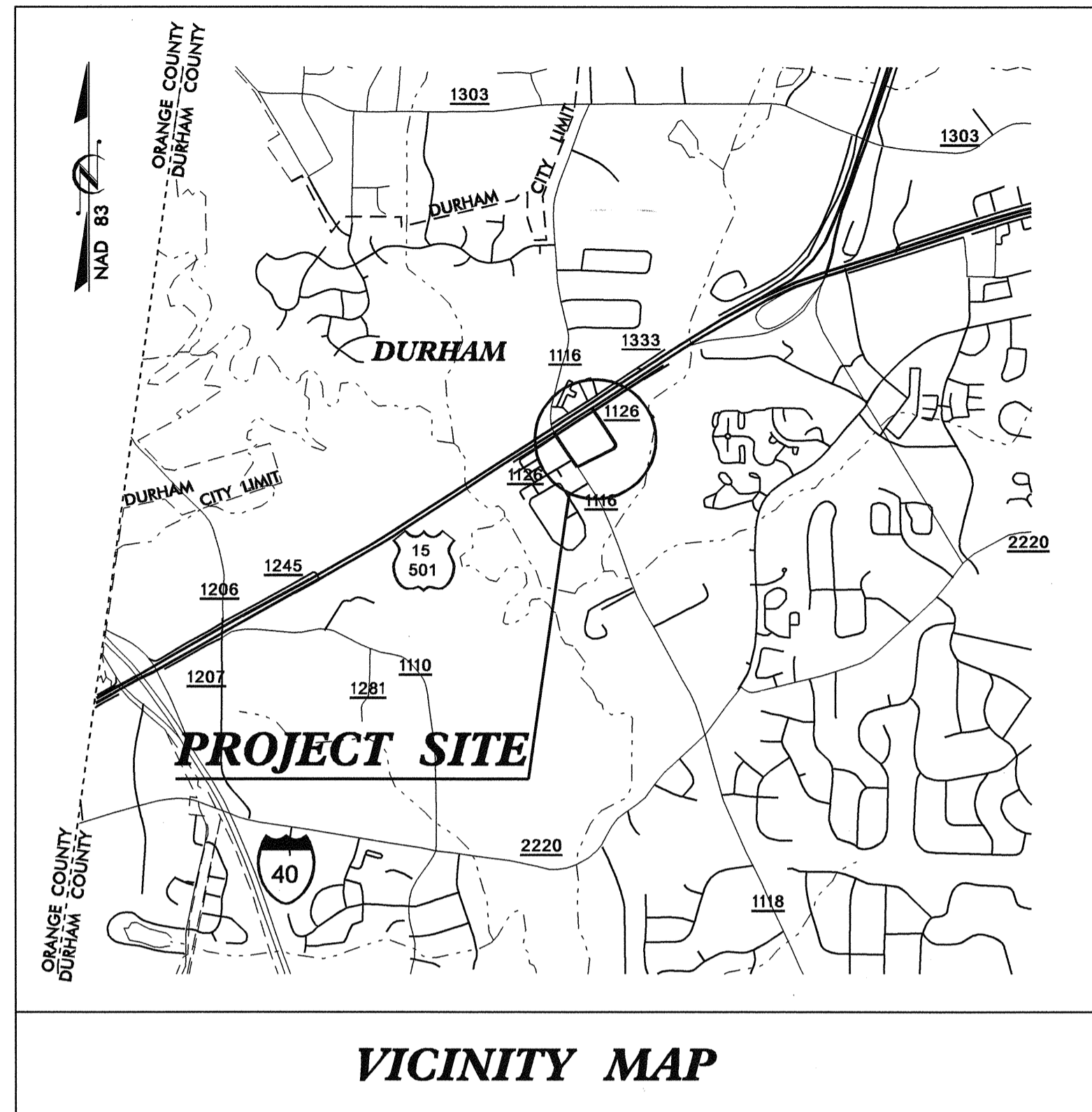


See Sheet 1-A For Index of Sheets

T.I.P. NO.	SHEET NO.
U-4009	UC-1

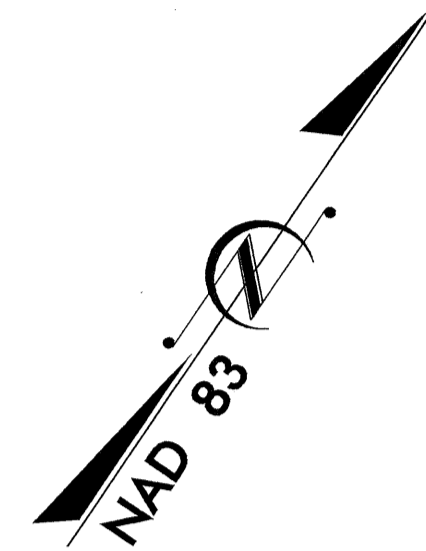


STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

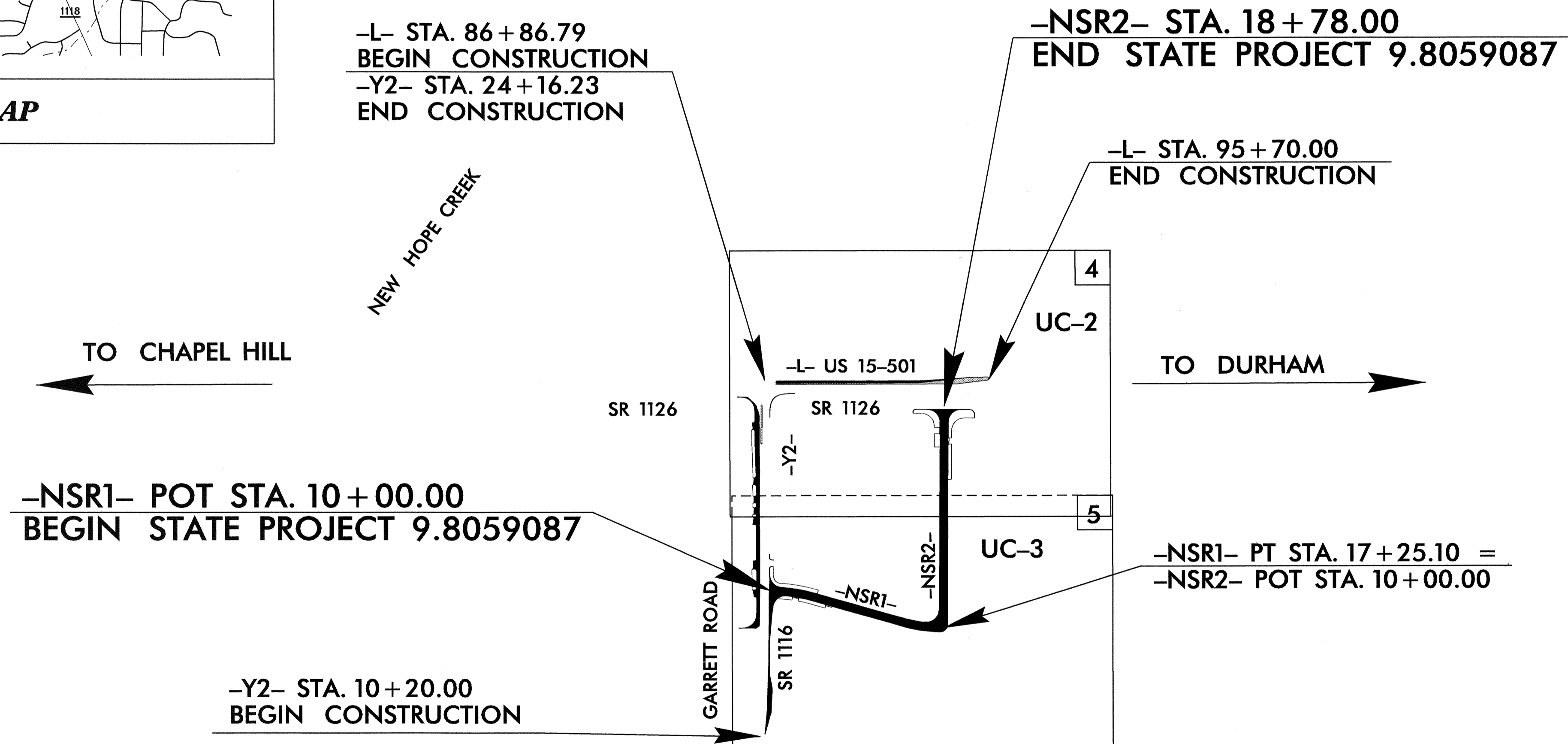
**UTILITY CONSTRUCTION PLANS  
DURHAM COUNTY**

**LOCATION: SR 1126 (SERVICE ROAD) NEAR  
US 15/501 AND SR 1116  
(GARRETT ROAD) INTERSECTION**

**TYPE OF WORK: GRADING, DRAINAGE, PAVING, WIDENING,  
RESURFACING AND SIGNALS**



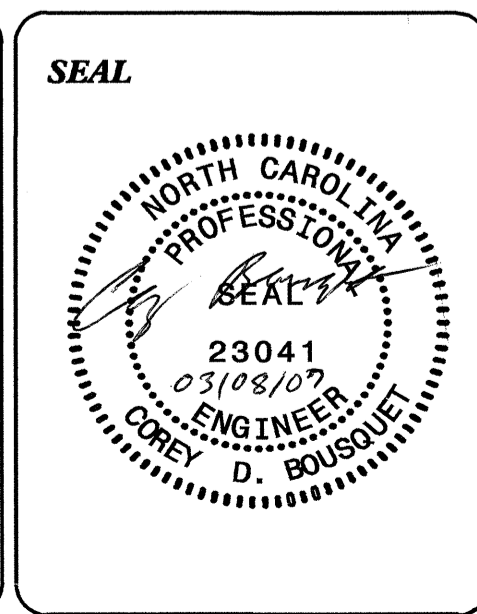
**TIP: U- 4009**



THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE CITY OF DURHAM.

<b>INDEX OF SHEETS</b>	
<u>SHEET NO.</u>	<u>DESCRIPTION</u>
UC-1	TITLE SHEET
UC-2 THRU UC-3	UTILITY CONSTRUCTION PLAN SHEETS
UC-4	DETAILS SHEET

<b>WATER AND SEWER OWNERS ON PROJECT</b>
(1) WATER: CITY OF DURHAM
(2) SANITARY: CITY OF DURHAM
(3)
(4)
(5)



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

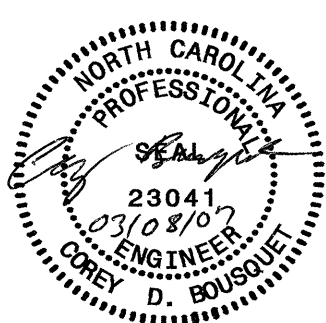
**Roger Worthington, P.E.** UTILITIES SECTION ENGINEER  
**Corey Bousquet, P.E.** UTILITIES SQUAD LEADER PROJECT ENGINEER  
**Jamshid Hafshejani** UTILITIES PROJECT DESIGNER

8/17/99

PROJECT REFERENCE NO. SHEET NO.

U-4009 UC-2

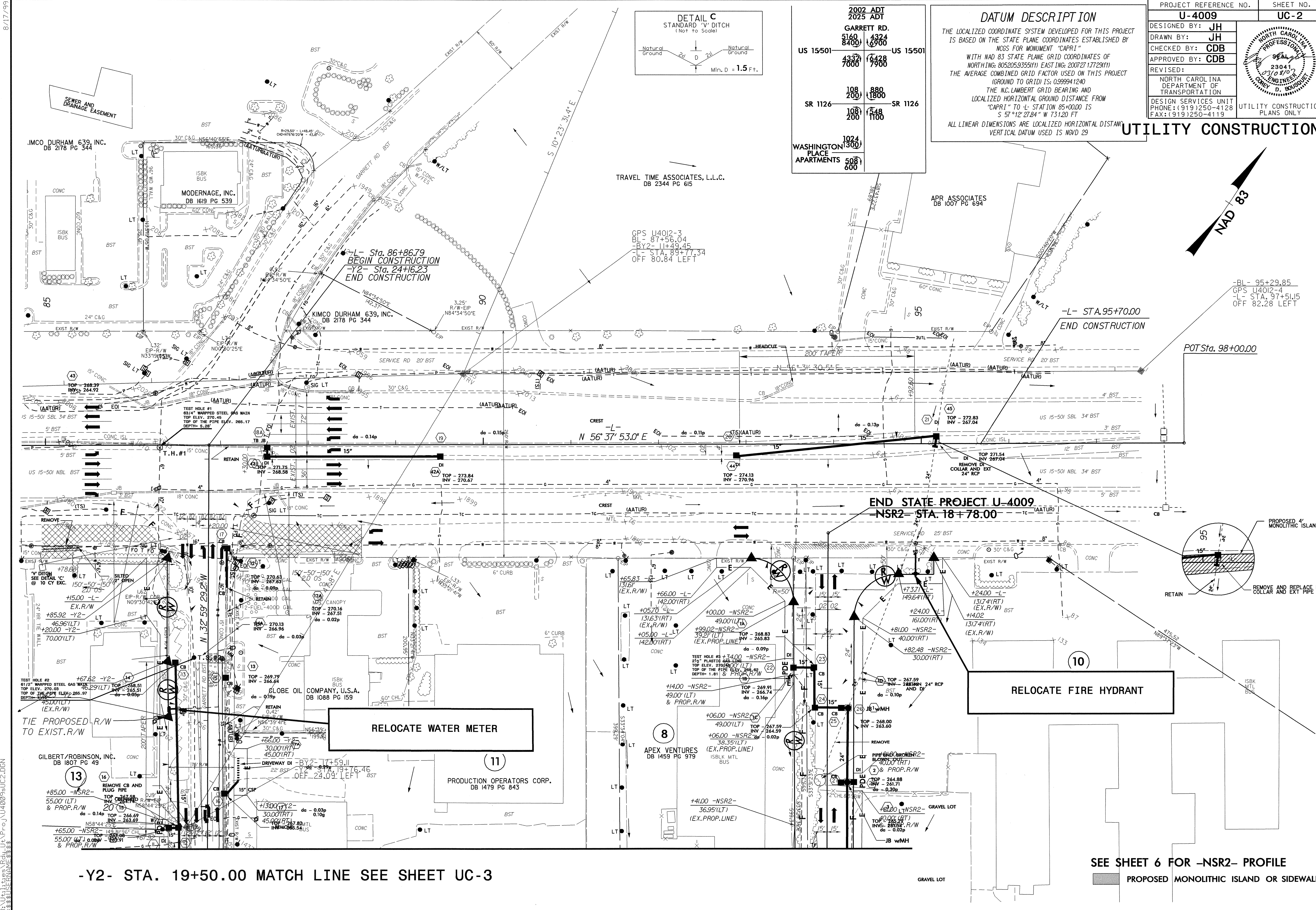
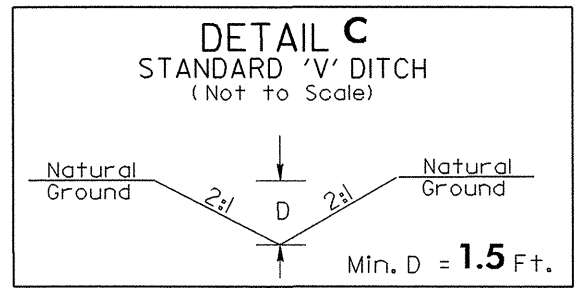
DESIGNED BY: JH  
 DRAWN BY: JH  
 CHECKED BY: CDB  
 APPROVED BY: CDB  
 REVISED:  
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
 DESIGN SERVICES UNIT  
 PHONE: (919) 250-4128  
 FAX: (919) 250-4119



# UTILITY CONSTRUCTION

**DATUM DESCRIPTION**  
 THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCOS FOR MONUMENT "CAPRI" WITH NAD 83 STATE PLANE GRID COORDINATES OF NORTHING: 805205.9355(11) EASTING: 200727.1729(11) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.999941240 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GRID DISTANCE FROM "CAPRI" TO L- STATION 85+00.00 IS S 57°12'27.84" W 731.20 FT ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCE VERTICAL DATUM USED IS NGVD 29

2002 ADT		2025 ADT	
GARRETT RD.			
5160	4324	4324	4324
8400	6900	6900	6900
US 15-501		US 15-501	
4332	6428	6428	6428
7000	7900	7900	7900
SR 1126		SR 1126	
108	880	880	880
200	1800	1800	1800
WASHINGTON PLACE APARTMENTS		WASHINGTON PLACE APARTMENTS	
1024	1360	1360	1360
508	600	600	600



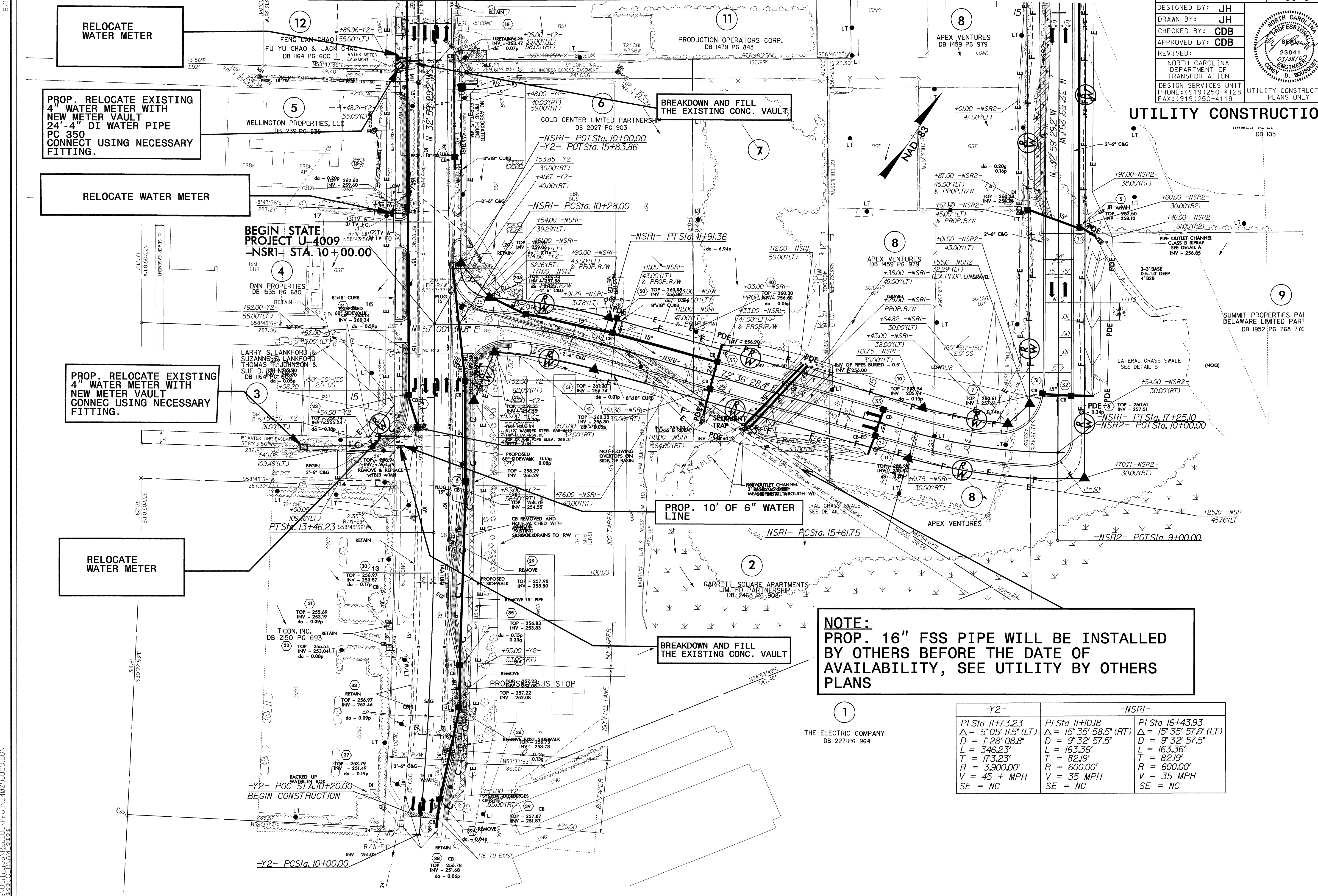
-Y2- STA. 19+50.00 MATCH LINE SEE SHEET UC-3

SEE SHEET 6 FOR -NSR2- PROFILE  
PROPOSED MONOLITHIC ISLAND OR SIDEWALK

03 MAR 2007 10:31 AM P:\proj\U4009\UC2.DGN

# UTILITY CONSTRUCTION

-Y2- STA. 19+50.00 MATCH LINE SEE SHEET UC-2



**RELOCATE WATER METER**

**PROP. RELOCATE EXISTING 4" WATER METER WITH NEW METER VAULT 24"-4" DI WATER PIPE PC 350 CONNECT USING NECESSARY FITTING.**

**RELOCATE WATER METER**

**PROP. RELOCATE EXISTING 4" WATER METER WITH NEW METER VAULT CONNCT USING NECESSARY FITTING.**

**RELOCATE WATER METER**

**BREAKDOWN AND FILL THE EXISTING CONC. VAULT**

**PROP. 10' OF 6" WATER LINE**

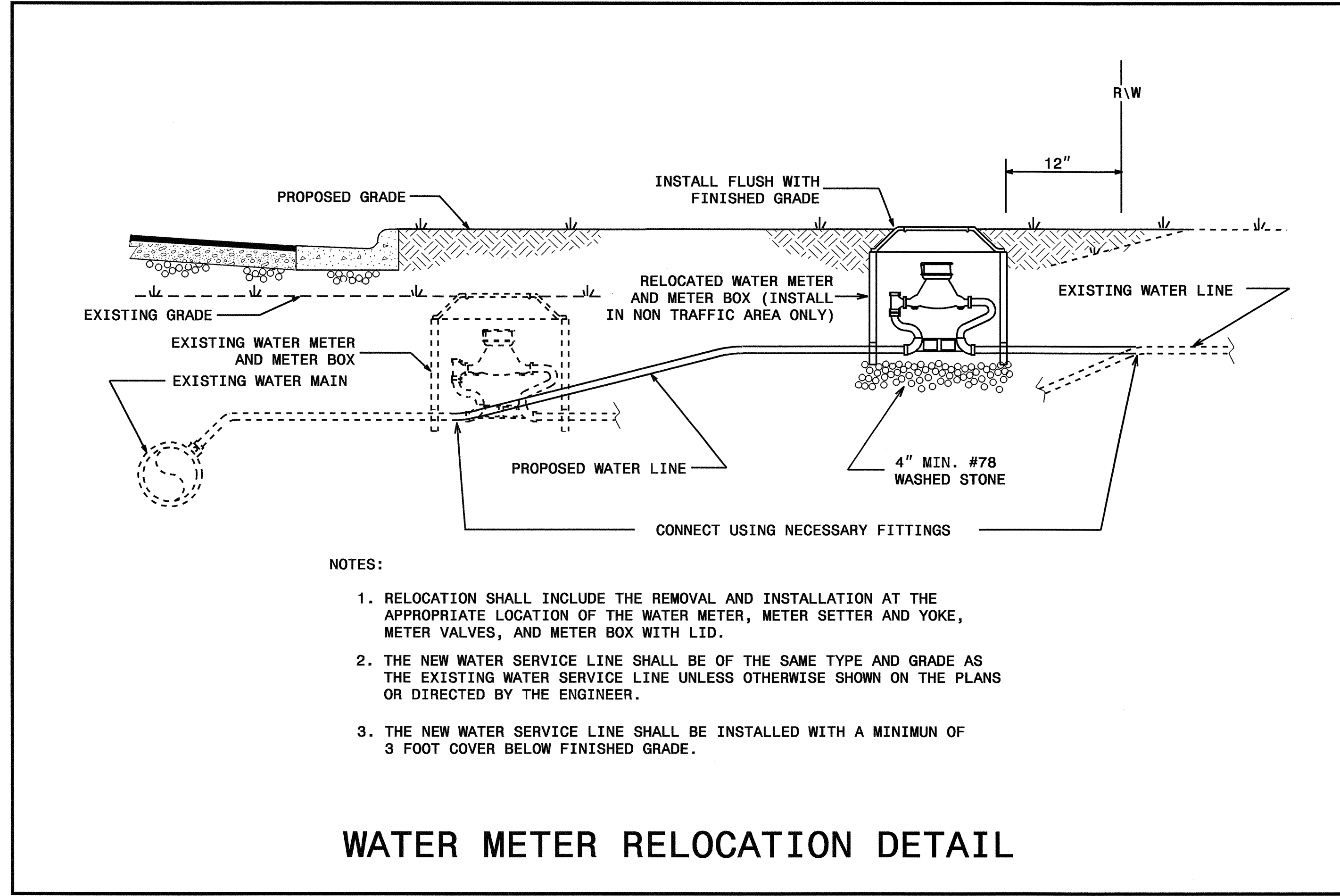
**BREAKDOWN AND FILL THE EXISTING CONC. VAULT**

**NOTE:**  
PROP. 16" FSS PIPE WILL BE INSTALLED BY OTHERS BEFORE THE DATE OF AVAILABILITY, SEE UTILITY BY OTHERS PLANS

-Y2-	-NSRI-	
PI Sta 11+73.23	PI Sta 11+10.18	PI Sta 16+43.93
$\Delta = 5' 05" 11.5" (LT)$	$\Delta = 15' 35" 58.5" (RT)$	$\Delta = 15' 35" 57.6" (LT)$
$D = 1' 28" 08.8"$	$D = 9' 32" 57.5"$	$D = 9' 32" 57.5"$
$L = 346.23'$	$L = 163.36'$	$L = 163.36'$
$T = 173.23'$	$T = 82.19'$	$T = 82.19'$
$R = 3,900.00'$	$R = 600.00'$	$R = 600.00'$
$V = 45 + MPH$	$V = 35 MPH$	$V = 35 MPH$
$SE = NC$	$SE = NC$	$SE = NC$

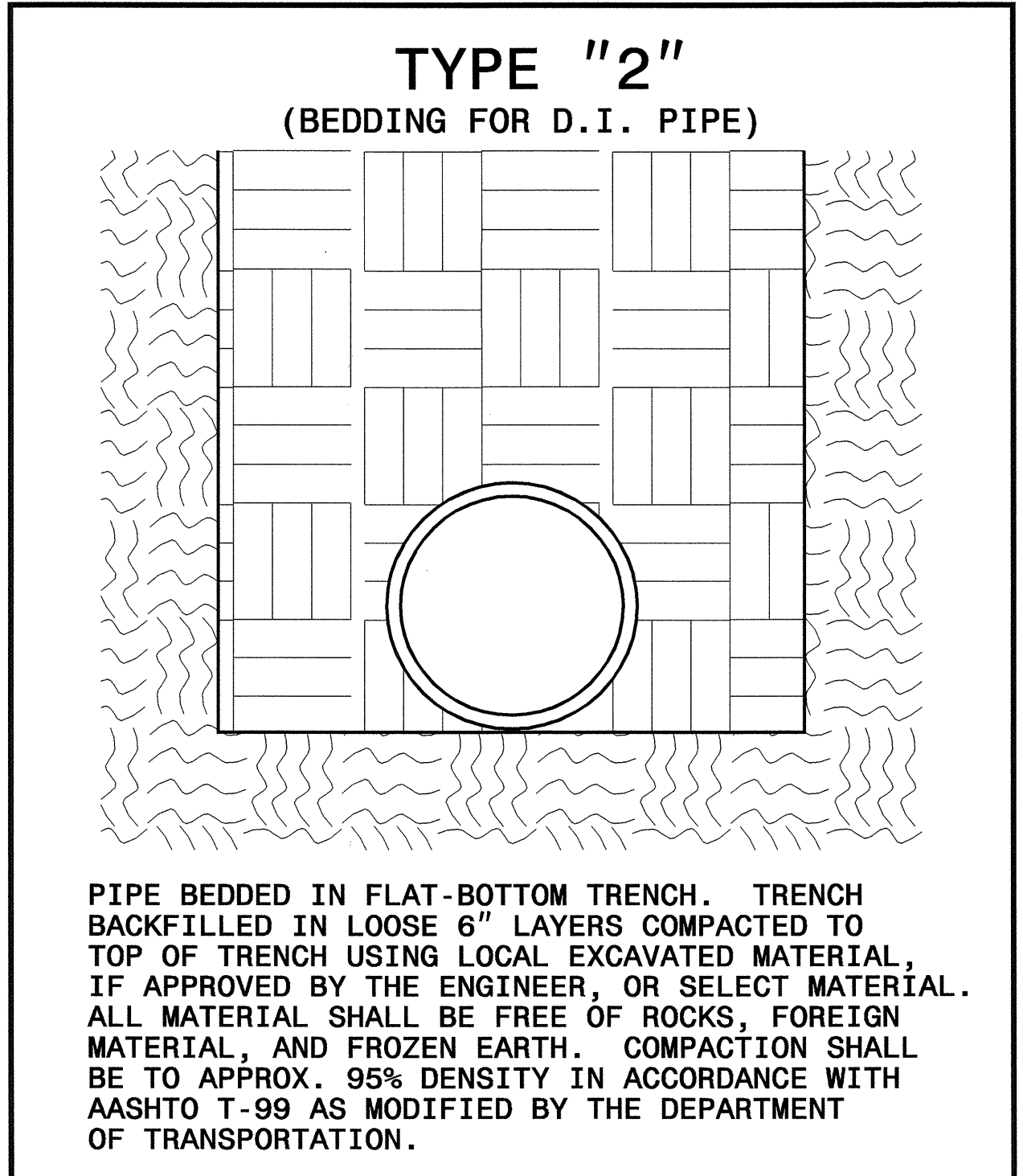
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 JHH

### UTILITY CONSTRUCTION

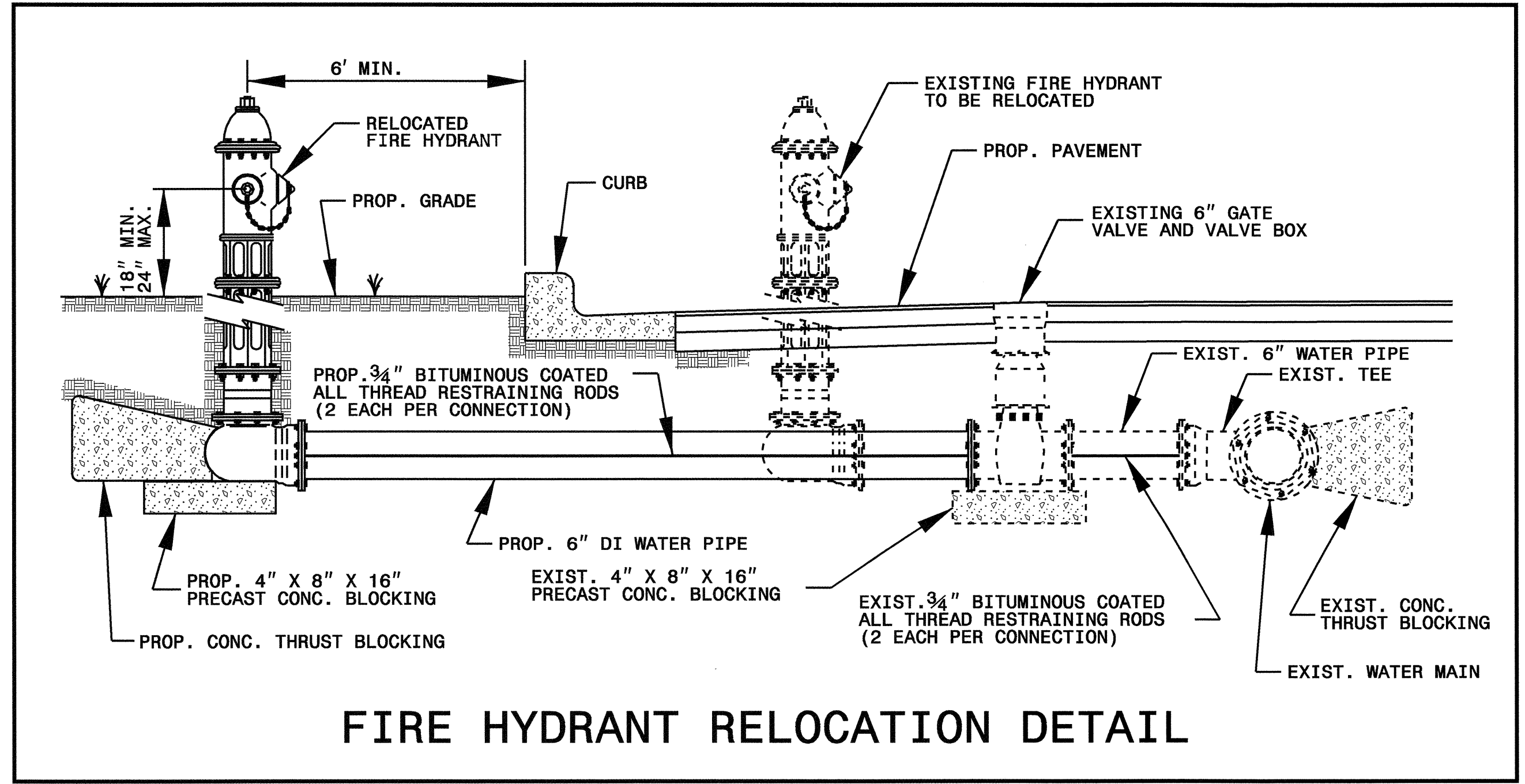


- NOTES:
1. RELOCATION SHALL INCLUDE THE REMOVAL AND INSTALLATION AT THE APPROPRIATE LOCATION OF THE WATER METER, METER SETTER AND YOKE, METER VALVES, AND METER BOX WITH LID.
  2. THE NEW WATER SERVICE LINE SHALL BE OF THE SAME TYPE AND GRADE AS THE EXISTING WATER SERVICE LINE UNLESS OTHERWISE SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER.
  3. THE NEW WATER SERVICE LINE SHALL BE INSTALLED WITH A MINIMUM OF 3 FOOT COVER BELOW FINISHED GRADE.

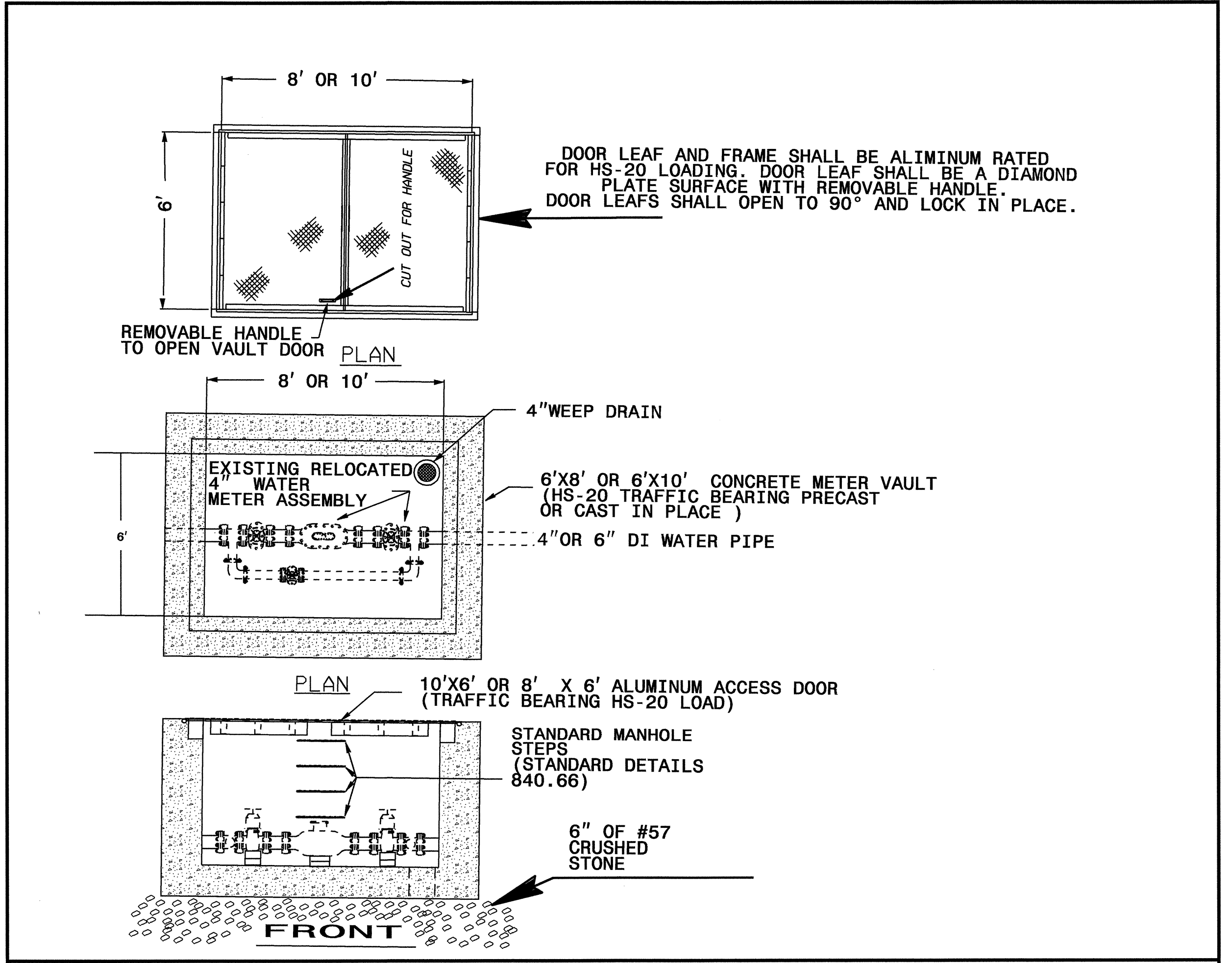
### WATER METER RELOCATION DETAIL



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		



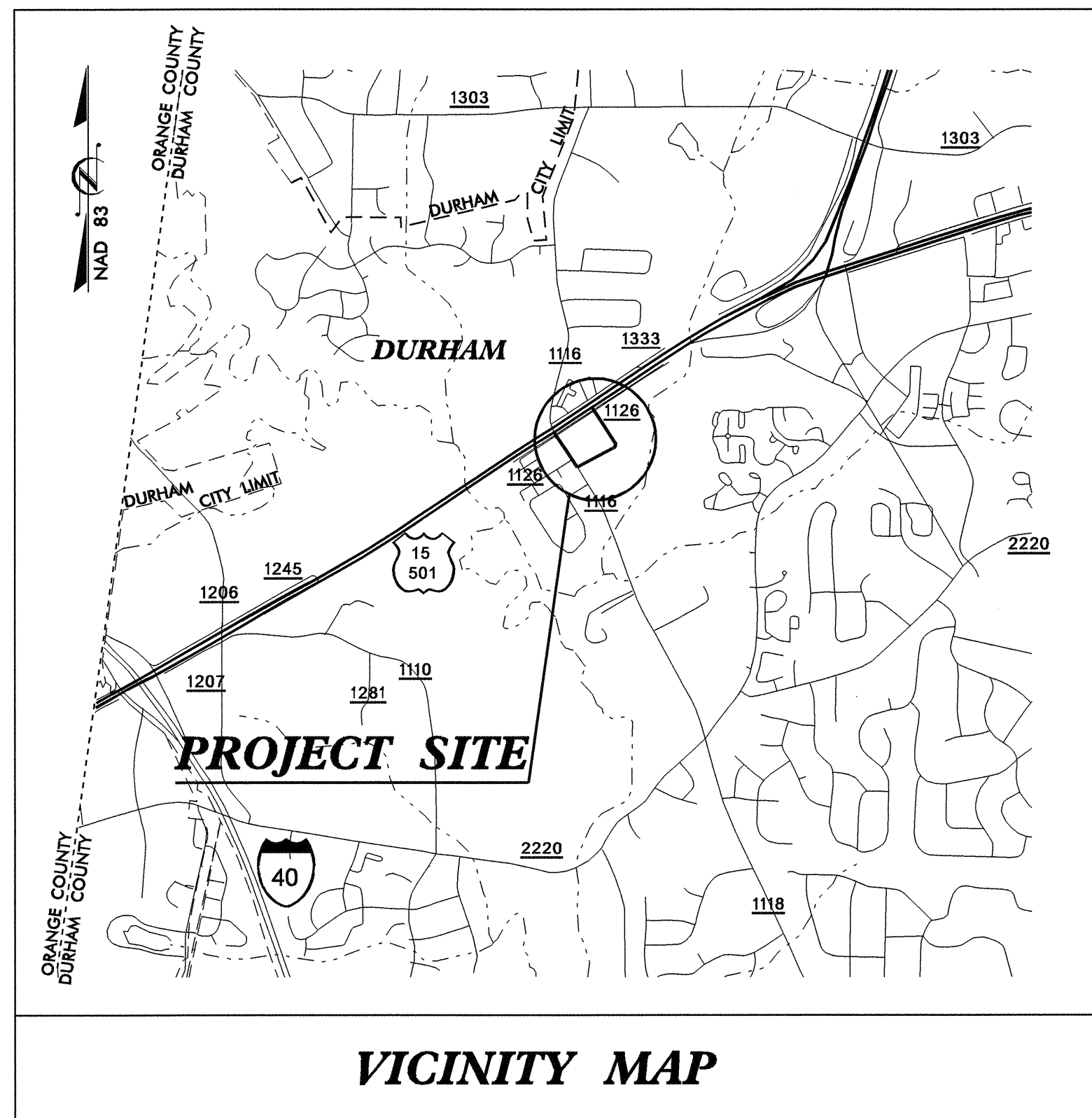
### FIRE HYDRANT RELOCATION DETAIL



### RELOCATE EXISTING WATER METER ASSEMBLIES WITH NEW METER VAULTS

See Sheet 1-A For Index of Sheets

T.I.P. NO.	SHEET NO.
U-4009	UO-1

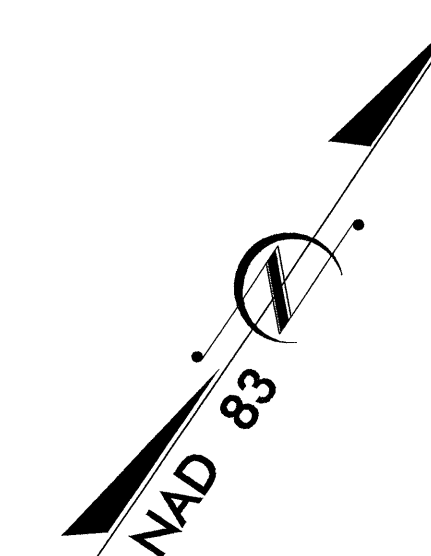


# STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

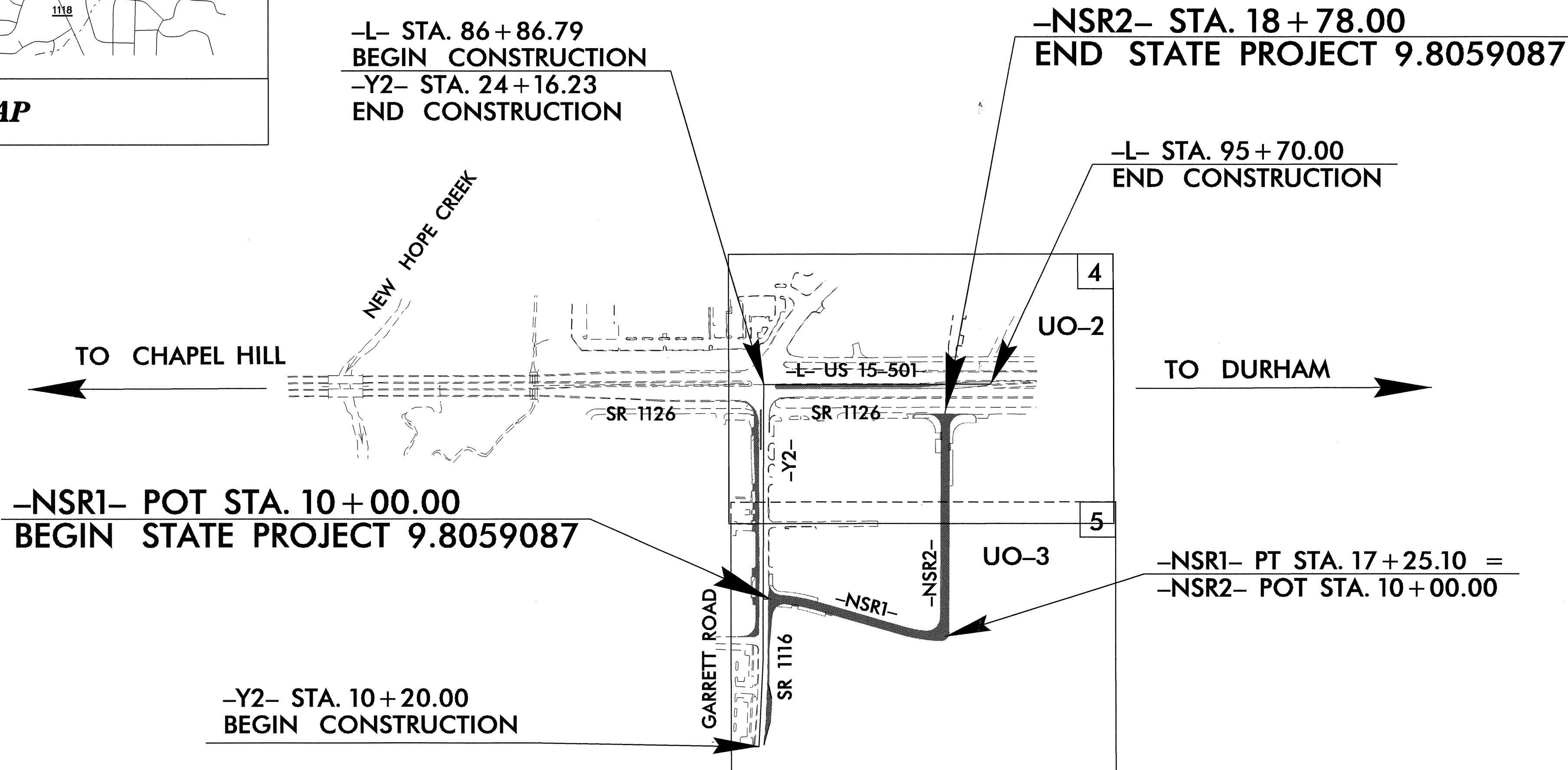
## UTILITY BY OTHERS PLANS DURHAM COUNTY

**LOCATION: SR 1126 (SERVICE ROAD) NEAR  
US 15/501 AND SR 1116  
(GARRETT ROAD) INTERSECTION**

**TYPE OF WORK: GRADING, DRAINAGE, PAVING, WIDENING,  
RESURFACING AND SIGNALS**



**TIP: U- 4009**



THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE CITY OF DURHAM.

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
UO-1	TITLE SHEET
UO-2 THRU UO-03	UTILITY BY OTHERS PLAN SHEETS
UO-4	DETAIL SHEET

- UTILITY CONFLICT OWNERS ON PROJECT**
- (1) DUKE POWER COMPANY
  - (2) VERIZON TELEPHONE
  - (3) PROGRESS TELECOM
  - (4) PSNC ENERGY
  - (5) CITY OF DURHAM
  - (6) TIME WARNER CABLEVISION

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

Corey Bousquest, P.E. UTILITIES SQUAD LEADER PROJECT ENGINEER

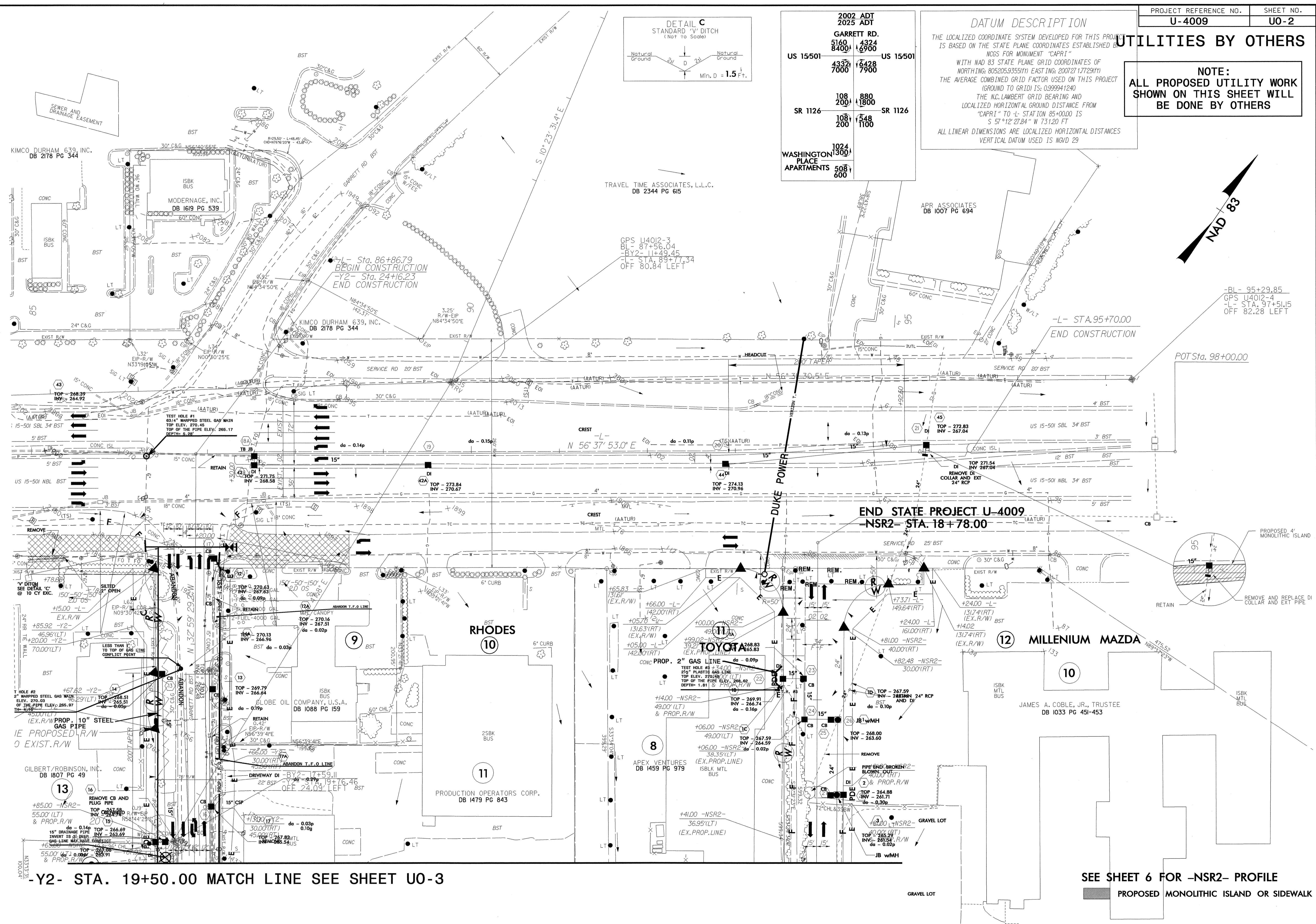
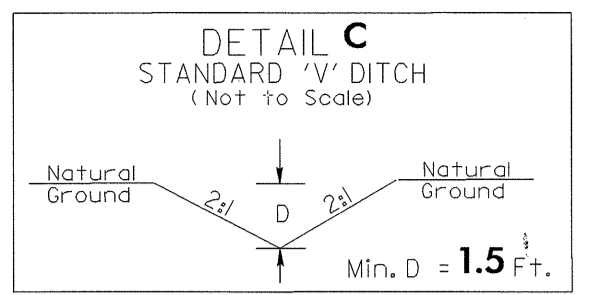
Jamshid Hafshejani UTILITIES PROJECT DESIGNER

**UTILITIES BY OTHERS**

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

**DATUM DESCRIPTION**  
THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCGS FOR MONUMENT "CAPRI" WITH NAD 83 STATE PLANE GRID COORDINATES OF NORTHING: 8052059355(Ft) EASTING: 2007271772(Ft) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.999941240 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "CAPRI" TO -L- STATION 85+00.00 IS S 57°12'27.84" W 731.20 FT ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NGVD 29

2002 ADT	2025 ADT
5160	4324
8400	6900
US 15/501	US 15/501
4332	6428
7000	7900
108	880
200	1800
SR 1126	SR 1126
108	548
200	1100
1024	
WASHINGTON PLACE APARTMENTS	508
	600



TRAVEL TIME ASSOCIATES, L.L.C.  
DB 2344 PG 615

APR ASSOCIATES  
DB 1007 PG 694

KIMCO DURHAM 639, INC.  
DB 2178 PG 344

MODERNA, INC.  
DB 1619 PG 539

-L- Sta. 86+86.79  
BEGIN CONSTRUCTION  
-Y2- Sta. 24+16.23  
END CONSTRUCTION

CPS U4012-3  
BL - 87+56.04  
-BY2- 11+49.45  
-L- STA. 89+77.34  
OFF 80.84 LEFT

-BL- 95+29.85  
GPS U4012-4  
-L- STA. 97+51.15  
OFF 82.28 LEFT

-L- STA. 95+70.00  
END CONSTRUCTION

POT Sta. 98+00.00

END STATE PROJECT U-4009  
-NSR2- STA. 18+78.00

-Y2- STA. 19+50.00 MATCH LINE SEE SHEET U0-3

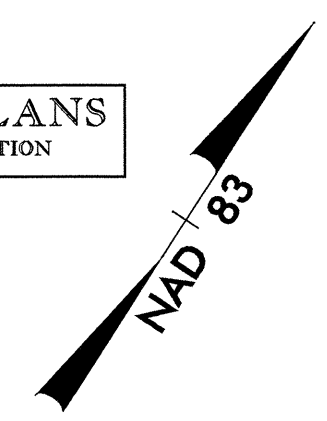
SEE SHEET 6 FOR -NSR2- PROFILE  
PROPOSED MONOLITHIC ISLAND OR SIDEWALK

8/17/99  
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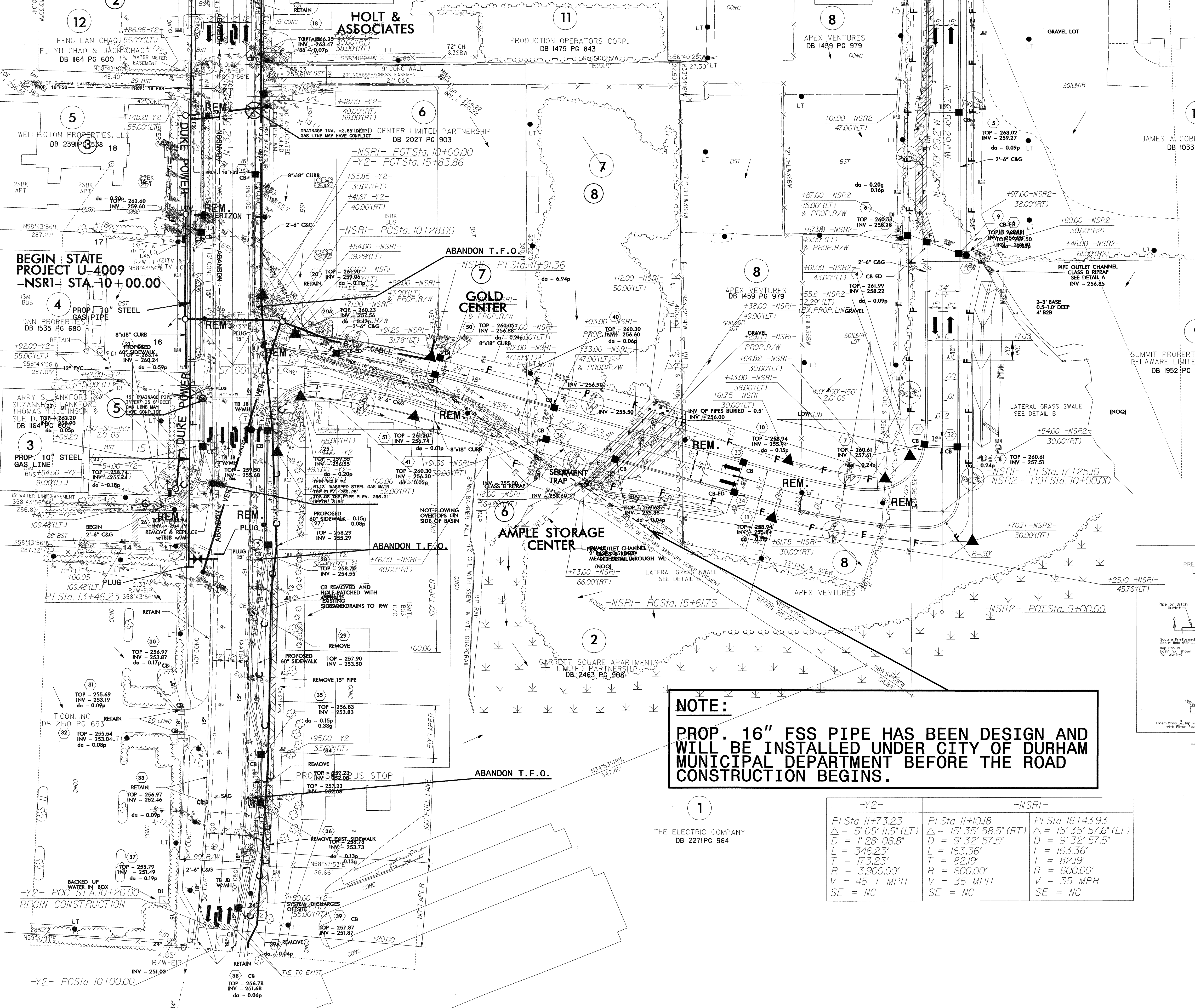
UTILITIES BY OTHERS

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

PRELIMINARY PLANS  
DO NOT USE FOR CONSTRUCTION



-Y2- STA. 19+50.00 MATCH LINE SEE SHEET UO-3



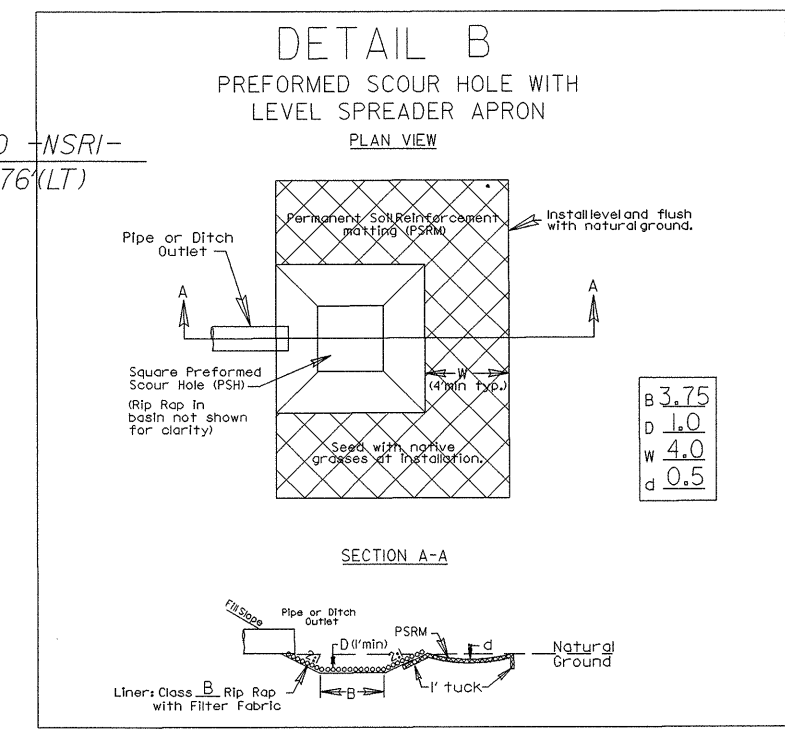
BEGIN STATE  
PROJECT U-4009  
-NSRI- STA. 10+00.00

PROP. 16" STEEL  
GAS PIPE  
DB 1535 PG 680

-Y2- POC STA. 10+20.00  
BEGIN CONSTRUCTION

-Y2- PCSta. 10+00.00

**NOTE:**  
PROP. 16" FSS PIPE HAS BEEN DESIGN AND  
WILL BE INSTALLED UNDER CITY OF DURHAM  
MUNICIPAL DEPARTMENT BEFORE THE ROAD  
CONSTRUCTION BEGINS.



-Y2-	-NSRI-	-NSR2-
PI Sta. 11+73.23	PI Sta. 11+10.18	PI Sta. 16+43.93
$\Delta = 5' 05" 11.5" (LT)$	$\Delta = 15' 35" 58.5" (RT)$	$\Delta = 15' 35" 57.6" (LT)$
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$L = 346.23'$	$L = 163.36'$	$L = 163.36'$
$T = 17.323'$	$T = 82.19'$	$T = 82.19'$
$R = 3,900.00'$	$R = 600.00'$	$R = 600.00'$
$V = 45 + MPH$	$V = 35 MPH$	$V = 35 MPH$
$SE = NC$	$SE = NC$	$SE = NC$

8/17/99  
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 15:21:26

SEE SHEET 6 FOR -NSRI- PROFILE  
SEE SHEET 6 FOR -NSR2- PROFILE