

See Sheet 1-A For Index of Sheets

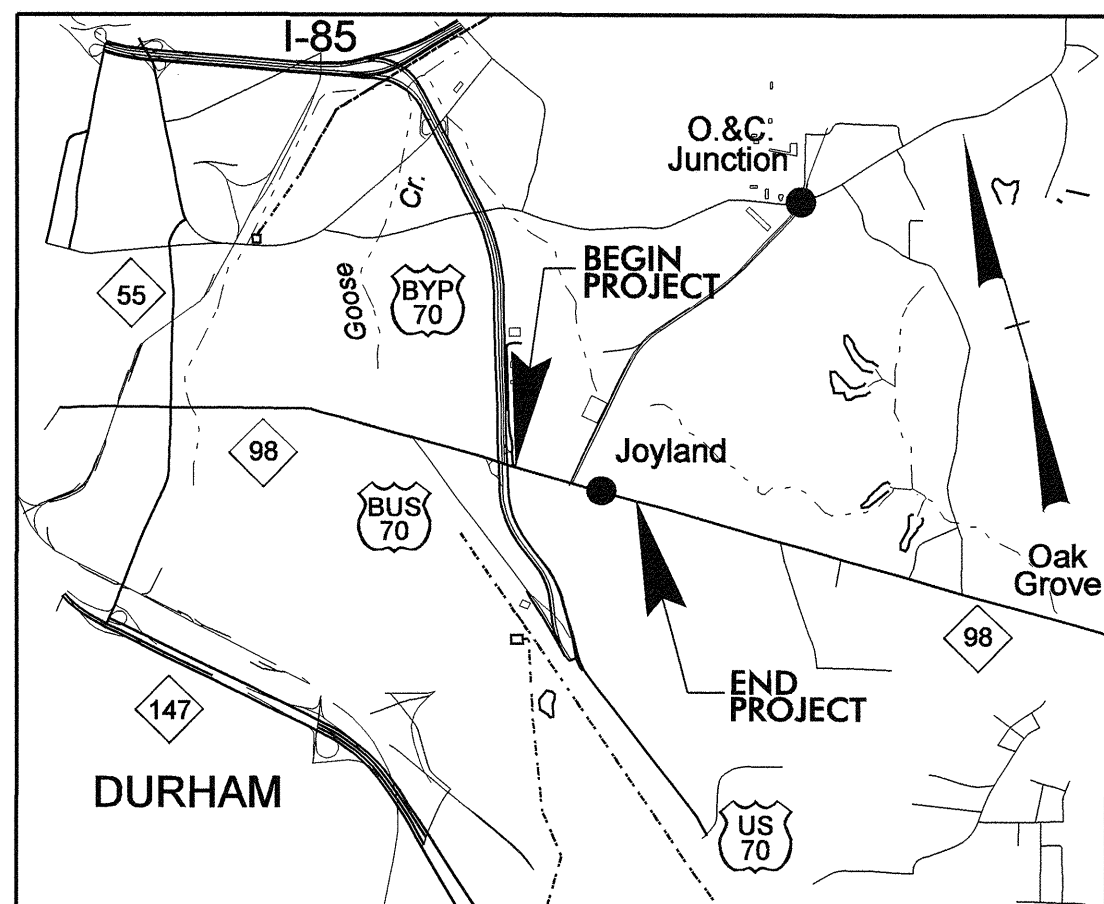
T.I.P. NO.	SHEET NO.
U-4010	UC-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

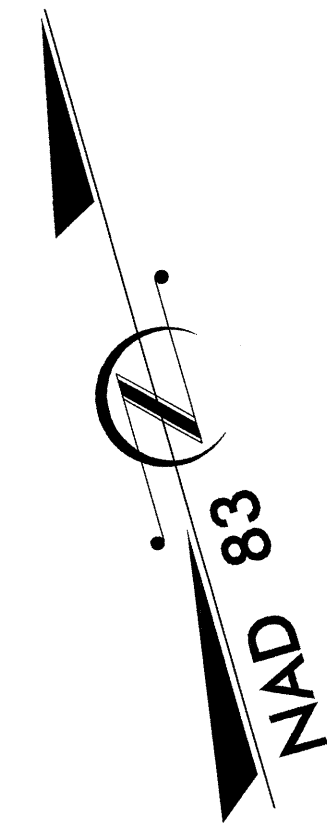
**UTILITY CONSTRUCTION PLANS
DURHAM COUNTY**

**LOCATION: DURHAM - NC 98 (HOLLOWAY ST.) FROM EAST OF US 70
BYPASS TO EAST OF JUNCTION RD**

TYPE OF WORK: UTILITIES



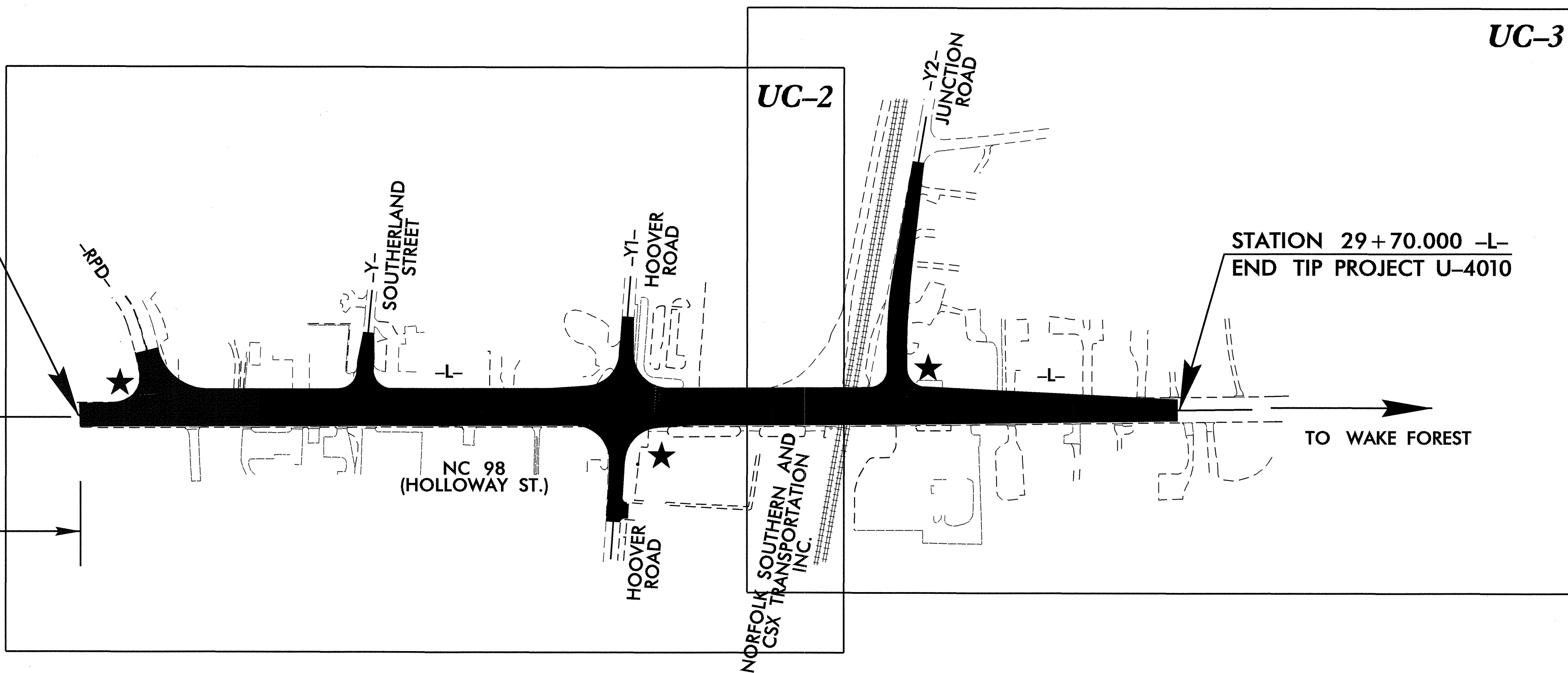
VICINITY MAP



TIP: U-4010

STATION 10+00.000 -L-
BEGIN TIP PROJECT U-4010

BEG. CONST.
NC 98 (HOLLOWAY ST.)
AT US 70 EB RAMP
SEE SIGNAL PLANS



STATION 29+70.000 -L-
END TIP PROJECT U-4010

TO DOWNTOWN
DURHAM

TO WAKE FOREST

THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF DURHAM
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II
CONTRACTOR WILL BE REQUIRED TO COORDINATE INSTALLATION OF RAILROAD CROSSING AND SIGNAL

★ PROPOSED OR UPGRADED TRAFFIC SIGNALS

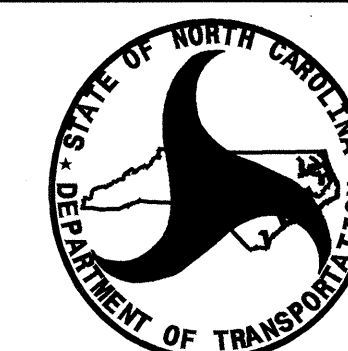
INDEX OF SHEETS

SHEET NO.	DESCRIPTION
UC-1	TITLE SHEET
UC-2 THRU UC-3	UTILITY CONSTRUCTION PLAN SHEETS
UC-4 THUR UC-5	DETAIL SHEETS

WATER AND SEWER OWNERS ON PROJECT

(1) CITY OF DURHAM

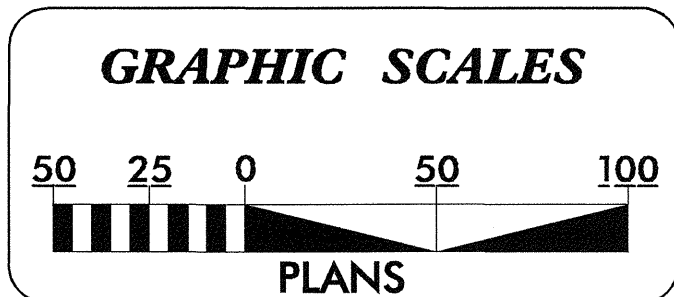
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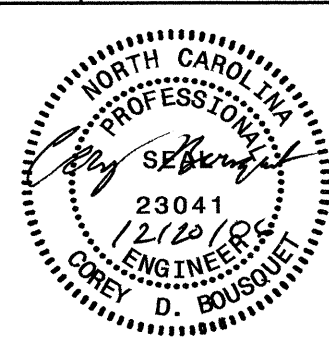


PREPARED IN THE OFFICE OF:
**DIVISION OF HIGHWAYS
PROJECT SERVICES
UTILITY SECTION**

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

Roger Worthington, P.E. UTILITIES SECTION ENGINEER
Corey Bousquet, P.E. UTILITIES SQUAD LEADER PROJECT ENGINEER
Michael Snyder UTILITIES PROJECT DESIGNER



PROJECT REFERENCE NO.	SHEET NO.
U-4010	UC-2
DESIGNED BY: MDS	
DRAWN BY: MDS	
CHECKED BY: CDB	
APPROVED BY: CDB	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION PROJECT SERVICES UNIT PHONE: (919) 250-4128 FAX: (919) 250-4119	
UTILITY CONSTRUCTION PLANS ONLY	

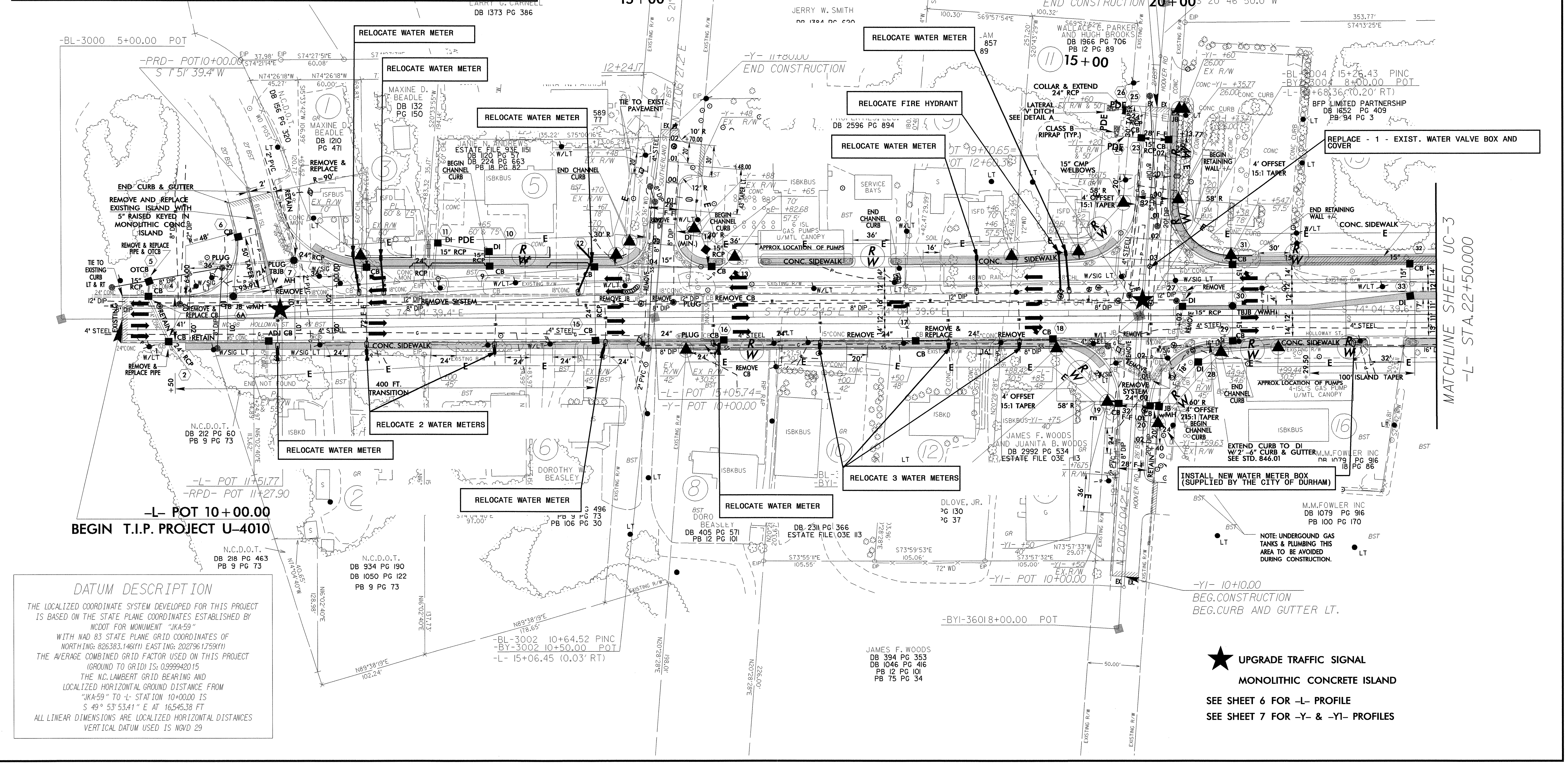
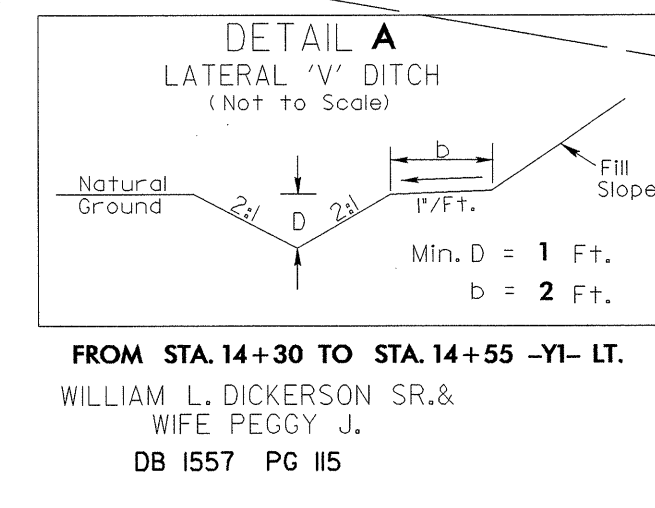
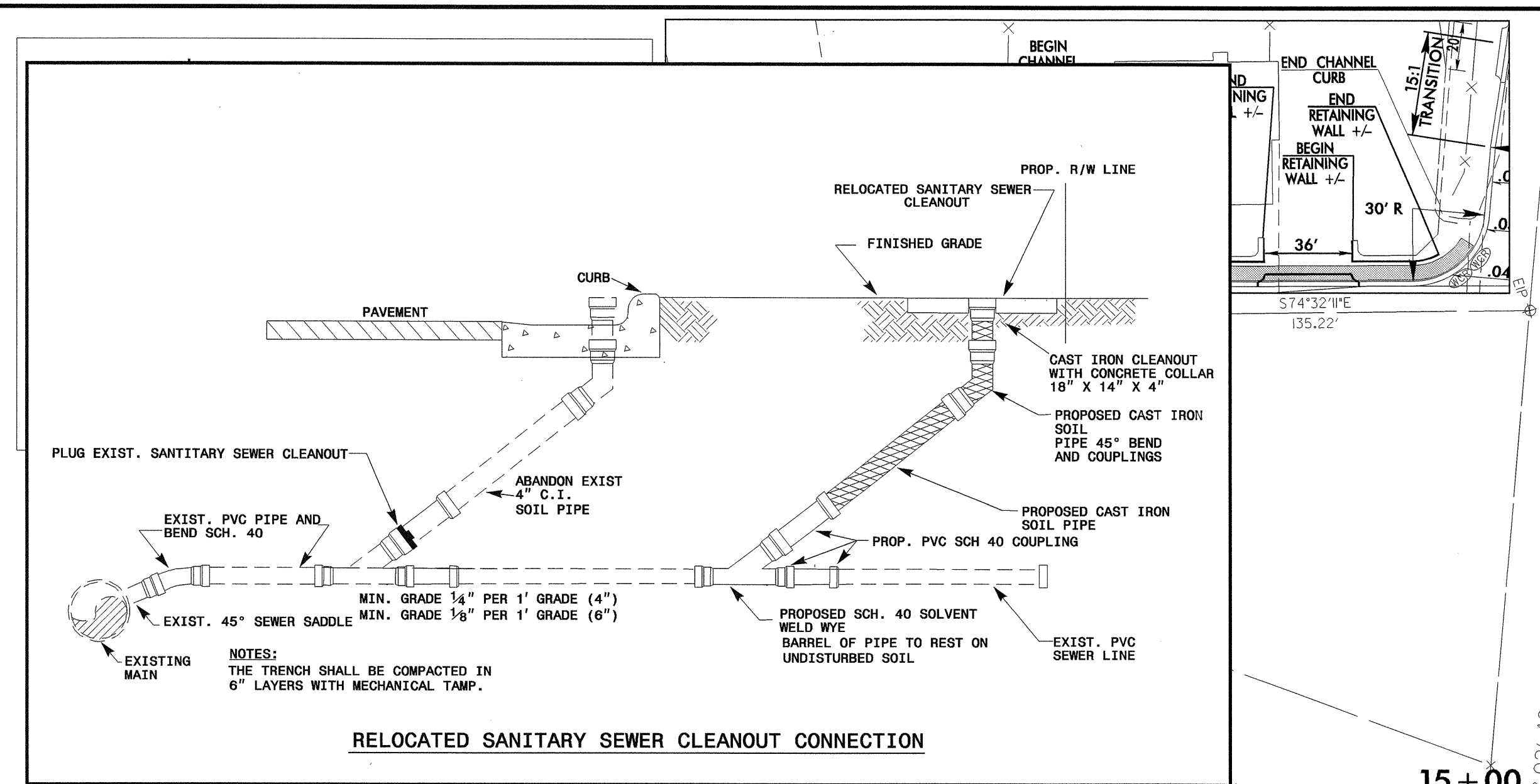
ALL WATER AND SEWER LINES ARE BY THE CITY OF DURHAM

THE CITY OF DURHAM WILL PROVIDE NEW FIRE HYDRANTS AND WATER METER BOXES FOR RELOCATED FIRE HYDRANTS AND METERS

THE EXIST. FIRE HYDRANTS AND WATER METER BOXES WILL BE DISPOSED OF BY THE CONTRACTOR

RELOCATE 6 SANITARY SEWER CLEANOUTS.

UTILITY CONSTRUCTION



DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "JKA-59" WITH NAD 83 STATE PLANE GRID COORDINATES OF NORTHING: 826383.146(11) EASTING: 202796.175(11) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.999942015 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL DISTANCE FROM "JKA-59" TO -L- STATION 10+00.00 IS S 49° 53' 53.41" E AT 16,545.38 FT ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NGVD 29

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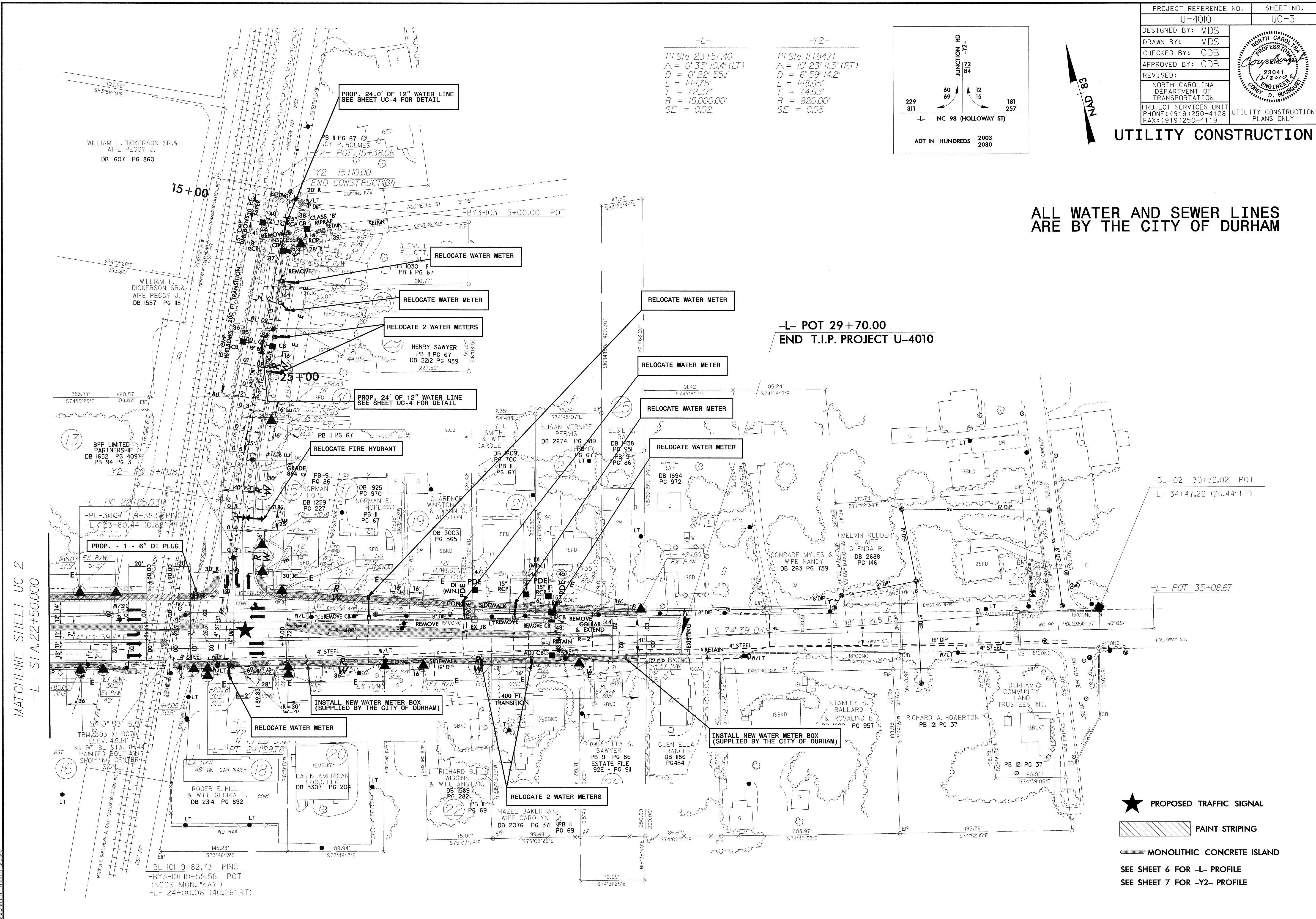
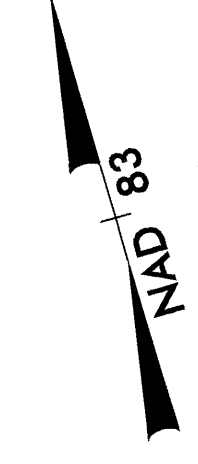
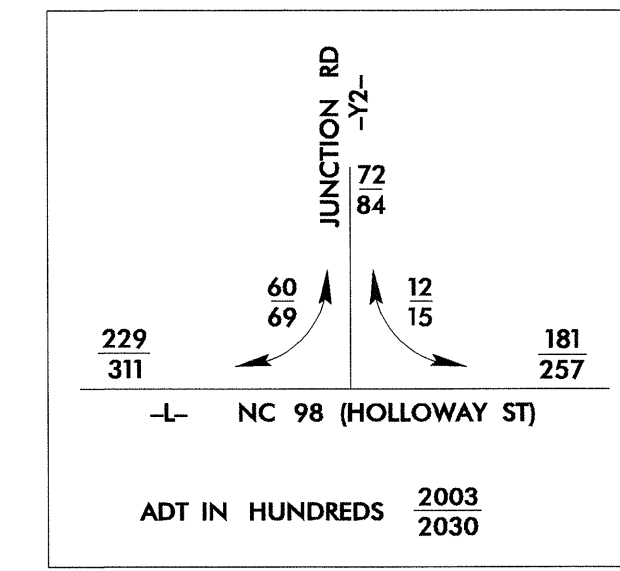
8/17/99

PROJECT REFERENCE NO.	SHEET NO.
U-4010	UC-3
DESIGNED BY: MDS	
DRAWN BY: MDS	
CHECKED BY: CDB	
APPROVED BY: CDB	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION PROJECT SERVICES UNIT PHONE: (919)250-4128 FAX: (919)250-4119	

UTILITY CONSTRUCTION

-L- -Y2-

PI Sta 23+57.40 PI Sta 11+84.71
 $\Delta = 0^\circ 33' 10.4" (LT)$ $\Delta = 10^\circ 23' 11.3" (RT)$
 $D = 0' 22' 55.1"$ $D = 6' 59' 14.2"$
 $L = 144.75'$ $L = 148.65'$
 $T = 72.37'$ $T = 74.53'$
 $R = 15,000.00'$ $R = 820.00'$
 $SE = 0.02$ $SE = 0.05$



ALL WATER AND SEWER LINES ARE BY THE CITY OF DURHAM

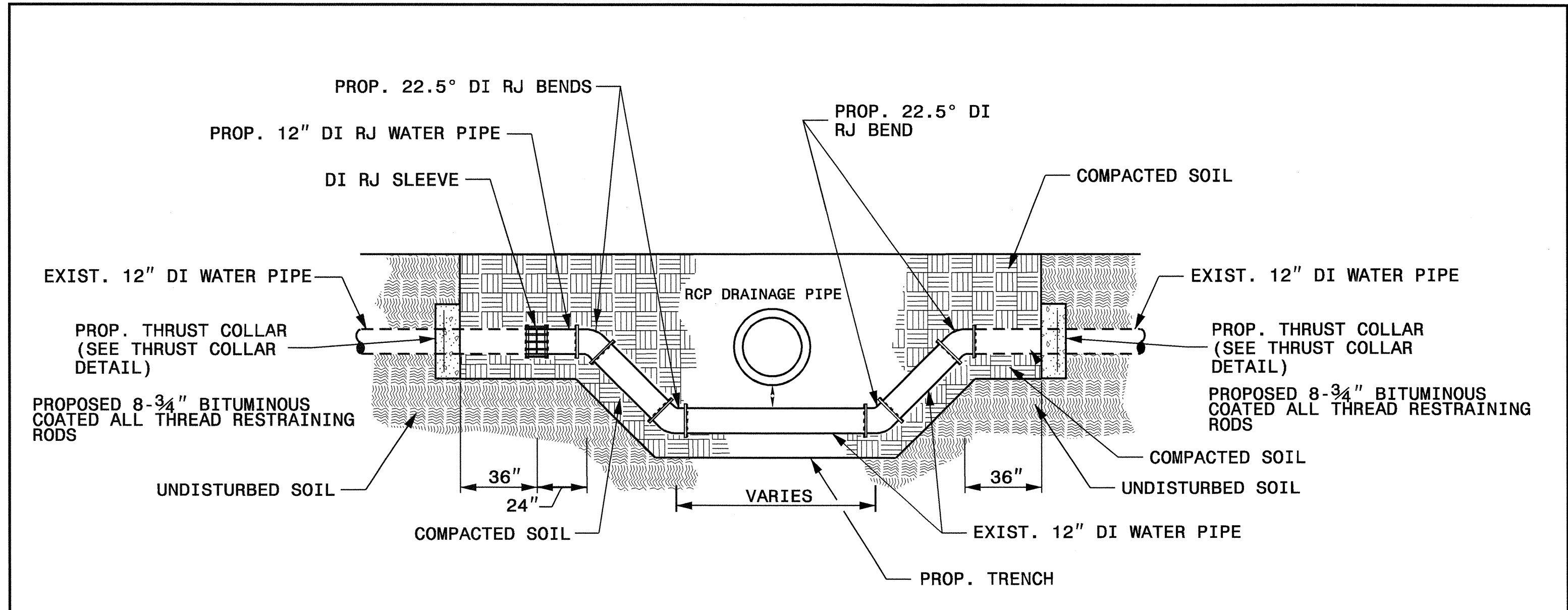
-L- POT 29+70.00
END T.I.P. PROJECT U-4010

MATCHLINE SHEET UC-2
-L- STA. 22+50.00

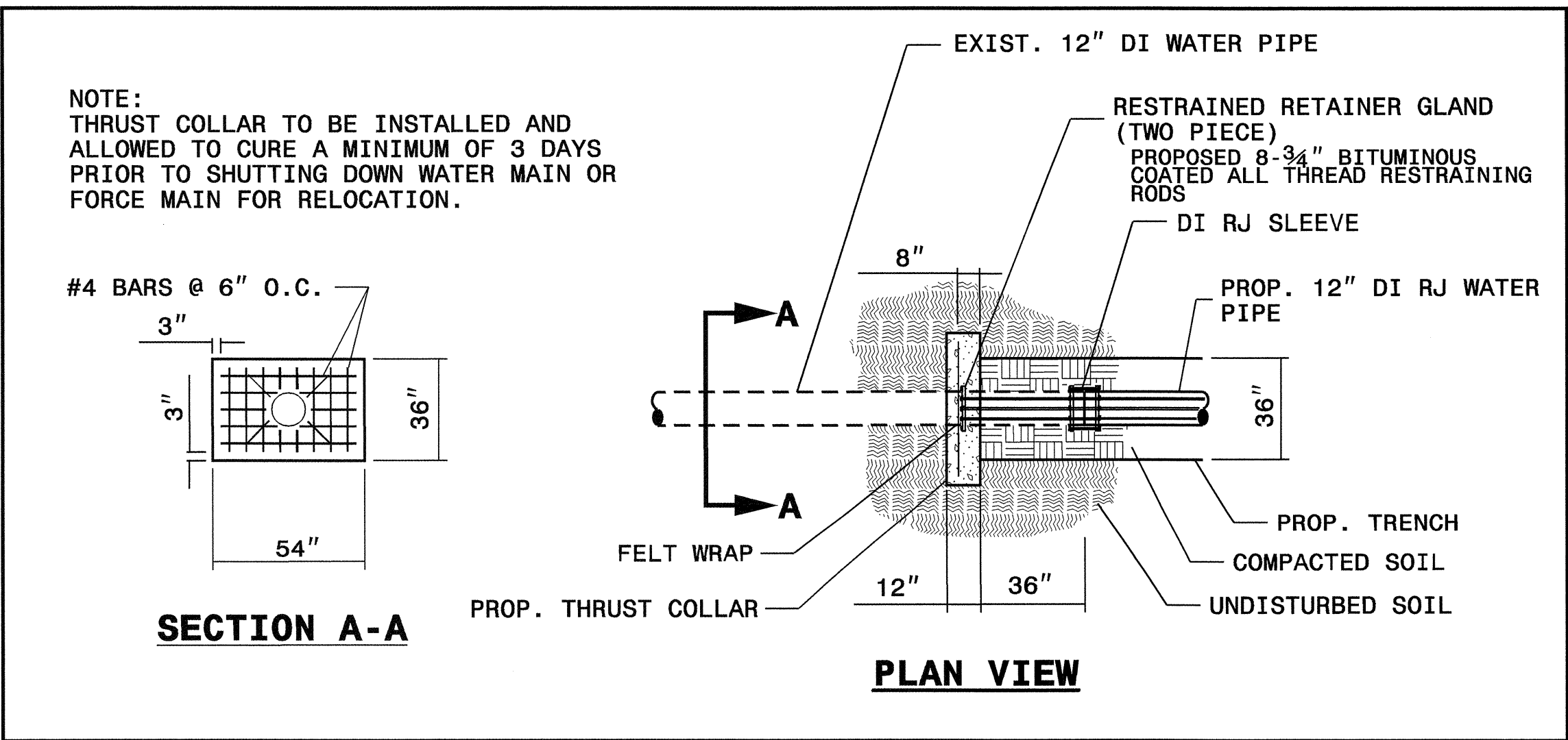
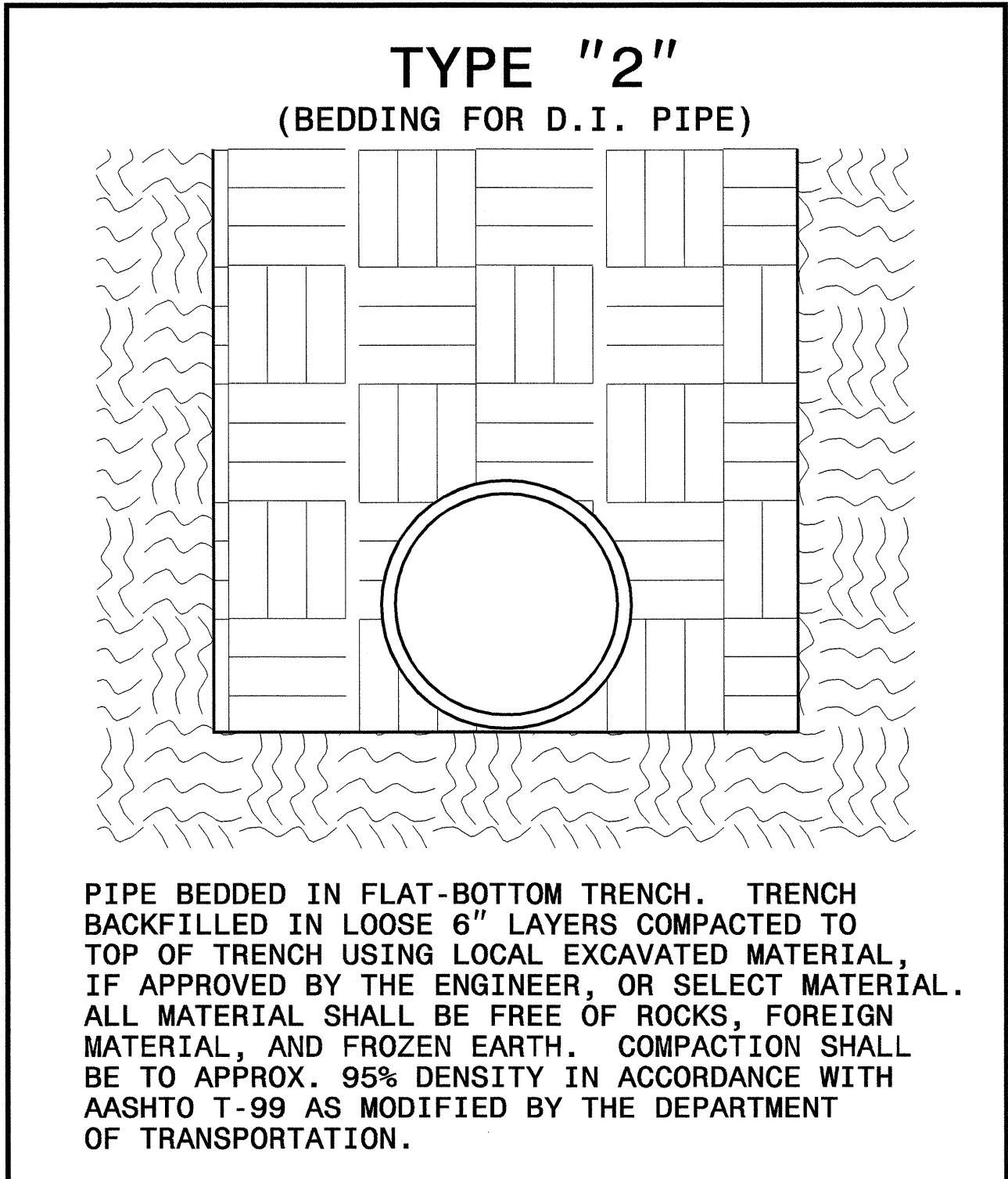
- PROPOSED TRAFFIC SIGNAL
 - PAINT STRIPING
 - MONOLITHIC CONCRETE ISLAND
- SEE SHEET 6 FOR -L- PROFILE
 SEE SHEET 7 FOR -Y2- PROFILE

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UTILITY CONSTRUCTION



WATER PIPE CROSSING STORM DRAIN

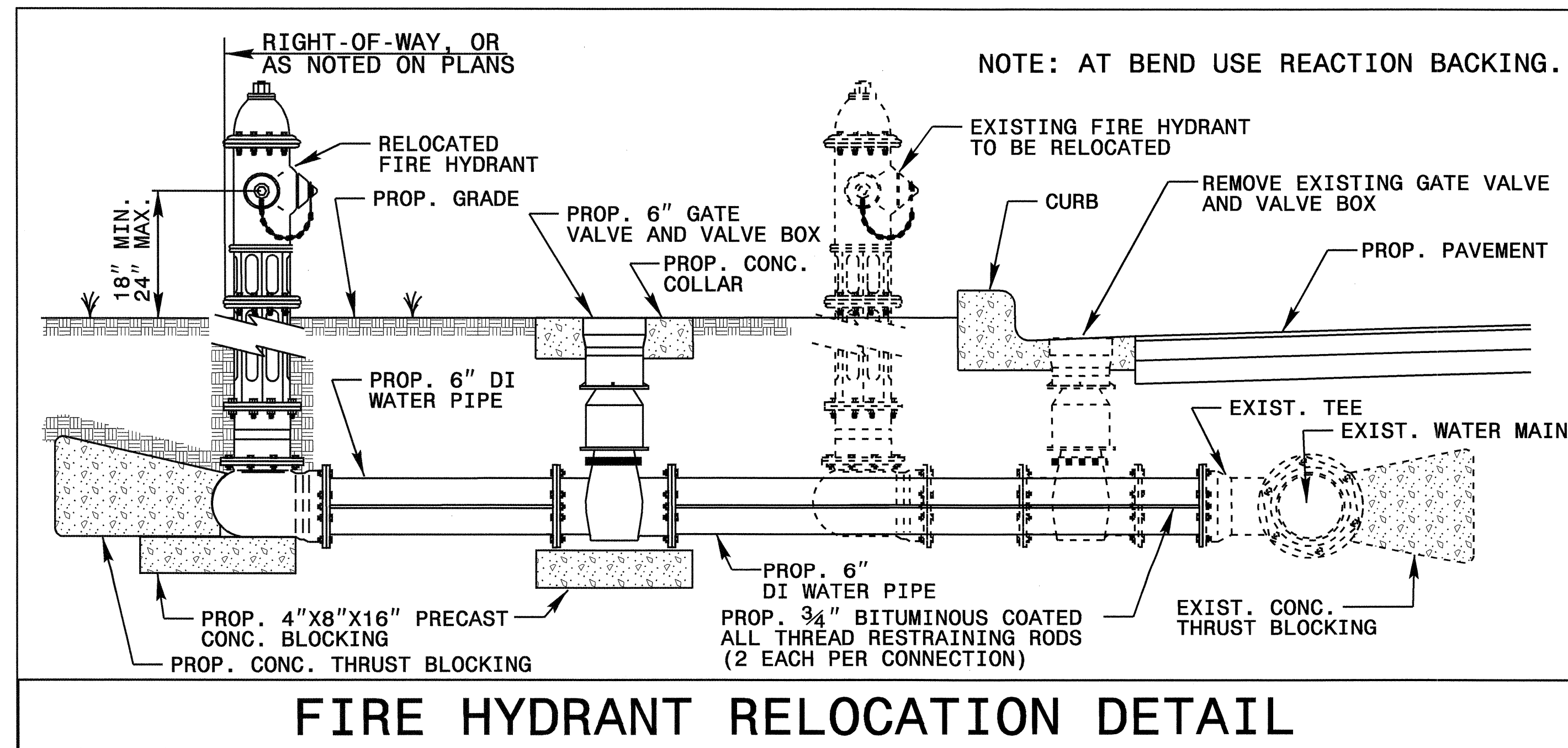
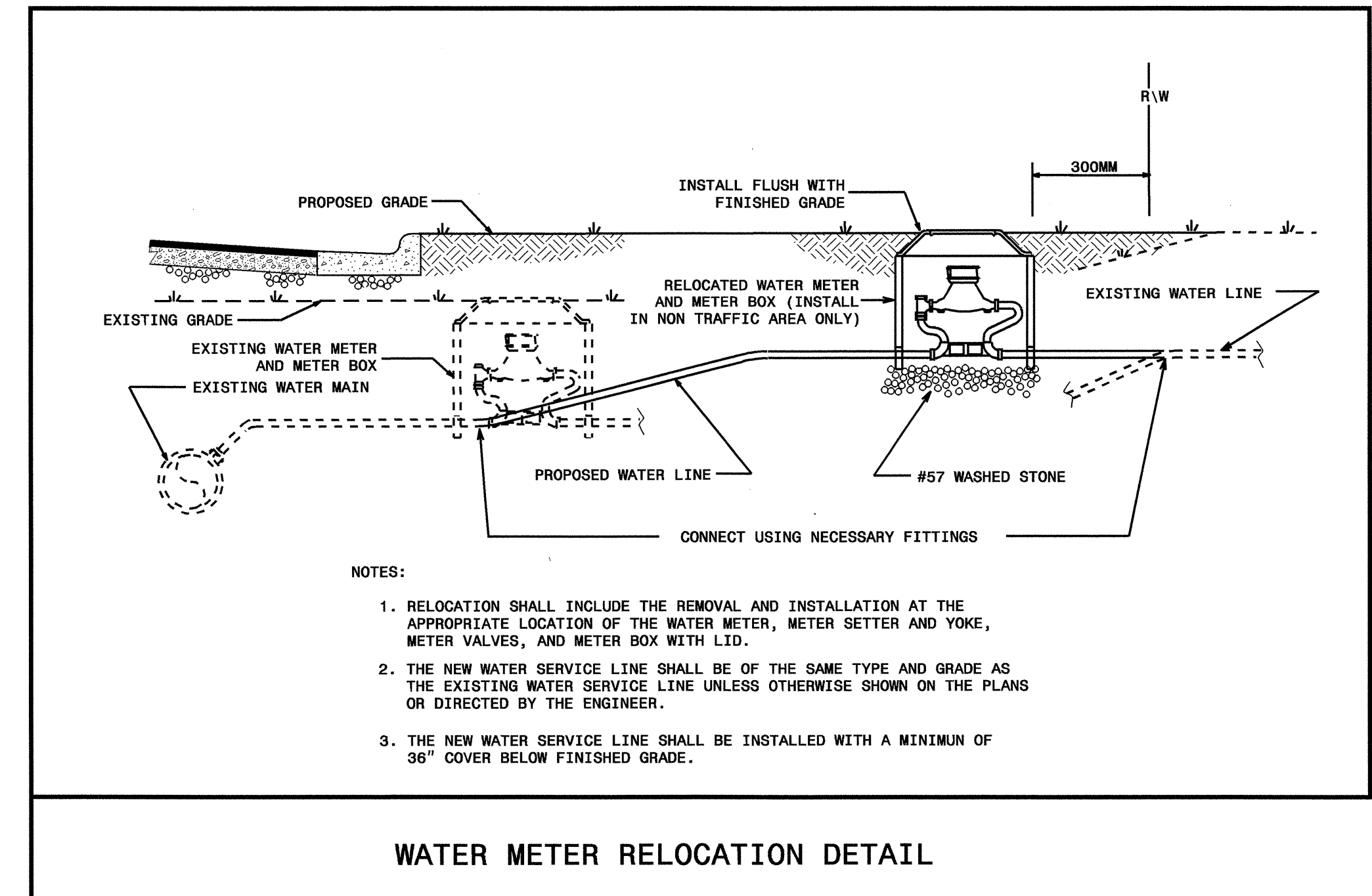
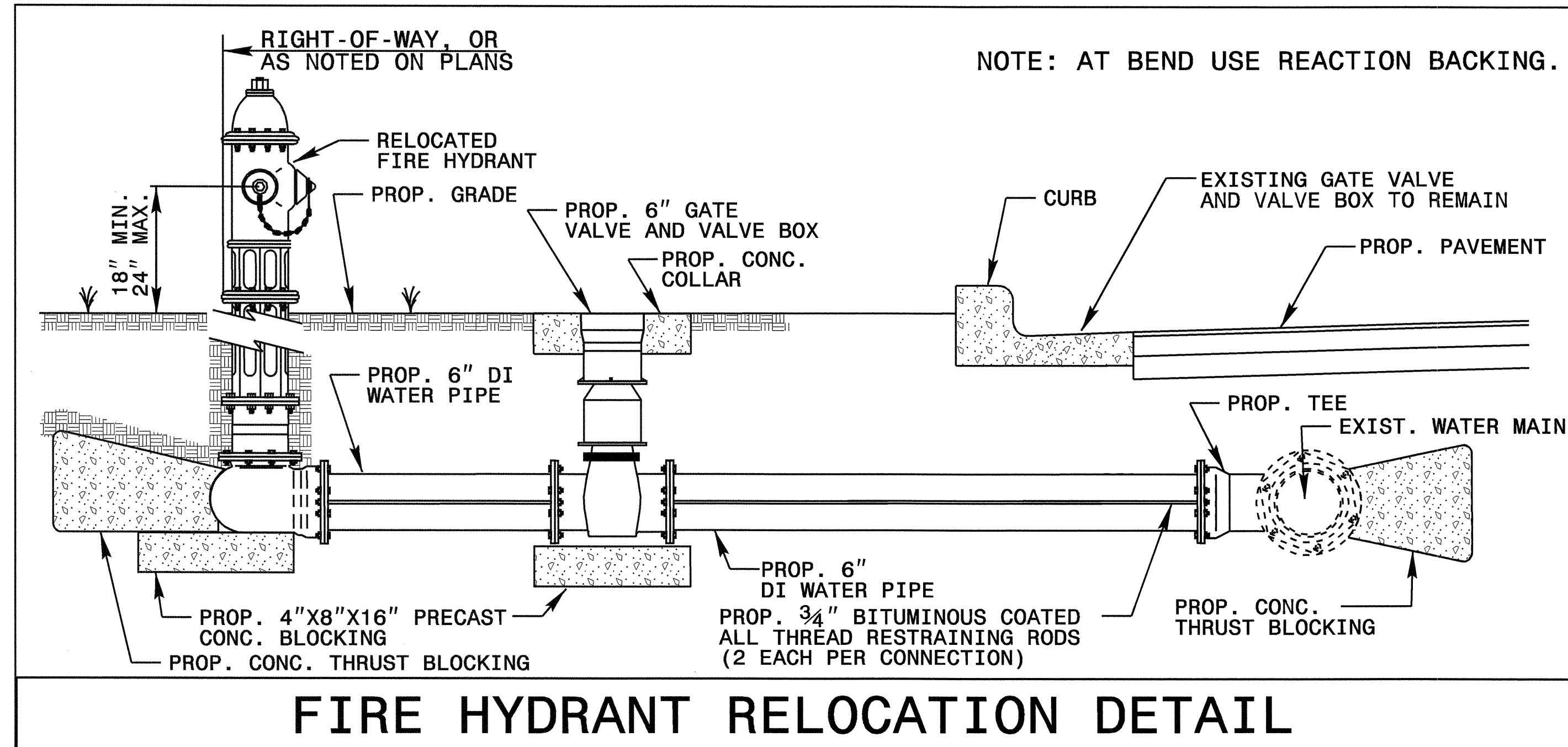


THRUST COLLAR DETAIL

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		

PROJECT REFERENCE NO.	SHEET NO.
U-4010	UC-5
DESIGNED BY: MDS	
DRAWN BY: MDS	
CHECKED BY: CDB	
APPROVED BY: CDB	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
PROJECT SERVICES UNIT PHONE: (919)250-4128 FAX: (919)250-4119	UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION



See Sheet 1-A For Index of Sheets

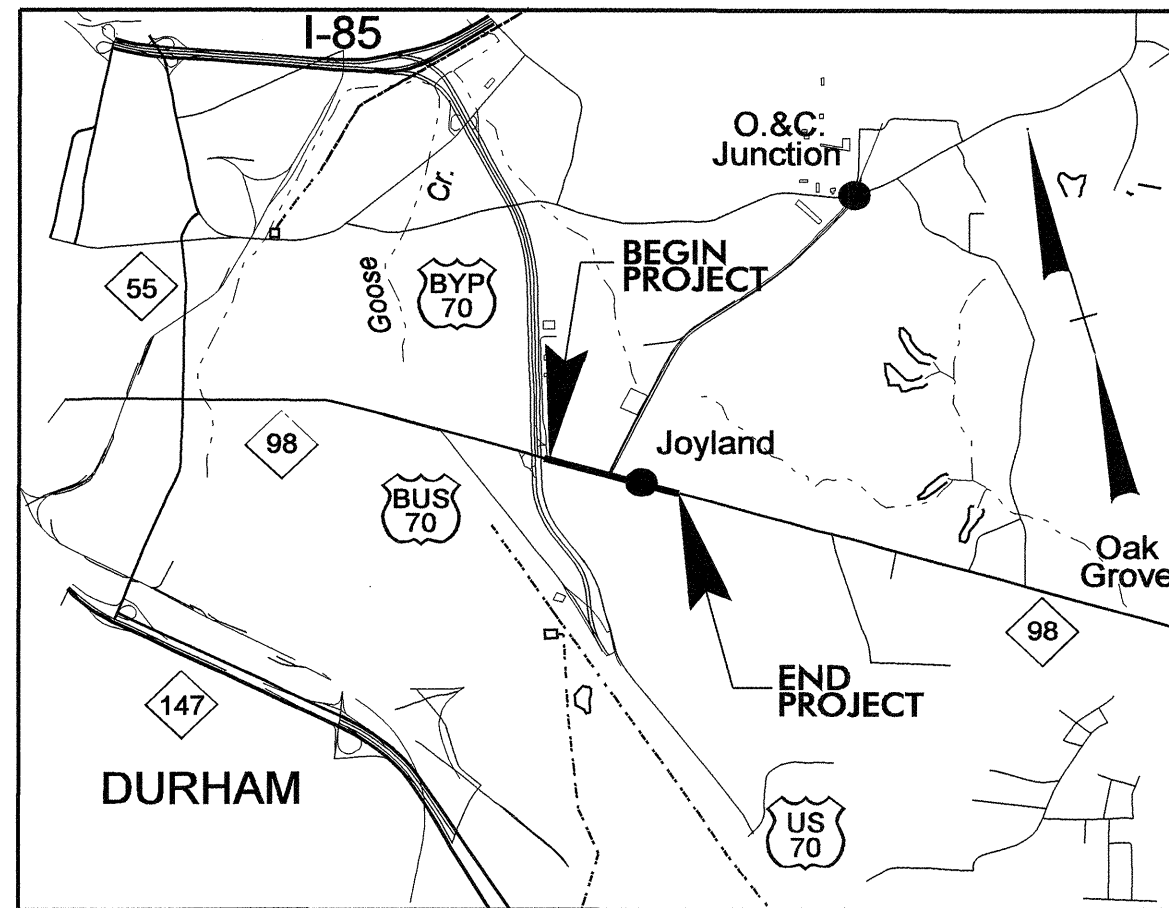
T.I.P. NO.	SHEET NO.
U-4010	UO-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

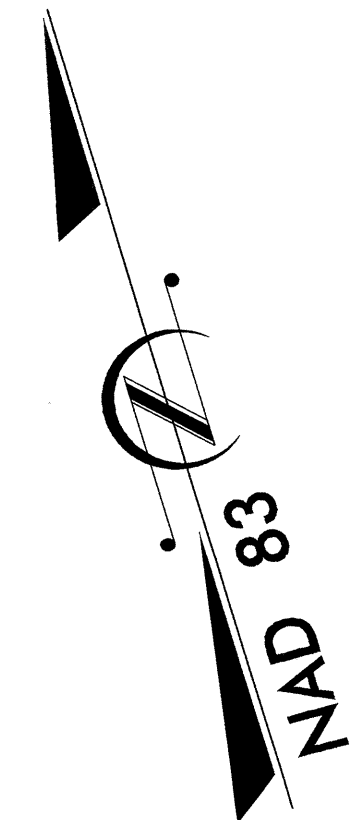
**UTILITY BY OTHERS PLANS
DURHAM COUNTY**

**LOCATION: DURHAM - NC 98 (HOLLOWAY ST.) FROM EAST OF US 70
BYPASS TO EAST OF JUNCTION RD**

TYPE OF WORK: UTILITIES



VICINITY MAP



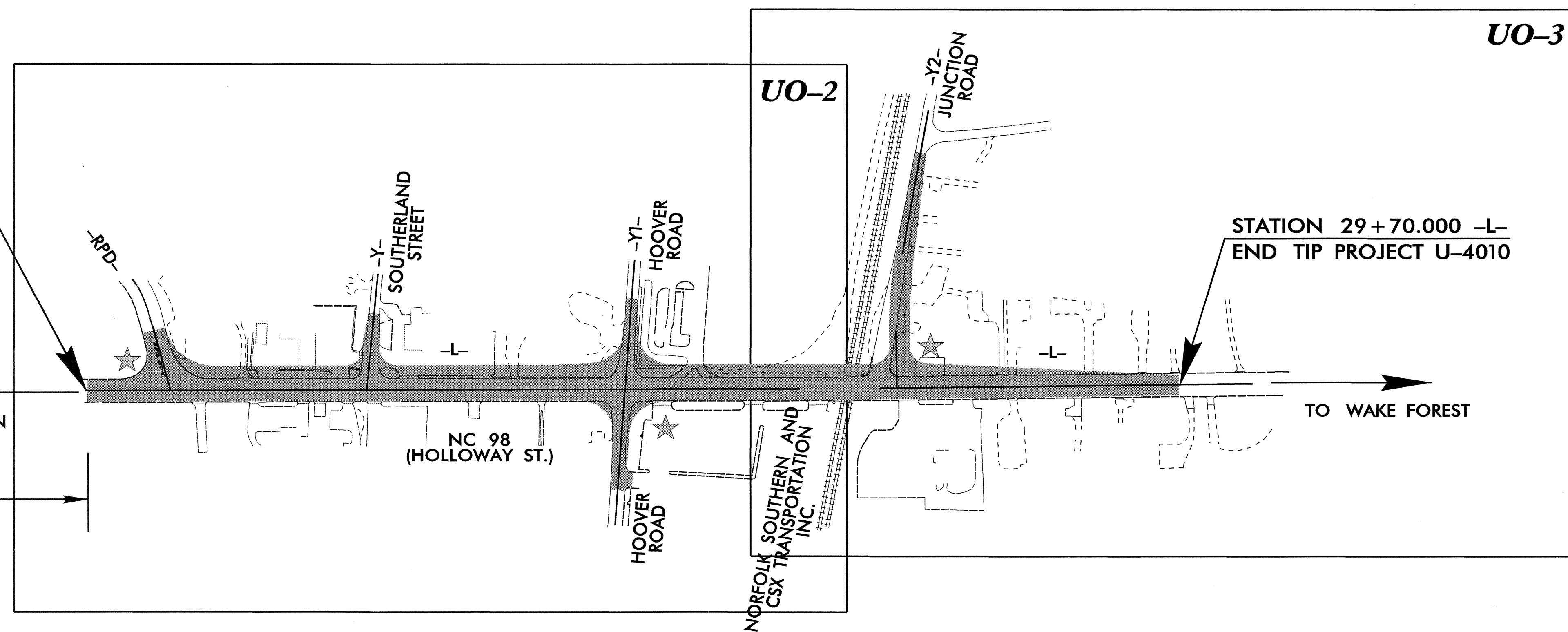
TIP: U-4010

STATION 10+00.000 -L-
BEGIN TIP PROJECT U-4010

BEG. CONST.
NC 98 (HOLLOWAY ST.)
AT US 70 EB RAMP
SEE SIGNAL PLANS

TO DOWNTOWN
DURHAM

600' +/-

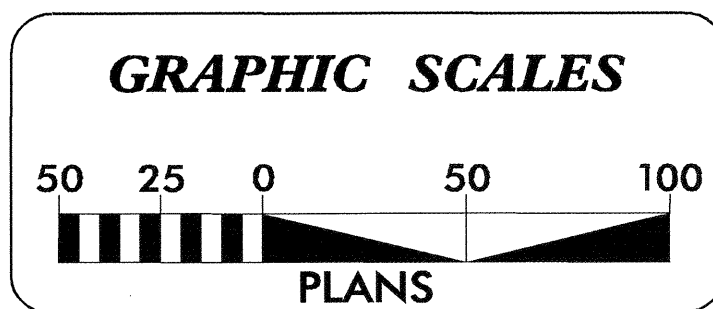


STATION 29+70.000 -L-
END TIP PROJECT U-4010

TO WAKE FOREST

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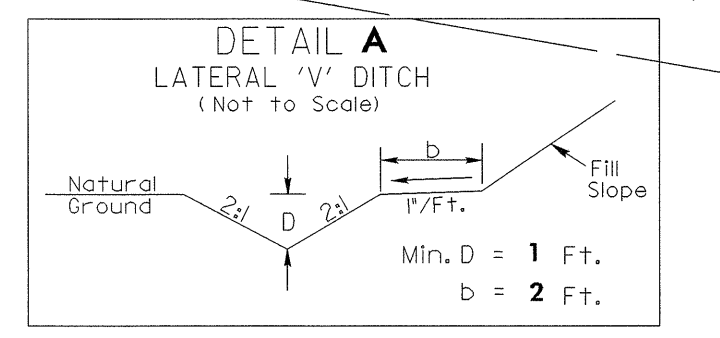


INDEX OF SHEETS	
<u>SHEET NO.</u>	<u>DESCRIPTION</u>
UO-1	TITLE SHEET
UO-2 THRU UO-3	UTILITIES BY OTHERS PLAN SHEETS

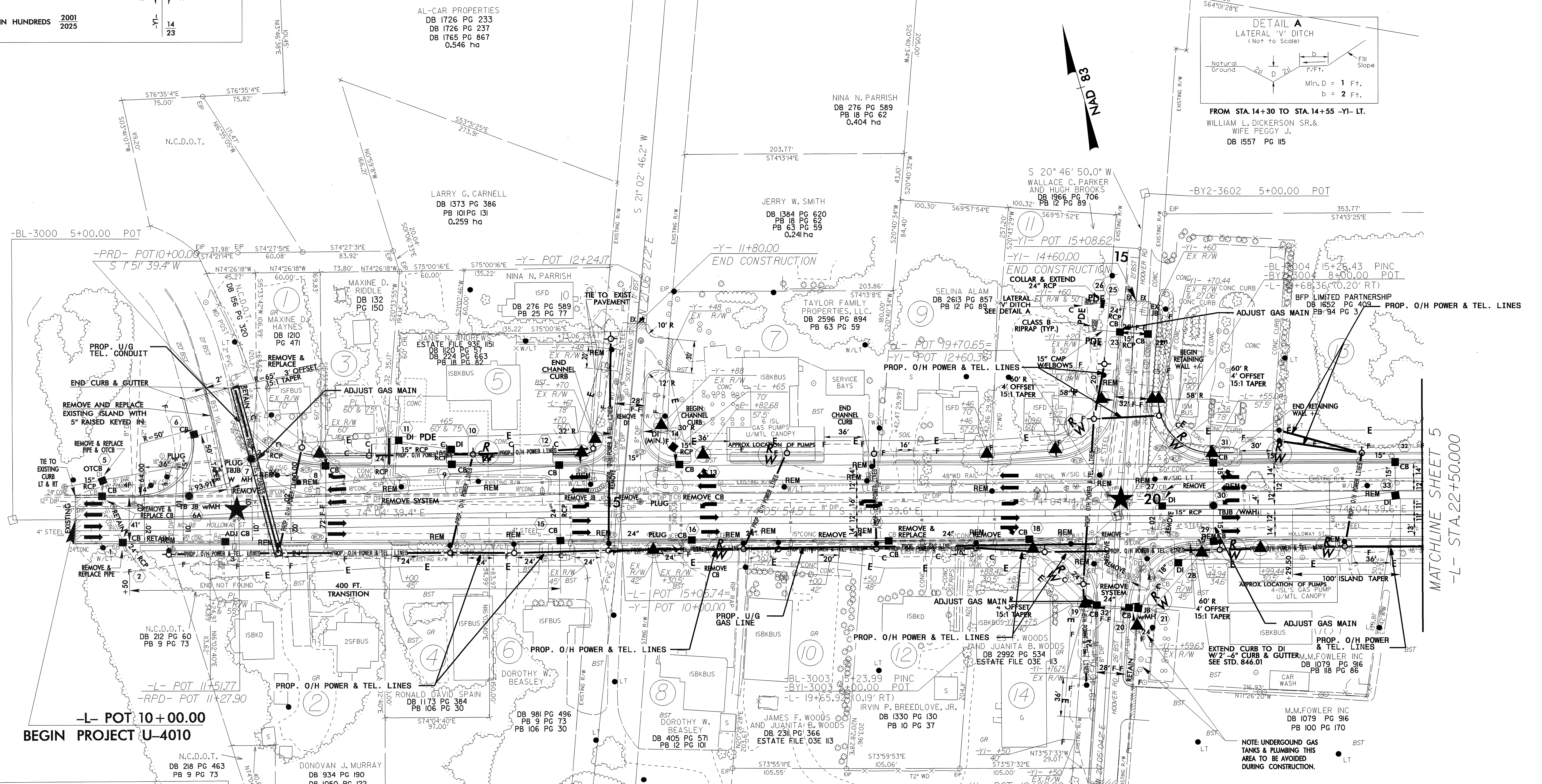
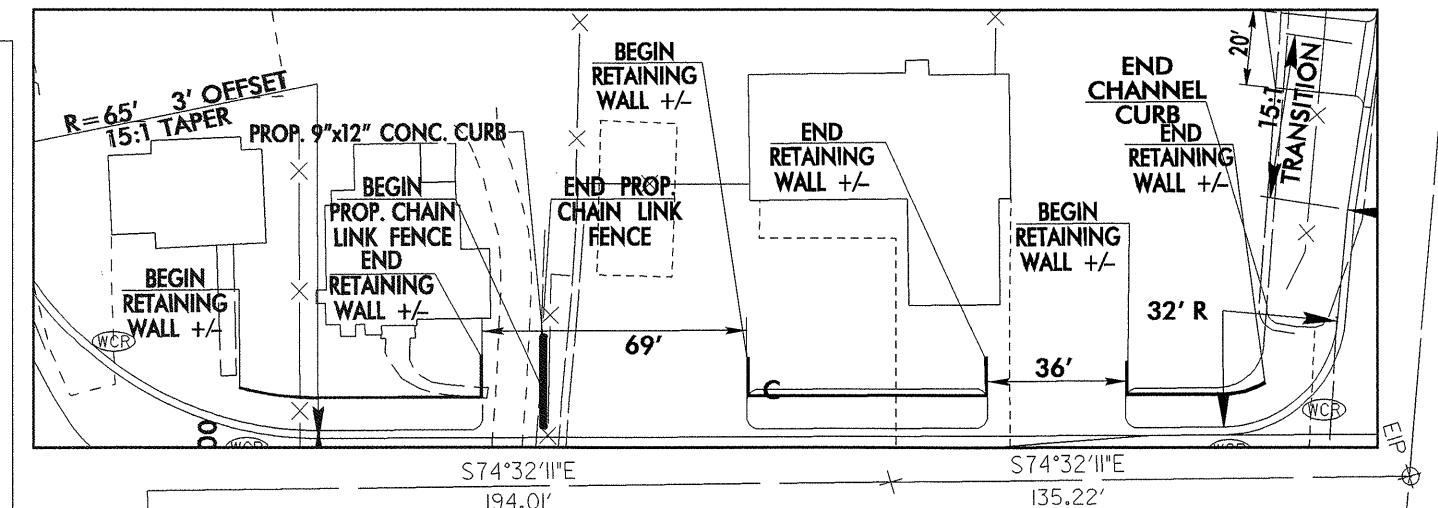
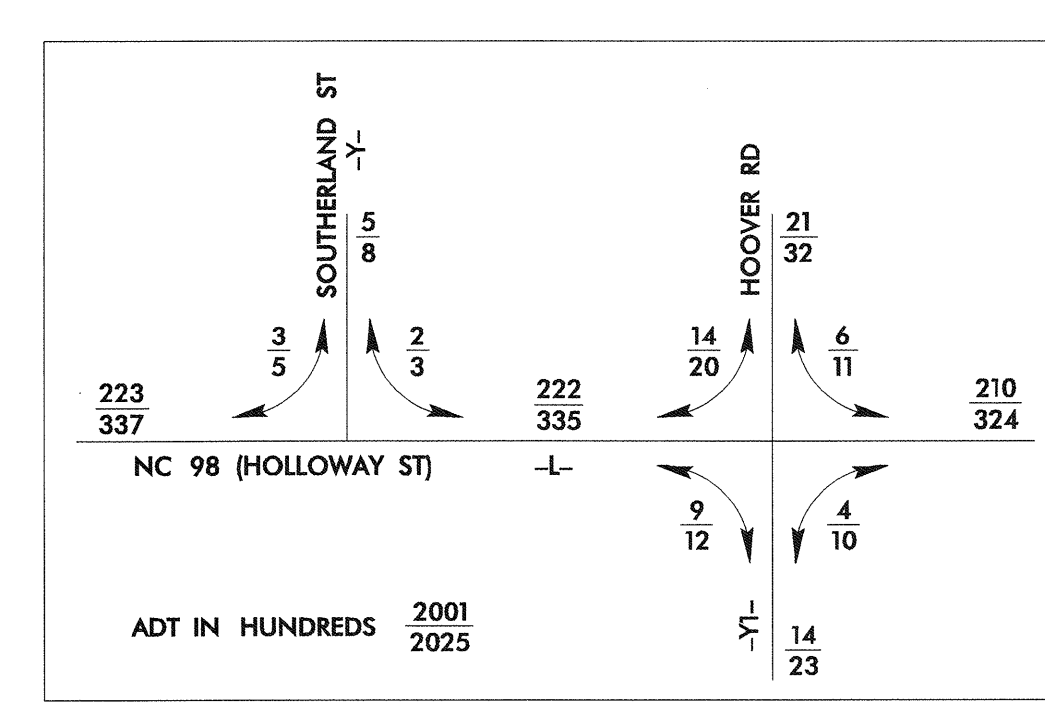
UTILITIES BY OTHERS ON PROJECT
(1) DUKE POWER
(2) VERIZON
(3) PSNC GAS

UTILITIES BY OTHERS

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



FROM STA. 14+30 TO STA. 14+55 -YI- LT.
WILLIAM L. DICKERSON SR. &
WIFE PEGGY J.
DB 1557 PG 115



DATUM DESCRIPTION
THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "JKA-59" WITH MAD 83 STATE PLANE GRID COORDINATES OF NORTHING: 826383.146(11) EASTING: 2027961.759(11) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.999942015 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "JKA-59" TO -L- STATION 10+00.00 IS S 49° 53' 53.41" E AT 16,545.38 FT ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NGVD 29

★ UPGRADE TRAFFIC SIGNAL
— MONOLITHIC CONCRETE ISLAND
SEE SHEET 6 FOR -L- PROFILE
SEE SHEET 7 FOR -Y- & -YI- PROFILES

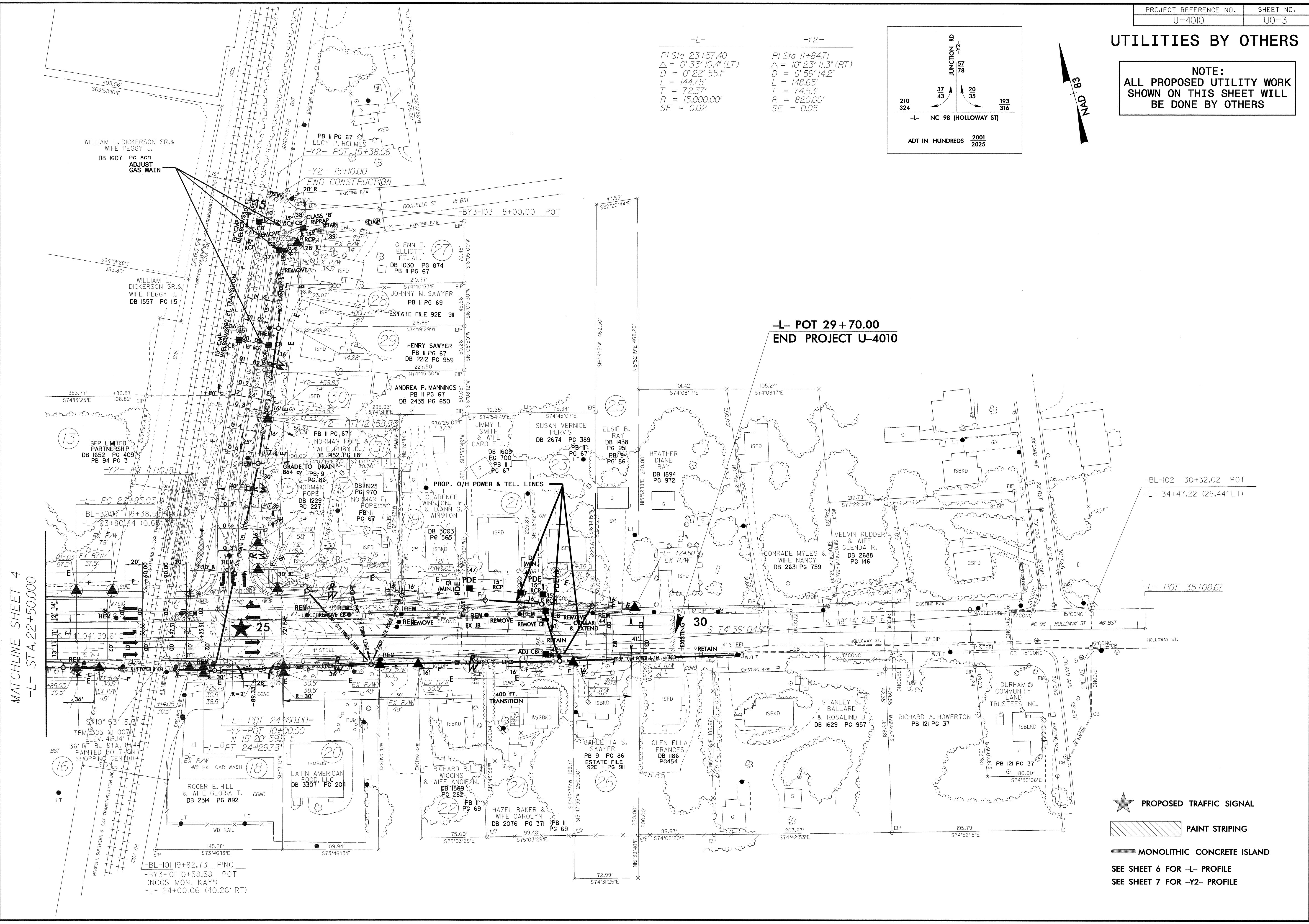
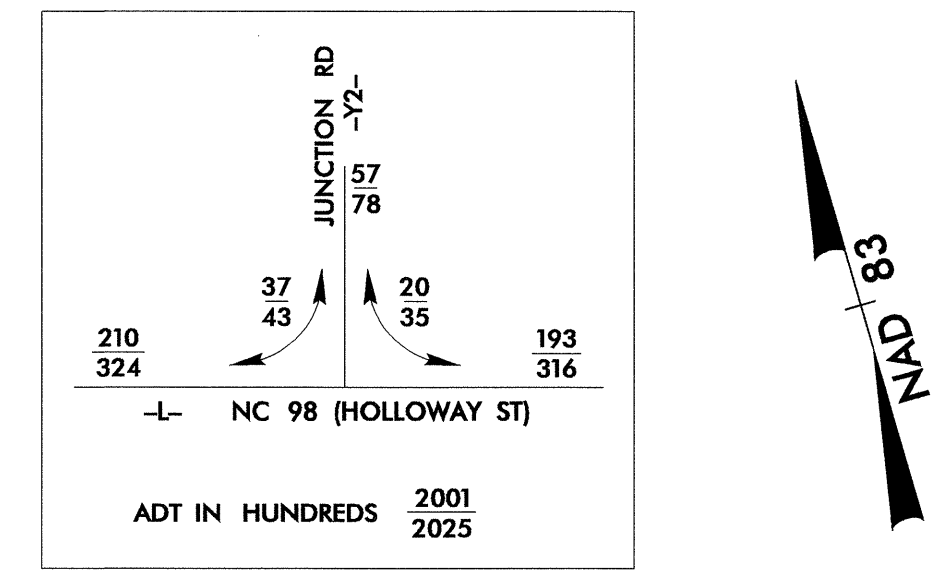
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UTILITIES BY OTHERS

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

-L-
PI Sta 23+57.40
 $\Delta = 0^\circ 33' 10.4" (LT)$
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T = 74.53'
R = 820.00'
SE = 0.05



**-L- POT 29+70.00
END PROJECT U-4010**

**MATCHLINE SHEET 4
-L- STA. 22+50.000**

- PROPOSED TRAFFIC SIGNAL
- PAINT STRIPING
- MONOLITHIC CONCRETE ISLAND

SEE SHEET 6 FOR -L- PROFILE
SEE SHEET 7 FOR -Y2- PROFILE

8/17/99
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