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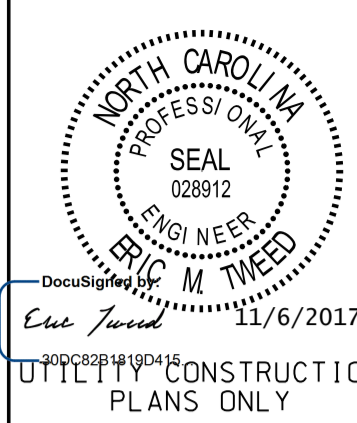
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# PROJECT TYPICAL DETAILS

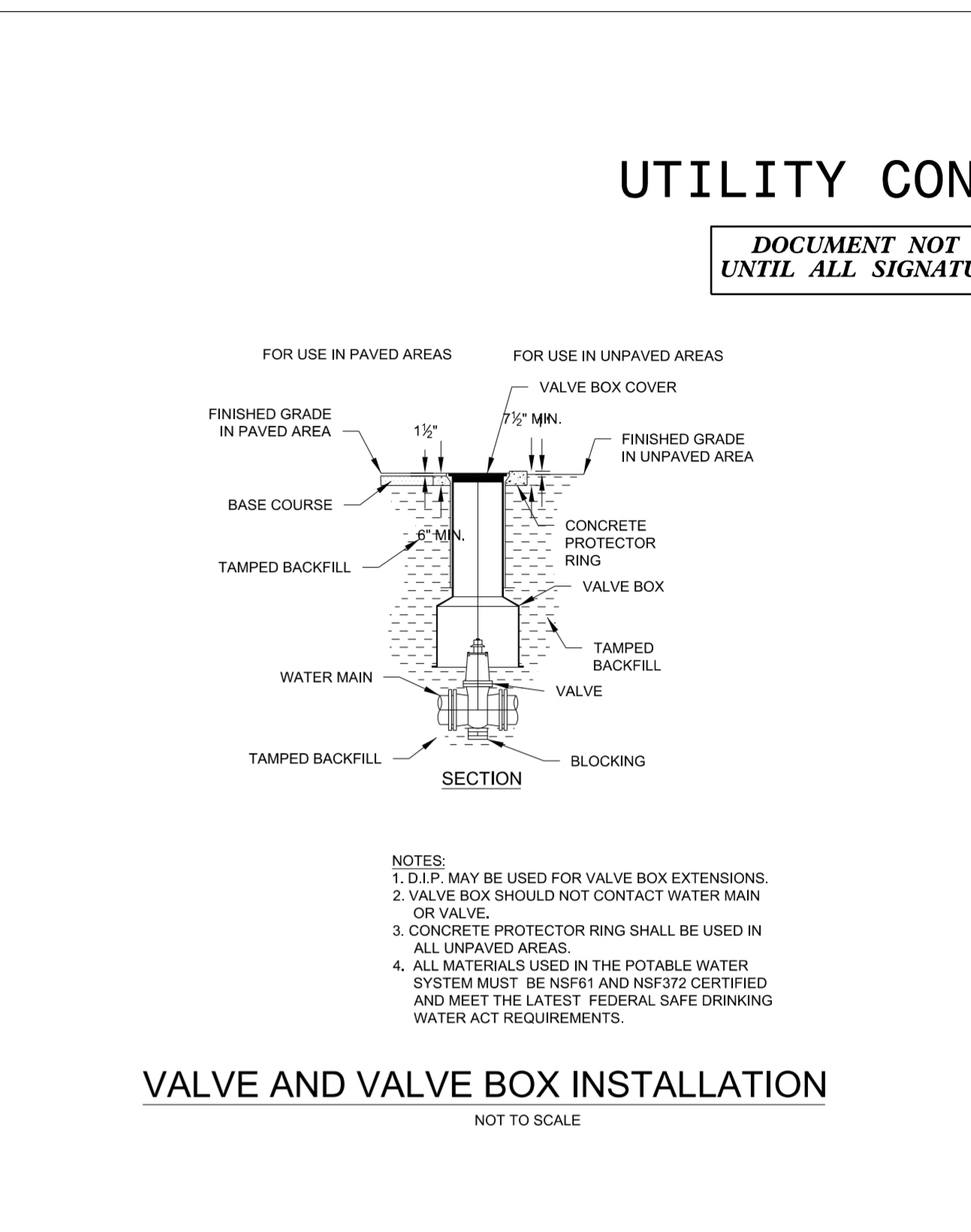
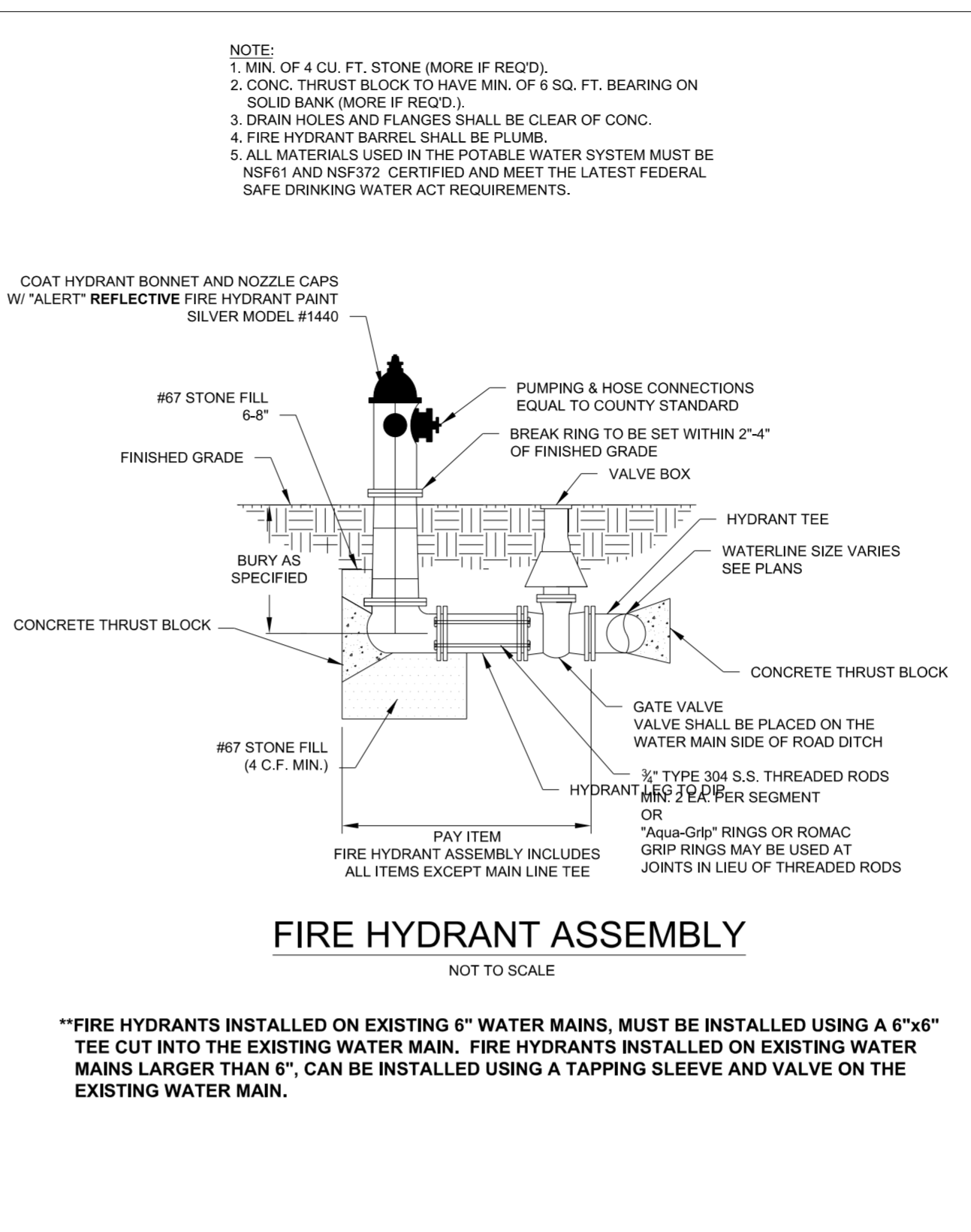
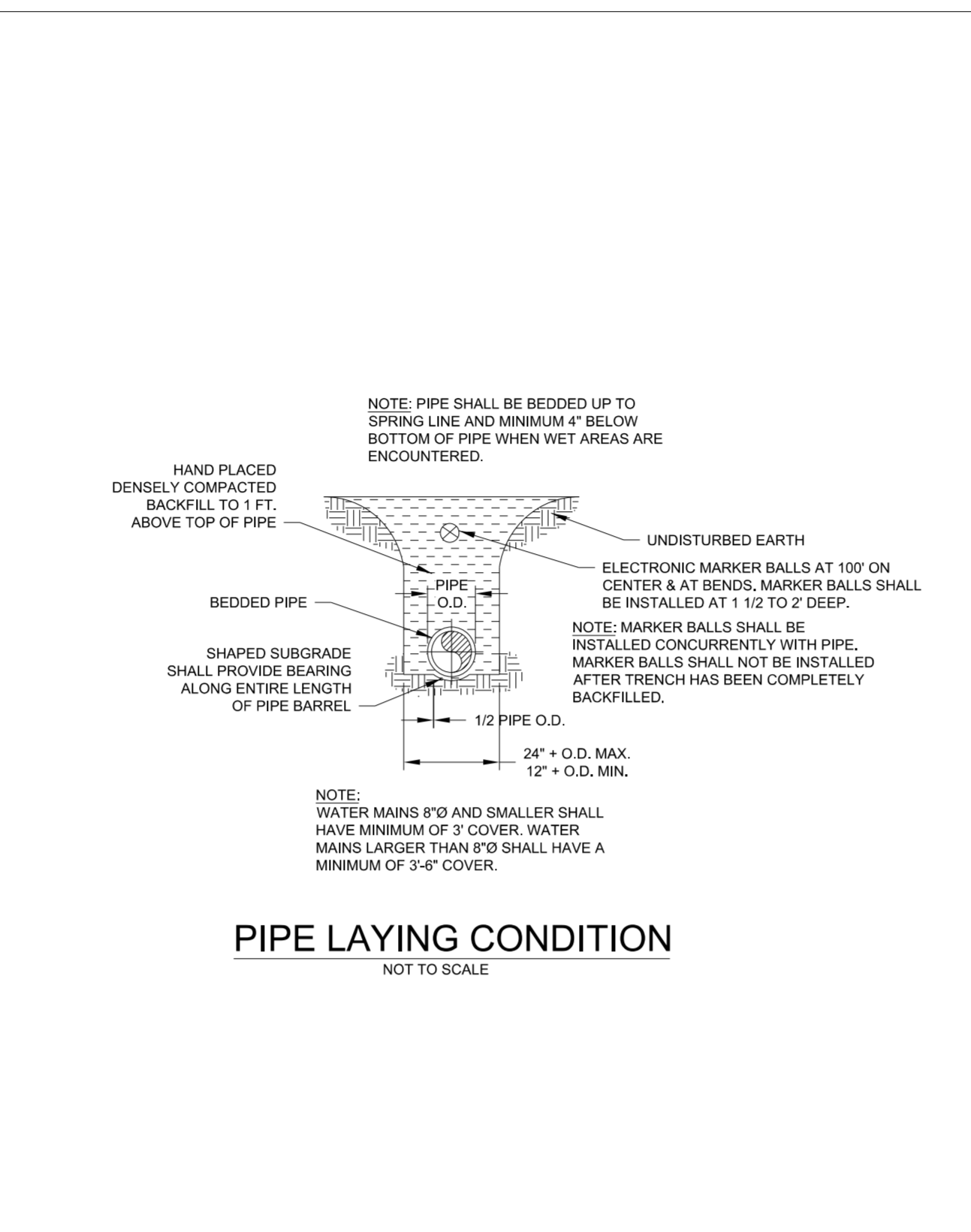
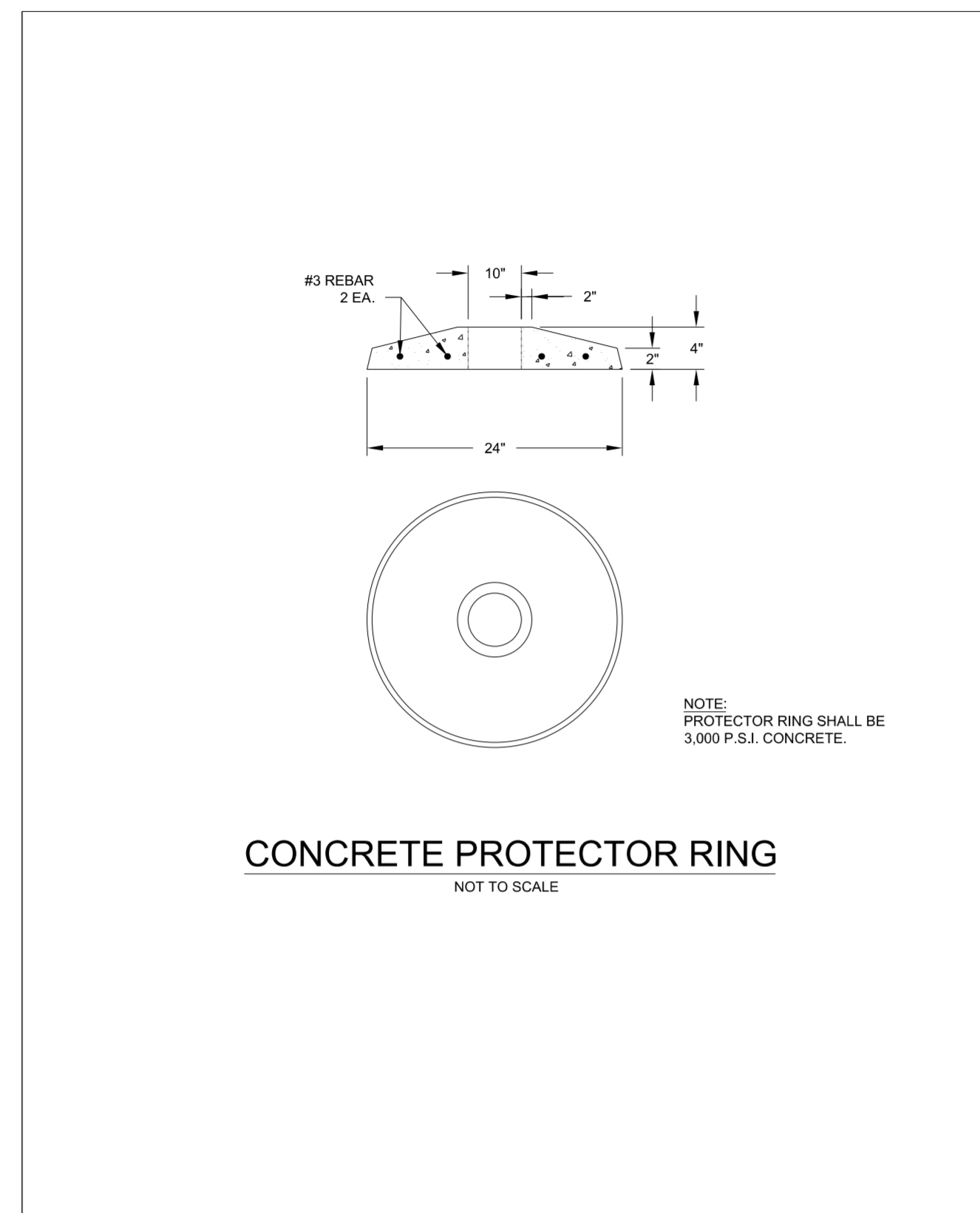
**CH ENGINEERING**  
 3220 GLEN ROYAL RD. RALEIGH, NC 27617  
 TELE 919.788.0224 FAX 919.788.0232  
 NC LICENSE #P-0189



## UTILITY CONSTRUCTION

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-- FH NOTE: FH SHALL BE PROVIDED WITH STORZ CONNECTION--



Drawn By:	Name	Date	
Checked By:			
Approved By:			
Scale:			
Rev.	Description	Date	Init.

**JOHNSTON COUNTY**  
 Department of Public Utilities  
 P.O. Box 2263  
 Smithfield, NC 27577

**WATER STANDARD DETAIL**  
 Concrete Protector Ring

PAGE **14**

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Checked By:			
Approved By:			
Scale:			
Rev.	Description	Date	Init.

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 Smithfield, NC 27577

**WATER STANDARD DETAIL**  
 Pipe Laying Condition

PAGE **17**

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Checked By:			
Approved By:			
Scale:			
Rev.	Description	Date	Init.

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 Smithfield, NC 27577

**WATER STANDARD DETAIL**  
 Fire Hydrant Assembly

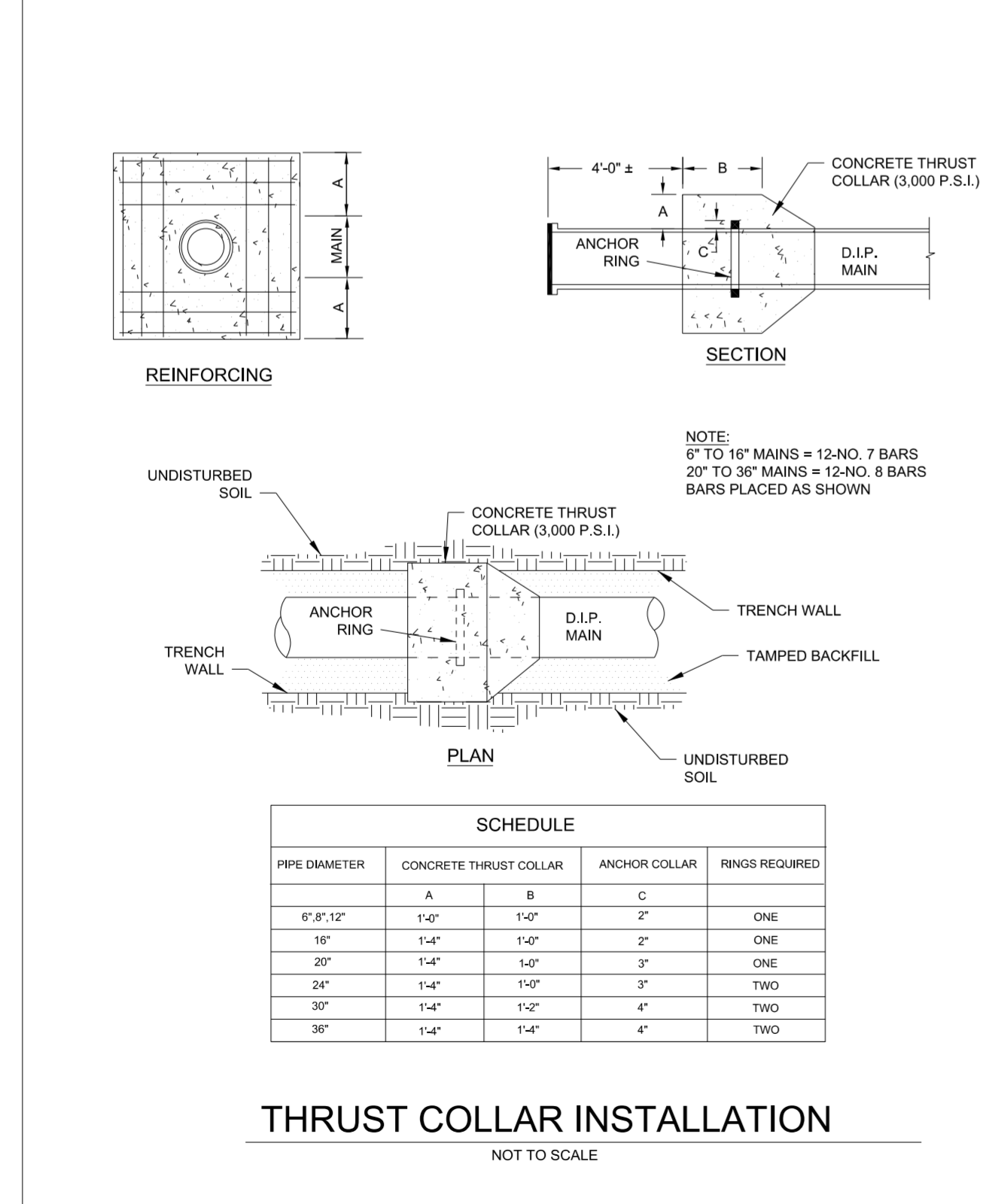
PAGE **4**

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Checked By:			
Approved By:			
Scale:			
Rev.	Description	Date	Init.

**JOHNSTON COUNTY**  
 Department of Public Utilities  
 P.O. Box 2263  
 Smithfield, NC 27577

**WATER STANDARD DETAIL**  
 Valve and Valve Box Installation

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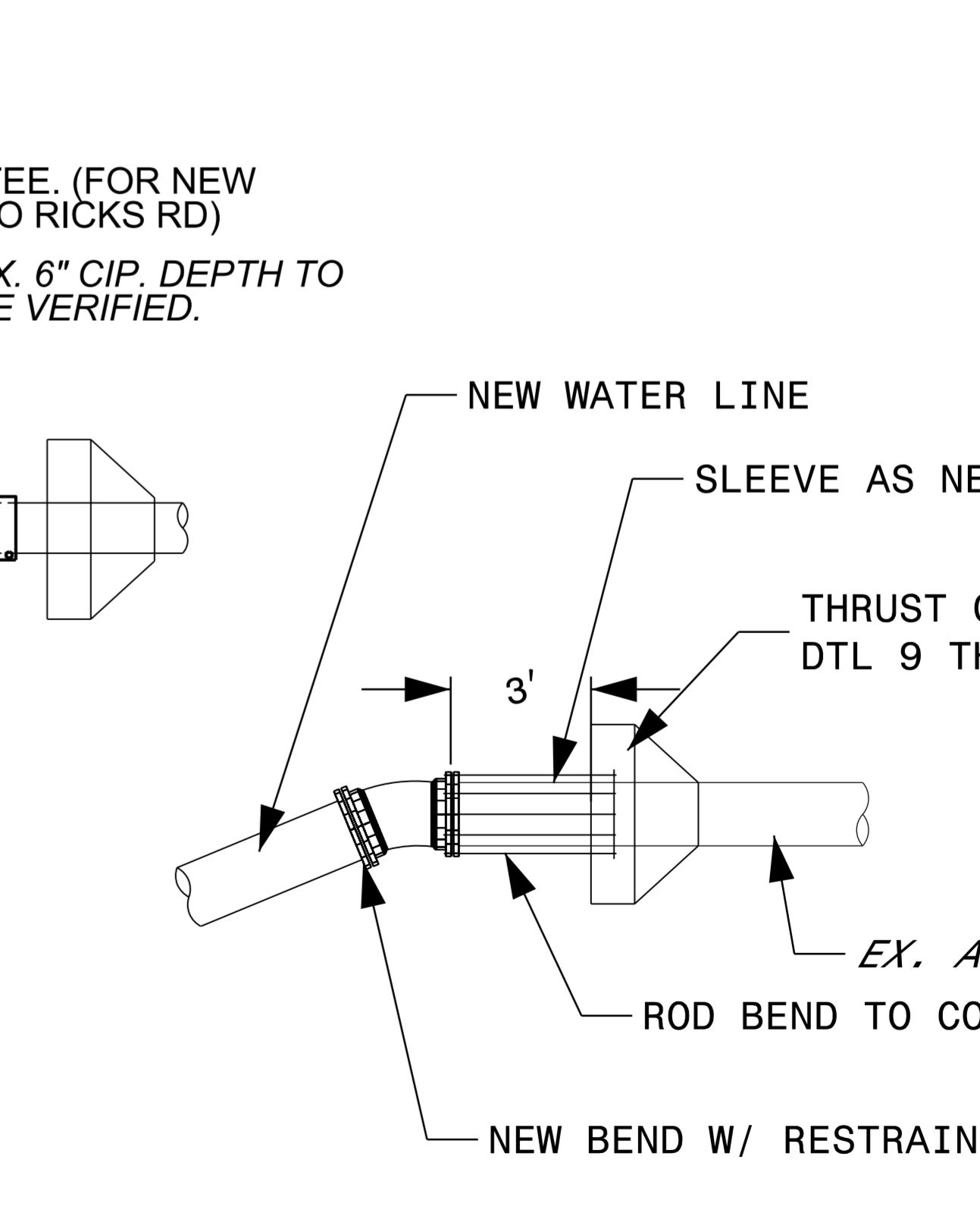
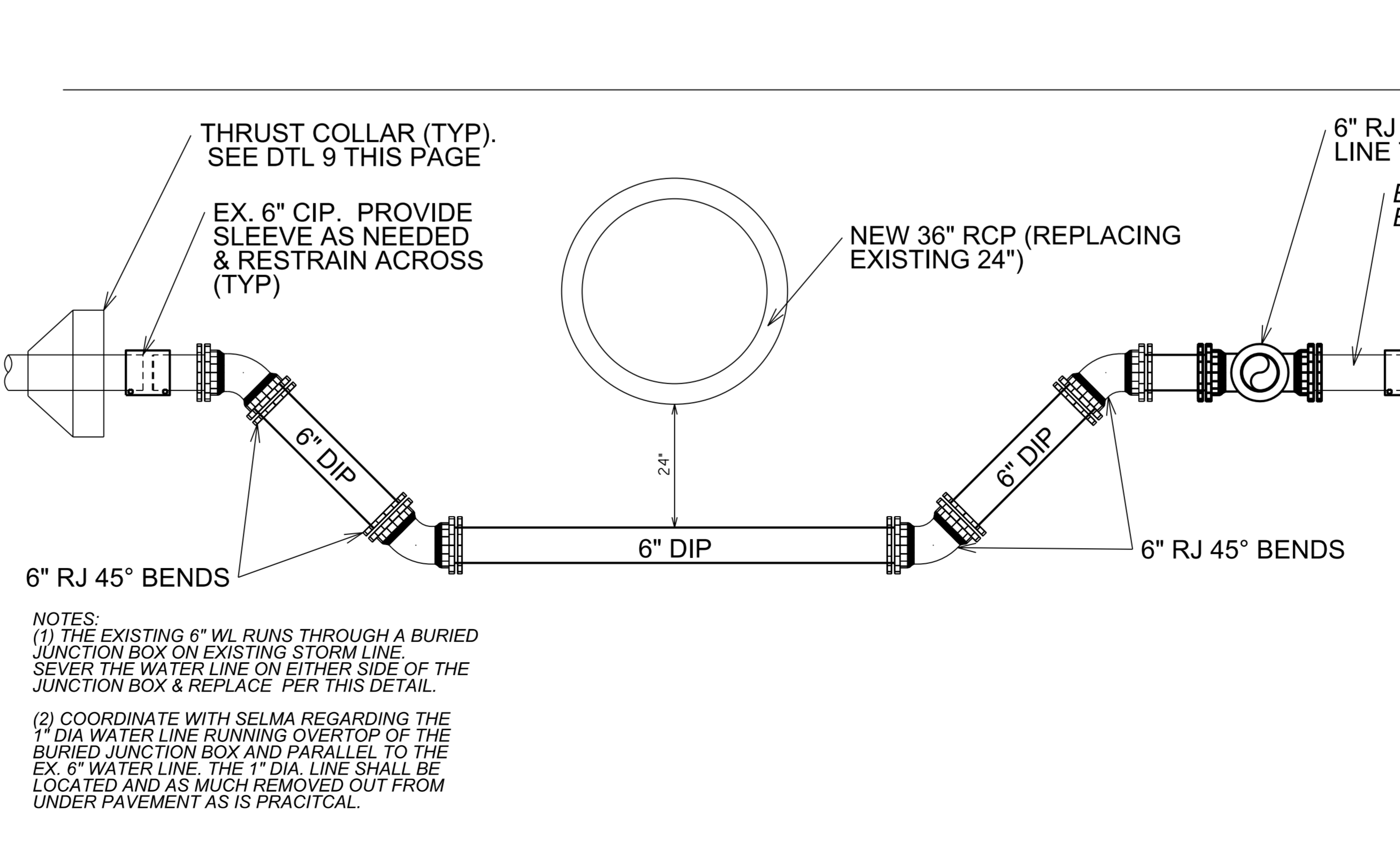


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Rev.	Description	Date	Init.

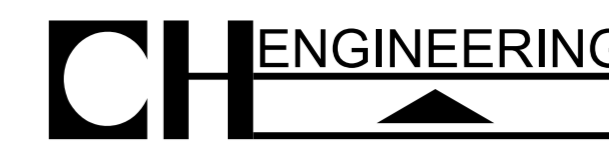
**JOHNSTON COUNTY**  
 Department of Public Utilities  
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 Smithfield, NC 27577

**WATER STANDARD DETAIL**  
 Thrust Collar Installation

PAGE **9**

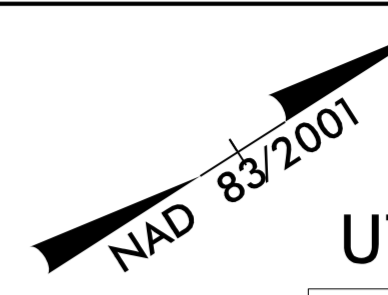
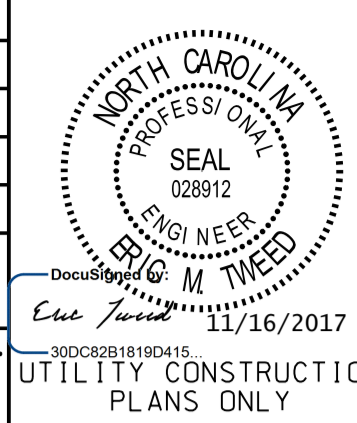


5/14/199  
 11/6/2017  
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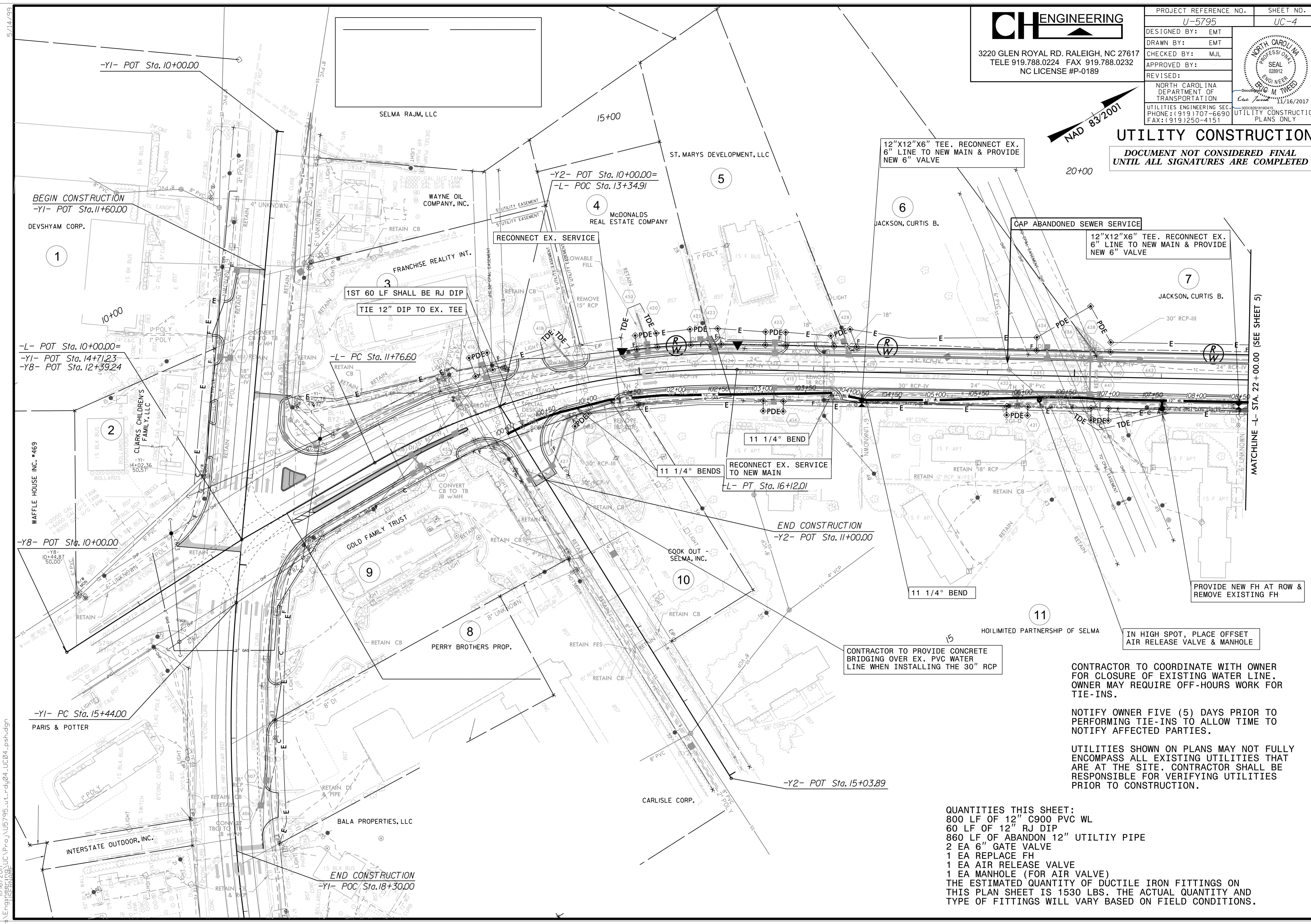
3220 GLEN ROYAL RD. RALEIGH, NC 27617  
 TELE 919.788.0224 FAX 919.788.0232  
 NC LICENSE #P-0189

PROJECT REFERENCE NO.	SHEET NO.
U-5795	UC-4
DESIGNED BY: EMT	
DRAWN BY: EMT	
CHECKED BY: MJL	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SECTION PHONE: (919) 707-6690 FAX: (919) 250-4151	



### UTILITY CONSTRUCTION

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MATCHLINE -L- STA. 22+00.00 (SEE SHEET 5)

CONTRACTOR TO PROVIDE CONCRETE BRIDGING OVER EX. PVC WATER LINE WHEN INSTALLING THE 30" RCP

IN HIGH SPOT, PLACE OFFSET AIR RELEASE VALVE & MANHOLE

CONTRACTOR TO COORDINATE WITH OWNER FOR CLOSURE OF EXISTING WATER LINE. OWNER MAY REQUIRE OFF-HOURS WORK FOR TIE-INS.

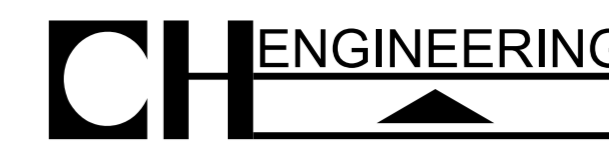
NOTIFY OWNER FIVE (5) DAYS PRIOR TO PERFORMING TIE-INS TO ALLOW TIME TO NOTIFY AFFECTED PARTIES.

UTILITIES SHOWN ON PLANS MAY NOT FULLY ENCOMPASS ALL EXISTING UTILITIES THAT ARE AT THE SITE. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING UTILITIES PRIOR TO CONSTRUCTION.

**QUANTITIES THIS SHEET:**  
 800 LF OF 12" C900 PVC WL  
 60 LF OF 12" RJ DIP  
 860 LF OF ABANDON 12" UTILITY PIPE  
 2 EA 6" GATE VALVE  
 1 EA REPLACE FH  
 1 EA AIR RELEASE VALVE  
 1 EA MANHOLE (FOR AIR VALVE)  
 THE ESTIMATED QUANTITY OF DUCTILE IRON FITTINGS ON THIS PLAN SHEET IS 1530 LBS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

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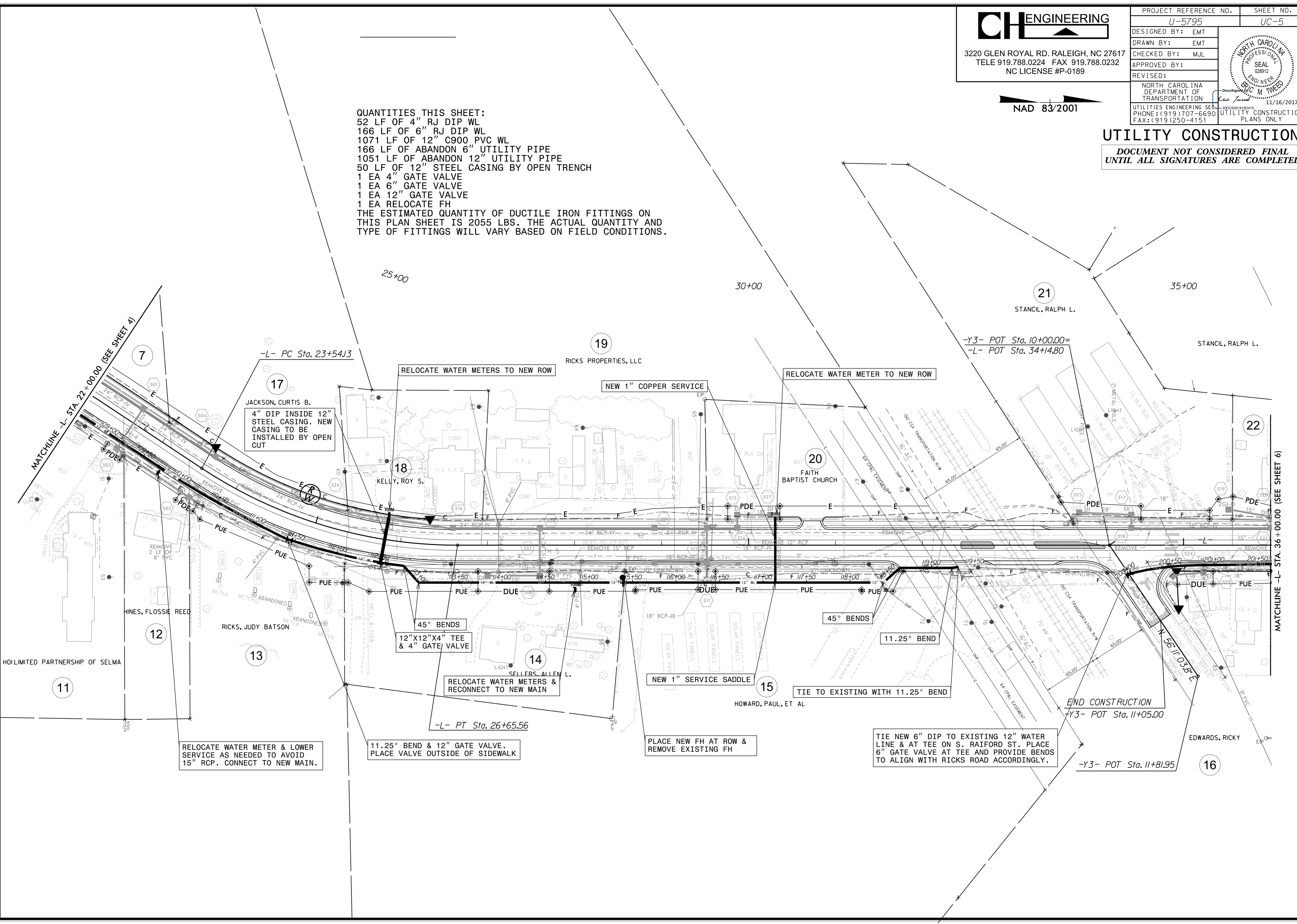
3220 GLEN ROYAL RD. RALEIGH, NC 27617  
 TELE 919.788.0224 FAX 919.788.0232  
 NC LICENSE #P-0189

PROJECT REFERENCE NO.	SHEET NO.
U-5795	UC-5
DESIGNED BY: EMT	
DRAWN BY: EMT	
CHECKED BY: MJL	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SECTION PHONE: (919) 707-6690 FAX: (919) 1250-4151	



**UTILITY CONSTRUCTION**  
 DOCUMENT NOT CONSIDERED FINAL  
 UNTIL ALL SIGNATURES ARE COMPLETED

**QUANTITIES THIS SHEET:**  
 52 LF OF 4" RJ DIP WL  
 166 LF OF 6" RJ DIP WL  
 1071 LF OF 12" C900 PVC WL  
 166 LF OF ABANDON 6" UTILITY PIPE  
 1051 LF OF ABANDON 12" UTILITY PIPE  
 50 LF OF 12" STEEL CASING BY OPEN TRENCH  
 1 EA 4" GATE VALVE  
 1 EA 6" GATE VALVE  
 1 EA 12" GATE VALVE  
 1 EA RELOCATE FH  
 THE ESTIMATED QUANTITY OF DUCTILE IRON FITTINGS ON THIS PLAN SHEET IS 2055 LBS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.



MATCHLINE -L- STA. 22+00.00 (SEE SHEET 4)

MATCHLINE -L- STA. 36+00.00 (SEE SHEET 6)

17 JACKSON, CURTIS B.  
 4" DIP INSIDE 12" STEEL CASING. NEW CASING TO BE INSTALLED BY OPEN CUT

RELOCATE WATER METERS TO NEW ROW

NEW 1" COPPER SERVICE

RELOCATE WATER METER TO NEW ROW

-Y3- POT Sta. 10+00.00=  
 -L- POT Sta. 34+4.80

45° BENDS  
 12"X12"X4" TEE & 4" GATE VALVE

45° BENDS  
 11.25° BEND

RELOCATE WATER METERS & RECONNECT TO NEW MAIN

NEW 1" SERVICE SADDLE

TIE TO EXISTING WITH 11.25° BEND

RELOCATE WATER METER & LOWER SERVICE AS NEEDED TO AVOID 15" RCP. CONNECT TO NEW MAIN.

11.25° BEND & 12" GATE VALVE. PLACE VALVE OUTSIDE OF SIDEWALK

PLACE NEW FH AT ROW & REMOVE EXISTING FH

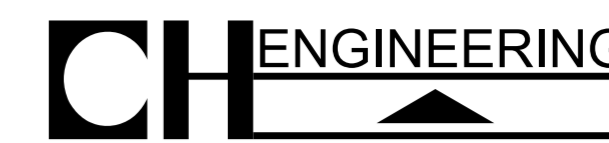
TIE NEW 6" DIP TO EXISTING 12" WATER LINE & AT TEE ON S. RAIFORD ST. PLACE 6" GATE VALVE AT TEE AND PROVIDE BENDS TO ALIGN WITH RICKS ROAD ACCORDINGLY.

END CONSTRUCTION  
 -Y3- POT Sta. 11+05.00

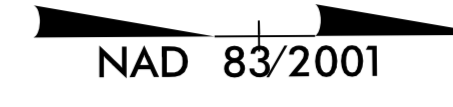
-Y3- POT Sta. 11+81.95

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 NC LICENSE #P-0189

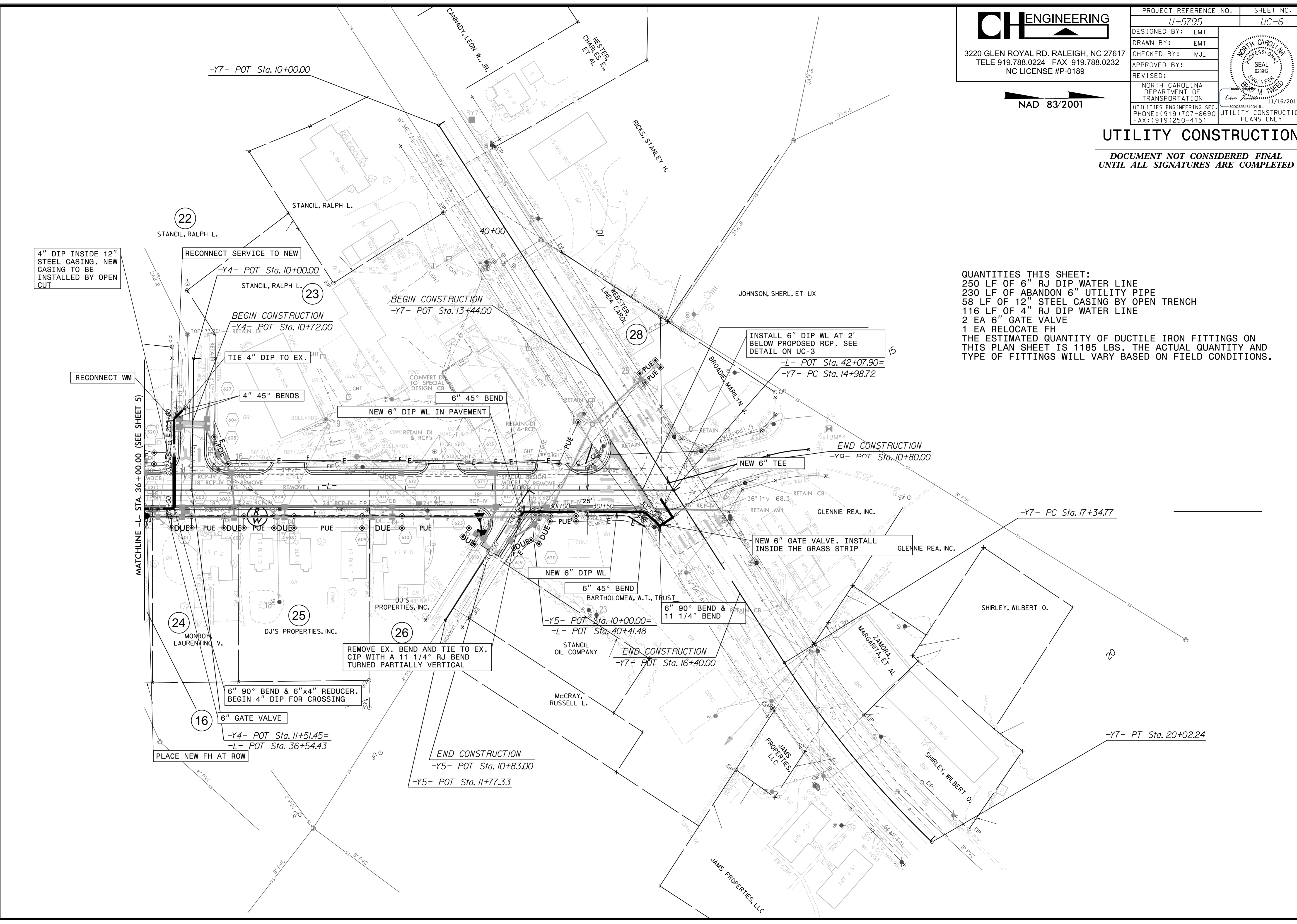


PROJECT REFERENCE NO. U-5795	SHEET NO. UC-6
DESIGNED BY: EMT	
DRAWN BY: EMT	
CHECKED BY: MJL	
APPROVED BY:	
REVISED:	11/16/2017
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	

### UTILITY CONSTRUCTION

**DOCUMENT NOT CONSIDERED FINAL  
 UNTIL ALL SIGNATURES ARE COMPLETED**

**QUANTITIES THIS SHEET:**  
 250 LF OF 6" RJ DIP WATER LINE  
 230 LF OF ABANDON 6" UTILITY PIPE  
 58 LF OF 12" STEEL CASING BY OPEN TRENCH  
 116 LF OF 4" RJ DIP WATER LINE  
 2 EA 6" GATE VALVE  
 1 EA RELOCATE FH  
 THE ESTIMATED QUANTITY OF DUCTILE IRON FITTINGS ON THIS PLAN SHEET IS 1185 LBS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.



4" DIP INSIDE 12" STEEL CASING. NEW CASING TO BE INSTALLED BY OPEN CUT

RECONNECT WM

MATCHLINE -L- STA. 36+00.00 (SEE SHEET 5)

22  
STENCIL, RALPH L.

RECONNECT SERVICE TO NEW  
-Y4- POT Sta. 10+00.00

23  
STENCIL, RALPH L.

BEGIN CONSTRUCTION  
-Y4- POT Sta. 10+72.00

TIE 4" DIP TO EX.

4" 45° BENDS

6" 45° BEND

NEW 6" DIP WL IN PAVEMENT

RECONNECT WM

24  
MONROY LAURENTING V.

25  
DJ'S PROPERTIES, INC.

26  
DJ'S PROPERTIES, INC.

REMOVE EX. BEND AND TIE TO EX. CIP WITH A 11 1/4° RJ BEND TURNED PARTIALLY VERTICAL

6" 90° BEND & 6"x4" REDUCER. BEGIN 4" DIP FOR CROSSING

6" GATE VALVE

-Y4- POT Sta. 11+51.45=  
-L- POT Sta. 36+54.43

PLACE NEW FH AT ROW

END CONSTRUCTION  
-Y5- POT Sta. 10+83.00

-Y5- POT Sta. 11+77.33

BEGIN CONSTRUCTION  
-Y7- POT Sta. 13+44.00

NEW 6" DIP WL

6" 45° BEND  
BARTHOLOMEW, W.T., TRUST

-Y5- POT Sta. 10+00.00=  
-L- POT Sta. 40+41.48

END CONSTRUCTION  
-Y7- POT Sta. 16+40.00

INSTALL 6" DIP WL AT 2' BELOW PROPOSED RCP. SEE DETAIL ON UC-3

-L- POT Sta. 42+07.90=  
-Y7- PC Sta. 14+98.72

NEW 6" TEE

END CONSTRUCTION  
-Y4- POT Sta. 10+80.00

NEW 6" GATE VALVE. INSTALL INSIDE THE GRASS STRIP

GLENNIE REA, INC.

GLENNIE REA, INC.

SHIRLEY, WILBERT O.

MARGARITA, ET AL

SHIRLEY, WILBERT O.

JANS PROPERTIES, LLC

JANS PROPERTIES, LLC

END CONSTRUCTION  
-Y7- PT Sta. 20+02.24

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5/14/99

\* UTILITIES SHOWN ON PLANS ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY LOCATION AND DEPTH.

MAINTAIN 3' MINIMUM COVER (TYP)  
PROVIDE 18" SEPARATION OVER TOP OF SANITARY SEWER.  
PROVIDE 12" SEPARATION OVER/UNDER STORM PIPES OR PROVIDE CONCRETE CRADLE BETWEEN PIPES.

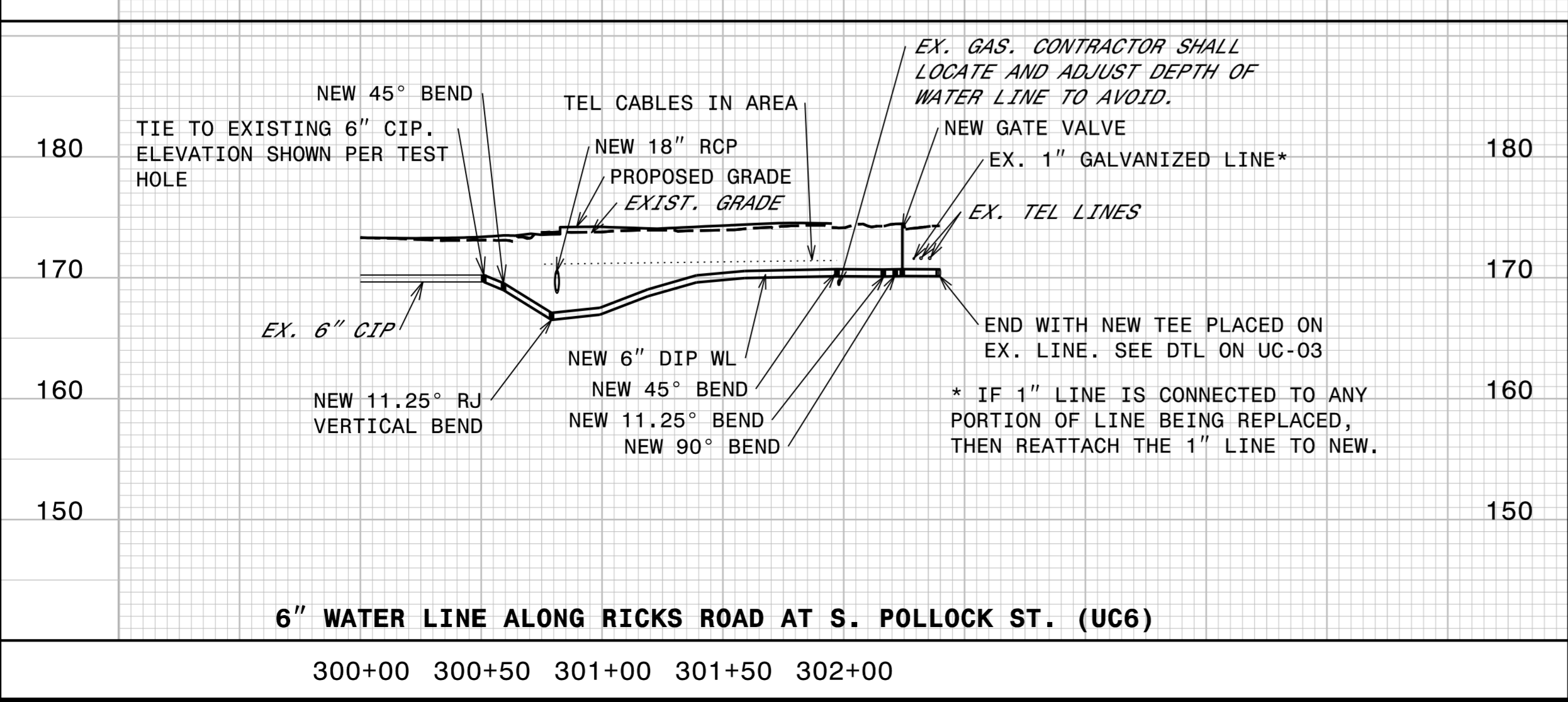
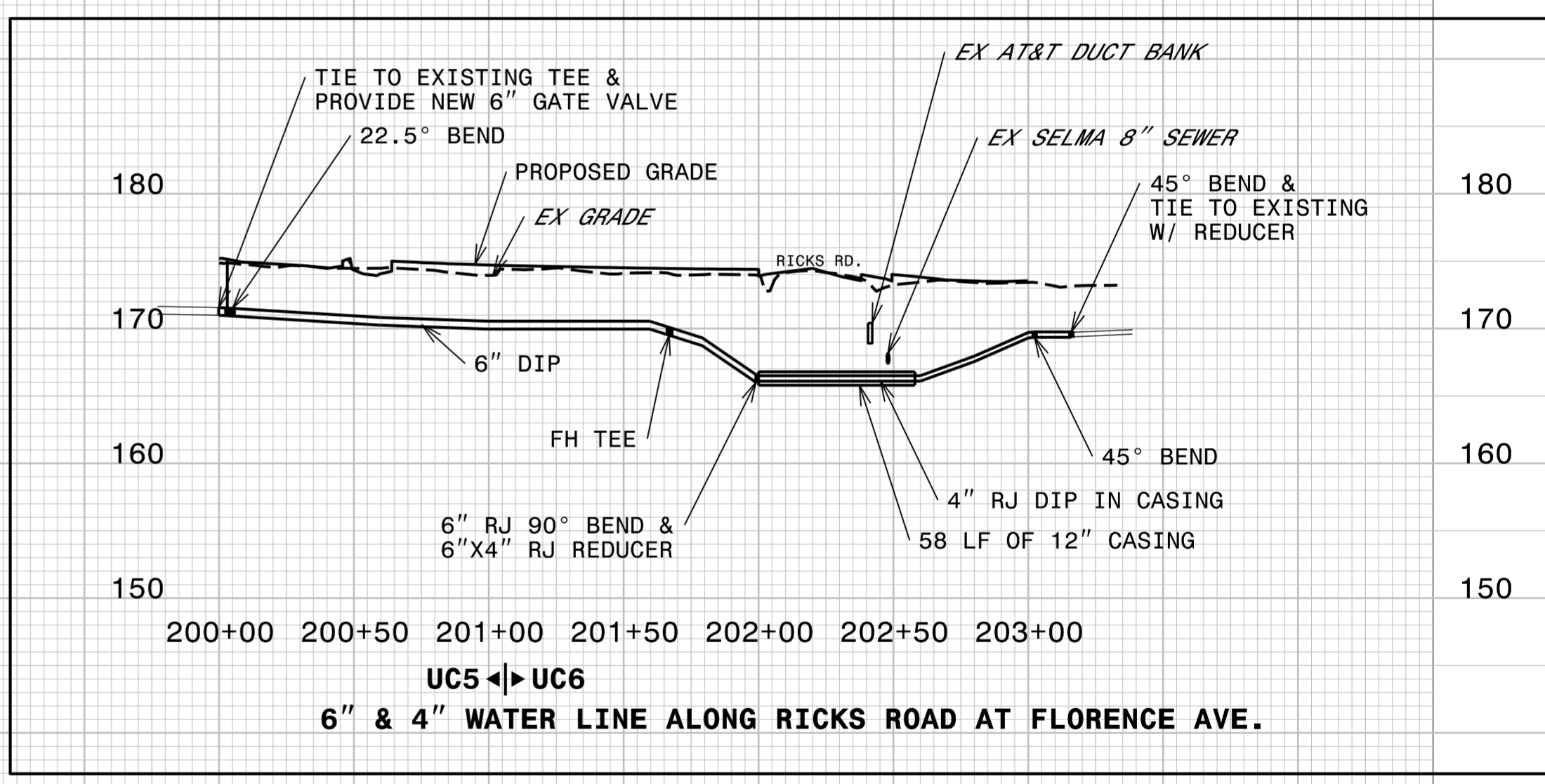
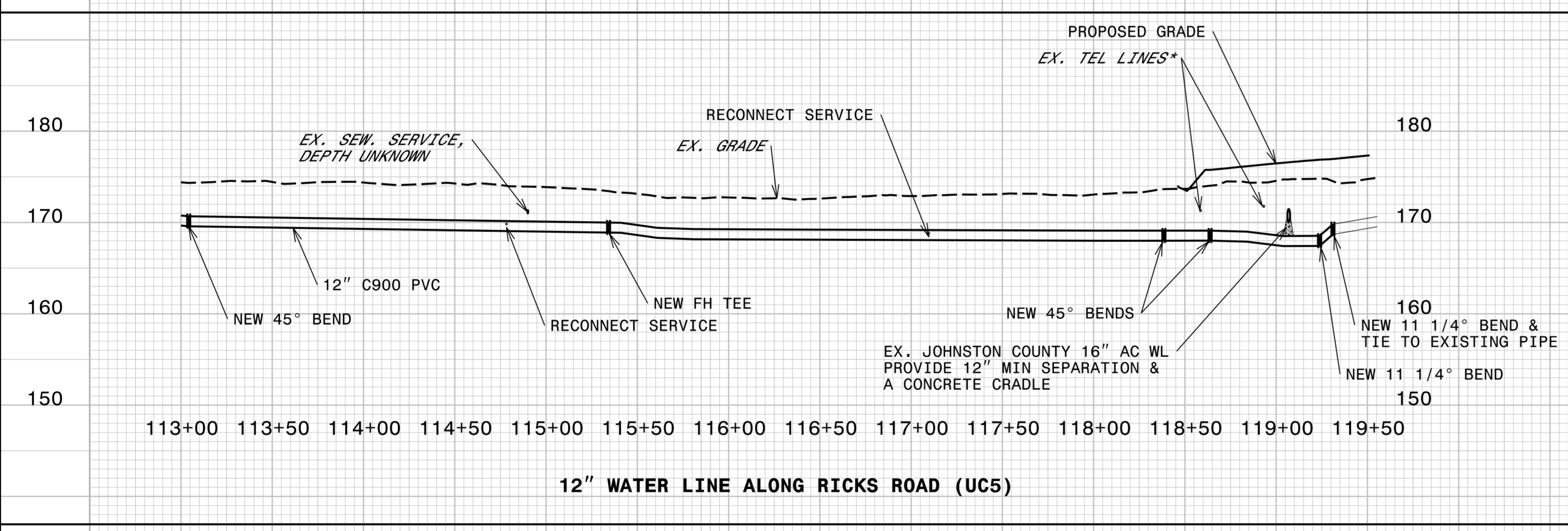
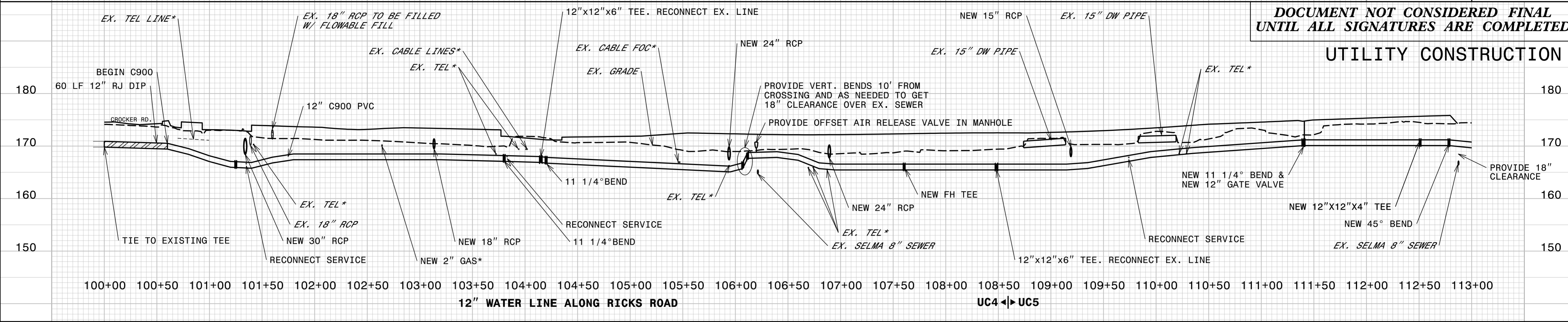


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NC LICENSE #P-0189

PROJECT REFERENCE NO. U-5795	SHEET NO. UC-7
DESIGNED BY: EMT	
DRAWN BY: EMT	
CHECKED BY: BAW	
APPROVED BY:	
REVISED:	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SECTION PHONE: (919) 707-6690 FAX: (919) 250-4151

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### UTILITY CONSTRUCTION



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