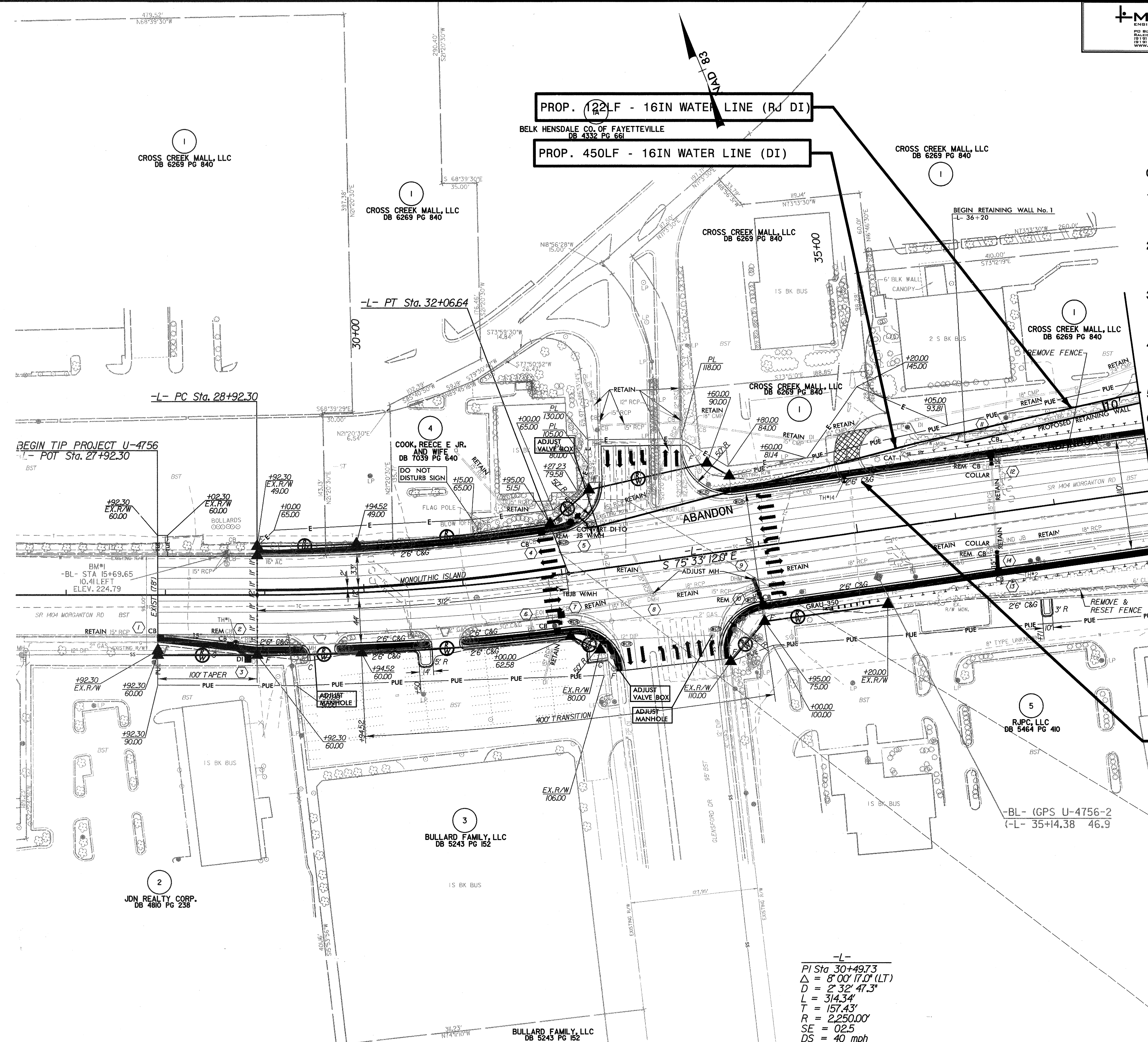
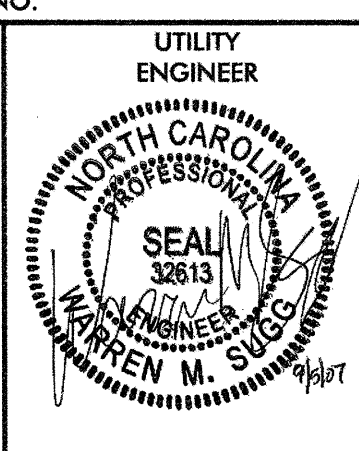


8/17/99

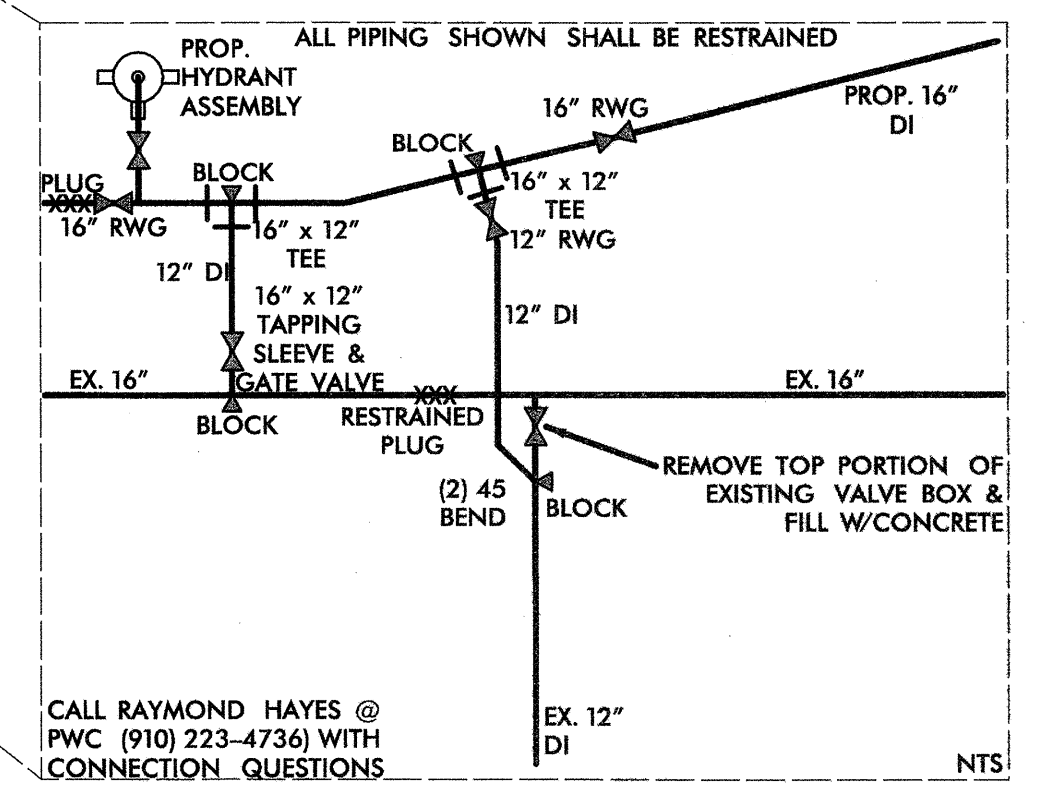


- GENERAL NOTES:**
1. THE SHUTDOWN OF WATER LINES FOR RELOCATION SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY OWNER.
  2. THE CONTRACTOR SHALL ROTATE PROPOSED BENDS AS NECESSARY TO PROVIDE FOR VERTICAL ALIGNMENT.
  3. THE CONTRACTOR SHALL DETERMINE THE ACTUAL LENGTH TO BE RESTRAINED FOR ALL TIE-IN SECTIONS.
  4. ALL FITTINGS ARE INCIDENTAL TO THE WATER LINE REFER TO NCDOT STD SPEC 1036 & 1510.
  5. TRENCHLESS METHOD TO BE BORE & JACK
  6. ALL RESTRAINED JOINT TO BE FLEXIBLE
  7. AC TO DI TRANSITIONS ARE INCIDENTAL TO THE WATER LINE.

MATCH TO SHEET 5  
-L- STA. 38+00.00

**PROP. 541LF - ABANDONED 16IN PIPE**

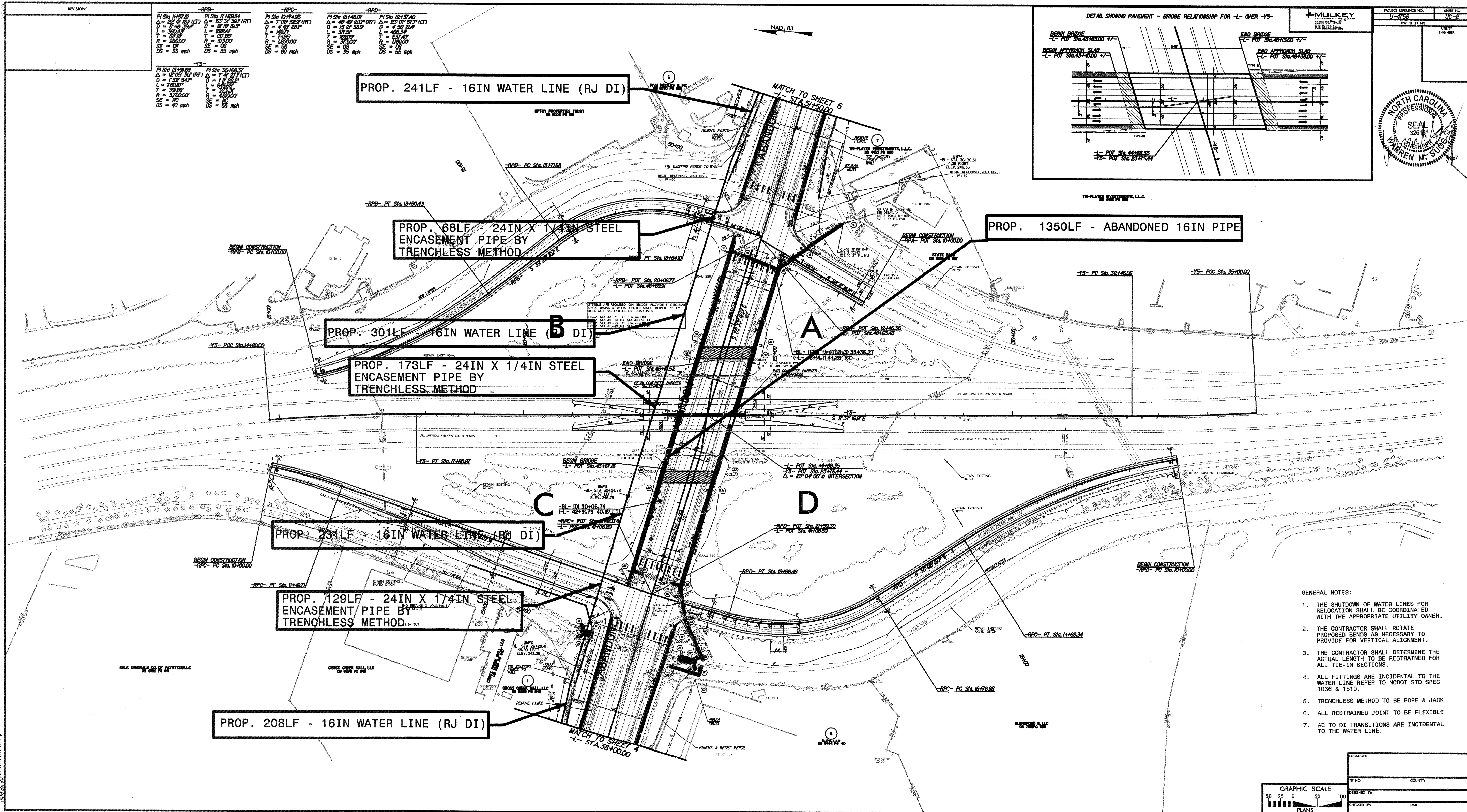
-L-  
PI Sta 30+49.73  
Δ = 8' 00" 17.0' (LT)  
D = 2' 32' 47.3"  
L = 314.34'  
T = 157.43'  
R = 2250.00'  
SE = 02.5  
DS = 40 mph



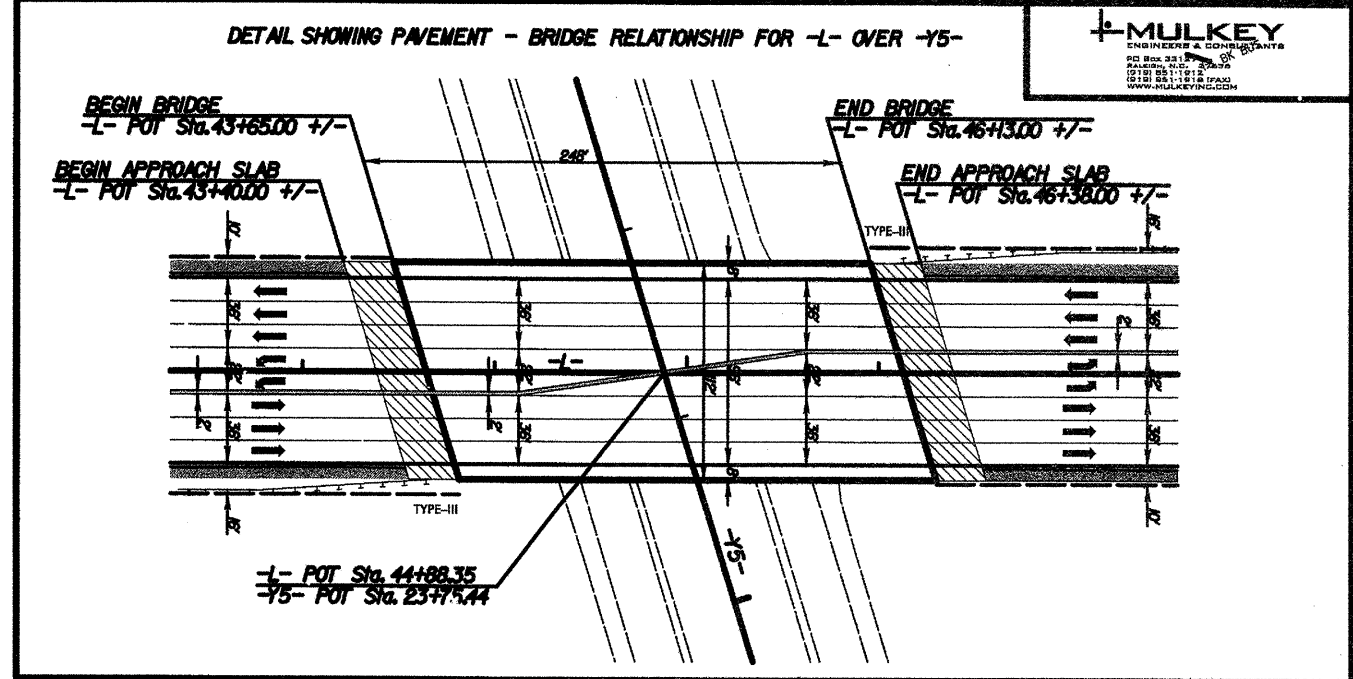
CALL RAYMOND HAYES @ PWC (910) 223-4736 WITH CONNECTION QUESTIONS

9/6/2007  
P:\Projects\U-4756-RDY\_LUC1.dgn  
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-RPP-		-RPC-		-RPD-	
PI Sta 1149.81	PI Sta 1149.81	PI Sta 1074.95	PI Sta 1074.95	PI Sta 1040.07	PI Sta 1040.07
$\Delta = 22^\circ 41' 54''$	$\Delta = 53^\circ 31' 39''$	$\Delta = 7^\circ 08' 52''$	$\Delta = 7^\circ 08' 52''$	$\Delta = 45^\circ 46' 07''$	$\Delta = 45^\circ 46' 07''$
D = 546.354'	D = 101.013'	D = 4.46' 52.4"	D = 4.46' 52.4"	D = 13.07' 53.5"	D = 13.07' 53.5"
L = 501.43'	L = 85.94'	L = 14.37'	L = 14.37'	L = 37.52'	L = 37.52'
T = 17.07'	T = 15.28'	T = 74.89'	T = 74.89'	T = 46.54'	T = 46.54'
R = 986.00'	R = 315.00'	R = 1200.00'	R = 1200.00'	R = 59.300'	R = 59.300'
SS = 08'	SS = 08'	SS = 08'	SS = 08'	SS = 08'	SS = 08'
DS = 55 mph	DS = 55 mph	DS = 60 mph	DS = 60 mph	DS = 55 mph	DS = 55 mph

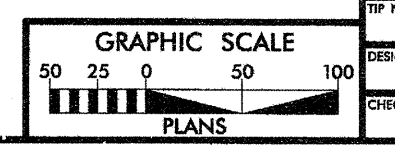


MULKEY  
 PROFESSIONAL ENGINEER  
 NO. 32618  
 STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. U-4756  
 SHEET NO. UC-2  
 DATE 08/11/2010

SEAL  
 WARREN M. SUGGS

- GENERAL NOTES:
1. THE SHUTDOWN OF WATER LINES FOR RELOCATION SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY OWNER.
  2. THE CONTRACTOR SHALL ROTATE PROPOSED BENDS AS NECESSARY TO PROVIDE FOR VERTICAL ALIGNMENT.
  3. THE CONTRACTOR SHALL DETERMINE THE ACTUAL LENGTH TO BE RESTRAINED FOR ALL TIE-IN SECTIONS.
  4. ALL FITTINGS ARE INCIDENTAL TO THE WATER LINE REFER TO NCDOT STD SPEC 1036 & 1510.
  5. TRENCHLESS METHOD TO BE BORE & JACK
  6. ALL RESTRAINED JOINT TO BE FLEXIBLE
  7. AC TO DI TRANSITIONS ARE INCIDENTAL TO THE WATER LINE.



DATE	
CHECKED BY	
DESIGNED BY	
PROJECT NO.	
COUNTY	
LOCATION	



8/17/99

8/6/2007  
U-4756\_RDY\_UC3.edg

**MULKEY**  
ENGINEERS & CONSULTANTS  
PO Box 32137  
RALEIGH, N.C. 27636  
(919) 881-1112  
(919) 881-1318 (FAX)  
WWW.MULKEYINC.COM

PROJECT REFERENCE NO.	SHEET NO.
U-4756	UC-3
RW SHEET NO.	

UTILITY ENGINEER

**NORTH CAROLINA**  
PROFESSIONAL  
SEAL  
32613  
WARREN M. SUGG  
4/10/07

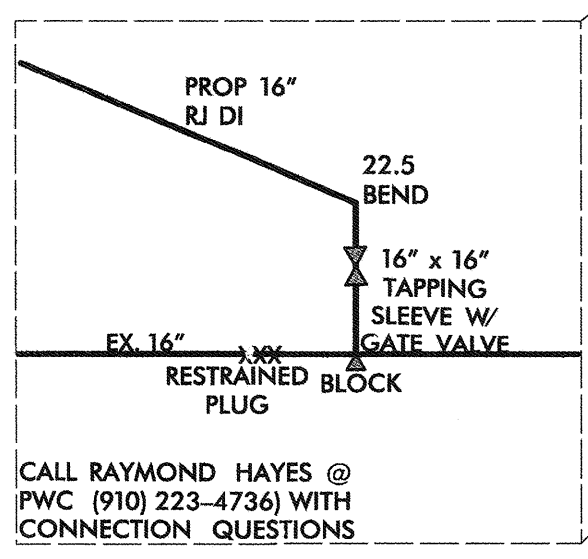
-Y3-  
PI Sta 11+40.87  
 $\Delta = 29^{\circ} 05' 46.0" (RT)$   
 $D = 10^{\circ} 33' 19.6"$   
 $L = 275.65'$   
 $T = 140.87'$   
 $R = 542.81'$   
 $SE = 04$   
 $DS = 40 \text{ mph}$

**PROP. 363LF - 16IN WATER LINE (RJ DI)**

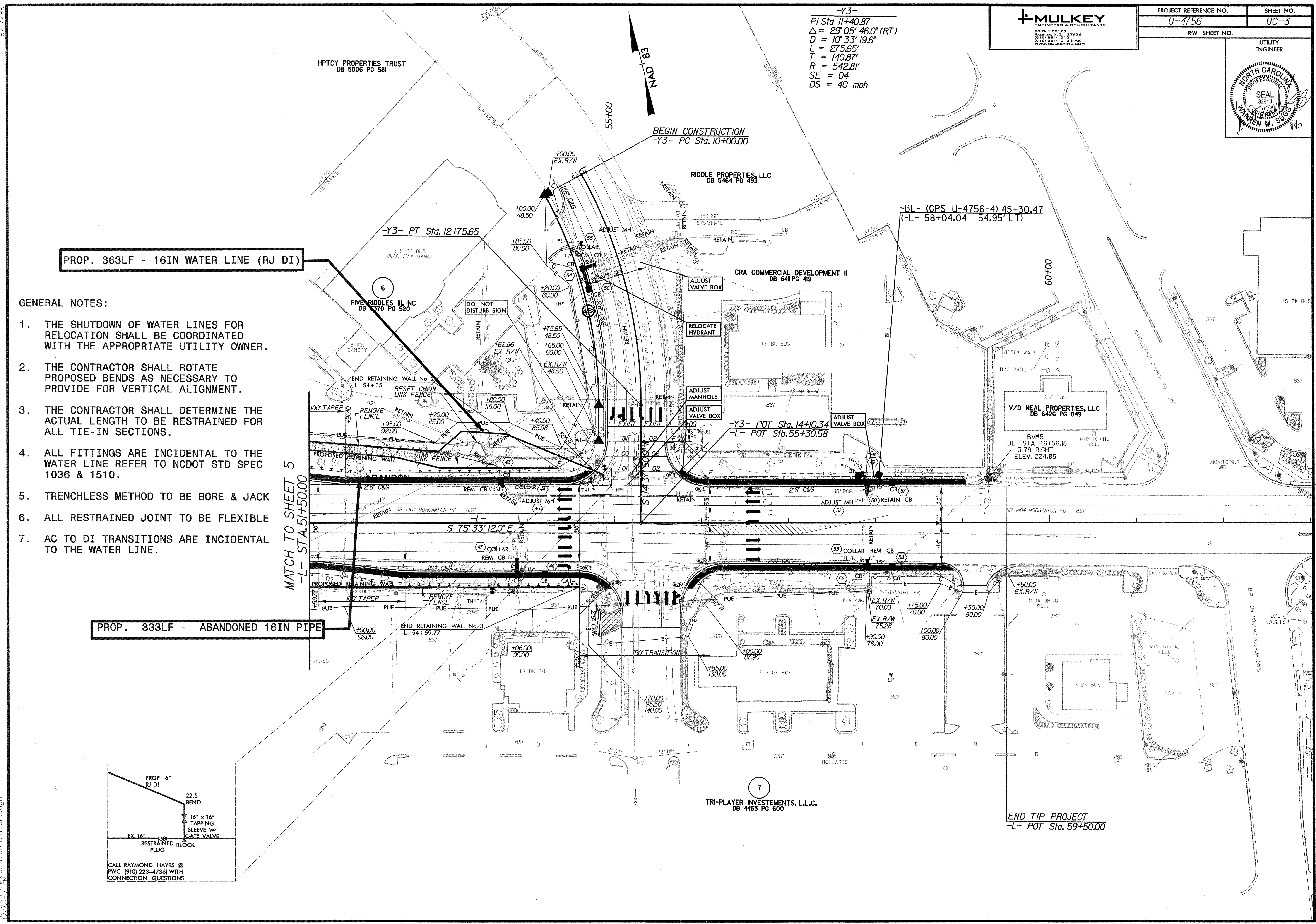
**GENERAL NOTES:**

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2. THE CONTRACTOR SHALL ROTATE PROPOSED BENDS AS NECESSARY TO PROVIDE FOR VERTICAL ALIGNMENT.
3. THE CONTRACTOR SHALL DETERMINE THE ACTUAL LENGTH TO BE RESTRAINED FOR ALL TIE-IN SECTIONS.
4. ALL FITTINGS ARE INCIDENTAL TO THE WATER LINE REFER TO NCDOT STD SPEC 1036 & 1510.
5. TRENCHLESS METHOD TO BE BORE & JACK
6. ALL RESTRAINED JOINT TO BE FLEXIBLE
7. AC TO DI TRANSITIONS ARE INCIDENTAL TO THE WATER LINE.

**PROP. 333LF - ABANDONED 16IN PIPE**



CALL RAYMOND HAYES @ PWC (910) 223-4736 WITH CONNECTION QUESTIONS



TRI-PLAYER INVESTMENTS, L.L.C.  
DB 4453 PG 600

END TIP PROJECT  
-L- POT Sta. 59+50.00



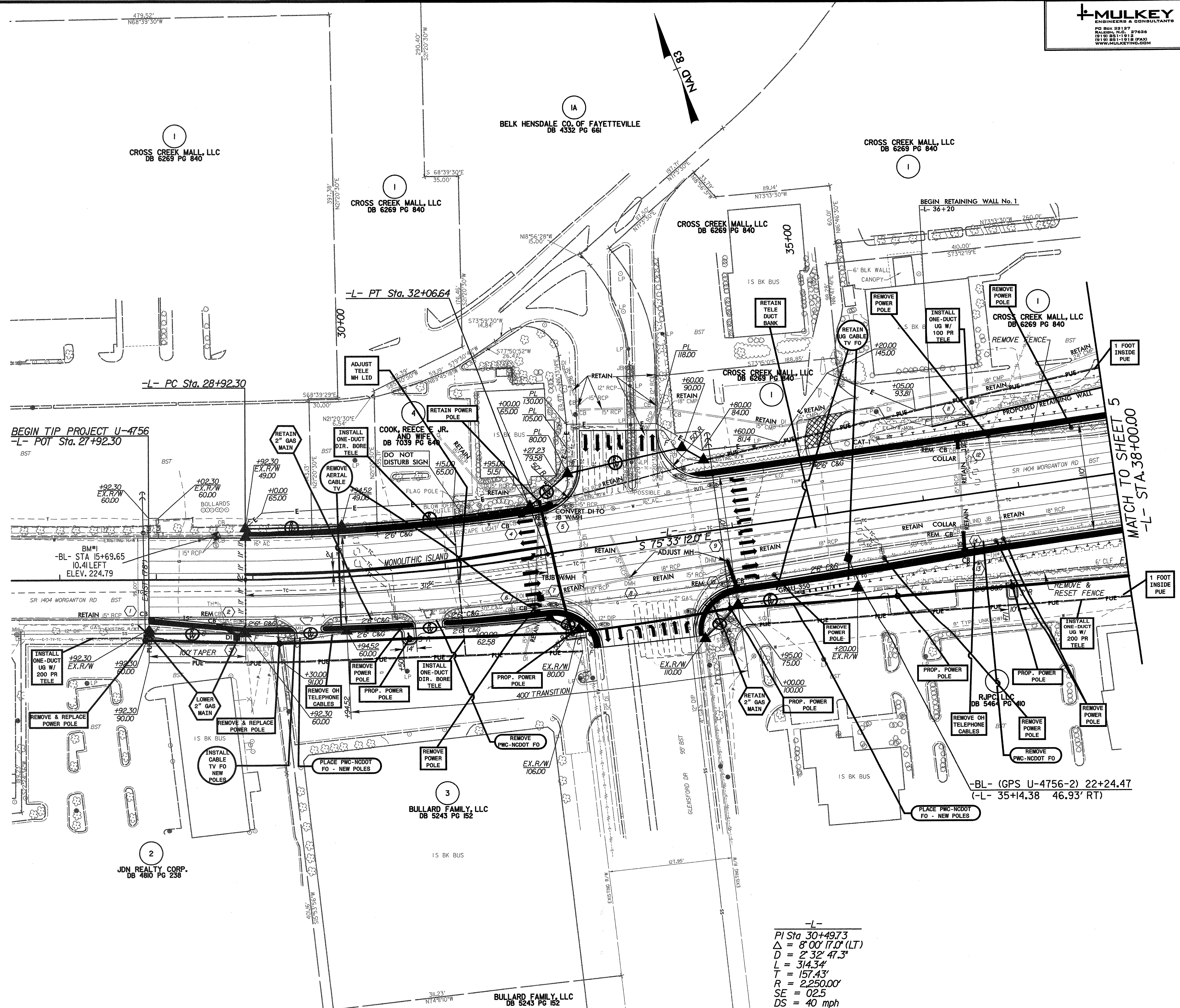




8/17/99

**MULKEY**  
ENGINEERS & CONSULTANTS  
PO BOX 98187  
RALEIGH, N.C. 27696  
(919) 881-1912  
(919) 881-1916 (FAX)  
WWW.MULKEYINC.COM

PROJECT REFERENCE NO.	SHEET NO.
U-4756	U0-1
RW SHEET NO.	UTILITY ENGINEER



BEGIN TIP PROJECT U-4756  
-L- POT Sta. 27+92.30

-L- PC Sta. 28+92.30

-L- PT Sta. 32+06.64

MATCH TO SHEET 5  
-L- STA. 38+00.00

-BL- (GPS U-4756-2) 22+24.47  
(-L- 35+14.38 46.93' RT)

-L-  
 PI Sta. 30+49.73  
 $\Delta = 8^{\circ}00'17.0''$  (LT)  
 $D = 2^{\circ}32'47.3''$   
 $L = 314.34'$   
 $T = 157.43'$   
 $R = 2,250.00'$   
 $SE = 02.5$   
 $DS = 40$  mph

8/30/2007  
15:05:11  
12:00:00  
U-4756-RDY\_U01.dgn







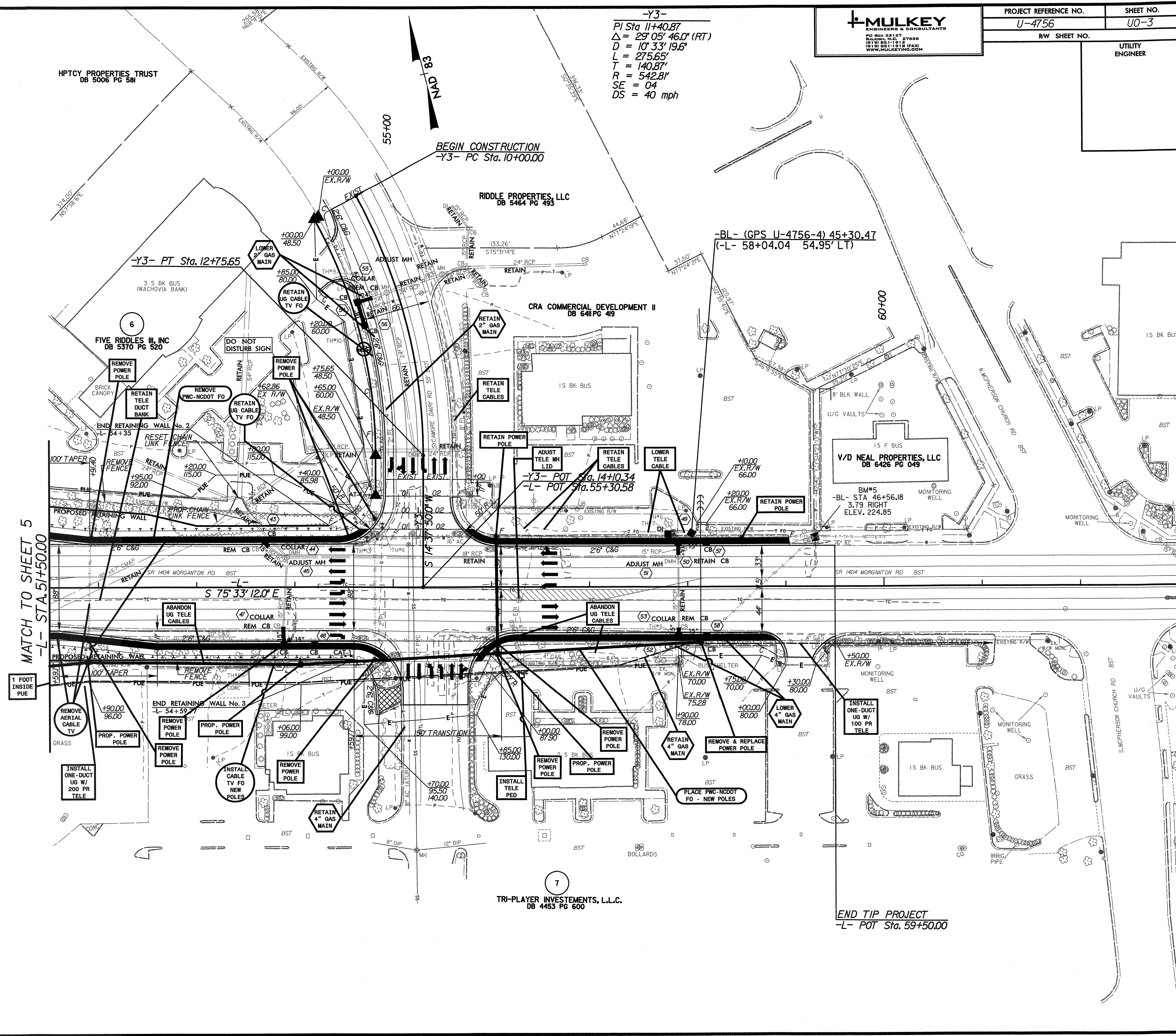
8/17/99

8/30/2007  
C:\Users\rdy\Documents\U-4756-RDY-U03.dgn  
12:11:25 PM



PROJECT REFERENCE NO.	SHEET NO.
U-4756	U0-3
R/W SHEET NO.	UTILITY ENGINEER

-Y3-  
 PI Sta 11+40.87  
 $\Delta = 29^{\circ} 05' 46.0''$  (RT)  
 $D = 10' 33'' 19.6''$   
 $L = 275.65'$   
 $T = 140.87'$   
 $R = 542.81'$   
 $SE = 04$   
 $DS = 40$  mph



MATCH TO SHEET 5  
-L- STA. 51+50.00

END TIP PROJECT  
-L- POT Sta. 59+50.00