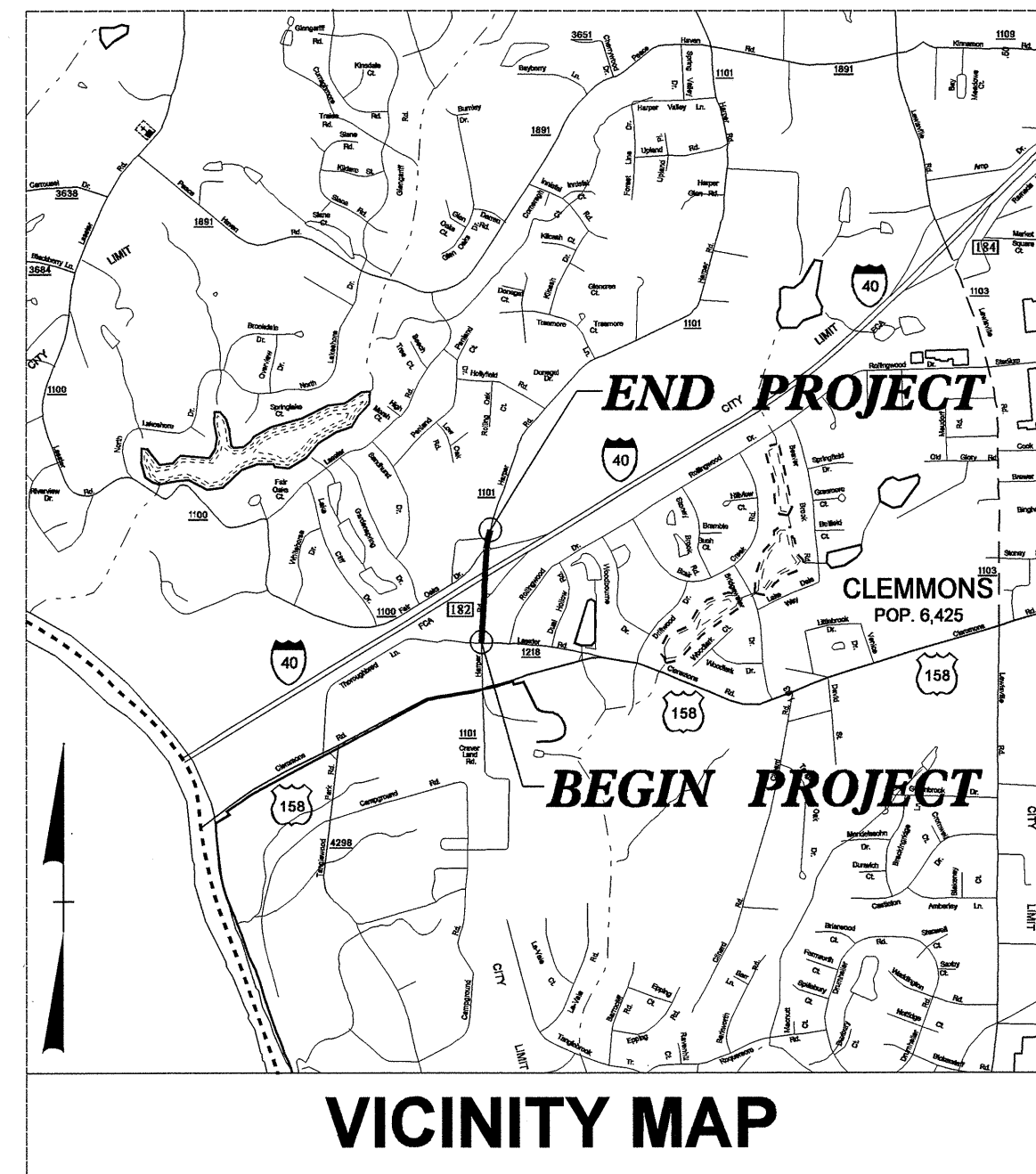


**TIP PROJECT: I-2102**

**CONTRACT: C201006**

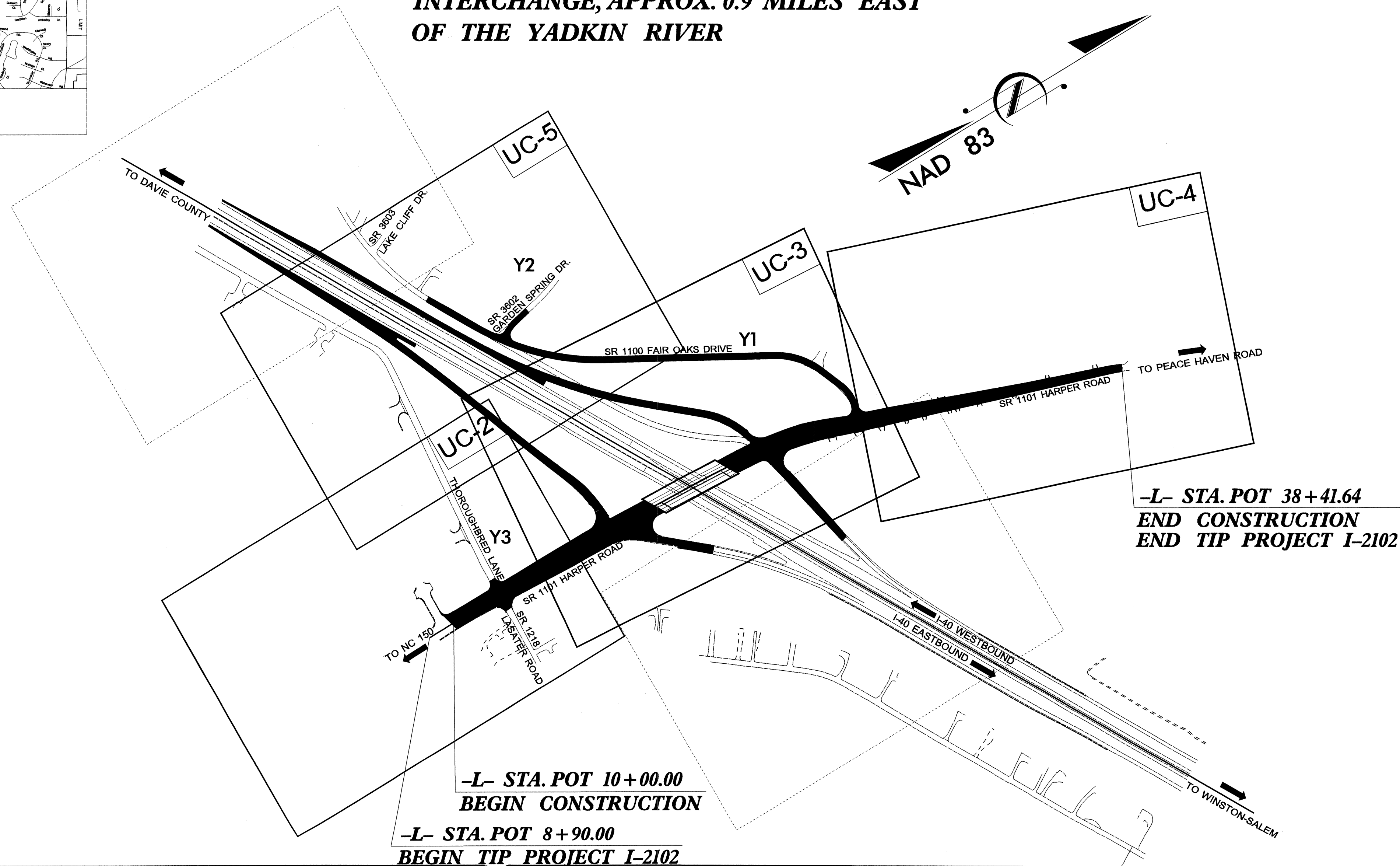
T.I.P. NO.	SHEET NO.
I-2102	UC-1



STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

# UTILITY CONSTRUCTION PLANS FORSYTH COUNTY

**LOCATION: I-40 AT (SR 1101) HARPER ROAD  
INTERCHANGE, APPROX. 0.9 MILES EAST  
OF THE YADKIN RIVER**

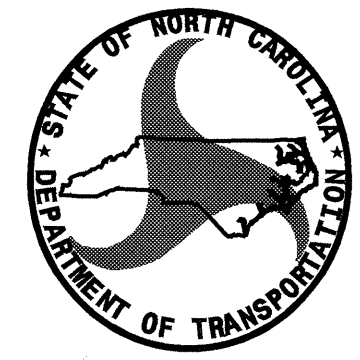


INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
UC-1	TITLE SHEET
UC-2 THRU UC-5	UTILITY CONSTRUCTION PLAN SHEETS
UC-6	DETAIL SHEET

**WATER AND SEWER OWNERS ON PROJECT**

(1) WATER - CITY OF WINSTON-SALEM  
(2) SANITARY SEWER - CITY OF WINSTON-SALEM

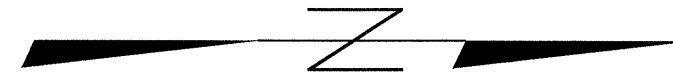
SEAL


 PREPARED IN THE OFFICE OF:  
**DIVISION OF HIGHWAYS**  
**DESIGN SERVICES**  
**UTILITY SECTION**  
 1591 MAIL SERVICES CENTER  
 RALEIGH NC 27699-1591  
 PHONE (919) 250-4128  
 FAX (919) 250-4119

**Roger Worthington, P.E.** UTILITIES SECTION ENGINEER  
**R. B. WILKINS, P.E.** UTILITIES SQUAD LEADER PROJECT ENGINEER  
**MICHAEL R. BRIGHT** UTILITIES PROJECT DESIGNER

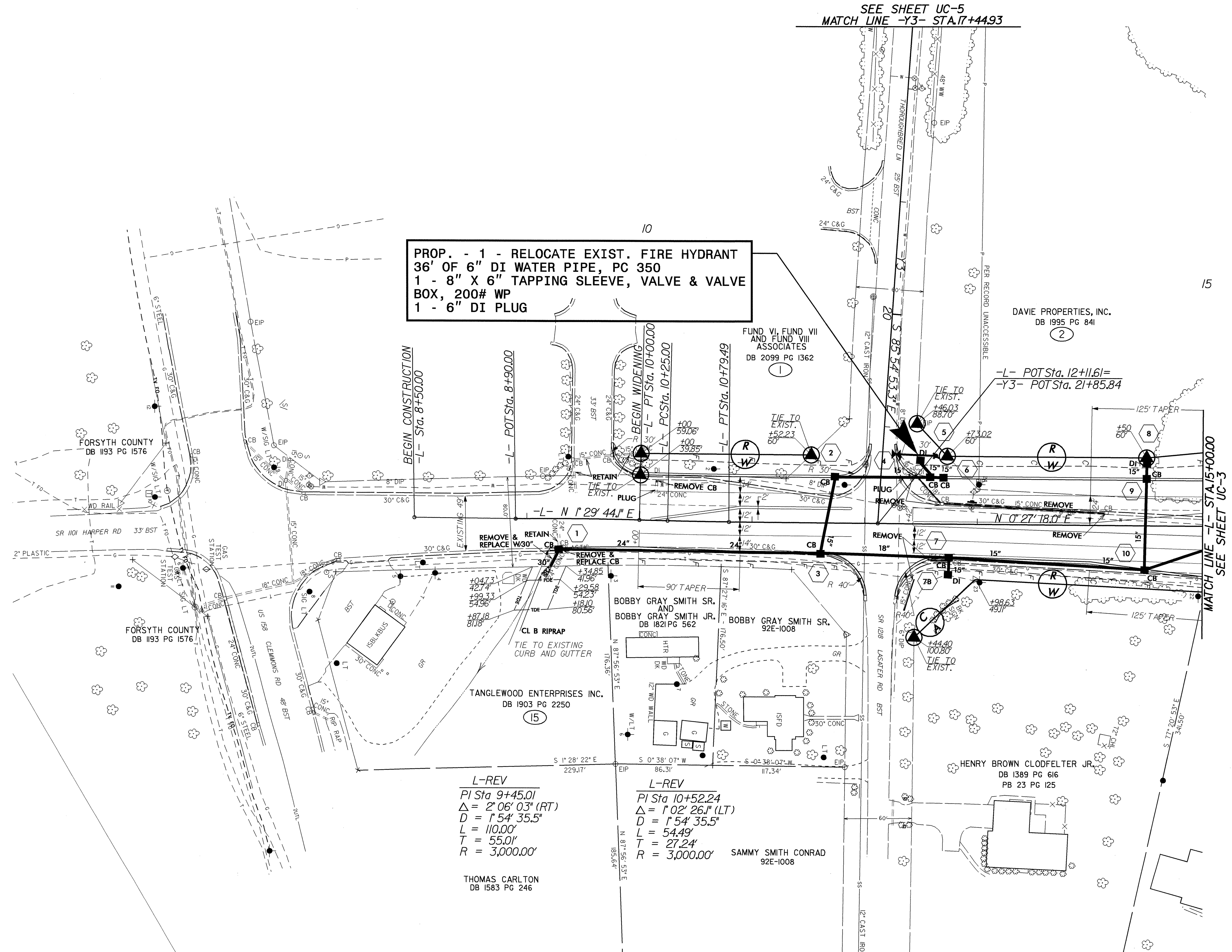
PROJECT REFERENCE NO.	SHEET NO.
I-2102	UC-2
DESIGNED BY: MRB	
DRAWN BY: MRB	
CHECKED BY: RBW	
APPROVED BY: RBW	
REVISER:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
DESIGN SERVICES UNIT PHONE: (919) 250-4128 FAX: (919) 250-4119	
UTILITY CONSTRUCTION PLANS ONLY	

# UTILITY CONSTRUCTION



SEE SHEET UC-5  
MATCH LINE -Y3- STA. 17+44.93

PROP. - 1 - RELOCATE EXIST. FIRE HYDRANT  
 36' OF 6" DI WATER PIPE, PC 350  
 1 - 8" X 6" TAPPING SLEEVE, VALVE & VALVE BOX, 200# WP  
 1 - 6" DI PLUG



L-REV  
 PI Sta 9+45.01  
 $\Delta = 2' 06' 03''$  (RT)  
 $D = 1' 54' 35.5''$   
 $L = 110.00'$   
 $T = 55.00'$   
 $R = 3,000.00'$

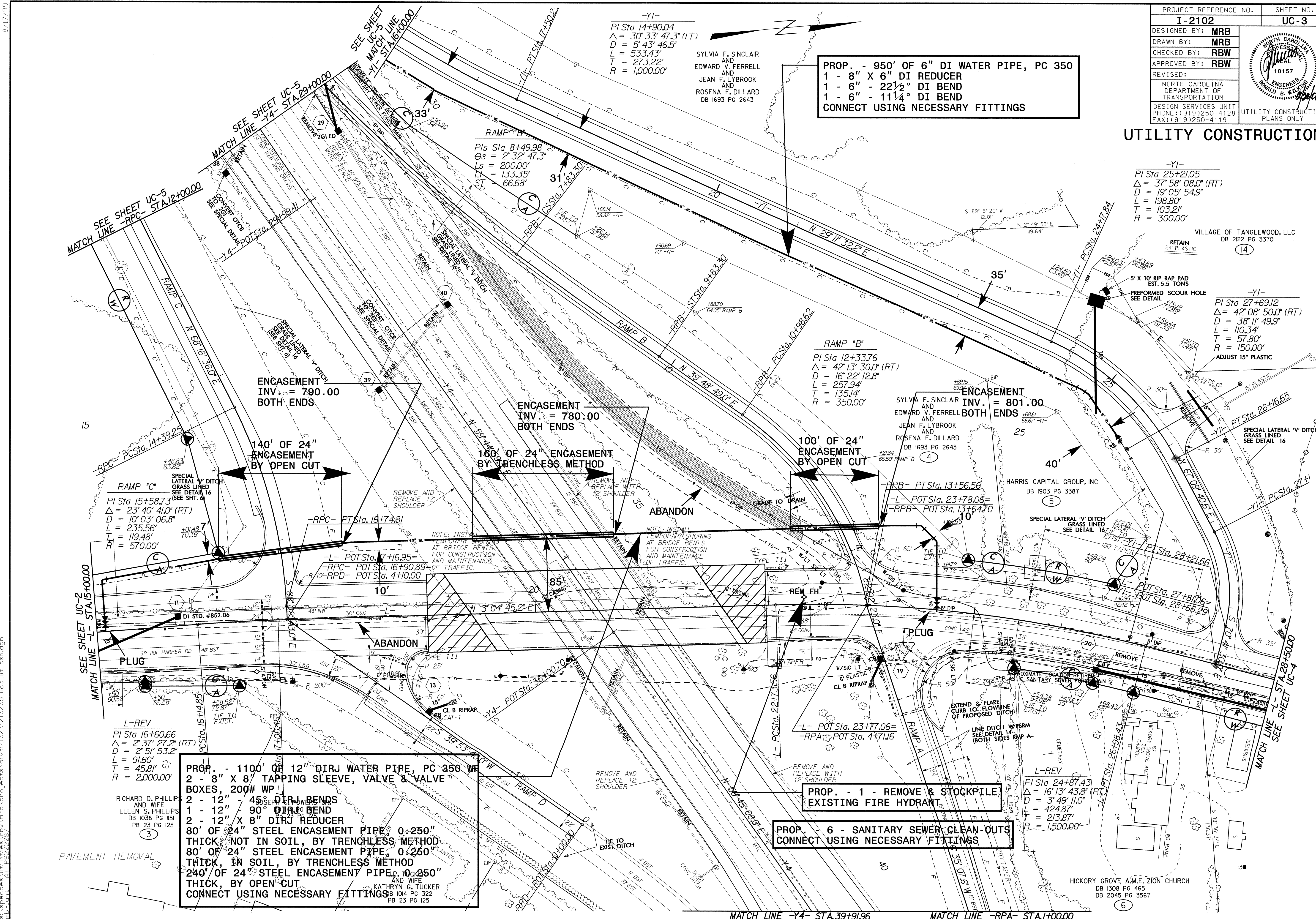
L-REV  
 PI Sta 10+52.24  
 $\Delta = 1' 02' 26''$  (LT)  
 $D = 1' 54' 35.5''$   
 $L = 54.49'$   
 $T = 27.24'$   
 $R = 3,000.00'$

THOMAS CARLTON  
DB 1583 PG 246

SAMMY SMITH CONRAD  
92E-1008

PROJECT REFERENCE NO.	SHEET NO.
I-2102	UC-3
DESIGNED BY: MRB	
DRAWN BY: MRB	
CHECKED BY: RBW	
APPROVED BY: RBW	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
DESIGN SERVICES UNIT PHONE: (919) 250-4128 FAX: (919) 250-4119	
UTILITY CONSTRUCTION PLANS ONLY	

# UTILITY CONSTRUCTION



PROP. - 950' OF 6" DI WATER PIPE, PC 350  
 1 - 8" X 6" DI REDUCER  
 1 - 6" - 22 1/2° DI BEND  
 1 - 6" - 11 1/4° DI BEND  
 CONNECT USING NECESSARY FITTINGS

-Y1-  
 PI Sta 25+21.05  
 $\Delta = 37^{\circ} 58' 08.0"$  (RT)  
 $D = 19^{\circ} 05' 54.9"$   
 $L = 198.80'$   
 $T = 103.21'$   
 $R = 300.00'$

VILLAGE OF TANGLEWOOD, LLC  
 DB 2122 PG 3370  
 (14)

-Y1-  
 PI Sta 27+69.12  
 $\Delta = 42^{\circ} 08' 50.0"$  (RT)  
 $D = 38^{\circ} 11' 49.9"$   
 $L = 110.34'$   
 $T = 57.80'$   
 $R = 150.00'$   
 ADJUST 15' PLASTIC

HARRIS CAPITAL GROUP, INC  
 DB 1903 PG 3387  
 (5)

HICKORY GROVE A.M.E. ZION CHURCH  
 DB 1308 PG 465  
 DB 2045 PG 3567  
 (6)

PROP. - 1100' OF 12" DIRJ WATER PIPE, PC 350 WP  
 2 - 8" X 8" TAPPING SLEEVE, VALVE & VALVE BOXES, 200# WP  
 2 - 12" - 45° DIRJ BENDS  
 1 - 12" - 90° DIRJ BEND  
 2 - 12" X 8" DIRJ REDUCER  
 80' OF 24" STEEL ENCASEMENT PIPE, 0.250" THICK, NOT IN SOIL, BY TRENCHLESS METHOD  
 80' OF 24" STEEL ENCASEMENT PIPE, 0.250" THICK, IN SOIL, BY TRENCHLESS METHOD  
 240' OF 24" STEEL ENCASEMENT PIPE, 0.250" THICK, BY OPEN CUT  
 CONNECT USING NECESSARY FITTINGS

PROP. - 1 - REMOVE & STOCKPILE EXISTING FIRE HYDRANT

PROP. - 6 - SANITARY SEWER CLEAN-OUTS  
 CONNECT USING NECESSARY FITTINGS

L-REV  
 PI Sta 16+60.66  
 $\Delta = 2^{\circ} 37' 27.2"$  (RT)  
 $D = 2^{\circ} 51' 53.2"$   
 $L = 91.60'$   
 $T = 45.81'$   
 $R = 2,000.00'$

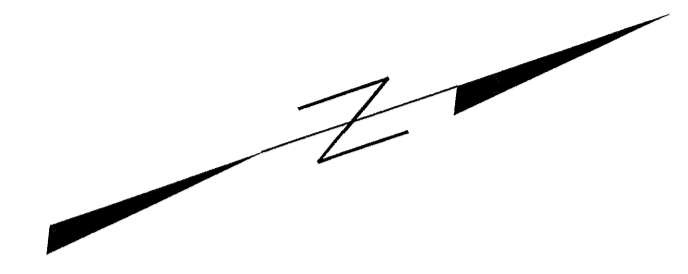
RICHARD D. PHILLIPS AND WIFE  
 ELLEN S. PHILLIPS  
 DB 1038 PG 1151  
 PB 23 PG 125  
 (3)

KATHRYN G. TUCKER AND WIFE  
 DB 1014 PG 322  
 PB 23 PG 125

8/17/99  
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PROJECT REFERENCE NO.	SHEET NO.
I-2102	UC-4
DESIGNED BY: MRB	
DRAWN BY: MRB	
CHECKED BY: RBW	
APPROVED BY: RBW	
REVISER:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
DESIGN SERVICES UNIT PHONE: (919)250-4128 FAX: (919)250-4119	
UTILITY CONSTRUCTION PLANS ONLY	

**UTILITY CONSTRUCTION**



VILLAGE OF TANGLEWOOD, LLC  
DB 2122 PG 3370  
(14)

HARRIS ASSISTED LIVING PROPERTIES, LLC  
DB 1991 PG 1249  
(8)

**PROP. - 2 - RELOCATE EXIST. FIRE HYDRANTS  
44' OF 6" DI WATER PIPE, PC 350  
2 - RELOCATE EXIST WATER METERS  
34' OF 3/4" COPPER WATER PIPE, TYPE K  
CONNECT USING NECESSARY FITTINGS**

CHARLES L. DUNN  
DB 681 PG 175  
(11)

DAVID B. FLETCHER  
AND WIFE  
ROBIN S. FLETCHER  
DB 1490 PG 16  
(12)

PHOEBE L. LAMBETH  
AND  
JEANETTE L. HIGGINS  
95E-2001  
(9)

R.G. RUSSELL  
AND WIFE  
DOROTHY F. RUSSELL  
DB 1025 PG 561  
DB 1025 PG 564  
(10)

BYRON A. TESH  
AND WIFE  
REBECCA M. TESH  
DB 1501 PG 536  
(13)

JOHN B. CRAVER  
DB 1729 PG 842  
(7)

M. ROY TESH  
DB 1183 PG 1286  
(15)

MATCH LINE -L- STA. 28+50.00 SEE SHEET UC-3

END CONSTRUCTION  
-L- PC Sta. 37+86.74  
-L- PT Sta. 38+41.64

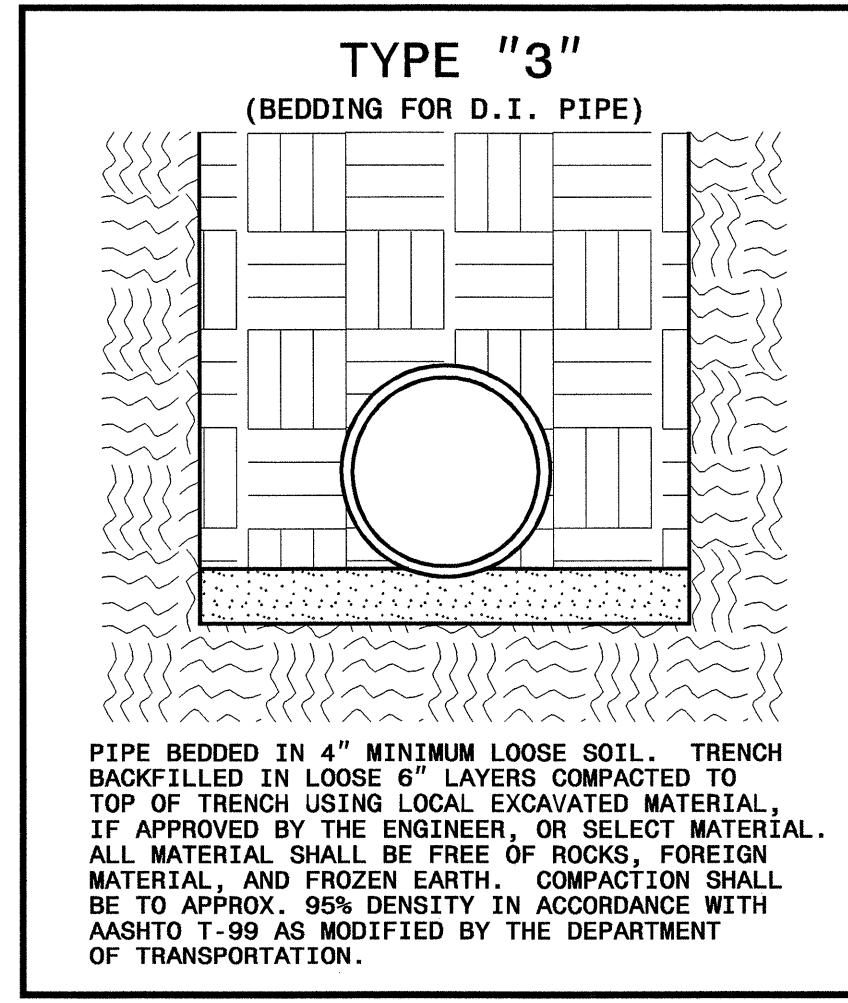
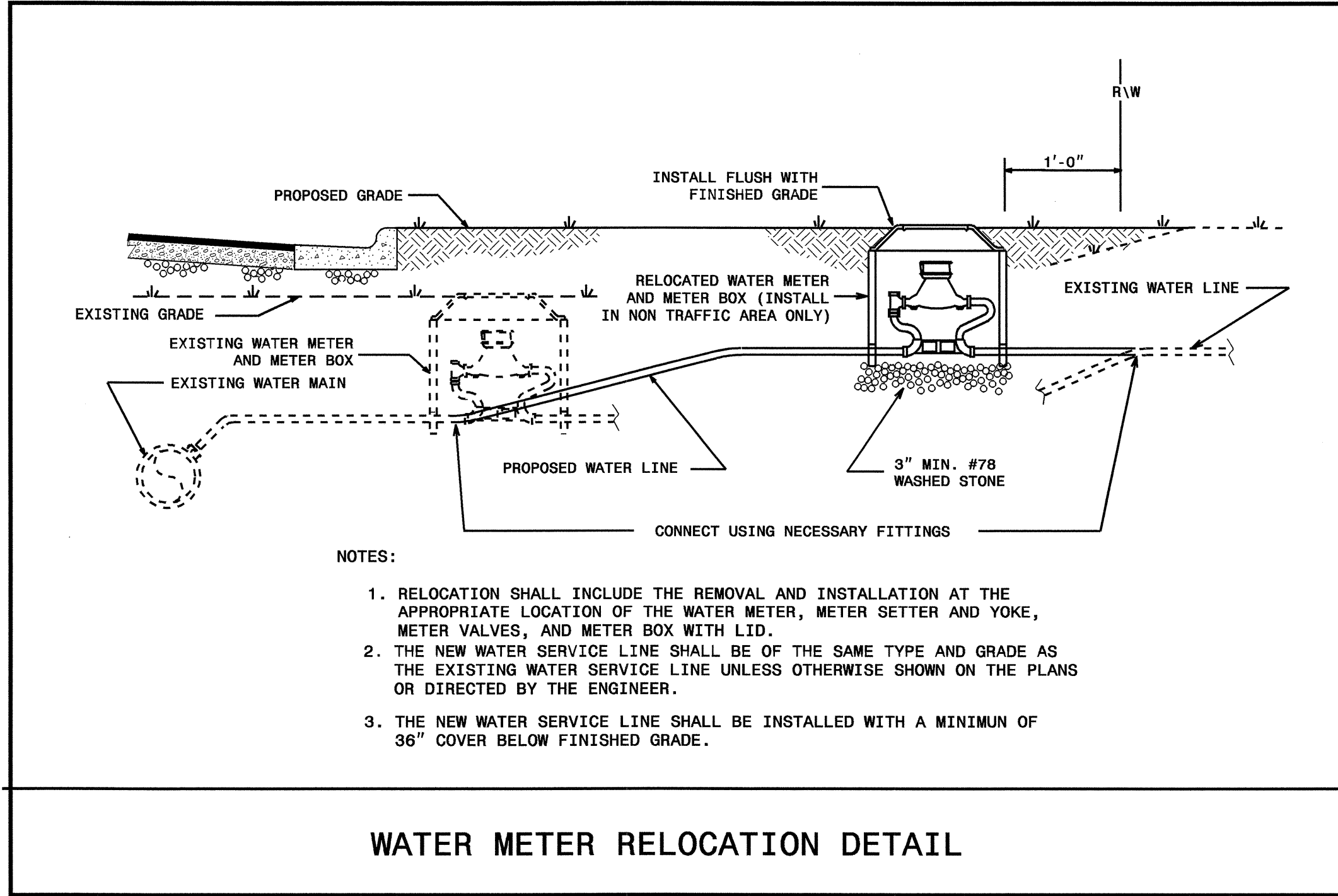
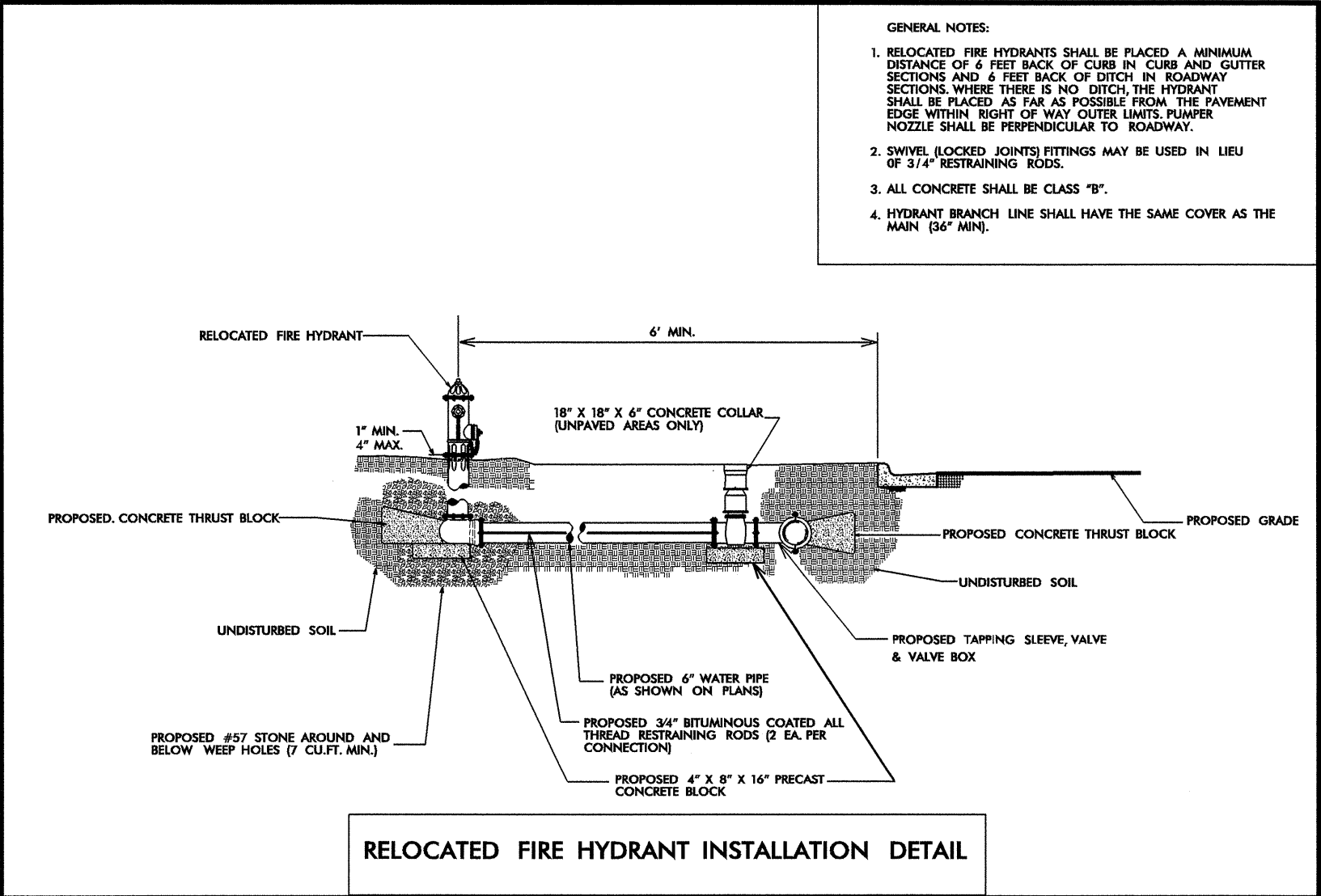
L-REV  
PI Sta 38+14.22  
 $\Delta = 6' 17" 26.0" (RT)$   
 $D = 11' 27" 33.0"$   
 $L = 54.90'$   
 $T = 27.48'$   
 $R = 500.00'$

8/17/99  
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mbrabb AT 05/21/24



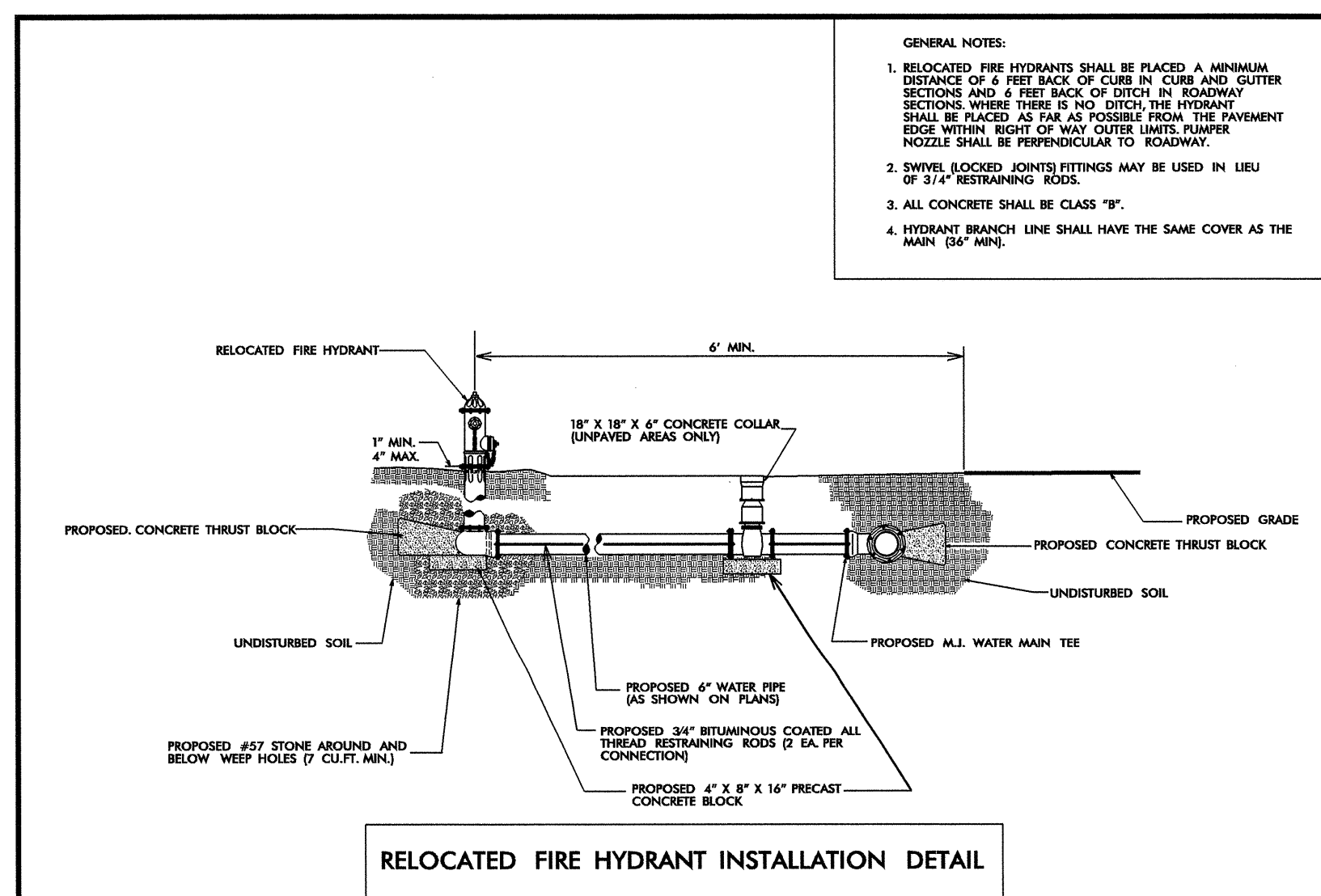
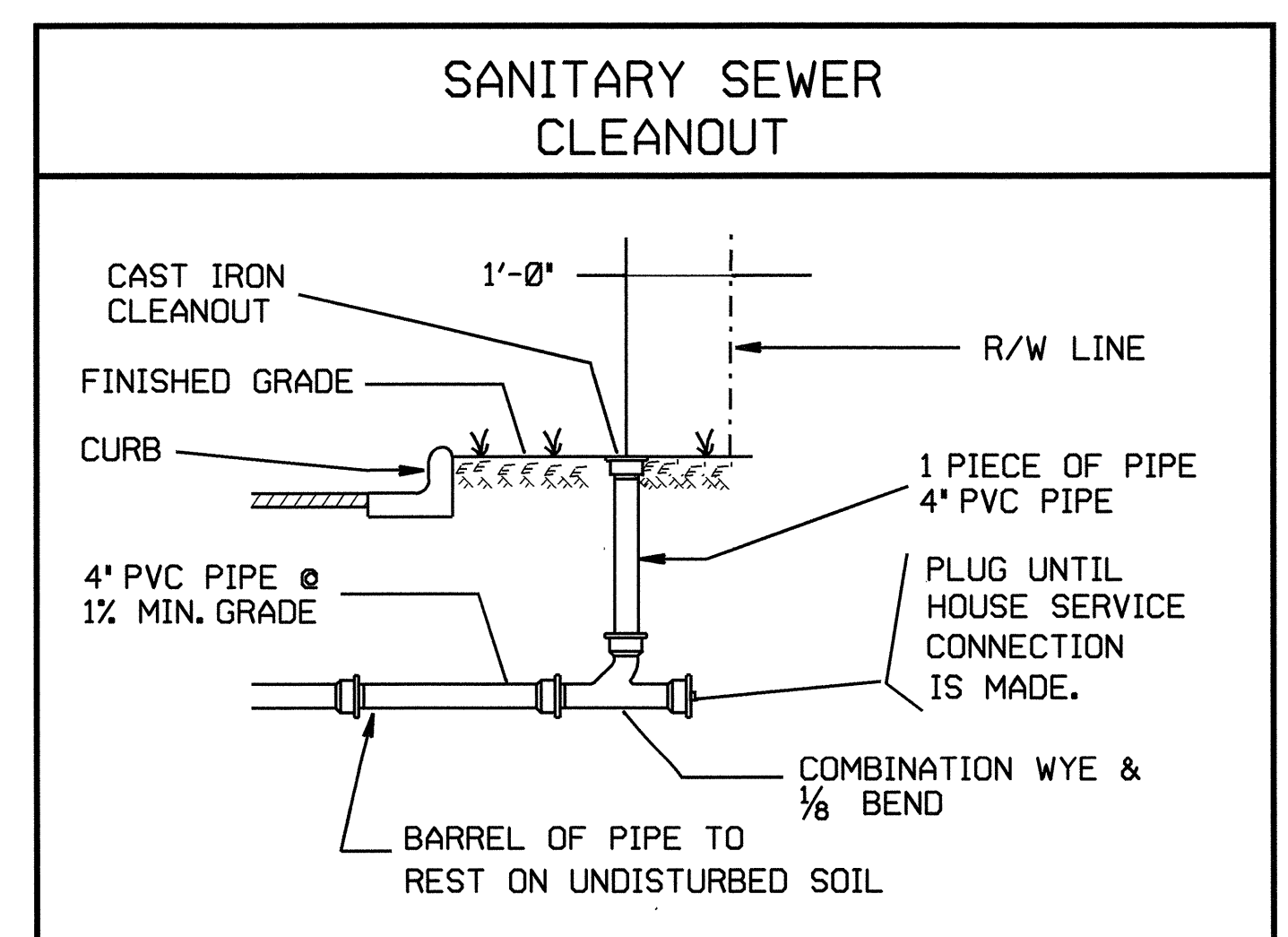
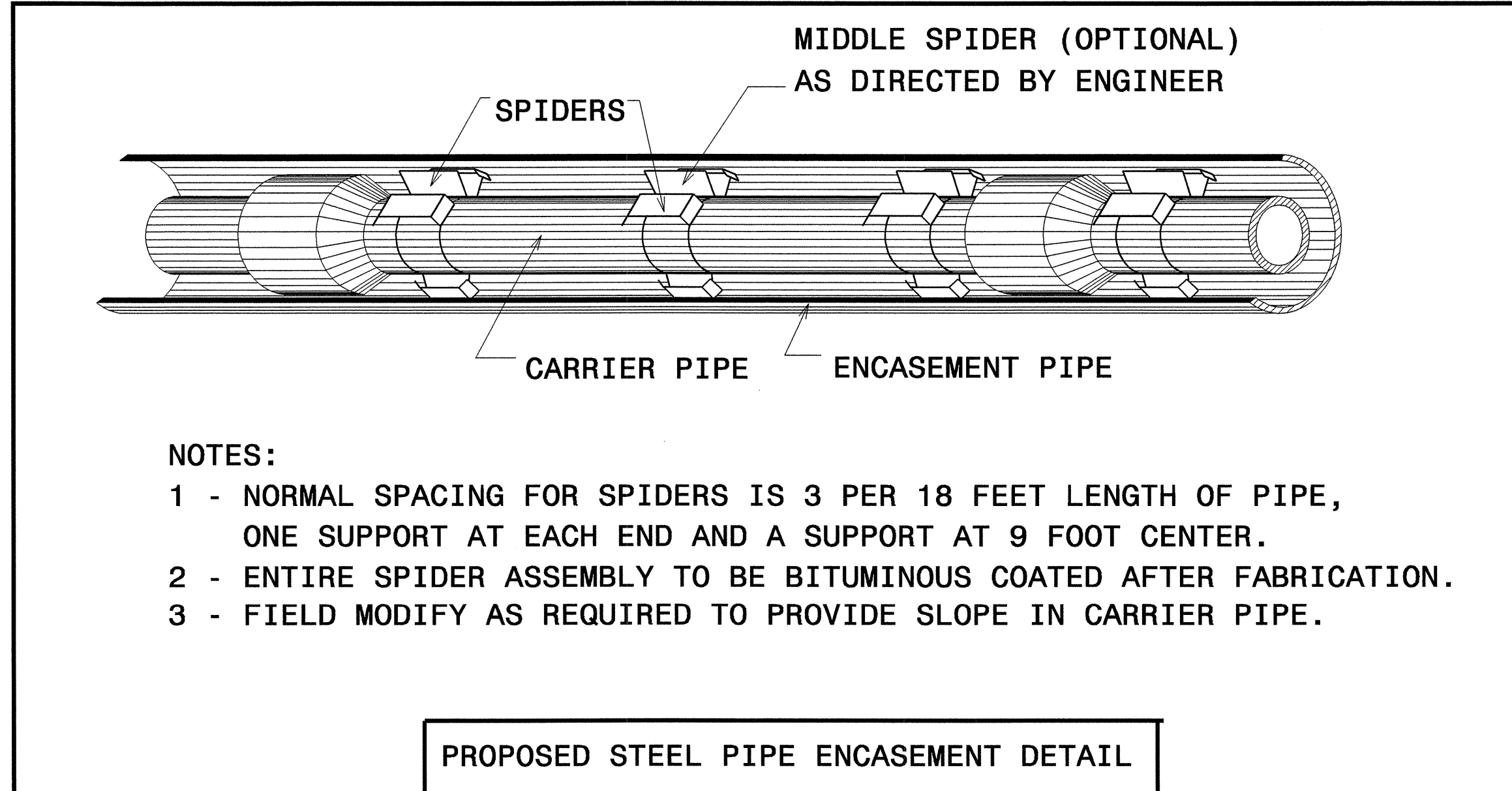
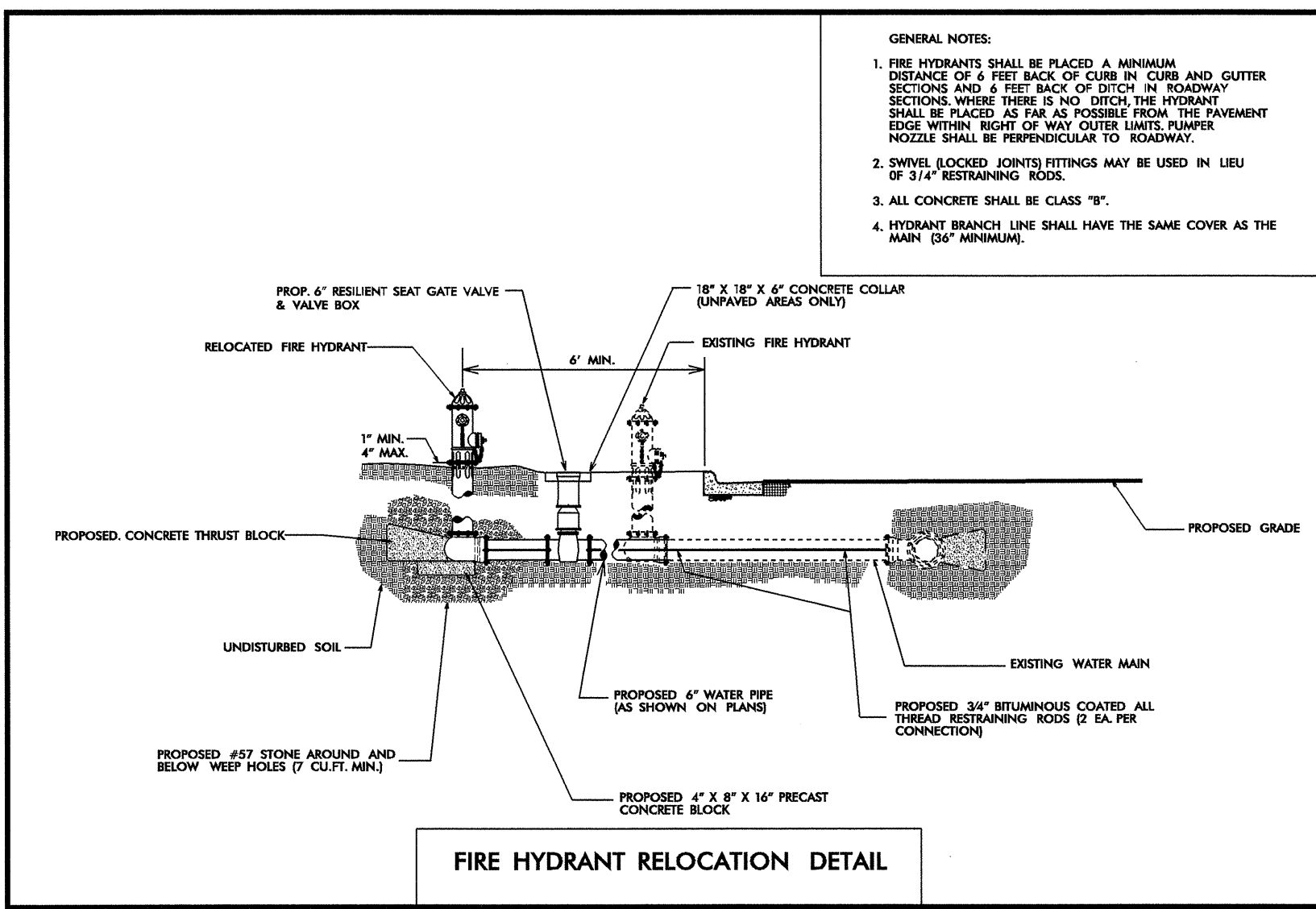


**UTILITY CONSTRUCTION**



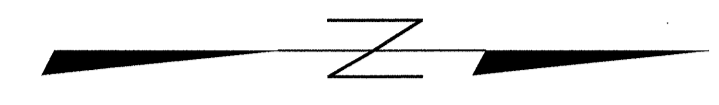
MAXIMUM TRENCH WIDTH AT TOP OF PIPE

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		

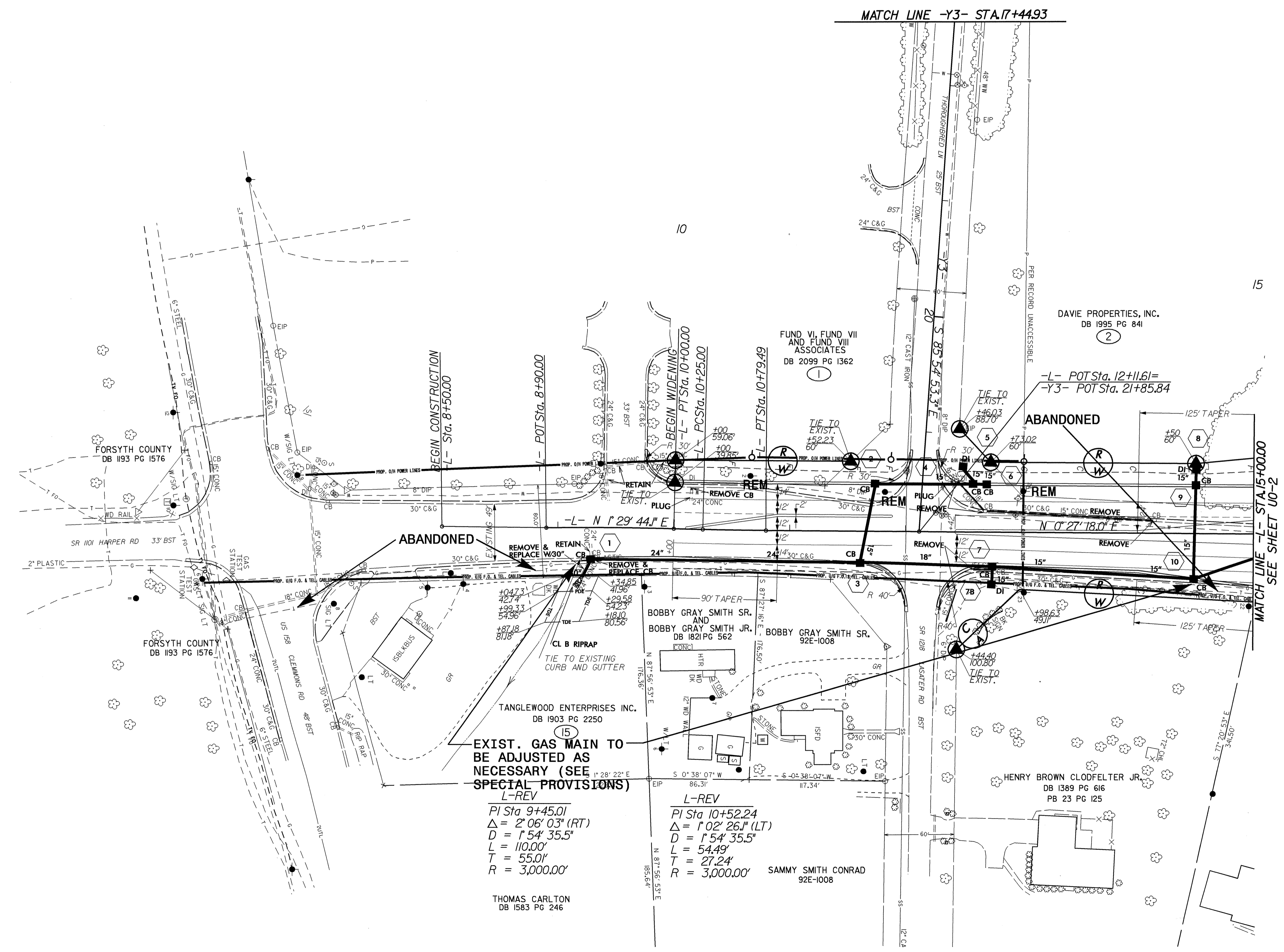


UTILITIES BY OTHERS

NOTE:  
 ALL PROPOSED UTILITY WORK  
 SHOWN ON THIS SHEET WILL  
 BE DONE BY OTHERS



MATCH LINE -Y3- STA.17+44.93



EXIST. GAS MAIN TO  
 BE ADJUSTED AS  
 NECESSARY (SEE  
 SPECIAL PROVISIONS)  
 L-REV

PI Sta 9+45.01  
 $\Delta = 2' 06' 03''$  (RT)  
 $D = 1' 54' 35.5''$   
 $L = 110.00'$   
 $T = 55.00'$   
 $R = 3,000.00'$

THOMAS CARLTON  
 DB 1583 PG 246

L-REV  
 PI Sta 10+52.24  
 $\Delta = 1' 02' 26.1''$  (LT)  
 $D = 1' 54' 35.5''$   
 $L = 54.49'$   
 $T = 27.24'$   
 $R = 3,000.00'$

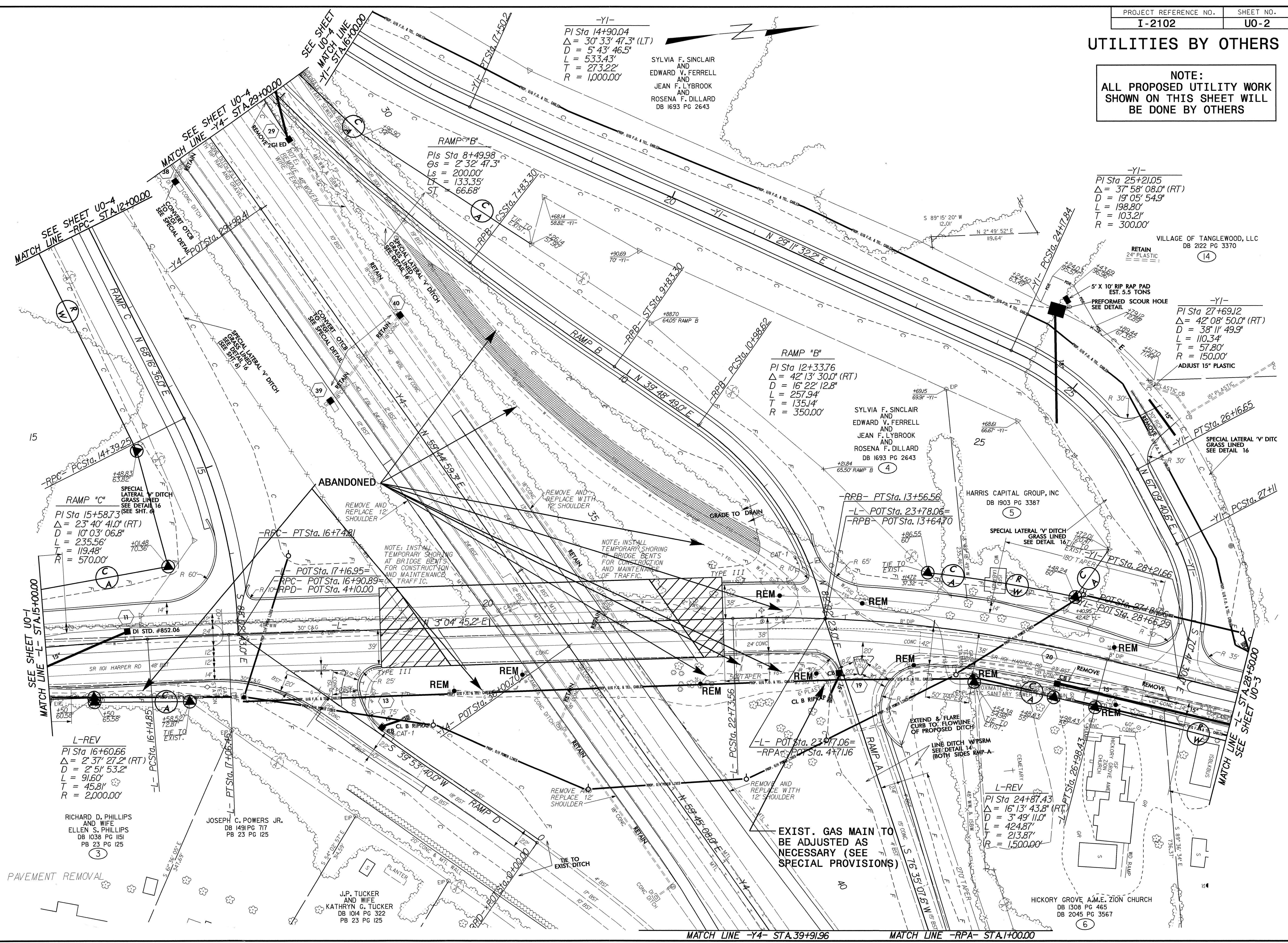
SAMMY SMITH CONRAD  
 92E-1008

MATCH LINE - STA.15+00.00  
 SEE SHEET 00-2

8/17/99  
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 mrcb - AT D521242

# UTILITIES BY OTHERS

**NOTE:**  
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS



-Y1-  
PI Sta 14+90.04  
Δ = 30° 33' 47.3" (LT)  
D = 5' 43' 46.5"  
L = 533.43'  
T = 273.22'  
R = 1,000.00'

SYLVIA F. SINCLAIR  
AND  
EDWARD V. FERRELL  
AND  
JEAN F. LYBROOK  
AND  
ROSENA F. DILLARD  
DB 1693 PG 2643

-Y1-  
PI Sta 25+21.05  
Δ = 37° 58' 08.0" (RT)  
D = 19' 05' 54.9"  
L = 198.80'  
T = 103.21'  
R = 300.00'

VILLAGE OF TANGLEWOOD, LLC  
DB 2122 PG 3370  
(14)

-Y1-  
PI Sta 27+69.12  
Δ = 42° 08' 50.0" (RT)  
D = 38' 11' 49.9"  
L = 110.34'  
T = 57.80'  
R = 150.00'  
ADJUST 15" PLASTIC

RAMP "B"  
PI Sta 12+33.76  
Δ = 42° 13' 30.0" (RT)  
D = 16' 22' 12.8"  
L = 257.94'  
T = 135.14'  
R = 350.00'

SYLVIA F. SINCLAIR  
AND  
EDWARD V. FERRELL  
AND  
JEAN F. LYBROOK  
AND  
ROSENA F. DILLARD  
DB 1693 PG 2643

RAMP "C"  
PI Sta 15+58.73  
Δ = 23° 40' 41.0" (RT)  
D = 10' 03' 06.8"  
L = 235.56'  
T = 119.48'  
R = 570.00'

RICHARD D. PHILLIPS  
AND WIFE  
ELLEN S. PHILLIPS  
DB 1038 PG 1151  
PB 23 PG 125  
(3)

JOSEPH C. POWERS JR.  
DB 1491 PG 717  
PB 23 PG 125

J.P. TUCKER  
AND WIFE  
KATHRYN G. TUCKER  
DB 1014 PG 322  
PB 23 PG 125

L-REV  
PI Sta 24+87.43  
Δ = 16° 13' 43.8" (RT)  
D = 3' 49' 11.0"  
L = 424.87'  
T = 213.87'  
R = 1,500.00'

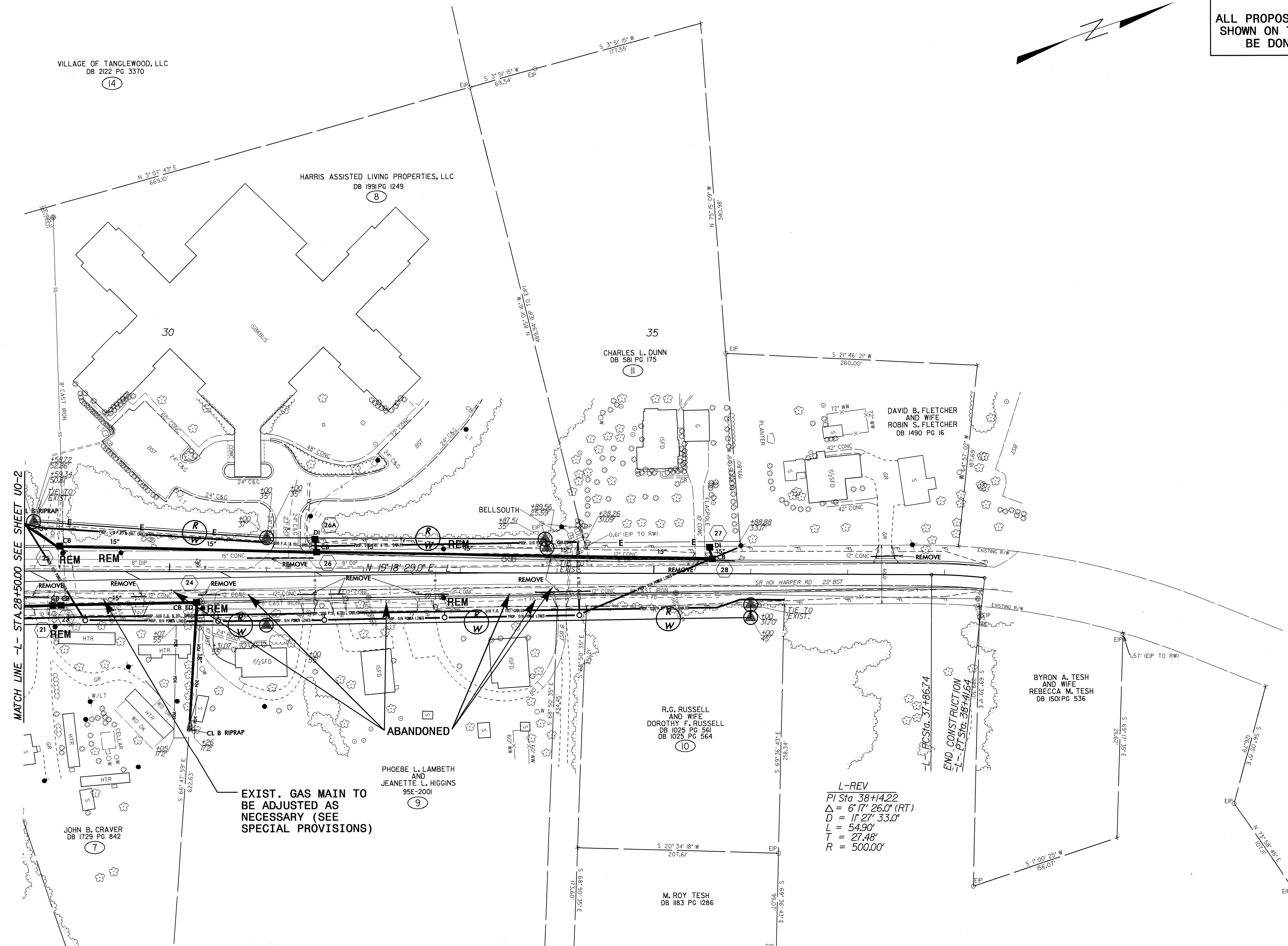
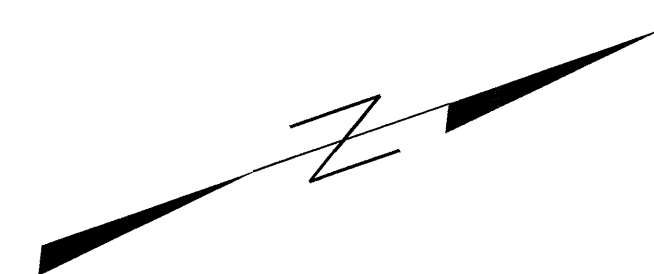
HICKORY GROVE A.M.E. ZION CHURCH  
DB 1308 PG 465  
DB 2045 PG 3567  
(6)

8/17/99  
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# UTILITIES BY OTHERS

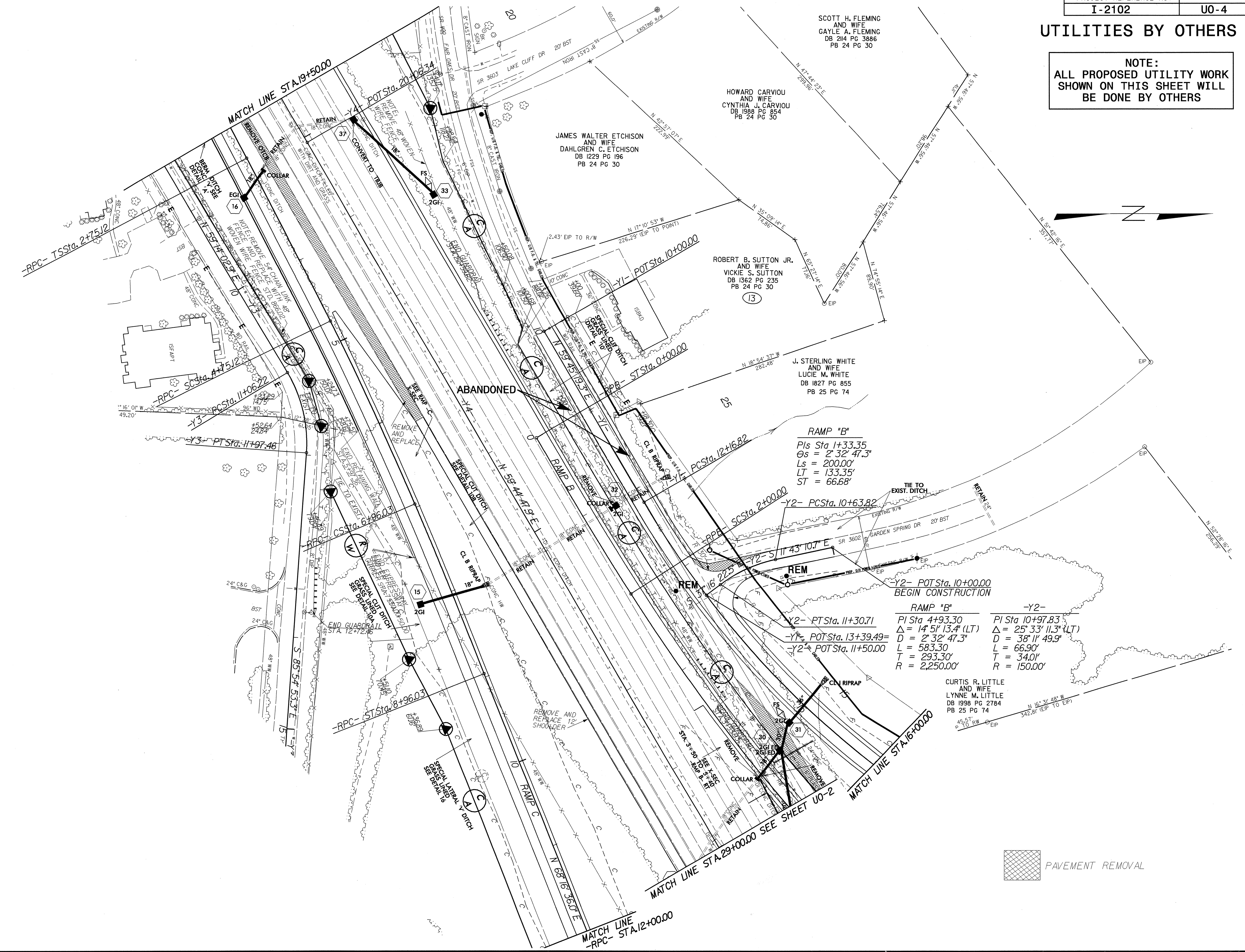
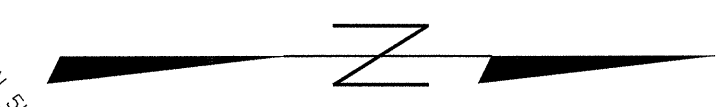
NOTE:  
ALL PROPOSED UTILITY WORK  
SHOWN ON THIS SHEET WILL  
BE DONE BY OTHERS



8/17/99  
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UTILITIES BY OTHERS

NOTE:  
 ALL PROPOSED UTILITY WORK  
 SHOWN ON THIS SHEET WILL  
 BE DONE BY OTHERS



RAMP "B"  
 PIs Sta 1+33.35  
 Δs = 2' 32" 47.3"  
 Ls = 200.00'  
 LT = 133.35'  
 ST = 66.68'

PI Sta 4+93.30	PI Sta 10+97.83
Δ = 14' 51" 13.4" (LT)	Δ = 25' 33" 11.3" (LT)
D = 2' 32" 47.3"	D = 38' 11" 49.9"
L = 583.30'	L = 66.90'
T = 293.30'	T = 34.01'
R = 2,250.00'	R = 150.00'

CURTIS R. LITTLE  
 AND WIFE  
 LYNNE M. LITTLE  
 DB 1998 PG 2784  
 PB 25 PG 74

PAVEMENT REMOVAL

8/17/99  
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