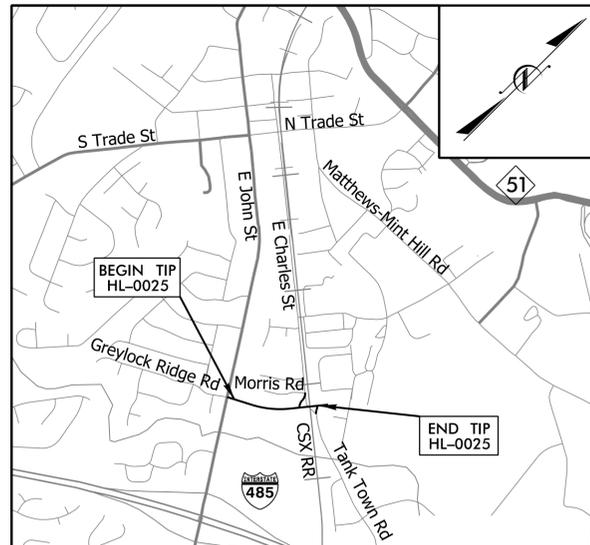


See Sheet 1A For Index of Sheets
See Sheet 1B For Conventional Symbols



VICINITY MAP

N.T.S.

UBO PLANS

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

MECKLENBURG COUNTY

LOCATION: GREYLOCK RIDGE ROAD EXTENSION
FROM E. JOHN ST. TO TANK TOWN
RD. IN MATTHEWS, NC

UTILITIES BY OTHERS PLANS

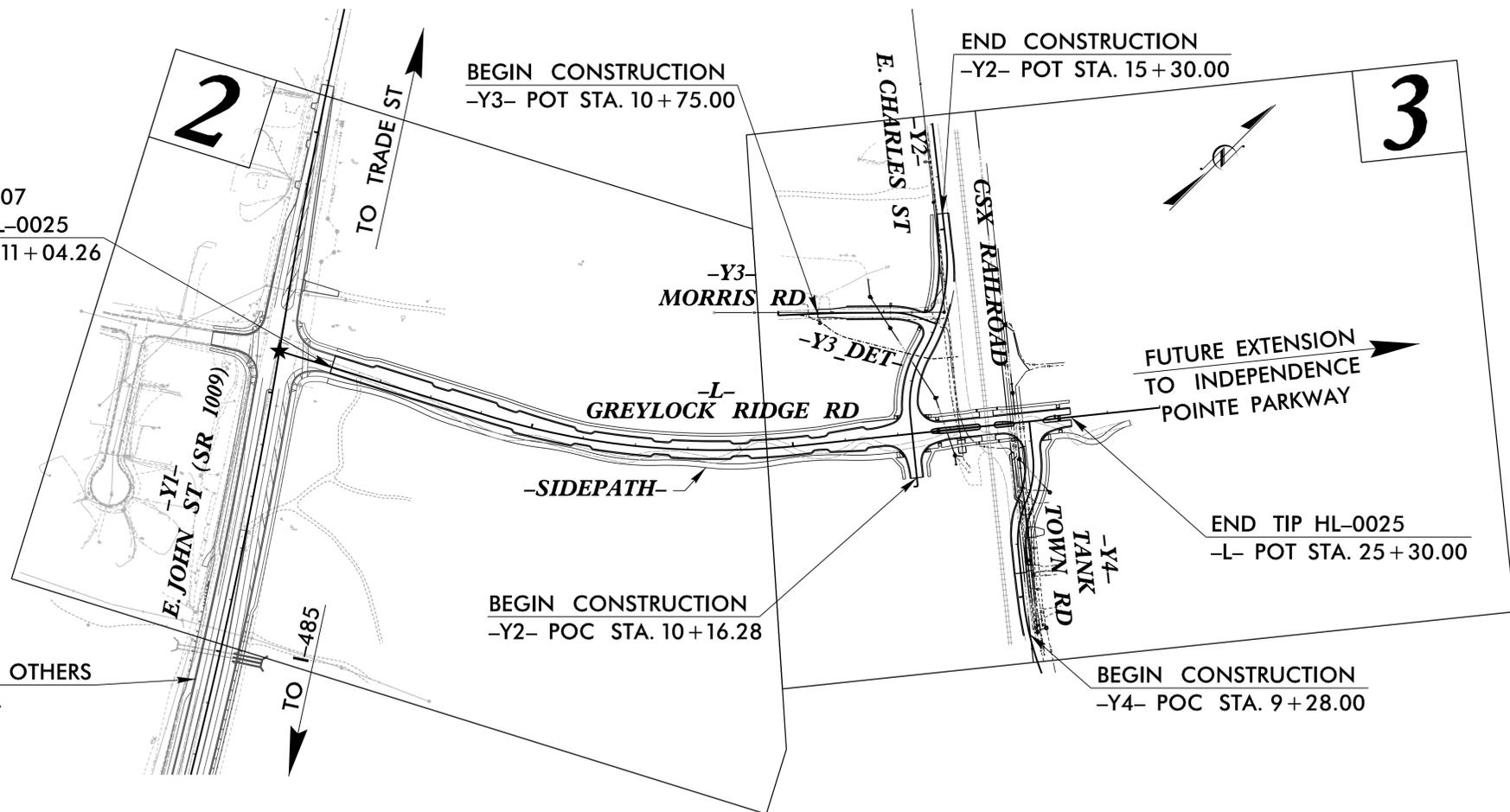
T.I.P. NO.	SHEET NO.
HL-0025	UO-1

NOTE:
ALL UTILITY WORK SHOWN ON THESE SHEETS WILL BE DONE BY OTHERS.
NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THESE SHEETS.



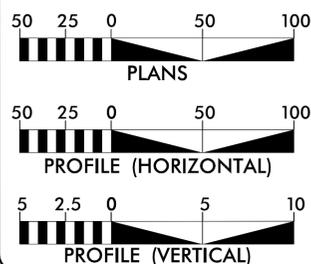
END TIP I-5507
BEGIN TIP HL-0025
-L- POT STA. 11+04.26

CONSTRUCTION BY OTHERS
TIP I-5507 /U-4714A



★ PROPOSED SIGNAL

GRAPHIC SCALES



INDEX OF SHEETS

SHEET NO.:	DESCRIPTION:
UO-1	TITLE SHEET
UO-1A	UTILITIES SYMBOLS
UO-2 THRU UO-3	UBO PLAN SHEETS

UTILITY OWNERS WITH CONFLICTS

- (A) POWER DISTRIBUTION - DUKE
- (B) TELECOMMUNICATIONS - WINDSTREAM
- (C) TELECOMMUNICATIONS - SPECTRUM
- (D) TELECOMMUNICATIONS - SPRINT

UTILITY OWNERS WITHOUT CONFLICTS

- (A) TELECOMMUNICATIONS - VERIZON
- (B) GAS - PNG

PREPARED IN THE OFFICE OF:



A. MORTON THOMAS AND ASSOCIATES, INC.
10735 DAVID TAYLOR DRIVE, SUITE 310 • CHARLOTTE, NC 28262
(704) 595-9975 • NC LICENSE NO. F-1049
WWW.AMTENGINEERING.COM

STEVE KARNIS, PE	PROJECT ENGINEER
DAN MORGAN	PROJECT DESIGN ENGINEER
JOSEPH HATLEY	PROJECT UTILITY COORDINATOR



DIVISION OF HIGHWAYS
DIVISION 10
716 W MAIN ST
ALBEMARLE, NC 28001
PHONE (704) 983-4400
FAX (704) 982-3146

TRAVIS PRESLAR, PE	DIVISION PROJECT TEAM LEAD
LYNN BASINGER	DIVISION UTILITY ENGINEER
ADAM PRESLAR	SR. DIV. UTILITY COORDINATOR
BARRY CARLTON	DIVISION UTILITY COORDINATOR

TIP PROJECT: HL-0025

CONTRACT: C205013

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

UTILITIES PLAN SHEET SYMBOLS

PROPOSED WATER SYMBOLS

Water Line (Sized as Shown)	..... 12" WL
11¼ Degree Bend ++
22½ Degree Bend	..... +x
45 Degree Bend	..... +x
90 Degree Bend +
Plug	..... |
Tee ++
Cross ++
Reducer ▶
Gate Valve	..... GV
Butterfly Valve	..... BV
Tapping Valve	..... TGV
Line Stop	..... LS
Line Stop with Bypass	..... LS/BP
Blow Off	..... BO
Fire Hydrant	..... PFH
Relocate Fire Hydrant	..... RFH
Remove Fire Hydrant	..... REM FH
Water Meter	..... PWM
Relocate Water Meter	..... RWM
Remove Water Meter	..... REM WM
Water Pump Station	..... PST(W)
RPZ Backflow Preventer	..... PRPZ
DCV Backflow Preventer	..... PBFP
Relocate RPZ Backflow Preventer	..... RRPZ
Relocate DCV Backflow Preventer	..... RBFP

PROPOSED SEWER SYMBOLS

Gravity Sewer Line (Sized as Shown)	..... 12" SS
Force Main Sewer Line (Sized as Shown)	..... 12" FSS
Manhole (Sized per Note) •
Sewer Pump Station	..... PST(SS)

PROPOSED MISCELLANEOUS UTILITIES SYMBOLS

Power Pole	..... 6
Telephone Pole	..... 6
Joint Use Pole	..... 6
Telephone Pedestal	..... TEL PED
Utility Line by Others (Type as Shown)	..... PROP O/H POW LINES
Trenchless Installation	..... 12" TL INSTALL
Encasement by Open Cut	..... 24" ENCAS BY OC
Encasement	..... 24" ENCASEMENT

Thrust Block	..... |
Air Release Valve	..... AR
Utility Vault	..... UV
Concrete Pier	..... CP
Steel Pier	..... SP
Plan Note	..... NOTE
Pay Item Note	..... PAY ITEM

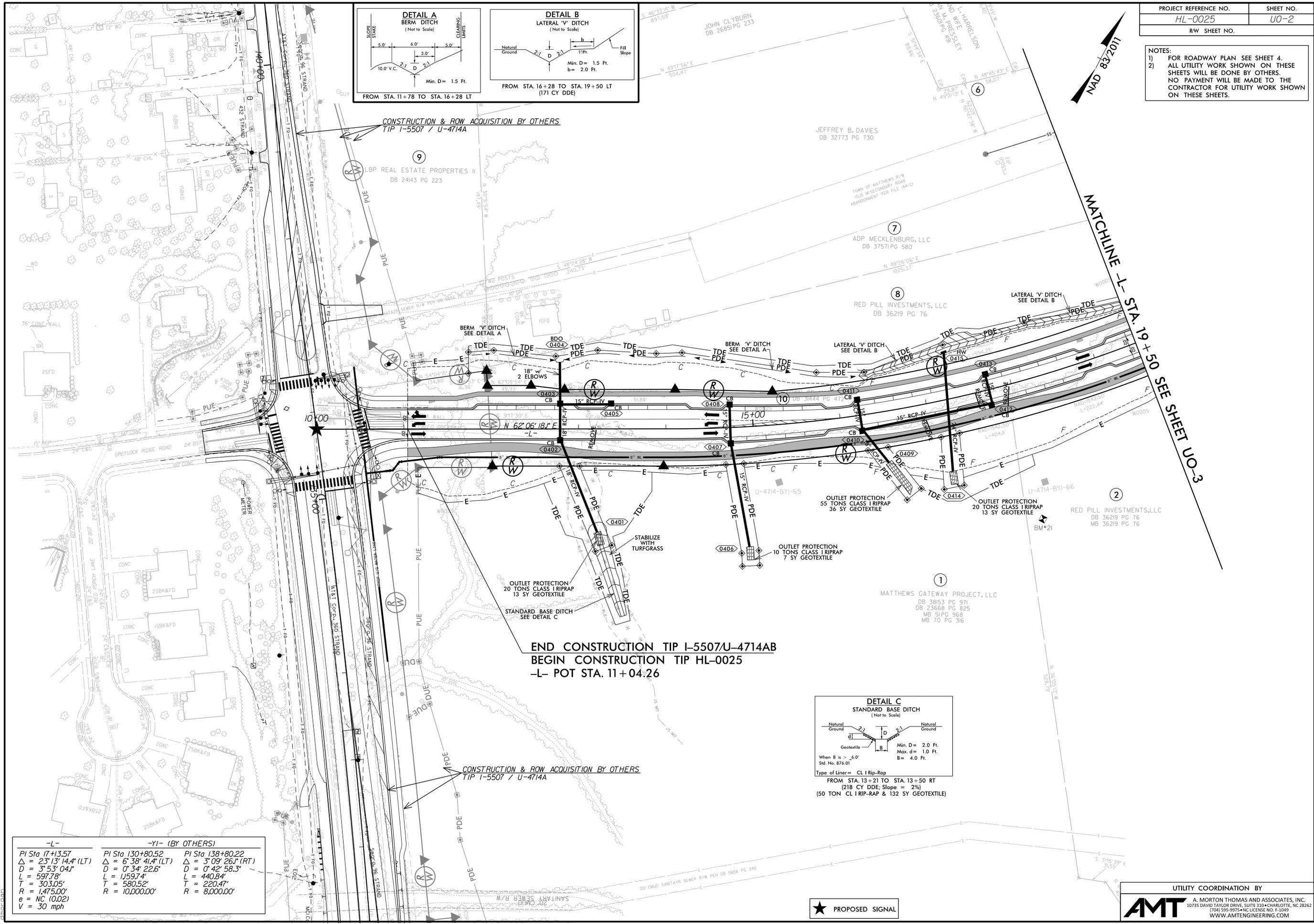
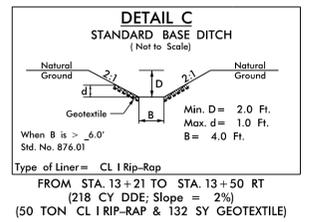
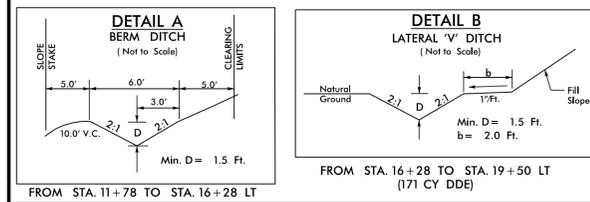
EXISTING UTILITIES SYMBOLS

Power Pole	..... •	*Underground Power Line	..... PROP U/G POW CABLES
Telephone Pole	..... •	*Underground Telephone Cable	..... PROP U/G TEL CABLES
Joint Use Pole	..... •	*Underground Telephone Conduit	..... PROP U/G TEL CONDUIT
Utility Pole	..... •	*Underground Fiber Optics Telephone Cable	..... PROP U/G TEL & FO CABLES
Utility Pole with Base	..... □	*Underground TV Cable	..... PROP U/G CATV CABLES
H-Frame Pole	..... •	*Underground Fiber Optics TV Cable	..... PROP U/G (FO) CATV CABLES
Power Transmission Line Tower	..... ☒	*Underground Gas Pipeline	..... PROP U/G GAS LINE
Water Manhole	..... ⊗	Aboveground Gas Pipeline	..... A/G Gds
Power Manhole	..... ⊗	*Underground Water Line	..... PROP U/G WATER LINE
Telephone Manhole	..... ⊗	Aboveground Water Line	..... A/G Water
Sanitary Sewer Manhole	..... ⊗	*Underground Gravity Sanitary Sewer Line	..... SS
Hand Hole for Cable	..... ⊞	Aboveground Gravity Sanitary Sewer Line	..... A/G Sanitary Sewer
Power Transformer	..... ⊞	*Underground SS Forced Main Line	..... PROP U/G FSS LINE
Telephone Pedestal	..... ⊞	Underground Unknown Utility Line	.....
CATV Pedestal	..... ⊞	SUE Test Hole ⊕
Gas Valve	..... ◇	Water Meter ⊖
Gas Meter	..... ◇	Water Valve ⊖
Located Miscellaneous Utility Object	..... ⊖	Fire Hydrant ⊖
Abandoned According to Utility Records	..... AATUR	Sanitary Sewer Cleanout ⊖
End of Information	..... E.O.I.		

*For Existing Utilities
 Utility Line Drawn from Record (Type as Shown) - - - - -
 Designated Utility Line (Type as Shown) - - - - -

5/14/99
 6/18/2005
 Rd Ext (6/18/2005) \Grejlock-Ridge_Ext\Utilities\Engineering\UBO\Proj\Grejlock_UTL_UBO-1A.dgn
 REV: 2/1/2012

NOTES:
 1) FOR ROADWAY PLAN SEE SHEET 4.
 2) ALL UTILITY WORK SHOWN ON THESE SHEETS WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THESE SHEETS.



-L-		-YI- (BY OTHERS)	
PI Sta 17+13.57	PI Sta 130+80.52	PI Sta 138+80.22	
$\Delta = 23^{\circ}13'14.4\"$ (LT)	$\Delta = 6^{\circ}38'41.4\"$ (LT)	$\Delta = 3^{\circ}09'26.1\"$ (RT)	
D = 3'53'04.1"	D = 0'34'22.6"	D = 0'42'58.3"	
L = 597.78'	L = 1159.74'	L = 440.84'	
T = 303.05'	T = 580.52'	T = 220.47'	
R = 1,475.00'	R = 10,000.00'	R = 8,000.00'	
e = NC (0.02)			
V = 30 mph			

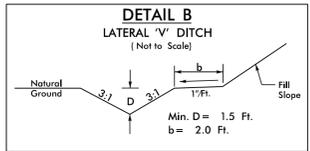
★ PROPOSED SIGNAL

6/18/2025 - Grejlock Ridge Rd Ext\05-CAD\Grejlock_Ridge_Ext\Utilities\Engineering\UB0\Proj\Grejlock_UTL\UB0-2.dgn
 17-1112.013 - HL-0025 - Grejlock Ridge Rd Ext\05-CAD\Grejlock_Ridge_Ext\Utilities\Engineering\UB0\Proj\Grejlock_UTL\UB0-2.dgn

NOTES:
 1) FOR ROADWAY PLAN SEE SHEET 5.
 2) ALL UTILITY WORK SHOWN ON THESE SHEETS WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THESE SHEETS.

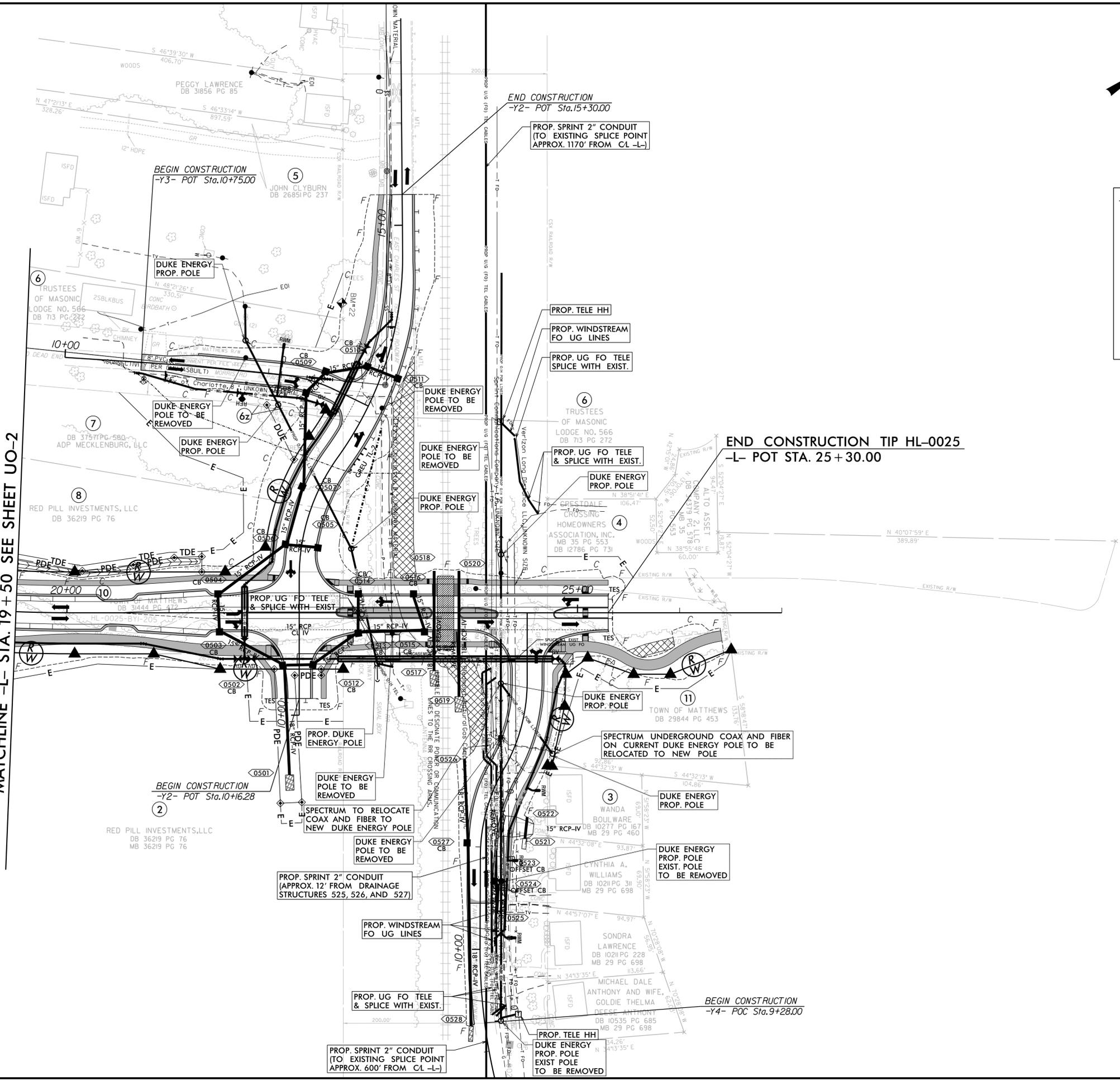


-L-	-Y2-	-Y3-
PI Sta 17+13.57 $\Delta = 23' 13" 14.4" (LT)$ $D = 3' 53' 04.1"$ $L = 597.78'$ $T = 303.05'$ $R = 1,475.00'$ $e = NC (0.02)$ $V = 30 mph$	PI Sta 11+99.66 $\Delta = 35' 49' 51.8" (RT)$ $D = 28' 38' 52.4"$ $L = 125.07'$ $T = 64.66'$ $R = 200.00'$ $e = NC (0.02)$ $V = 25 mph$	PI Sta 13+69.90 $\Delta = 36' 18' 03.6" (LT)$ $D = 17' 06' 11.6"$ $L = 212.25'$ $T = 109.82'$ $R = 335.00'$ $e = NC (0.02)$ $V = 30 mph$
-Y4-		
PI Sta 9+25.47 $\Delta = 15' 37' 34.0" (RT)$ $D = 10' 25' 02.7"$ $L = 150.00'$ $T = 75.47'$ $R = 550.00'$	PI Sta 11+36.76 $\Delta = 29' 57' 25.0" (RT)$ $D = 33' 42' 12.2"$ $L = 88.88'$ $T = 45.48'$ $R = 170.00'$ $e = NC (0.02)$ $V = 25 mph$	PI Sta 12+25.88 $\Delta = 30' 06' 20.6" (LT)$ $D = 33' 42' 12.2"$ $L = 89.33'$ $T = 45.72'$ $R = 170.00'$ $e = NC (0.02)$ $V = 25 mph$
-Y3-		
PI Sta 11+15.54 $\Delta = 1' 59' 38.9" (RT)$ $D = 2' 51' 53.2"$ $L = 69.61'$ $T = 34.81'$ $R = 2,000.00'$	PI Sta 12+40.65 $\Delta = 20' 13' 08.7" (RT)$ $D = 38' 11' 49.9"$ $L = 52.93'$ $T = 26.74'$ $R = 150.00'$ $e = RC (0.02)$ $V = 20 mph$	



FROM STA. 19+50 TO STA. 21+28 LT
 (39 CY DDE)

MATCHLINE -L- STA. 19 + 50 SEE SHEET U0-2



6/18/2025 - Grejlock Ridge Rd Ext\05-CAD\Grejlock_Ridge_Ext\Utilities\Engineering\UB0\Proj\Grejlock_UTL_UB0-3.dgn