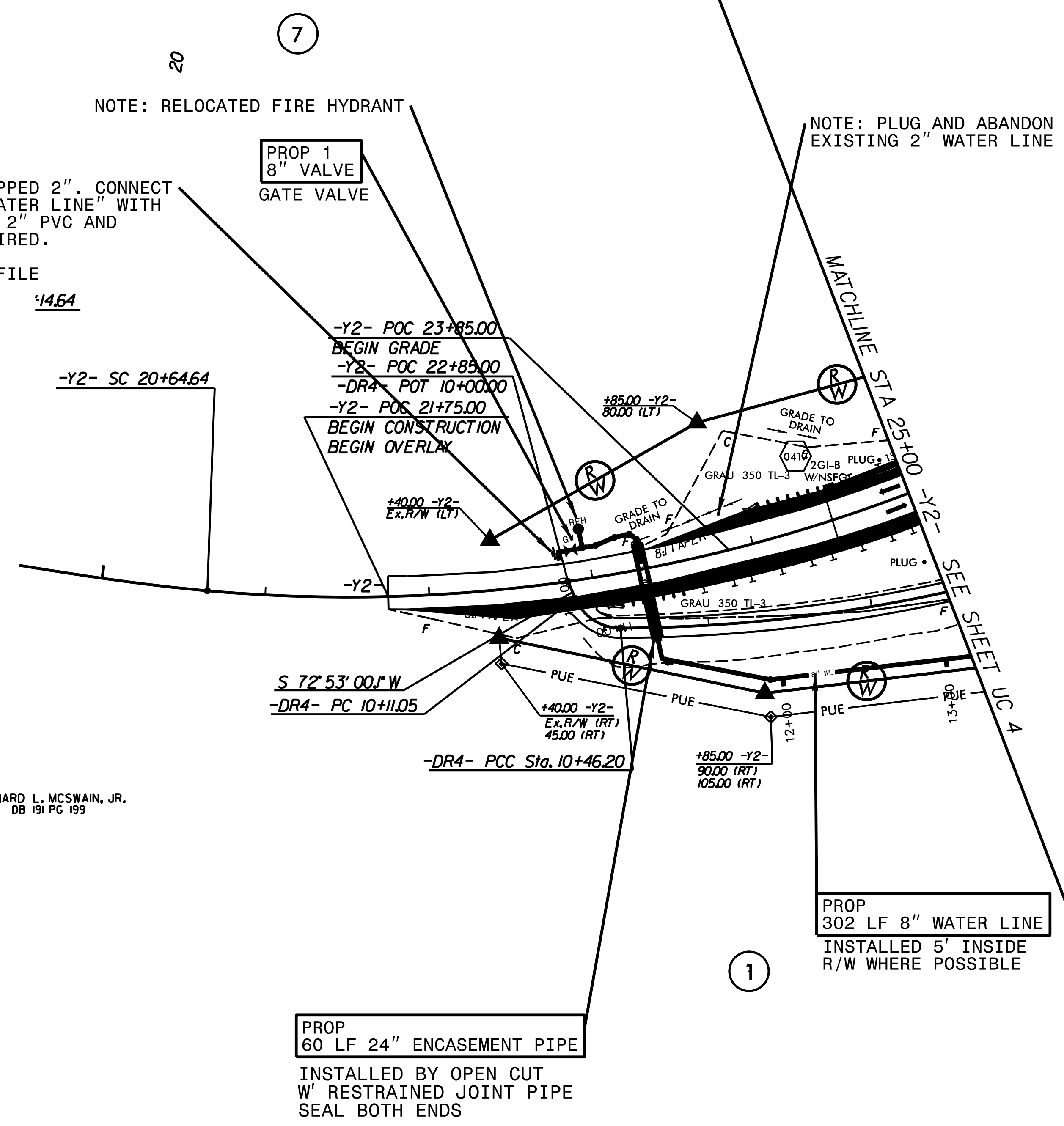
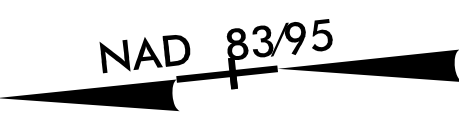
PROJECT REFERENCE NO.	SHEET NO.
R-2707C	UC-5
DESIGNED BY: VW	
DRAWN BY: VW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 1/25/17	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	UTILITY CONSTRUCTION PLANS ONLY

WATER LINE ON THIS SHEET IS OWNED BY CITY OF SHELBY



UTILITY CONSTRUCTION

NOTE:
 THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 660 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.



NOTE: 8" PLUG TAPPED 2". CONNECT TO EXISTING 2" WATER LINE WITH SHORT SECTION OF 2" PVC AND FITTINGS AS REQUIRED.
 STA. 10+00
 WATER LINE 1 PROFILE

NOTE: RELOCATED FIRE HYDRANT

NOTE: PLUG AND ABANDON EXISTING 2" WATER LINE

LEONARD L. MCSWAIN, JR.
 DB 191 PG 199

PROP
 60 LF 24" ENCASEMENT PIPE
 INSTALLED BY OPEN CUT
 W/ RESTRAINED JOINT PIPE
 SEAL BOTH ENDS

PROP
 302 LF 8" WATER LINE
 INSTALLED 5' INSIDE
 R/W WHERE POSSIBLE

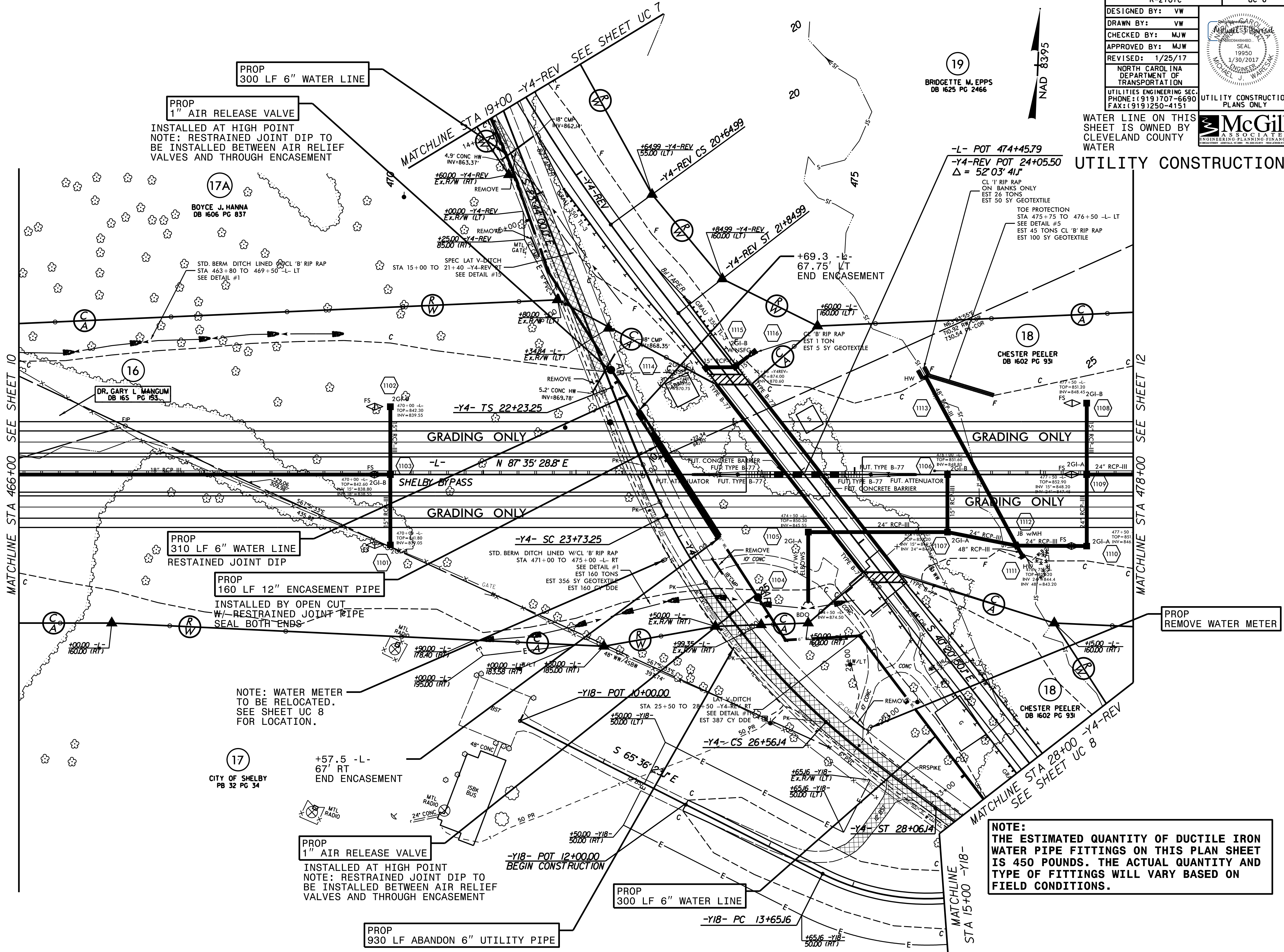
PROJECT REFERENCE NO.	SHEET NO.
R-2707C	UC-6
DESIGNED BY: VW	
DRAWN BY: VW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 1/25/17	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

WATER LINE ON THIS SHEET IS OWNED BY CLEVELAND COUNTY WATER

McGill
 ASSOCIATES
 ENGINEERING PLANNING FINANCE

19
 BRIDGETTE M. EPPS
 DB 1625 PG 2466
 NAD 8395

R/W REVISION 9-2-15 (PCP) - PARCEL I/A - CHANGED PROPERTY OWNER NAMES AND DEED INFORMATION.



PROP 1" AIR RELEASE VALVE
 INSTALLED AT HIGH POINT
 NOTE: RESTRAINED JOINT DIP TO BE INSTALLED BETWEEN AIR RELIEF VALVES AND THROUGH ENCASEMENT

PROP 310 LF 6" WATER LINE
 RESTRAINED JOINT DIP

PROP 160 LF 12" ENCASEMENT PIPE
 INSTALLED BY OPEN CUT
 W/ RESTRAINED JOINT PIPE
 SEAL BOTH ENDS

NOTE: WATER METER TO BE RELOCATED.
 SEE SHEET UC 8 FOR LOCATION.

PROP 1" AIR RELEASE VALVE
 INSTALLED AT HIGH POINT
 NOTE: RESTRAINED JOINT DIP TO BE INSTALLED BETWEEN AIR RELIEF VALVES AND THROUGH ENCASEMENT

NOTE:
 THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 450 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

MATCHLINE STA 466+00 SEE SHEET 10

MATCHLINE STA 478+00 SEE SHEET 12

MATCHLINE STA 19+00 -Y4-REV SEE SHEET UC 7

MATCHLINE STA 28+00 -Y4-REV SEE SHEET UC 8

MATCHLINE -Y18- STA 15+00

GRADING ONLY

GRADING ONLY

GRADING ONLY

GRADING ONLY

-L- N 87° 35' 28" E

-Y18- POT 10+00.00

-Y18- POT 12+00.00 BEGIN CONSTRUCTION

-Y18- PC 13+65.16

-Y4- SC 23+73.25

-Y4- CS 26+56.14

-Y4- ST 28+06.14

-Y4-REV CS 20+64.99

-Y4-REV ST 21+84.99

-L- POT 474+45.79

-Y4-REV POT 24+05.50
 $\Delta = 52' 03" 41"$

4.9" CONC HW INV=863.37

+100.00 -Y4-REV EX.R/W (LT)

+25.00 -Y4-REV 85.00 (RT)

+80.00 -Y4-REV EX.R/W (LT)

+34.34 -Y4-REV EX.R/W (LT)

-Y4- TS 22+23.25

18" RCP III

24" RCP III

48" RCP III

50" RCP III

50" RCP III

50" RCP III

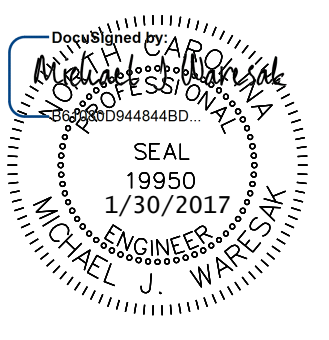
50" RCP III

50" RCP III

50" RCP III

50" RCP III

PROJECT REFERENCE NO.	SHEET NO.
R-2707C	UC-7
DESIGNED BY: VW	
DRAWN BY: VW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 1/25/17	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC.	
PHONE: (919) 707-6690	
FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	



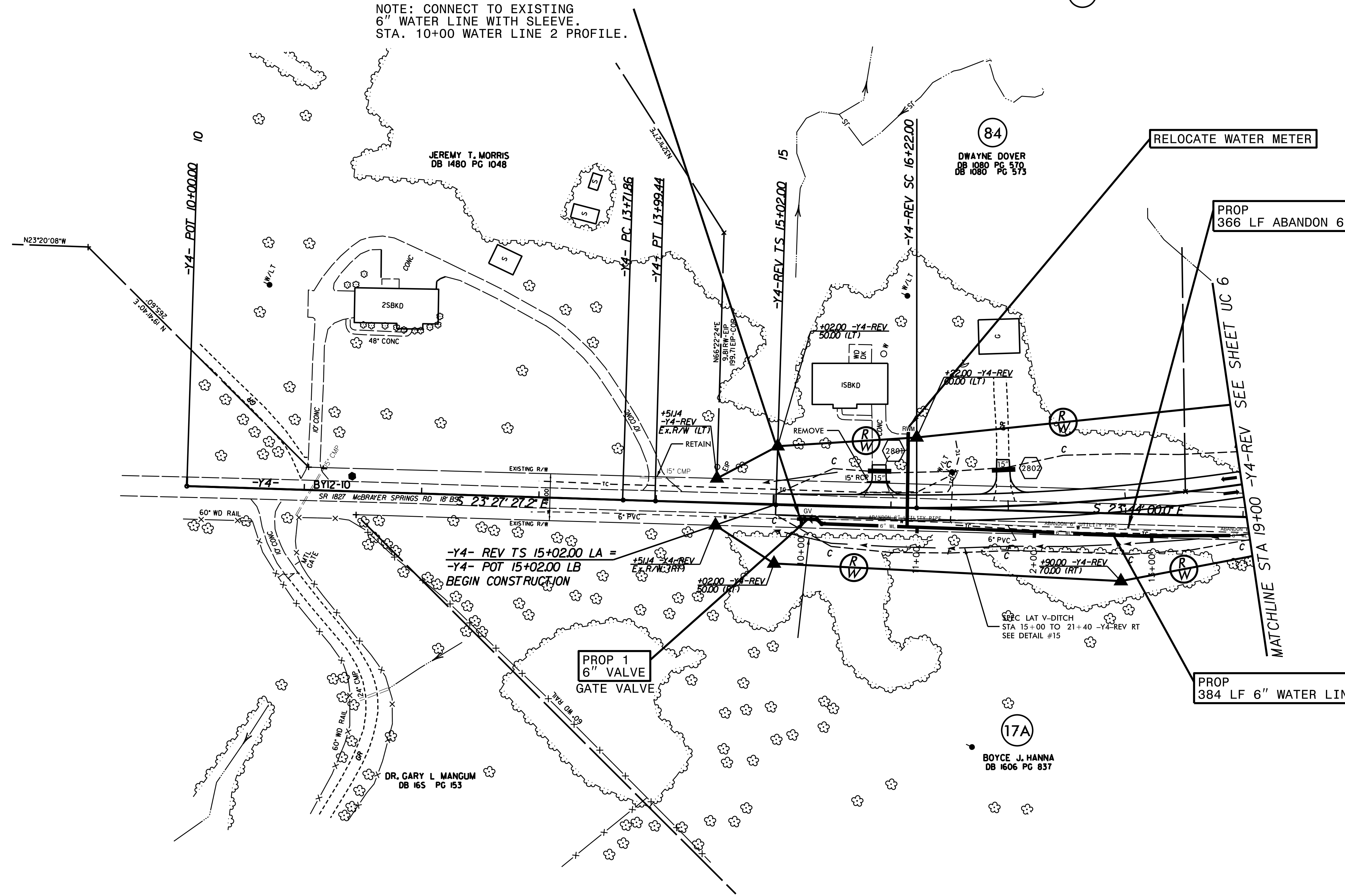
WATER LINE ON THIS SHEET IS OWNED BY CLEVELAND COUNTY WATER

McGill ASSOCIATES
ENGINEERING PLANNING FINANCE

UTILITY CONSTRUCTION

NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 175 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

NOTE: CONNECT TO EXISTING 6" WATER LINE WITH SLEEVE. STA. 10+00 WATER LINE 2 PROFILE.



RELOCATE WATER METER

PROP 366 LF ABANDON 6" UTILITY PIPE

PROP 1 6" VALVE GATE VALVE

PROP 384 LF 6" WATER LINE

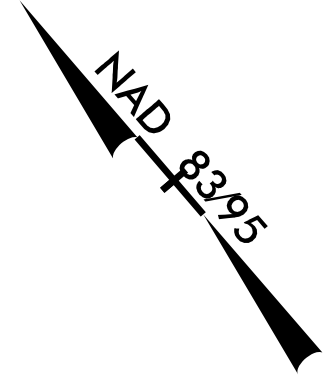
REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
R-2707C	UC-8
DESIGNED BY: VW	
DRAWN BY: VW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 1/26/17	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

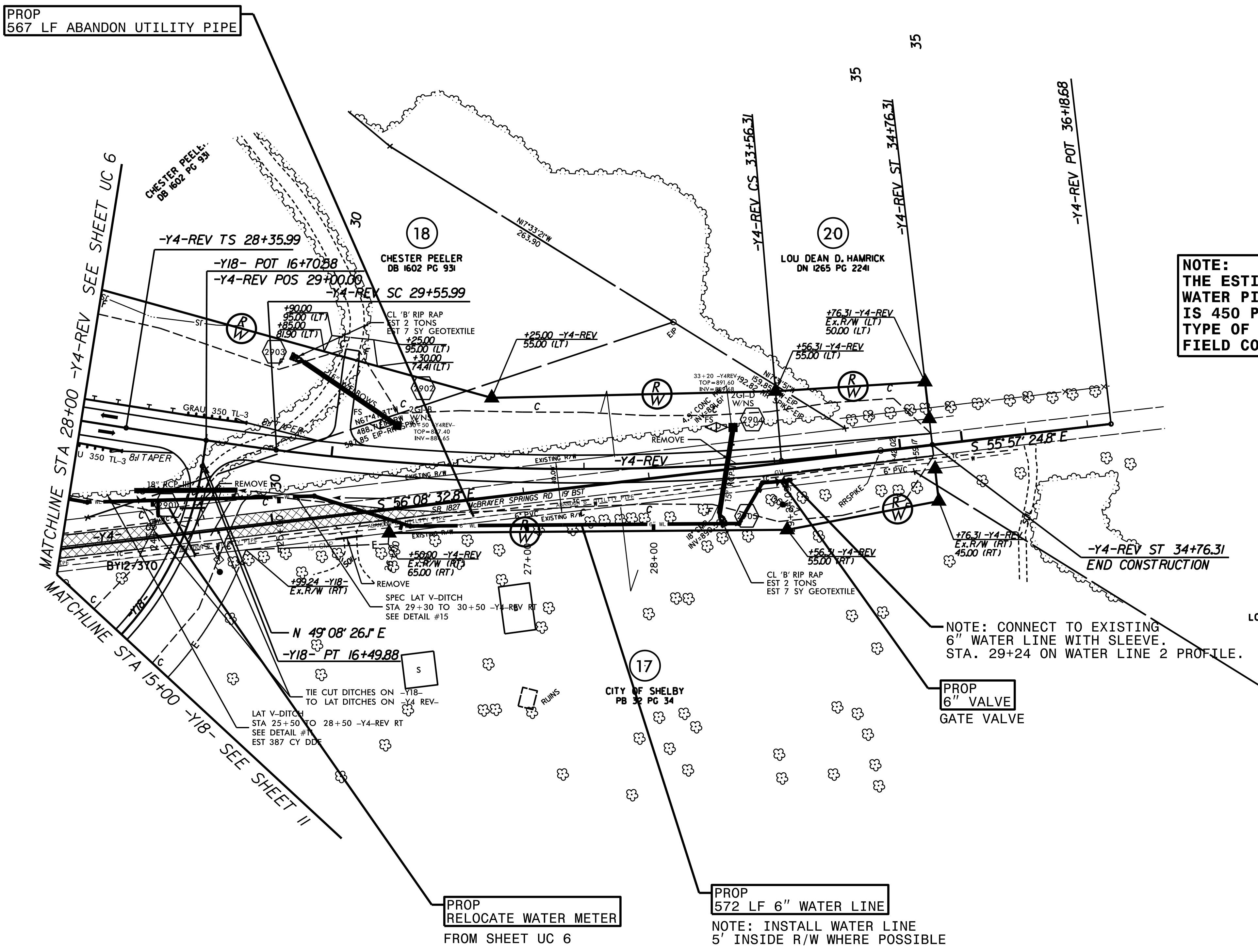
WATER LINE ON THIS SHEET IS OWNED BY CLEVELAND COUNTY WATER

McGILL ASSOCIATES
 ENGINEERING PLANNING FINANCE

UTILITY CONSTRUCTION



PROP
567 LF ABANDON UTILITY PIPE



NOTE:
 THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 450 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

NOTE: CONNECT TO EXISTING 6" WATER LINE WITH SLEEVE. STA. 29+24 ON WATER LINE 2 PROFILE.

PROP
6" VALVE
GATE VALVE

PROP
RELOCATE WATER METER
FROM SHEET UC 6

PROP
572 LF 6" WATER LINE
NOTE: INSTALL WATER LINE 5' INSIDE R/W WHERE POSSIBLE

MATCHLINE STA 28+00 -Y4-REV SEE SHEET UC 6

MATCHLINE STA 15+00 -Y18- SEE SHEET 11

-Y4-REV POT 36+18.68

-Y4-REV ST 34+76.31
END CONSTRUCTION

20
LOU DEAN D. HAMRICK
DN 1265 PG 224I

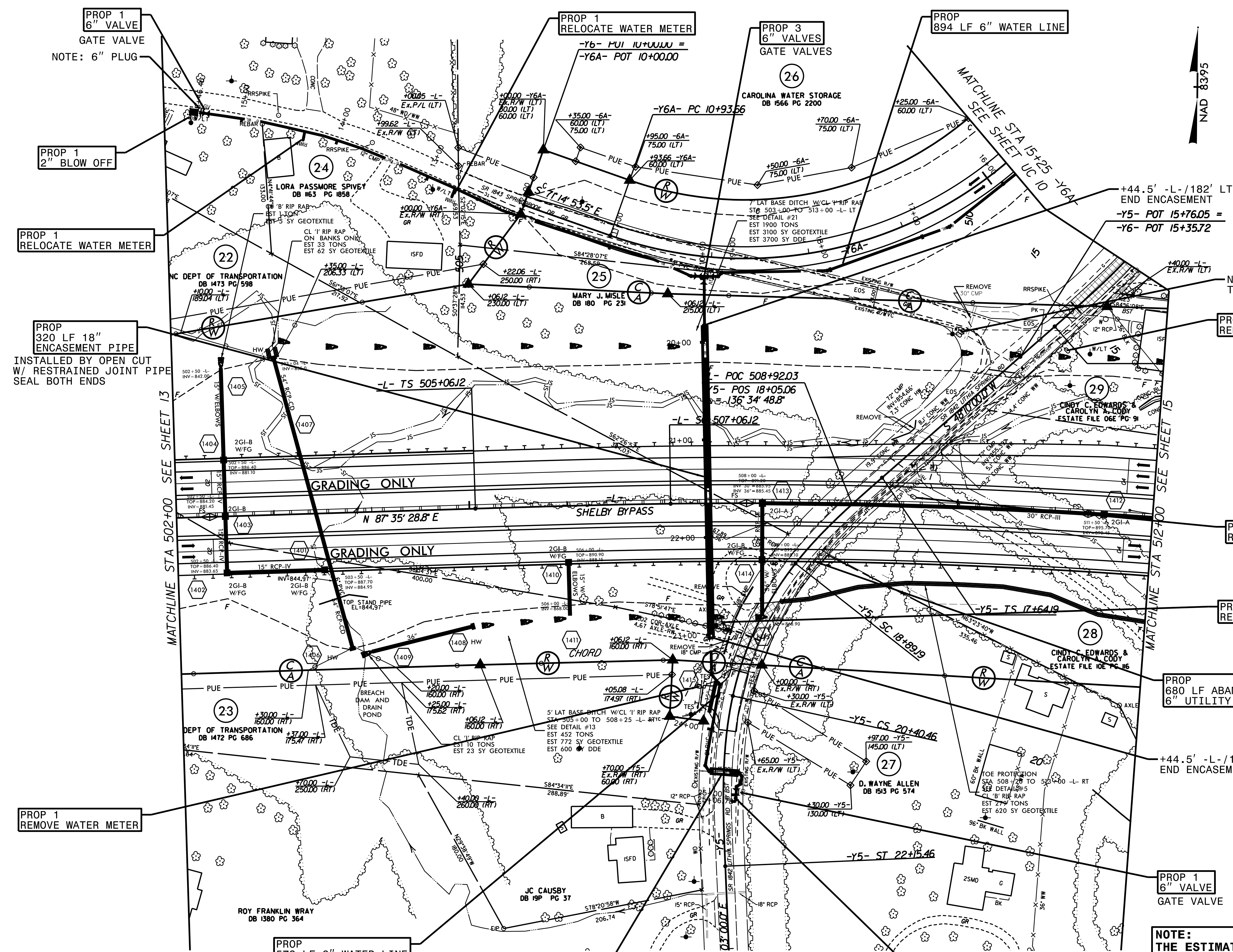
PROJECT REFERENCE NO.	SHEET NO.
R-2707C	UC-9
DESIGNED BY: VW	
DRAWN BY: VW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 1/26/17	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	UTILITY CONSTRUCTION PLANS ONLY

WATER LINE ON THIS SHEET IS OWNED BY CLEVELAND COUNTY WATER

UTILITY CONSTRUCTION



NAD 8395



PROP 1
320 LF 18"
ENCASEMENT PIPE
INSTALLED BY OPEN CUT
W/ RESTRAINED JOINT PIPE
SEAL BOTH ENDS

PROP 1
REMOVE WATER METER

PROP
573 LF 6" WATER LINE

PROP
30 LF 18" ENCASEMENT PIPE
INSTALLED BY OPEN CUT
W/ RESTRAINED JOINT PIPE
SEAL BOTH ENDS

NOTE: WATER METERS
TO BE RELOCATED

PROP 1
REMOVE WATER METER

PROP 1
REMOVE WATER METER

PROP 1
REMOVE WATER METER

PROP
680 LF ABANDON
6" UTILITY PIPE

+44.5' -L- /138' RT
END ENCASEMENT

PROP 1
6" VALVE
GATE VALVE

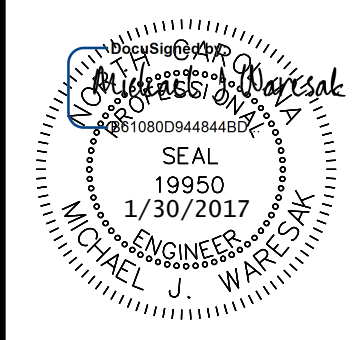
NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON
WATER PIPE FITTINGS ON THIS PLAN SHEET
IS 1265 POUNDS. THE ACTUAL QUANTITY AND
TYPE OF FITTINGS WILL VARY BASED ON
FIELD CONDITIONS.

NOTE: CONNECT TO EXISTING 6"
WATER LINE WITH 6" SLEEVE

REVISIONS

1/30/2017

PROJECT REFERENCE NO.	SHEET NO.
R-2707C	UC-10
DESIGNED BY: VW	
DRAWN BY: VW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 1/26/17	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	



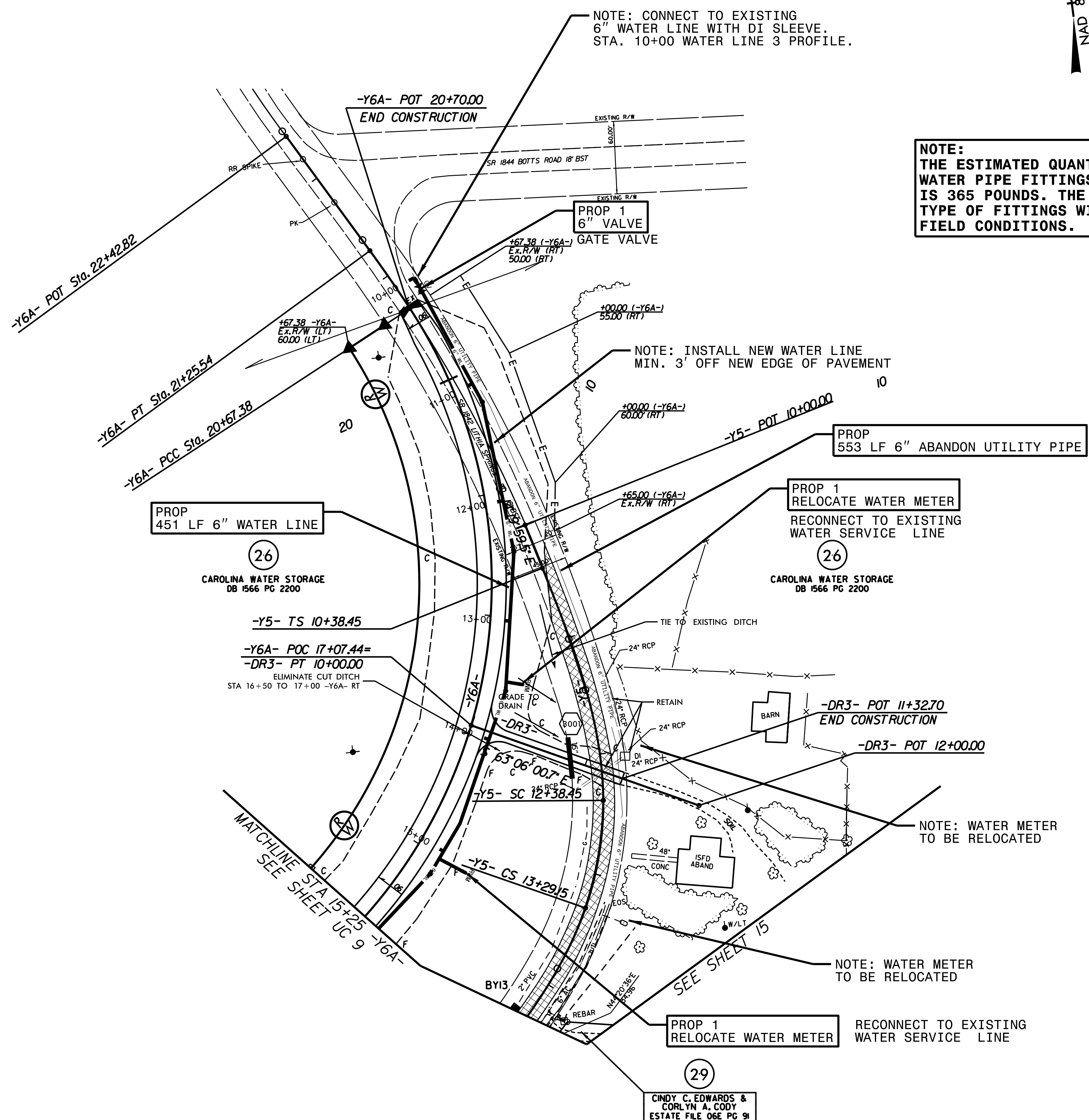
NAD 8395

WATER LINE ON THIS SHEET IS OWNED BY CLEVELAND COUNTY WATER



UTILITY CONSTRUCTION

NOTE:
 THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 365 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.



NOTE: INSTALL NEW WATER LINE MIN. 3' OFF NEW EDGE OF PAVEMENT

NOTE: WATER METER TO BE RELOCATED

NOTE: WATER METER TO BE RELOCATED

CINDY C. EDWARDS & CORLYN A. CODY
 ESTATE FILE 06E PG 9I

NOTE: ALL ENCASEMENTS INSTALLED FOR CITY OF SHELBY FUTURE USE SHALL INSTALLED WITH MIN. 5'0" COVER FROM FINAL GRADE AND BE SEALED AFTER INSTALLATION PER DETAILS

PROP 40 LF 20" ENCASEMENT PIPE
INSTALLED BY OPEN CUT FOR CITY OF SHELBY FUTURE USE AT STA. 13+00 -Y9RPB-

PROP 200 LF 20" ENCASEMENT PIPE
INSTALLED BY OPEN CUT FOR CITY OF SHELBY FUTURE USE CENTERED AT STA. 527+00 -Y-

PROP 1211 LF ABANDON 6" UTILITY PIPE

PROP 3 REMOVE WATER METER

PROP 3 REMOVE WATER METER

PROP 2 REMOVE WATER METER

PROP 885 LF 10" FORCE MAIN SEWER
-Y9LPB- ST 0+00.00
-L- POC 529+74.35 47.00' (LT)
-Y9LPB- SC 1+50.00

PROP REMOVE FIRE HYDRANT

INSTALLED BY OPEN CUT W/ RESTRAINED JOINT PIPE CENTERED AT STA. 534+00 -Y- SEAL BOTH ENDS

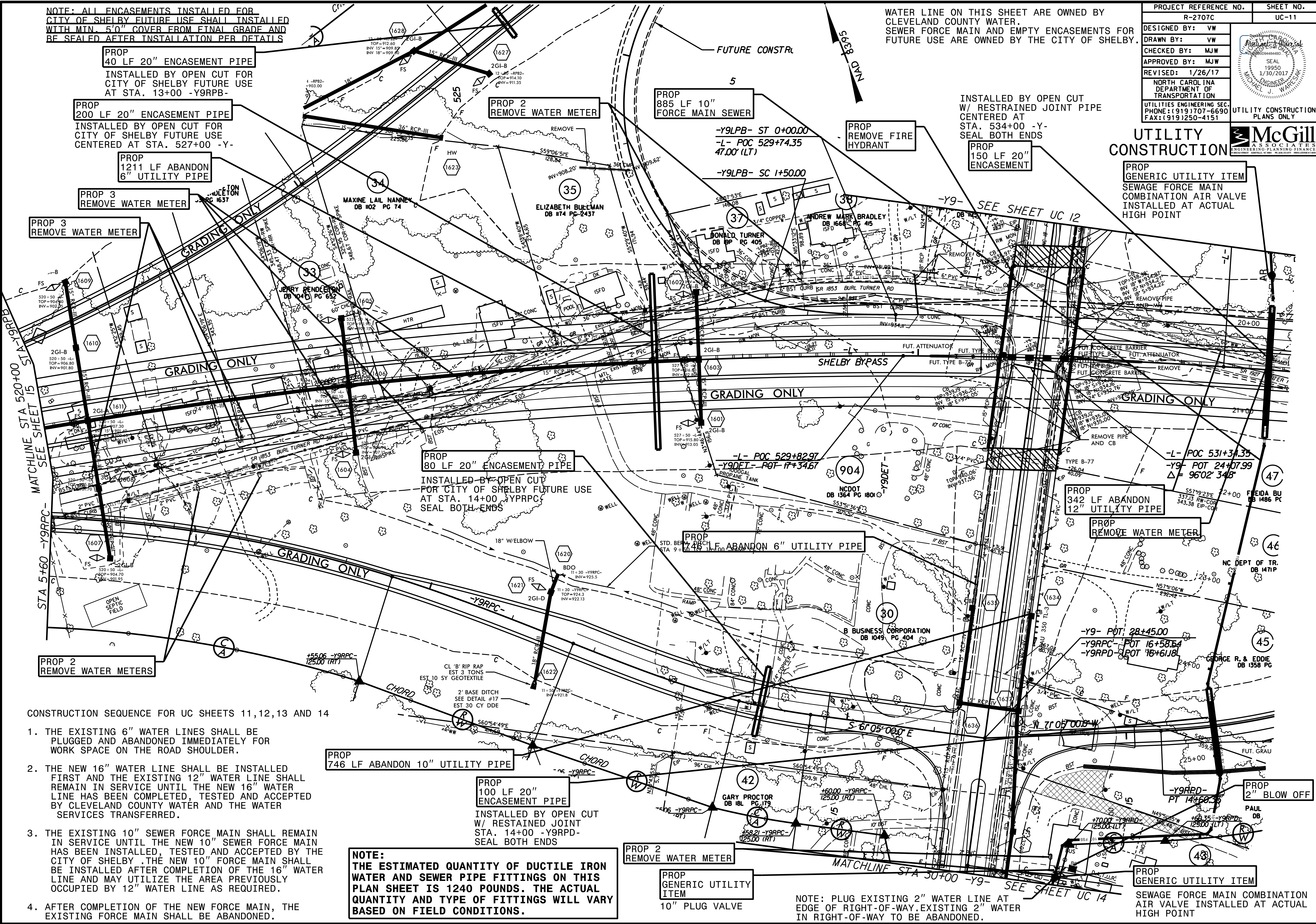
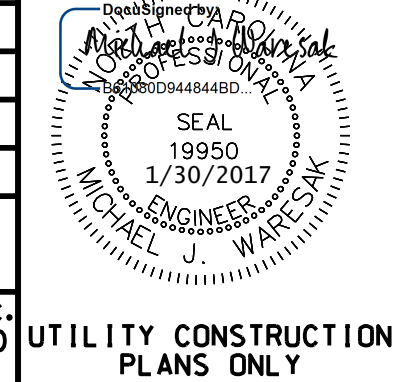
PROP 150 LF 20" ENCASEMENT

UTILITY CONSTRUCTION

PROP GENERIC UTILITY ITEM
SEWAGE FORCE MAIN COMBINATION AIR VALVE
INSTALLED AT ACTUAL HIGH POINT



PROJECT REFERENCE NO.	R-2707C
SHEET NO.	UC-11
DESIGNED BY:	VW
DRAWN BY:	VW
CHECKED BY:	MJW
APPROVED BY:	MJW
REVISED:	1/26/17
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6590 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	



MATCHLINE STA 520+00 -Y9RPB- SEE SHEET 15 STA 1+Y9RPB-

-Y9- SEE SHEET UC 12

MATCHLINE STA 30+00 -Y9- SEE SHEET UC 14

CONSTRUCTION SEQUENCE FOR UC SHEETS 11, 12, 13 AND 14

1. THE EXISTING 6" WATER LINES SHALL BE PLUGGED AND ABANDONED IMMEDIATELY FOR WORK SPACE ON THE ROAD SHOULDER.
2. THE NEW 16" WATER LINE SHALL BE INSTALLED FIRST AND THE EXISTING 12" WATER LINE SHALL REMAIN IN SERVICE UNTIL THE NEW 16" WATER LINE HAS BEEN COMPLETED, TESTED AND ACCEPTED BY CLEVELAND COUNTY WATER AND THE WATER SERVICES TRANSFERRED.
3. THE EXISTING 10" SEWER FORCE MAIN SHALL REMAIN IN SERVICE UNTIL THE NEW 10" SEWER FORCE MAIN HAS BEEN INSTALLED, TESTED AND ACCEPTED BY THE CITY OF SHELBY. THE NEW 10" FORCE MAIN SHALL BE INSTALLED AFTER COMPLETION OF THE 16" WATER LINE AND MAY UTILIZE THE AREA PREVIOUSLY OCCUPIED BY 12" WATER LINE AS REQUIRED.
4. AFTER COMPLETION OF THE NEW FORCE MAIN, THE EXISTING FORCE MAIN SHALL BE ABANDONED.

NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER AND SEWER PIPE FITTINGS ON THIS PLAN SHEET IS 1240 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

NOTE: PLUG EXISTING 2" WATER LINE AT EDGE OF RIGHT-OF-WAY. EXISTING 2" WATER IN RIGHT-OF-WAY TO BE ABANDONED.

PROP 746 LF ABANDON 10" UTILITY PIPE

PROP 100 LF 20" ENCASEMENT PIPE
INSTALLED BY OPEN CUT W/ RESTRAINED JOINT STA. 14+00 -Y9RPD- SEAL BOTH ENDS

PROP 2 REMOVE WATER METER

PROP GENERIC UTILITY ITEM
10" PLUG VALVE

PROP 342 LF ABANDON 12" UTILITY PIPE

PROP REMOVE WATER METER

PROP 2" BLOW OFF

PROP GENERIC UTILITY ITEM

SEWAGE FORCE MAIN COMBINATION AIR VALVE
INSTALLED AT ACTUAL HIGH POINT

5/14/99

PROJECT REFERENCE NO. R-2707C	SHEET NO. UC-12
DESIGNED BY: VW	
DRAWN BY: VW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 2/1/17	UTILITY CONSTRUCTION PLANS ONLY
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SECTION PHONE: (919) 707-6690 FAX: (919) 250-4151	



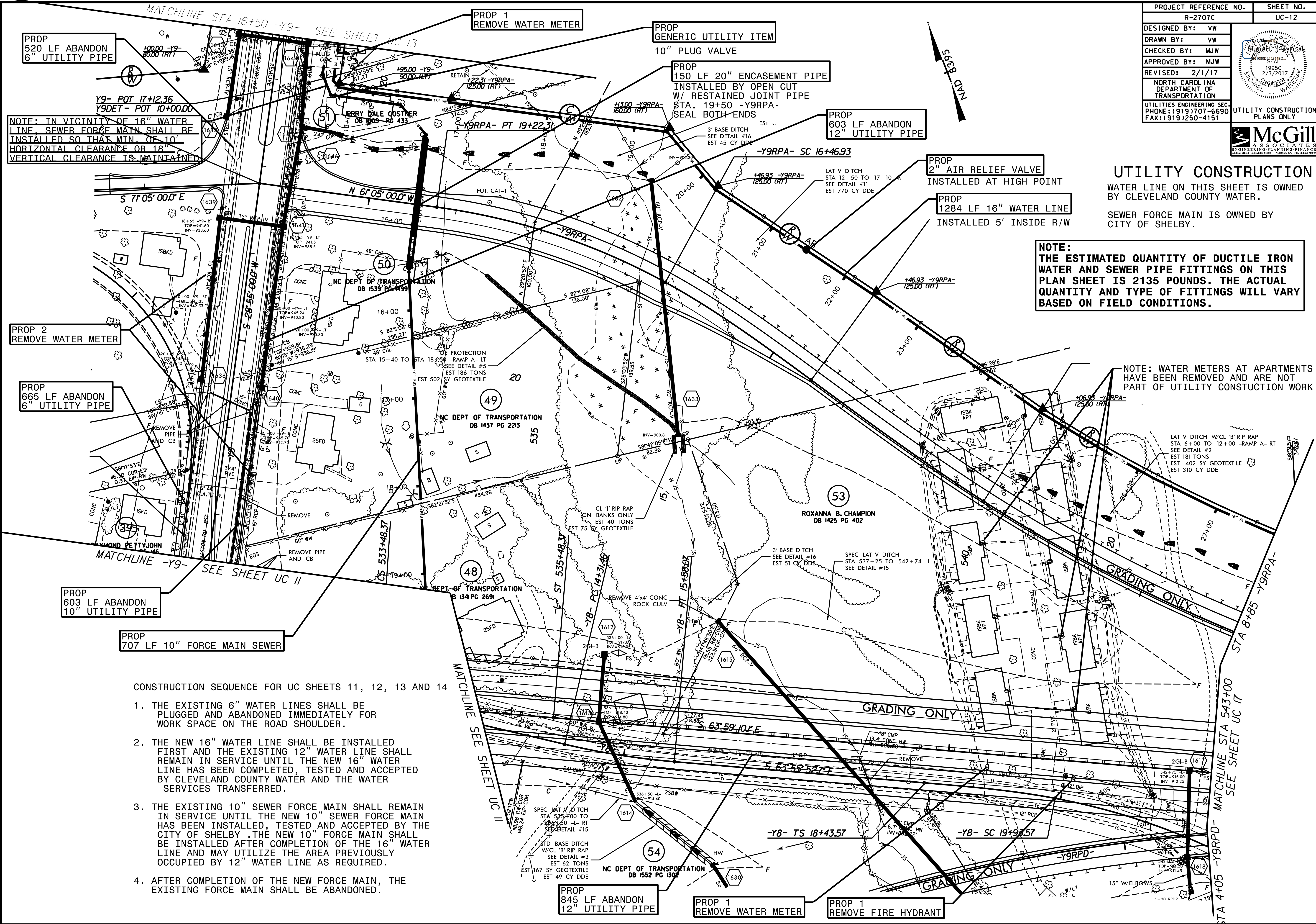
UTILITY CONSTRUCTION

WATER LINE ON THIS SHEET IS OWNED BY CLEVELAND COUNTY WATER.

SEWER FORCE MAIN IS OWNED BY CITY OF SHELBY.

NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER AND SEWER PIPE FITTINGS ON THIS PLAN SHEET IS 2135 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

NOTE: WATER METERS AT APARTMENTS HAVE BEEN REMOVED AND ARE NOT PART OF UTILITY CONSTRUCTION WORK



NOTE: IN VICINITY OF 16" WATER LINE SEWER FORCE MAIN SHALL BE INSTALLED SO THAT MIN. OF 10' HORIZONTAL CLEARANCE OR 18' VERTICAL CLEARANCE IS MAINTAINED

PROP 2 REMOVE WATER METER

PROP 665 LF ABANDON 6" UTILITY PIPE

PROP 603 LF ABANDON 10" UTILITY PIPE

PROP 707 LF 10" FORCE MAIN SEWER

CONSTRUCTION SEQUENCE FOR UC SHEETS 11, 12, 13 AND 14

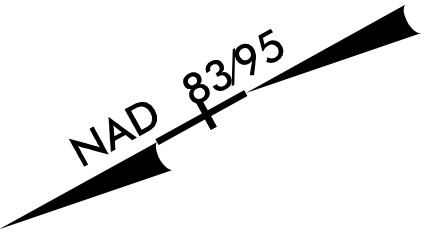
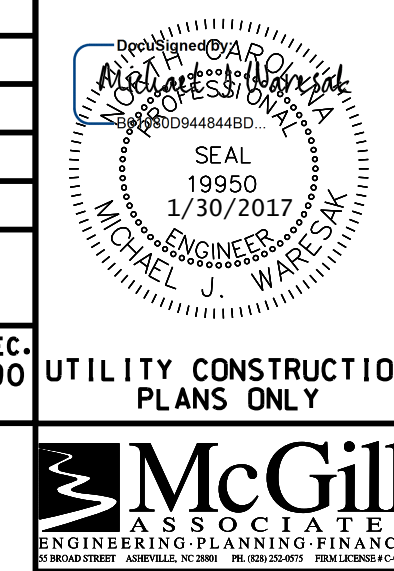
1. THE EXISTING 6" WATER LINES SHALL BE PLUGGED AND ABANDONED IMMEDIATELY FOR WORK SPACE ON THE ROAD SHOULDER.
2. THE NEW 16" WATER LINE SHALL BE INSTALLED FIRST AND THE EXISTING 12" WATER LINE SHALL REMAIN IN SERVICE UNTIL THE NEW 16" WATER LINE HAS BEEN COMPLETED, TESTED AND ACCEPTED BY CLEVELAND COUNTY WATER AND THE WATER SERVICES TRANSFERRED.
3. THE EXISTING 10" SEWER FORCE MAIN SHALL REMAIN IN SERVICE UNTIL THE NEW 10" SEWER FORCE MAIN HAS BEEN INSTALLED, TESTED AND ACCEPTED BY THE CITY OF SHELBY. THE NEW 10" FORCE MAIN SHALL BE INSTALLED AFTER COMPLETION OF THE 16" WATER LINE AND MAY UTILIZE THE AREA PREVIOUSLY OCCUPIED BY 12" WATER LINE AS REQUIRED.
4. AFTER COMPLETION OF THE NEW FORCE MAIN, THE EXISTING FORCE MAIN SHALL BE ABANDONED.

PROP 845 LF ABANDON 12" UTILITY PIPE

PROP 1 REMOVE WATER METER

PROP 1 REMOVE FIRE HYDRANT

PROJECT REFERENCE NO.	SHEET NO.
R-2707C	UC-13
DESIGNED BY: VW	
DRAWN BY: VW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 1/26/17	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	UTILITY CONSTRUCTION PLANS ONLY

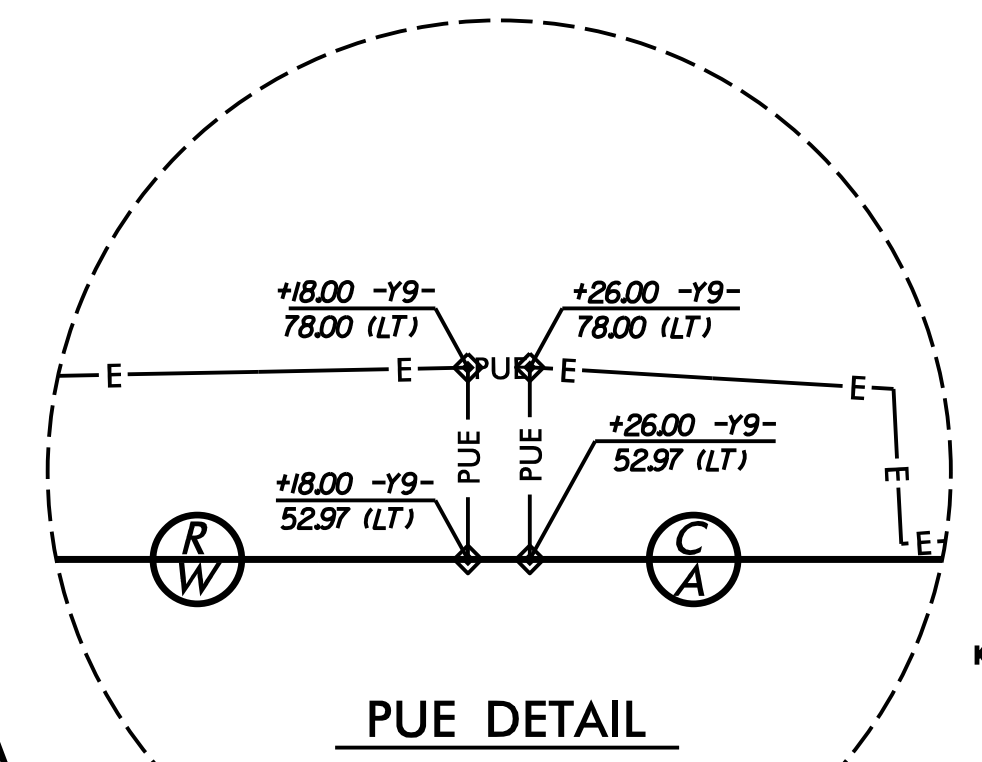


WATER LINE ON THIS SHEET IS OWNED BY CLEVELAND COUNTY WATER.

SEWER FORCE MAIN IS OWNED BY CITY OF SHELBY.

UTILITY CONSTRUCTION

NOTE: CONNECT TO EXISTING 12" WATER LINE WITH 16"X12" REDUCER. NOTE INSTALL REDUCER MIN. 10' FROM BUTTERFLY VALVE. STA. 10+00 WATER LINE 4 PROFILE.



KEVIN L. WEATHERS
DB 1602 PG 1609

JERRY DALE COSTNER
DB 1009 PG 433

NOTE: FORCE MAIN SHALL BE INSTALLED AFTER BOTH WATER LINES HAVE BEEN ABANDONED. SEE CONSTRUCTION SEQUENCE.

PROP 450 LF ABANDON 12" UTILITY PIPE

PROP 573 LF ABANDON 6" UTILITY PIPE

NOTE: IN VICINITY OF 16" WATER LINE, SEWER FORCE MAIN SHALL BE INSTALLED SO THAT MIN. OF 10' HORIZONTAL CLEARANCE OR 18" VERTICAL CLEARANCE IS MAINTAINED.

MATCHLINE STA 16+50 -Y9- SEE SHEET UC 12

PROP 198 LF ABANDON 10" UTILITY PIPE

PROP 212 LF 10" FORCE MAIN SEWER

PROP 293 LF ABANDON 6" UTILITY PIPE

NOTE: ABANDON 6" WATER LINE TO EXISTING VALVE ON NORTH SIDE OF NEW PROSPECT ROAD.

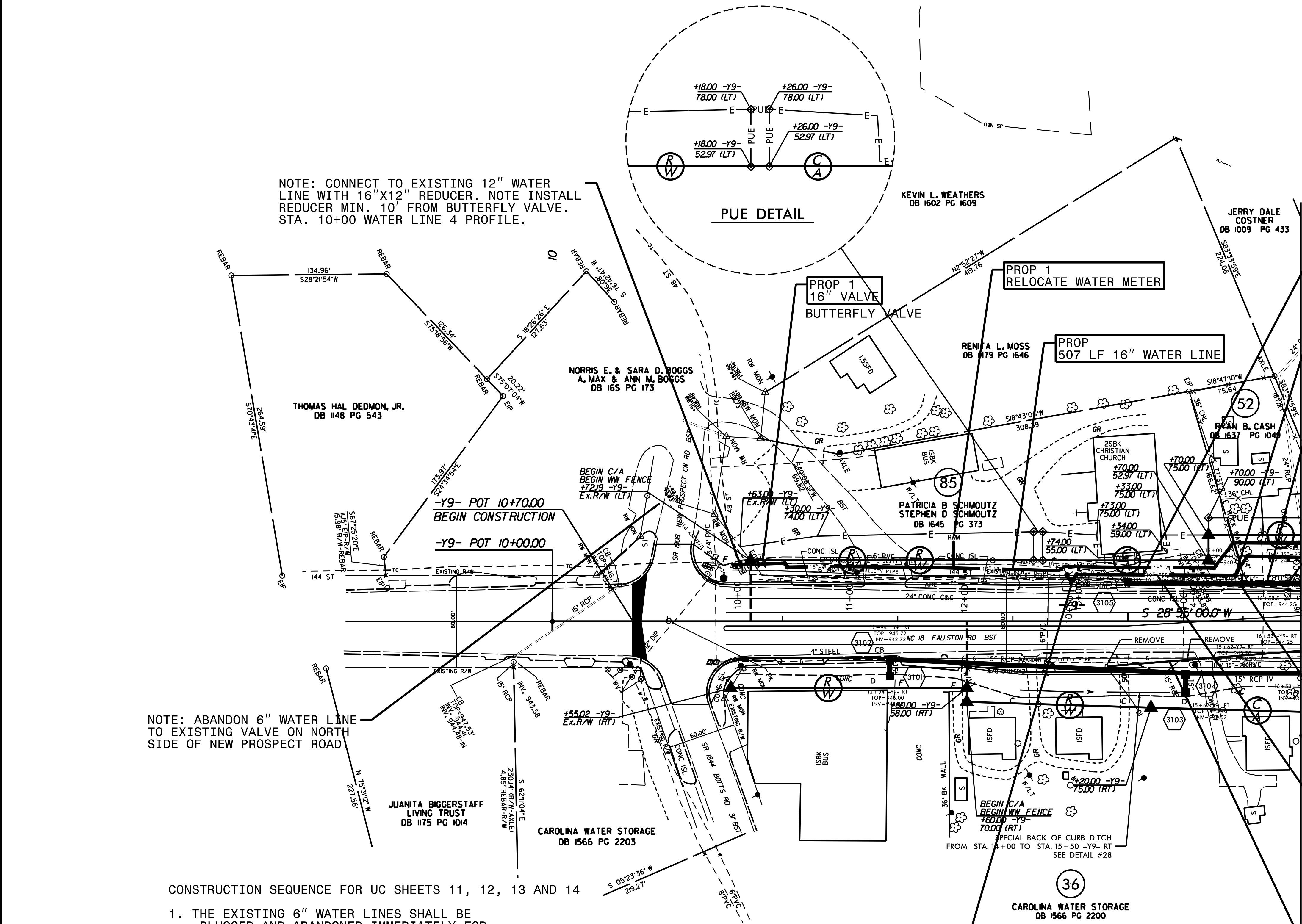
CONSTRUCTION SEQUENCE FOR UC SHEETS 11, 12, 13 AND 14

1. THE EXISTING 6" WATER LINES SHALL BE PLUGGED AND ABANDONED IMMEDIATELY FOR WORK SPACE ON THE ROAD SHOULDER.
2. THE NEW 16" WATER LINE SHALL BE INSTALLED FIRST AND THE EXISTING 12" WATER LINE SHALL REMAIN IN SERVICE UNTIL THE NEW 16" WATER LINE HAS BEEN COMPLETED, TESTED AND ACCEPTED BY CLEVELAND COUNTY WATER AND THE WATER SERVICES TRANSFERRED.
3. THE EXISTING 10" SEWER FORCE MAIN SHALL REMAIN IN SERVICE UNTIL THE NEW 10" SEWER FORCE MAIN HAS BEEN INSTALLED, TESTED AND ACCEPTED BY THE CITY OF SHELBY. THE NEW 10" FORCE MAIN SHALL BE INSTALLED AFTER COMPLETION OF THE 16" WATER LINE AND MAY UTILIZE THE AREA PREVIOUSLY OCCUPIED BY 12" WATER LINE AS REQUIRED.
4. AFTER COMPLETION OF THE NEW FORCE MAIN, THE EXISTING FORCE MAIN SHALL BE ABANDONED.

NOTE: CONNECT NEW 10" SEWER FORCE MAIN TO EXISTING 10" FORCE MAIN WITH FITTINGS AS REQUIRED. STA. 10+00 10" SEWER FORCE MAIN PROFILE

NOTE: THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 2625 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

REVISIONS



PROJECT REFERENCE NO.	SHEET NO.
R-2707C	UC-14
DESIGNED BY: VW	
DRAWN BY: VW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 1/26/17	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	



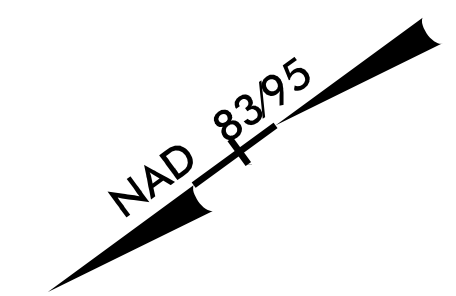
UTILITY CONSTRUCTION

WATER LINE ON THIS SHEET IS OWNED BY CLEVELAND COUNTY WATER.

SEWER FORCE MAIN IS OWNED BY THE CITY OF SHELBY.

NOTE:
 THE ESTIMATED QUANTITY OF DUCTILE IRON WATER AND SEWER PIPE FITTINGS ON THIS PLAN SHEET IS 1085 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

NOTE: INSTALL 6" PLUG TAPPED 2" AND 50 LF 2" WATER LINE. CONNECT TO EXISTING 2" WATER LINE.



MATCHLINE STA 15+00 -Y8-REV SEE SHEET UC 15

NOTE: INSTALL WATER LINE 5' INSIDE R/W

NOTE: INSTALL SEWER FORCE MAIN MIN. 18" BELOW WATER LINE

PROP 540 LF 10" FORCE MAIN SEWER
 INSTALLED 5' INSIDE R/W

PROP 3
 6" GATE VALVES

PROP 1" AIR RELEASE VALVE
 INSTALL AT ACTUAL HIGH POINT

PROP 848 LF 6" WATER LINE

PROP 80 LF 20" ENCASEMENT
 INSTALLED BY OPEN CUT
 W/ RESTRAINED JOINT PIPE
 SEAL BOTH ENDS

NOTE: CONNECT TO EXISTING SEWER 10" SEWER FORCE MAIN WITH DI SLEEVE

PROP 80 LF 16" ENCASEMENT PIPE
 INSTALLED BY OPEN CUT
 W/ RESTRAINED JOINT PIPE
 SEAL BOTH ENDS

PROP 531 LF ABANDON 10" UTILITY PIPE

PROP 551 LF ABANDON 6" UTILITY PIPE

PROP 1
 6" GATE VALVE

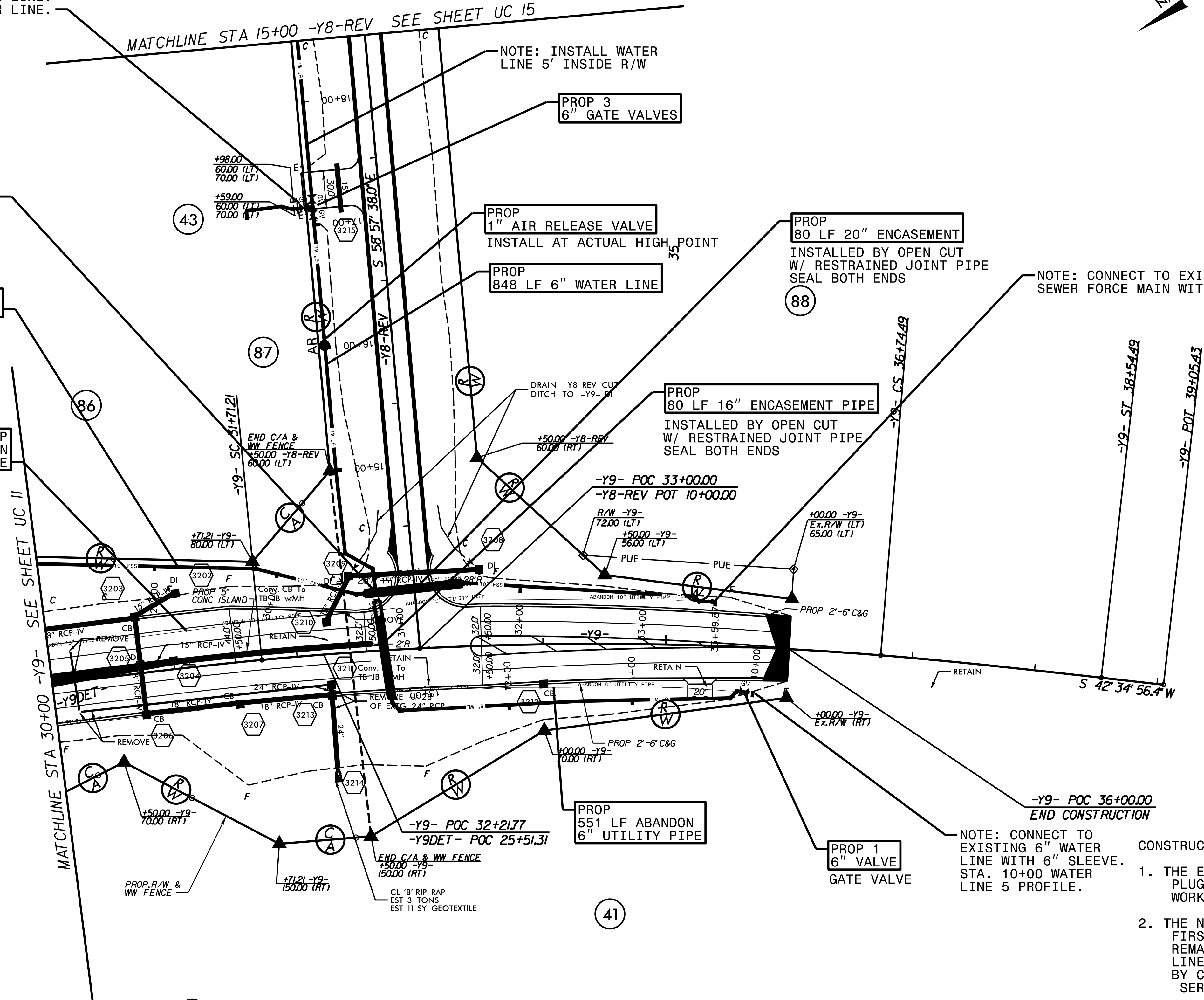
NOTE: CONNECT TO EXISTING 6" WATER LINE WITH 6" SLEEVE. STA. 10+00 WATER LINE 5 PROFILE.

CONSTRUCTION SEQUENCE FOR UC SHEETS 11, 12, 13 AND 14

1. THE EXISTING 6" WATER LINES SHALL BE PLUGGED AND ABANDONED IMMEDIATELY FOR WORK SPACE ON THE ROAD SHOULDER.
2. THE NEW 16" WATER LINE SHALL BE INSTALLED FIRST AND THE EXISTING 12" WATER LINE SHALL REMAIN IN SERVICE UNTIL THE NEW 16" WATER LINE HAS BEEN COMPLETED, TESTED AND ACCEPTED BY CLEVELAND COUNTY WATER AND THE WATER SERVICES TRANSFERRED.
3. THE EXISTING 10" SEWER FORCE MAIN SHALL REMAIN IN SERVICE UNTIL THE NEW 10" SEWER FORCE MAIN HAS BEEN INSTALLED, TESTED AND ACCEPTED BY THE CITY OF SHELBY. THE NEW 10" FORCE MAIN SHALL BE INSTALLED AFTER COMPLETION OF THE 16" WATER LINE AND MAY UTILIZE THE AREA PREVIOUSLY OCCUPIED BY 12" WATER LINE AS REQUIRED.
4. AFTER COMPLETION OF THE NEW FORCE MAIN, THE EXISTING FORCE MAIN SHALL BE ABANDONED.

REVISIONS

MATCHLINE STA 30+00 -Y9- SEE SHEET UC 11



41

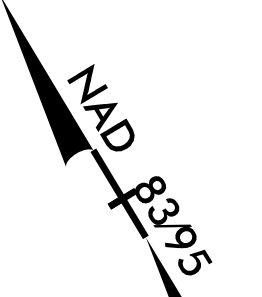
42

PROJECT REFERENCE NO.	SHEET NO.
R-2707C	UC-15
DESIGNED BY: VW	
DRAWN BY: VW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 1/26/17	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

WATER LINE ON THIS SHEET IS OWNED BY CLEVELAND COUNTY WATER



UTILITY CONSTRUCTION



PROP
1200 LF 6" WATER LINE
INSTALLED 5' INSIDE R/W

BOBBY HULL
DB 166 PG 2049

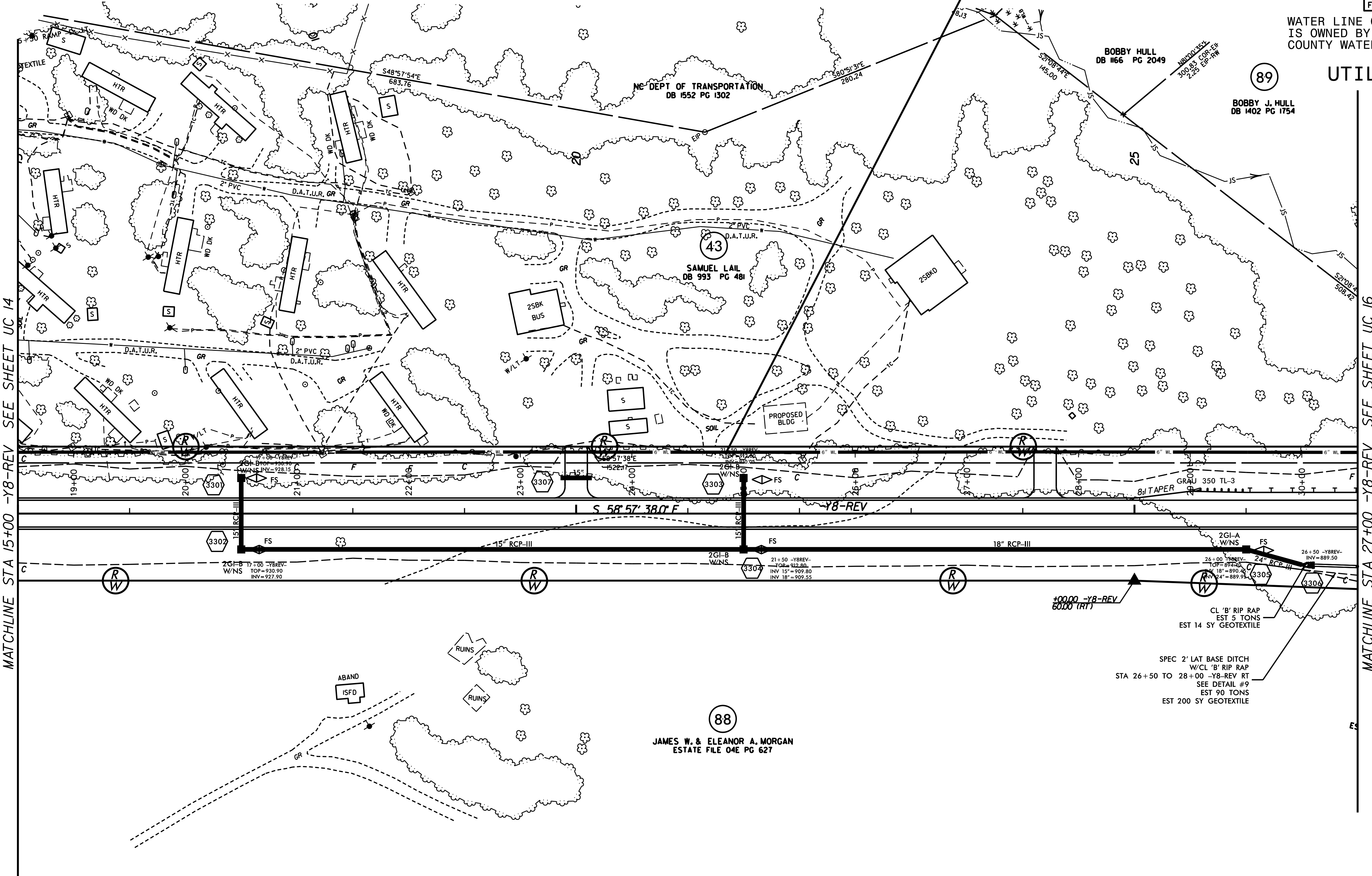
BOBBY J. HULL
DB 1402 PG 1754

NE DEPT OF TRANSPORTATION
DB 1552 PG 1302

43
SAMUEL LAIL
DB 993 PG 481

88

JAMES W. & ELEANOR A. MORGAN
ESTATE FILE 04E PG 627



MATCHLINE STA 15+00 -Y8-REV SEE SHEET UC 14

MATCHLINE STA 27+00 -Y8-REV SEE SHEET UC 16

REVISIONS

SPEC 2' LAT BASE DITCH
W/CL 'B' RIP RAP
EST 5 TONS
SEE DETAIL #9
EST 90 TONS
EST 200 SY GEOTEXTILE

10000 -Y8-REV
6000 TRIT

CL 'B' RIP RAP
EST 5 TONS
EST 14 SY GEOTEXTILE

2GI-B
W/NS
TOP=930.90
INV=927.90

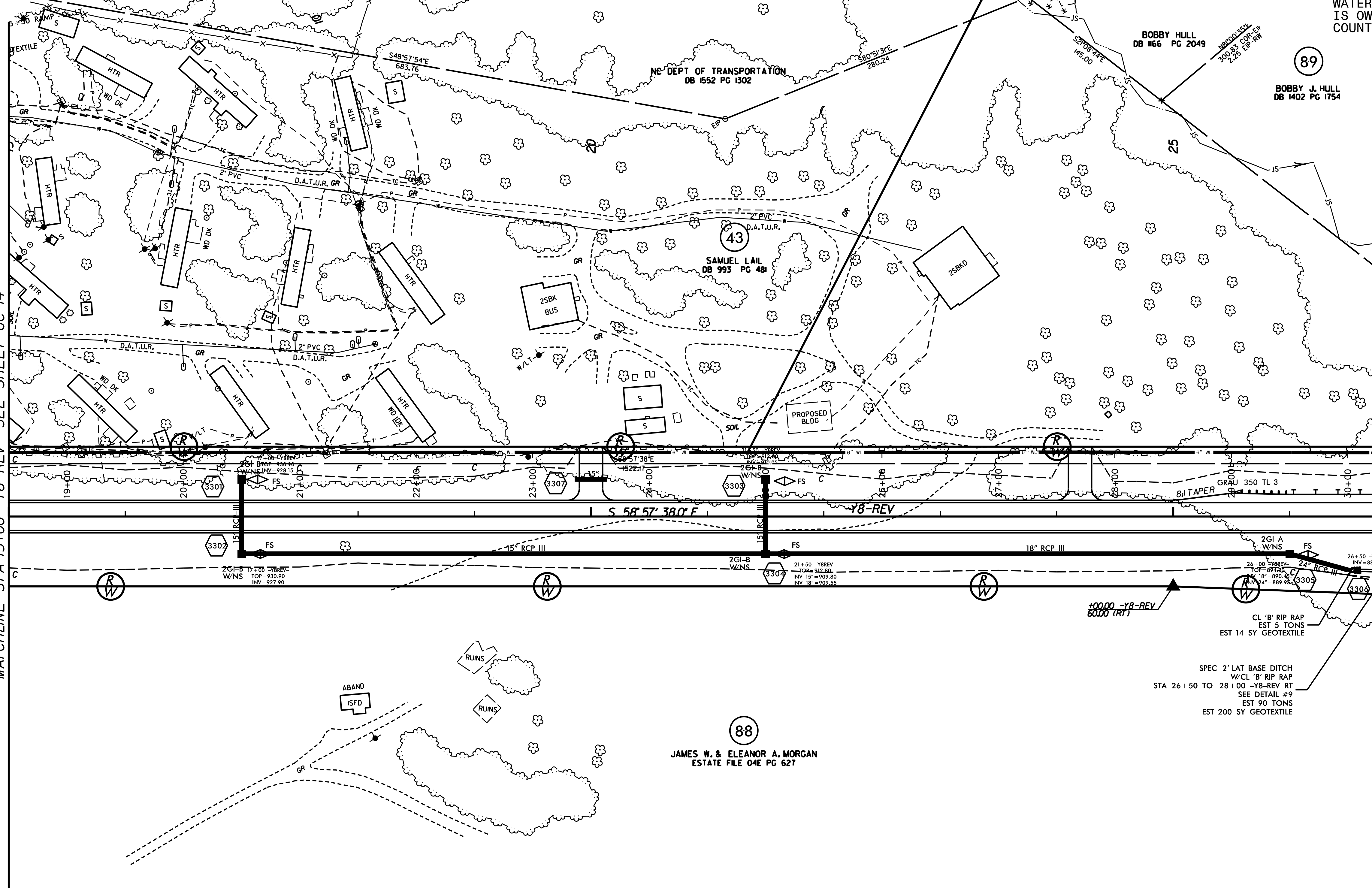
2GI-B
W/NS
TOP=912.80
INV 15=909.80
INV 18=902.55

2GI-A
W/NS
TOP=892.40
INV 15=890.40
INV 18=889.90

2GI-B
W/NS
TOP=889.20
INV=889.20

S 58°57'38"E

Y8-REV



MATCHLINE STA 15+00 -Y8-REV SEE SHEET UC 14

MATCHLINE STA 27+00 -Y8-REV SEE SHEET UC 16

REVISIONS

SPEC 2' LAT BASE DITCH
W/CL 'B' RIP RAP
EST 5 TONS
SEE DETAIL #9
EST 90 TONS
EST 200 SY GEOTEXTILE

10000 -Y8-REV
6000 TRIT

CL 'B' RIP RAP
EST 5 TONS
EST 14 SY GEOTEXTILE

2GI-B
W/NS
TOP=930.90
INV=927.90

2GI-B
W/NS
TOP=912.80
INV 15=909.80
INV 18=902.55

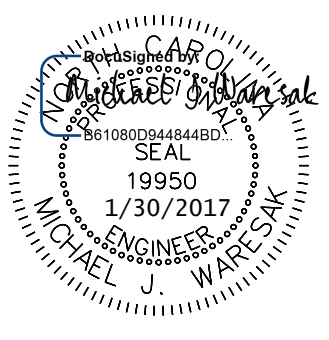
2GI-A
W/NS
TOP=892.40
INV 15=890.40
INV 18=889.90

2GI-B
W/NS
TOP=889.20
INV=889.20

S 58°57'38"E

Y8-REV

PROJECT REFERENCE NO.	SHEET NO.
R-2707C	UC-16
DESIGNED BY: VW	
DRAWN BY: VW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 1/26/17	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	UTILITY CONSTRUCTION PLANS ONLY



WATER LINE ON THIS SHEET IS OWNED BY CLEVELAND COUNTY WATER

UTILITY CONSTRUCTION

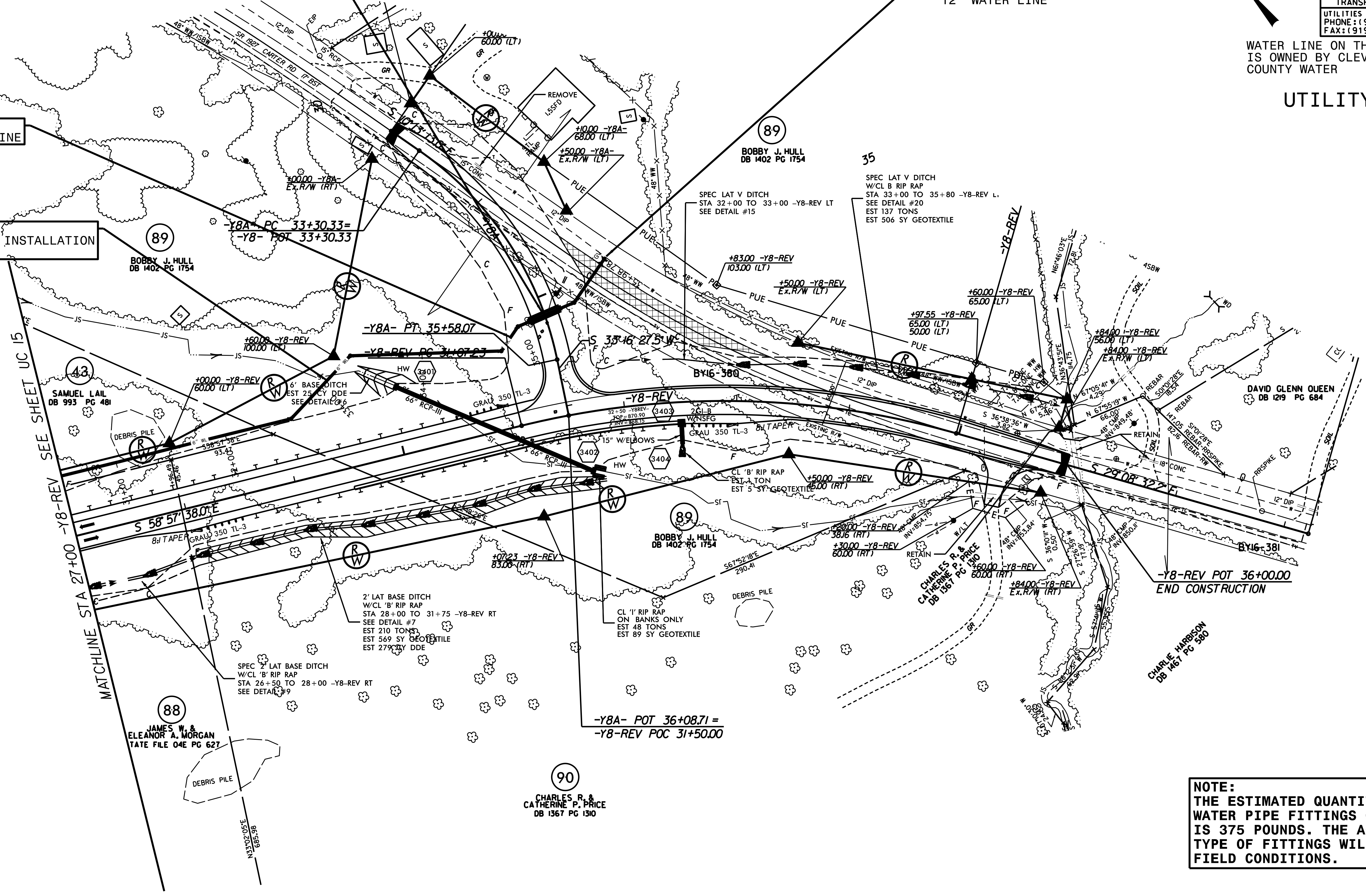


PROP
30 LF 16" ENCASEMENT PIPE
INSTALLED BY OPEN CUT
W/ RESTRAINED JOINT PIPE
SEAL BOTH ENDS

PROP
6" TAPPING VALVE
INSTALLED ON EXISTING
12" WATER LINE

PROP
550 LF 6" WATER LINE

PROP
75 LF TRENCHLESS INSTALLATION
OF 6" IN SOIL
DR 9 HDPE



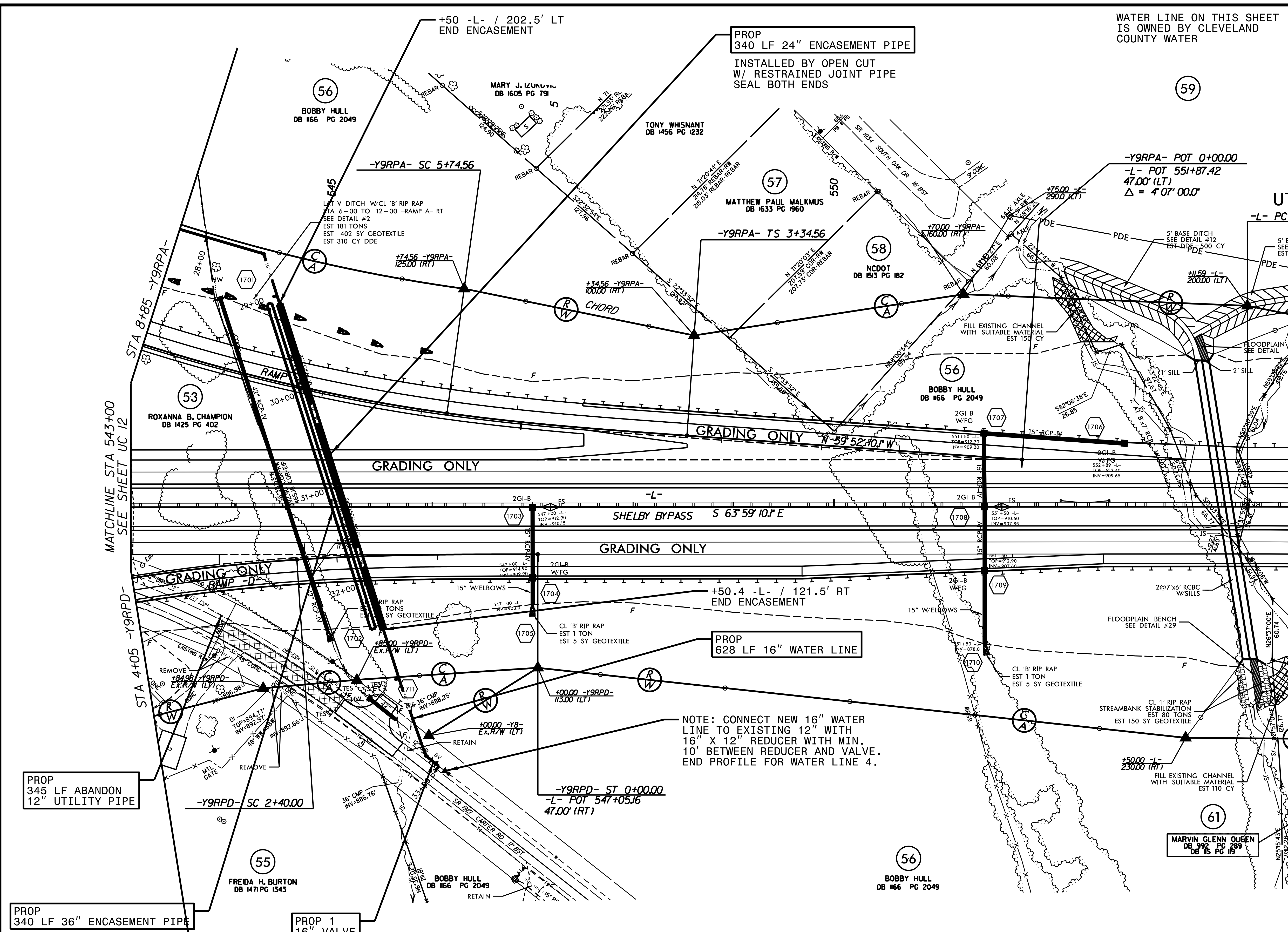
NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 375 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
R-2707C	UC-17
DESIGNED BY: VW	
DRAWN BY: VW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 1/26/17	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	UTILITY CONSTRUCTION PLANS ONLY



UTILITY CONSTRUCTION



REVISIONS

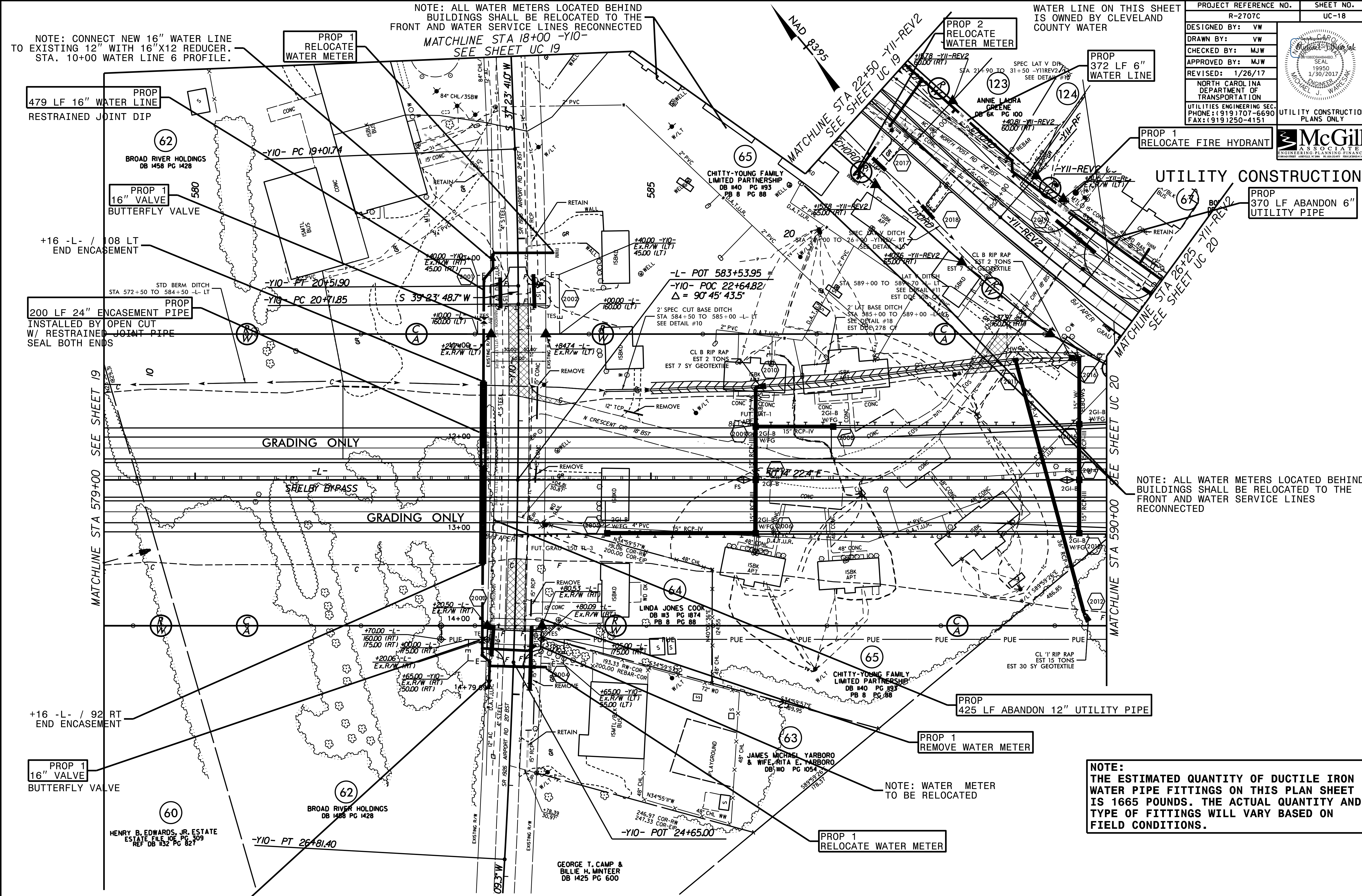
BY OPEN CUT FOR FUTURE USE BY CLEVELAND COUNTY WATER DISTRICT.
 NOTE: INSTALL 36" ENCASEMENT CENTERLINE 10' FROM 24" ENCASEMENT CENTERLINE.
 NOTE: ALL ENCASEMENTS INSTALLED FOR FUTURE USE SHALL BE SEALED AFTER INSTALLATION PER DETAILS

NOTE: THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 985 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

MATCHLINE STA 555+00 SEE SHEET 18

MATCHLINE STA 543+00 SEE SHEET UC 12

PROJECT REFERENCE NO.	SHEET NO.
R-2707C	UC-18
DESIGNED BY: VW	
DRAWN BY: VW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 1/26/17	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	



NOTE: ALL WATER METERS LOCATED BEHIND BUILDINGS SHALL BE RELOCATED TO THE FRONT AND WATER SERVICE LINES RECONNECTED
MATCHLINE STA 18+00 -Y10-
SEE SHEET UC 19

NOTE: CONNECT NEW 16" WATER LINE TO EXISTING 12" WITH 16"X12 REDUCER. STA. 10+00 WATER LINE 6 PROFILE.

WATER LINE ON THIS SHEET IS OWNED BY CLEVELAND COUNTY WATER

UTILITY CONSTRUCTION

NOTE: ALL WATER METERS LOCATED BEHIND BUILDINGS SHALL BE RELOCATED TO THE FRONT AND WATER SERVICE LINES RECONNECTED

NOTE: THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 1665 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

NOTE: CONNECT NEW 16" WATER LINE TO EXISTING 12" WITH 16"X12 REDUCER

REVISIONS

MATCHLINE STA 579+00 SEE SHEET 19

MATCHLINE STA 590+00 SEE SHEET UC 20

NAD 83/25

479 LF 16" WATER LINE RESTRAINED JOINT DIP

PROP 1 16" VALVE BUTTERFLY VALVE

+16 -L- / 108 LT END ENCASUREMENT

200 LF 24" ENCASUREMENT PIPE INSTALLED BY OPEN CUT W/ RESTRAINED JOINT PIPE SEAL BOTH ENDS

PROP 1 RELOCATE WATER METER

PROP 2 RELOCATE WATER METER

PROP 372 LF 6" WATER LINE

PROP 1 RELOCATE FIRE HYDRANT

PROP 370 LF ABANDON 6" UTILITY PIPE

PROP 425 LF ABANDON 12" UTILITY PIPE

PROP 1 REMOVE WATER METER

NOTE: WATER METER TO BE RELOCATED

PROP 1 RELOCATE WATER METER

PROP 1 16" VALVE BUTTERFLY VALVE

+16 -L- / 92 RT END ENCASUREMENT

HENRY B. EDWARDS, JR. ESTATE ESTATE FILE 106 PG 309 REF DB 132 PG 827

-Y10- PT 26+81.40

GEORGE T. CAMP & BILLIE H. MINTER DB 1425 PG 600

-L- POT 583+53.95
-Y10- POC 22+64.82
Δ = 90° 45' 43.5"

LINDA JONES COOP DB 113 PG 1874 PB 8 PG 88

CHITTY-YOUNG FAMILY LIMITED PARTNERSHIP DB 140 PG 193 PB 8 PG 88

JAMES MICHAEL YARBORO & WIFE RITA E. YARBORO DB 1054 PG 1054 PB 8 PG 88

BROAD RIVER HOLDINGS DB 1458 PG 1428

CHITTY-YOUNG FAMILY LIMITED PARTNERSHIP DB 140 PG 193 PB 8 PG 88

ANNE LAURA GREENE DB 64 PG 100 PB 8 PG 88

BROAD RIVER HOLDINGS DB 1488 PG 1428

NOTE: CONNECT NEW 16" WATER LINE TO EXISTING 12" WITH 16"X12 REDUCER

NOTE: CONNECT NEW 6" WATER LINE TO EXISTING 6" WITH DI SLEEVE. STA. 10+00 WATER LINE 7 PROFILE.

PROP 6" VALVE GATE VALVE

NOTE: THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 715 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

WATER LINE ON THIS SHEET IS OWNED BY CLEVELAND COUNTY WATER

PROJECT REFERENCE NO.	R-2707C	SHEET NO.	UC-19
DESIGNED BY:	VW		
DRAWN BY:	VW		
CHECKED BY:	MJW		
APPROVED BY:	MJW		
REVISED:	1/27/17		
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION		UTILITY CONSTRUCTION PLANS ONLY	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151			

PROP 50 LF 12" ENCASEMENT PIPE INSTALLED BY OPEN CUT

PROP 1 6" VALVE GATE VALVE

PROP 637 LF 6" WATER LINE NOTE: INSTALL WATER LINE 5' INSIDE R/W AS POSSIBLE

PROP 490 LF 6" WATER LINE

UTILITY CONSTRUCTION

PROP 555 LF ABANDON 6" UTILITY PIPE

PROP 1 RELOCATE WATER METER

123 ANNE LAURA GREENE DB 6K PG 100

TRINITY PENTECOSTAL HOLINESS CHURCH DB 190 PG 683

ARRIE J. POWELL DB 1604 PG 2434

120 JERRY & JUDY H. GREENE DB 1462 PG 1973

PROP 471 LF ABANDON 6" UTILITY PIPE

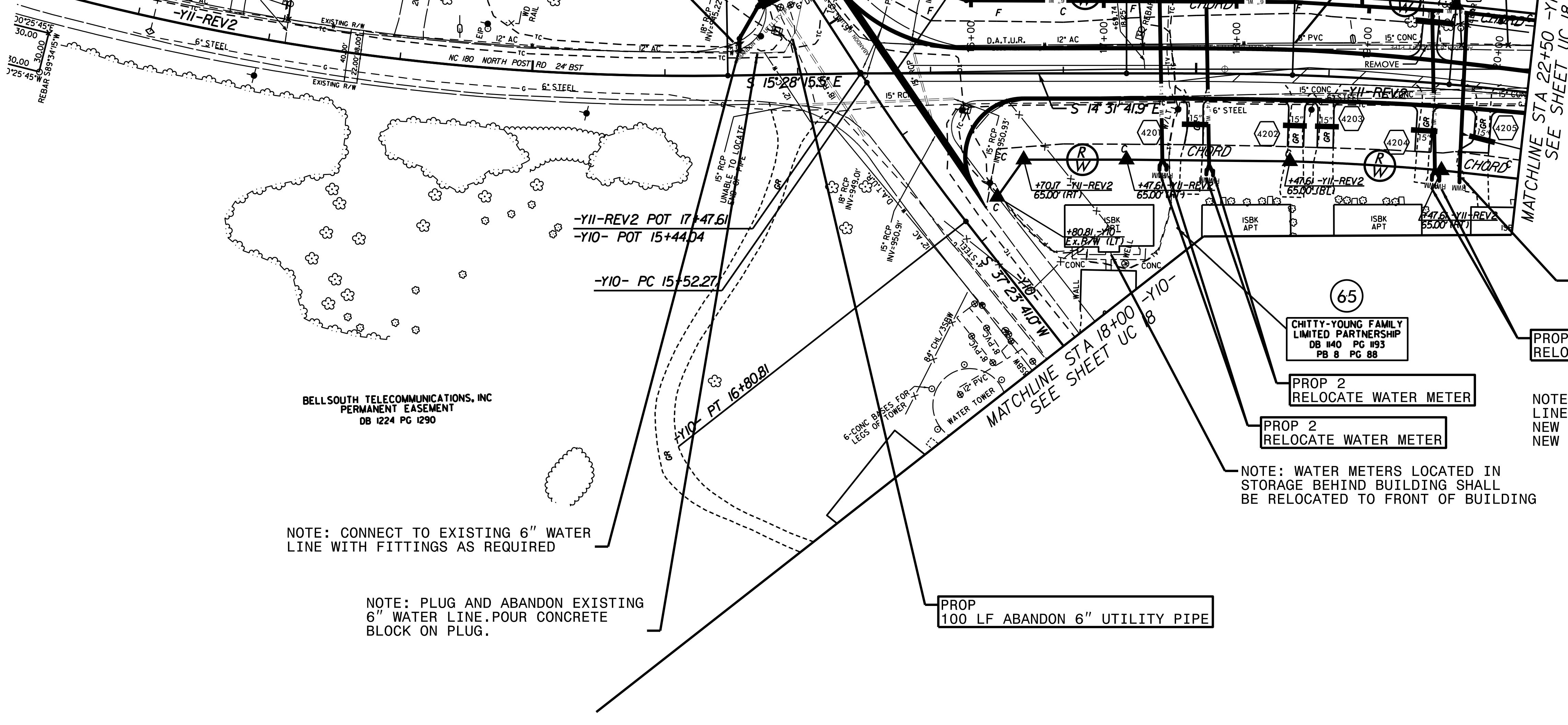
PROP 3 6" VALVE GATE VALVE

-YII-REV2 POT 17+72.40 BEGIN CONSTRUCTION

121 JANE G. & RECCA B. GREENE DB 1409 PG 1838

MATCHLINE STA 22+50 -YII-REV2 SEE SHEET UC 18

REVISIONS



-YII-REV2 POT 17+47.61
-YIO- POT 15+44.04

-YIO- PC 15+52.27

-YIO- PT 16+80.81

BELLSOUTH TELECOMMUNICATIONS, INC PERMANENT EASEMENT DB 1224 PG 1290

NOTE: CONNECT TO EXISTING 6" WATER LINE WITH FITTINGS AS REQUIRED

NOTE: PLUG AND ABANDON EXISTING 6" WATER LINE. POUR CONCRETE BLOCK ON PLUG.

PROP 100 LF ABANDON 6" UTILITY PIPE

NOTE: WATER METERS LOCATED IN STORAGE BEHIND BUILDING SHALL BE RELOCATED TO FRONT OF BUILDING

NOTE: BUILDINGS WITH EXISTING SERVICE LINES BEHIND THE BUILDING SHALL HAVE NEW SERVICE LINE INSTALLED FROM THE NEW METER CONNECTIONS.

65 CHITTY-YOUNG FAMILY LIMITED PARTNERSHIP DB 1140 PG 193 PB 8 PG 88

PROP 1 RELOCATE WATER METER

PROP 2 RELOCATE WATER METER

PROP 2 RELOCATE WATER METER

PROP 2 RELOCATE WATER METER

PROP
55 LF ABANDON
6" UTILITY PIPE

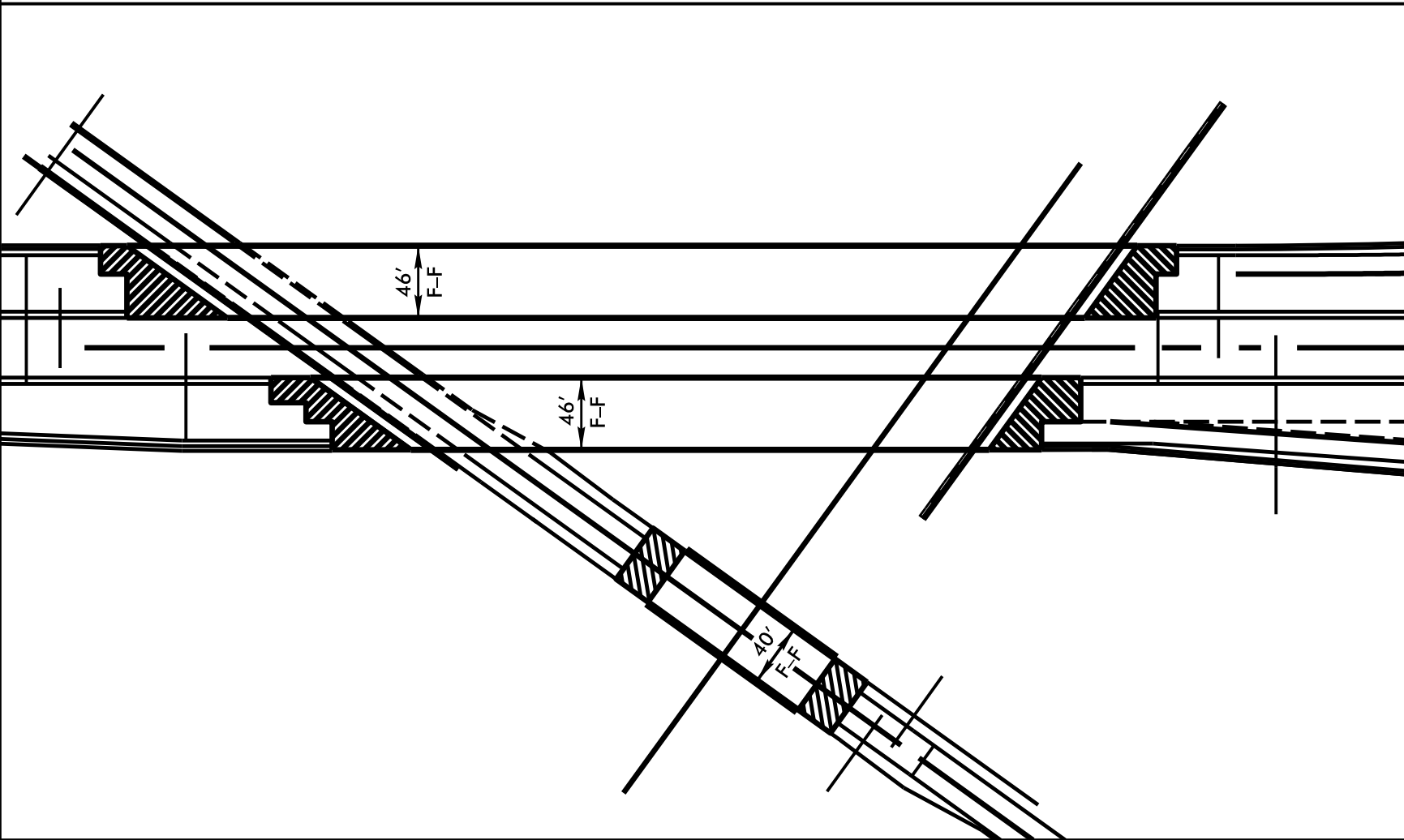
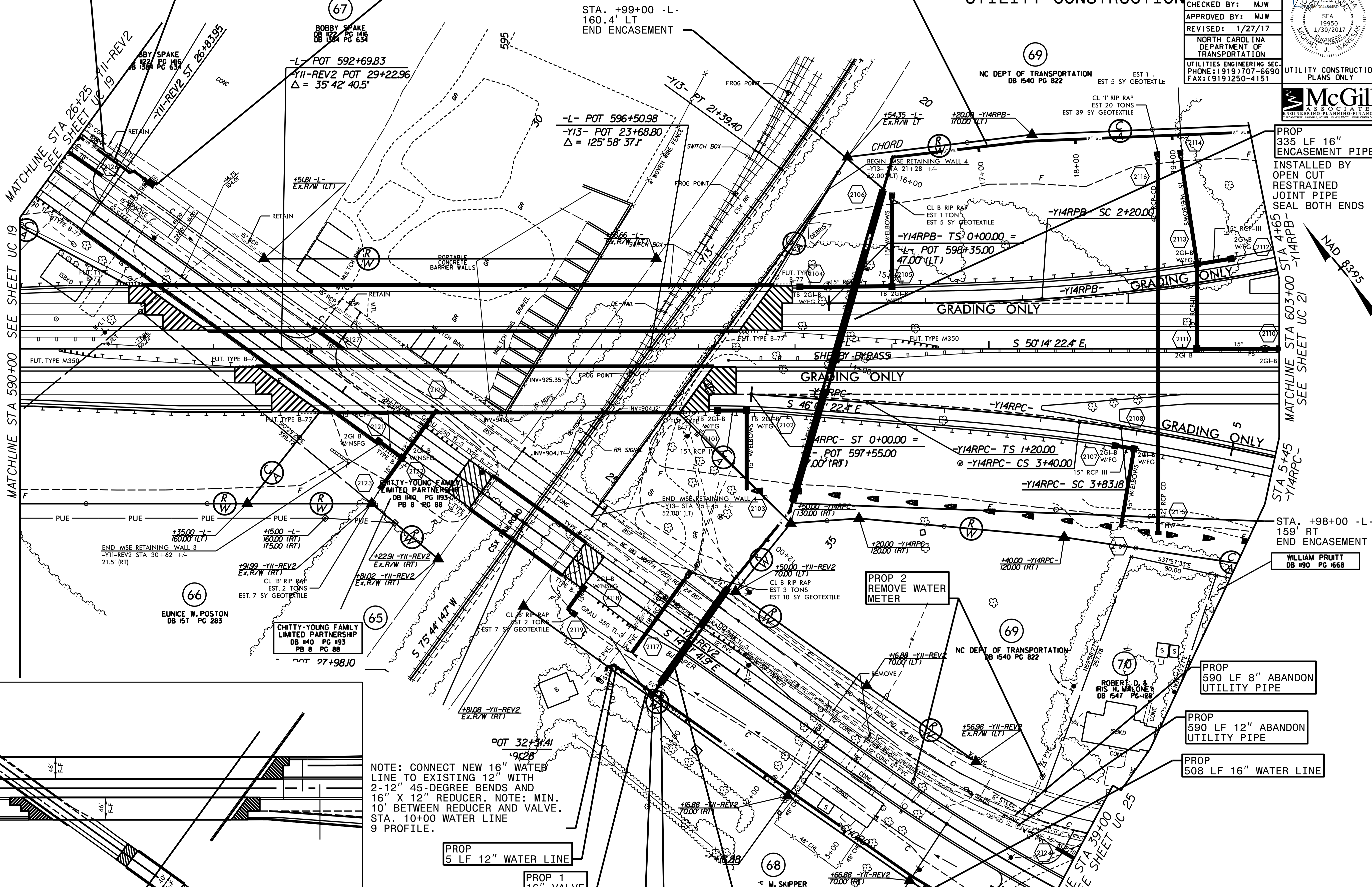
PROP
80 LF 6" WATER LINE

PROP 1
2" BLOWOFF
REMOVE EXISTING BLOWOFF

PROP
978 LF 8" WATER LINE

WATER LINE ON THIS SHEET
IS OWNED BY CLEVELAND
COUNTY WATER
UTILITY CONSTRUCTION

PROJECT REFERENCE NO.	R-2707C	SHEET NO.	UC-20
DESIGNED BY:	VW		
DRAWN BY:	VW		
CHECKED BY:	MJW		
APPROVED BY:	MJW		
REVISED:	1/27/17	UTILITY CONSTRUCTION PLANS ONLY	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION		McGill ENGINEERING PLANNING FINANCE	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151			



NOTE: CONNECT NEW 16" WATER LINE TO EXISTING 12" WITH 2-12" 45-DEGREE BENDS AND 16" X 12" REDUCER. NOTE: MIN. 10' BETWEEN REDUCER AND VALVE. STA. 10+00 WATER LINE 9 PROFILE.

PROP
5 LF 12" WATER LINE

PROP 1
16" VALVE
BUTTERFLY VALVE

NOTE: 16" X 8" TEE.
STA. 10+00 WATER LINE
8 PROFILE.

PROP 1
8" VALVE
GATE VALVE

PROP
120 LF 16" ENCASUREMENT PIPE
INSTALLED BY OPEN CUT
RESTRAINED JOINT PIPE
SEAL BOTH ENDS

NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON
WATER PIPE FITTINGS ON THIS PLAN SHEET
IS 1685 POUNDS. THE ACTUAL QUANTITY AND
TYPE OF FITTINGS WILL VARY BASED ON
FIELD CONDITIONS.

PROP
335 LF 16"
ENCASUREMENT PIPE
INSTALLED BY
OPEN CUT
RESTRAINED
JOINT PIPE
SEAL BOTH ENDS

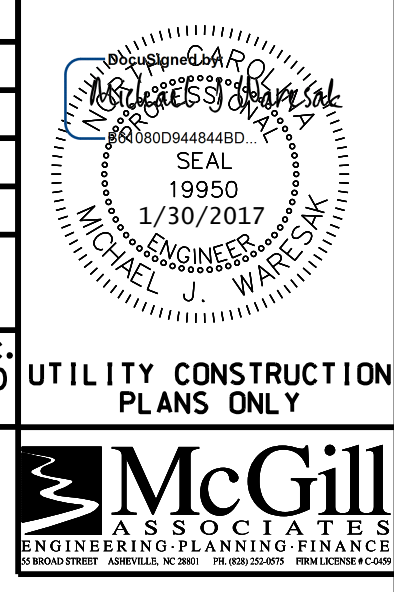
WILLIAM PRUITT
DB #90 PG 1668

PROP
590 LF 8" ABANDON
UTILITY PIPE

PROP
590 LF 12" ABANDON
UTILITY PIPE

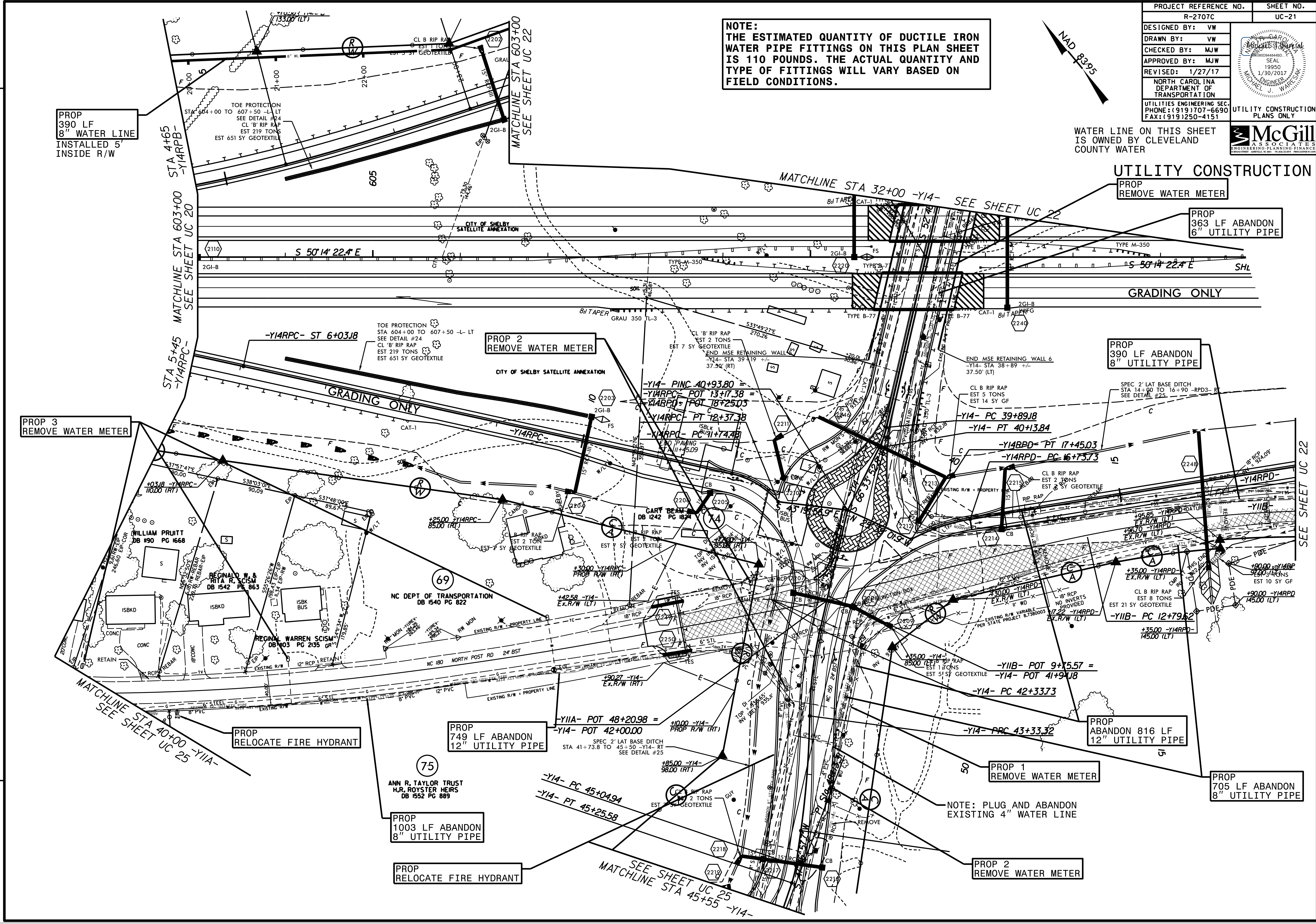
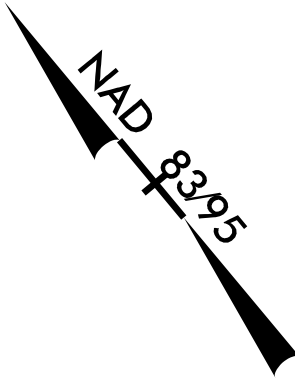
PROP
508 LF 16" WATER LINE

PROJECT REFERENCE NO.	SHEET NO.
R-2707C	UC-21
DESIGNED BY: VW	
DRAWN BY: VW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 1/27/17	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	



WATER LINE ON THIS SHEET IS OWNED BY CLEVELAND COUNTY WATER

NOTE:
 THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 110 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.



PROP
 390 LF
 8" WATER LINE
 INSTALLED 5'
 INSIDE R/W

MATCHLINE STA 603+00
 SEE SHEET UC 22

UTILITY CONSTRUCTION
 PROP REMOVE WATER METER

PROP
 363 LF ABANDON
 6" UTILITY PIPE

PROP 2
 REMOVE WATER METER

PROP
 390 LF ABANDON
 8" UTILITY PIPE

PROP 3
 REMOVE WATER METER

SEE SHEET UC 22

PROP
 RELOCATE FIRE HYDRANT

PROP
 749 LF ABANDON
 12" UTILITY PIPE

PROP
 ABANDON 816 LF
 12" UTILITY PIPE

PROP
 1003 LF ABANDON
 8" UTILITY PIPE

PROP
 RELOCATE FIRE HYDRANT

PROP 1
 REMOVE WATER METER

PROP
 705 LF ABANDON
 8" UTILITY PIPE

NOTE: PLUG AND ABANDON
 EXISTING 4" WATER LINE

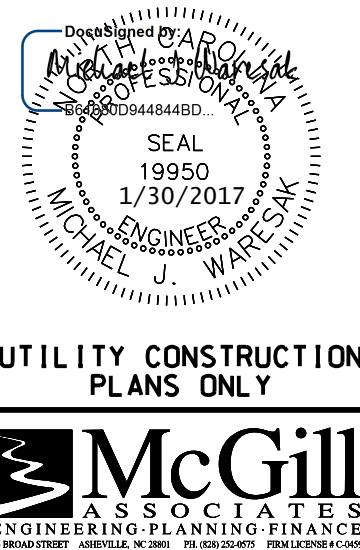
PROP 2
 REMOVE WATER METER

REVISIONS

MATCHLINE STA 40+00 -Y11A-
 SEE SHEET UC 25

SEE SHEET UC 25
 MATCHLINE STA 45+55 -Y14-

PROJECT REFERENCE NO.	SHEET NO.
R-2707C	UC-22
DESIGNED BY: VW	
DRAWN BY: VW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 1/27/17	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

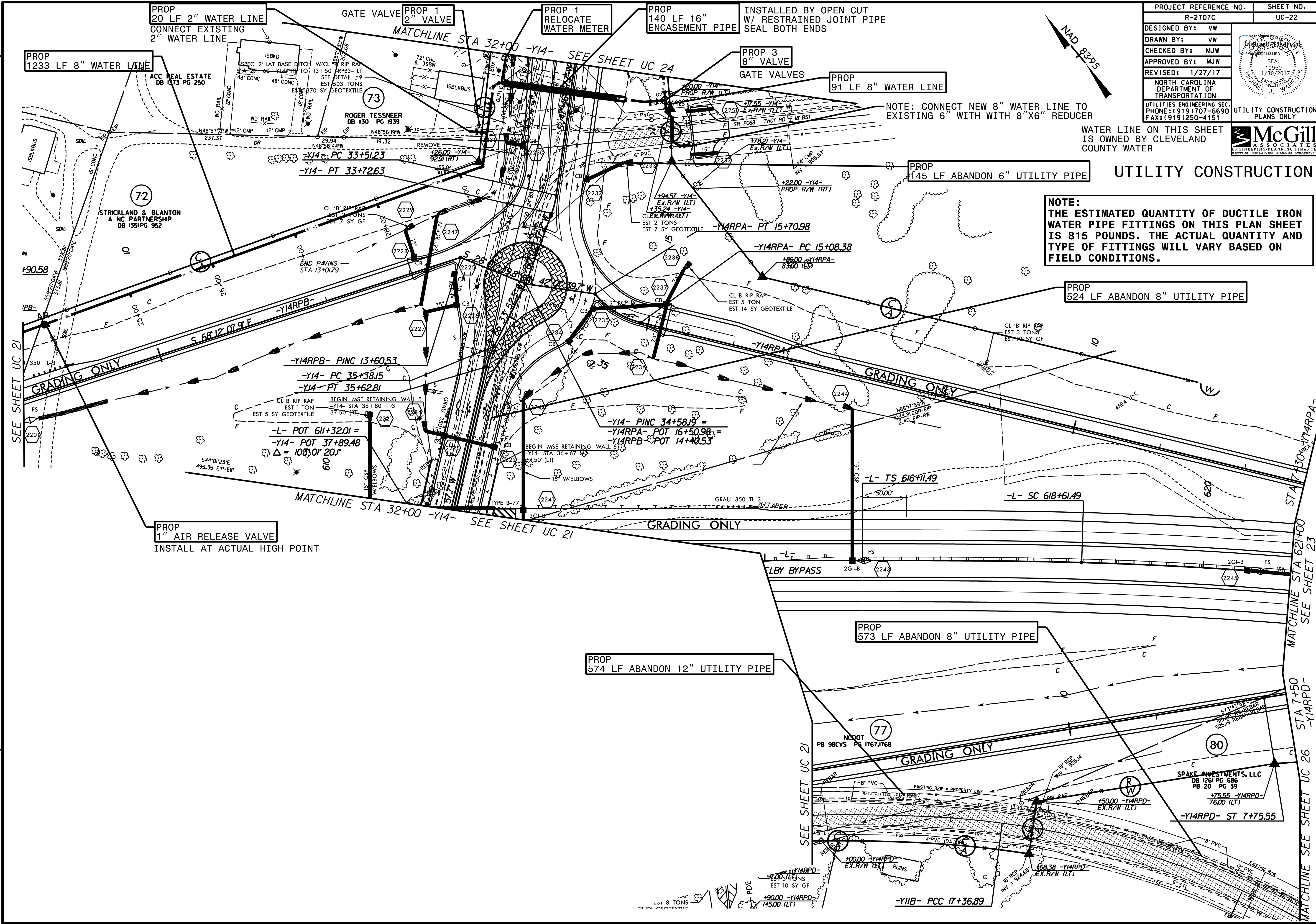


McGill ASSOCIATES
ENGINEERING PLANNING FINANCE

WATER LINE ON THIS SHEET IS OWNED BY CLEVELAND COUNTY WATER

UTILITY CONSTRUCTION

NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 815 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.



PROP 20 LF 2" WATER LINE
CONNECT EXISTING 2" WATER LINE

PROP 1233 LF 8" WATER LINE

GATE VALVE PROP 1 2" VALVE

PROP 1 RELOCATE WATER METER

PROP 140 LF 16" ENCASEMENT PIPE
INSTALLED BY OPEN CUT W/ RESTRAINED JOINT PIPE SEAL BOTH ENDS

PROP 3 8" VALVE GATE VALVES

PROP 91 LF 8" WATER LINE

NOTE: CONNECT NEW 8" WATER LINE TO EXISTING 6" WITH WITH 8"X6" REDUCER

PROP 145 LF ABANDON 6" UTILITY PIPE

PROP 524 LF ABANDON 8" UTILITY PIPE

PROP 573 LF ABANDON 8" UTILITY PIPE

PROP 574 LF ABANDON 12" UTILITY PIPE

PROP 1" AIR RELEASE VALVE
INSTALL AT ACTUAL HIGH POINT

SEE SHEET UC 21

MATCHLINE STA 32+00 -Y14- SEE SHEET UC 21

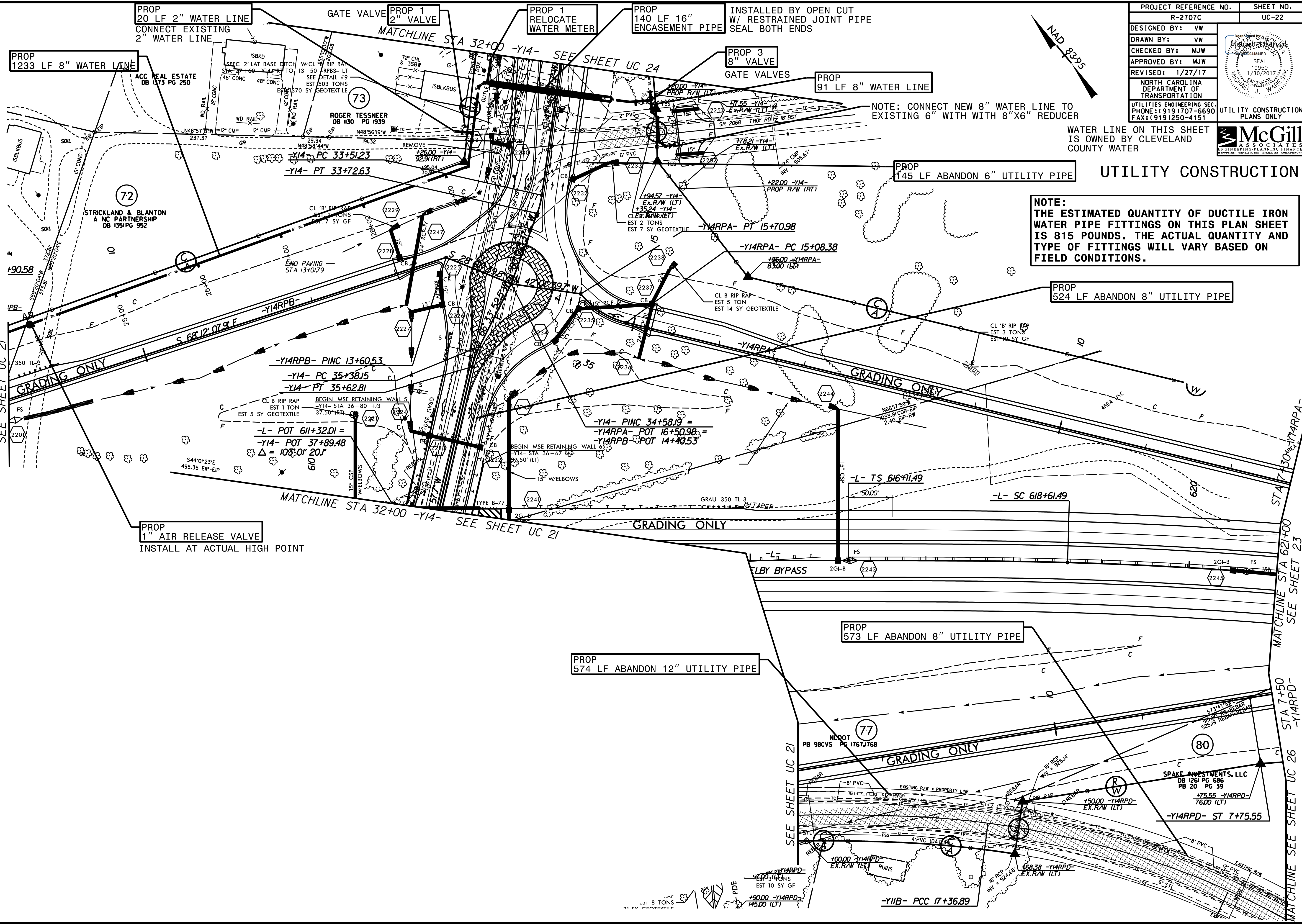
MATCHLINE STA 32+00 -Y14- SEE SHEET UC 24

MATCHLINE STA 62+00 SEE SHEET 23

MATCHLINE STA 7+50 -Y14RPD- SEE SHEET UC 26

SEE SHEET UC 21

REVISIONS



PROP 20 LF 2" WATER LINE
CONNECT EXISTING 2" WATER LINE

PROP 1233 LF 8" WATER LINE

GATE VALVE PROP 1 2" VALVE

PROP 1 RELOCATE WATER METER

PROP 140 LF 16" ENCASEMENT PIPE
INSTALLED BY OPEN CUT W/ RESTRAINED JOINT PIPE SEAL BOTH ENDS

PROP 3 8" VALVE GATE VALVES

PROP 91 LF 8" WATER LINE

NOTE: CONNECT NEW 8" WATER LINE TO EXISTING 6" WITH WITH 8"X6" REDUCER

PROP 145 LF ABANDON 6" UTILITY PIPE

PROP 524 LF ABANDON 8" UTILITY PIPE

PROP 573 LF ABANDON 8" UTILITY PIPE

PROP 574 LF ABANDON 12" UTILITY PIPE

PROP 1" AIR RELEASE VALVE
INSTALL AT ACTUAL HIGH POINT

SEE SHEET UC 21

MATCHLINE STA 32+00 -Y14- SEE SHEET UC 21

MATCHLINE STA 32+00 -Y14- SEE SHEET UC 24

MATCHLINE STA 62+00 SEE SHEET 23

MATCHLINE STA 7+50 -Y14RPD- SEE SHEET UC 26

SEE SHEET UC 21

REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
R-2707C	UC-23
DESIGNED BY: VW	
DRAWN BY: VW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 1/27/17	
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 315 POUNDS. THE ACTUAL QUANTITY AND
 TYPE OF FITTINGS WILL VARY BASED ON
 FIELD CONDITIONS.

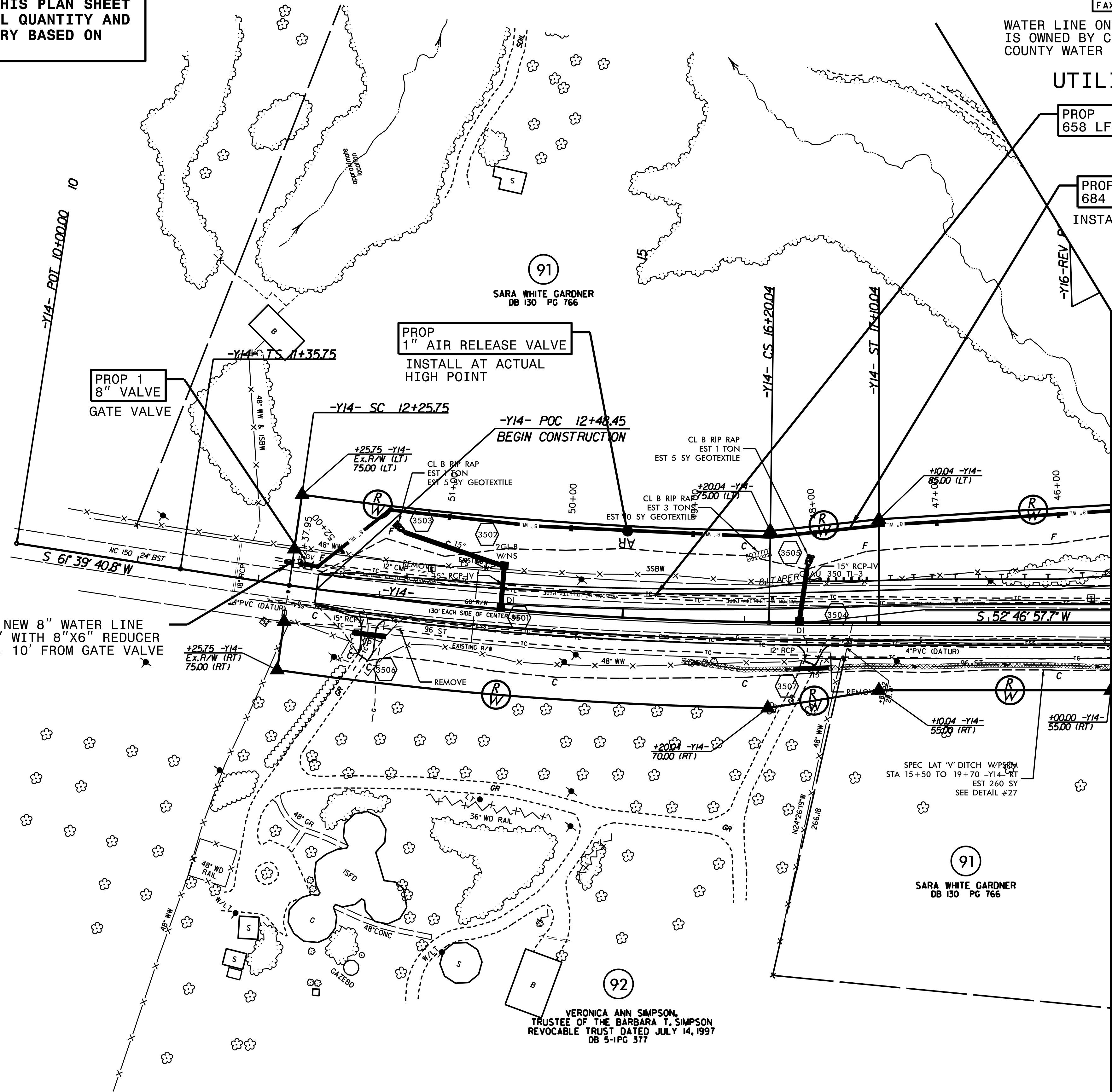
WATER LINE ON THIS SHEET
 IS OWNED BY CLEVELAND
 COUNTY WATER



UTILITY CONSTRUCTION

PROP
 658 LF ABANDON 6" UTILITY PIPE

PROP
 684 LF 8" WATER LINE
 INSTALLED 5' INSIDE R/W



NOTE: CONNECT NEW 8" WATER LINE
 TO EXISTING 6" WITH 8"X6" REDUCER
 INSTALLED MIN. 10' FROM GATE VALVE

MATCHLINE STA 19+00 -Y14- SEE SHEET UC 24

REVISIONS

91
 SARA WHITE GARDNER
 DB 130 PG 766

91
 SARA WHITE GARDNER
 DB 130 PG 766

92
 VERONICA ANN SIMPSON,
 TRUSTEE OF THE BARBARA T. SIMPSON
 REVOCABLE TRUST DATED JULY 14, 1997
 DB 5-1PG 377

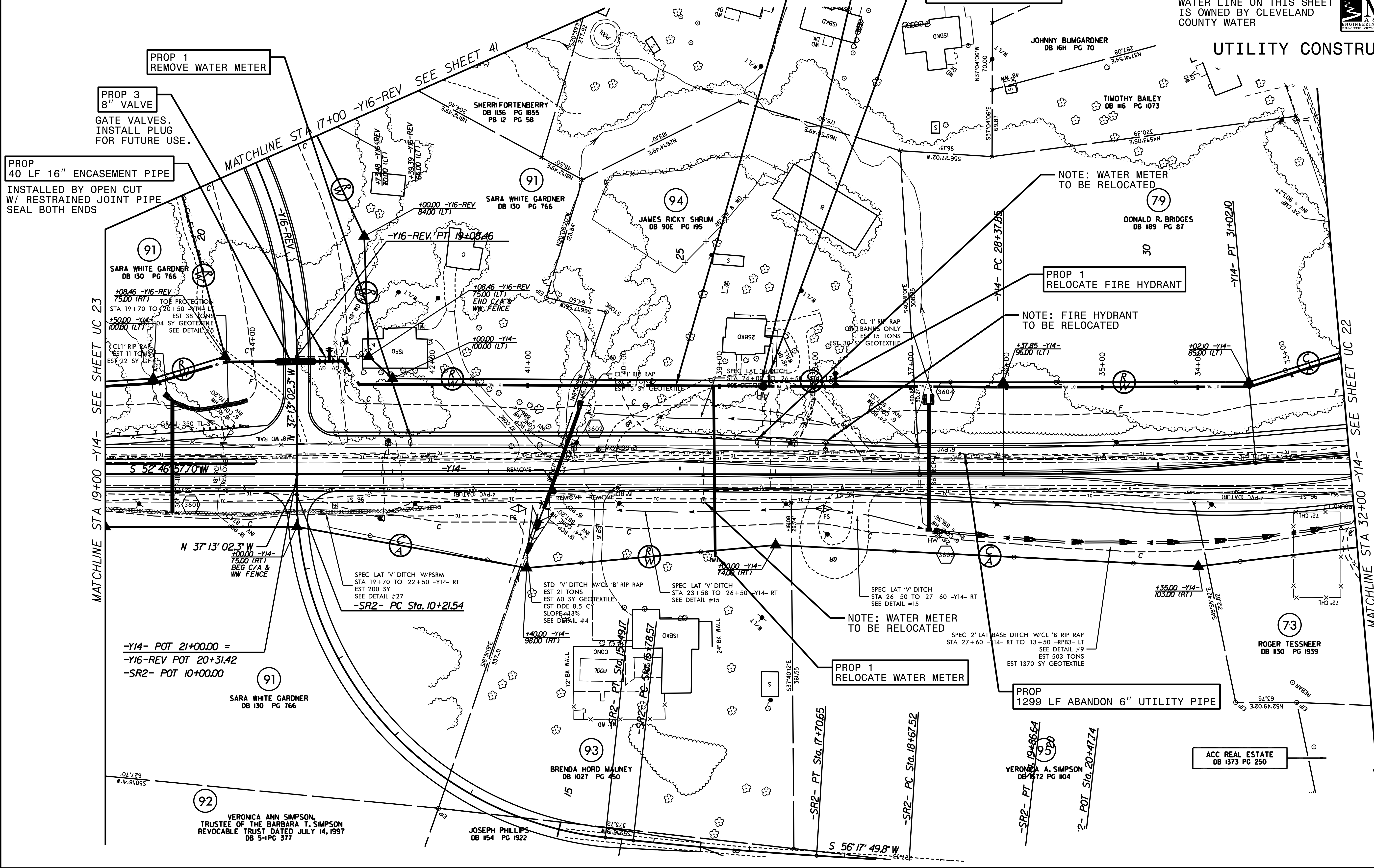
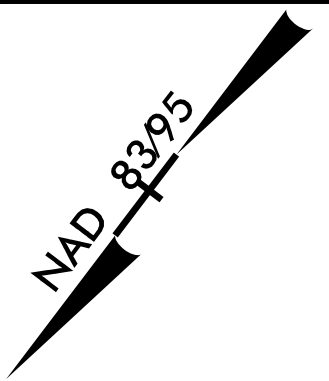
PROJECT REFERENCE NO.	SHEET NO.
R-2707C	UC-24
DESIGNED BY: VW	
DRAWN BY: VW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 2/1/17	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	



WATER LINE ON THIS SHEET IS OWNED BY CLEVELAND COUNTY WATER



NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 735 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.



PROP 1 REMOVE WATER METER

PROP 3 8" VALVE

GATE VALVES. INSTALL PLUG FOR FUTURE USE.

PROP 40 LF 16" ENCASEMENT PIPE

INSTALLED BY OPEN CUT W/ RESTRAINED JOINT PIPE SEAL BOTH ENDS

PROP 1310 LF 8" WATER LINE
INSTALLED 5' INSIDE R/W

PROP 1" AIR RELEASE VALVE
INSTALLED AT ACTUAL HIGH POINT

PROP 1 RELOCATE WATER METER

NOTE: WATER METER TO BE RELOCATED

PROP 1 RELOCATE FIRE HYDRANT

NOTE: FIRE HYDRANT TO BE RELOCATED

NOTE: WATER METER TO BE RELOCATED

PROP 1 RELOCATE WATER METER

PROP 1299 LF ABANDON 6" UTILITY PIPE

ACC REAL ESTATE
DB 1373 PG 250

MATCHLINE STA 19+00 -Y14- SEE SHEET UC 23

MATCHLINE STA 32+00 -Y14- SEE SHEET UC 22

REVISIONS

-Y14- POT 21+00.00 =
-Y16-REV POT 20+31.42
-SR2- POT 10+00.00

VERONICA ANN SIMPSON,
TRUSTEE OF THE BARBARA T. SIMPSON
REVOCABLE TRUST DATED JULY 14, 1997
DB 51 PG 377

JOSEPH PHILLIPS
DB 154 PG 1922

BRENDA HORD MALONEY
DB 1027 PG 450

VERONICA A. SIMPSON
DB 772 PG 1104

ROGER TESSNEER
DB 130 PG 1939

SARA WHITE GARDNER
DB 130 PG 766

JAMES RICKY SHRUM
DB 90E PG 195

DONALD R. BRIDGES
DB 189 PG 87

SARA WHITE GARDNER
DB 130 PG 766

SHERRI FORTENBERRY
DB 136 PG 1855
PB 12 PG 58

JOHNNY BUMGARDNER
DB 16H PG 70

TIMOTHY BAILEY
DB 116 PG 1073

SPEC LAT 'V' DITCH W/PSRM
STA 19+70 TO 22+50 -Y14- RT
EST 200 SY
SEE DETAIL #27
-SR2- PC Sta. 10+21.54

STD 'V' DITCH W/CL 'B' RIP RAP
EST 21 TONS
EST 60 SY GEOTEXTILE
EST DDE 8.5 CY
SLOPE 1:3
SEE DETAIL #4

SPEC LAT 'V' DITCH
STA 23+58 TO 26+50 -Y14- RT
SEE DETAIL #15

SPEC LAT 'V' DITCH
STA 26+50 TO 27+60 -Y14- RT
SEE DETAIL #15

SPEC 2' LAT BASE DITCH W/CL 'B' RIP RAP
STA 27+60 -Y14- RT TO 13+50 -RPB3- LT
SEE DETAIL #9
EST 503 TONS
EST 1370 SY GEOTEXTILE

+35.00 -Y14-
103.00 (RT)

-SR2- PT Sta. 17+70.65

-SR2- PC Sta. 18+67.52

-SR2- PT Sta. 19+86.64

-2- POT Sta. 20+47.74

S 56' 17" 49.8" W

S 52' 46" 67.0" W

N 37' 13" 02.3" W

N 37' 13" 02.3" W

MATCHLINE STA 17+00 -Y16-REV SEE SHEET 41

-Y14- PT 31+02.10

-Y14- PC 28+37.85

S 52' 46" 67.0" W

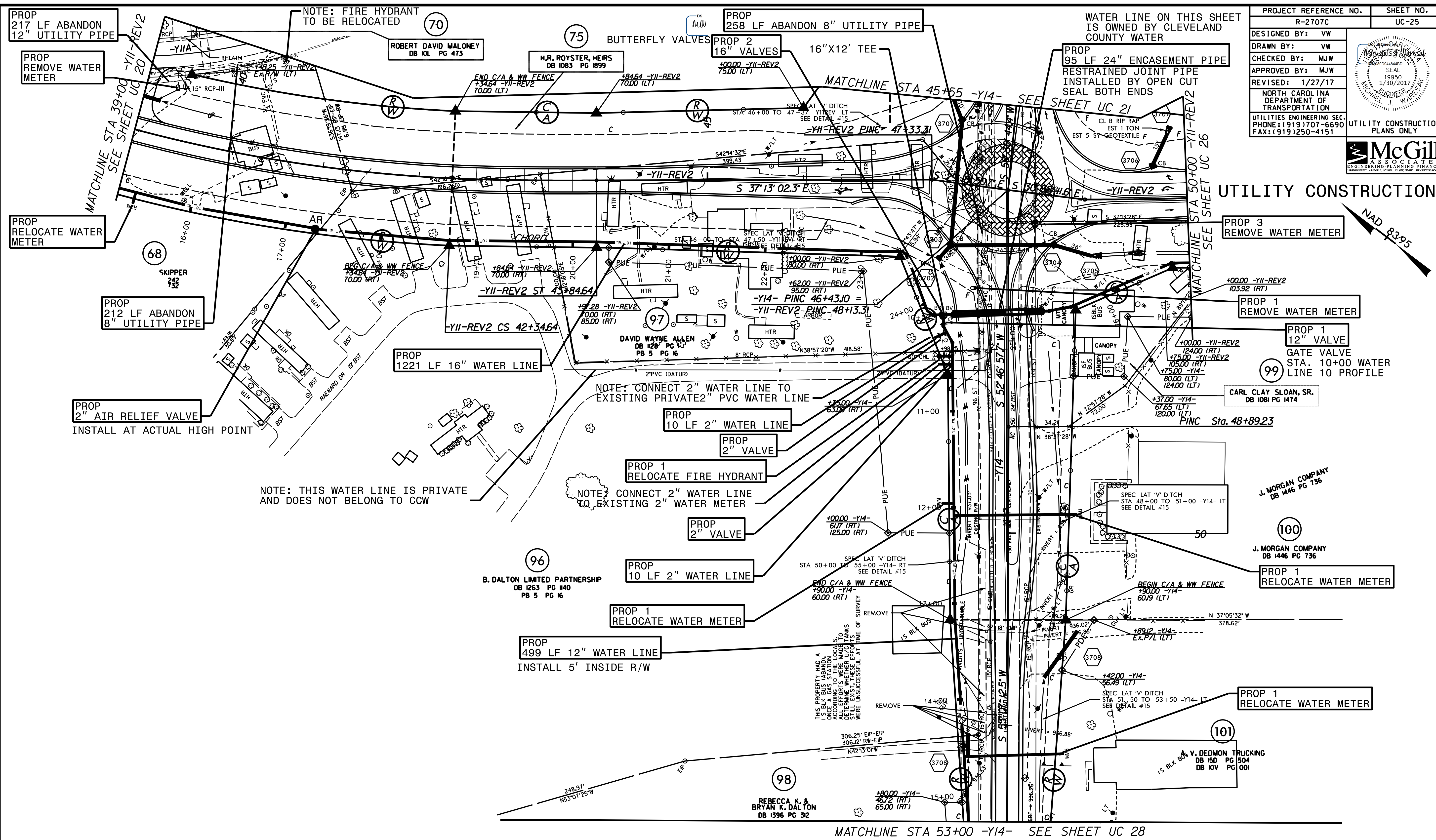
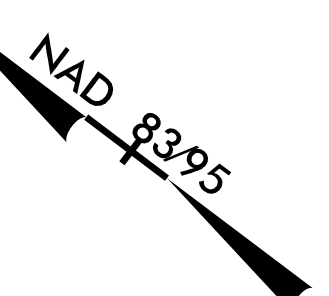
N 37' 13" 02.3" W

PROJECT REFERENCE NO.	SHEET NO.
R-2707C	UC-25
DESIGNED BY: VW	
DRAWN BY: VW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 1/27/17	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	



McGill
ASSOCIATES
ENGINEERING PLANNING FINANCE

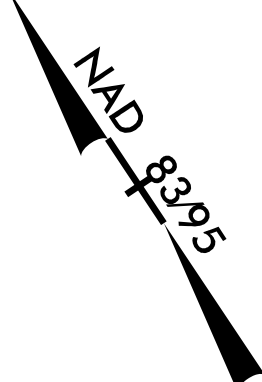
UTILITY CONSTRUCTION



NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 2970 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

PROJECT REFERENCE NO.	SHEET NO.
R-2707C	UC-26
DESIGNED BY: VW	
DRAWN BY: VW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 1/26/17	
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 1035 POUNDS. THE ACTUAL QUANTITY AND
 TYPE OF FITTINGS WILL VARY BASED ON
 FIELD CONDITIONS.

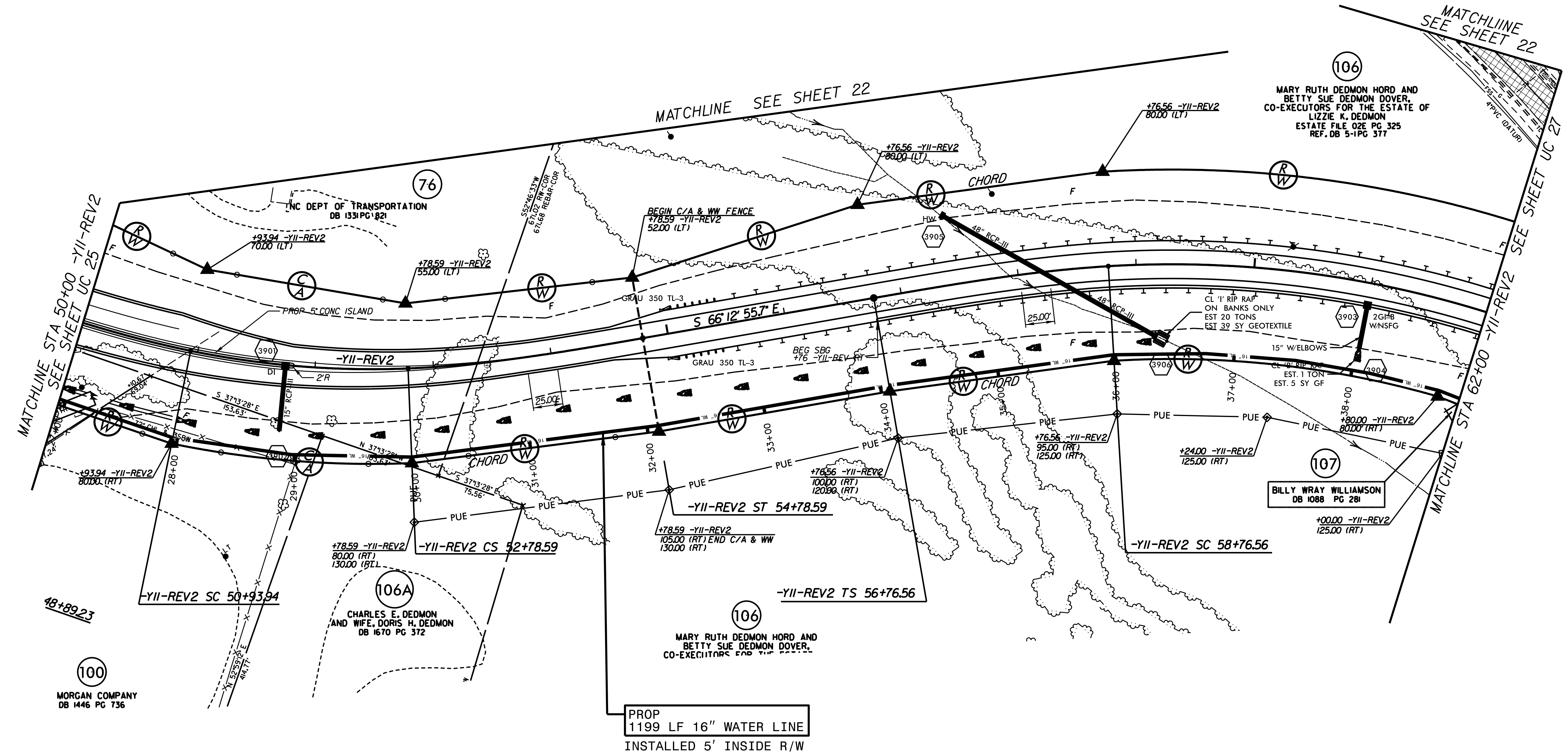


WATER LINE ON THIS SHEET
 IS OWNED BY CLEVELAND
 COUNTY WATER



UTILITY CONSTRUCTION

REVISIONS



PROP
 1199 LF 16" WATER LINE
 INSTALLED 5' INSIDE R/W

PROJECT REFERENCE NO.	SHEET NO.
R-2707C	UC-27
DESIGNED BY: VW	
DRAWN BY: VW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 1/30/17	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	



WATER LINE ON THIS SHEET IS OWNED BY CLEVELAND COUNTY WATER

UTILITY CONSTRUCTION

NOTE:
 THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 4370 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

NOTE: FIRE HYDRANT TO BE RELOCATED

NOTE: 16" X 8" TEE

NOTE: CONNECT NEW 16" WATER LINE TO EXISTING 12" WITH 16"X12" REDUCER

NOTE: CONNECT NEW 8" TO EXISTING WITH DI SLEEVE

PROP 970 LF ABANDON 8" UTILITY PIPE

PROP 964 LF ABANDON 12" UTILITY PIPE

PROP 2 RELOCATE WATER METER

MARY RUTH DEDMON HORD AND BETTY SUE DEDMON DOVER, CO-EXECUTORS FOR THE ESTATE OF LIZZIE K. DEDMON ESTATE FILE 02E PG 325 REF DB 5-1PG 377

WILLIAM G. SPAKE DB 72 PG 567

THOMAS MILLS CURRY, III AND WIFE, DEBORAH W. CURRY DB 1674 PG 42

EDWIN T. VANHOY, BETTY VANHOY DB 18Y PG 369, DB 1287 PG 642

LELIA B. YARBOROUGH WB 6 PG 518, PB 28 PG 100

BILLY WRAY WILLIAMSON DB 1088 PG 281

HAZEL D. MCNEELY DB 7E PG 139

CECIL M. BURTON FUNERAL HOME, WILLIAM BARRY QUEEN AND WIFE, LAURA L. QUEEN, SHELLEY LYNETTE QUEEN DB 1554 PG 1086

RACHEL L. SMITH DB 1648 PG 789

HARVESTWORKS, INC. DB 1387 PG 754

PROP 2 REMOVE WATER METER

PROP 1 RELOCATE WATER METER

PROP 932 LF 16" WATER LINE INSTALLED 5' INSIDE R/W

PROP 60 LF 24" ENCASEMENT PIPE INSTALLED BY OPEN CUT W/ RESTRAINED JOINT DIP SEAL BOTH ENDS

PROP 1 16" VALVE BUTTERFLY VALVE

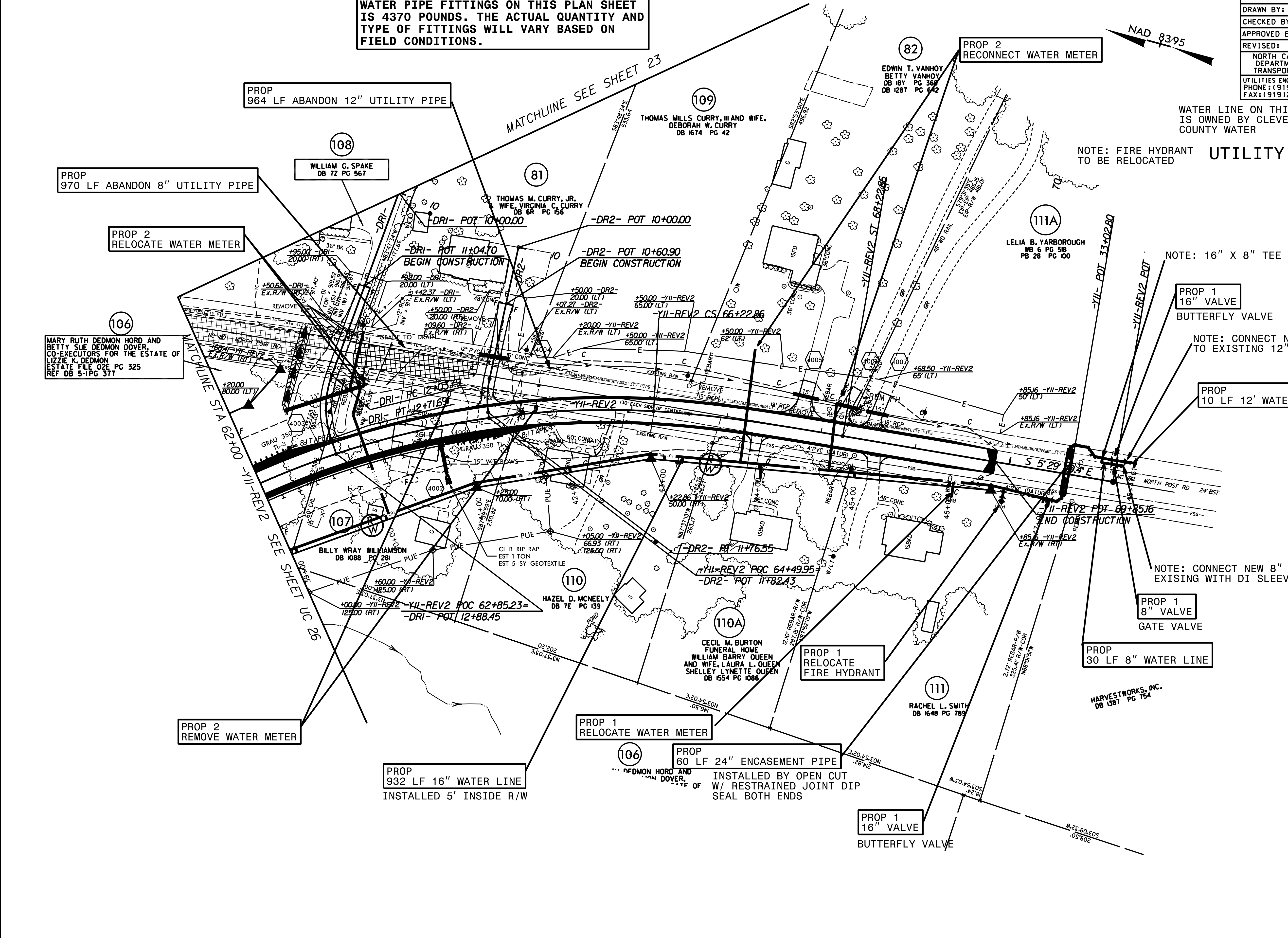
PROP 30 LF 8" WATER LINE

PROP 1 8" VALVE GATE VALVE

PROP 1 16" VALVE BUTTERFLY VALVE

PROP 10 LF 12' WATER LINE

REVISIONS

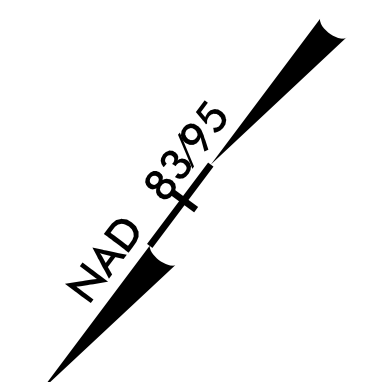


PROJECT REFERENCE NO.	SHEET NO.
R-2707C	UC-28
DESIGNED BY: VW	
DRAWN BY: VW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 1/27/17	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	UTILITY CONSTRUCTION PLANS ONLY

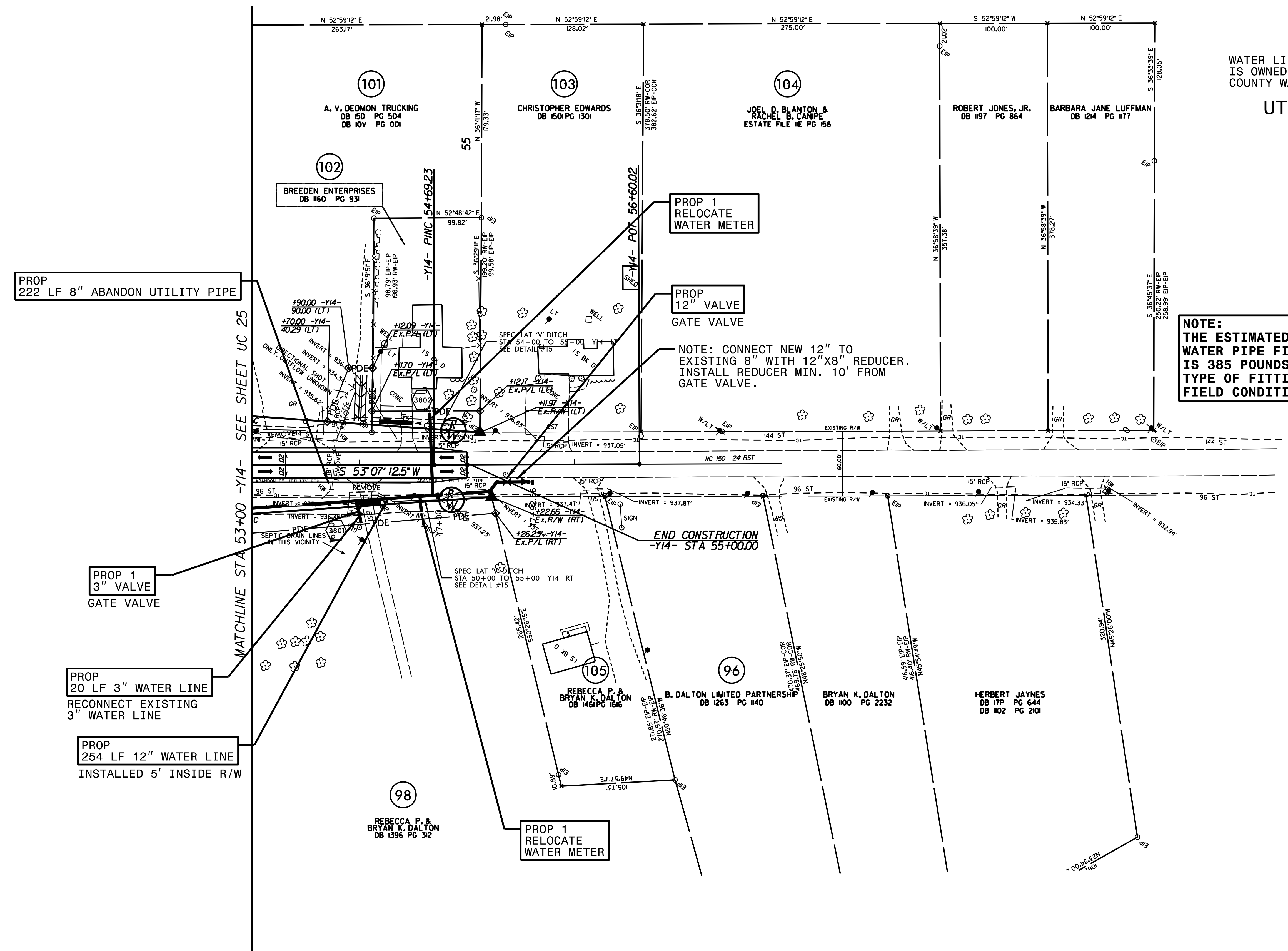
WATER LINE ON THIS SHEET
IS OWNED BY CLEVELAND
COUNTY WATER



UTILITY CONSTRUCTION



NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON
WATER PIPE FITTINGS ON THIS PLAN SHEET
IS 385 POUNDS. THE ACTUAL QUANTITY AND
TYPE OF FITTINGS WILL VARY BASED ON
FIELD CONDITIONS.



PROP
222 LF 8" ABANDON UTILITY PIPE

PROP 1
RELOCATE
WATER METER

PROP
12" VALVE
GATE VALVE

NOTE: CONNECT NEW 12" TO
EXISTING 8" WITH 12"X8" REDUCER.
INSTALL REDUCER MIN. 10' FROM
GATE VALVE.

PROP 1
3" VALVE
GATE VALVE

PROP
20 LF 3" WATER LINE
RECONNECT EXISTING
3" WATER LINE

PROP
254 LF 12" WATER LINE
INSTALLED 5' INSIDE R/W

PROP 1
RELOCATE
WATER METER

END CONSTRUCTION
-Y14- STA 55+00.00

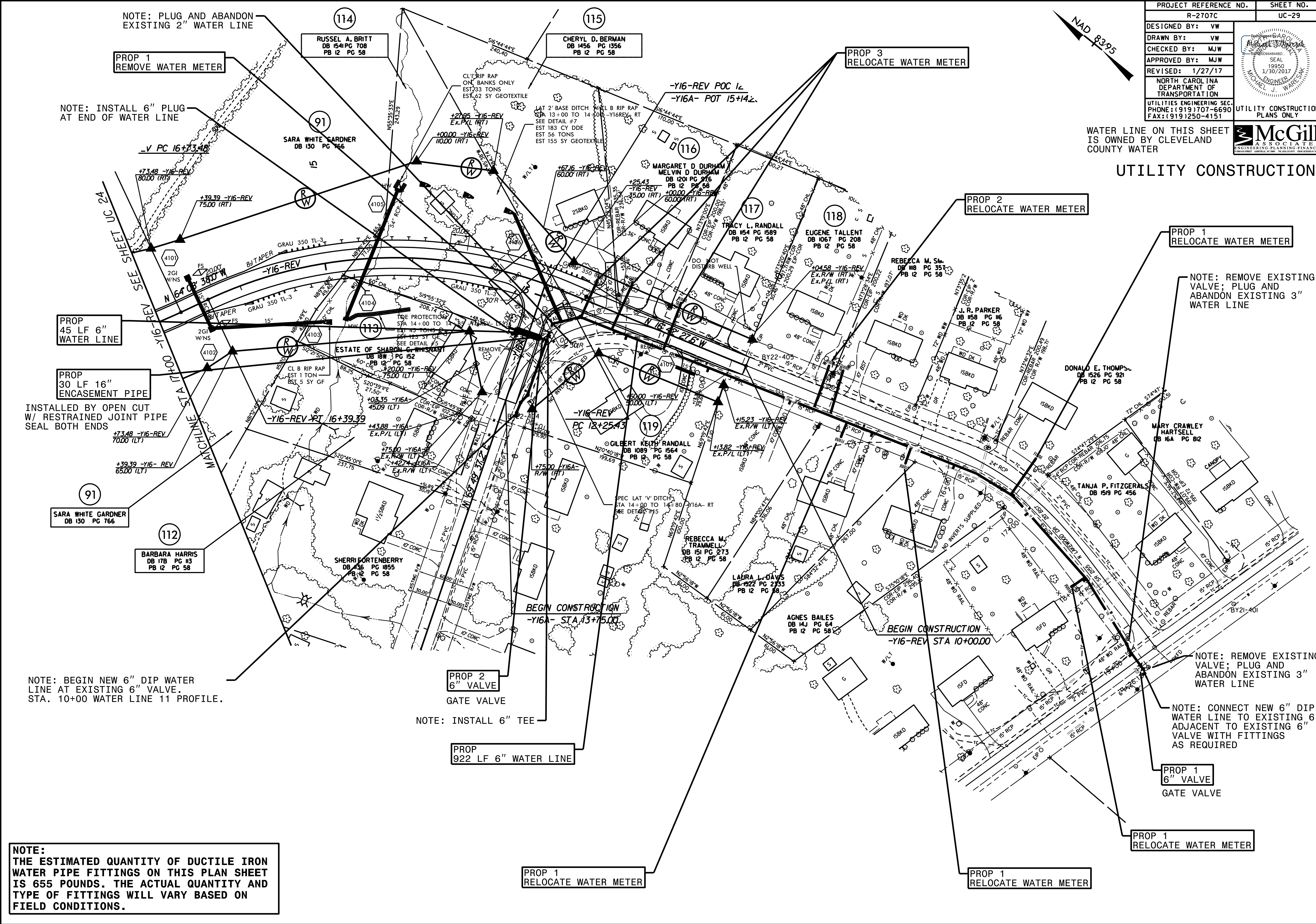
REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
R-2707C	UC-29
DESIGNED BY: VW	
DRAWN BY: VW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 1/27/17	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

WATER LINE ON THIS SHEET IS OWNED BY CLEVELAND COUNTY WATER



UTILITY CONSTRUCTION



NOTE: PLUG AND ABANDON EXISTING 2" WATER LINE

NOTE: INSTALL 6" PLUG AT END OF WATER LINE

PROP 45 LF 6" WATER LINE

PROP 30 LF 16" ENCASEMENT PIPE

INSTALLED BY OPEN CUT W/ RESTRAINED JOINT PIPE SEAL BOTH ENDS

NOTE: BEGIN NEW 6" DIP WATER LINE AT EXISTING 6" VALVE. STA. 10+00 WATER LINE 11 PROFILE.

PROP 2 6" VALVE GATE VALVE

NOTE: INSTALL 6" TEE

PROP 922 LF 6" WATER LINE

PROP 1 RELOCATE WATER METER

NOTE: REMOVE EXISTING VALVE; PLUG AND ABANDON EXISTING 3" WATER LINE

NOTE: CONNECT NEW 6" DIP WATER LINE TO EXISTING 6" VALVE WITH FITTINGS AS REQUIRED

PROP 1 6" VALVE GATE VALVE

PROP 1 RELOCATE WATER METER

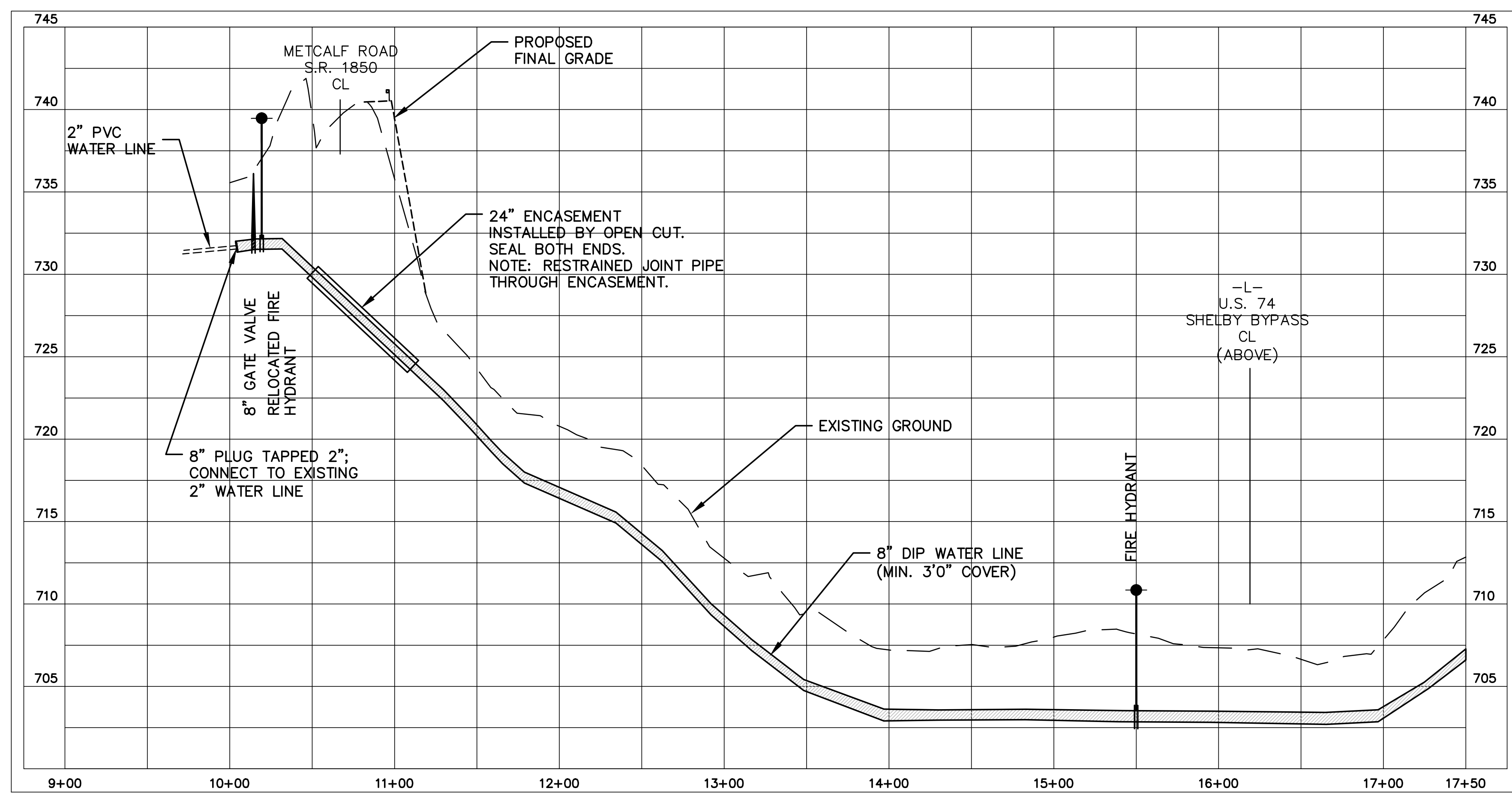
PROP 1 RELOCATE WATER METER

NOTE: THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 655 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

REVISIONS

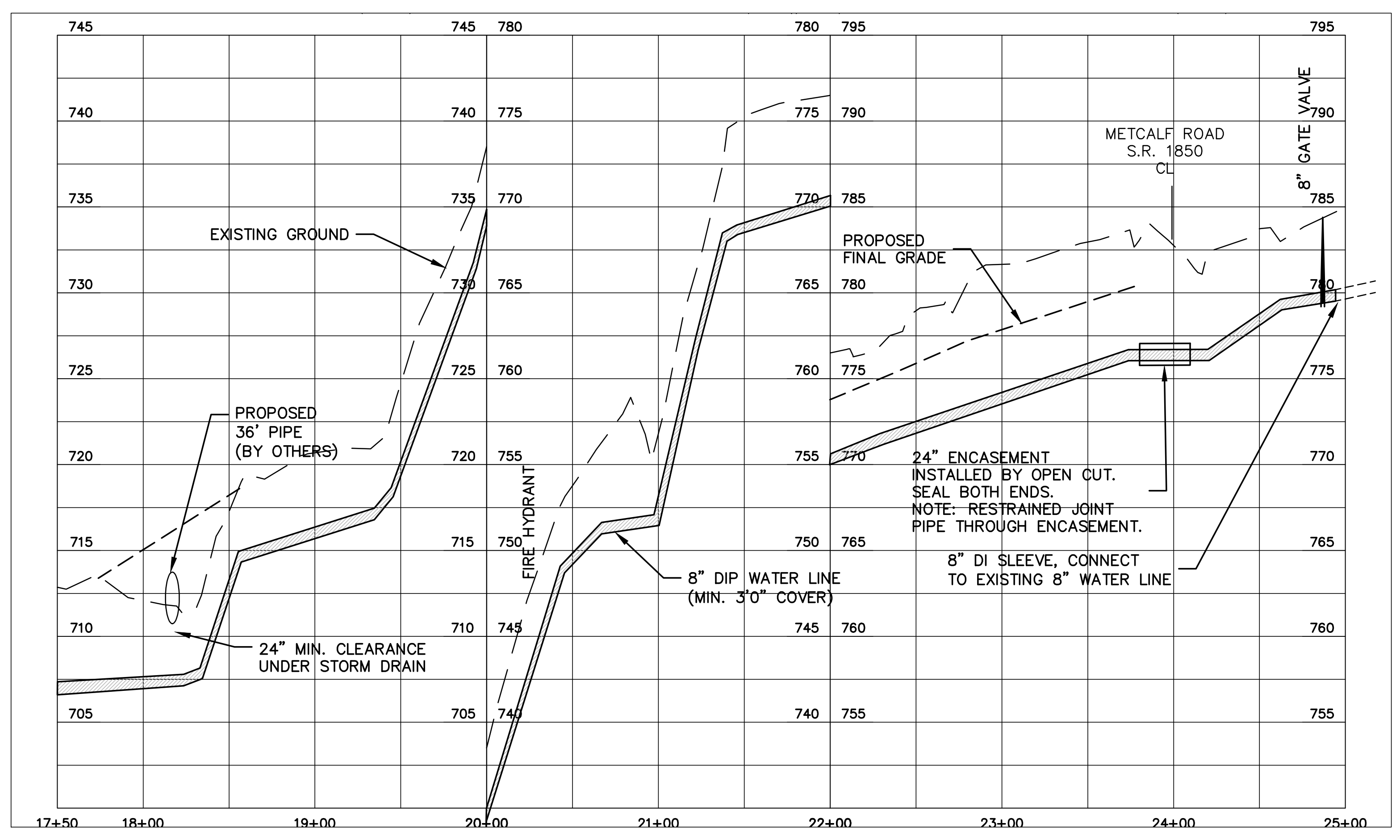
PROJECT REFERENCE NO.	SHEET NO.
R-2707C	UC-30
DESIGNED BY: VW	
DRAWN BY: VW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 1/29/17	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION
McGill
 ASSOCIATES
ENGINEERING PLANNING FINANCE

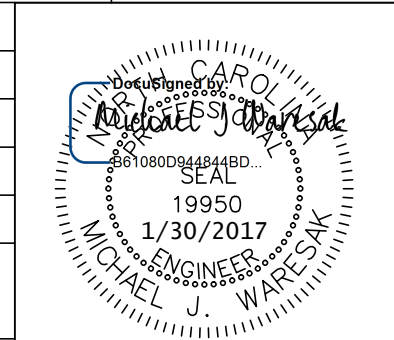


**WATER LINE 1
 8" WATER LINE
 METCALF ROAD
 CITY OF SHELBY**

PROFILE
 SCALE: HORIZ. 1" = 50'
 VERT. 1" = 5'



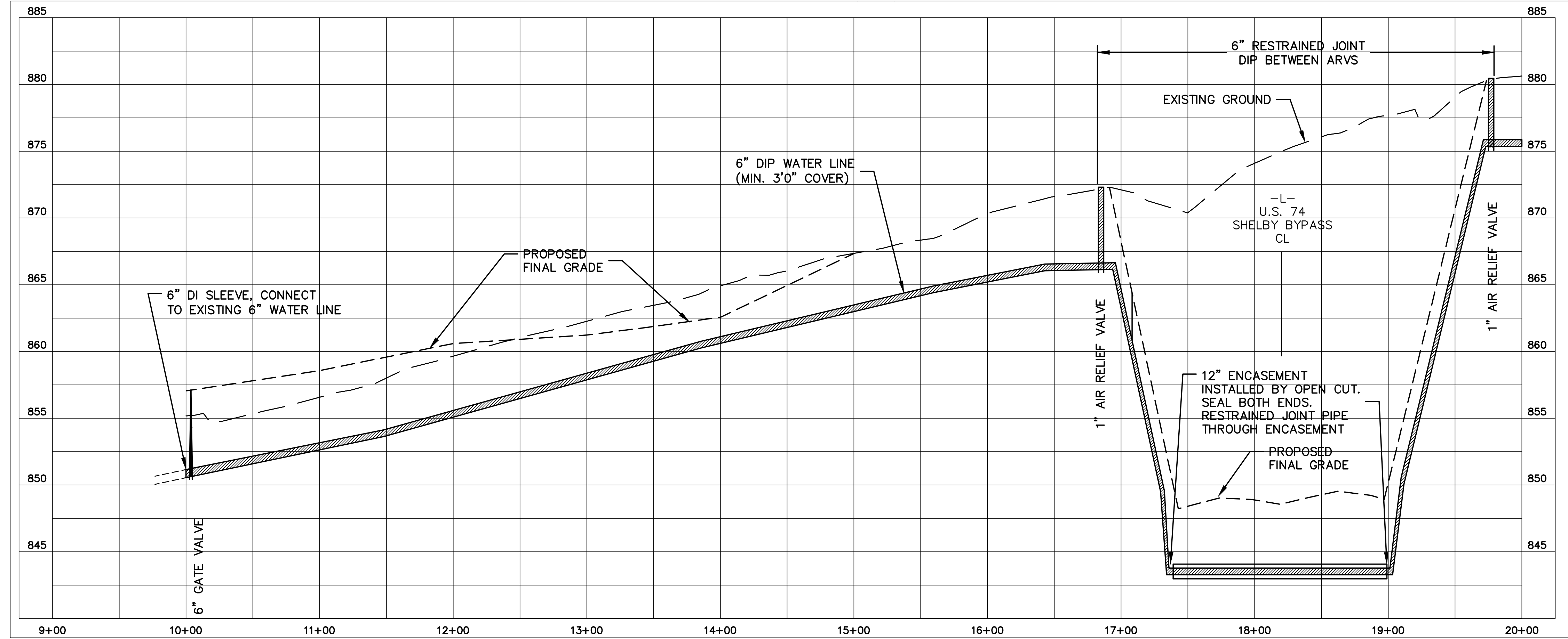
DESIGNED BY: VW
 DRAWN BY: VW
 CHECKED BY: MJW
 APPROVED BY: MJW
 REVISED: 1/29/17



NORTH CAROLINA
 DEPARTMENT OF
 TRANSPORTATION

UTILITY CONSTRUCTION
 PLANS ONLY

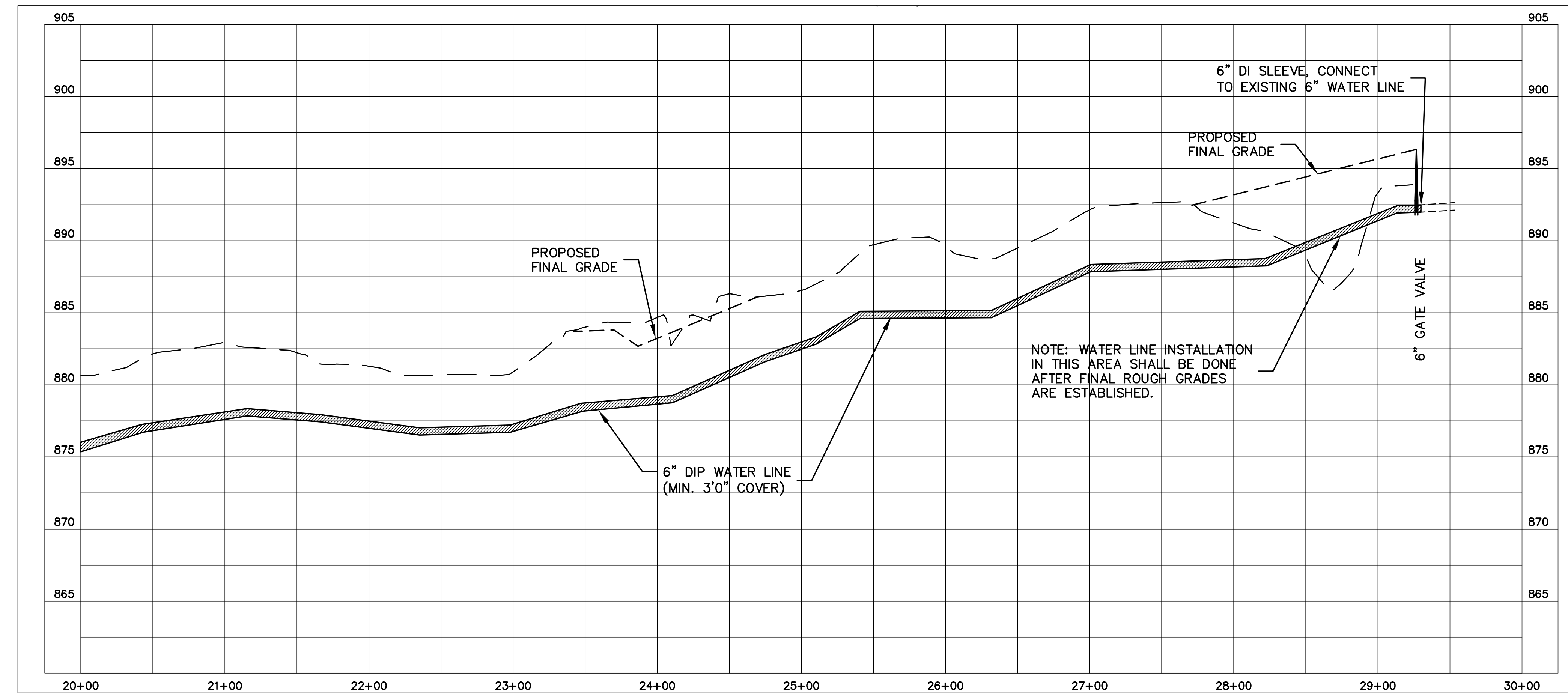
UTILITY CONSTRUCTION **McGill ASSOCIATES**
ENGINEERING PLANNING FINANCE



**WATER LINE 2
 6" WATER LINE
 McBRAYER SPRINGS ROAD
 CLEVELAND COUNTY WATER**

PROFILE

SCALE: HORIZ. 1"=50'
 VERT. 1"=5'



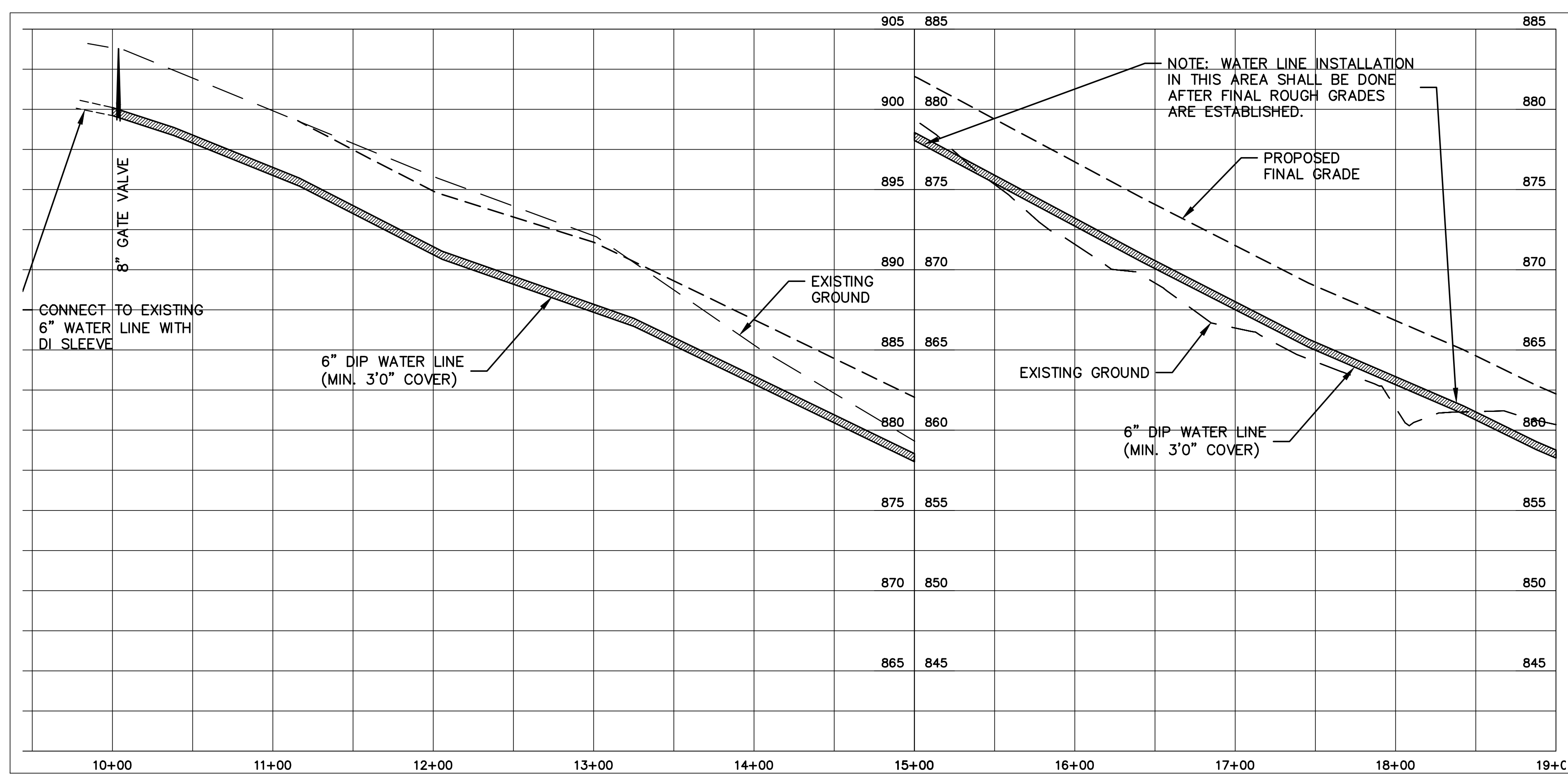
PROJECT REFERENCE NO.	SHEET NO.
R-2707C	UC-32
DESIGNED BY: VW	
DRAWN BY: VW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 1/29/17	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919)707-6690 FAX: (919)250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION

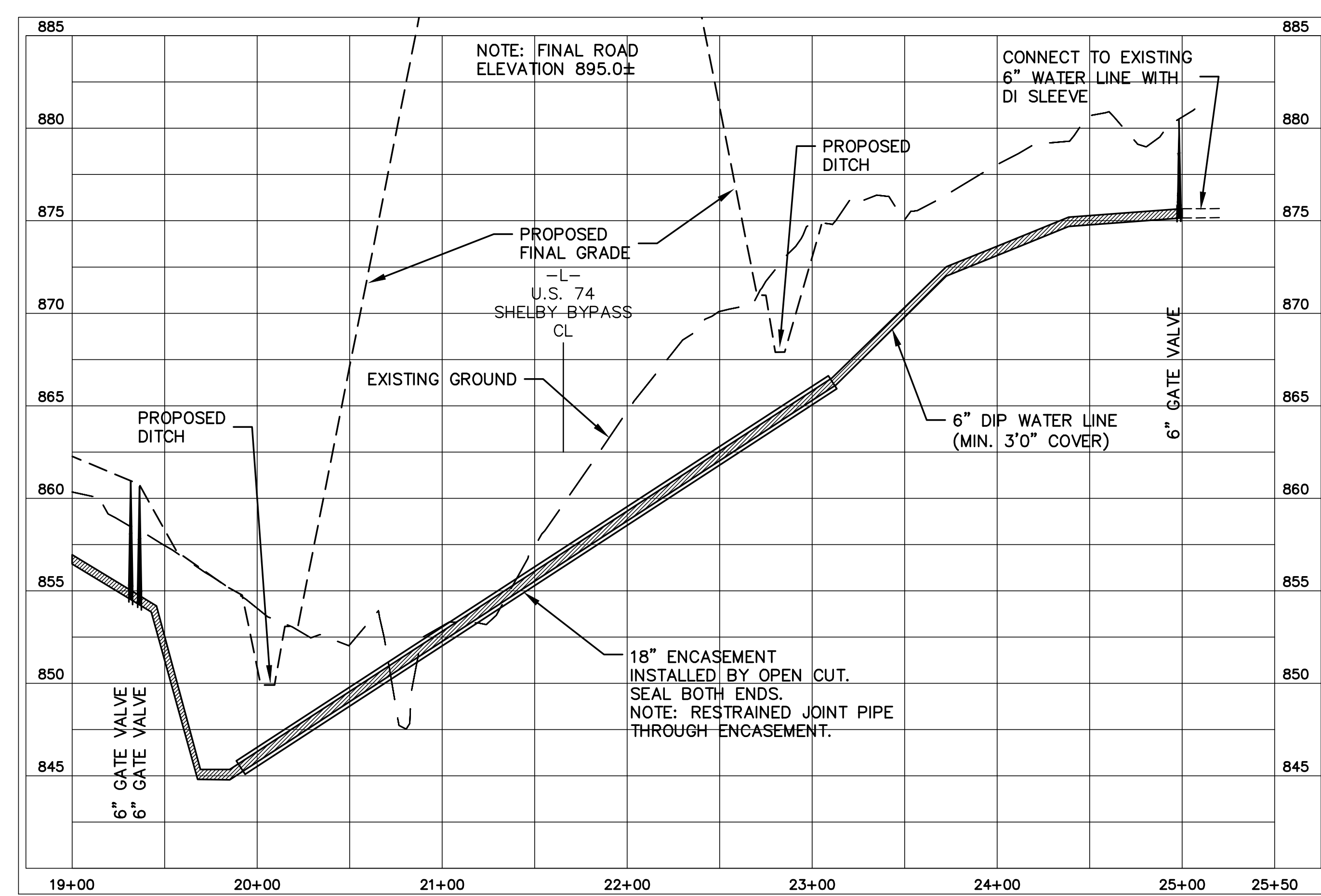
McGill ASSOCIATES
ENGINEERING PLANNING FINANCE

**WATER LINE 3 AND 3A
6" WATER LINE
LITHIA SPRINGS ROAD
SPRINGBROOK DRIVE
CLEVELAND COUNTY WATER**

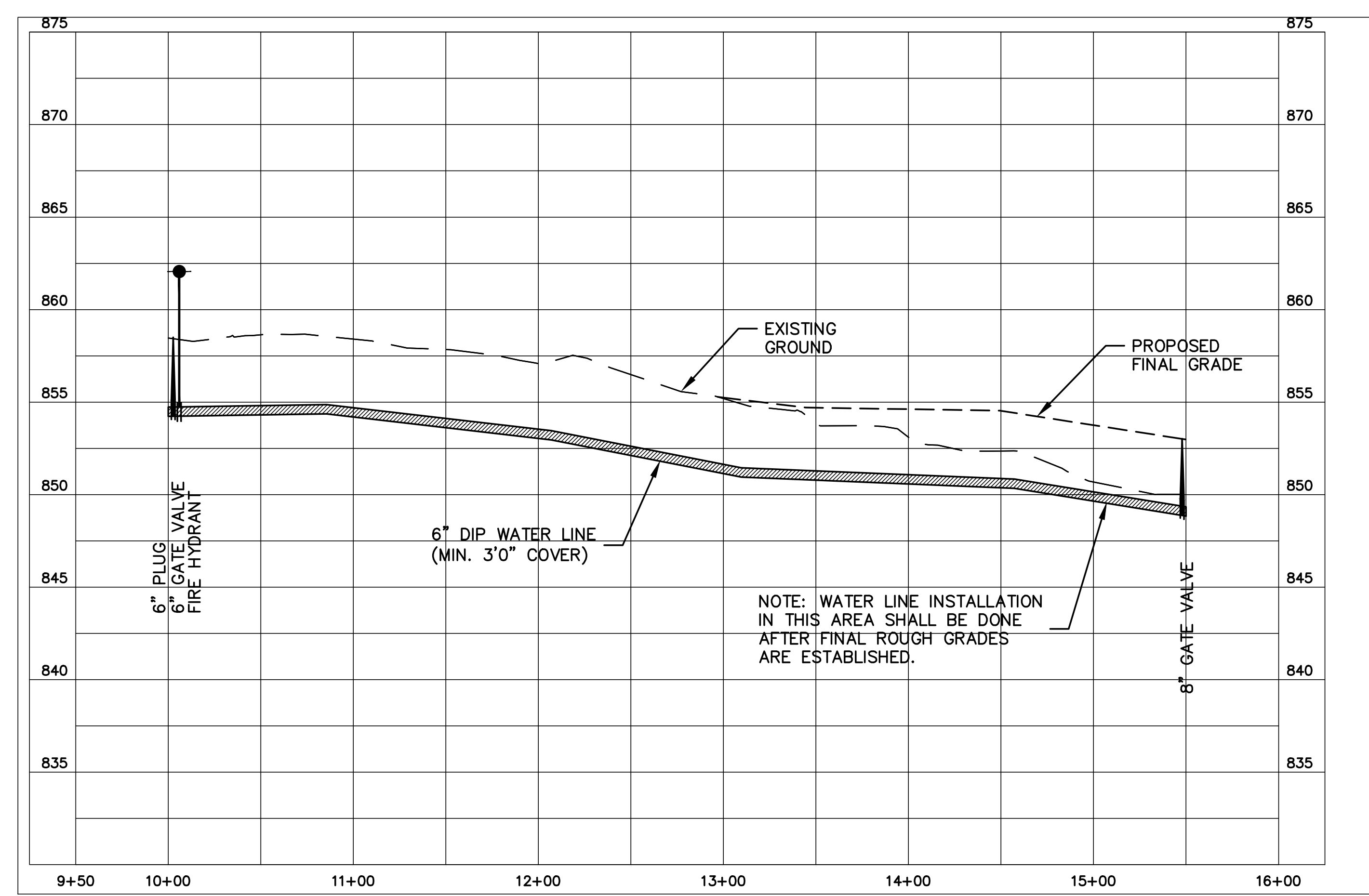
PROFILE
SCALE: HORIZ. 1"=50'
VERT. 1"=5'



WATER LINE 3



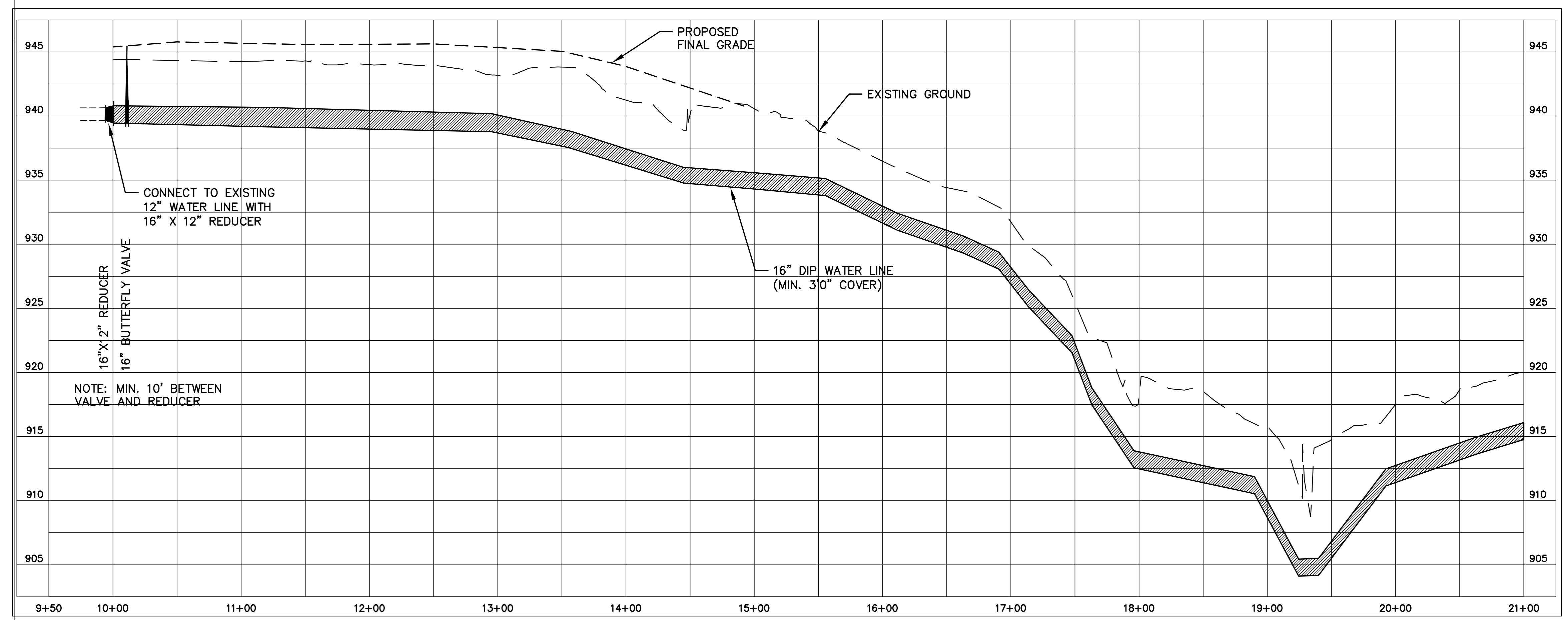
WATER LINE 3



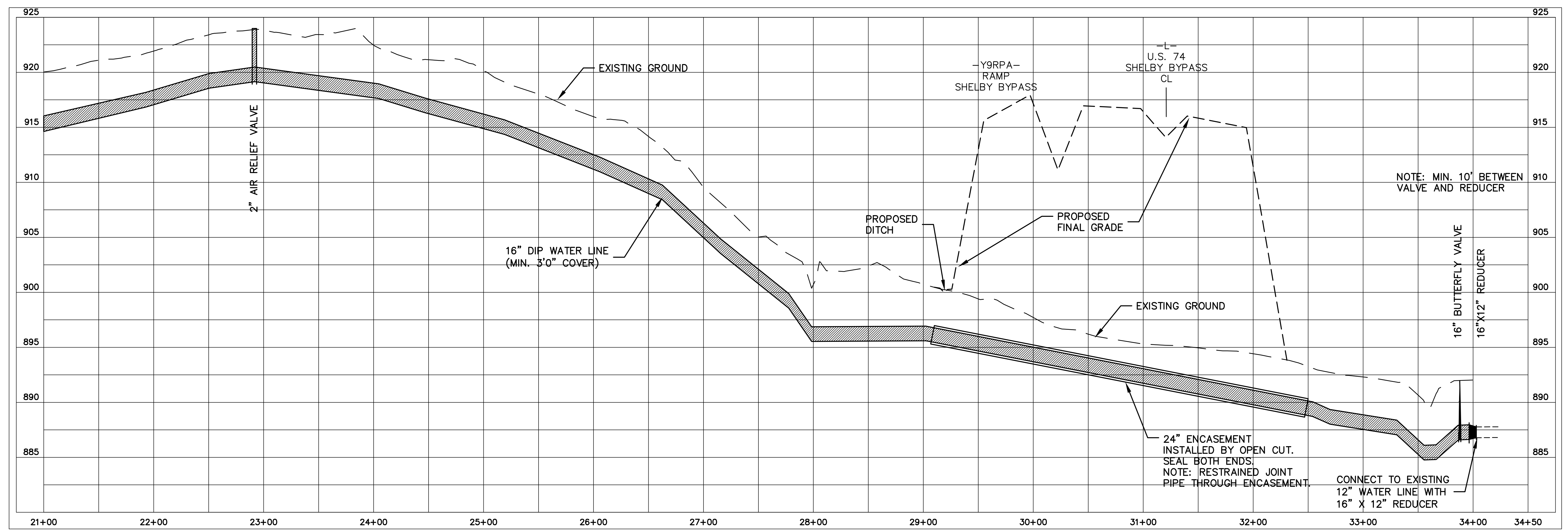
WATER LINE 3A

PROJECT REFERENCE NO.	SHEET NO.
R-2707C	UC-33
DESIGNED BY: VW	
DRAWN BY: VW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 1/29/17	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION **McGill ASSOCIATES**
ENGINEERING PLANNING FINANCE



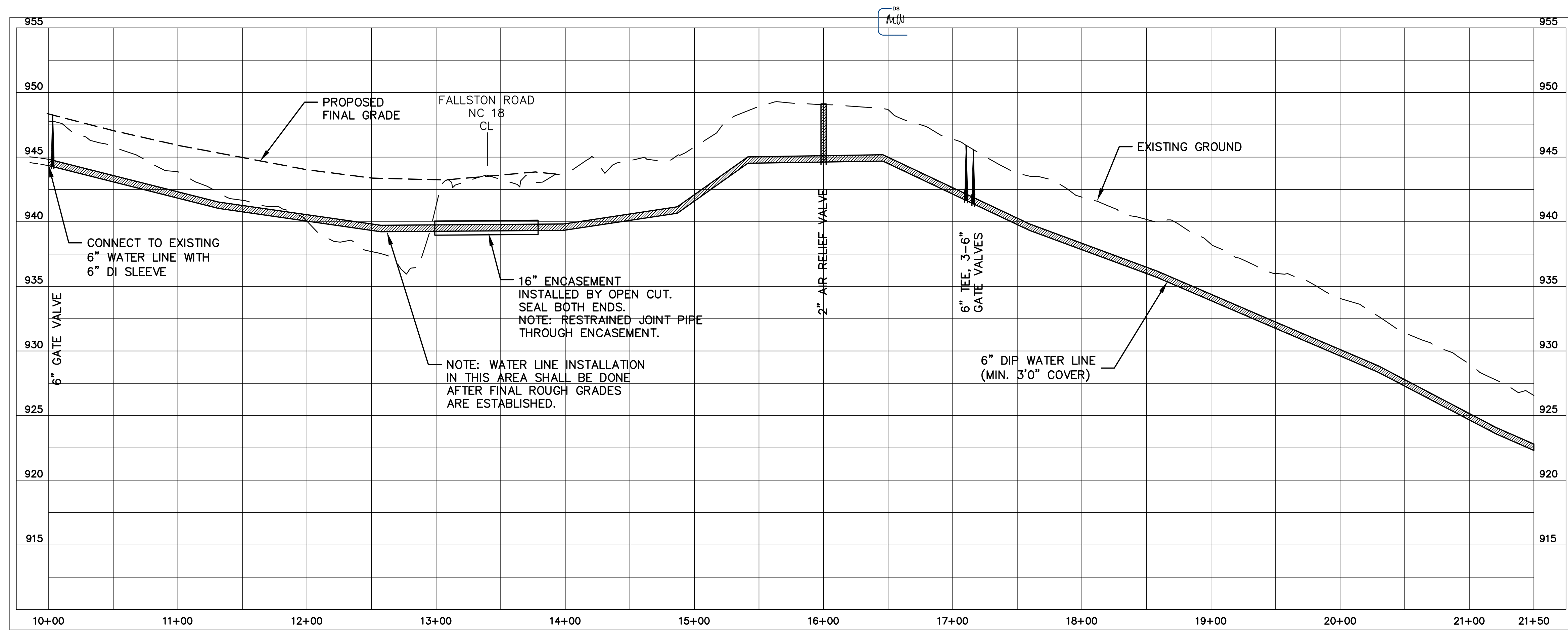
**WATER LINE 4
 16" WATER LINE
 FALLSTON ROAD
 CLEVELAND COUNTY
 WATER
 PROFILE**
 SCALE: HORIZ. 1" = 50'
 VERT. 1" = 5'



NOTE: MIN. 10' BETWEEN VALVE AND REDUCER

24" ENCASEMENT
 INSTALLED BY OPEN CUT.
 SEAL BOTH ENDS.
 NOTE: RESTRAINED JOINT
 PIPE THROUGH ENCASEMENT.

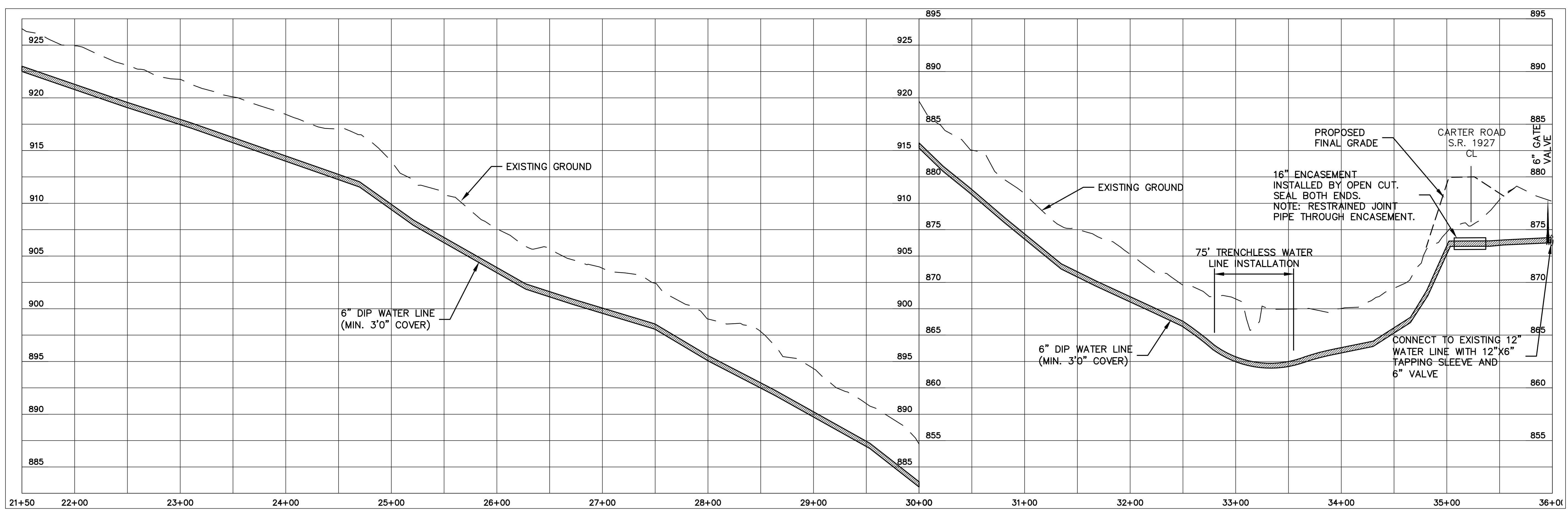
CONNECT TO EXISTING
 12" WATER LINE WITH
 16" X 12" REDUCER



PROJECT REFERENCE NO.	SHEET NO.
R-2707C	UC-34
DESIGNED BY: VW	
DRAWN BY: VW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 1/29/17	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919)707-6690 FAX: (919)250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

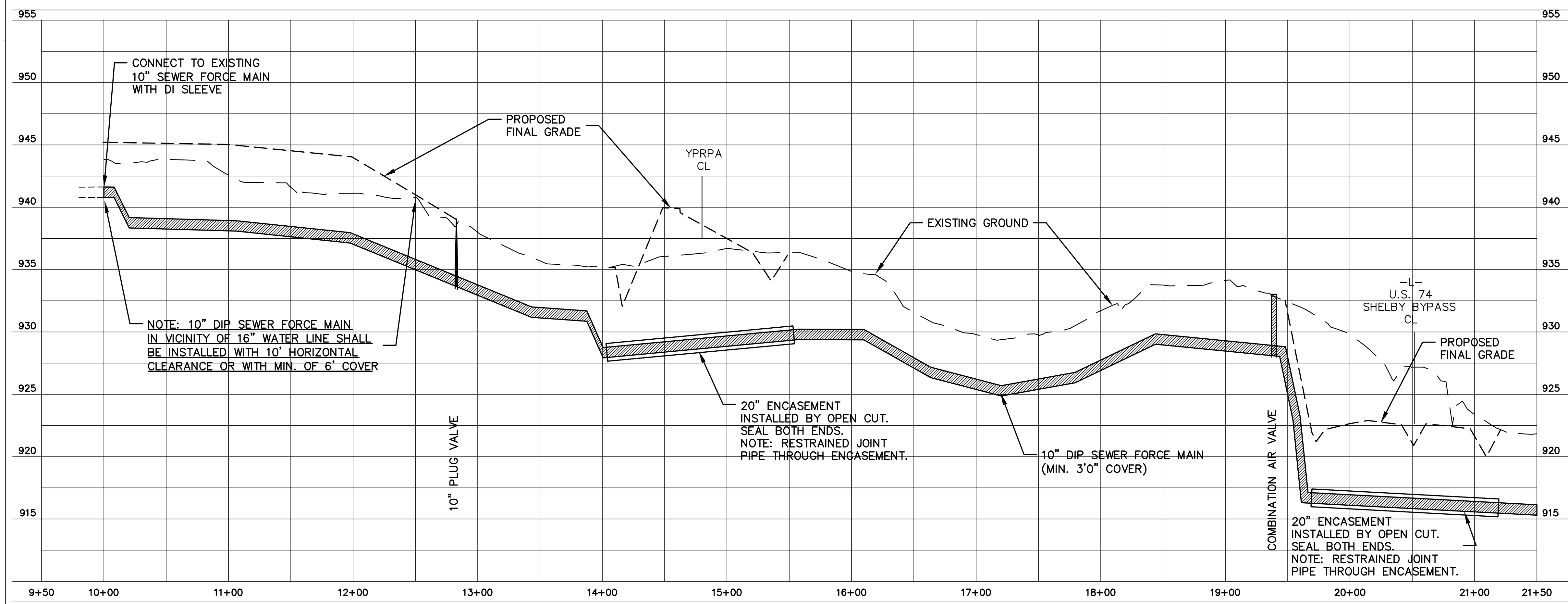
UTILITY CONSTRUCTION **McGill ASSOCIATES**
ENGINEERING, PLANNING, FINANCE

**WATER LINE 5
6" WATER LINE
FALLSTON ROAD
CLEVELAND COUNTY
WATER
PROFILE**
SCALE: HORIZ. 1"= 50'
VERT. 1"= 5'



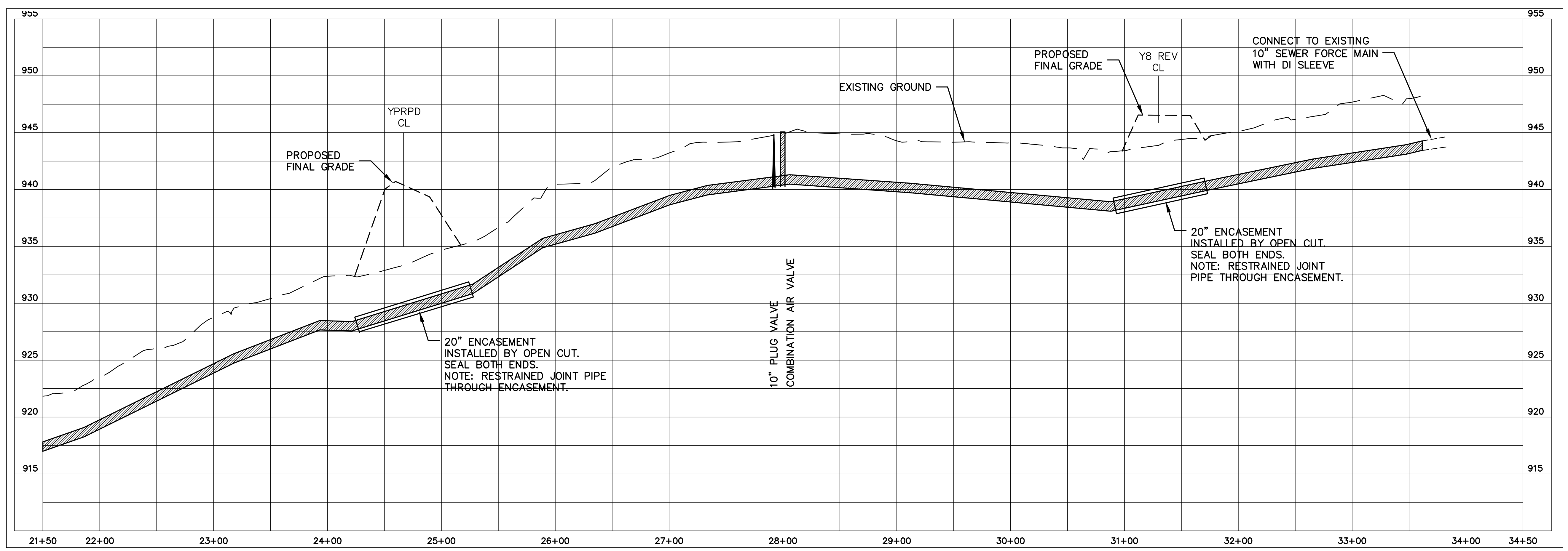
PROJECT REFERENCE NO.	SHEET NO.
R-2707C	UC-35
DESIGNED BY: VW	
DRAWN BY: VW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 1/29/17	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919)707-6690 FAX: (919)250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION **McGill ASSOCIATES**
ENGINEERING PLANNING FINANCE



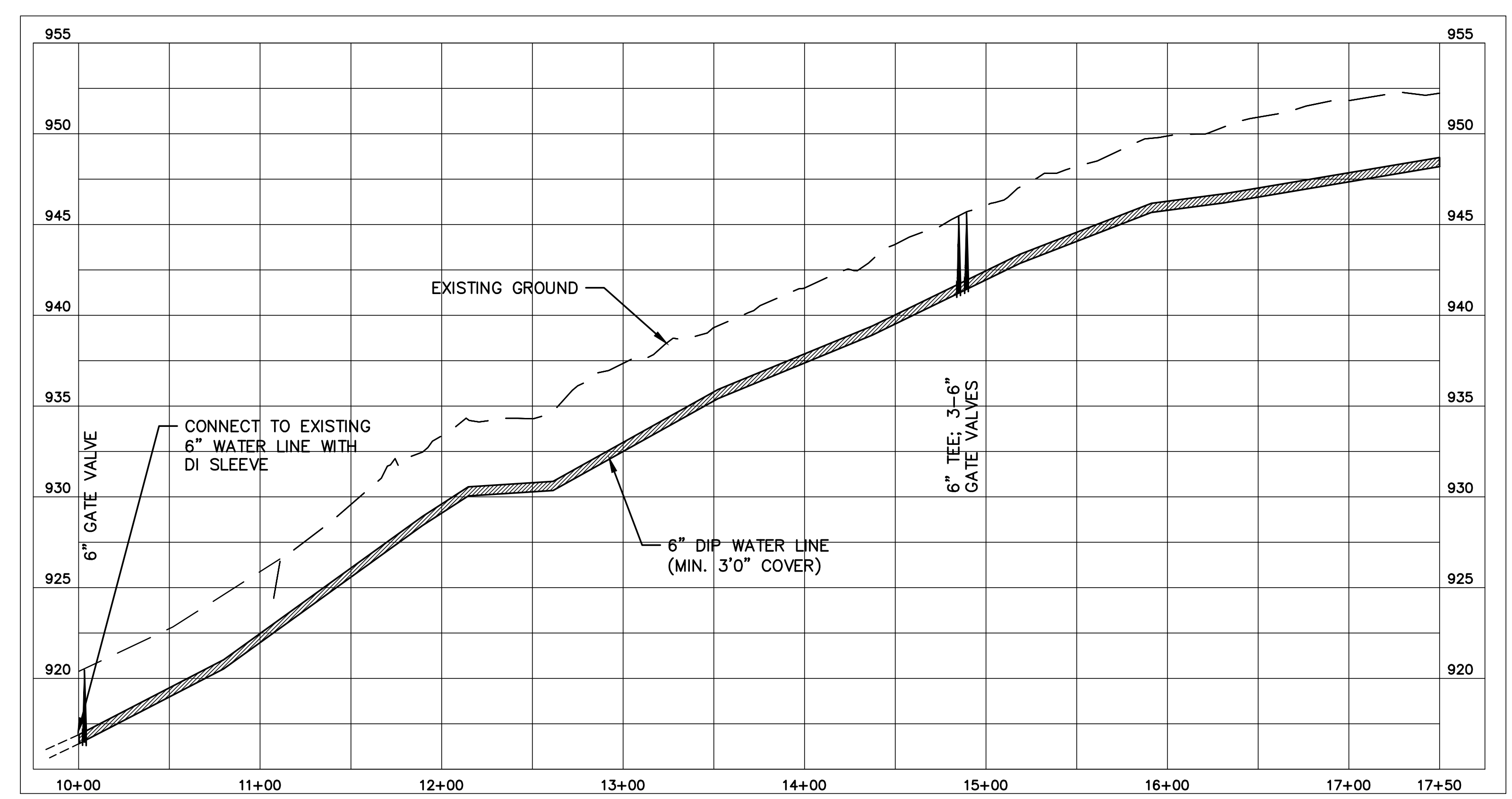
**10" SEWER FORCE MAIN
 FALLSTON ROAD
 CITY OF SHELBY**

PROFILE
 SCALE: HORIZ. 1"= 50'
 VERT. 1"= 5'

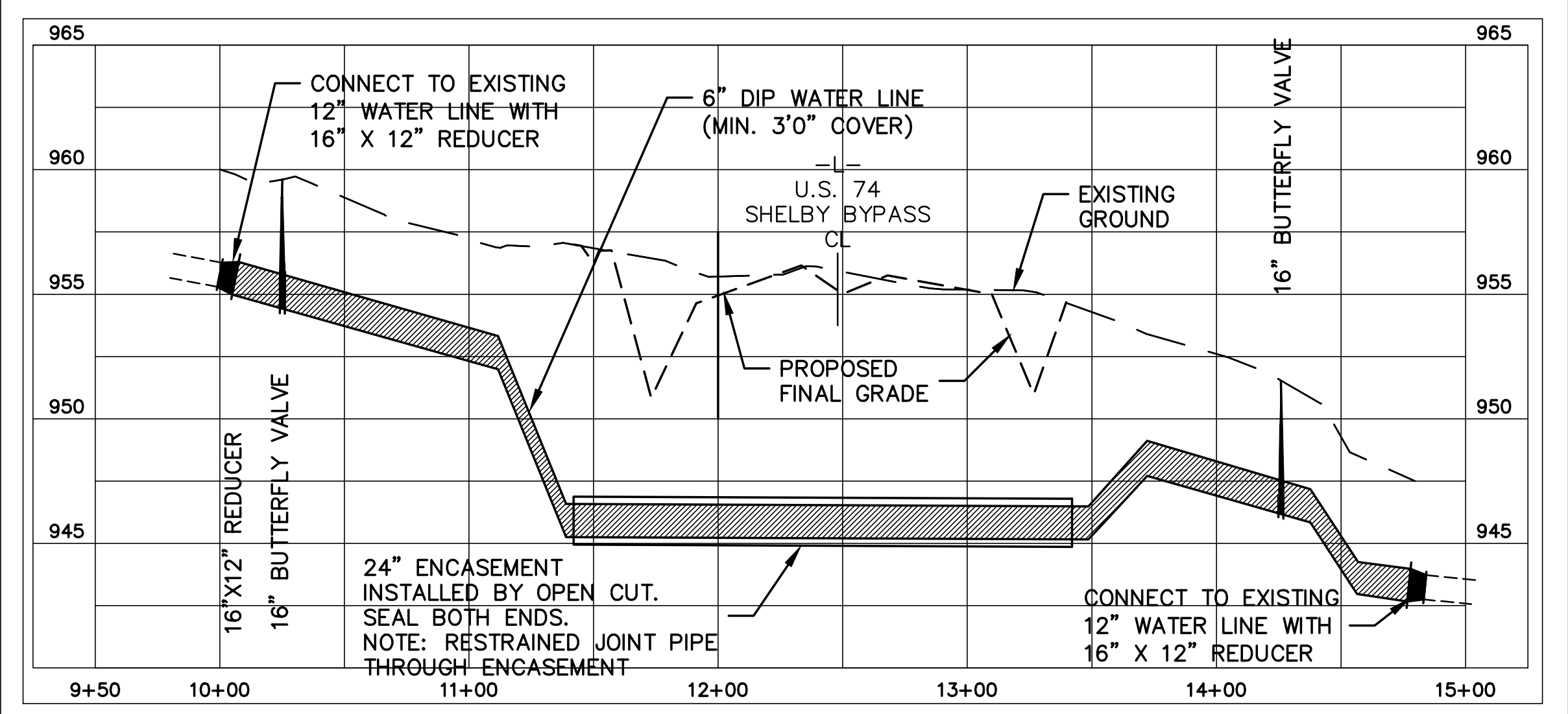


PROJECT REFERENCE NO.	SHEET NO.
R-2707C	UC-36
DESIGNED BY: VW	
DRAWN BY: VW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 1/30/17	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919)707-6690 FAX: (919)250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

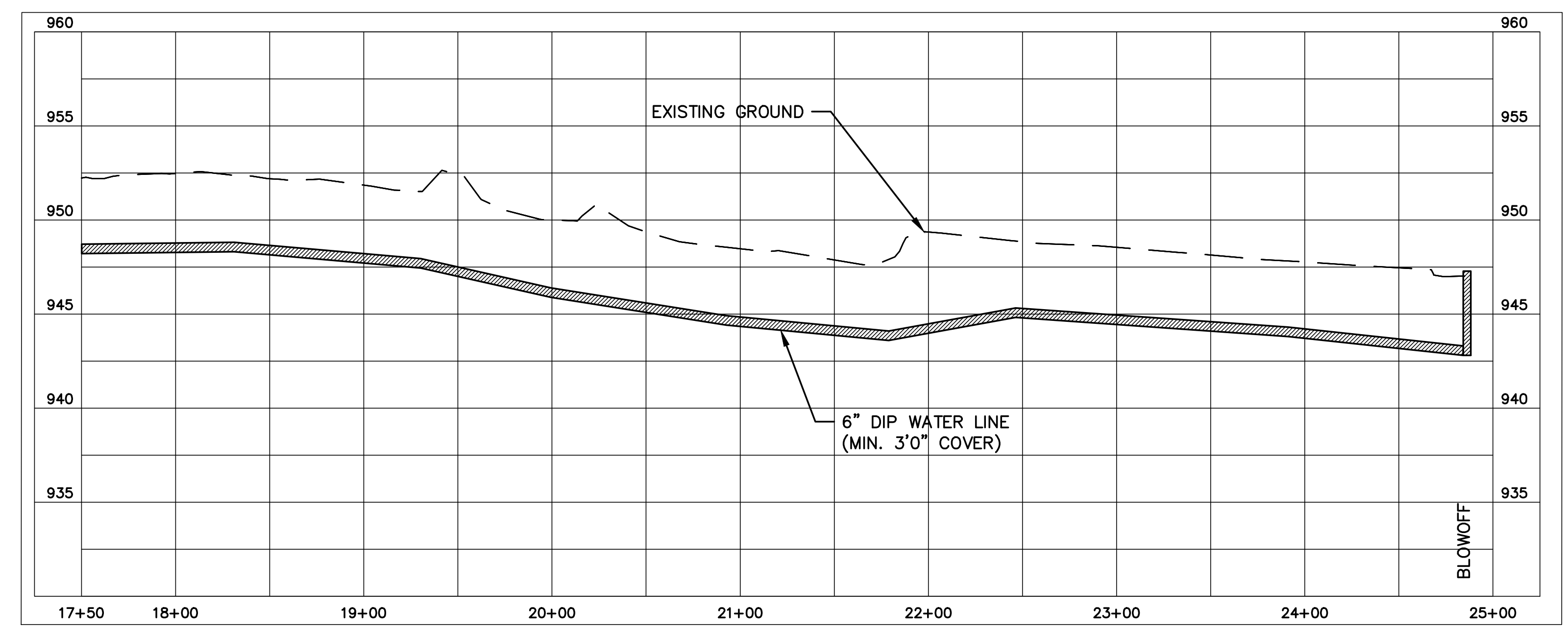
UTILITY CONSTRUCTION
McGill
 ASSOCIATES
 ENGINEERING, PLANNING, FINANCE
 CONSULTING, INC.



WATER LINE 7
6" WATER LINE
NORTH POST AND AIRPORT ROAD
CLEVELAND COUNTY
WATER
PROFILE
 SCALE: HORIZ. 1"= 50'
 VERT. 1"= 5'

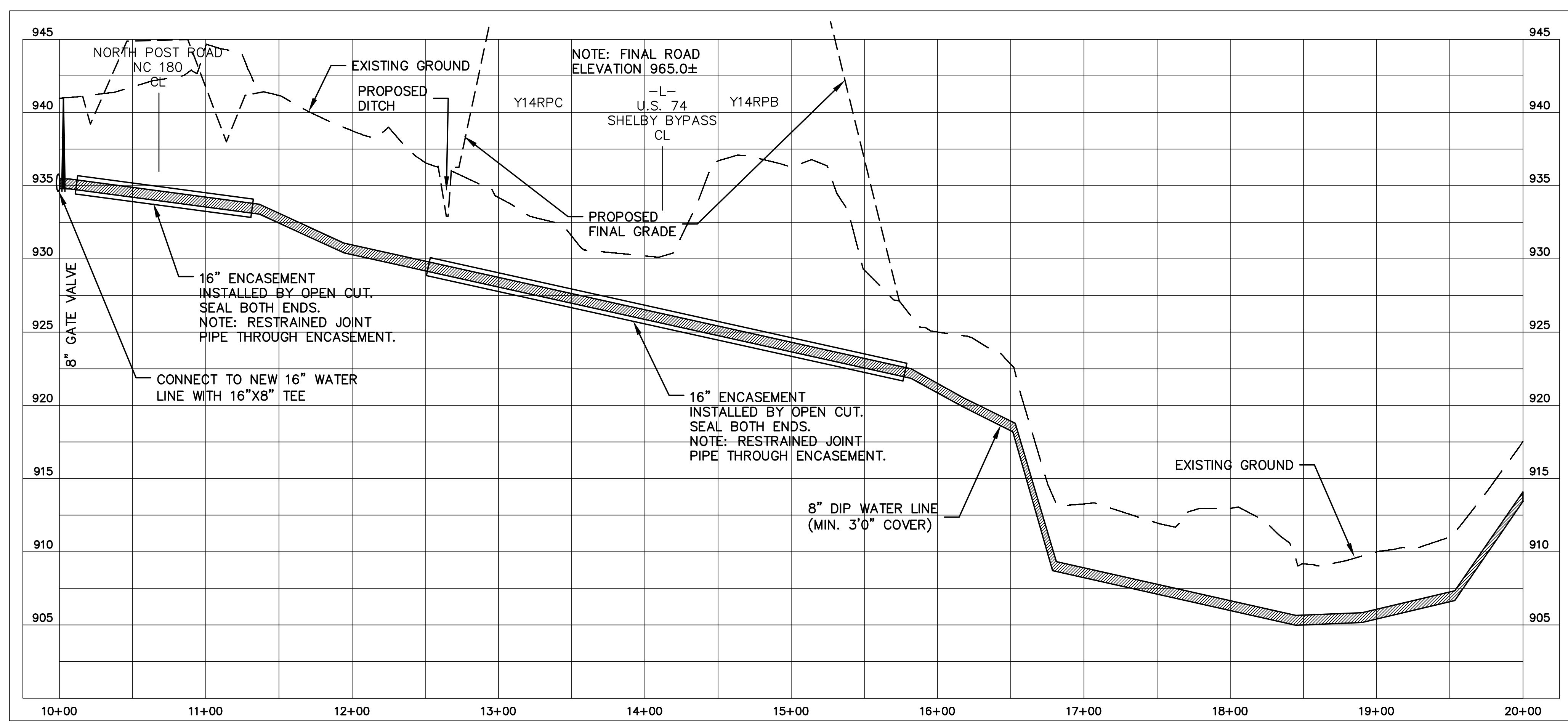


WATER LINE 6
16" WATER LINE
AIRPORT ROAD
CLEVELAND COUNTY
WATER
PROFILE
 SCALE: HORIZ. 1"= 50'
 VERT. 1"= 5'

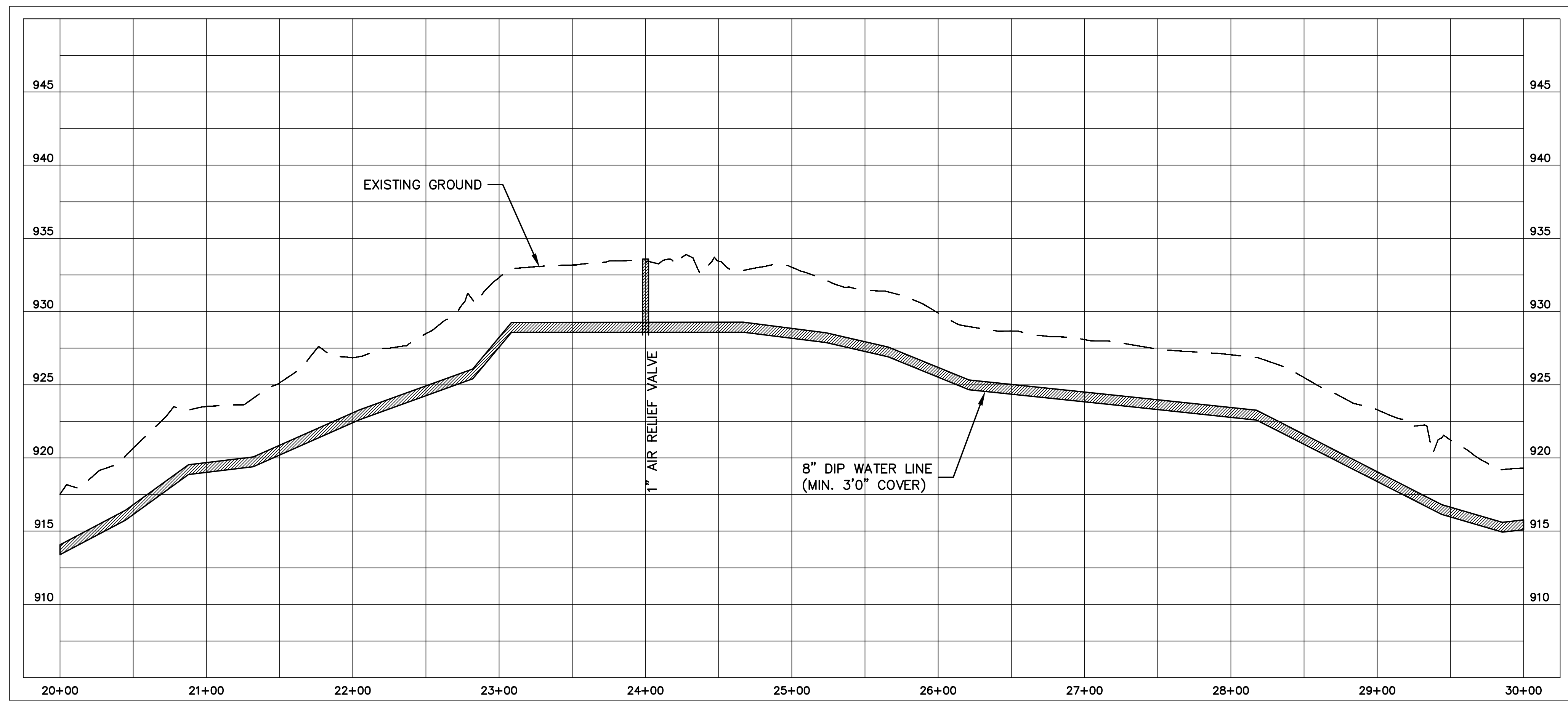


PROJECT REFERENCE NO.	SHEET NO.
R-2707C	UC-37
DESIGNED BY: VW	
DRAWN BY: VW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 1/30/17	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION
McGill
 ASSOCIATES
ENGINEERING, PLANNING, FINANCE



10+00 - 20+00



20+00 - 30+00

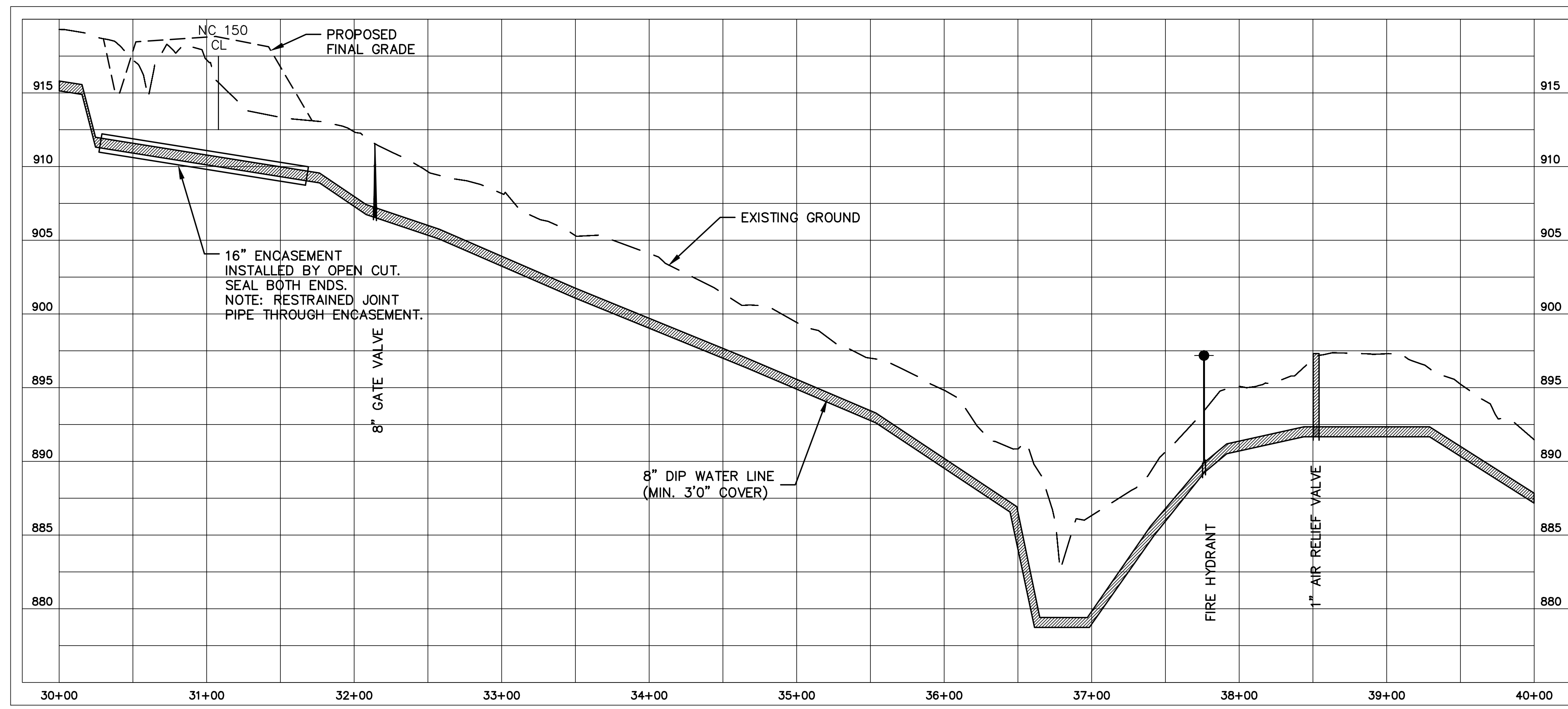
WATER LINE 8
8" WATER LINE
NORTH POST ROAD
AND NC 150
CLEVELAND COUNTY
WATER

PROFILE
 SCALE: HORIZ. 1"= 50'
 VERT. 1"= 5'

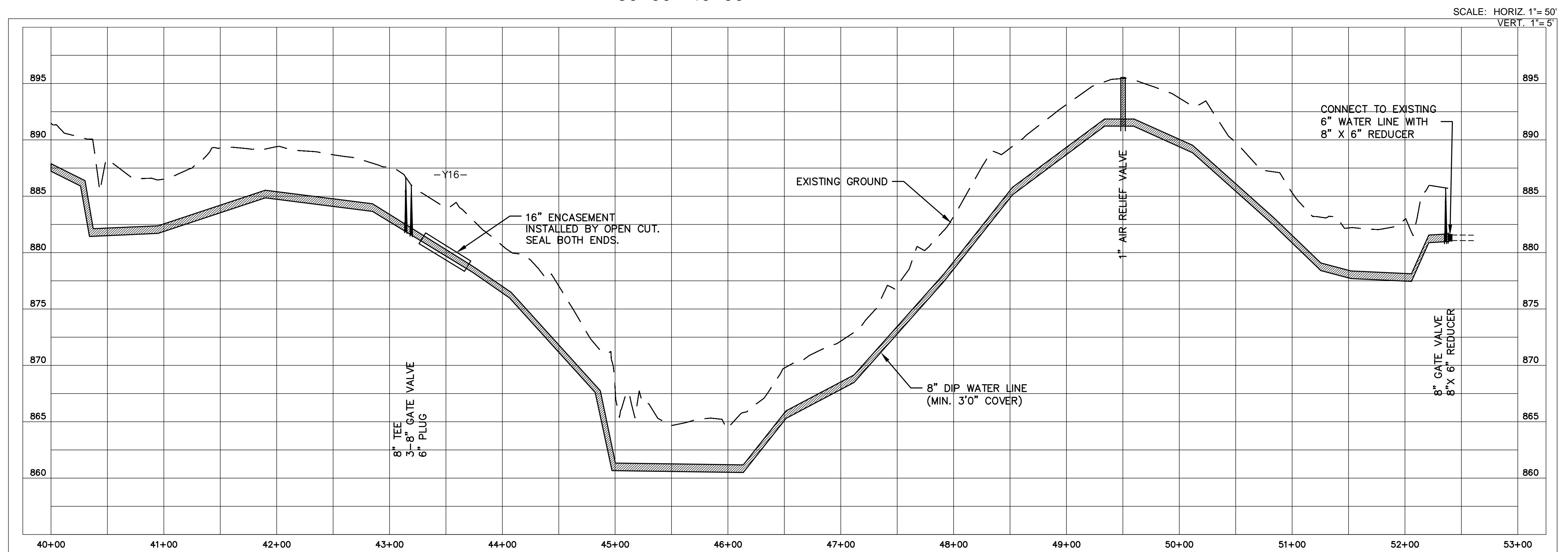
PROJECT REFERENCE NO.	SHEET NO.
R-2707C	UC-38
DESIGNED BY: VW	
DRAWN BY: VW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 1/30/17	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919)707-6690 FAX: (919)250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION
McGill
 ASSOCIATES
ENGINEERING PLANNING FINANCE

**WATER LINE 8
 8" WATER LINE
 NORTH POST ROAD
 AND NC 150
 CLEVELAND COUNTY
 WATER**



30+00 - 40+00



40+00 -53+00

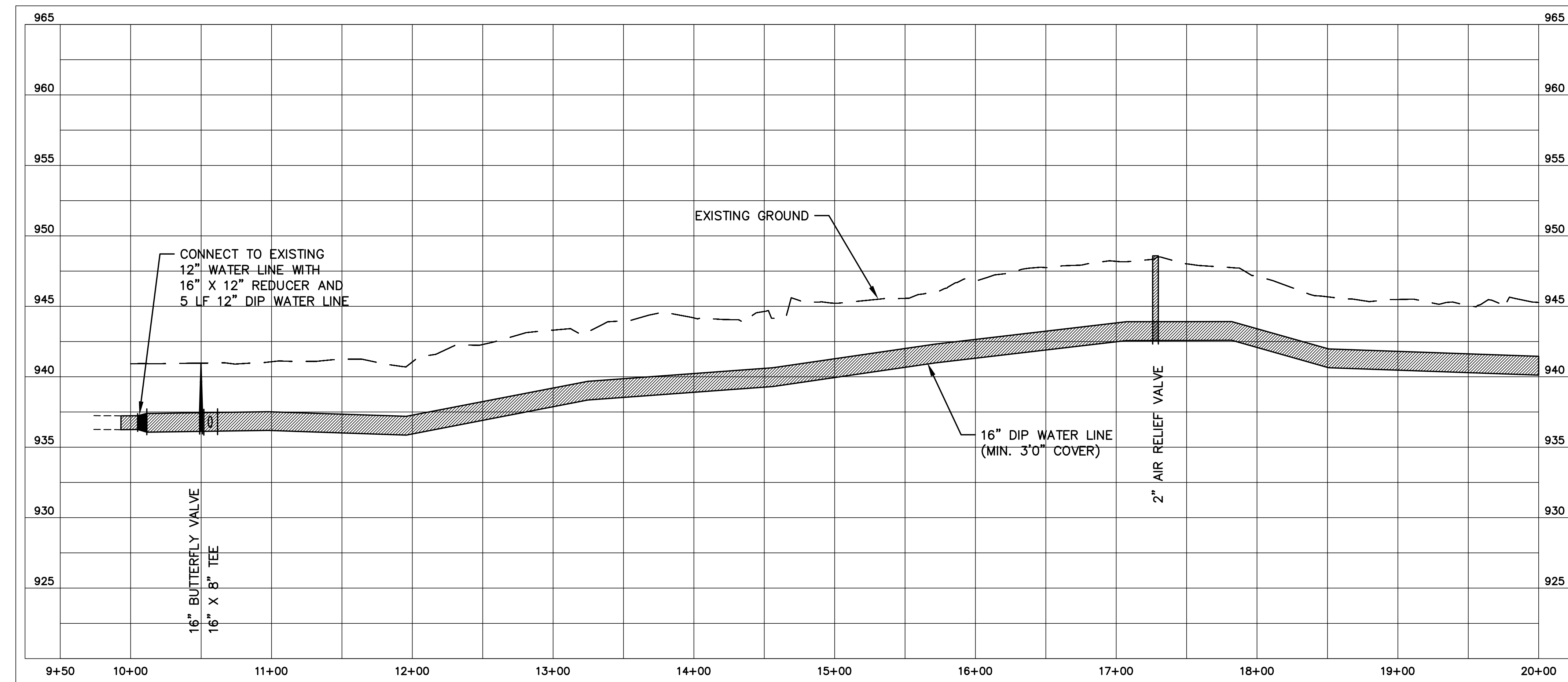
SCALE: HORIZ. 1"= 50'
 VERT. 1"= 5'

PROJECT REFERENCE NO.	SHEET NO.
R-2707C	UC-39
DESIGNED BY: VW	
DRAWN BY: MJW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 1/30/17	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919)707-6690 FAX: (919)250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

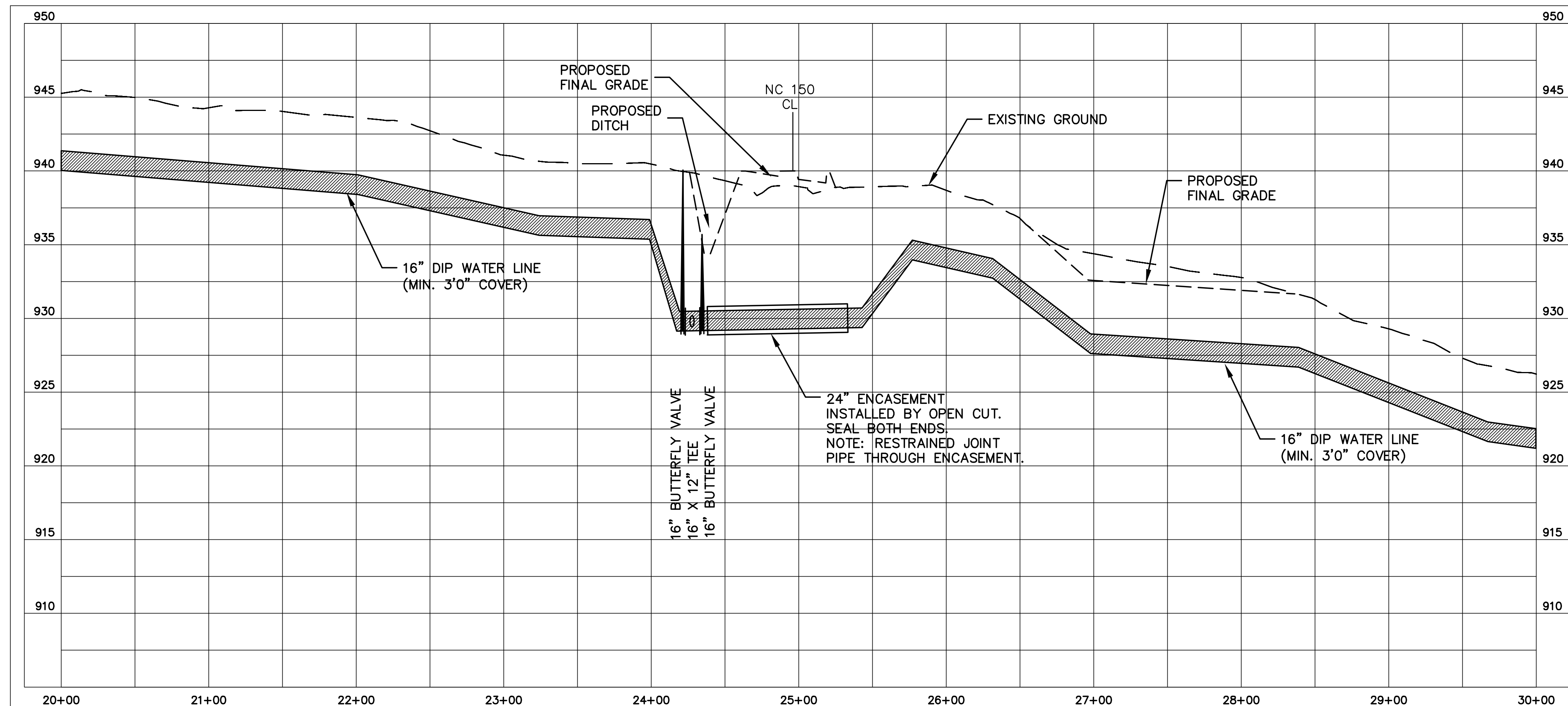
UTILITY CONSTRUCTION **McGill**
 ASSOCIATES
 ENGINEERING PLANNING FINANCE

**WATER LINE 9
 16" WATER LINE
 NORTH POST ROAD
 AND NC 150
 CLEVELAND COUNTY
 WATER**

PROFILE
 SCALE: HORIZ. 1"= 50'
 VERT. 1"= 5'



10+00 - 20+00



20+00 - 30+00

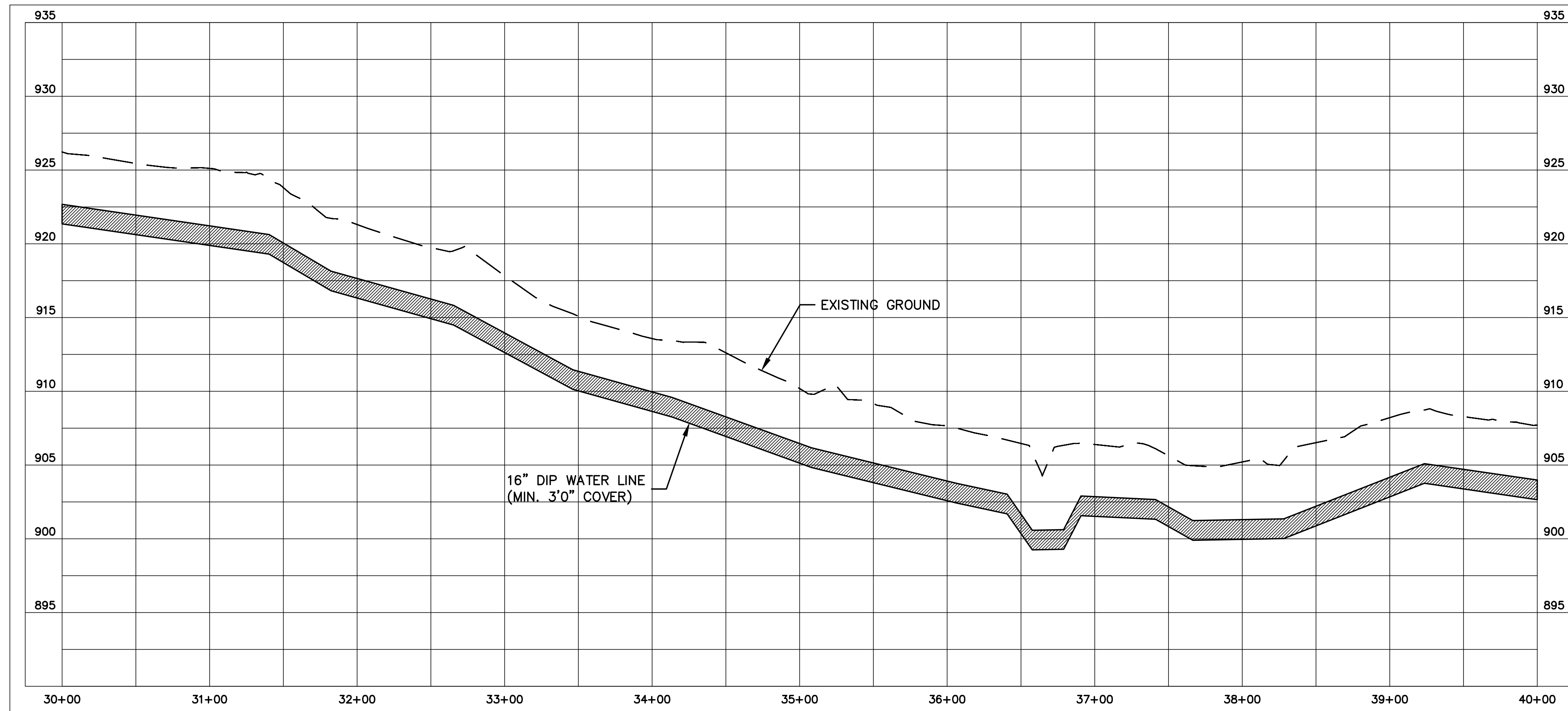
PROJECT REFERENCE NO. R-2707C	SHEET NO. UC-40
DESIGNED BY: VW	
DRAWN BY: VW	
CHECKED BY: MJW	
APPROVED BY: MJW	
REVISED: 1/30/17	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919)707-6690 FAX: (919)250-4151	UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION

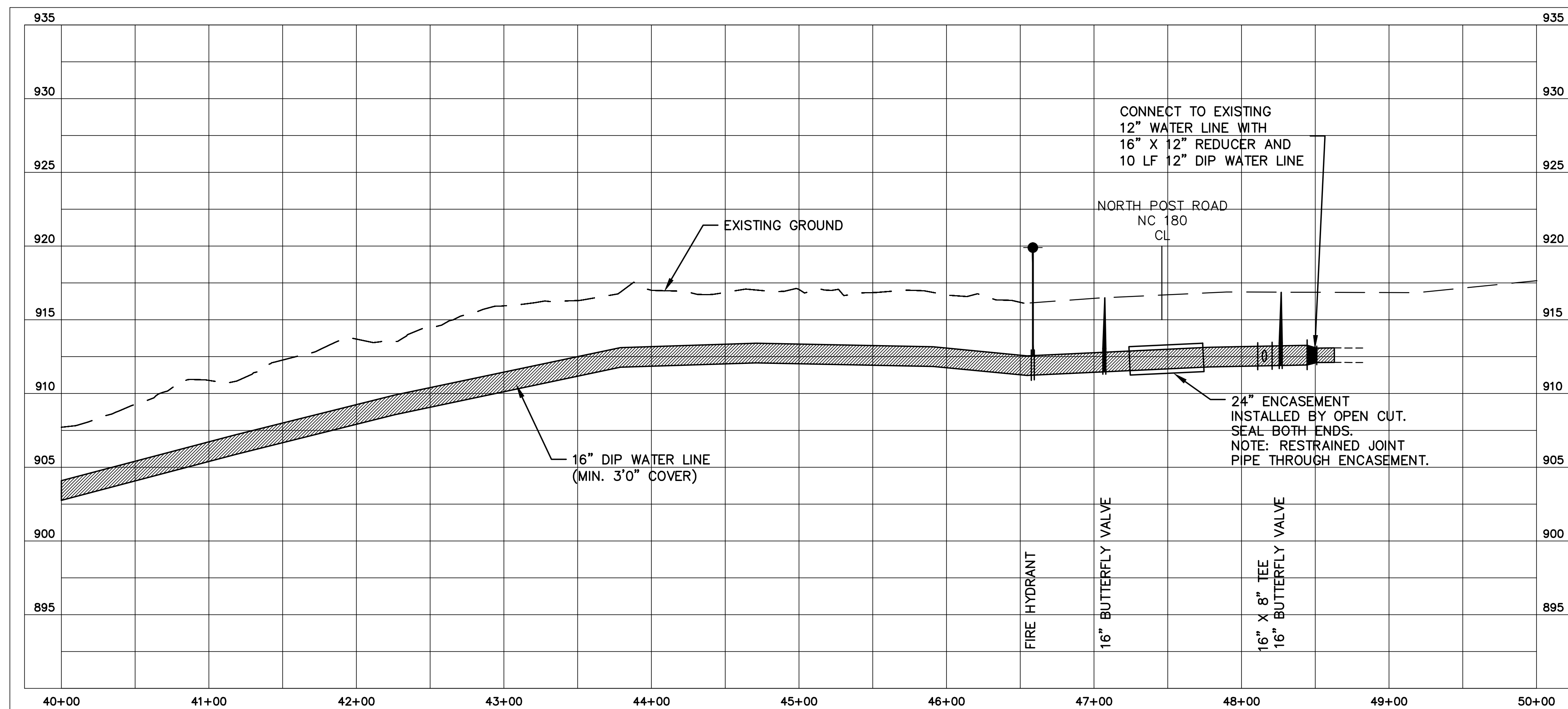
 ASSOCIATES
 ENGINEERING PLANNING FINANCE
 CONSULTING

**WATER LINE 9
 16" WATER LINE
 NORTH POST ROAD
 AND NC 150
 CLEVELAND COUNTY
 WATER**

PROFILE
 SCALE: HORIZ. 1"= 50'
 VERT. 1"= 5'



30+00 - 40+00



40+00 - 50+00