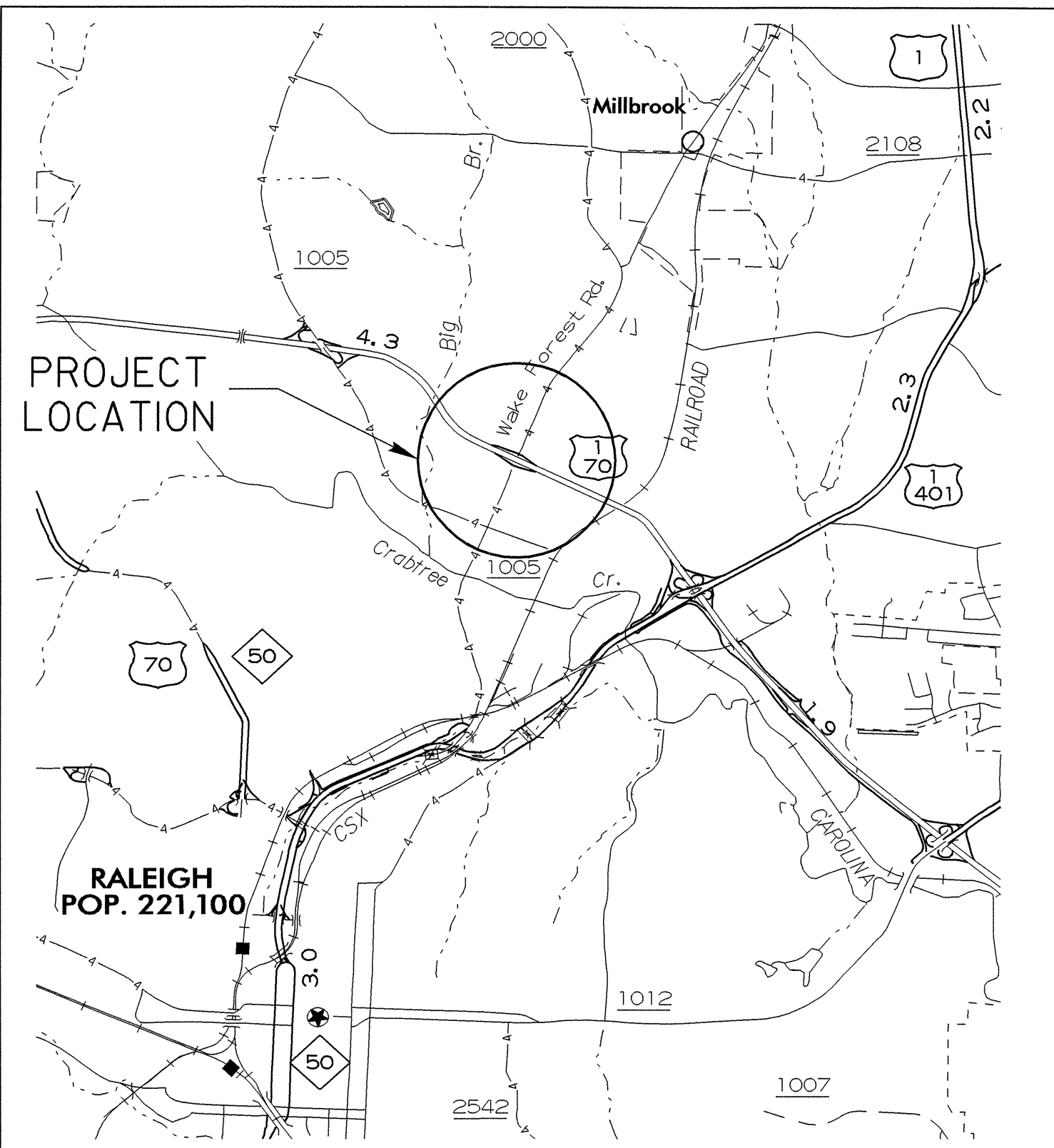


**TIP: W-4404**



VICINITY MAP SHOWING  
LOCATION OF PROJECT 35156.1.3

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

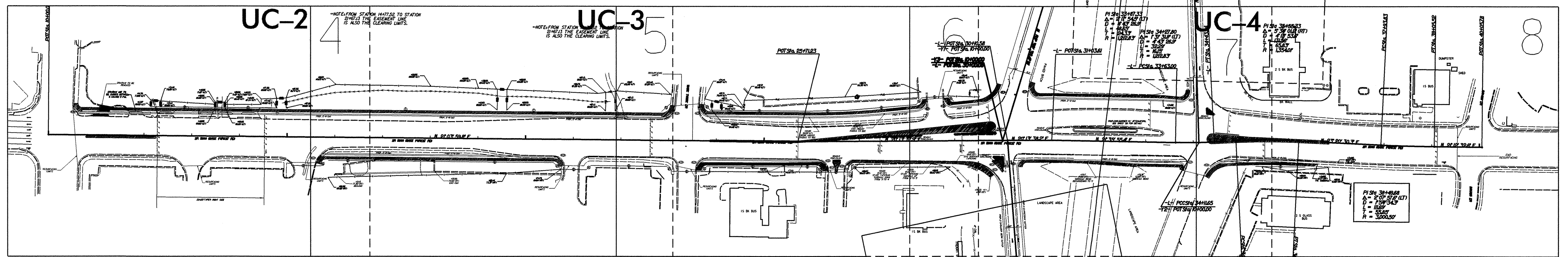
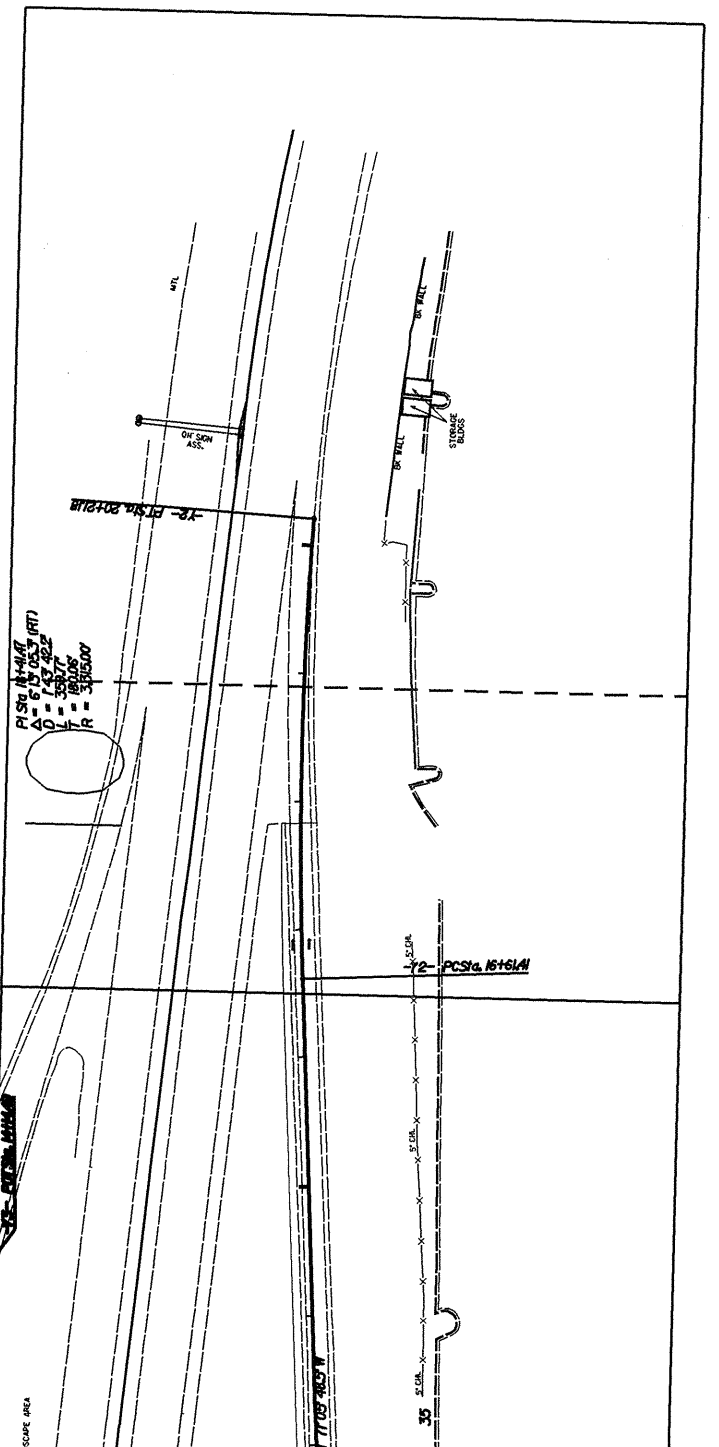
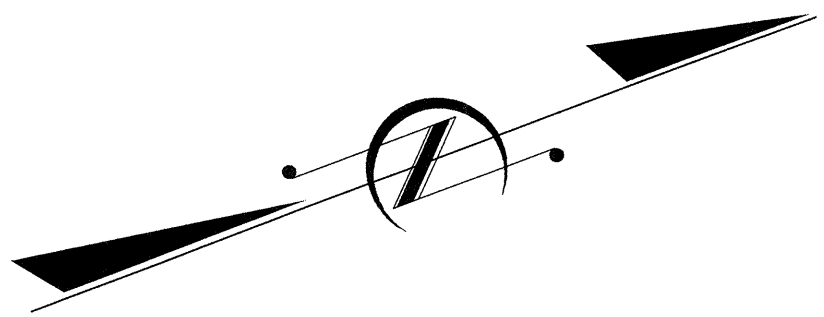
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# UTILITY CONSTRUCTION PLANS WAKE COUNTY

---

**LOCATION: SR 2000 (WAKE FOREST ROAD)  
BETWEEN SR 1005 (SIX FORKS ROAD)  
AND NAVAHO DRIVE**

**TYPE OF WORK: GRADE, DRAIN, BASE, PAVE.**



**PROJECT: 35156.1.3**

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

**WATER AND SEWER OWNERS ON PROJECT**

(1) CITY OF RALEIGH (WATER AND SEWER)



PREPARED IN THE OFFICE OF:  
**DIVISION OF HIGHWAYS  
PROJECT 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

**Steve McKee, P.E.** UTILITIES SQUAD LEADER PROJECT ENGINEER

**John Hinton, P.E.** UTILITIES PROJECT DESIGNER



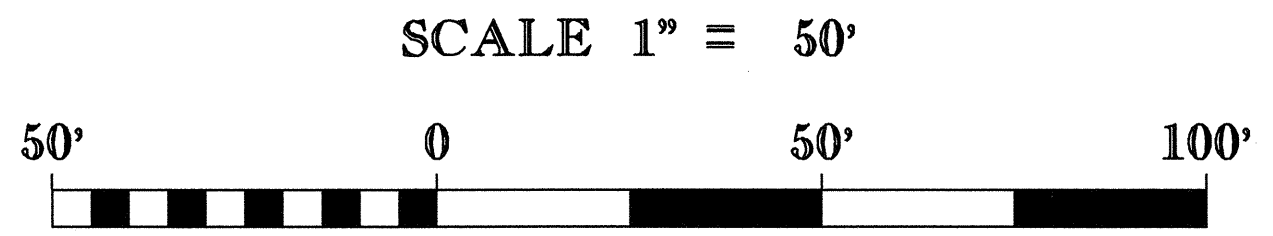
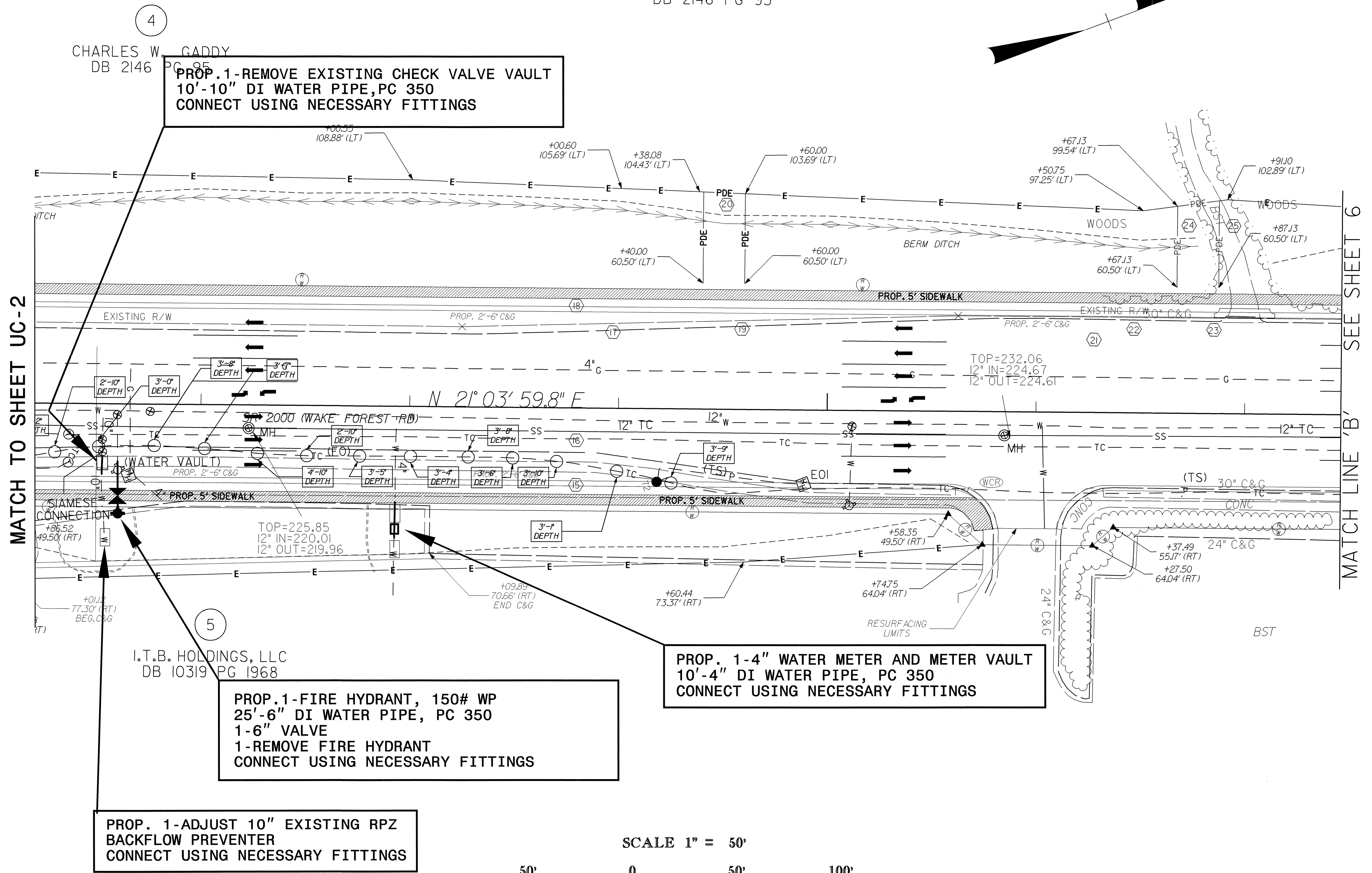
PROJECT REFERENCE NO.	SHEET NO.
W-4404	UC-3
DESIGNED BY: DHP	
DRAWN BY: DHP	
CHECKED BY: JSM	
APPROVED BY: JSM	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
DESIGN SERVICES UNIT PHONE: (919)250-4128 FAX: (919)250-4119	
UTILITY CONSTRUCTION PLANS ONLY	

FROM STATION 14+77.52 TO STATION 21+67.13 THE EASEMENT LINE IS ALSO THE CLEARING LIMITS.

\*\*NOTE: FROM STATION 14+77.52 TO STATION 21+67.13 THE EASEMENT LINE IS ALSO THE CLEARING LIMITS.

4  
CHARLES W. GADDY  
DB 2146 PG 95

UTILITY CONSTRUCTION



8/17/99

11-MAY-2006 15:37  
s:\specdes\utilities\jhm\4404a\w4404s05-uc3.psh  
hinton

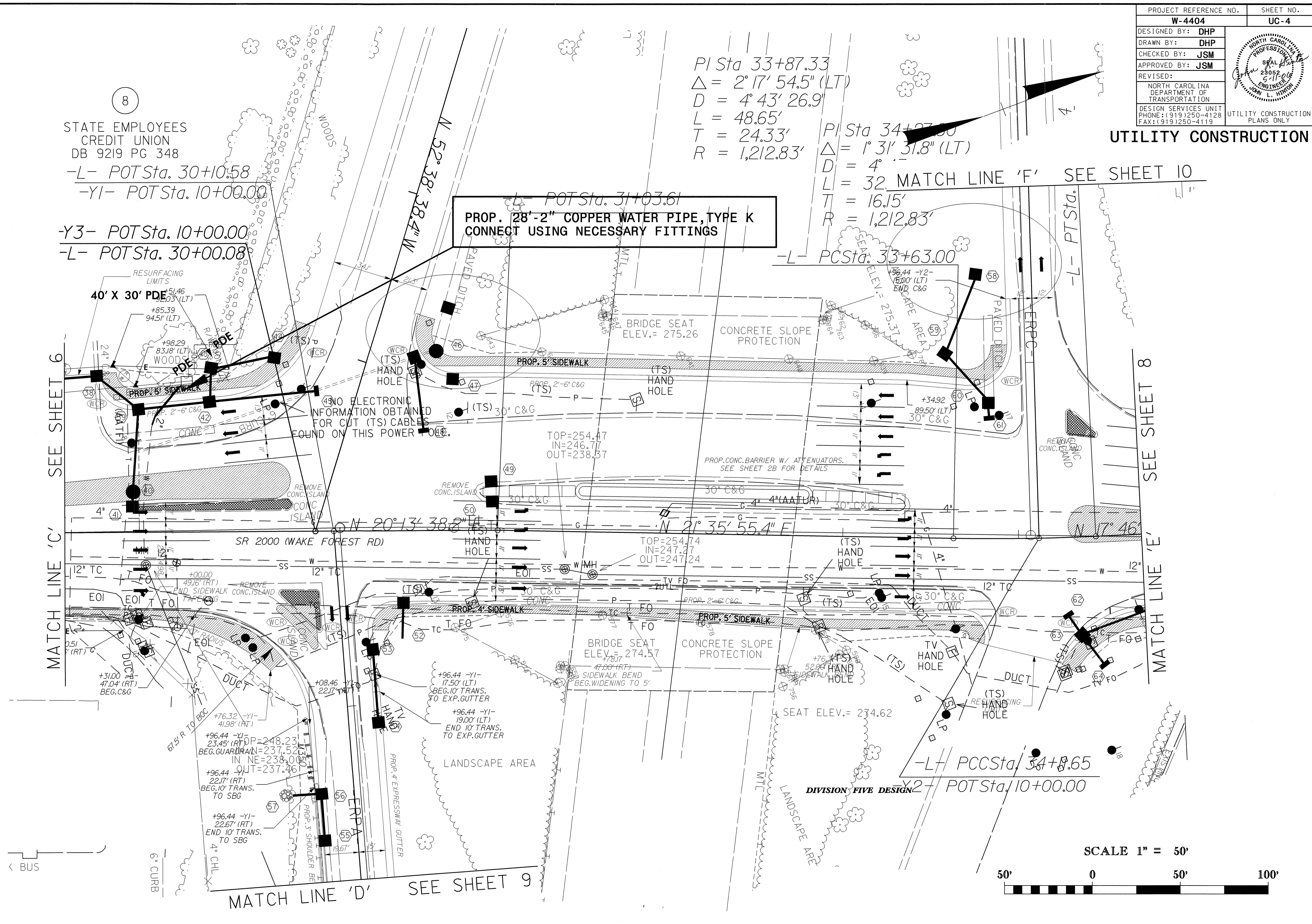
PROJECT REFERENCE NO.	SHEET NO.
W-4404	UC-4
DESIGNED BY: DHP	
DRAWN BY: DHP	
CHECKED BY: JSM	
APPROVED BY: JSM	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DESIGN SERVICES UNIT PHONE: (919) 250-4128 FAX: (919) 250-4119	
UTILITY CONSTRUCTION PLANS ONLY	

8  
 STATE EMPLOYEES  
 CREDIT UNION  
 DB 9219 PG 348  
 -L- POT Sta. 30+10.58  
 -Y1- POT Sta. 10+00.00  
 -Y3- POT Sta. 10+00.00  
 -L- POT Sta. 30+00.08

PI Sta 33+87.33  
 $\Delta = 2^{\circ}17'54.5''$  (LT)  
 $D = 4^{\circ}43'26.9''$   
 $L = 48.65'$   
 $T = 24.33'$   
 $R = 1,212.83'$

PI Sta 34+27.00  
 $\Delta = 1^{\circ}31'31.8''$  (LT)  
 $D = 4^{\circ}$   
 $L = 32$  MATCH LINE 'F' SEE SHEET 10  
 $T = 16.15'$   
 $R = 1,212.83'$

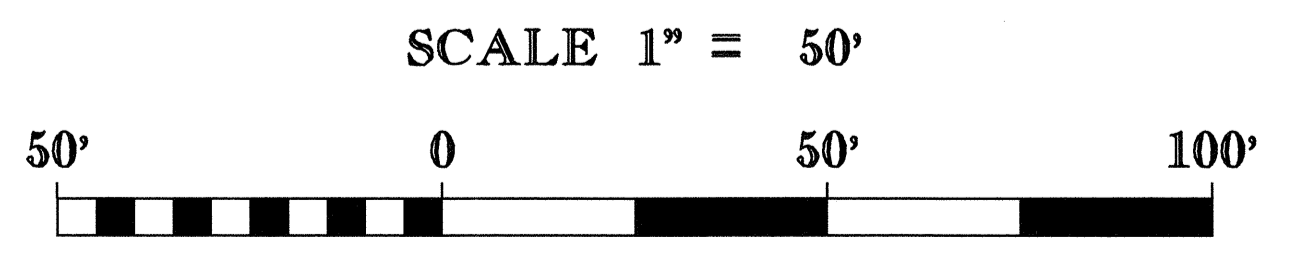
**PROP. 28'-2" COPPER WATER PIPE, TYPE K  
 CONNECT USING NECESSARY FITTINGS**



MATCH LINE 'C' SEE SHEET 6

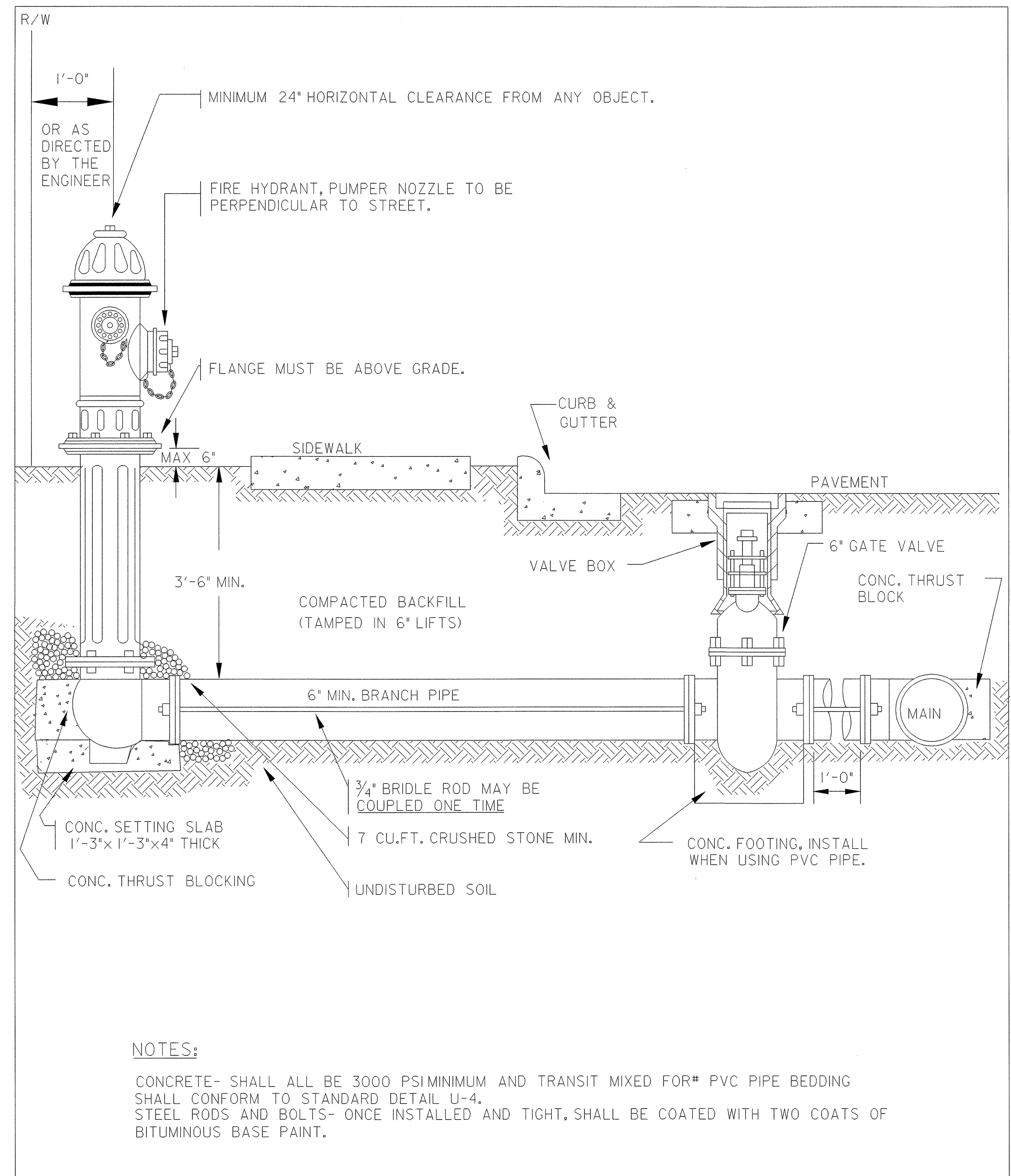
MATCH LINE 'E' SEE SHEET 8

MATCH LINE 'D' SEE SHEET 9



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 JHM

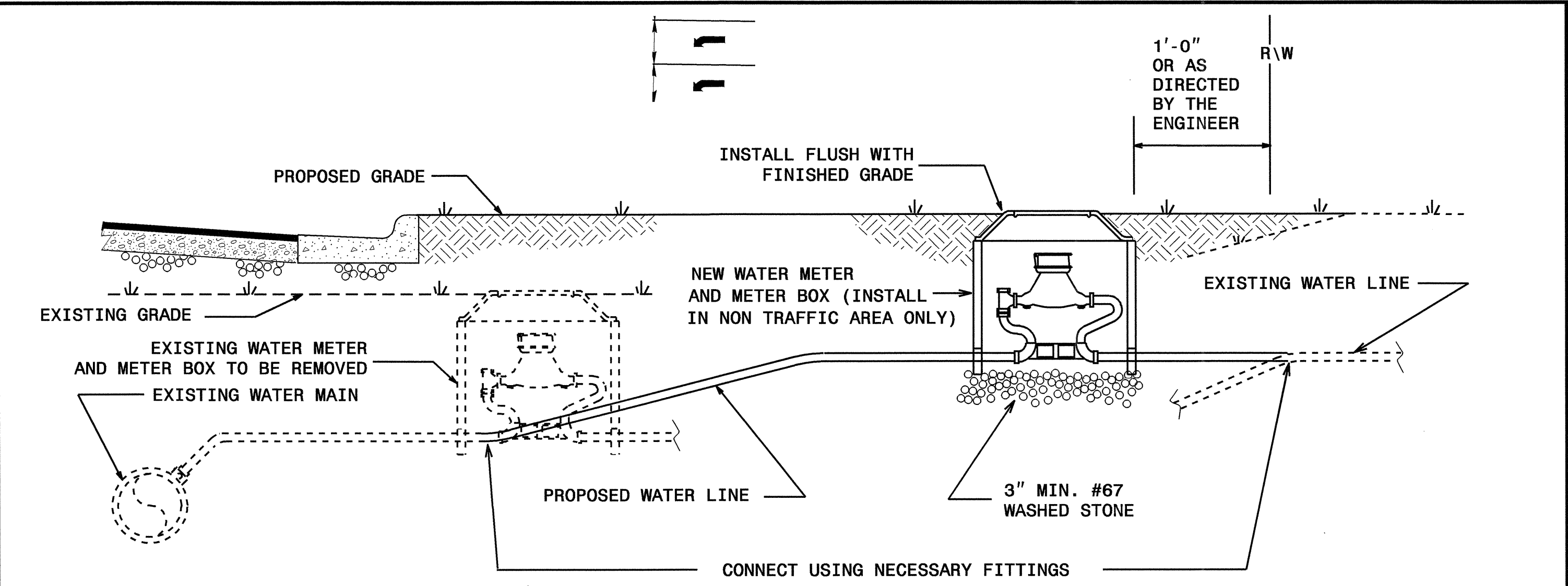
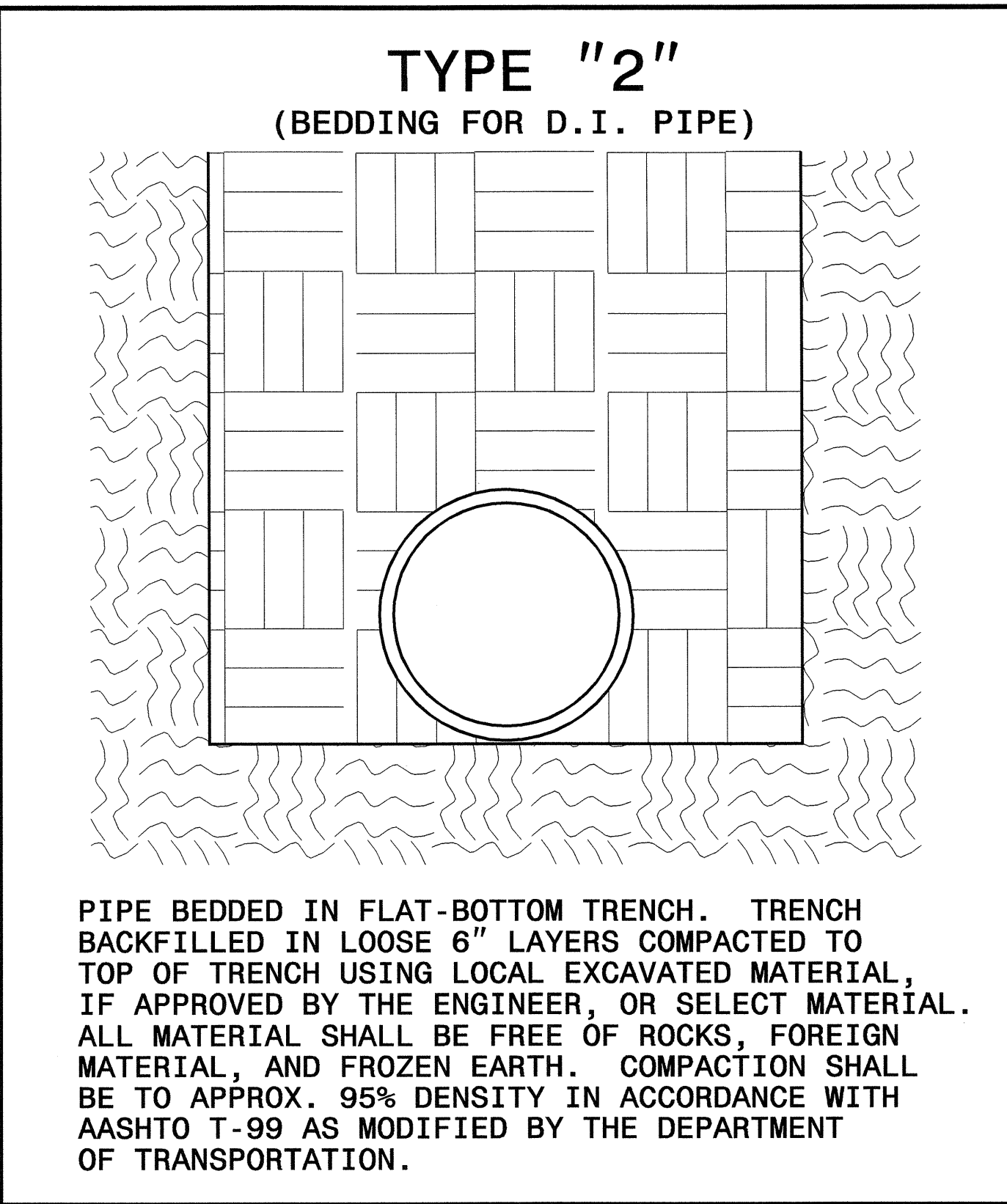
**UTILITY CONSTRUCTION**



**NOTES:**

CONCRETE- SHALL ALL BE 3000 PSI MINIMUM AND TRANSIT MIXED FOR\* PVC PIPE BEDDING SHALL CONFORM TO STANDARD DETAIL U-4, STEEL RODS AND BOLTS- ONCE INSTALLED AND TIGHT, SHALL BE COATED WITH TWO COATS OF BITUMINOUS BASE PAINT.

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		



- NOTES:**
1. NEW WATER METERS SHALL INCLUDE THE INSTALLATION AT THE APPROPRIATE LOCATION OF THE WATER METER, METER SETTER AND YOKE, 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 36" COVER BELOW FINISHED GRADE.

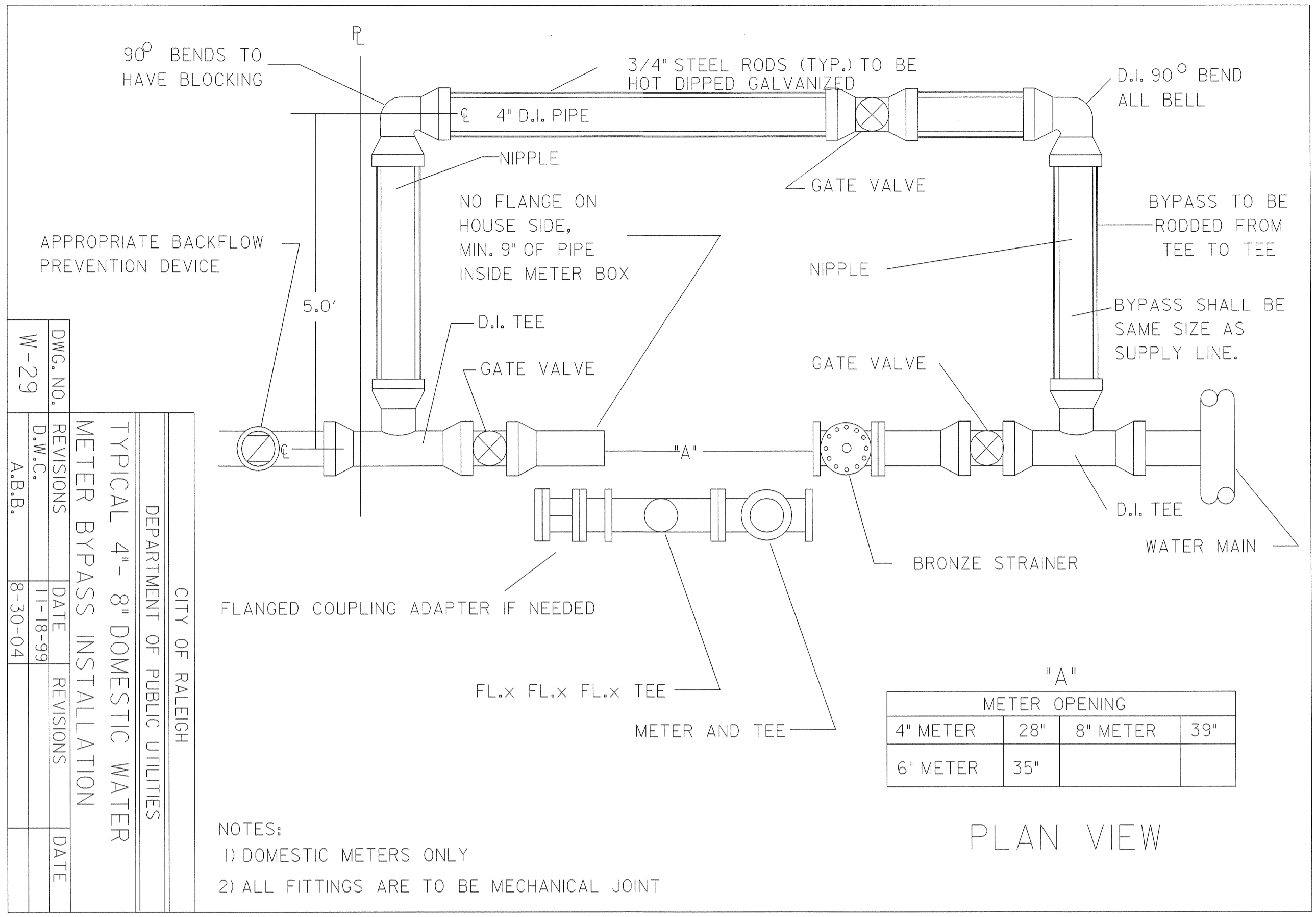
**WATER METER DETAIL**

8/17/99  
11-MAY-2006 15:38  
st:\spec\des\yt\11\files\jgm\jhm\w4404a\w4404dtl\_uc5.psh  
jinton PS214519

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
W-4404	UC-6
DESIGNED BY: DHP	
DRAWN BY: DHP	
CHECKED BY: JSM	
APPROVED BY: JSM	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DESIGN SERVICES UNIT PHONE: (919) 250-4128 FAX: (919) 250-4119	
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION



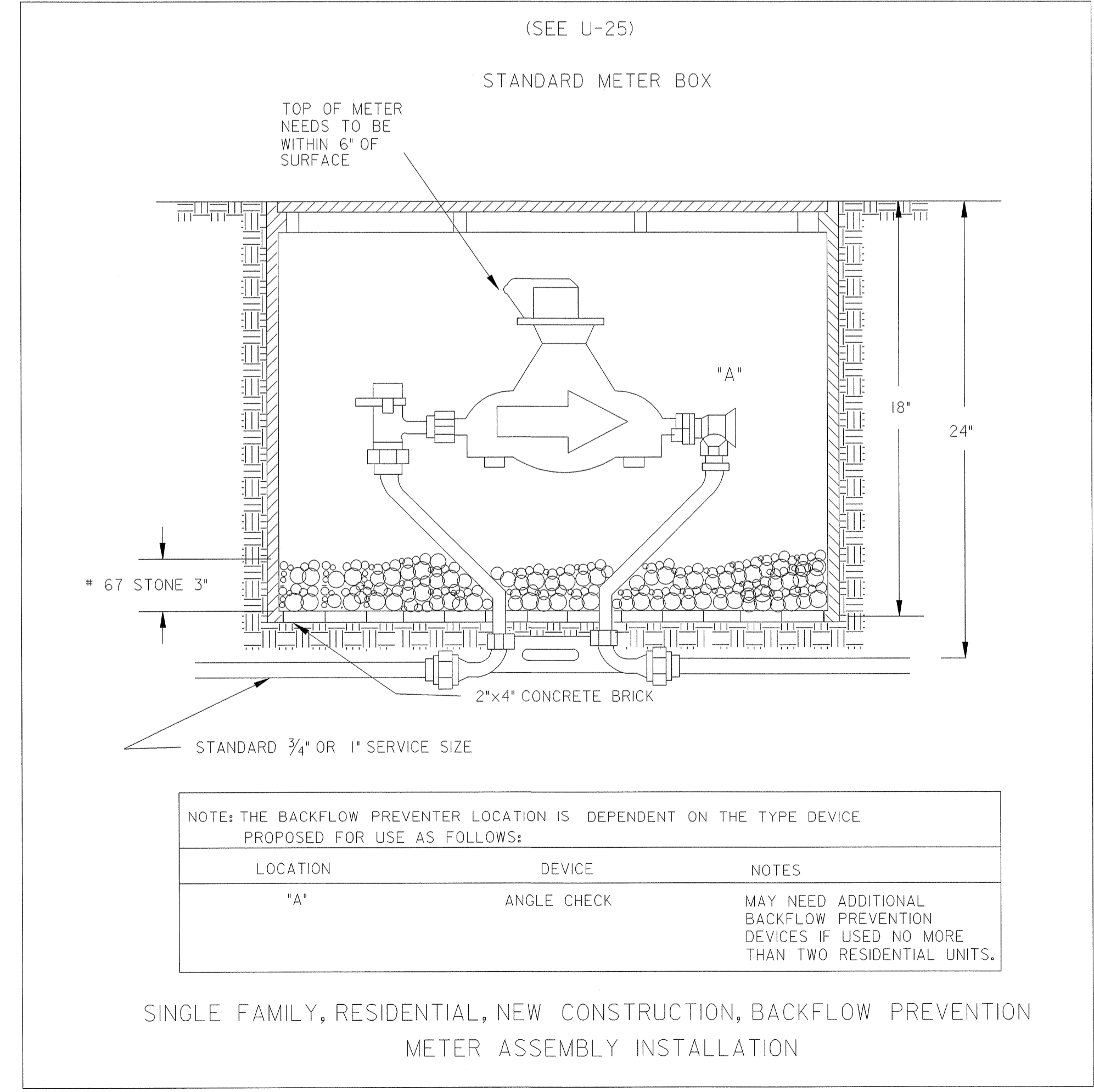
DWG. NO.	REVISED	DATE	REVISED	DATE
W-29	A.B.B.	8-30-04		

DEPARTMENT OF PUBLIC UTILITIES  
 CITY OF RALEIGH  
 TYPICAL 4" - 8" DOMESTIC WATER  
 METER BYPASS INSTALLATION

NOTES:  
 1) DOMESTIC METERS ONLY  
 2) ALL FITTINGS ARE TO BE MECHANICAL JOINT

"A" METER OPENING			
4" METER	28"	8" METER	39"
6" METER	35"		

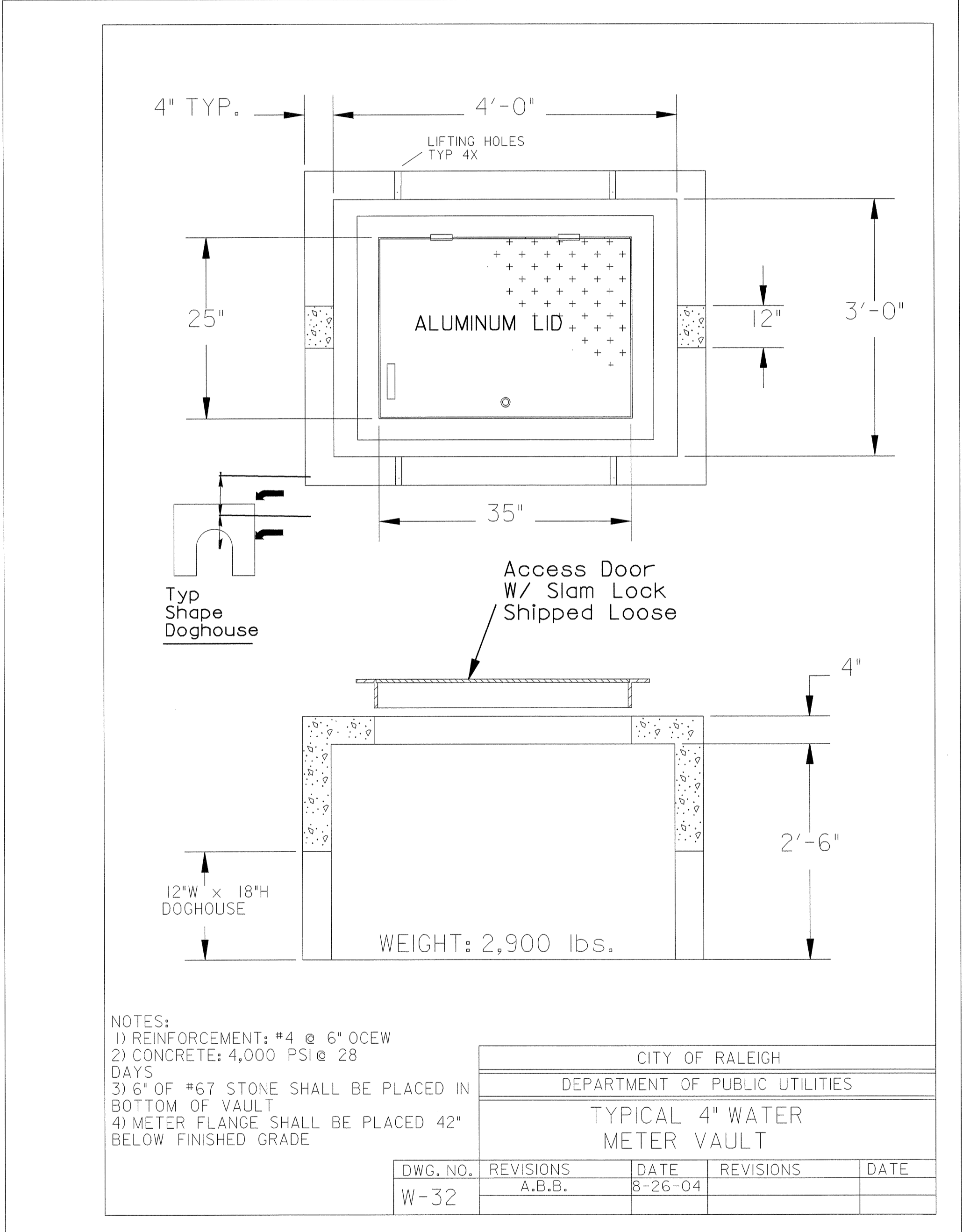
PLAN VIEW



NOTE: THE BACKFLOW PREVENTER LOCATION IS DEPENDENT ON THE TYPE DEVICE PROPOSED FOR USE AS FOLLOWS:

LOCATION	DEVICE	NOTES
"A"	ANGLE CHECK	MAY NEED ADDITIONAL BACKFLOW PREVENTION DEVICES IF USED NO MORE THAN TWO RESIDENTIAL UNITS.

SINGLE FAMILY, RESIDENTIAL, NEW CONSTRUCTION, BACKFLOW PREVENTION METER ASSEMBLY INSTALLATION



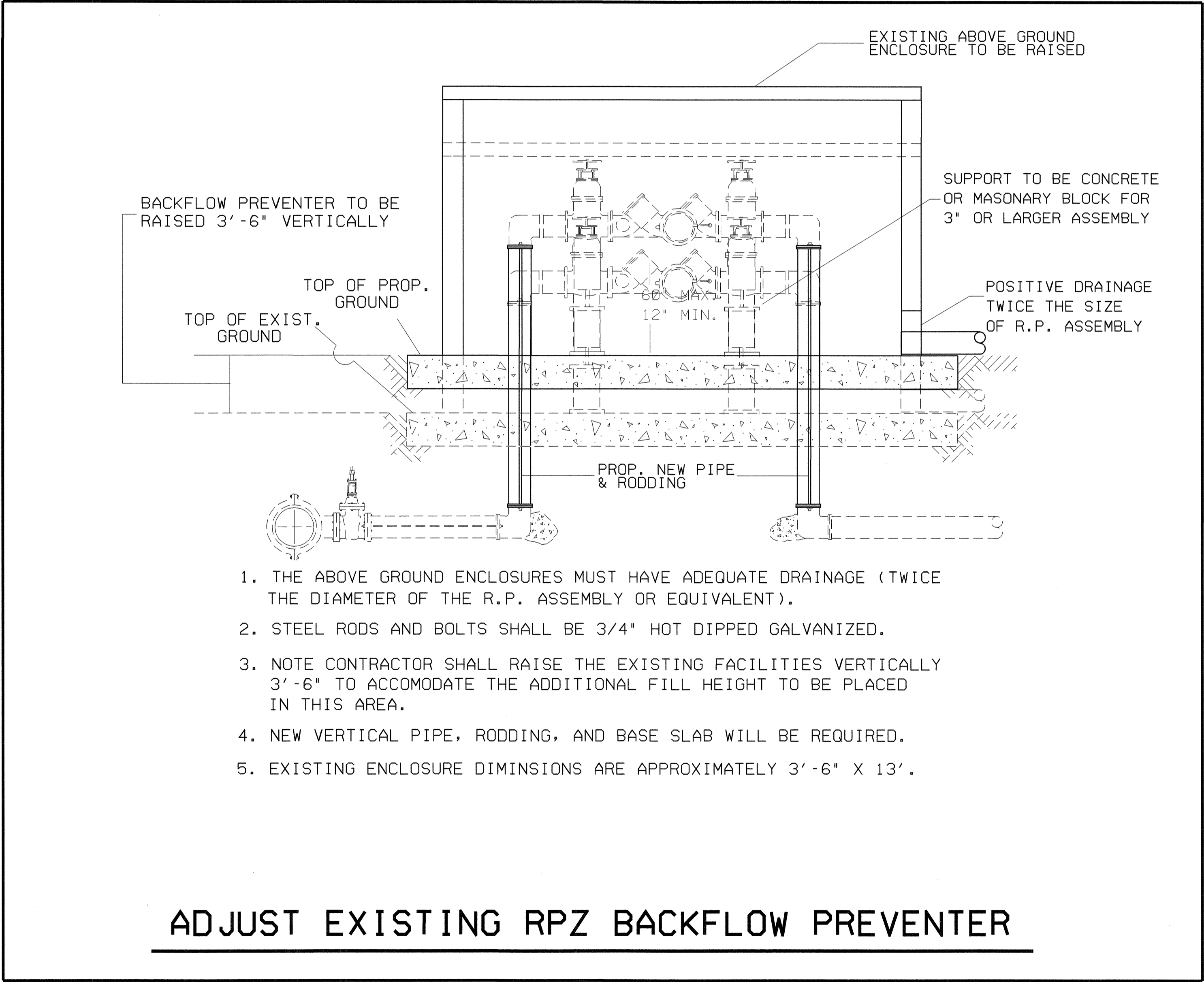
NOTES:  
 1) REINFORCEMENT: #4 @ 6" OCEW  
 2) CONCRETE: 4,000 PSI @ 28 DAYS  
 3) 6" OF #67 STONE SHALL BE PLACED IN BOTTOM OF VAULT  
 4) METER FLANGE SHALL BE PLACED 42" BELOW FINISHED GRADE

CITY OF RALEIGH				
DEPARTMENT OF PUBLIC UTILITIES				
TYPICAL 4" WATER METER VAULT				
DWG. NO.	REVISED	DATE	REVISED	DATE
W-32	A.B.B.	8-26-04		

II-MAY-2006 15:38  
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 hinton

PROJECT REFERENCE NO.	SHEET NO.
<b>W-4404</b>	<b>UC-7</b>
DESIGNED BY: <b>DHP</b>	
DRAWN BY: <b>DHP</b>	
CHECKED BY: <b>JSM</b>	
APPROVED BY: <b>JSM</b>	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
DESIGN SERVICES UNIT PHONE: (919) 250-4128 FAX: (919) 250-4119	
UTILITY CONSTRUCTION PLANS ONLY	

### UTILITY CONSTRUCTION

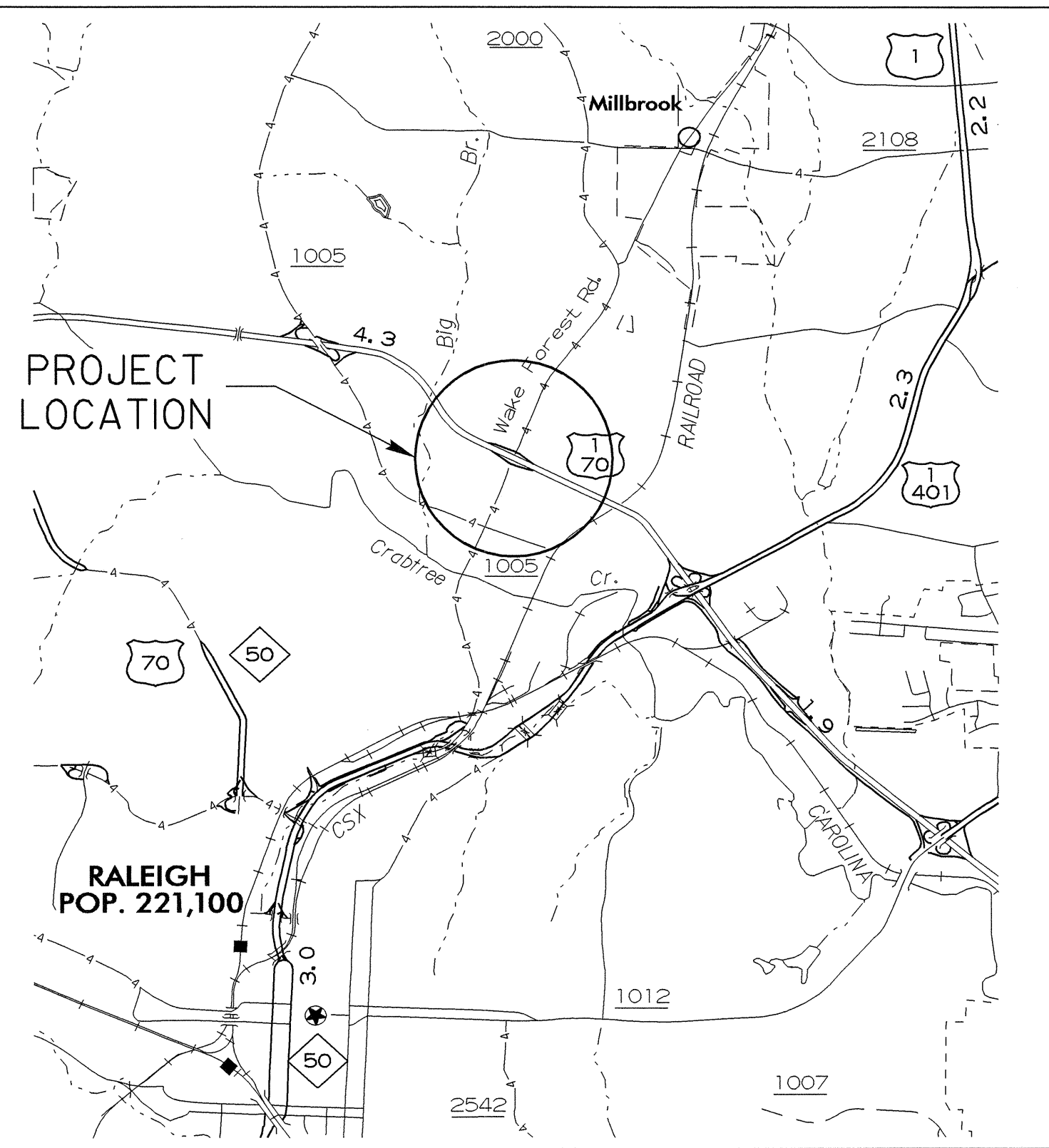


1. THE ABOVE GROUND ENCLOSURES MUST HAVE ADEQUATE DRAINAGE (TWICE THE DIAMETER OF THE R.P. ASSEMBLY OR EQUIVALENT).
2. STEEL RODS AND BOLTS SHALL BE 3/4" HOT DIPPED GALVANIZED.
3. NOTE CONTRACTOR SHALL RAISE THE EXISTING FACILITIES VERTICALLY 3'-6" TO ACCOMMODATE THE ADDITIONAL FILL HEIGHT TO BE PLACED IN THIS AREA.
4. NEW VERTICAL PIPE, RODDING, AND BASE SLAB WILL BE REQUIRED.
5. EXISTING ENCLOSURE DIMINSIONS ARE APPROXIMATELY 3'-6" X 13'.

### ADJUST EXISTING RPZ BACKFLOW PREVENTER

T.I.P. NO.	SHEET . NO.
W-4404	UO-1

**TIP: W-4404**

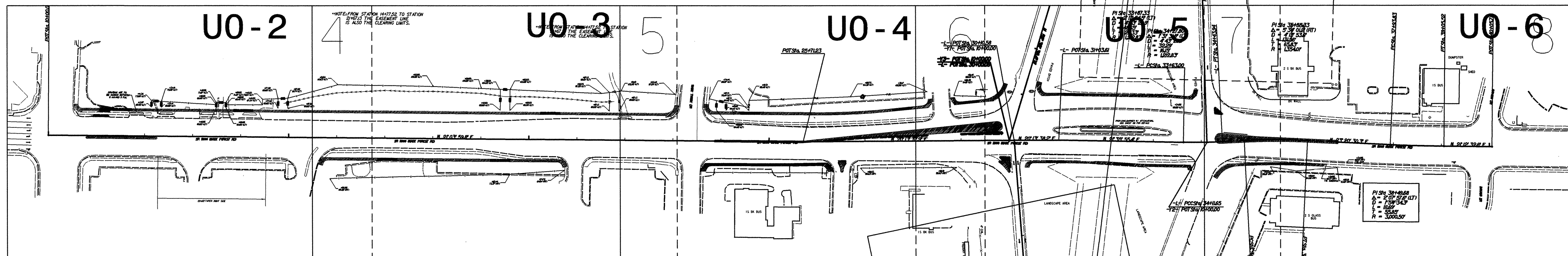
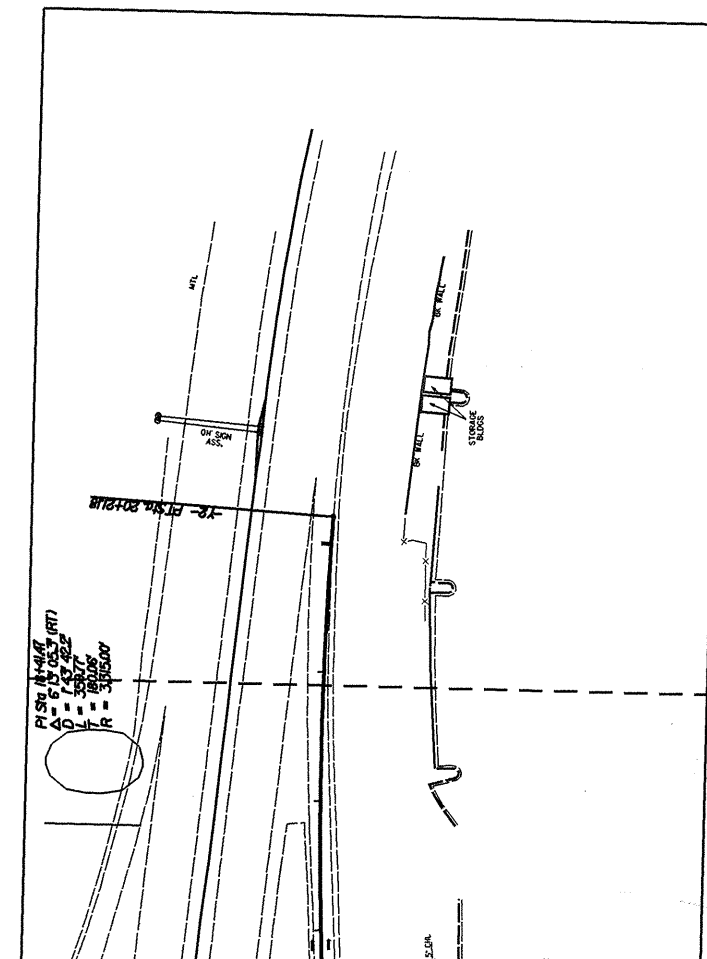
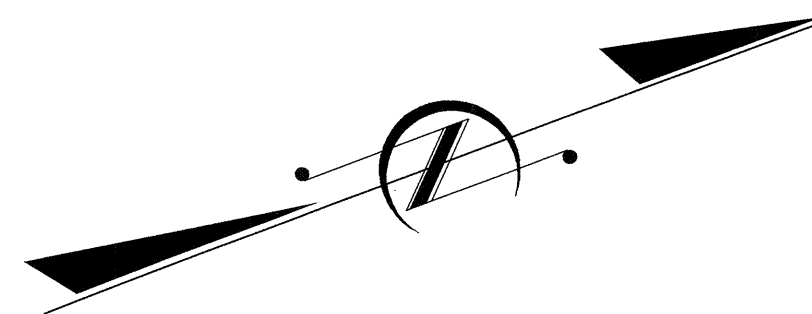


VICINITY MAP SHOWING  
LOCATION OF PROJECT 35156.1.3

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**UTILITIES BY OTHERS PLANS  
WAKE COUNTY**

**LOCATION: SR 2000 (WAKE FOREST ROAD)  
BETWEEN SR 1005 (SIX FORKS ROAD)  
AND NAVAHO DRIVE  
TYPE OF WORK: GRADE, DRAIN, BASE, PAVE.**



INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
UO-1	TITLE SHEET
UO-2 TO UO-6	UTILITIES BY OTHERS PLAN SHEETS

WATER AND SEWER OWNERS ON PROJECT
(1) PROGRESS ENERGY (POWER)
(2) BELL SOUTH (TELEPHONE)
(3) TIME WARNER CABLE (CATV)
(4) PSNC ENERGY (GAS)

PREPARED IN THE OFFICE OF:  
**DIVISION OF HIGHWAYS  
PROJECT SERVICES  
UTILITY SECTION**

1591 MAIL SERVICES CENTER  
RALEIGH NC 27699-1591  
PHONE (919) 250-4128  
FAX (919) 250-4119

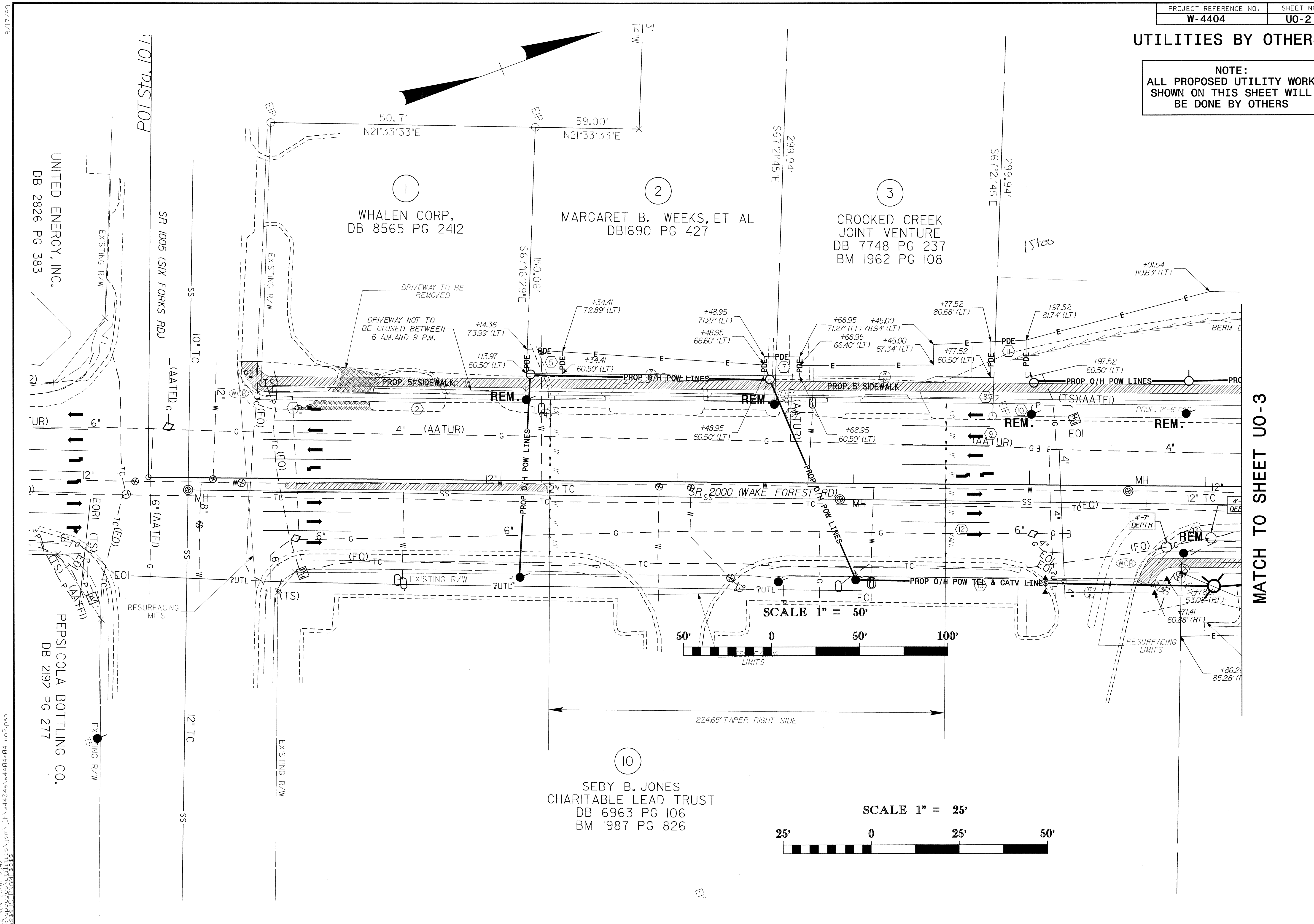
<b>Roger Worthington, P.E.</b>	UTILITIES SECTION ENGINEER
<b>Steve McKee, P.E.</b>	UTILITIES SQUAD LEADER PROJECT ENGINEER
<b>Danny Puryear</b>	UTILITIES PROJECT DESIGNER
<b>John Hinton, PE</b>	

**PROJECT: 35156.1.3**



### UTILITIES BY OTHERS

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



MATCH TO SHEET UO-3

8/17/99  
 22-NOV-2006 12:42  
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 \$\$\$11/22/2006\$\$\$

**UTILITIES BY OTHERS**

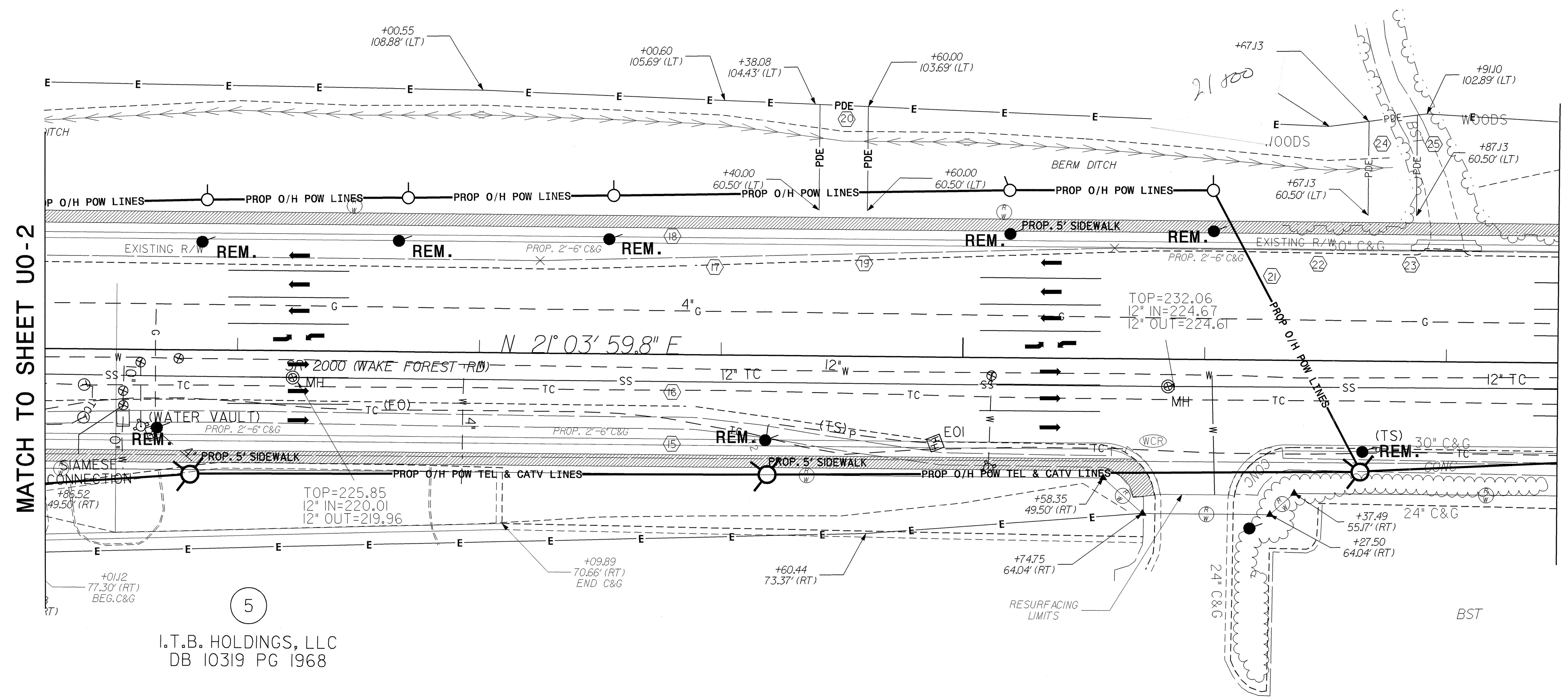
**NOTE:**  
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS

E: FROM STATION 14+77.52 TO STATION 21+67.13 THE EASEMENT LINE IS ALSO THE CLEARING LIMITS.

\*\*NOTE: FROM STATION 14+77.52 TO STATION 21+67.13 THE EASEMENT LINE IS ALSO THE CLEARING LIMITS.

4  
CHARLES W. GADDY  
DB 2146 PG 95

4  
CHARLES W. GADDY  
DB 2146 PG 95

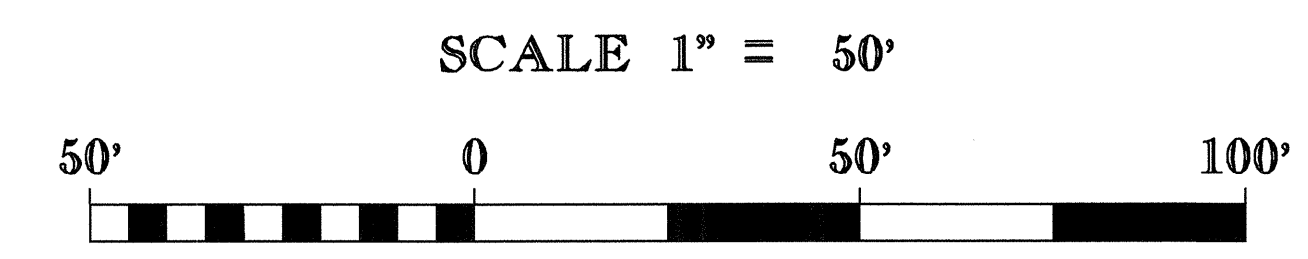


MATCH TO SHEET UO-2

MATCH TO SHEET UO-4

5  
I.T.B. HOLDINGS, LLC  
DB 10319 PG 1968

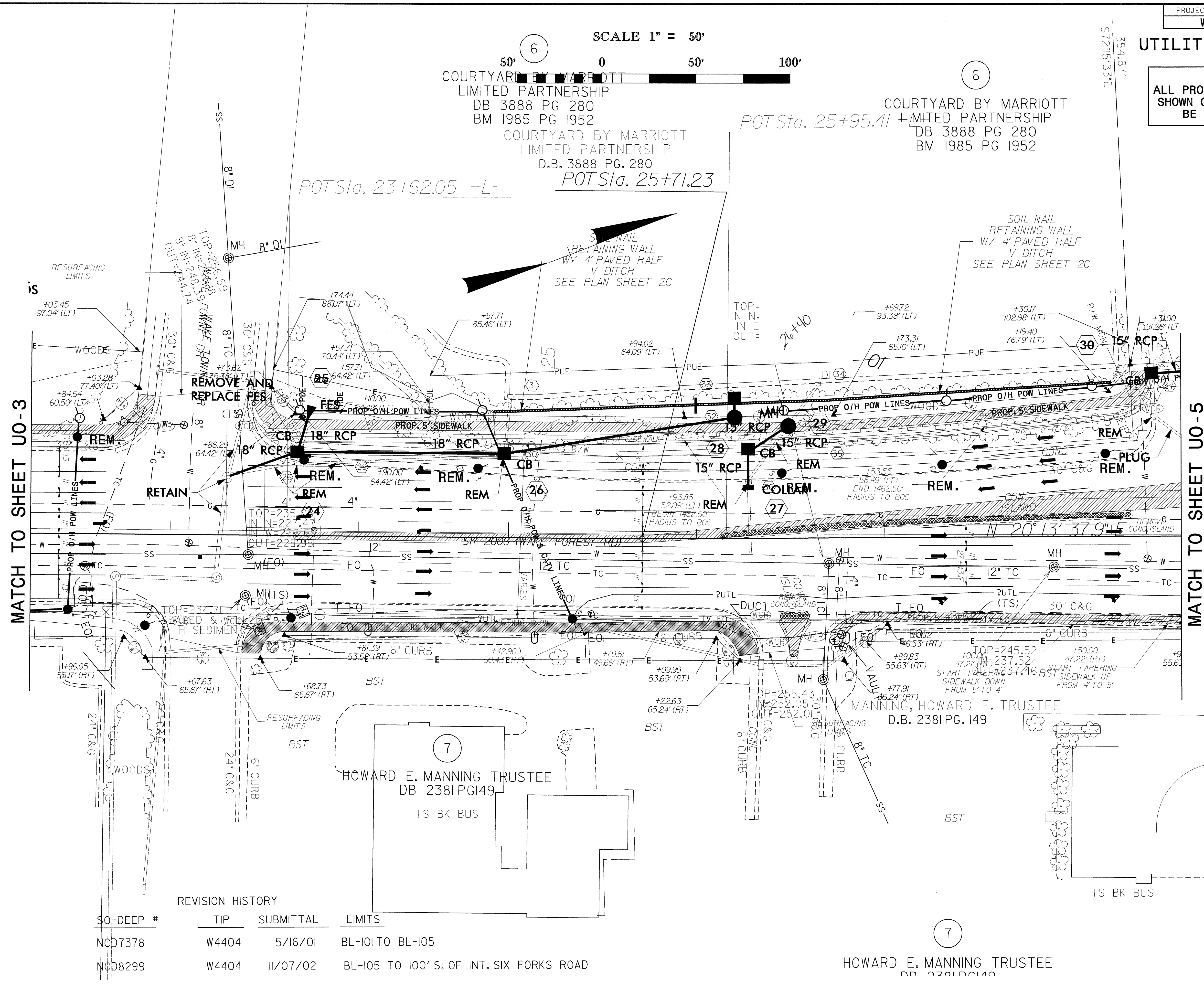
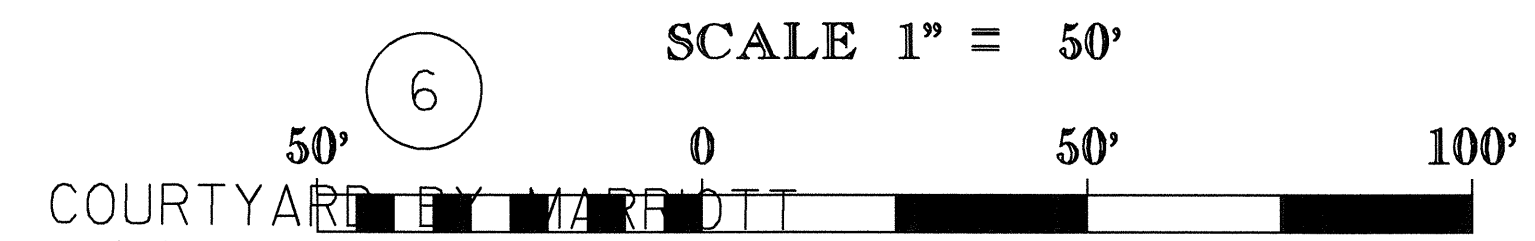
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I.T.B. HOLDINGS, LLC  
DB 10319 PG 1968



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UTILITIES BY OTHERS

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

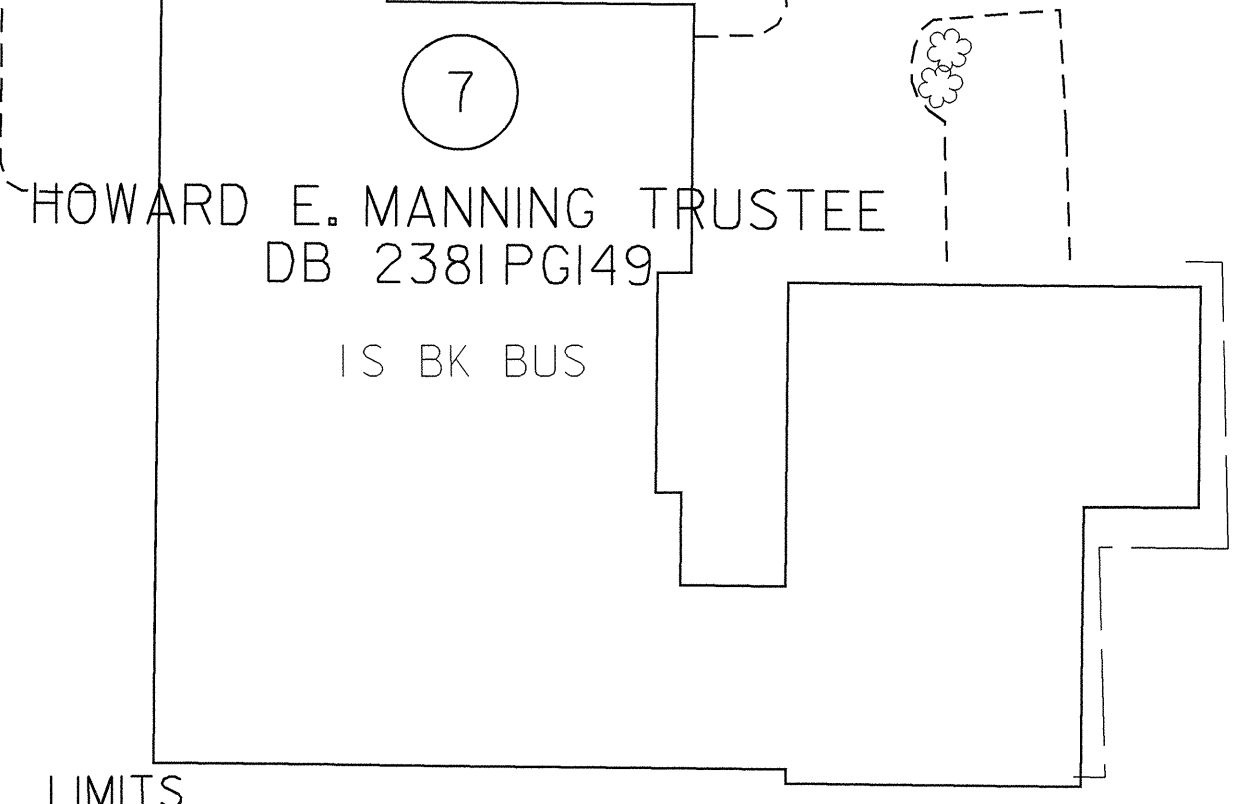


MATCH TO SHEET UO-3

MATCH TO SHEET UO-5

REVISION HISTORY

SO-DEEP #	TIP	SUBMITTAL	LIMITS
NCD7378	W4404	5/16/01	BL-101 TO BL-105
NCD8299	W4404	11/07/02	BL-105 TO 100' S. OF INT. SIX FORKS ROAD



8/17/99  
 22-NOV-2006 12:39  
 s:\projects\utility\sm\jh\w4404a\w4404s06\_uo4.psh  
 \$\$\$USERNAME\$\$\$

8  
 WACHOVIA BANK AND  
 STATE EMPLOYEES, A.  
 CORP. 526 N. POND 490  
 DB 9219 PG 348

-L- POT Sta. 30+10.58  
 -Y1- POT Sta. 10+00.00  
 -Y3- POT Sta. 10+00.00  
 -L- POT Sta. 30+00.00

PI Sta 33+87.33  
 $\Delta = 2^\circ 17' 54.5" (LT)$   
 $D = 4^\circ 43' 26.9"$   
 $L = 48.65'$   
 $T = 24.33'$   
 $R = 1,212.83'$

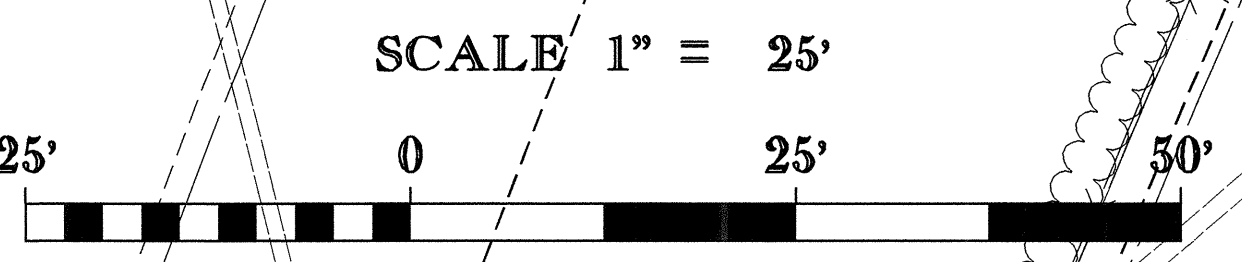
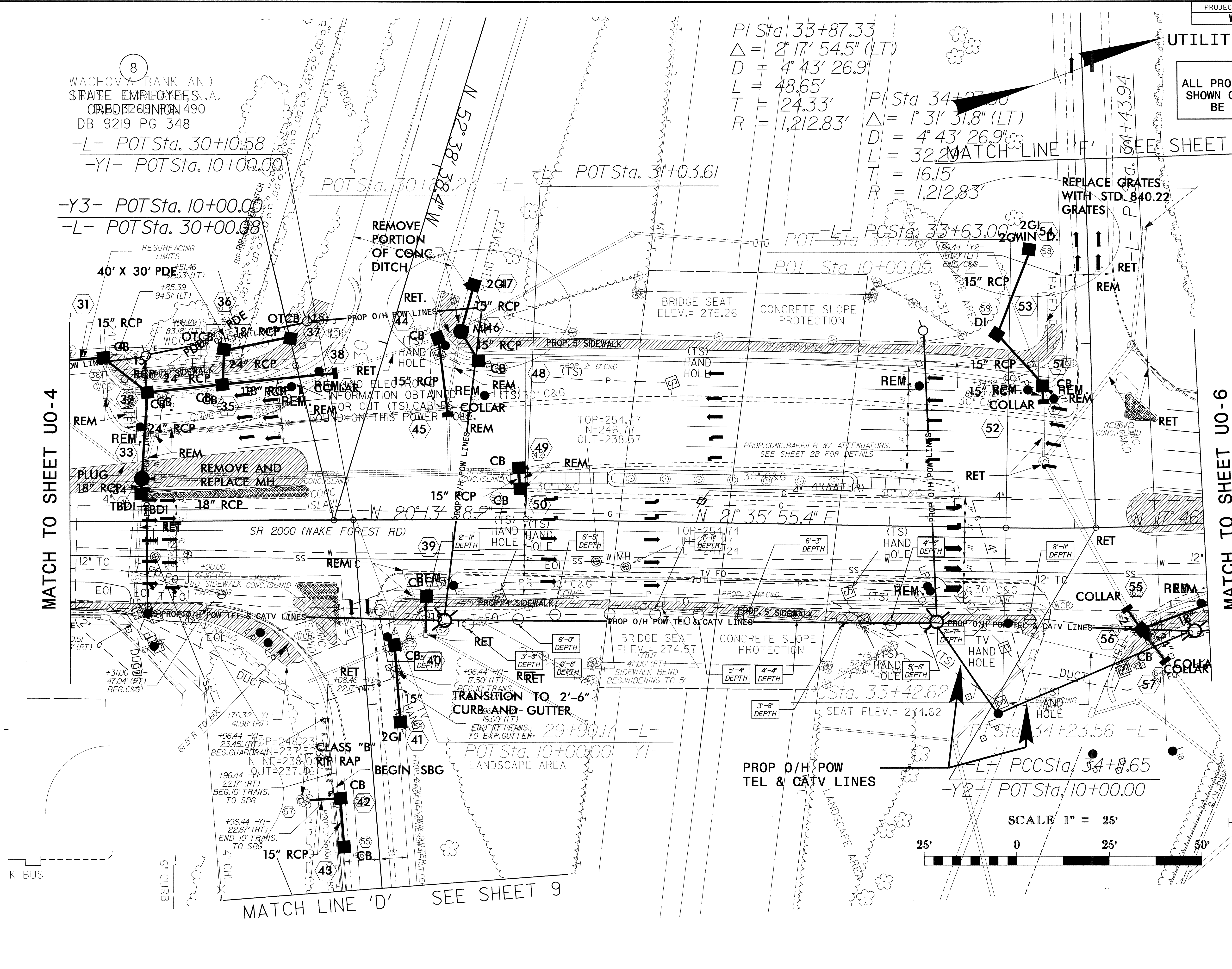
PI Sta 34+23.56  
 $\Delta = 1^\circ 31' 31.8" (LT)$   
 $D = 4^\circ 43' 26.9"$   
 $L = 32.20'$   
 $T = 16.15'$   
 $R = 1,212.83'$

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

MATCH TO SHEET UO-4

MATCH TO SHEET UO-6

8/17/99  
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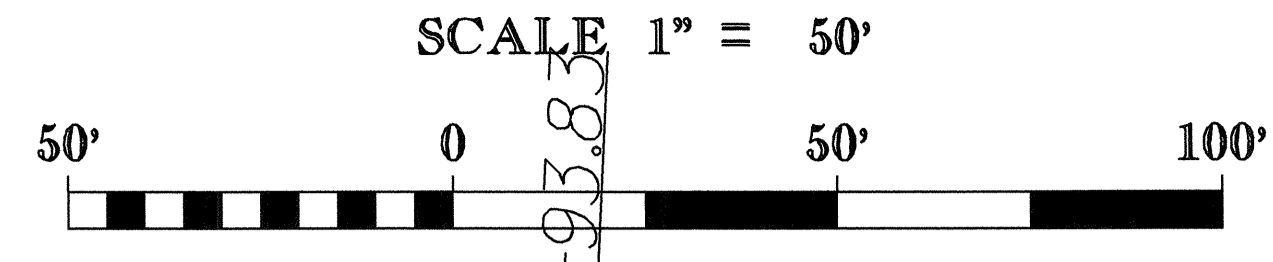


MATCH LINE 'D' SEE SHEET 9

MATCH LINE 'F' SEE SHEET 10

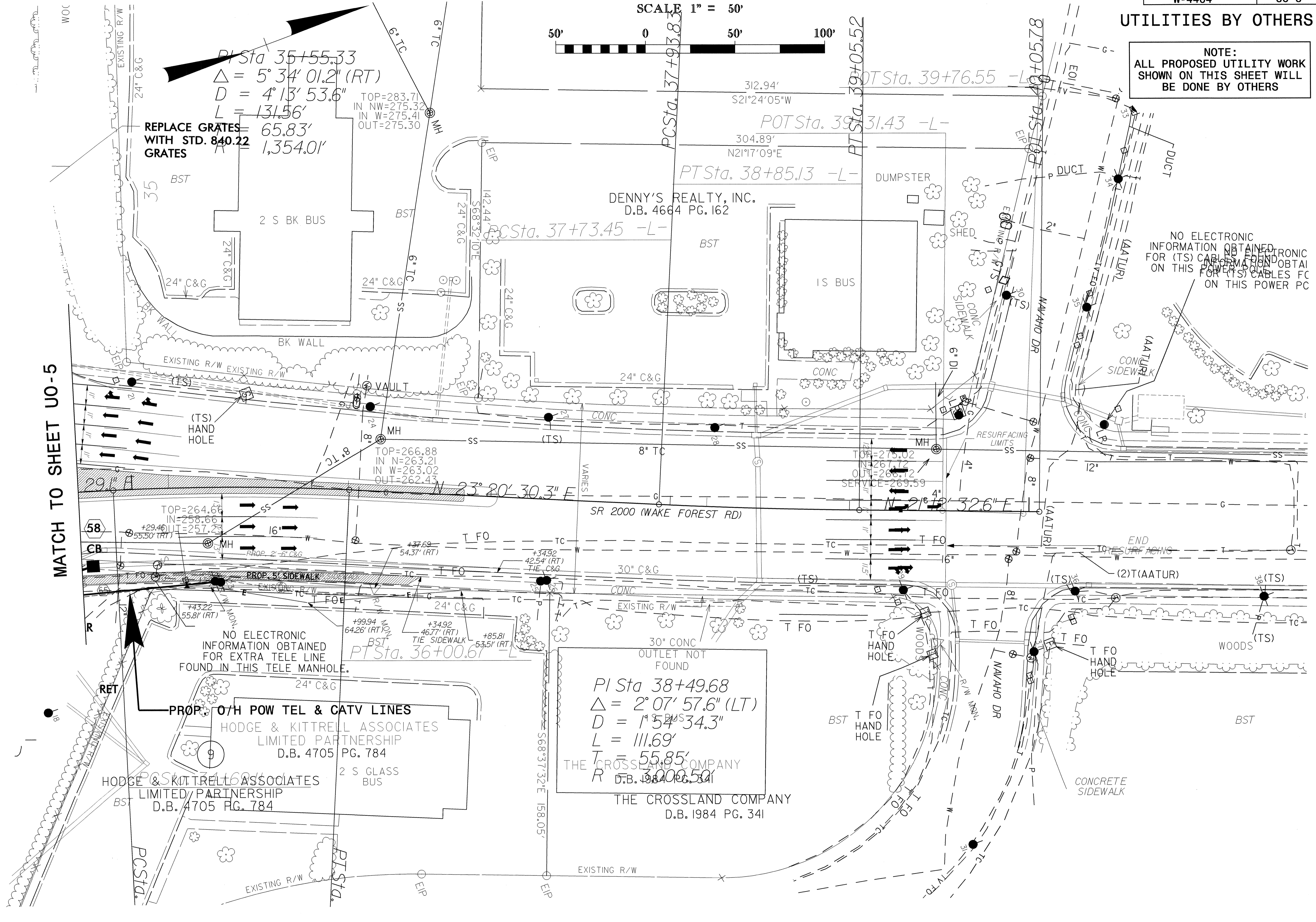
UTILITIES BY OTHERS

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



8/17/99

MATCH TO SHEET UO-5



PI Sta 35+55.33  
 $\Delta = 5^{\circ} 34' 01.2''$  (RT)  
 $D = 4' 13' 53.6''$   
 $L = 131.56'$   
 REPLACE GRATES WITH STD. 840.22 GRATES  
 65.83'  
 1,354.01'

TOP=283.71  
 IN NW=275.32  
 IN W=275.41  
 OUT=275.30

DENNY'S REALTY, INC.  
 D.B. 4664 PG. 162

NO ELECTRONIC INFORMATION OBTAINED FOR EXTRA TELE LINE FOUND IN THIS TELE MANHOLE.

PROP. O/H POW TEL & CATV LINES  
 HODGE & KITTRELL ASSOCIATES LIMITED PARTNERSHIP  
 D.B. 4705 PG. 784

PI Sta 38+49.68  
 $\Delta = 2^{\circ} 07' 57.6''$  (LT)  
 $D = 1' 54' 34.3''$   
 $L = 111.69'$   
 $T = 55.85'$   
 $R = 38400.59'$

THE CROSSLAND COMPANY  
 D.B. 1984 PG. 341

NO ELECTRONIC INFORMATION OBTAINED FOR (TS) CABLES FC ON THIS POWER PC

02-MAY-2006 16:10  
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 hinton