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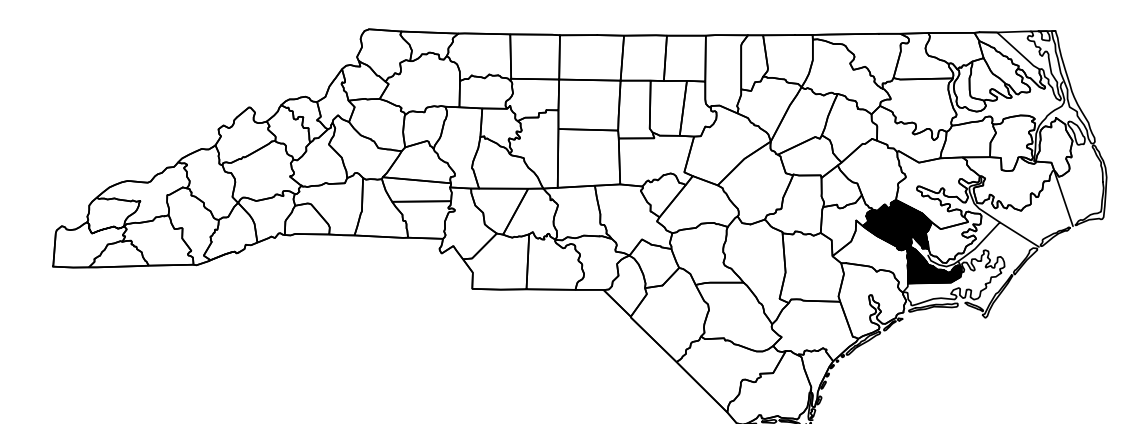
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See Sheet 1A For Index of Sheets
See Sheet 1B For Conventional Symbols

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

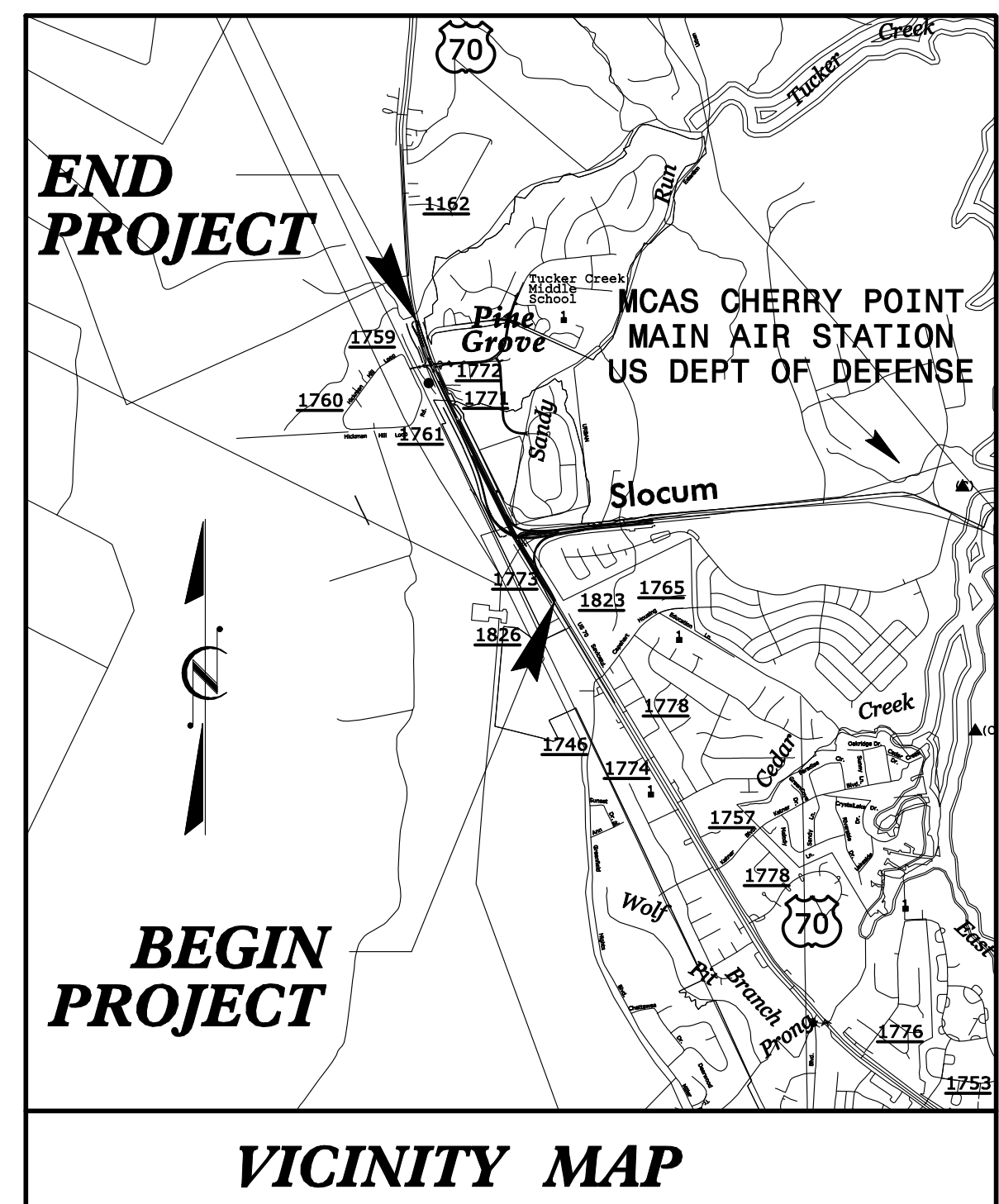
T.I.P. NO.	SHEET NO.
R-5516	UC-1



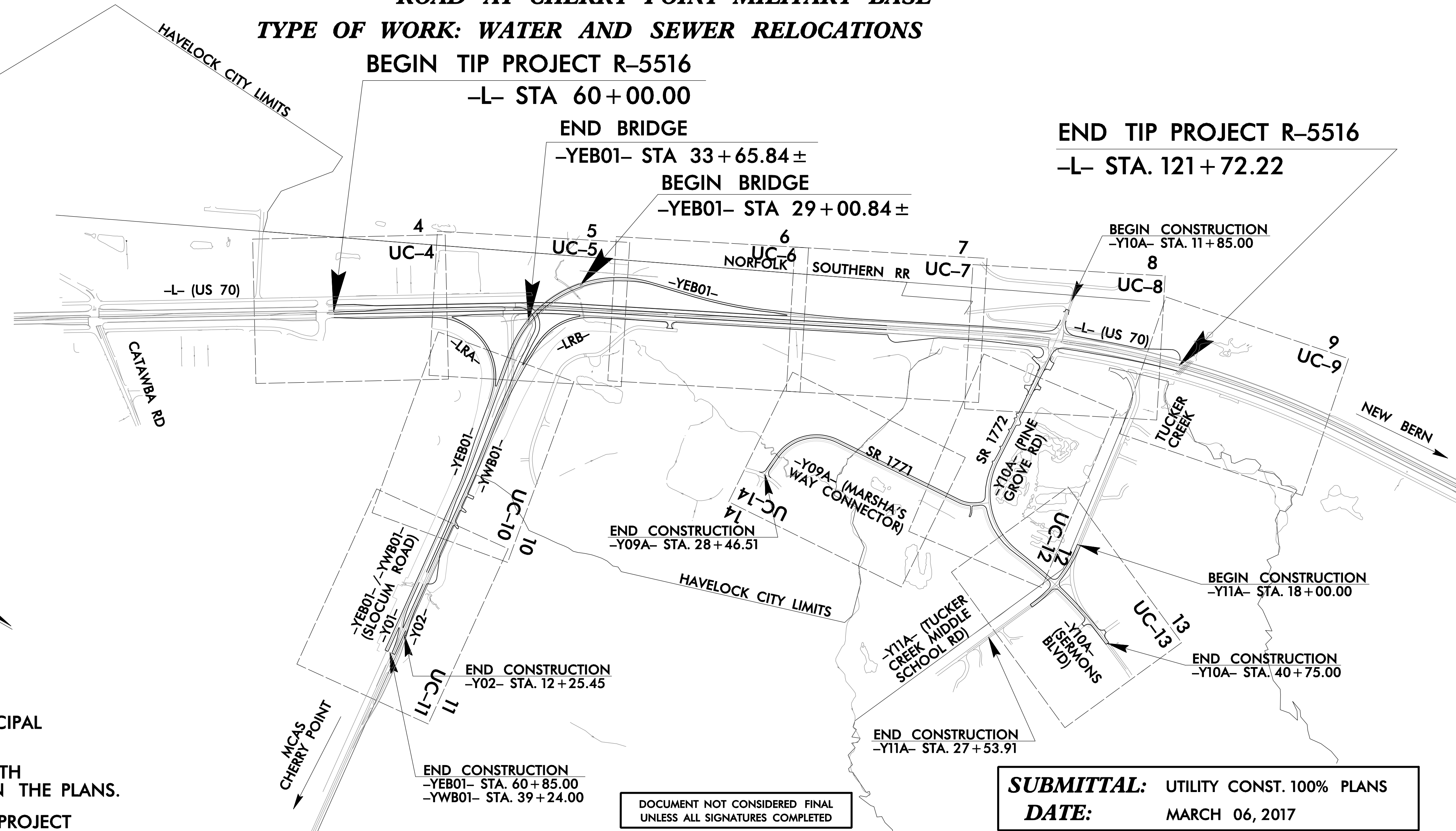
UTILITY CONSTRUCTION PLANS CRAVEN COUNTY

LOCATION: INTERCHANGE FROM US 70 TO SLOCUM ROAD AT CHERRY POINT MILITARY BASE
TYPE OF WORK: WATER AND SEWER RELOCATIONS
BEGIN TIP PROJECT R-5516

END TIP PROJECT R-5516
-L- STA. 121+72.22



VICINITY MAP



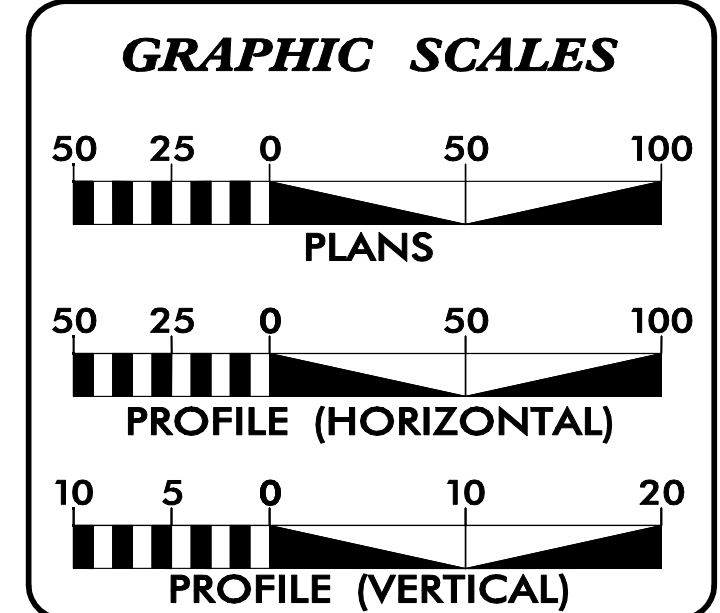
PORTIONS OF THIS PROJECT ARE WITHIN THE MUNICIPAL BOUNDARY OF THE CITY OF HAVELOCK.
THIS IS A PARTIAL CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO POINTS AS SHOWN ON THE PLANS.
METHOD "III" CLEARING SHALL BE USED ON THIS PROJECT

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SUBMITTAL: UTILITY CONST. 100% PLANS
DATE: MARCH 06, 2017

TIP PROJECT: R-5516

CONTRACT:



SHEET NO.:	DESCRIPTION:
UC-1	TITLE SHEET
UC-2	LEGEND OF SYMBOLS SHEET
UC-3	GENERAL NOTES SHEET
UC-3A THRU UC-3B	CONSTRUCTION DETAILS SHEETS
UC-4 THRU UC-14	UTILITY CONST. PLAN SHEETS
UC-15 THRU UC-23	UTILITY CONST. PROFILE SHEETS

WATER AND SEWER OWNERS ON PROJECT

(A) WATER: CITY OF HAVELOCK, CRAVEN COUNTY

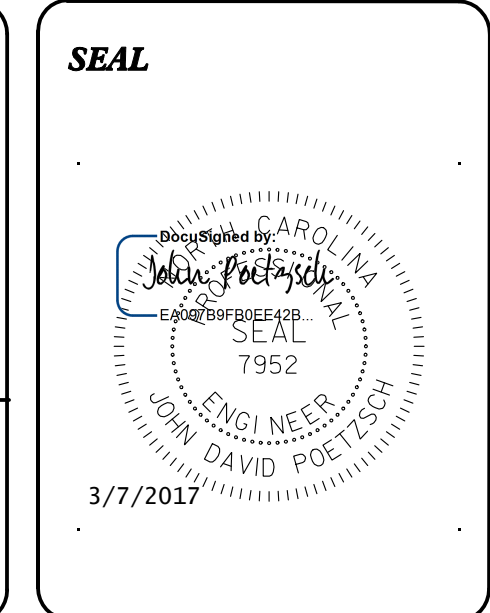
(B) SANITARY SEWER: CITY OF HAVELOCK

PREPARED IN THE OFFICE OF:

AECOM

AECOM TECHNICAL SERVICES OF NORTH CAROLINA, INC.
701 CORPORATE CENTER DRIVE, SUITE 475, RALEIGH, NC 27607
919-854-6200 919-854-6259 (fax)
F - 0342

John D. Poetzsch, PE UTILITIES PROJECT ENGINEER
John Faison PROJECT UTILITY COORDINATOR
Gary Swinson PROJECT UTILITY ENGINEER



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

Bo Hemphill, PE UTILITIES REGIONAL ENGINEER
Nabil Hamdan UTILITIES ENGINEER
Ed Reams, Jr. UTILITIES AREA COORDINATOR
Larry James UTILITIES COORDINATOR

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

UTILITIES PLAN SHEET SYMBOLS

PROPOSED WATER SYMBOLS

Table listing proposed water symbols including Water Line (Sized as Shown), various Degree Bends (11 1/4, 22 1/2, 45, 90), Plug, Tee, Cross, Reducer, Gate Valve, Butterfly Valve, Tapping Valve, Line Stop, Line Stop with Bypass, Blow Off, Fire Hydrant, Relocate Fire Hydrant, Remove Fire Hydrant, Water Meter, Relocate Water Meter, Remove Water Meter, Water Pump Station, RPZ Backflow Preventer, DCV Backflow Preventer, Relocate RPZ Backflow Preventer, and Relocate DCV Backflow Preventer.

PROPOSED SEWER SYMBOLS

Table listing proposed sewer symbols including Gravity Sewer Line (Sized as Shown), Force Main Sewer Line (Sized as Shown), Manhole (Sized per Note), and Sewer Pump Station.

PROPOSED MISCELLANEOUS UTILITIES SYMBOLS

Table listing proposed miscellaneous utilities symbols including Power Pole, Telephone Pole, Joint Use Pole, Telephone Pedestal, Utility Line by Others (Type as Shown), Trenchless Installation, Encasement by Open Cut, and Encasement.

Table listing miscellaneous utilities symbols including Thrust Block, Air Release Valve, Utility Vault, Concrete Pier, Steel Pier, Plan Note, and Pay Item Note.

EXISTING UTILITIES SYMBOLS

Table listing existing utilities symbols including Power Pole, Telephone Pole, Joint Use Pole, Utility Pole, Utility Pole with Base, H-Frame Pole, Power Transmission Line Tower, Water Manhole, Power Manhole, Telephone Manhole, Sanitary Sewer Manhole, Hand Hole for Cable, Power Transformer, Telephone Pedestal, CATV Pedestal, Gas Valve, Gas Meter, Located Miscellaneous Utility Object, Abandoned According to Utility Records, and End of Information.

Table listing existing utilities symbols including Underground Power Line, Underground Telephone Cable, Underground Telephone Conduit, Underground Fiber Optics Telephone Cable, Underground TV Cable, Underground Fiber Optics TV Cable, Underground Gas Pipeline, Aboveground Gas Pipeline, Underground Water Line, Aboveground Water Line, Underground Gravity Sanitary Sewer Line, Aboveground Gravity Sanitary Sewer Line, Underground SS Forced Main Line, Underground Unknown Utility Line, SUE Test Hole, Water Meter, Water Valve, Fire Hydrant, and Sanitary Sewer Cleanout.


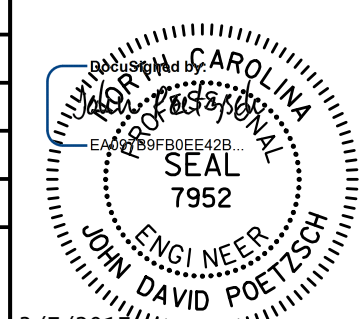
*For Existing Utilities
Utility Line Drawn from Record (Type as Shown)
Designated Utility Line (Type as Shown)

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 WATER DISTRIBUTION UTILITIES BELONG TO THE CITY OF HAVELOCK AND CRAVEN COUNTY. THE SANITARY SEWER UTILITIES BELONG TO THE CITY OF HAVELOCK.
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 OWNERS OWN 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 OWNERS 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 OWNERS' REPRESENTATIVES TO ALL PHASES OF CONSTRUCTION. NOTIFY DEPARTMENT PERSONNEL AND THE UTILITY OWNERS 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.

Prepared in the Office of:  AECOM TECHNICAL SERVICES OF NORTH CAROLINA, INC. 701 CORPORATE CENTER DRIVE, SUITE 475, RALEIGH, NC 27607 919-854-6200 919-854-6259 (fax) F - 0342	PROJECT REFERENCE NO. R-5516	SHEET NO. UC-3
	DESIGNED BY: . DRAWN BY: . CHECKED BY: . APPROVED BY: . REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	3/7/2011 DAVID POETSCH UTILITY CONSTRUCTION PLANS ONLY	

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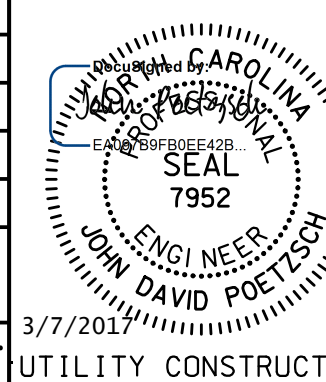
UTILITY CONSTRUCTION

PROJECT SPECIFIC NOTES:

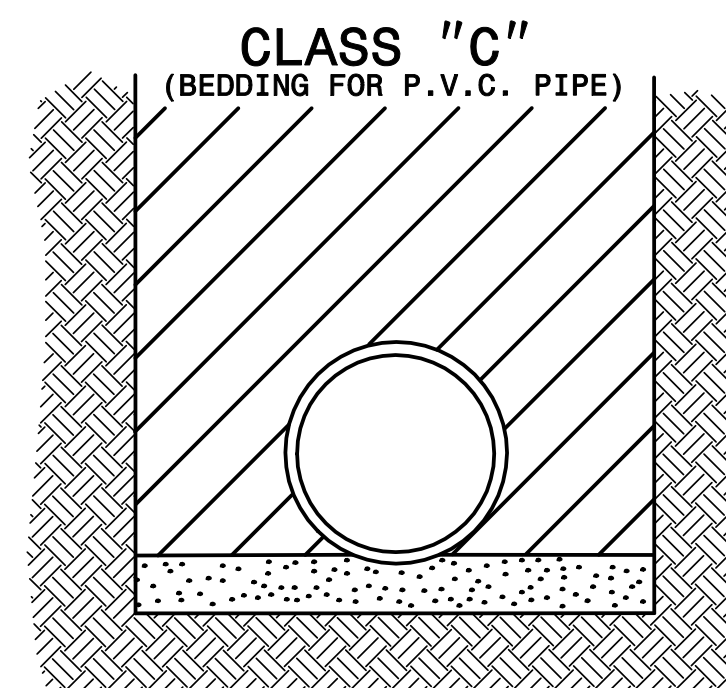
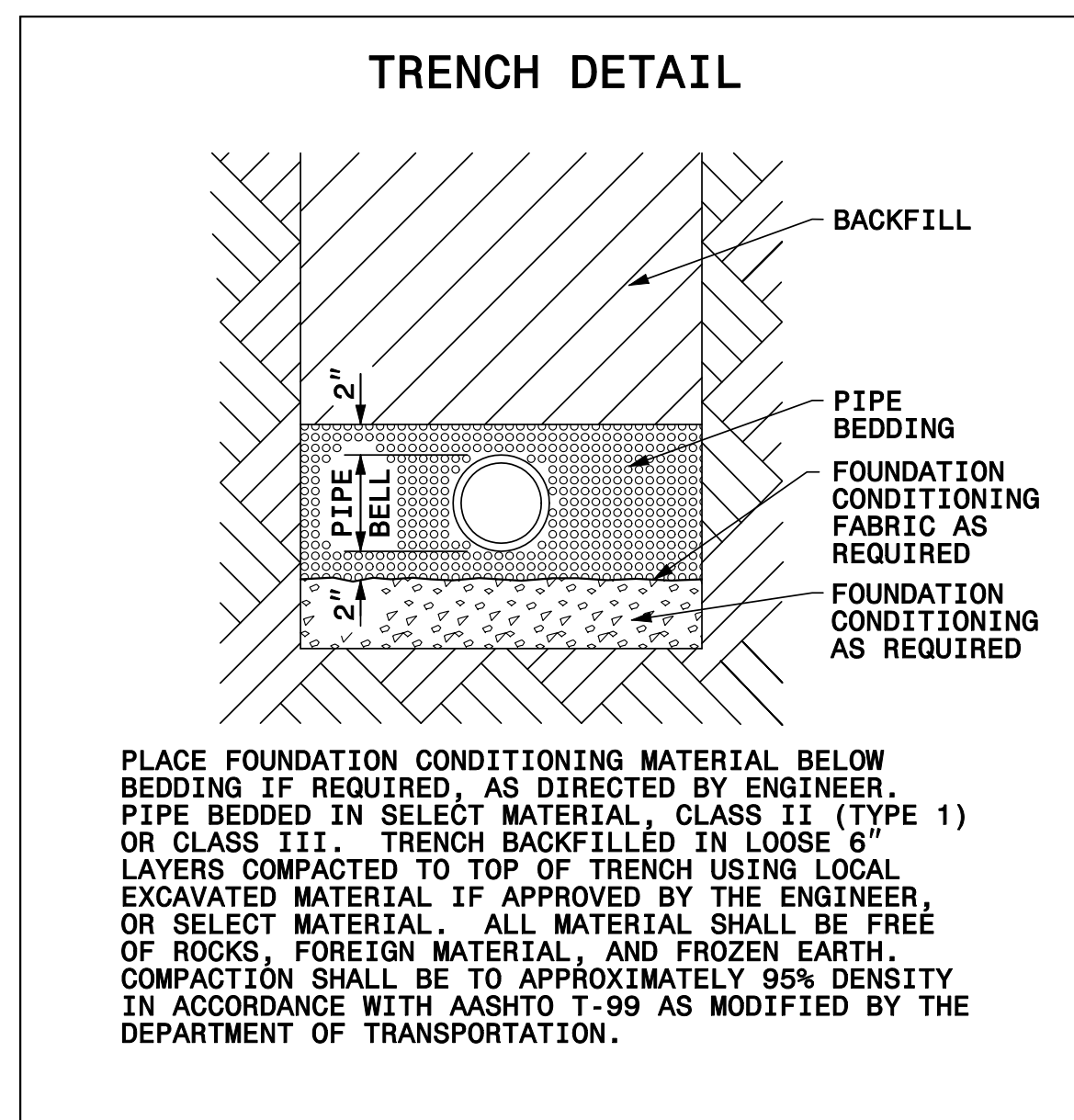
1. DUE TO CLOSE PROXIMITY, A PORTION OF CITY OF HAVELOCK WATER DISTRIBUTION AND SANITARY SEWER FORCE MAIN UTILITIES SHOWN ON PLAN SHEET UC-5 WILL BE INSTALLED IN A BENCHED TRENCH.

LIST OF STANDARD DRAWINGS

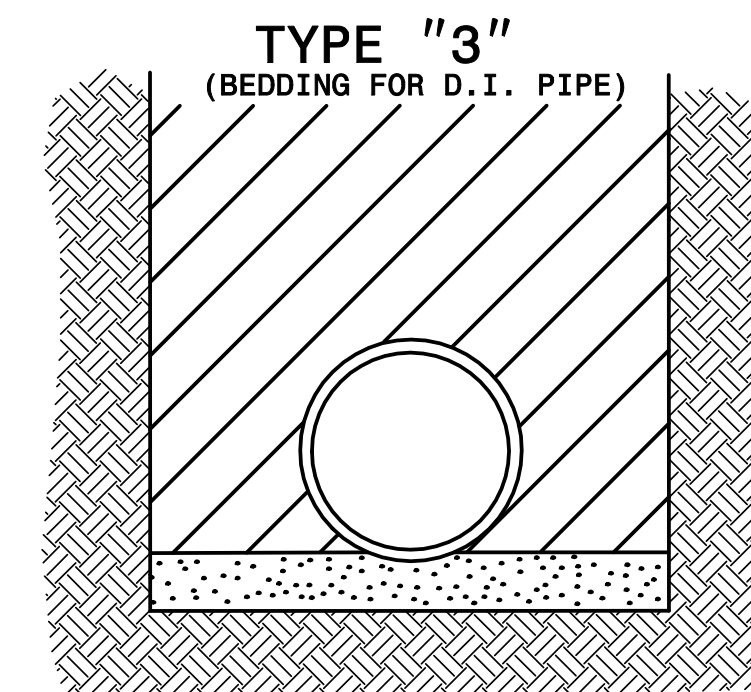
- 1515.01 WATER METER
- 1515.02 FIRE HYDRANT
- 1520.01 SEWER CLEAN OUT



UTILITY CONSTRUCTION

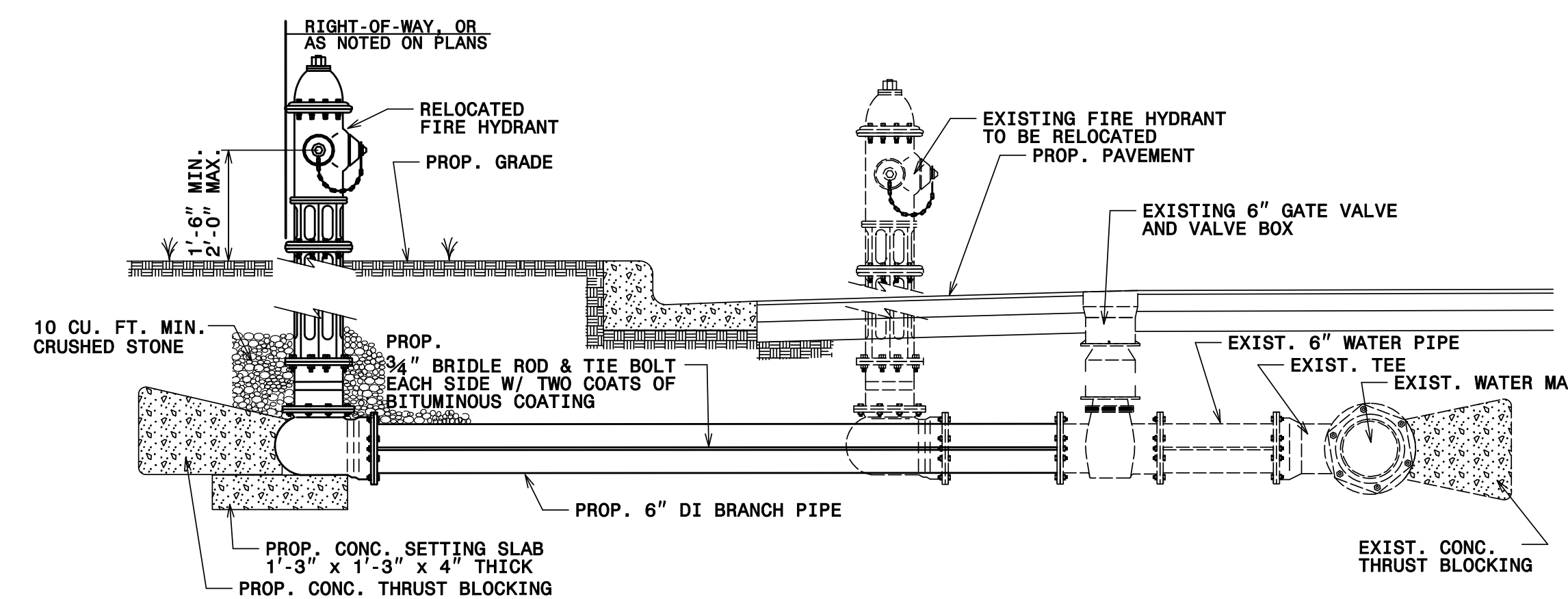
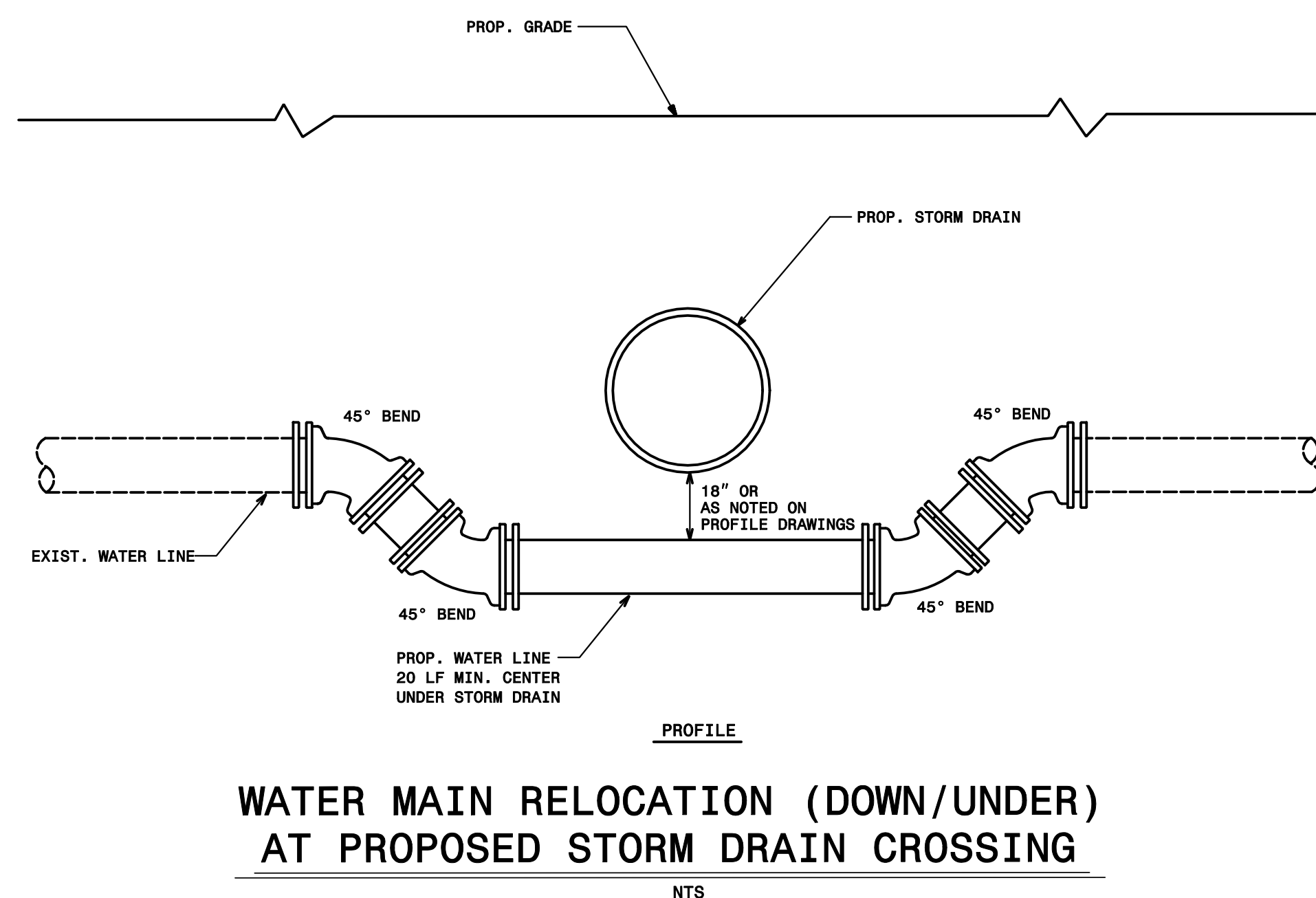


PIPE BEDDED IN LOOSE MATERIAL, LIGHTLY TAMPED WITH A MINIMUM OF 6" UNDER PIPE. TRENCH BACKFILLED IN LOOSE 6" LAYERS COMPACTED TO TOP OF TRENCH USING LOCAL EXCAVATED MATERIAL, IF APPROVED BY THE ENGINEER, OR SELECT MATERIAL. ALL MATERIAL SHALL BE FREE OF ROCKS, FOREIGN MATERIAL, AND FROZEN EARTH. COMPACTION SHALL BE TO APPROX. 95% DENSITY IN ACCORDANCE WITH AASHTO T-99 AS MODIFIED BY THE DEPARTMENT OF TRANSPORTATION.



PIPE BEDDED IN 4" MINIMUM LOOSE SOIL. TRENCH BACKFILLED IN LOOSE 6" LAYERS COMPACTED TO TOP OF TRENCH USING LOCAL EXCAVATED MATERIAL IF APPROVED BY THE ENGINEER, OR SELECT MATERIAL. ALL MATERIAL SHALL BE FREE OF ROCKS, FOREIGN MATERIAL, AND FROZEN EARTH. COMPACTION SHALL BE TO APPROX. 95% DENSITY IN ACCORDANCE WITH AASHTO T-99 AS MODIFIED BY THE DEPARTMENT OF TRANSPORTATION.

MAXIMUM TRENCH WIDTH AT TOP OF PIPE			
NOMINAL PIPE SIZE (inches)	TRENCH WIDTH (inches)	NOMINAL PIPE SIZE (inches)	TRENCH WIDTH (inches)
4	28	20	44
6	30	24	48
8	32	30	54
10	34	36	60
12	36	42	66
14	38	48	72
16	40	54	78
18	42		



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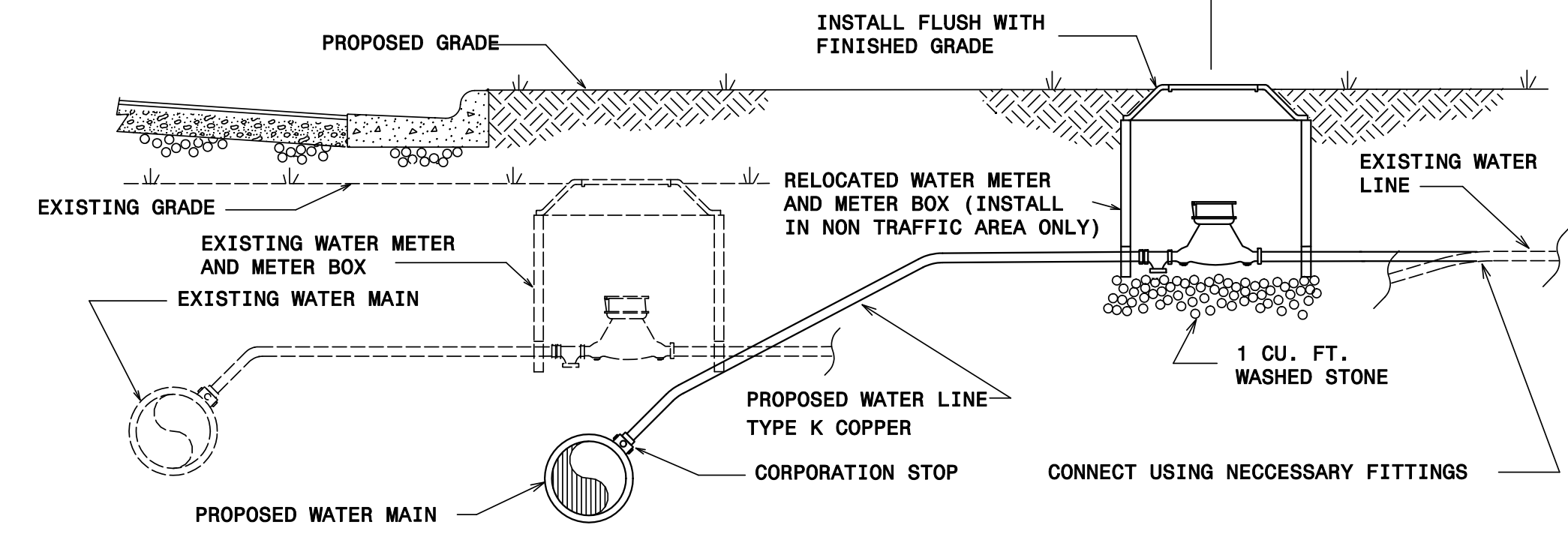
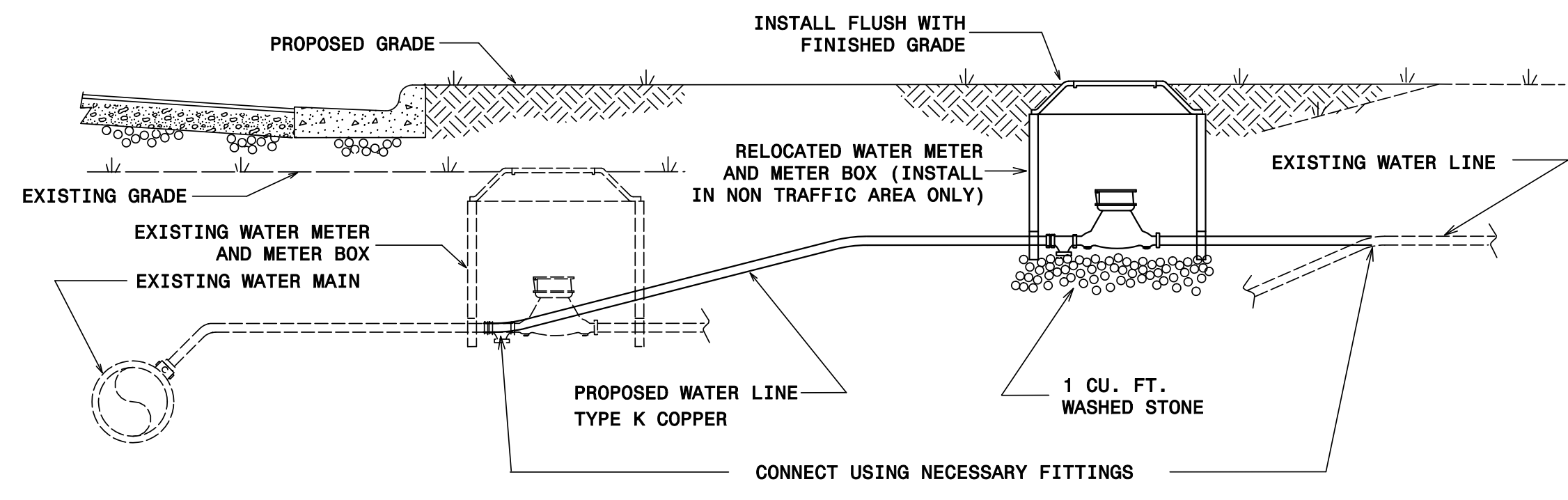


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PROJECT REFERENCE NO. R-5516	SHEET NO. UC-3B
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DRAWN BY:	
CHECKED BY:	
APPROVED BY:	
REVISED:	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION 3/7/2011 UTILITY CONSTRUCTION PLANS ONLY

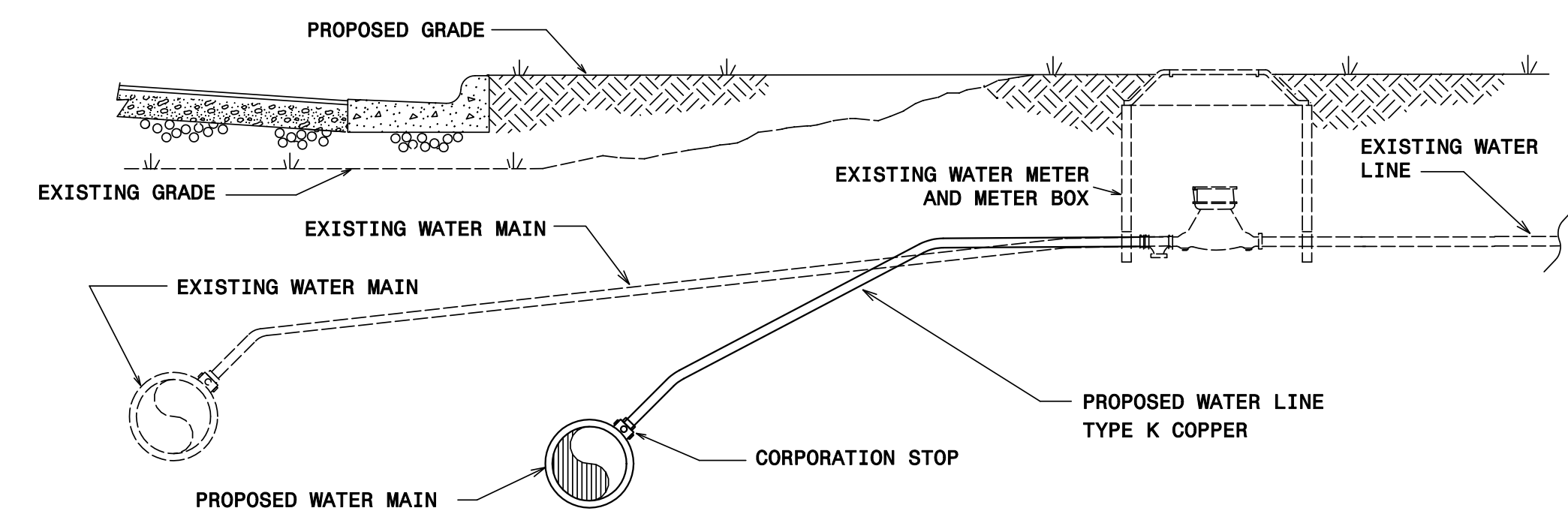
UTILITY CONSTRUCTION



NOTES:

1. RELOCATION SHALL INCLUDE THE REMOVAL AND INSTALLATION AT THE APPROPRIATE LOCATION OF THE WATER METER, CURB STOP & CLAMPING DEVICE, METER VALVES, AND METER BOX WITH LID.
2. THE NEW WATER SERVICE LINE SHALL BE OF THE SAME TYPE AND GRADE AS THE EXISTING WATER SERVICE LINE UNLESS OTHERWISE SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER.
3. THE NEW WATER SERVICE LINE SHALL BE INSTALLED WITH A MINIMUM OF 12", MAXIMUM OF 24" COVER BELOW FINISHED GRADE.
4. THE OWNER RESERVES THE RIGHT TO ADD OR DELETE WATER SERVICE TAPS AND TO CHANGE LOCATIONS FROM THOSE SHOWN.

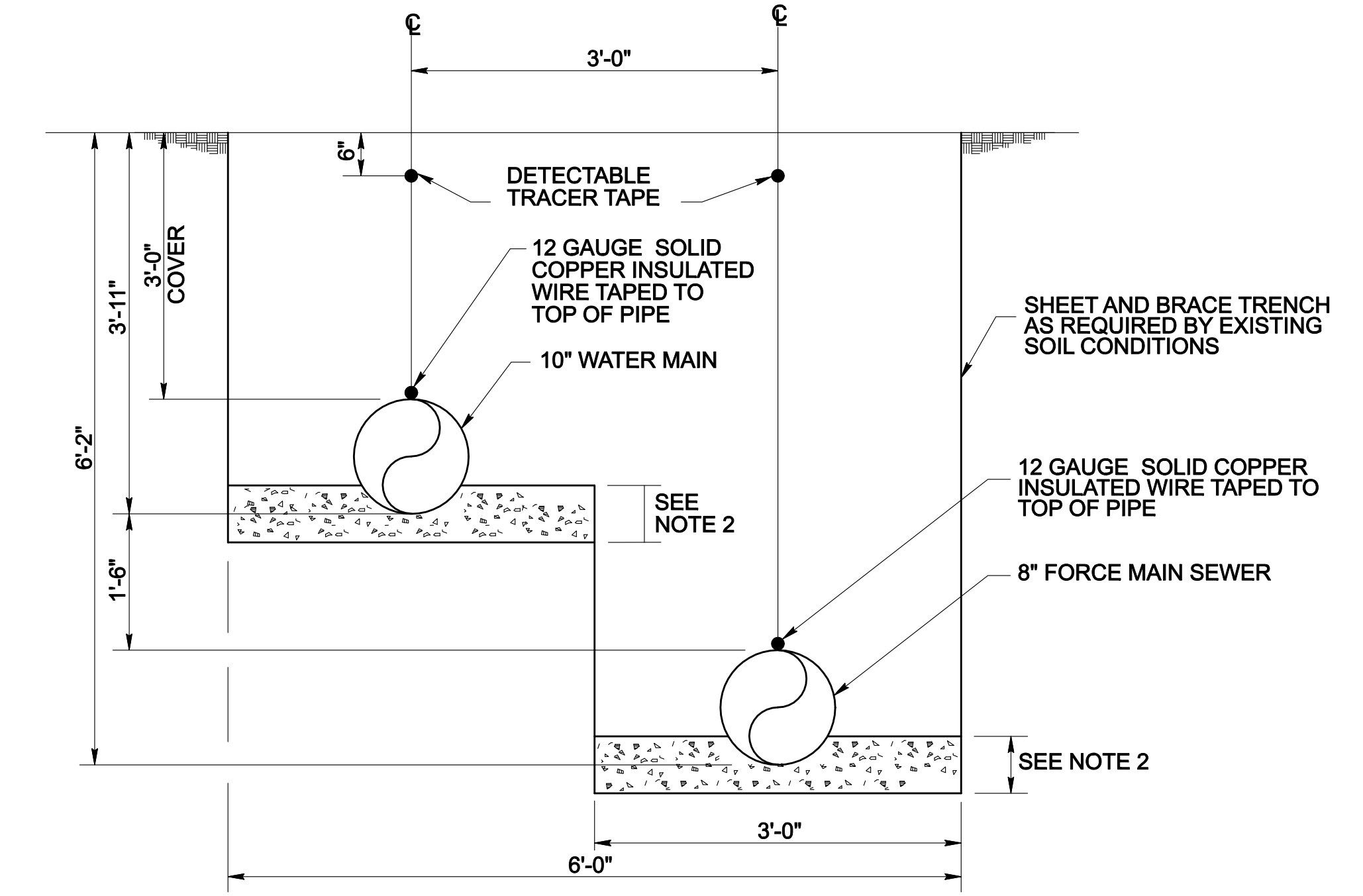
WATER METER RELOCATION DETAILS



NOTES:

1. THE NEW WATER SERVICE LINE SHALL BE OF THE SAME TYPE AND GRADE AS THE EXISTING WATER SERVICE LINE UNLESS OTHERWISE SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER.
2. THE NEW WATER SERVICE LINE SHALL BE INSTALLED WITH A MINIMUM OF 12", MAXIMUM OF 24" COVER BELOW FINISHED GRADE.

RECONNECT EXISTING WATER METER DETAIL



NOTES:

1. SHAPE BOTTOM OF TRENCH TO FIT BOTTOM QUARTER ON SIDES OF AND BENEATH PIPE. BED ONE-QUARTER THE PIPE OUTSIDE DIAMETER ON THE SIDES OF AND 6" BENEATH PIPE WITH #67 STONE. EXCAVATE UNDER EACH BELL SUFFICIENTLY TO PREVENT ANY LOAD ON BELL.
2. WHERE UNSTABLE SOIL IS ENCOUNTERED, EXCAVATE THE SOIL AS DIRECTED BY THE ENGINEERS AND BACKFILL WITH AT LEAST 8" OF #467 STONE. THE BACKFILL SHALL BE COMPACTED AND SHAPED TO FORM A BED FOR THE PIPE.
3. BACKFILL IN 6" LAYERS AND COMPACT TO 98% STANDARD DENSITY WITHIN ROAD RIGHT-OF-WAYS OR OTHERWISE 90% STANDARD DENSITY AS DETERMINED BY AASHTO TEST METHOD T-99.

BENCHED TRENCH DETAIL

DATE: 3/6/2011
TIME: 8:53:33 PM
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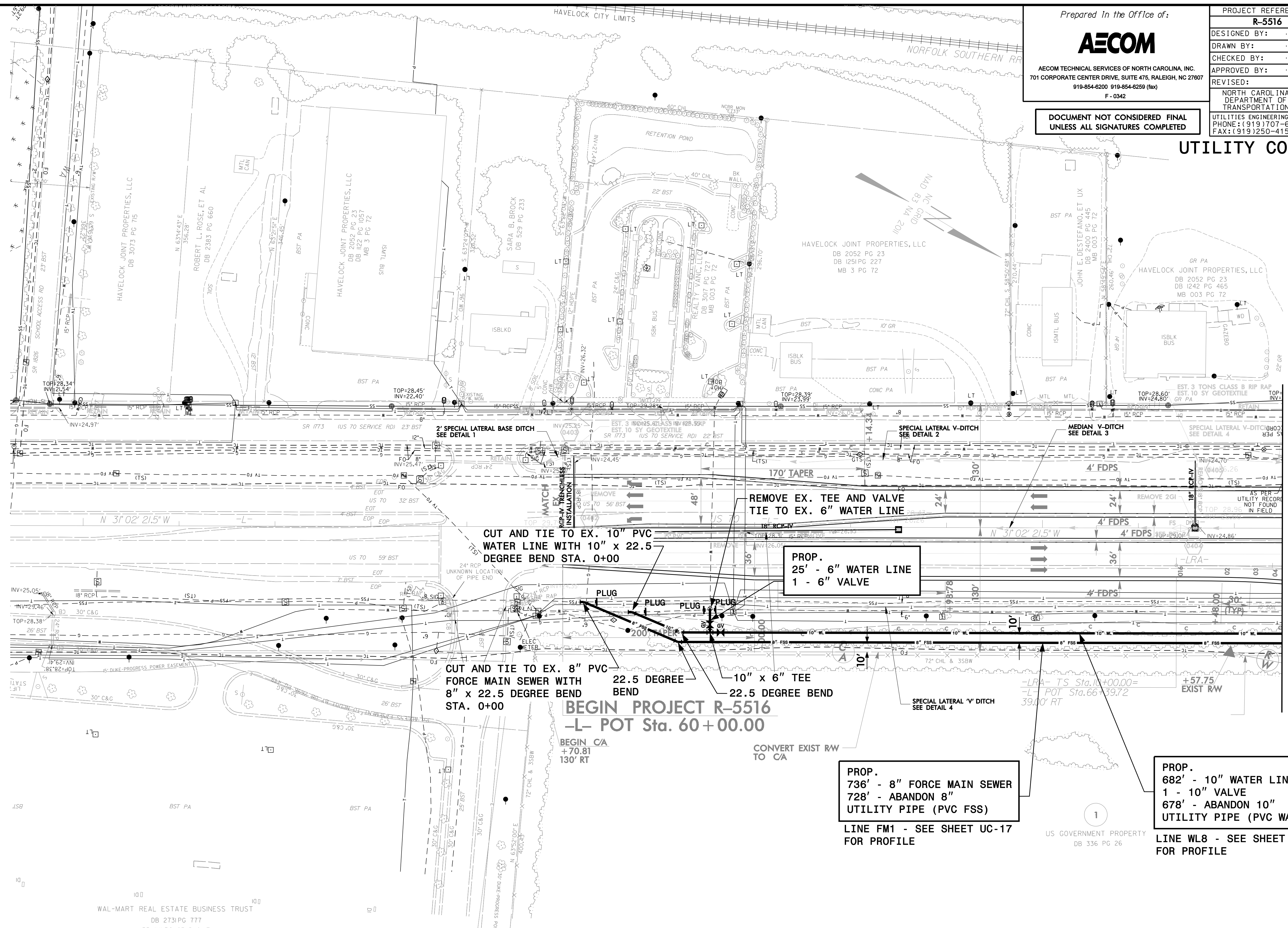


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PROJECT REFERENCE NO. R-5516	SHEET NO. UC-4
DESIGNED BY:	
DRAWN BY:	
CHECKED BY:	
APPROVED BY:	
REVISED:	3/7/2011
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
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UTILITY CONSTRUCTION



MATCHLINE -L- STA 67 + 50.00
SEE PLAN SHEET UC-5

CUT AND TIE TO EX. 10" PVC
WATER LINE WITH 10" x 22.5
DEGREE BEND STA. 0+00

REMOVE EX. TEE AND VALVE
TIE TO EX. 6" WATER LINE

PROP.
25' - 6" WATER LINE
1 - 6" VALVE

CUT AND TIE TO EX. 8" PVC
FORCE MAIN SEWER WITH
8" x 22.5 DEGREE BEND
STA. 0+00

BEGIN PROJECT R-5516
-L- POT Sta. 60 + 00.00

BEGIN CA
+70.81
130' RT

CONVERT EXIST RW
TO CA

PROP.
736' - 8" FORCE MAIN SEWER
728' - ABANDON 8"
UTILITY PIPE (PVC FSS)
LINE FM1 - SEE SHEET UC-17
FOR PROFILE

PROP.
682' - 10" WATER LINE
1 - 10" VALVE
678' - ABANDON 10"
UTILITY PIPE (PVC WATER)
LINE WL8 - SEE SHEET UC-18
FOR PROFILE

The estimated quantity of Ductile Iron Sewer Pipe Fittings on this plan sheet is 265 pounds. The actual quantity and type of fittings will vary based on field conditions.

The estimated quantity of Ductile Iron Water Pipe Fittings on this plan sheet is 765 pounds. The actual quantity and type of fittings will vary based on field conditions.

DATE: 3/6/2011
TIME: 8:45:51 PM
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WAL-MART REAL ESTATE BUSINESS TRUST
DB 2731 PG 777
PB "H" PG 63 D & E
PB "H" PG 115 F & G



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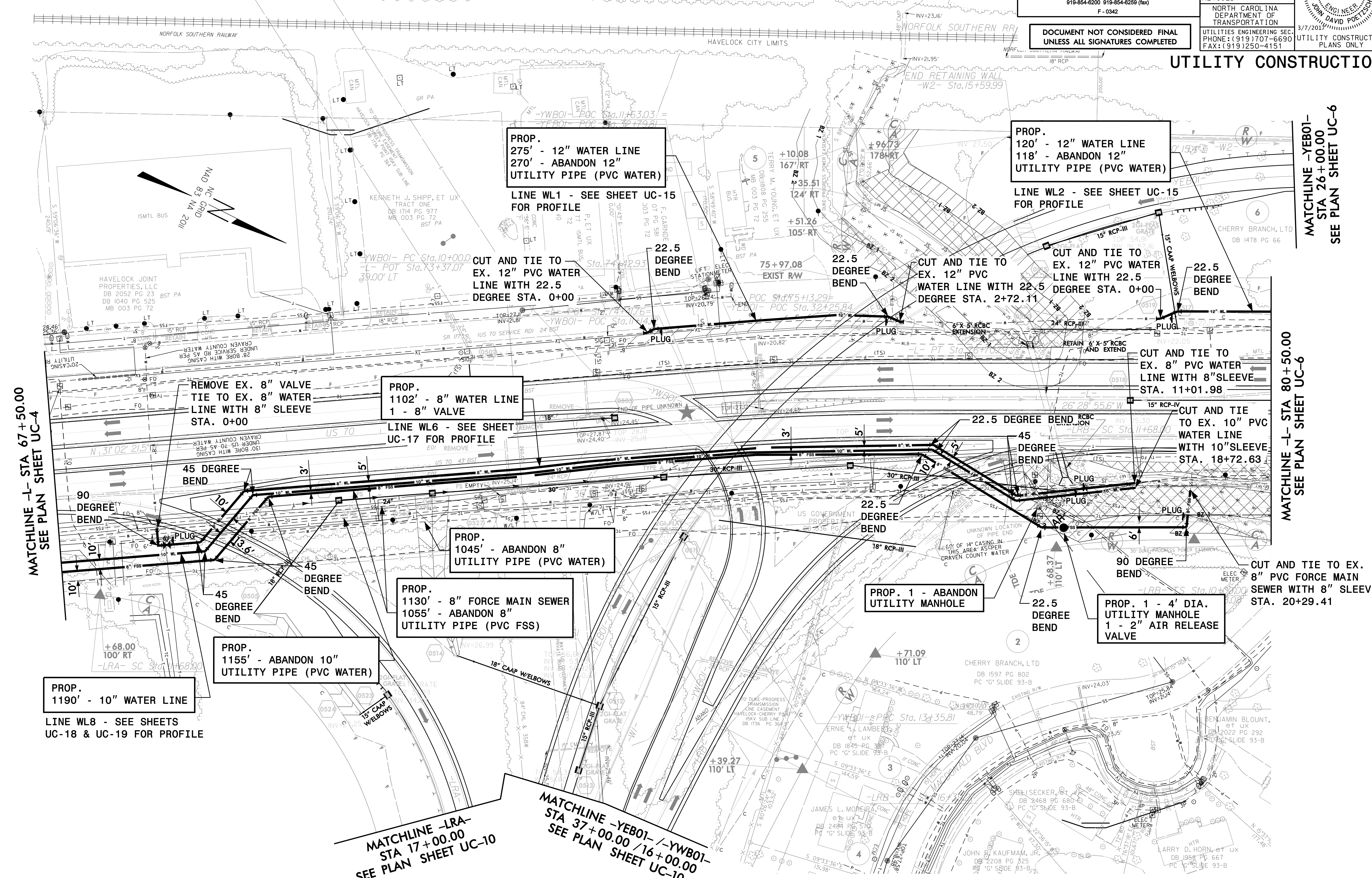
PROJECT REFERENCE NO.	R-5516	SHEET NO.	UC-5
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APPROVED BY:			
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UTILITY CONSTRUCTION

The estimated quantity of Ductile Iron Sewer Pipe Fittings on this plan sheet is 915 pounds. The actual quantity and type of fittings will vary based on field conditions.

The estimated quantity of Ductile Iron Water Pipe Fittings on this plan sheet is 3205 pounds. The actual quantity and type of fittings will vary based on field conditions.



MATCHLINE -L- STA 67+50.00
SEE PLAN SHEET UC-4

PROP. 1190' - 10" WATER LINE
LINE WL8 - SEE SHEETS UC-18 & UC-19 FOR PROFILE

PROP. 1155' - ABANDON 10" UTILITY PIPE (PVC WATER)

PROP. 1130' - 8" FORCE MAIN SEWER
1055' - ABANDON 8" UTILITY PIPE (PVC FSS)

PROP. 1045' - ABANDON 8" UTILITY PIPE (PVC WATER)

PROP. 1102' - 8" WATER LINE
1 - 8" VALVE
LINE WL6 - SEE SHEET UC-17 FOR PROFILE

PROP. 275' - 12" WATER LINE
270' - ABANDON 12" UTILITY PIPE (PVC WATER)
LINE WL1 - SEE SHEET UC-15 FOR PROFILE

PROP. 120' - 12" WATER LINE
118' - ABANDON 12" UTILITY PIPE (PVC WATER)
LINE WL2 - SEE SHEET UC-15 FOR PROFILE

MATCHLINE -L- STA 80+50.00
SEE PLAN SHEET UC-6

MATCHLINE -YEB01-
STA 26+00.00
SEE PLAN SHEET UC-6

MATCHLINE -LRA- STA 17+00.00
SEE PLAN SHEET UC-10

MATCHLINE -YEB01- /-YWB01- STA 37+00.00 /16+00.00
SEE PLAN SHEET UC-10

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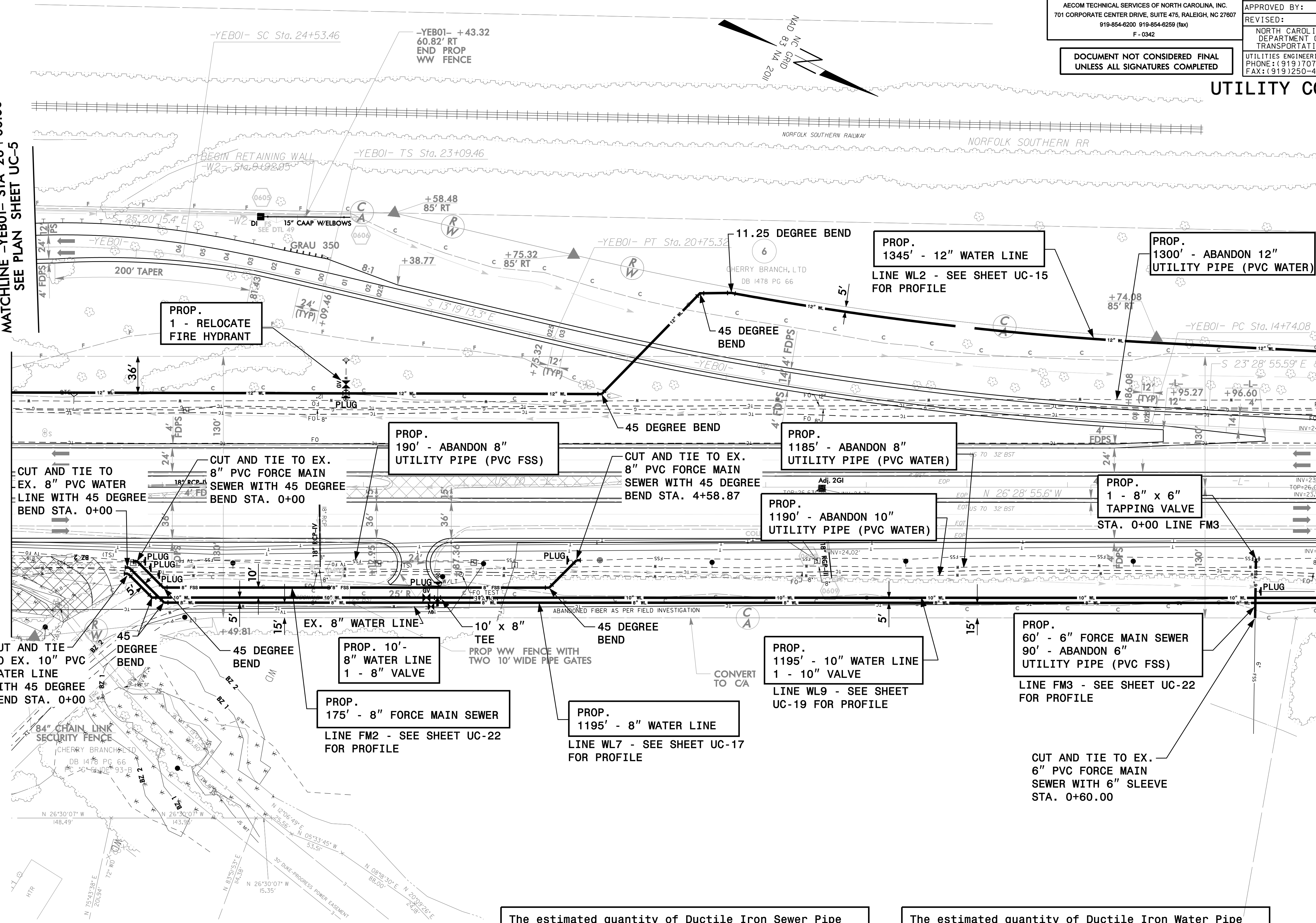
PROJECT REFERENCE NO. R-5516	SHEET NO. UC-6
DESIGNED BY:	
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APPROVED BY:	
REVISED:	3/7/2014
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
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UTILITY CONSTRUCTION

MATCHLINE -YEB01- STA 26+00.00
SEE PLAN SHEET UC-5

MATCHLINE -L- STA 80+50.00
SEE PLAN SHEET UC-5

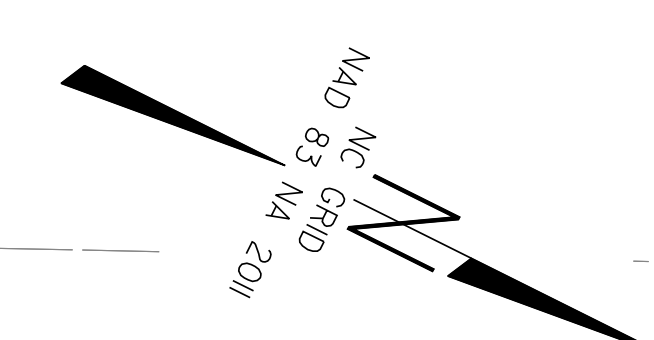
MATCHLINE -L- -YEB01-
STA 93+50.00 / 13+07.88
SEE PLAN SHEET UC-7



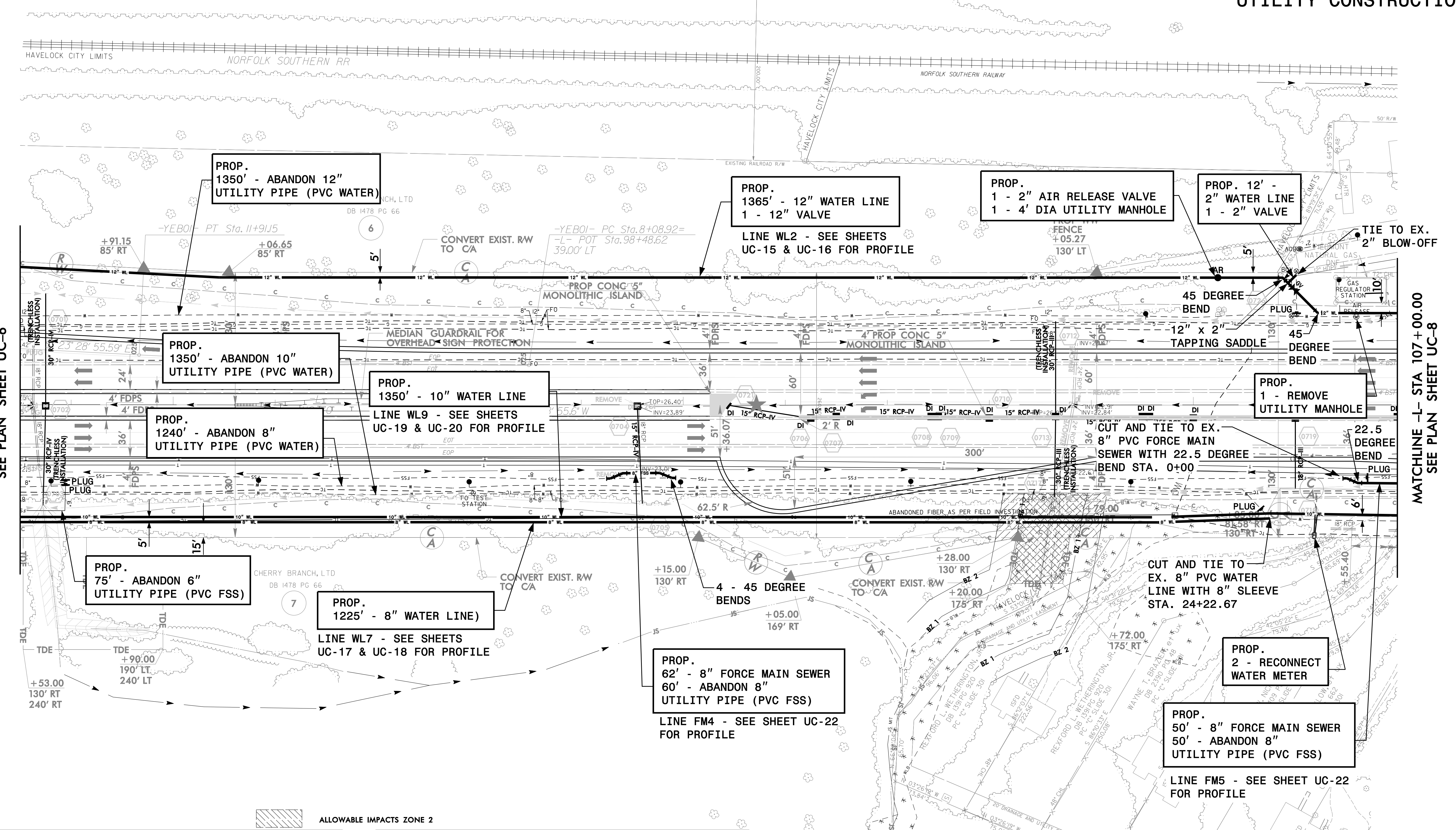
The estimated quantity of Ductile Iron Sewer Pipe Fittings on this plan sheet is 925 pounds. The actual quantity and type of fittings will vary based on field conditions.

The estimated quantity of Ductile Iron Water Pipe Fittings on this plan sheet is 1620 pounds. The actual quantity and type of fittings will vary based on field conditions.

DATE: 3/6/2014
TIME: 2:57:49 PM
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AECOM		R-5516	UC-7
		DESIGNED BY:	
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UTILITY CONSTRUCTION		3/7/2011 UTILITY CONSTRUCTION PLANS ONLY	



MATCHLINE -L- STA 93+50.00
SEE PLAN SHEET UC-6

MATCHLINE -L- STA 107+00.00
SEE PLAN SHEET UC-8

The estimated quantity of Ductile Iron Sewer Pipe Fittings on this plan sheet is 1195 pounds. The actual quantity and type of fittings will vary based on field conditions.

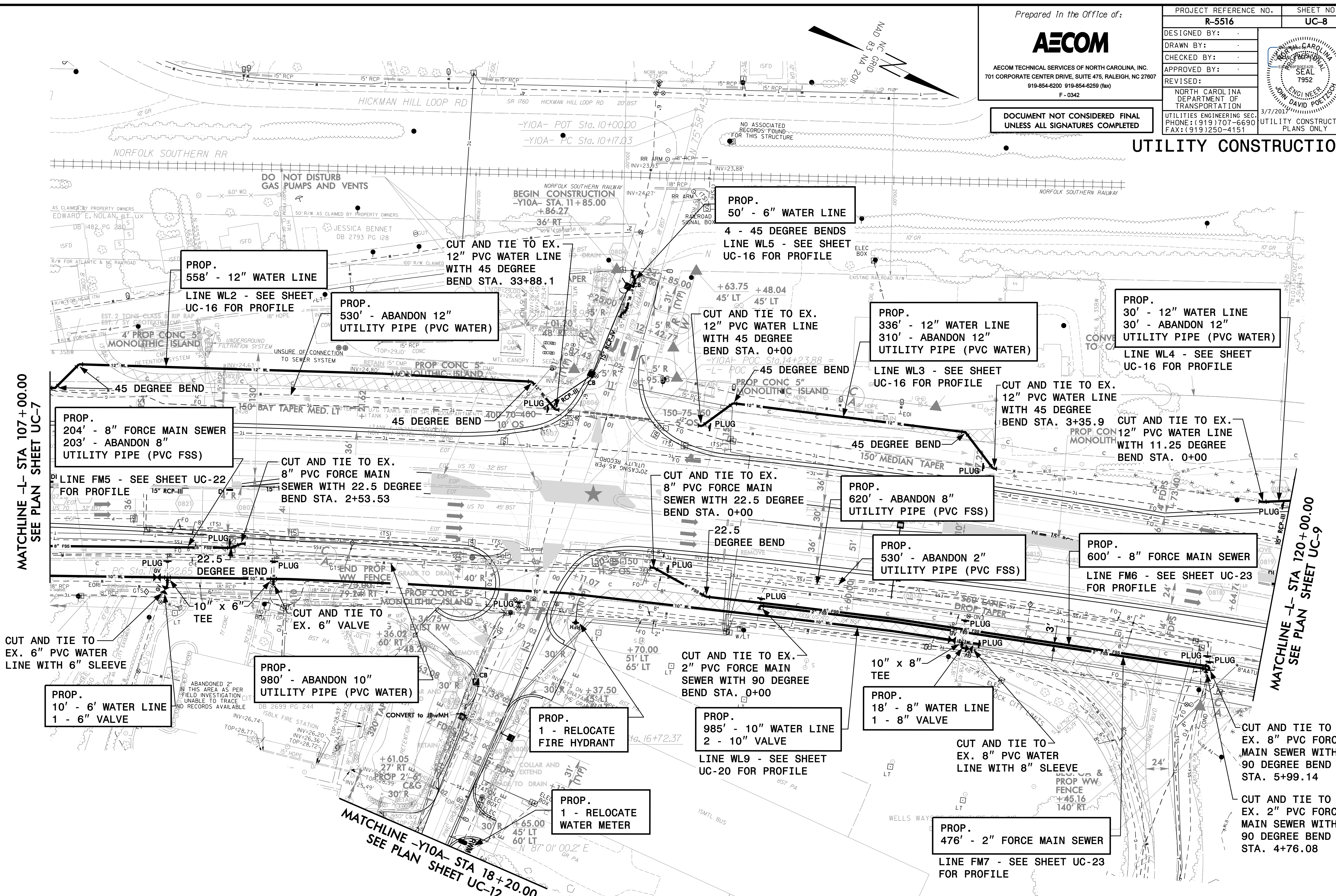
The estimated quantity of Ductile Iron Water Pipe Fittings on this plan sheet is 515 pounds. The actual quantity and type of fittings will vary based on field conditions.

DATE: 3/6/2011
TIME: 2:59:48 PM
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PROJECT REFERENCE NO. R-5516	SHEET NO. UC-8
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DRAWN BY:	
CHECKED BY:	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	3/7/2011
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UTILITY CONSTRUCTION



MATCHLINE -L- STA 107+00.00
SEE PLAN SHEET UC-7

MATCHLINE -L- STA 120+00.00
SEE PLAN SHEET UC-9

The estimated quantity of Ductile Iron Sewer Pipe Fittings on this plan sheet is 730 pounds. The actual quantity and type of fittings will vary based on field conditions.

The estimated quantity of Ductile Iron Water Pipe Fittings on this plan sheet is 4125 pounds. The actual quantity and type of fittings will vary based on field conditions.

DATE: 3/6/2011
TIME: 3:00:55 PM
DRAWN: R5516-uc-wah.dwg

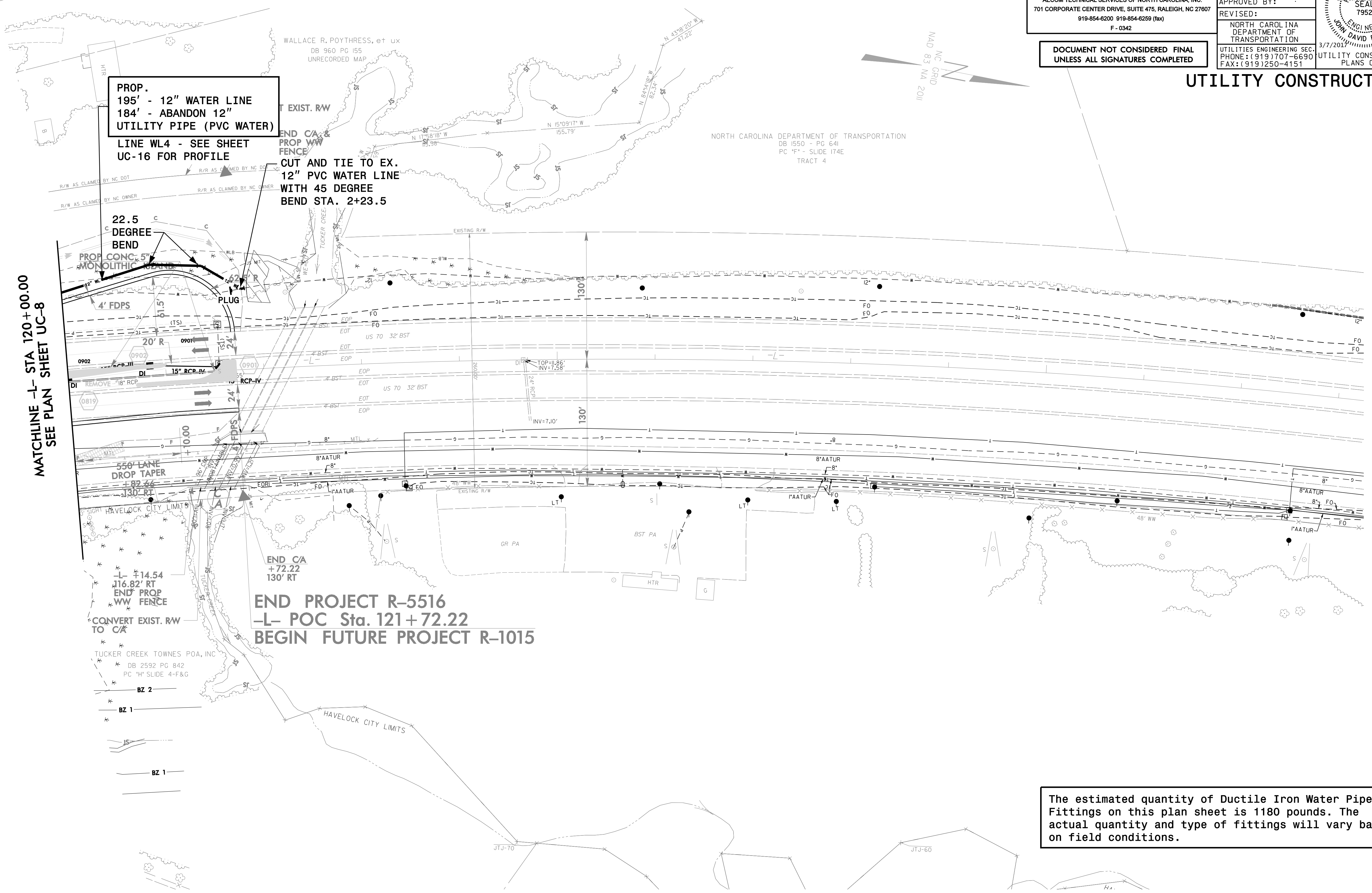
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F-0342

PROJECT REFERENCE NO. R-5516	SHEET NO. UC-9
DESIGNED BY:	
DRAWN BY:	
CHECKED BY:	
APPROVED BY:	
REVISED:	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151
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UTILITY CONSTRUCTION



**PROP.
195' - 12" WATER LINE
184' - ABANDON 12"
UTILITY PIPE (PVC WATER)
LINE WL4 - SEE SHEET
UC-16 FOR PROFILE**

**CUT AND TIE TO EX.
12" PVC WATER LINE
WITH 45 DEGREE
BEND STA. 2+23.5**

**MATCHLINE -L- STA 120+00.00
SEE PLAN SHEET UC-8**

**END PROJECT R-5516
-L- POC Sta. 121+72.22
BEGIN FUTURE PROJECT R-1015**

The estimated quantity of Ductile Iron Water Pipe Fittings on this plan sheet is 1180 pounds. The actual quantity and type of fittings will vary based on field conditions.

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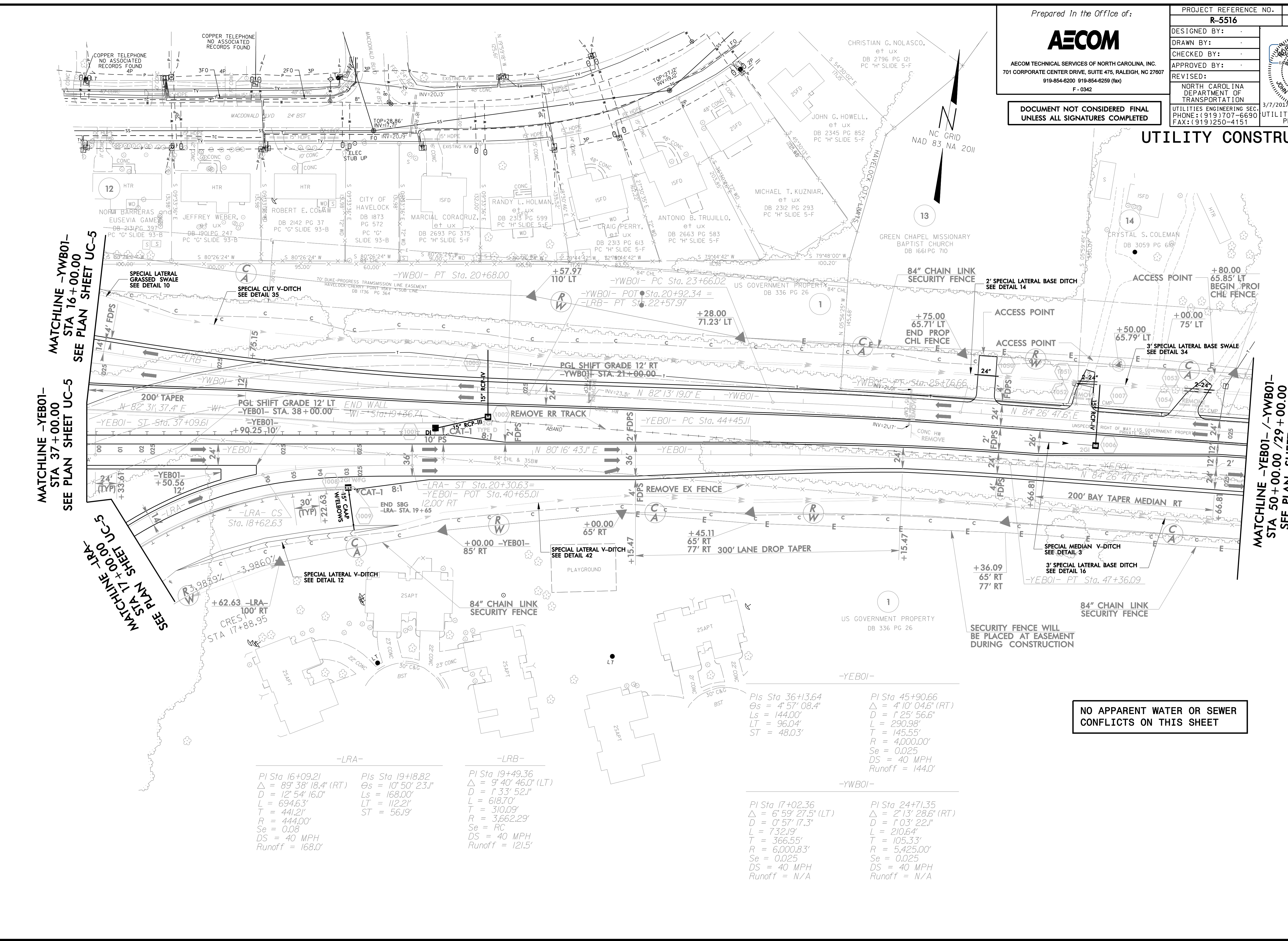


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PROJECT REFERENCE NO. R-5516	SHEET NO. UC-10
DESIGNED BY:	
DRAWN BY:	
CHECKED BY:	
APPROVED BY:	3/7/2011
REVISED:	UTILITY CONSTRUCTION PLANS ONLY
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UTILITY CONSTRUCTION



MATCHLINE -YWB01- STA 16+00.00 SEE PLAN SHEET UC-5

MATCHLINE -YEB01- STA 37+00.00 SEE PLAN SHEET UC-5

MATCHLINE -LRA- STA 17+00.00 SEE PLAN SHEET UC-5

MATCHLINE -YEB01- STA 50+00.00 / 29+00.00 SEE PLAN SHEET UC-11

-LRA-
 PI Sta 16+09.21
 $\Delta = 89' 38'' 18.4''$ (RT)
 $D = 12' 54'' 16.0''$
 $L = 694.63'$
 $T = 441.21'$
 $R = 444.00'$
 $Se = 0.08$
 $DS = 40$ MPH
 $Runoff = 168.0'$

-LRA-
 PI Sta 19+18.82
 $\Delta = 10' 50'' 23.1''$
 $Ls = 168.00'$
 $LT = 112.21'$
 $ST = 56.19'$

-LRB-
 PI Sta 19+49.36
 $\Delta = 9' 40'' 46.0''$ (LT)
 $D = 1' 33'' 52.1''$
 $L = 618.70'$
 $T = 310.09'$
 $R = 3,662.29'$
 $Se = RC$
 $DS = 40$ MPH
 $Runoff = 121.5'$

-YWB01-
 PI Sta 36+13.64
 $\Delta = 4' 57'' 08.4''$
 $Ls = 144.00'$
 $LT = 96.04'$
 $ST = 48.03'$

-YWB01-
 PI Sta 45+90.66
 $\Delta = 4' 10'' 04.6''$ (RT)
 $D = 1' 25'' 56.6''$
 $L = 290.98'$
 $T = 145.55'$
 $R = 4,000.00'$
 $Se = 0.025$
 $DS = 40$ MPH
 $Runoff = 144.0'$

-YWB01-
 PI Sta 17+02.36
 $\Delta = 6' 59'' 27.5''$ (LT)
 $D = 0' 57'' 17.3''$
 $L = 732.19'$
 $T = 366.55'$
 $R = 6,000.83'$
 $Se = 0.025$
 $DS = 40$ MPH
 $Runoff = N/A$

-YWB01-
 PI Sta 24+71.35
 $\Delta = 2' 13'' 28.6''$ (RT)
 $D = 1' 03'' 22.1''$
 $L = 210.64'$
 $T = 105.33'$
 $R = 5,425.00'$
 $Se = 0.025$
 $DS = 40$ MPH
 $Runoff = N/A$

NO APPARENT WATER OR SEWER CONFLICTS ON THIS SHEET

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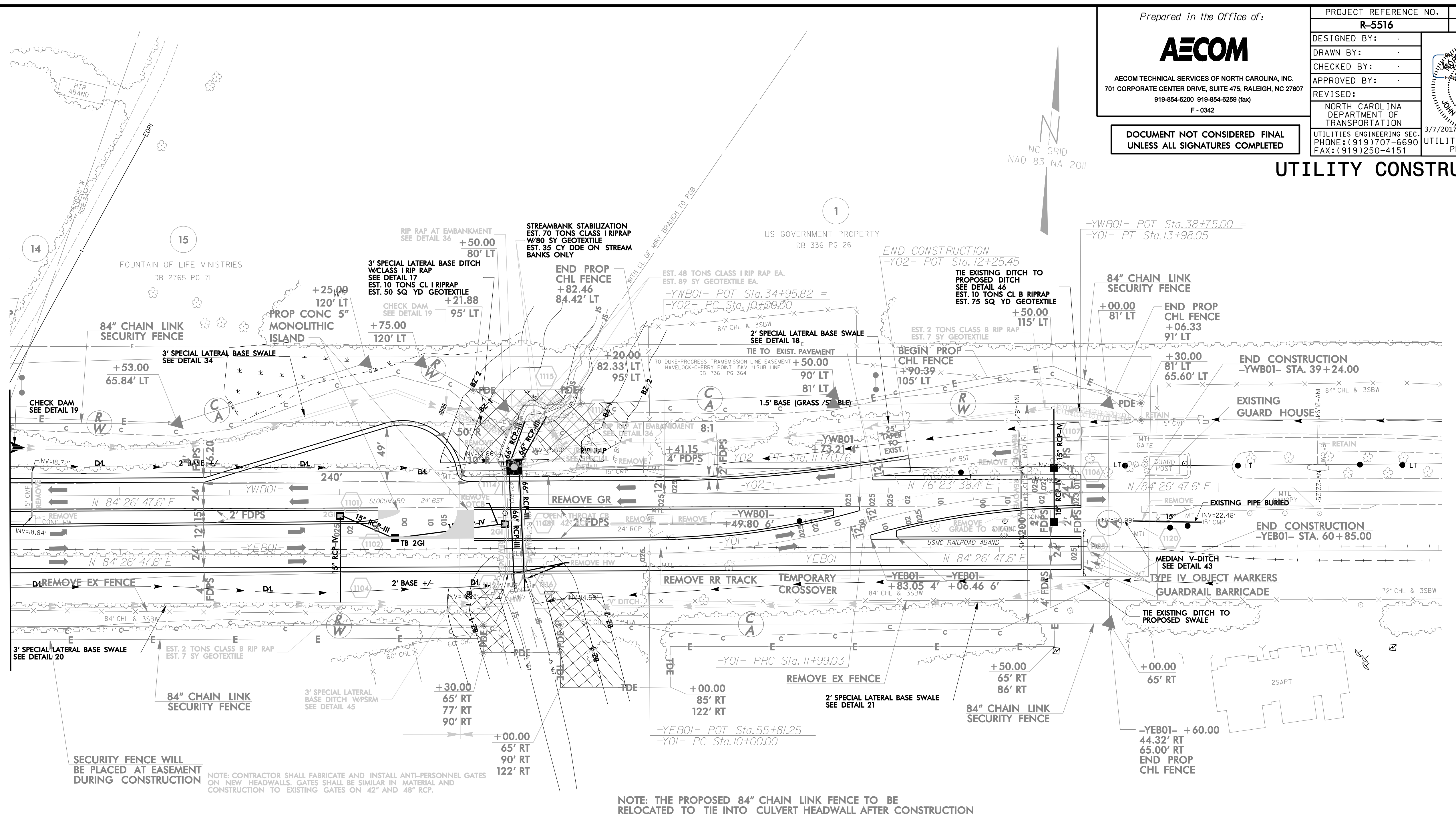
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PROJECT REFERENCE NO. R-5516	SHEET NO. UC-11
DESIGNED BY:	
DRAWN BY:	
CHECKED BY:	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	3/7/2011
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UTILITY CONSTRUCTION

MATCHLINE -YEB01- / -YWB01-
STA 50+00.00 / 29+00.00
SEE PLAN SHEET UC-10



SECURITY FENCE WILL BE PLACED AT EASEMENT DURING CONSTRUCTION

NOTE: CONTRACTOR SHALL FABRICATE AND INSTALL ANTI-PERSONNEL GATES ON NEW HEADWALLS. GATES SHALL BE SIMILAR IN MATERIAL AND CONSTRUCTION TO EXISTING GATES ON 42\"/>

NOTE: THE PROPOSED 84\"/>

NO APPARENT WATER OR SEWER CONFLICTS ON THIS SHEET

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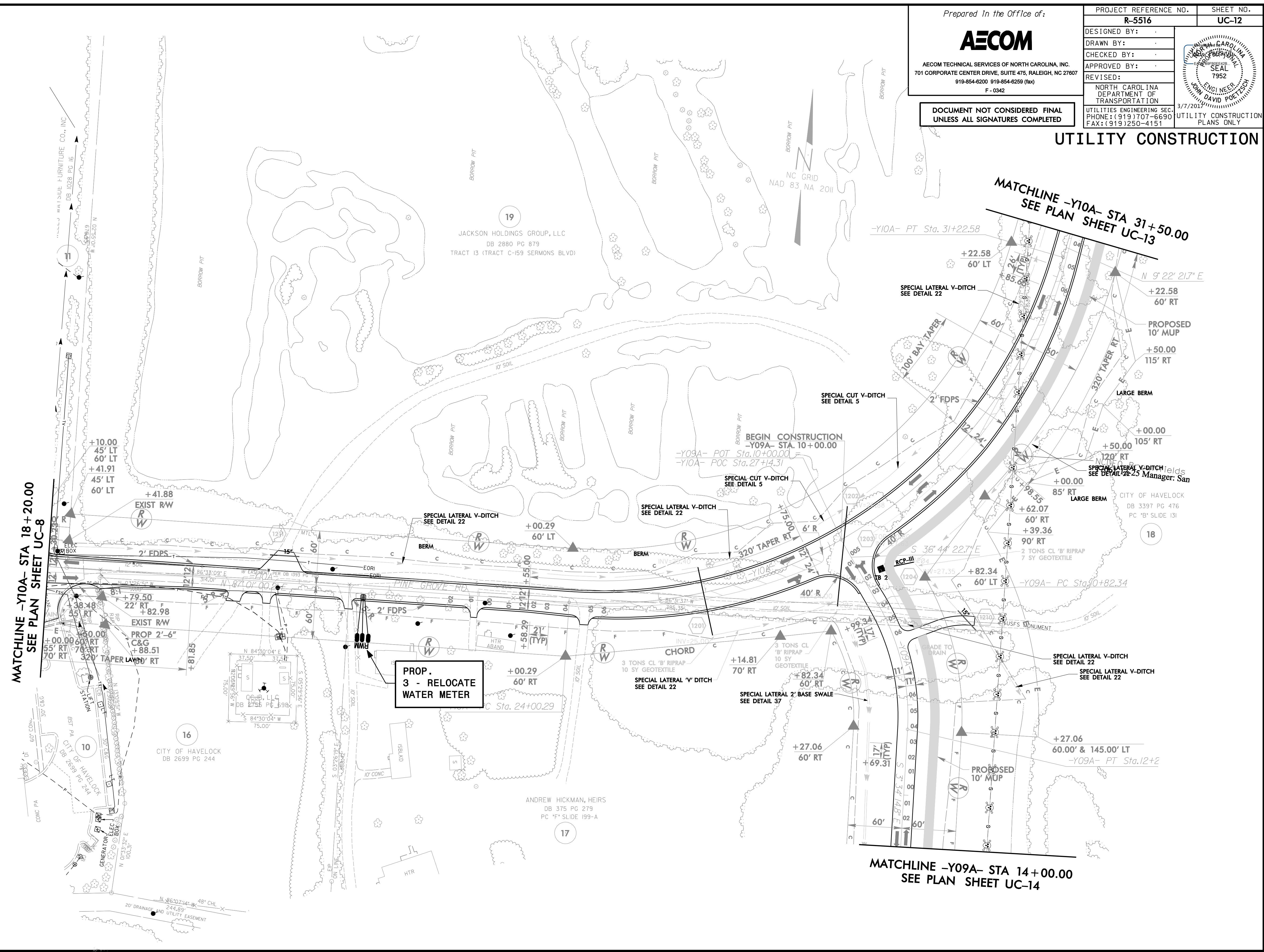
PROJECT REFERENCE NO. R-5516	SHEET NO. UC-12
DESIGNED BY:	
DRAWN BY:	
CHECKED BY:	
APPROVED BY:	
REVISED:	3/7/2014
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UTILITY CONSTRUCTION

MATCHLINE -Y10A- STA 18+20.00
SEE PLAN SHEET UC-8

MATCHLINE -Y10A- STA 31+50.00
SEE PLAN SHEET UC-13



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PROJECT REFERENCE NO.	R-5516	SHEET NO.	UC-13
DESIGNED BY:			
DRAWN BY:			
CHECKED BY:			
APPROVED BY:			
REVISED:		3/7/2011	
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UTILITY CONSTRUCTION

PROP.
110' - 8" WATER LINE
108 - ABANDON 8"
UTILITY PIPE (PVC WATER)

LINE WL10 - SEE SHEET UC-19 FOR PROFILE

11.25 DEGREE BEND

22.5 DEGREE BEND

REMOVE EX. 90 DEGREE BEND TIE TO EX. 8" PVC WATER LINE WITH 45 DEGREE BEND STA. 0+00

PROP.
1 - RELOCATE FIRE HYDRANT

MATCHLINE -Y10A- STA 31+50.00
SEE PLAN SHEET UC-12

PROP.
582' - 8" WATER LINE
582' - ABANDON 8"
UTILITY PIPE (PVC WATER)

LINE WL11 - SEE SHEET UC-21 FOR PROFILE

PROP.
172' - 8" WATER LINE
1 - 8" VALVE
165' - ABANDON 8"
UTILITY PIPE (PVC WATER)

LINE WL11 - SEE SHEET UC-21 FOR PROFILE

PROP.
36' - 8" WATER LINE
1 - 8" VALVE
14' - ABANDON 8"
UTILITY PIPE (PVC WATER)

LINE WL12 - SEE SHEET UC-19 FOR PROFILE

45 DEGREE BEND

CUT AND TIE TO EX. 8" PVC WATER LINE WITH 45 DEGREE BEND STA. 7+52.38

The estimated quantity of Ductile Iron Water Pipe Fittings on this plan sheet is 2100 pounds. The actual quantity and type of fittings will vary based on field conditions.

DATE: 3/6/2011
TIME: 3:05:53 PM
DRN: 15516.uc.prh.13.dgn

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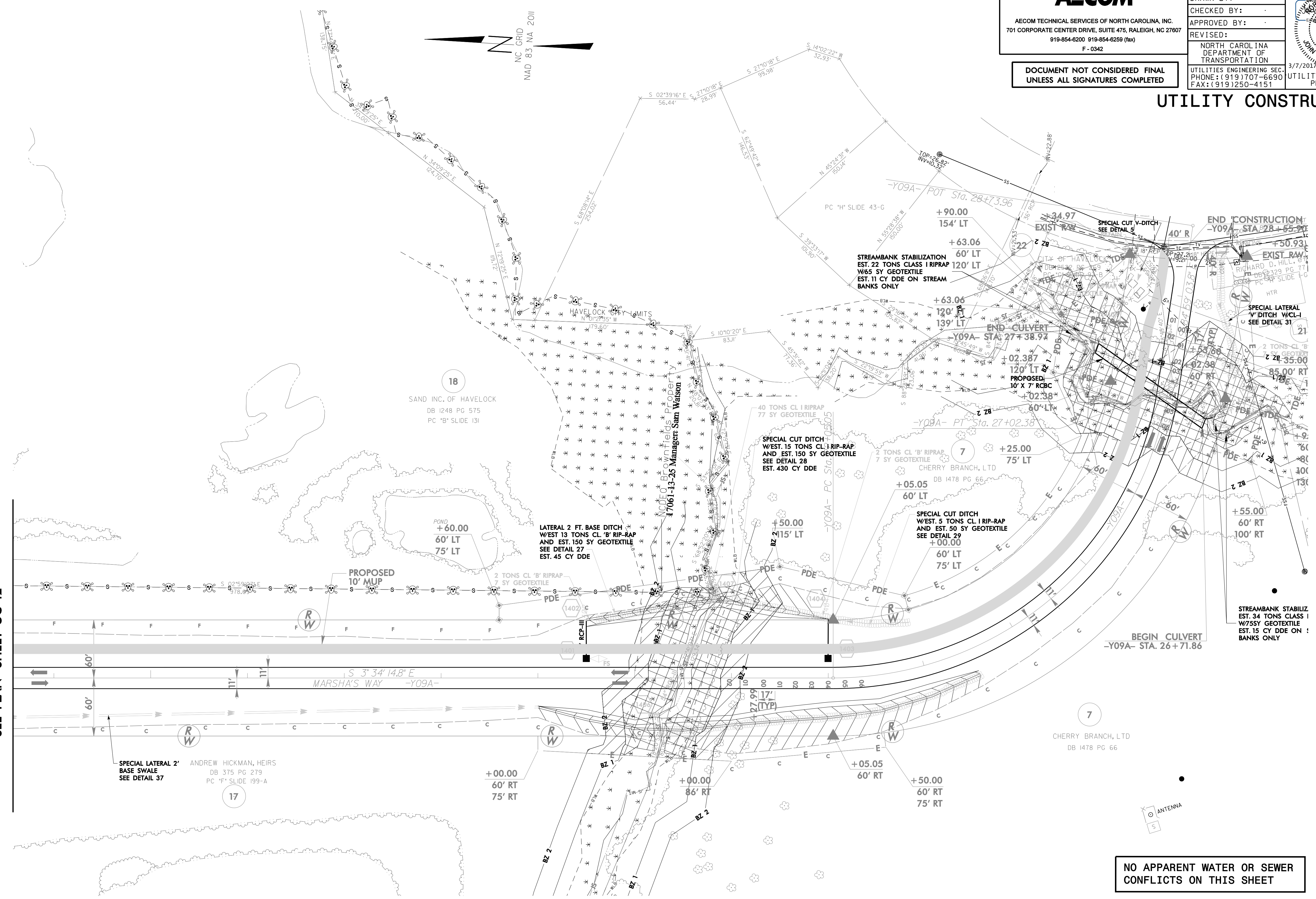
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PROJECT REFERENCE NO. R-5516	SHEET NO. UC-14
DESIGNED BY:	
DRAWN BY:	
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APPROVED BY:	
REVISED:	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION 3/7/2011
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UTILITY CONSTRUCTION

MATCHLINE -Y09A- STA 14+00.00
SEE PLAN SHEET UC-12



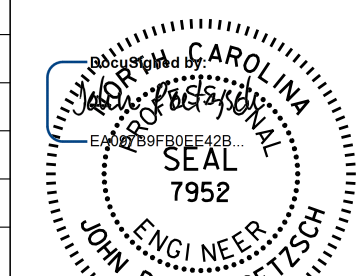
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CONFLICTS ON THIS SHEET

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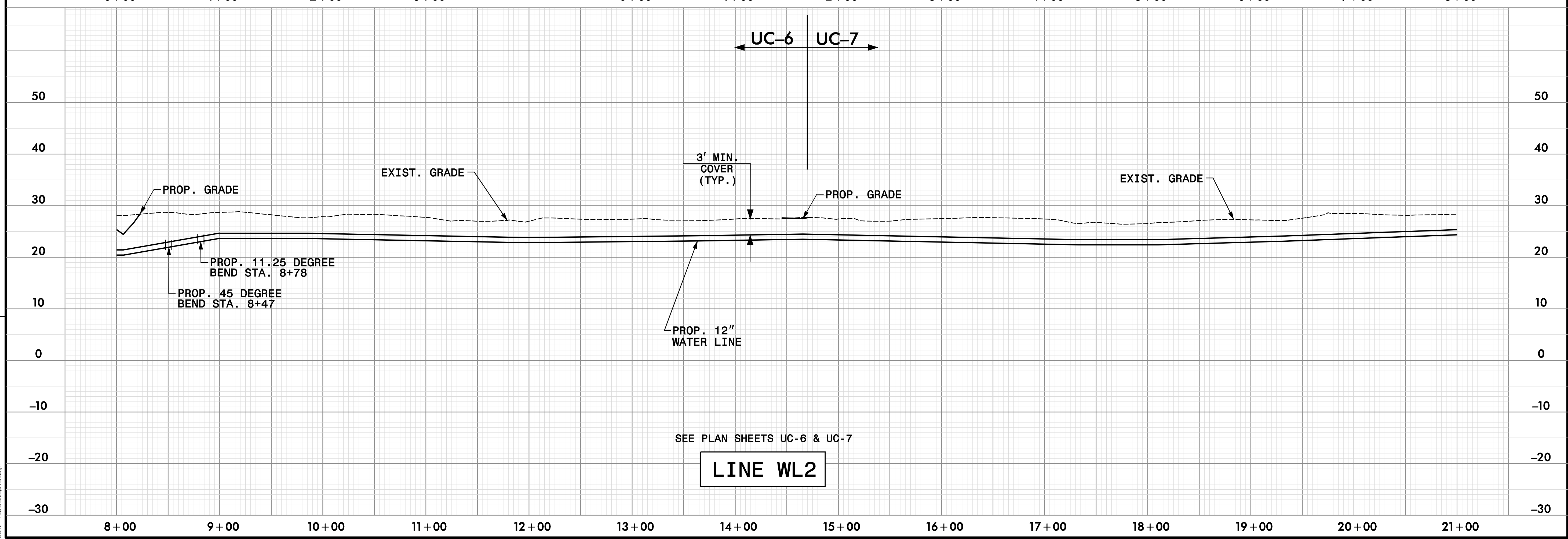
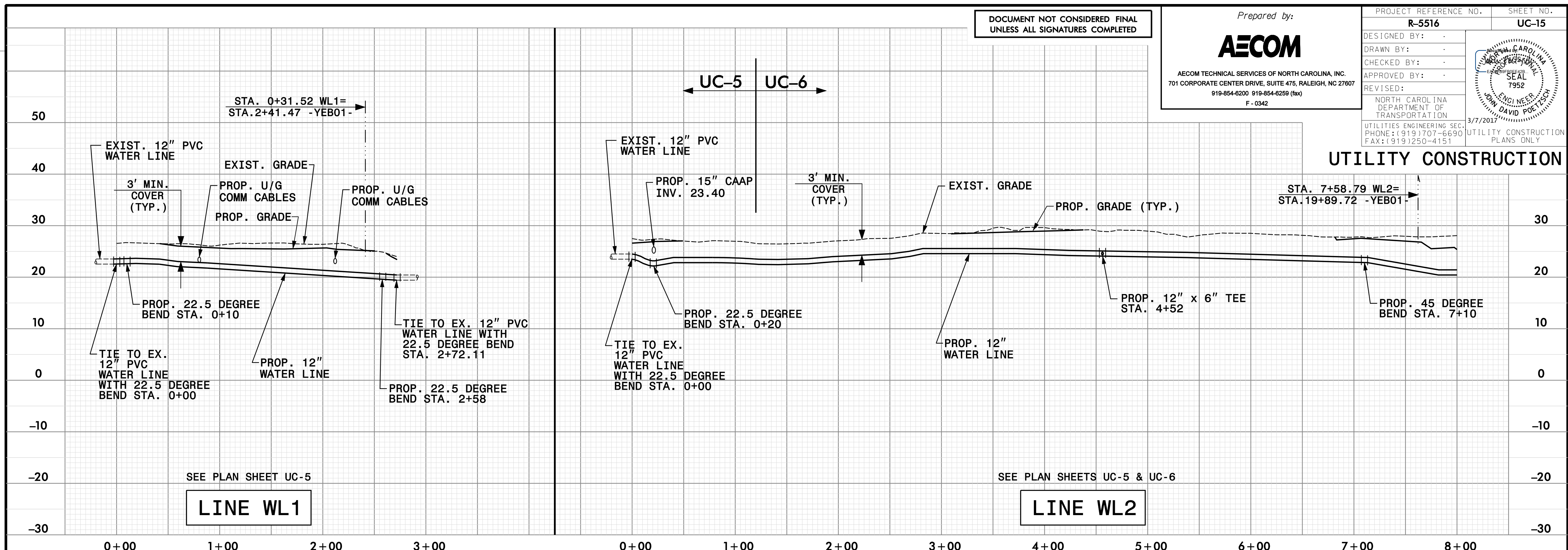
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PROJECT REFERENCE NO. R-5516	SHEET NO. UC-15
DESIGNED BY: .	
DRAWN BY: .	
CHECKED BY: .	
APPROVED BY: .	
REVISED:	
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TIME: 3:00:31 PM
DRN: R5516-uc-15.dgn

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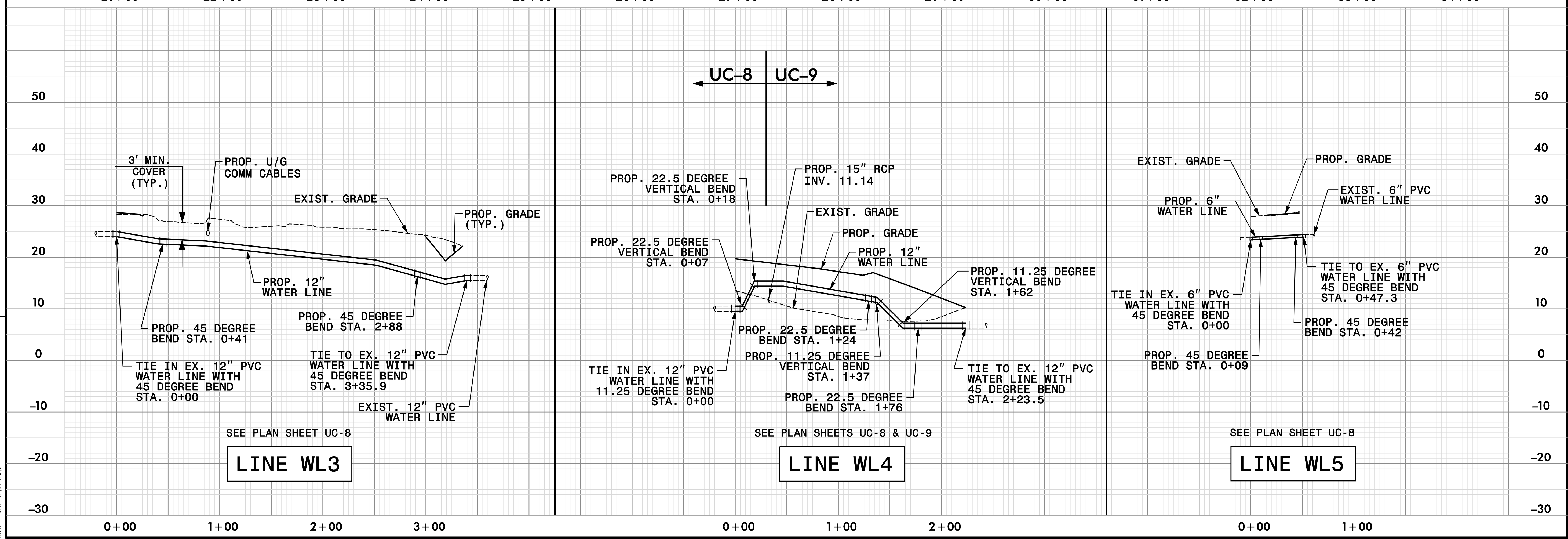
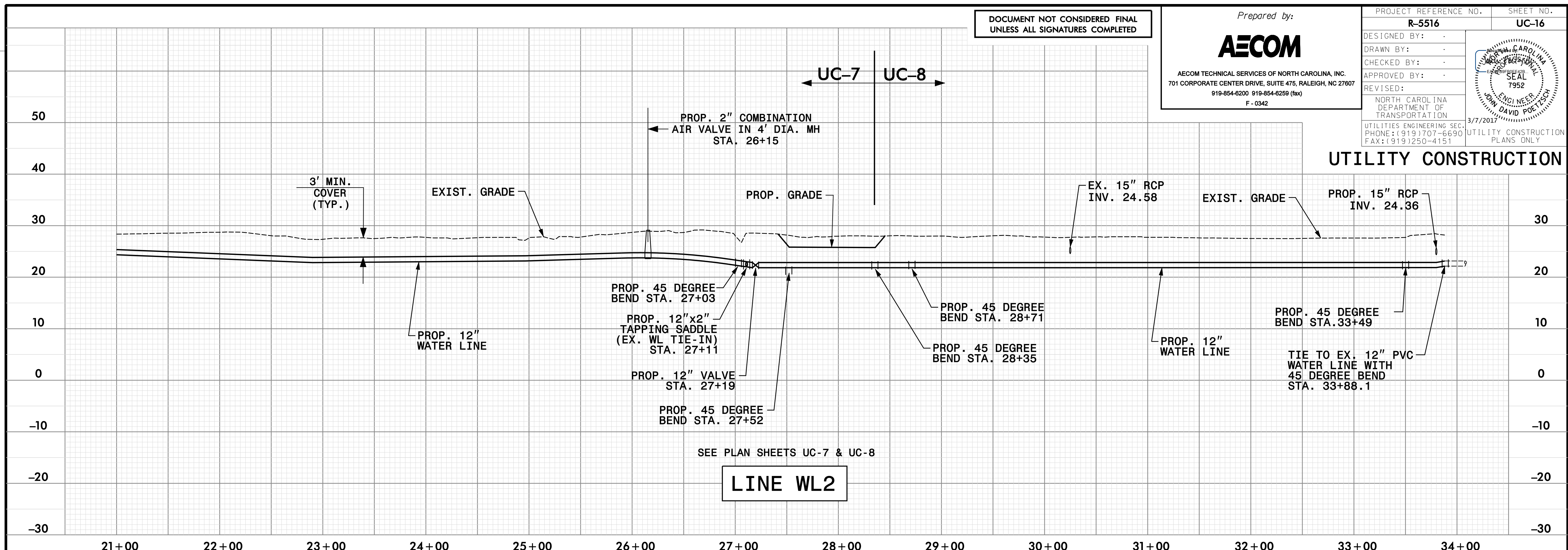
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PROJECT REFERENCE NO. R-5516	SHEET NO. UC-16
DESIGNED BY:	
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APPROVED BY:	
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TIME: 3:16:29 PM
DWN: r5516-uc-16.dgn

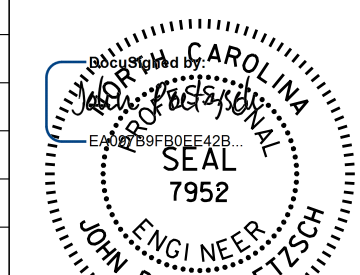
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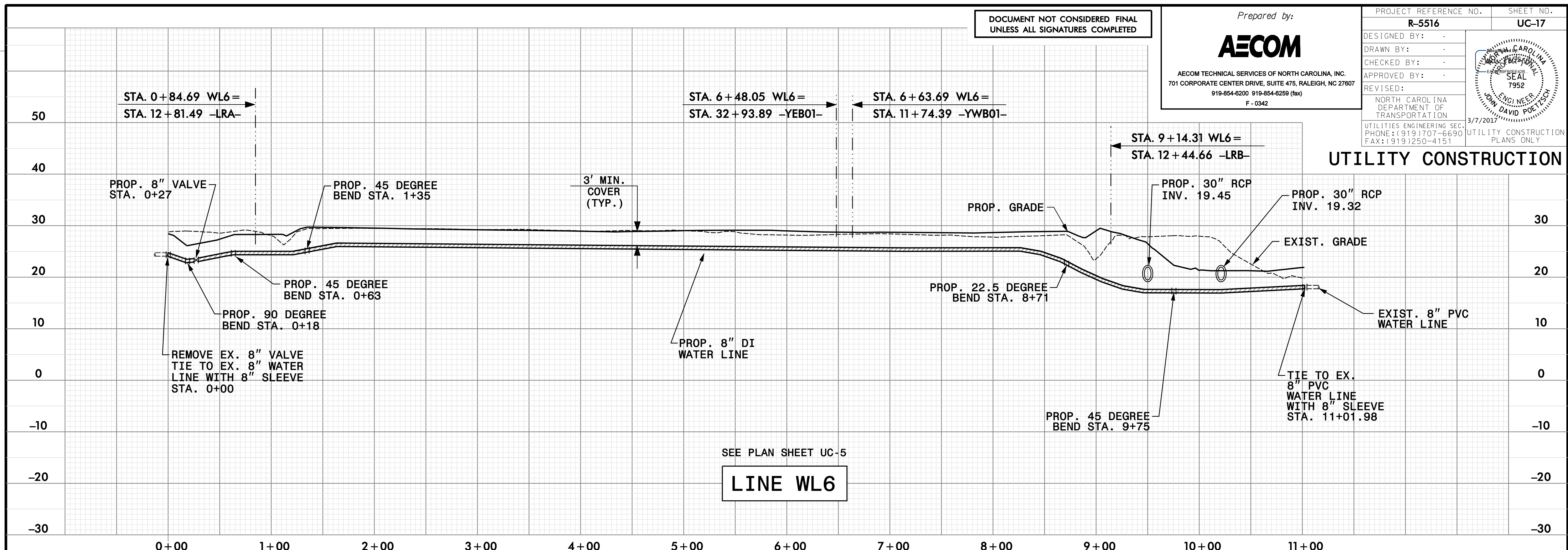


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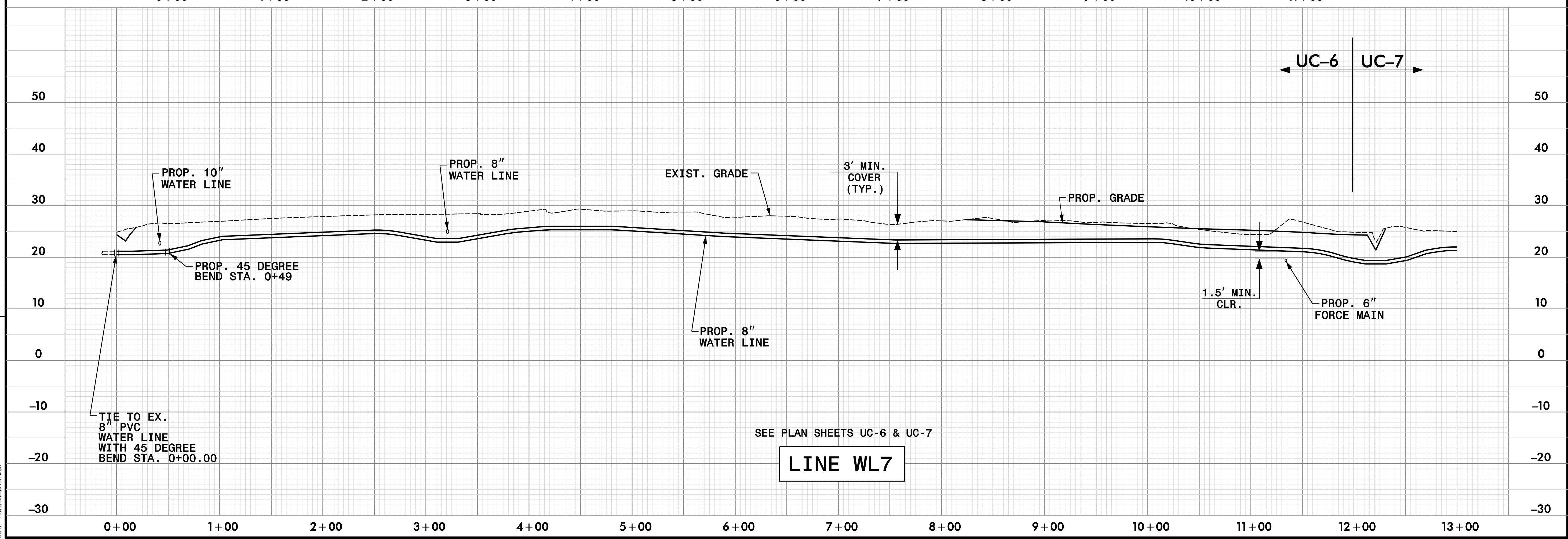
PROJECT REFERENCE NO. R-5516	SHEET NO. UC-17
DESIGNED BY:	
DRAWN BY:	
CHECKED BY:	
APPROVED BY:	
REVISED:	
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UTILITY CONSTRUCTION



SEE PLAN SHEET UC-5
LINE WL6



SEE PLAN SHEETS UC-6 & UC-7
LINE WL7

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DATE: 3/6/2017
TIME: 3:04:41 PM
DRN: R5516-UC-17.dgn

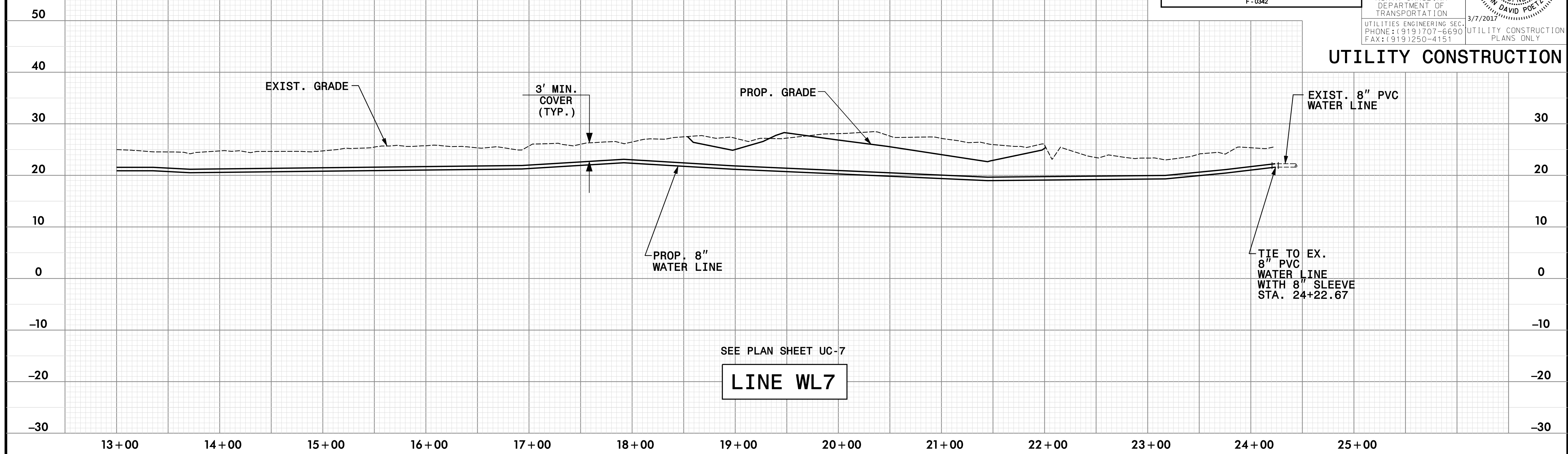
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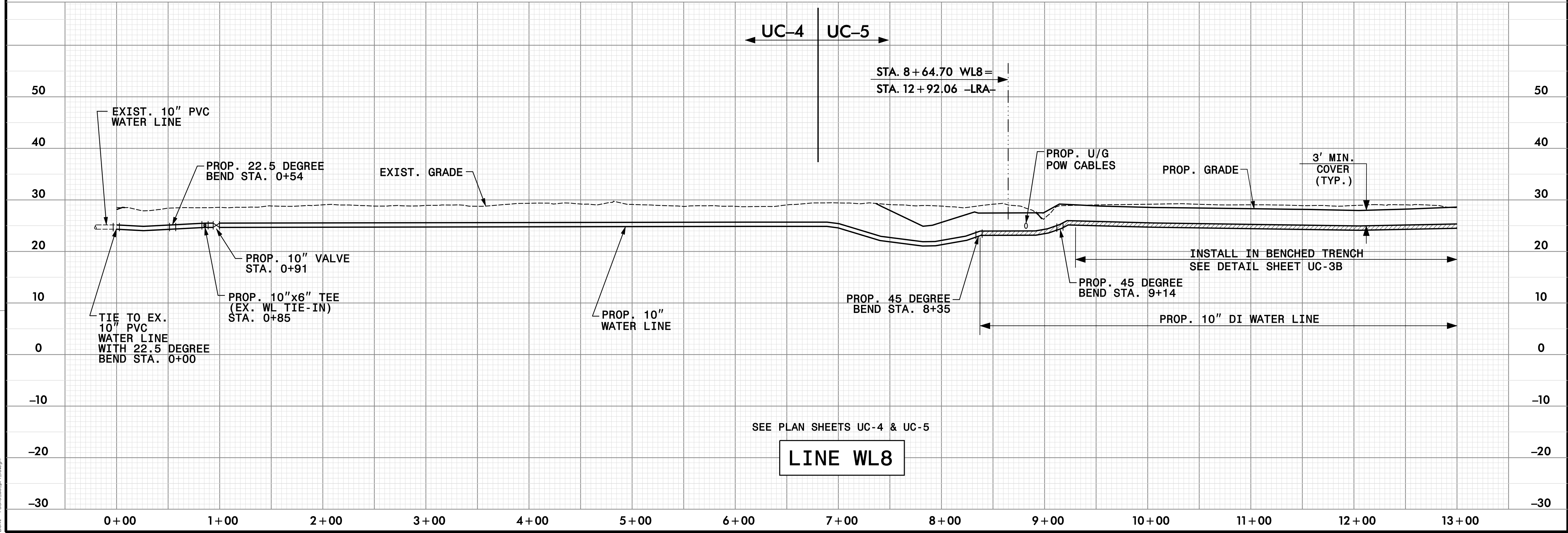
PROJECT REFERENCE NO. R-5516	SHEET NO. UC-18
DESIGNED BY: .	
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APPROVED BY: .	
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SEE PLAN SHEET UC-7
LINE WL7



SEE PLAN SHEETS UC-4 & UC-5
LINE WL8

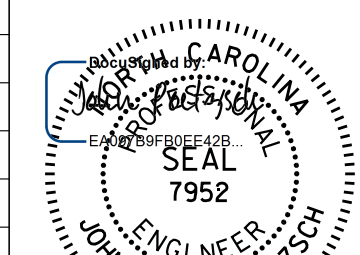
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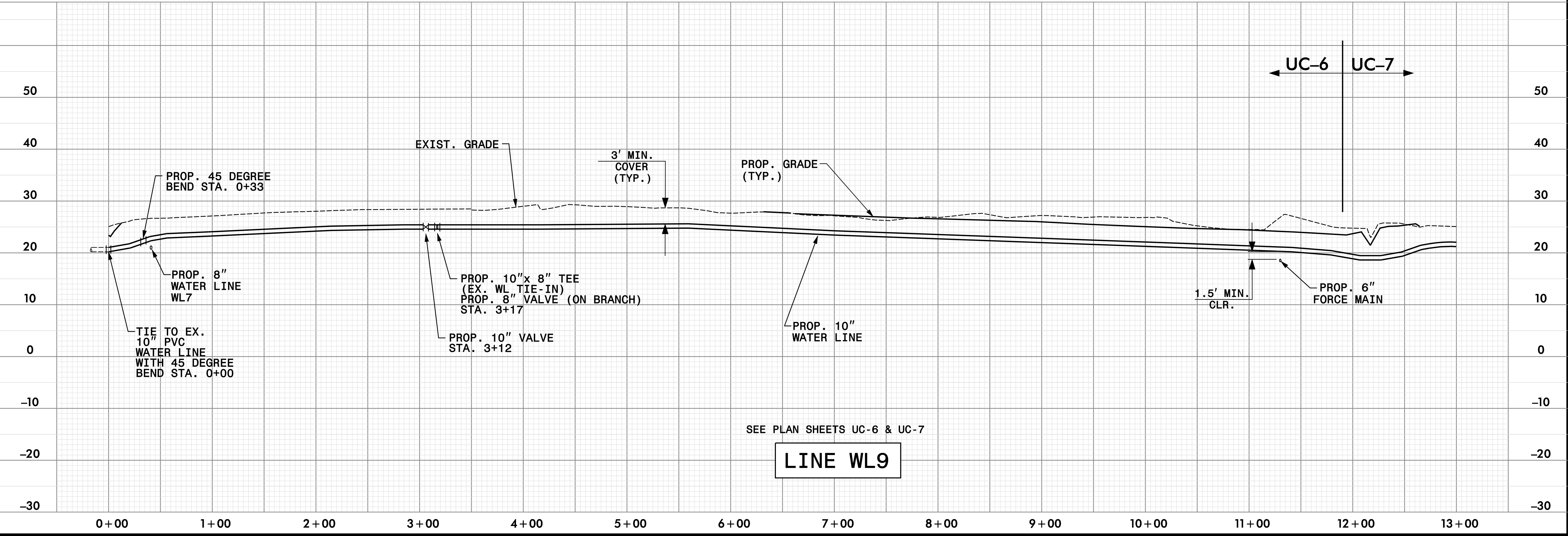
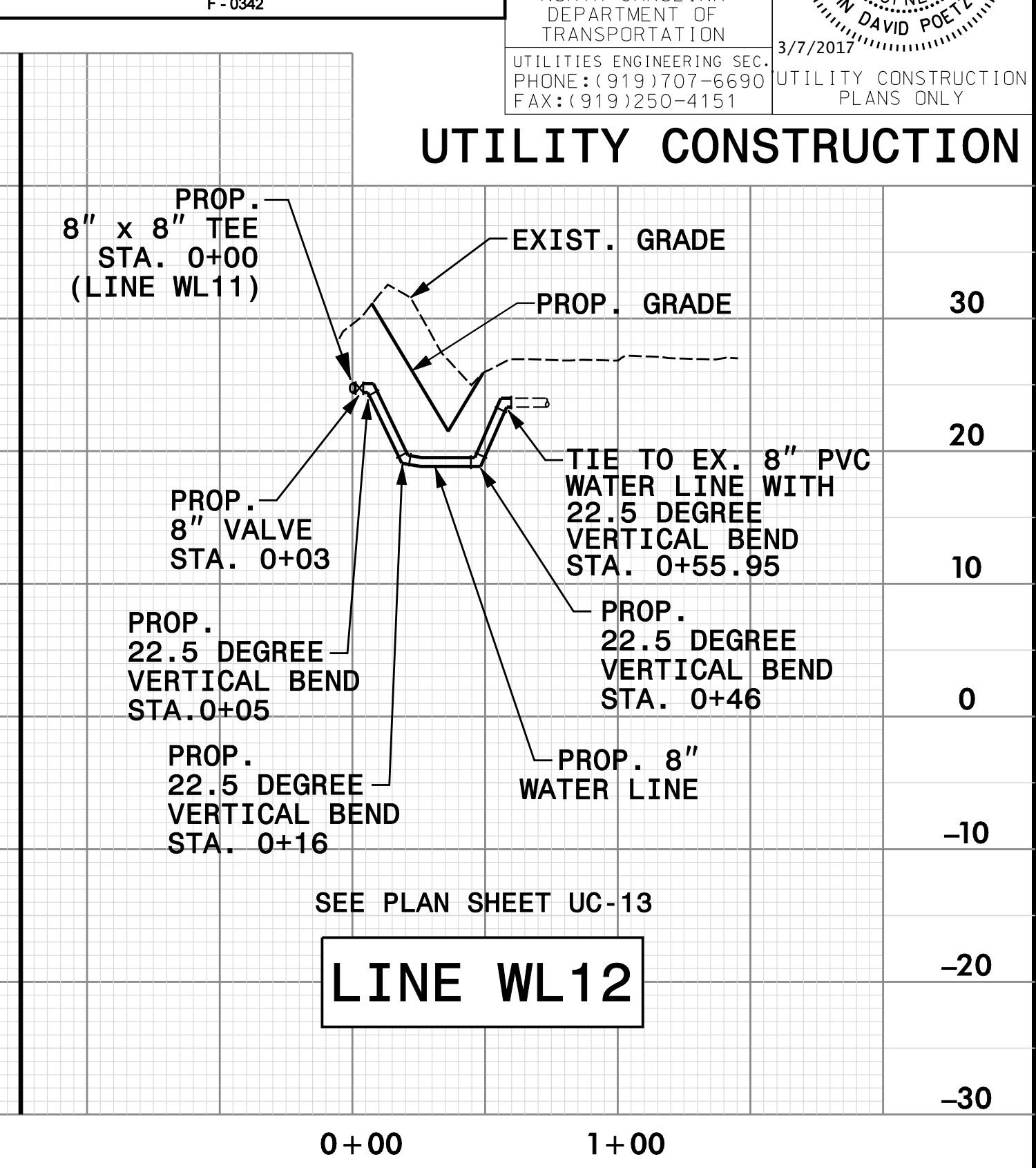
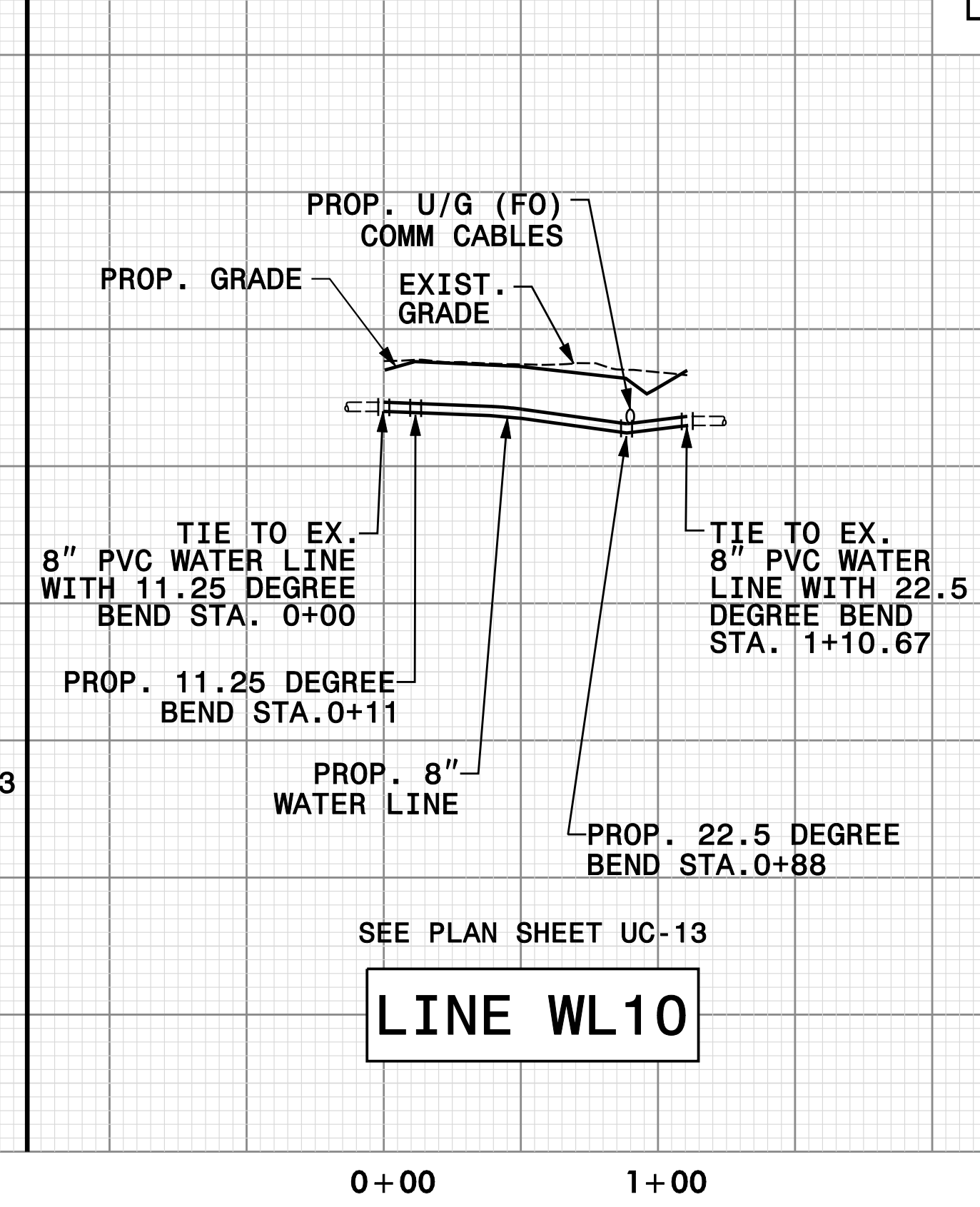
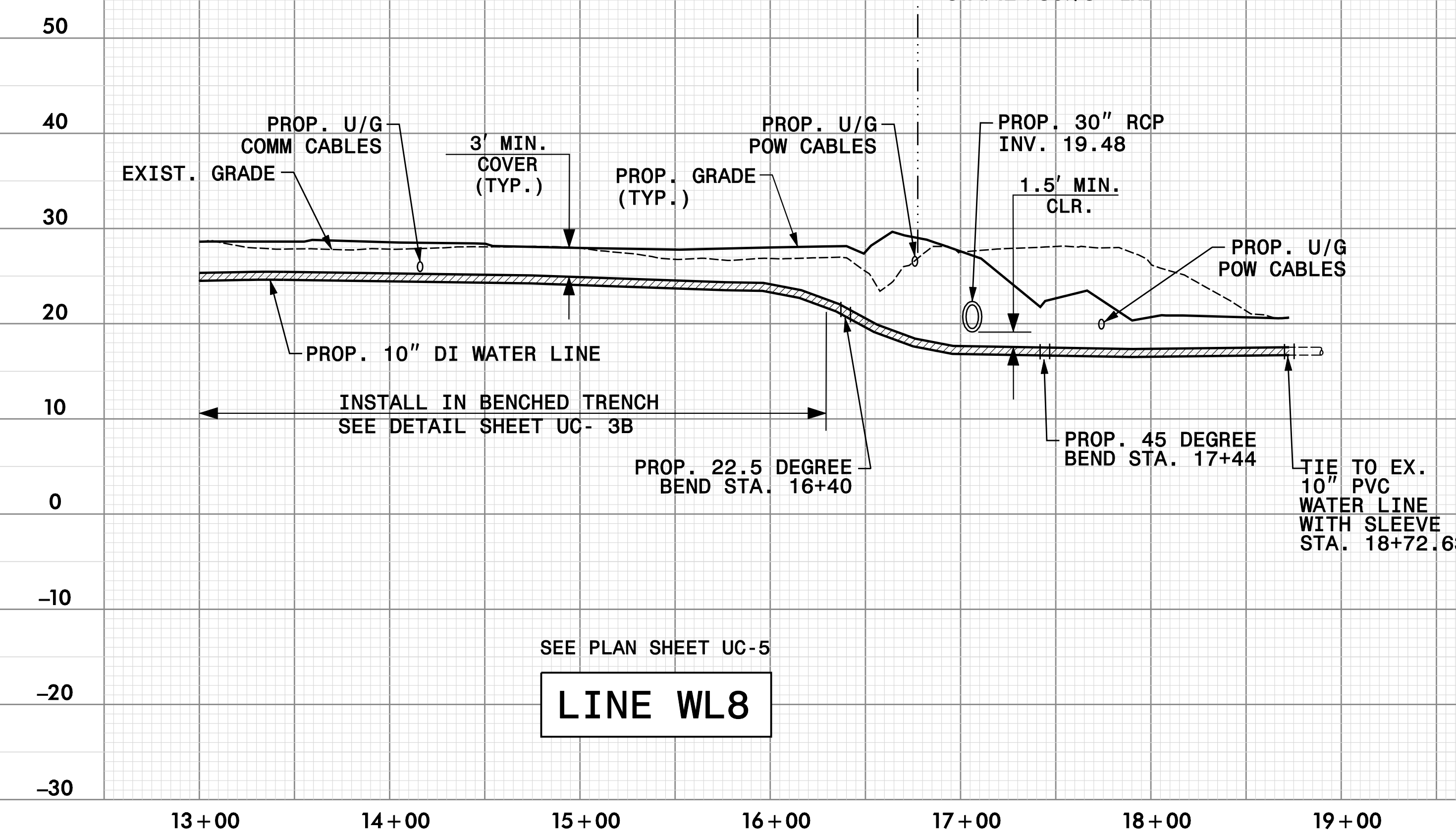
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PROJECT REFERENCE NO. R-5516	SHEET NO. UC-19
DESIGNED BY:	
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APPROVED BY:	
REVISED:	3/7/2017
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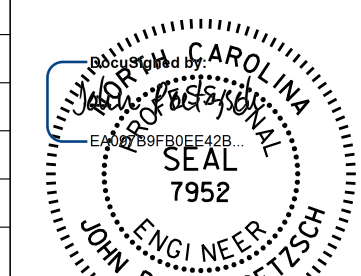
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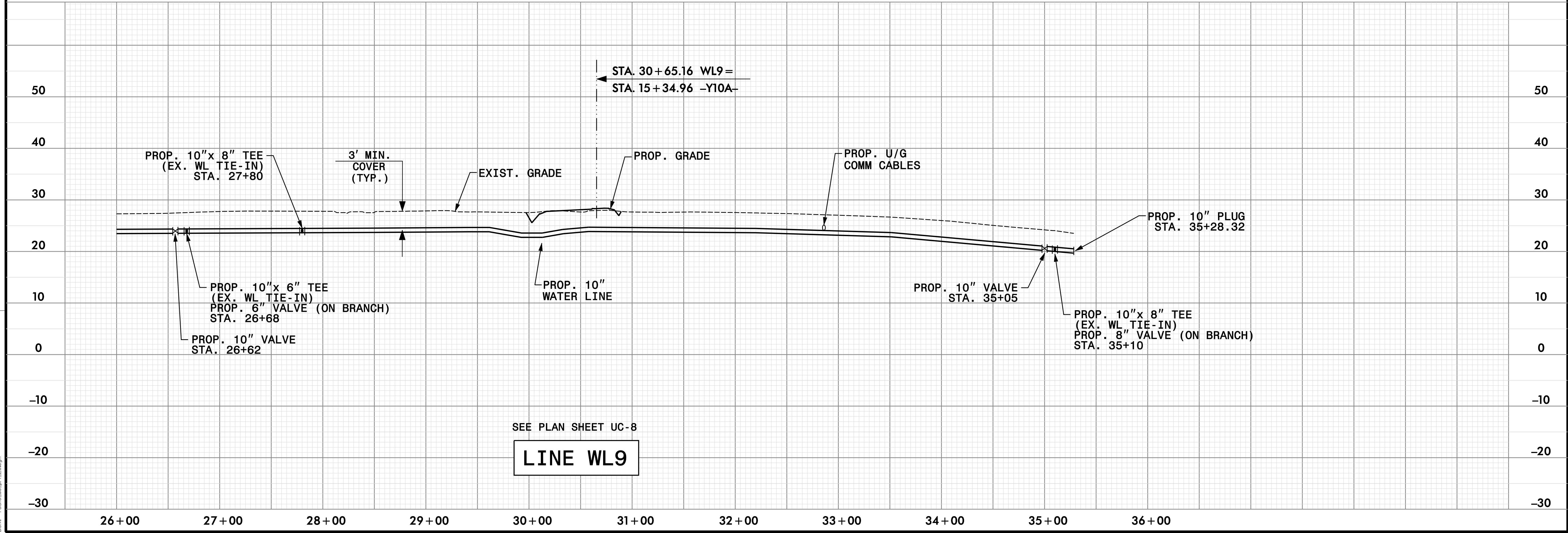
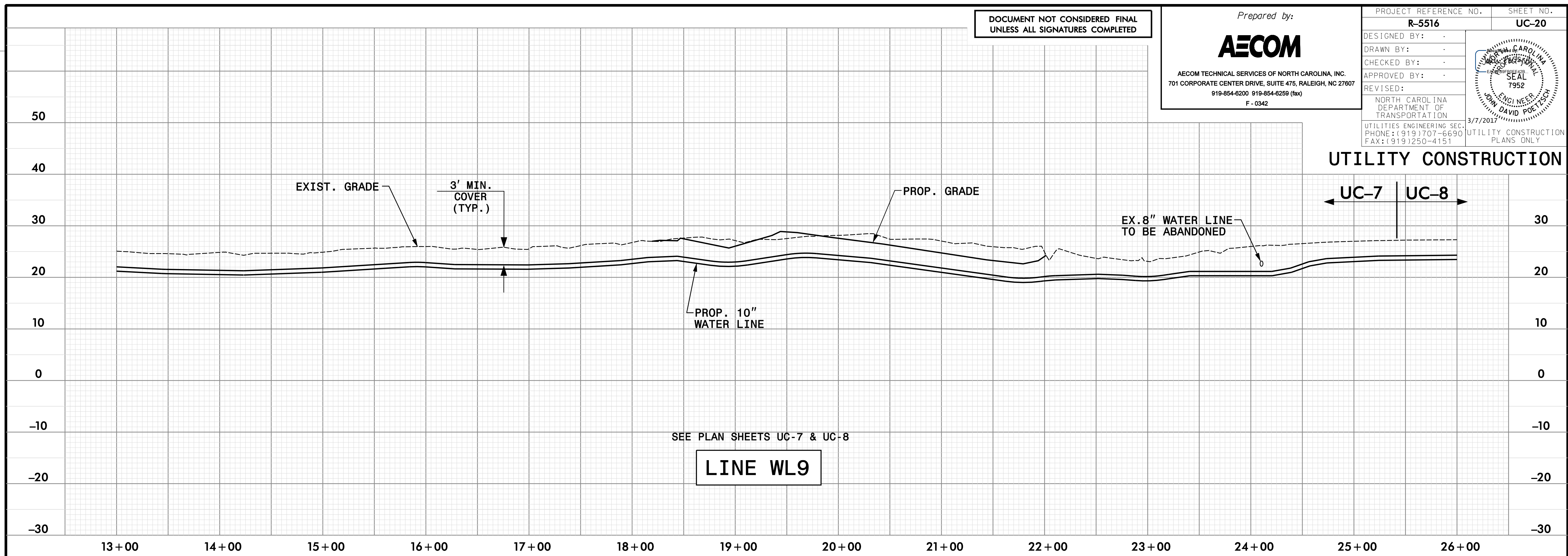
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PROJECT REFERENCE NO. R-5516	SHEET NO. UC-20
DESIGNED BY: .	
DRAWN BY: .	
CHECKED BY: .	
APPROVED BY: .	
REVISED:	
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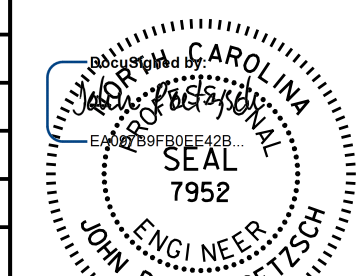
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TIME: 3:53:33 PM
DRN: 15516-uc-11-20.dgn

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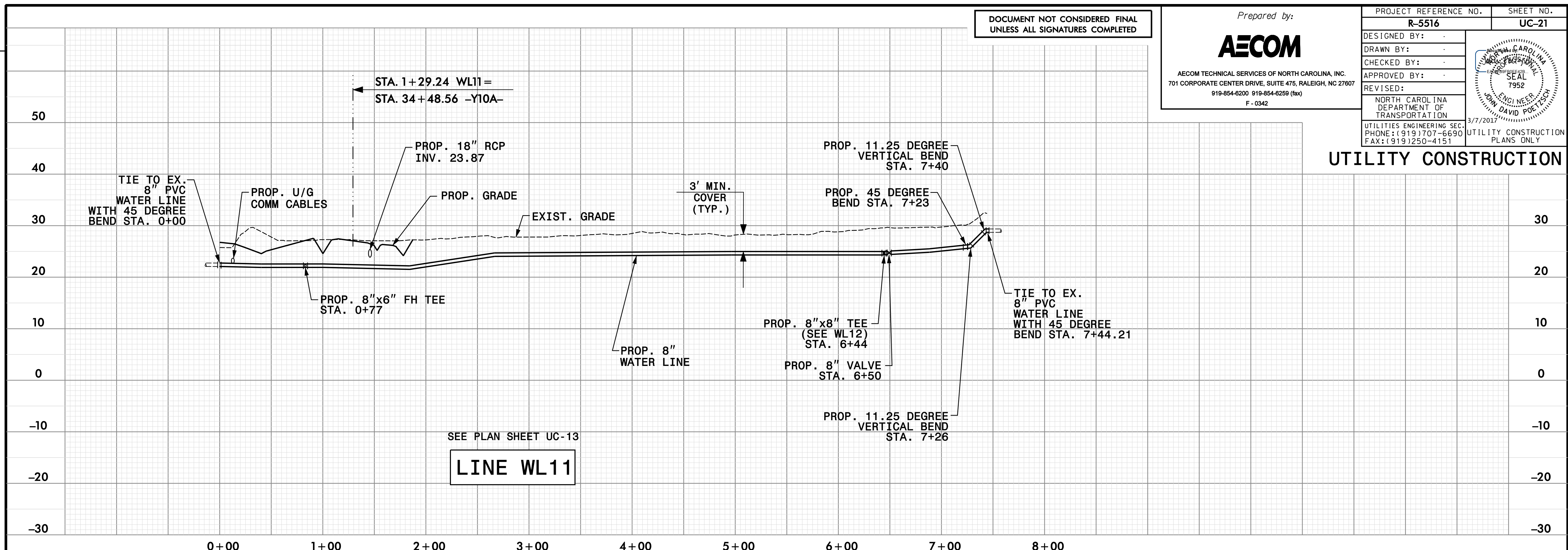


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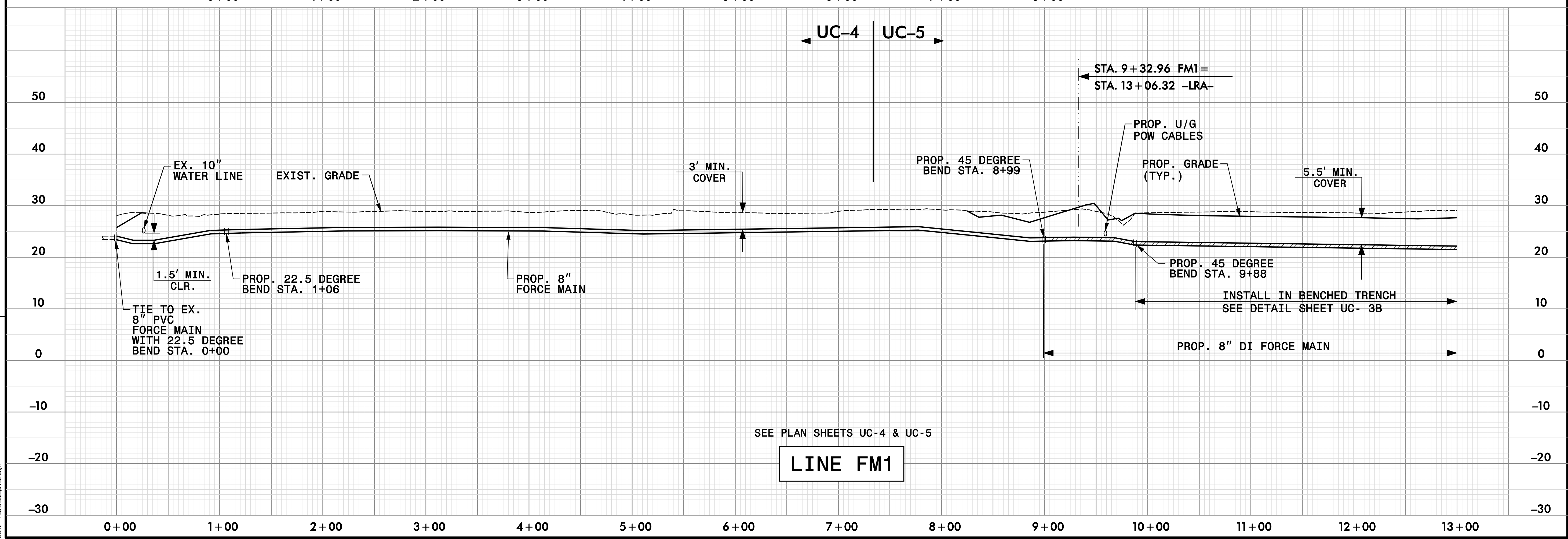
PROJECT REFERENCE NO. R-5516	SHEET NO. UC-21
DESIGNED BY:	
DRAWN BY:	
CHECKED BY:	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	3/7/2017
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION

REVISIONS



SEE PLAN SHEET UC-13
LINE WL11



SEE PLAN SHEETS UC-4 & UC-5
LINE FM1

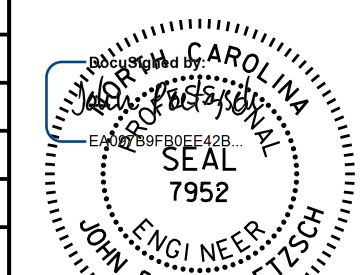
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TIME: 3:06:47 PM
DRN: 15516-uc-11-21.dgn

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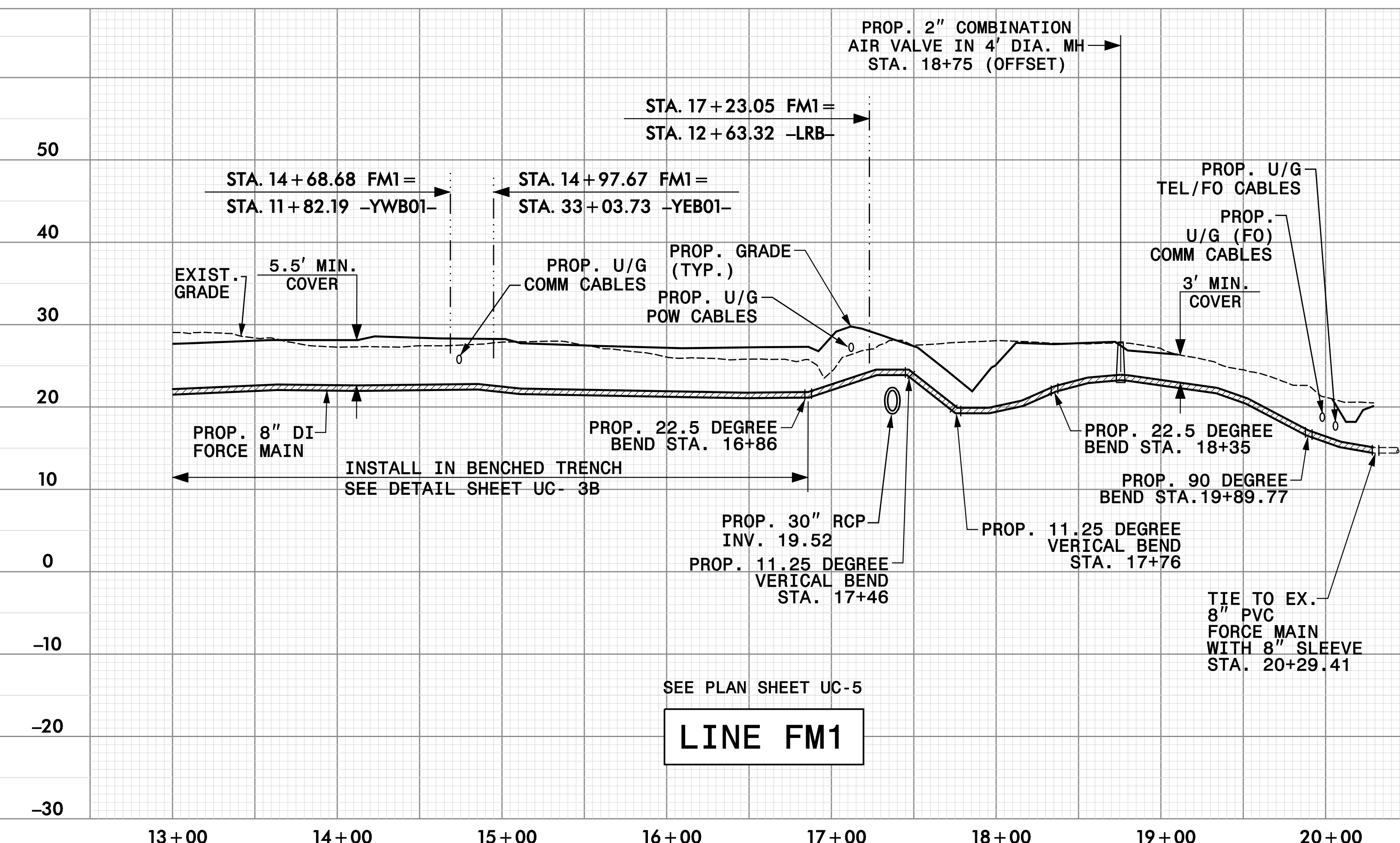
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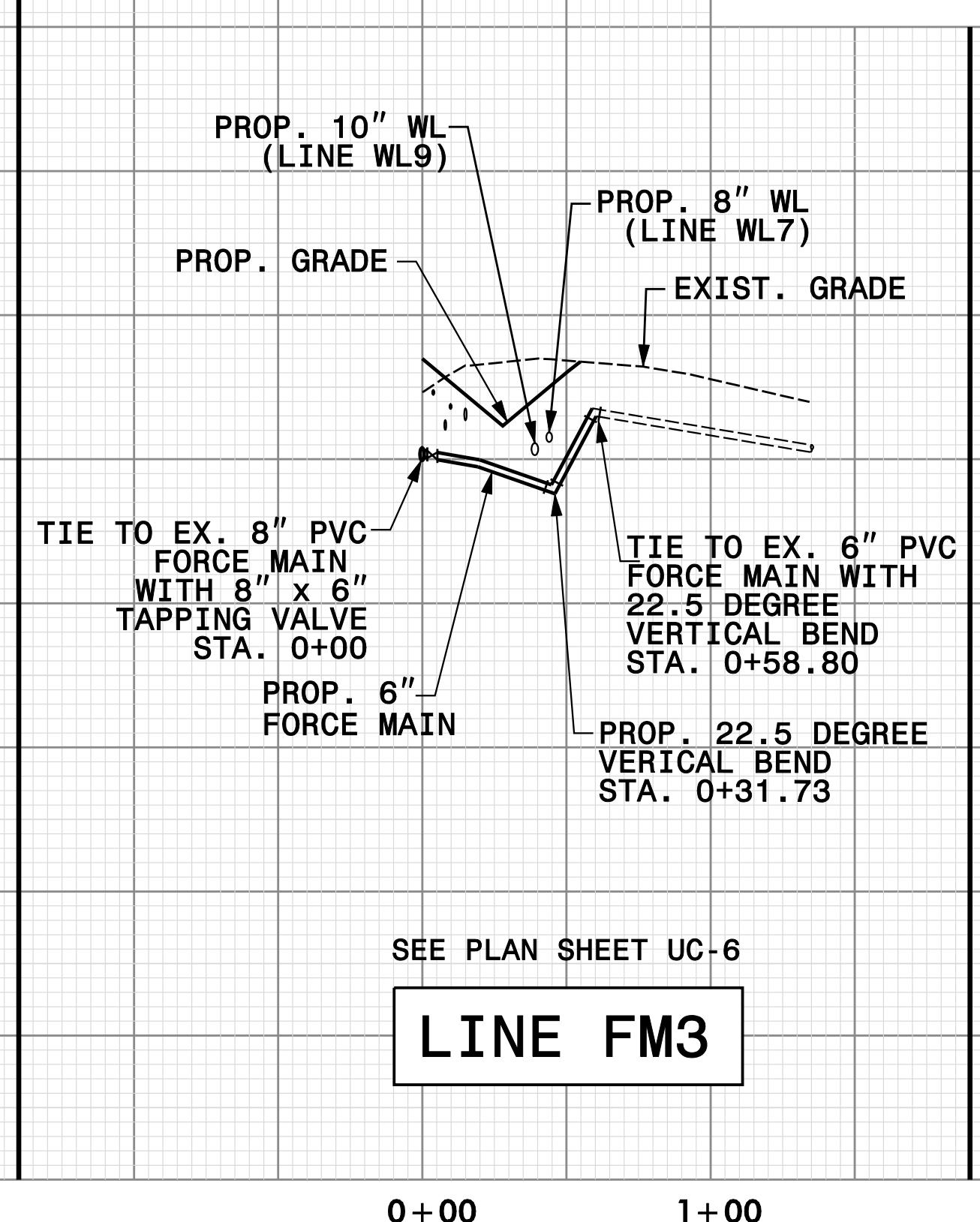
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PROJECT REFERENCE NO. R-5516	SHEET NO. UC-22
DESIGNED BY:	
DRAWN BY:	
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APPROVED BY:	
REVISED:	3/7/2017
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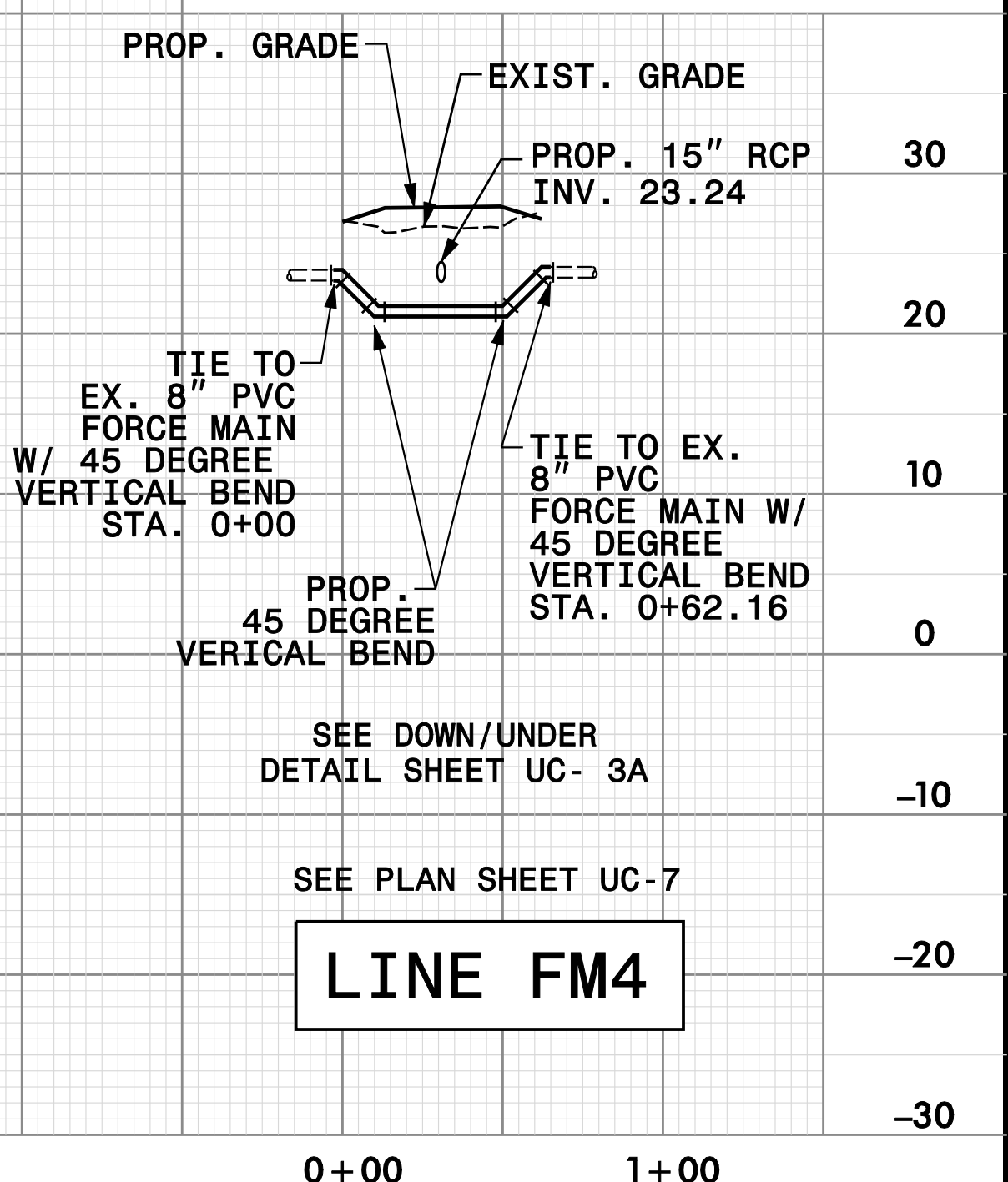
UTILITY CONSTRUCTION



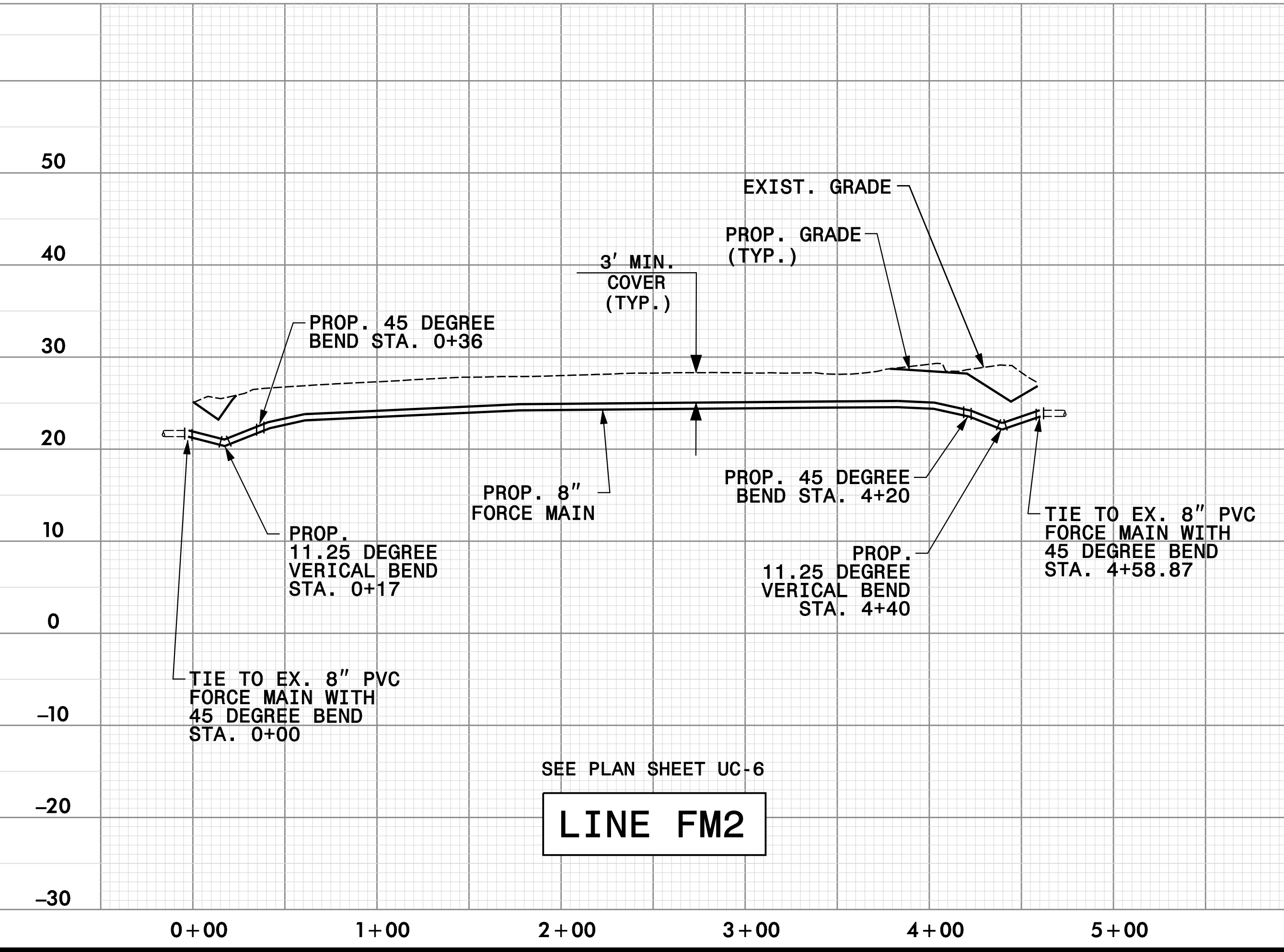
SEE PLAN SHEET UC-5
LINE FM1



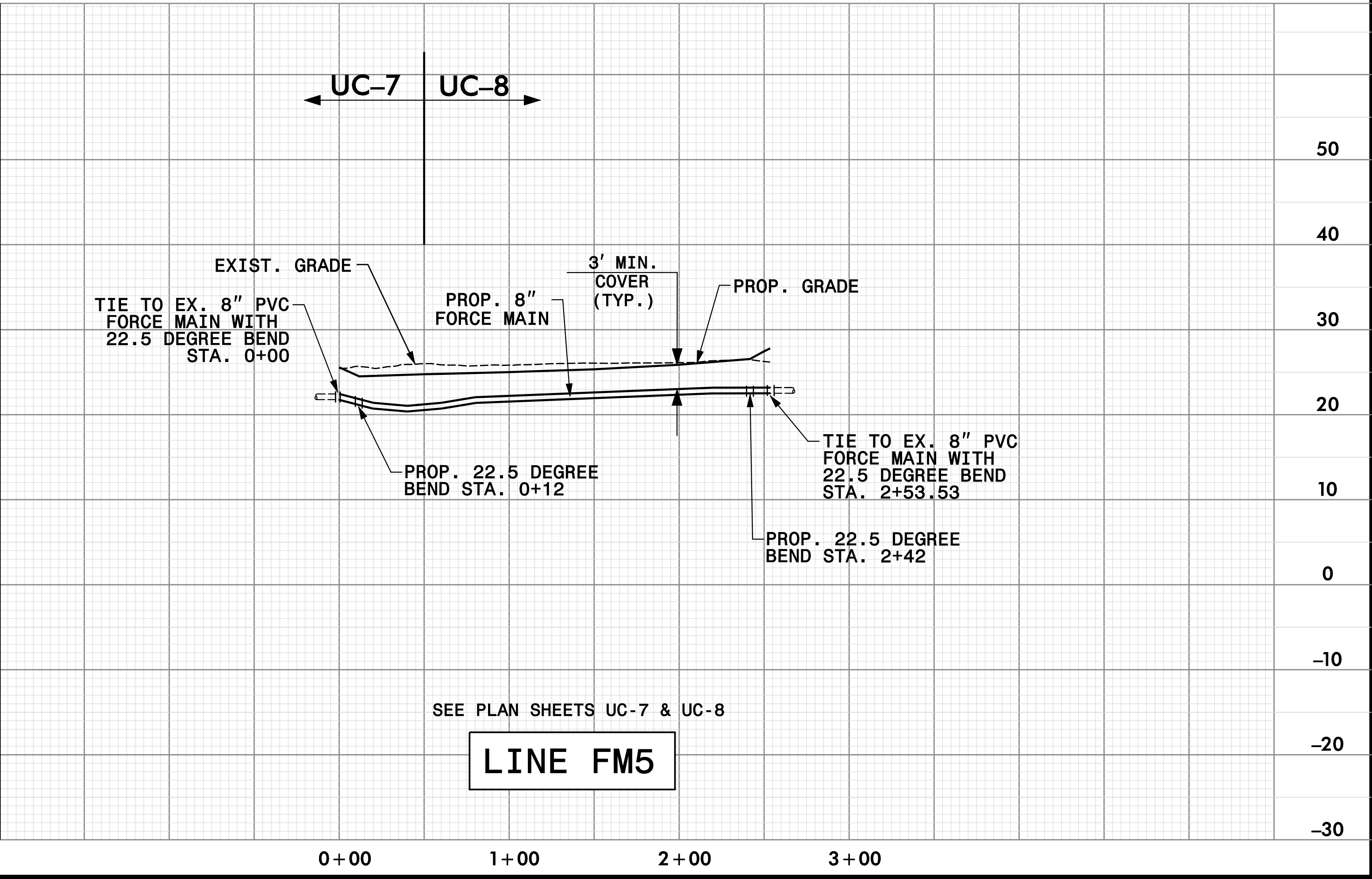
SEE PLAN SHEET UC-6
LINE FM3



SEE PLAN SHEET UC-7
LINE FM4



SEE PLAN SHEET UC-6
LINE FM2



SEE PLAN SHEETS UC-7 & UC-8
LINE FM5

REVISIONS

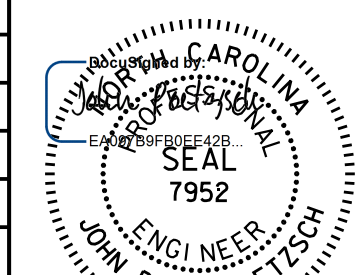
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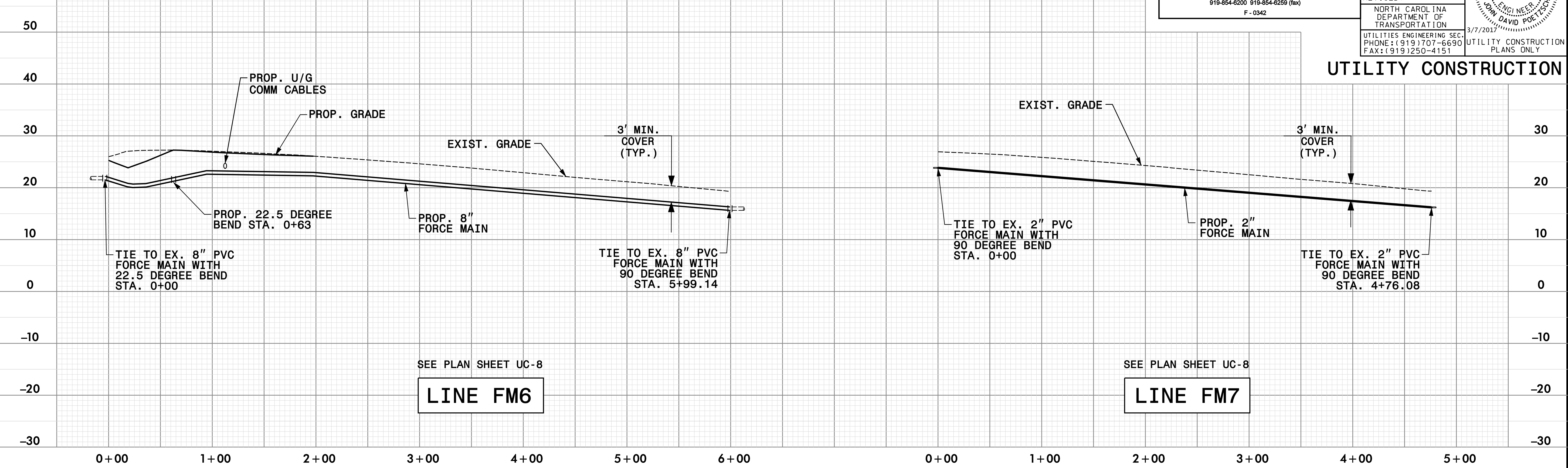
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