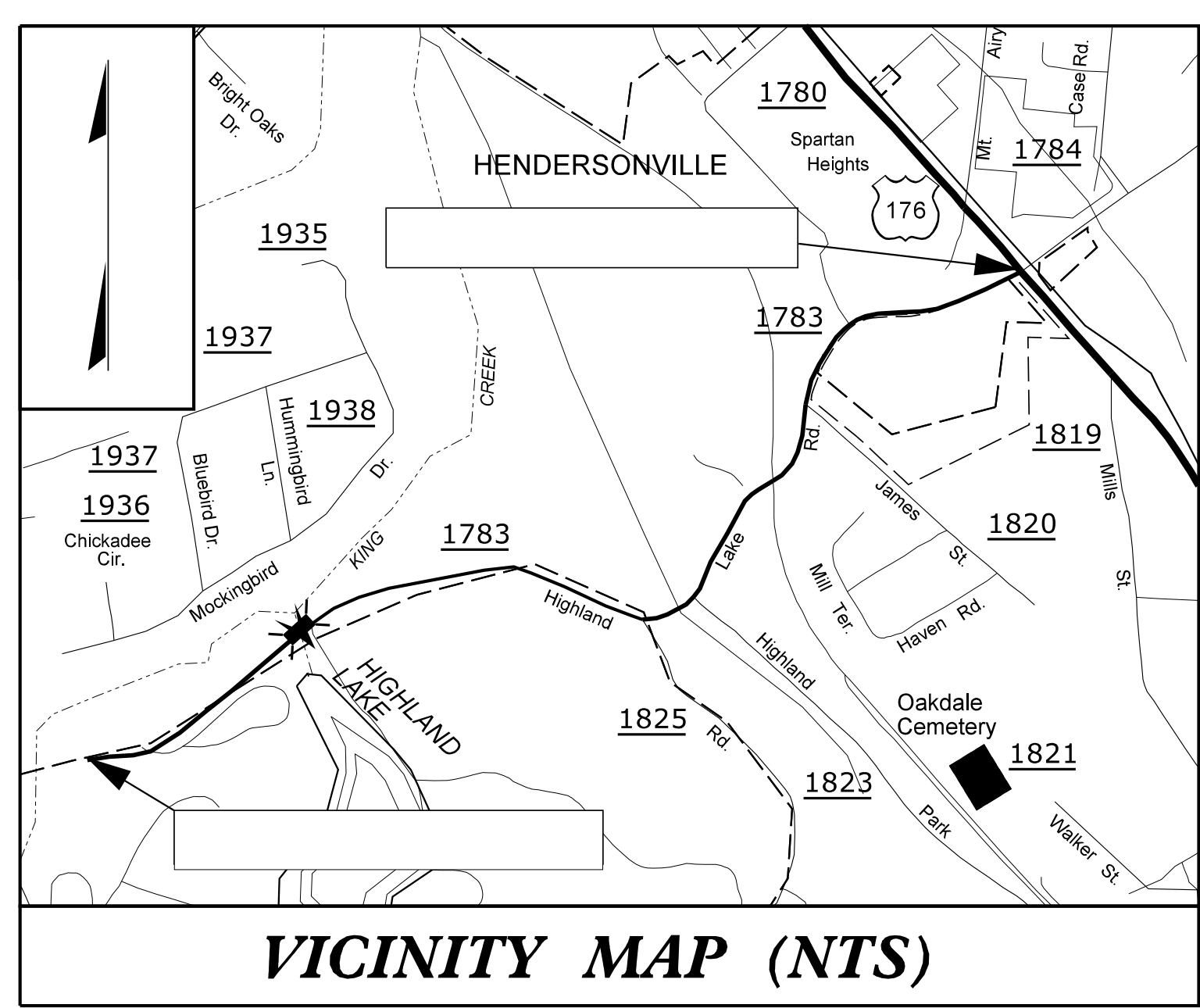


25% PLANS 11/29/18
DUKE ENERGY PLANS ADDED 4/15/19
DUKE ENERGY PLANS ADDED 1/19/20
M&M PLANS ADDED 1/19/20
AT&T PLANS ADDED 3/24/20
DUKE REV. POLE AT ATT SWITCH SITE 4/30/20
DOMINION ENERGY PLANS ADDED 5/7/20
AT&T UPDATED PLANS ADDED 6/11/20
NEW AT&T PLANS ADDED 7/20/20

TIP PROJECT: U-5887



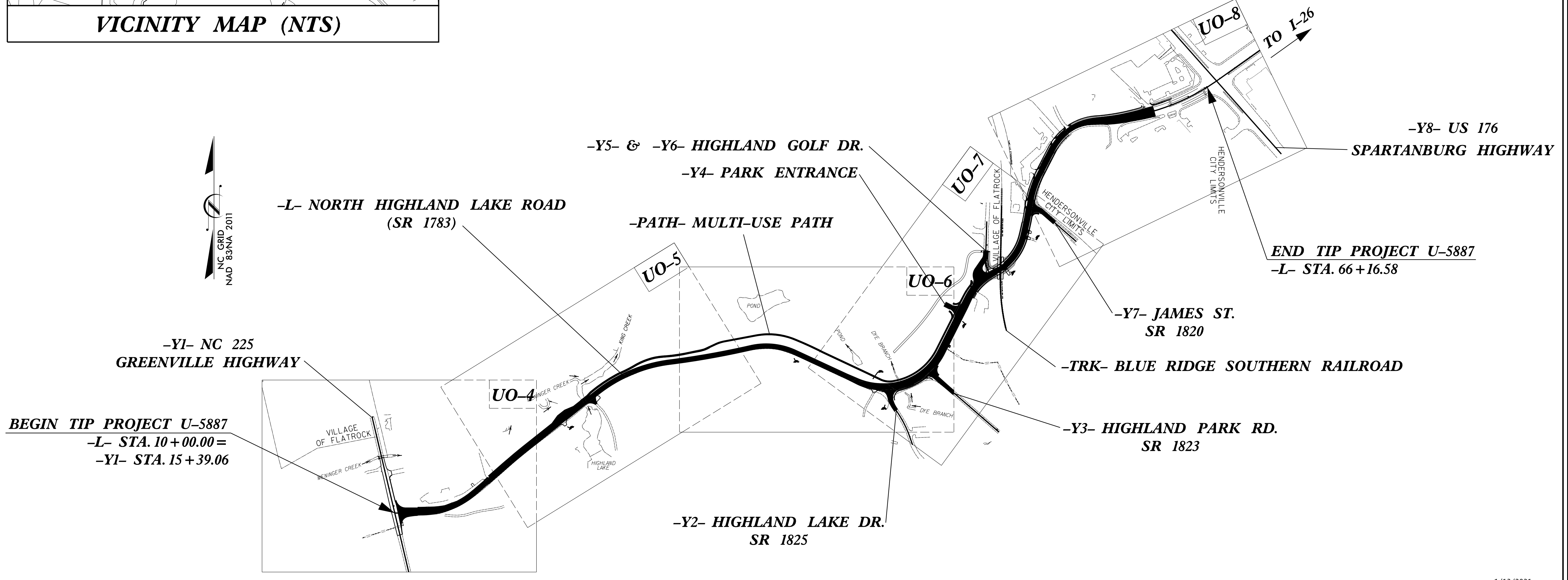
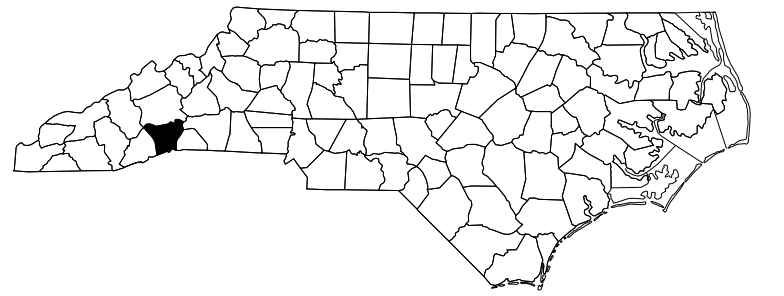
STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

UTILITIES BY OTHERS PLANS HENDERSON COUNTY

**LOCATION: SR 1783 (NORTH HIGHLAND LAKE ROAD)
FROM NC 225 TO WEST OF US 176**
**TYPE OF WORK: RELOCATION OF POWER, TELEPHONE,
CATV, NATURAL GAS, AND FIBER**

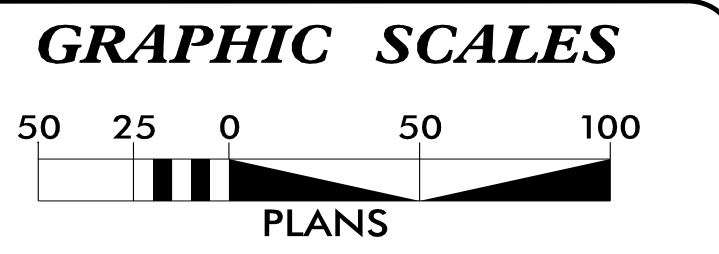
T.I.P. NO.	SHEET NO.
U-5887	UO-1

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



BEGIN TIP PROJECT U-5887
-L- STA. 10+00.00 =
-Y1- STA. 15+39.06

END TIP PROJECT U-5887
-L- STA. 66+16.58



SHEET NO.:	DESCRIPTION:
UO-1	TITLE SHEET
UO-2	UBO SYMBOLOGY SHEET
UO-3	SHEET OMITTED
UO-4 THRU UO-8	UBO PLAN SHEETS

UTILITY OWNERS ON PROJECT
(A) POWER - DUKE ENERGY
(B) TELECOMMUNICATIONS - AT&T
(C) CATV - MORRIS BROADBAND
(D) GAS - DOMINION ENERGY
UTILITIES SHOWN ON UC PLANS
(E) WATER & SEWER - CITY OF HENDERSONVILLE

PREPARED IN THE OFFICE OF:

Vaughn & Melton
Consulting Engineers
Asheville, North Carolina
828.253.2796

Lynn Mann, P.G.	PROJECT UTILITY MANAGER
James Montgomery	PROJECT UTILITY COORDINATOR
Reece Schuler, P.E.	PROJECT MANAGER

**DIVISION OF HIGHWAYS
DIVISION 14**
253 WEBSTER ROAD
SYLVIA, NC 28779

Bob Golding	DIVISION UTILITY ENGINEER
Bill D. Green	DIVISION UTILITIES COORDINATOR
Barry Mosteller, P.E.	DIVISION PROJECT MANAGER

TRANSPORTATION\31535-06 U-5887\UTILITIES\U-5887-UTL-UO1.DGN

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

UTILITIES PLAN SHEET SYMBOLS

2857 PLANS 11/29/19
 DUKE ENERGY PLANS ADDED 4/15/19
 DUKE ENERGY WBE PLANS ADDED 7/15/20
 DUKE ENERGY WBE PLANS ADDED 1/15/20
 DUKE ENERGY WBE PLANS ADDED 3/24/20
 DUKE ENERGY WBE PLANS ADDED 5/7/20
 DUKE ENERGY WBE PLANS ADDED 6/21/20
 DUKE ENERGY WBE PLANS ADDED 7/26/20
 AT&T PLANS ADDED 1/15/20
 DOMINION ENERGY PLANS ADDED 5/7/20
 AT&T PLANS ADDED 5/7/20
 NEW PLANS ADDED 7/26/20

PROPOSED WATER SYMBOLS

Water Line (Sized as Shown)	
11 1/4 Degree Bend	
22 1/2 Degree Bend	
45 Degree Bend	
90 Degree Bend	
Plug	
Tee	
Cross	
Reducer	
Gate Valve	
Butterfly Valve	
Tapping Valve	
Line Stop	
Line Stop with Bypass	
Blow Off	
Fire Hydrant	
Relocate Fire Hydrant	
Remove Fire Hydrant	
Water Meter	
Relocate Water Meter	
Remove Water Meter	
Water Pump Station	
RPZ Backflow Preventer	
DCV Backflow Preventer	
Relocate RPZ Backflow Preventer	
Relocate DCV Backflow Preventer	

PROPOSED SEWER SYMBOLS

Gravity Sewer Line (Sized as Shown)	
Force Main Sewer Line (Sized as Shown)	
Manhole (Sized per Note)	
Sewer Pump Station	

PROPOSED MISCELLANEOUS UTILITIES SYMBOLS

Power Pole	
Telephone Pole	
Joint Use Pole	
Telephone Pedestal	
Utility Line by Others (Type as Shown)	
Trenchless Installation	
Encasement by Open Cut	
Encasement	

Thrust Block	
Air Release Valve	
Utility Vault	
Concrete Pier	
Steel Pier	
Plan Note	
Pay Item Note	

EXISTING UTILITIES SYMBOLS

Power Pole		*Underground Power Line	
Telephone Pole		*Underground Telephone Cable	
Joint Use Pole		*Underground Telephone Conduit	
Utility Pole		*Underground Fiber Optics Telephone Cable	
Utility Pole with Base		*Underground TV Cable	
H-Frame Pole		*Underground Fiber Optics TV Cable	
Power Transmission Line Tower		*Underground Gas Pipeline	
Water Manhole		Aboveground Gas Pipeline	
Power Manhole		*Underground Water Line	
Telephone Manhole		Aboveground Water Line	
Sanitary Sewer Manhole		*Underground Gravity Sanitary Sewer Line	
Hand Hole for Cable		Aboveground Gravity Sanitary Sewer Line	
Power Transformer		*Underground SS Forced Main 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) W
 Designated Utility Line (Type as Shown) W

TRANSP.\31535-06\UTILITIES\U-5887_UTIL_U0-2.DGN
 REV: 2/1/2012

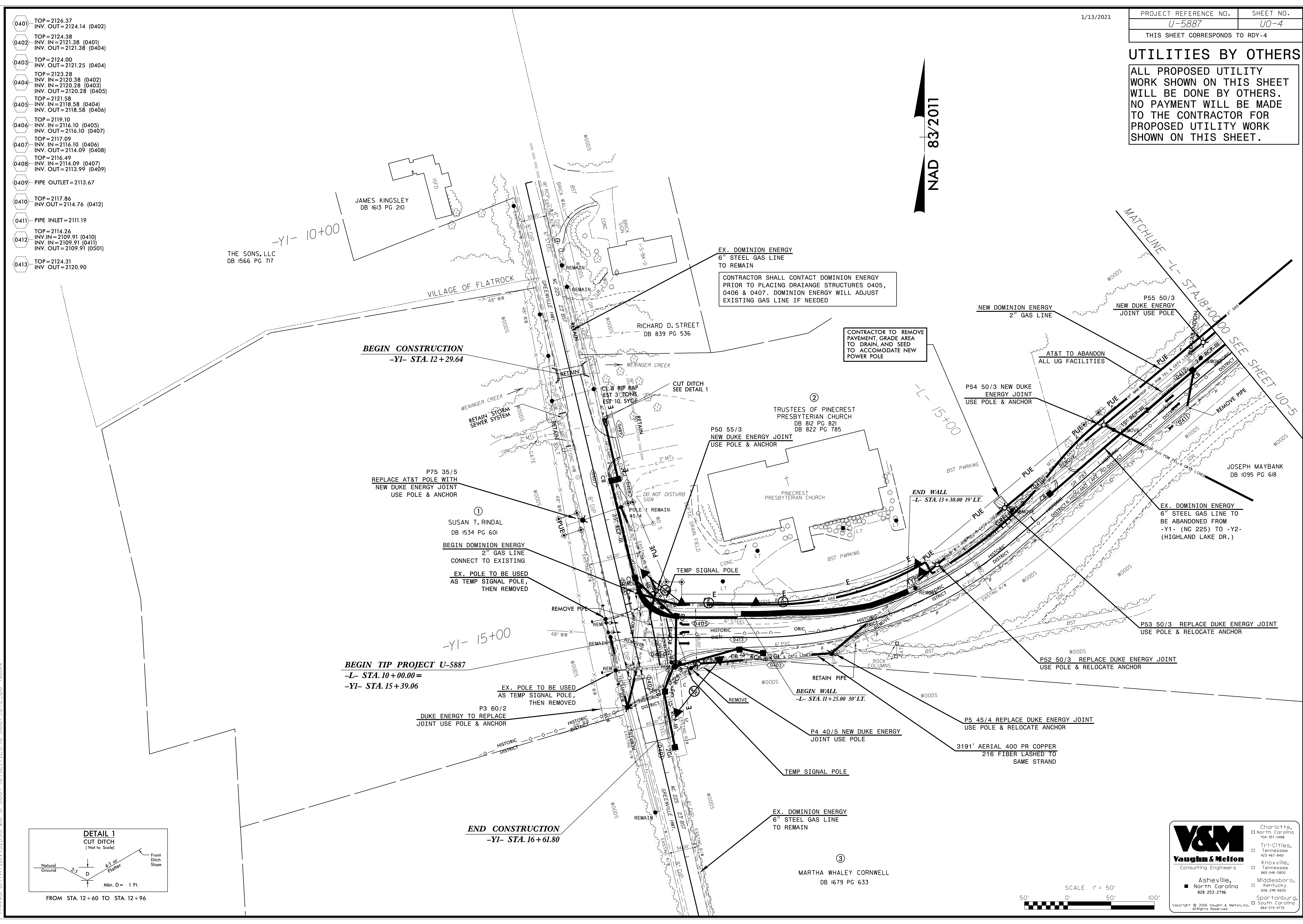
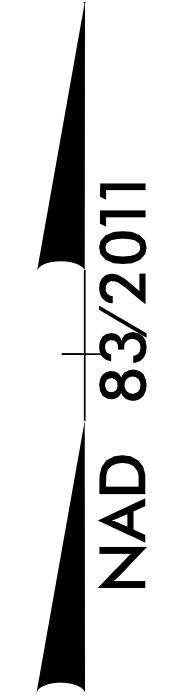
PROJECT REFERENCE NO. U-5887	SHEET NO. U0-4
THIS SHEET CORRESPONDS TO RDY-4	

UTILITIES BY OTHERS

ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR PROPOSED UTILITY WORK SHOWN ON THIS SHEET.

25% PLANS 11/29/18
DUKE ENERGY PLANS ADDED: 4/15/19
DUKE ENERGY PLANS ADDED: 1/15/20
AT&T PLANS ADDED: 3/24/20
AT&T PLANS ADDED: 4/30/20
DOMINION ENERGY PLANS ADDED: 5/7/20
AT&T UPDATED PLANS ADDED: 6/11/20
NEW AT&T PLANS ADDED: 7/20/20

- 0401 TOP=2126.37
INV. OUT=2124.14 (0402)
- 0402 TOP=2124.38
INV. IN=2121.38 (0401)
INV. OUT=2121.38 (0404)
- 0403 TOP=2124.00
INV. OUT=2121.25 (0404)
- 0404 TOP=2123.28
INV. IN=2120.38 (0402)
INV. IN=2120.28 (0403)
INV. OUT=2120.28 (0405)
- 0405 TOP=2121.58
INV. IN=2118.58 (0404)
INV. OUT=2118.58 (0406)
- 0406 TOP=2119.10
INV. IN=2116.10 (0405)
INV. OUT=2116.10 (0407)
- 0407 TOP=2117.09
INV. IN=2116.10 (0406)
INV. OUT=2114.09 (0408)
- 0408 TOP=2116.49
INV. IN=2114.09 (0407)
INV. OUT=2113.99 (0409)
- 0409 PIPE OUTLET=2113.67
- 0410 TOP=2117.86
INV. OUT=2114.76 (0412)
- 0411 PIPE INLET=2111.19
- 0412 TOP=2114.26
INV. IN=2109.91 (0410)
INV. IN=2109.91 (0411)
INV. OUT=2109.91 (0501)
- 0413 TOP=2124.31
INV. OUT=2120.90



BEGIN CONSTRUCTION
-Y1- STA. 12 + 29.64

BEGIN TIP PROJECT U-5887
-L- STA. 10 + 00.00 =
-Y1- STA. 15 + 39.06

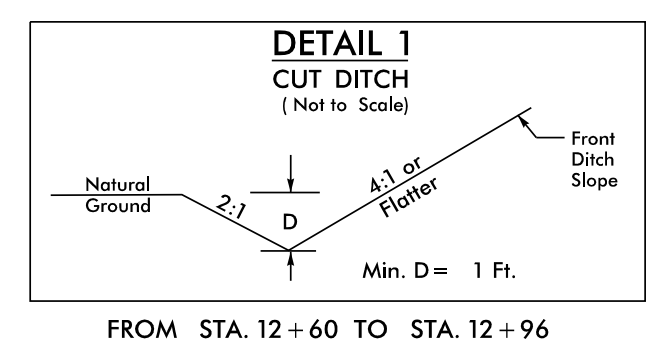
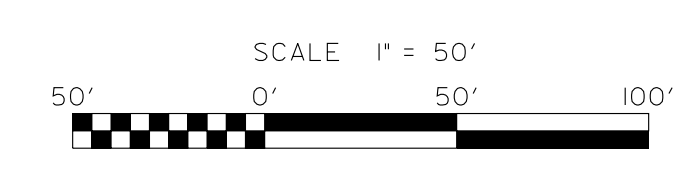
END CONSTRUCTION
-Y1- STA. 16 + 61.80

EX. DOMINION ENERGY
6" STEEL GAS LINE
TO REMAIN

CONTRACTOR SHALL CONTACT DOMINION ENERGY
PRIOR TO PLACING DRAINAGE STRUCTURES 0405,
0406 & 0407. DOMINION ENERGY WILL ADJUST
EXISTING GAS LINE IF NEEDED

CONTRACTOR TO REMOVE
PAVEMENT, GRADE AREA
TO DRAIN, AND SEED
TO ACCOMMODATE NEW
POWER POLE

EX. DOMINION ENERGY
6" STEEL GAS LINE TO
BE ABANDONED FROM
-Y1- (NC 225) TO -Y2-
(HIGHLAND LAKE DR.)

TRANSPORTATION:31535-06 U-5887 UTILITIES:U-5887 UTIL:U0-4.DGN

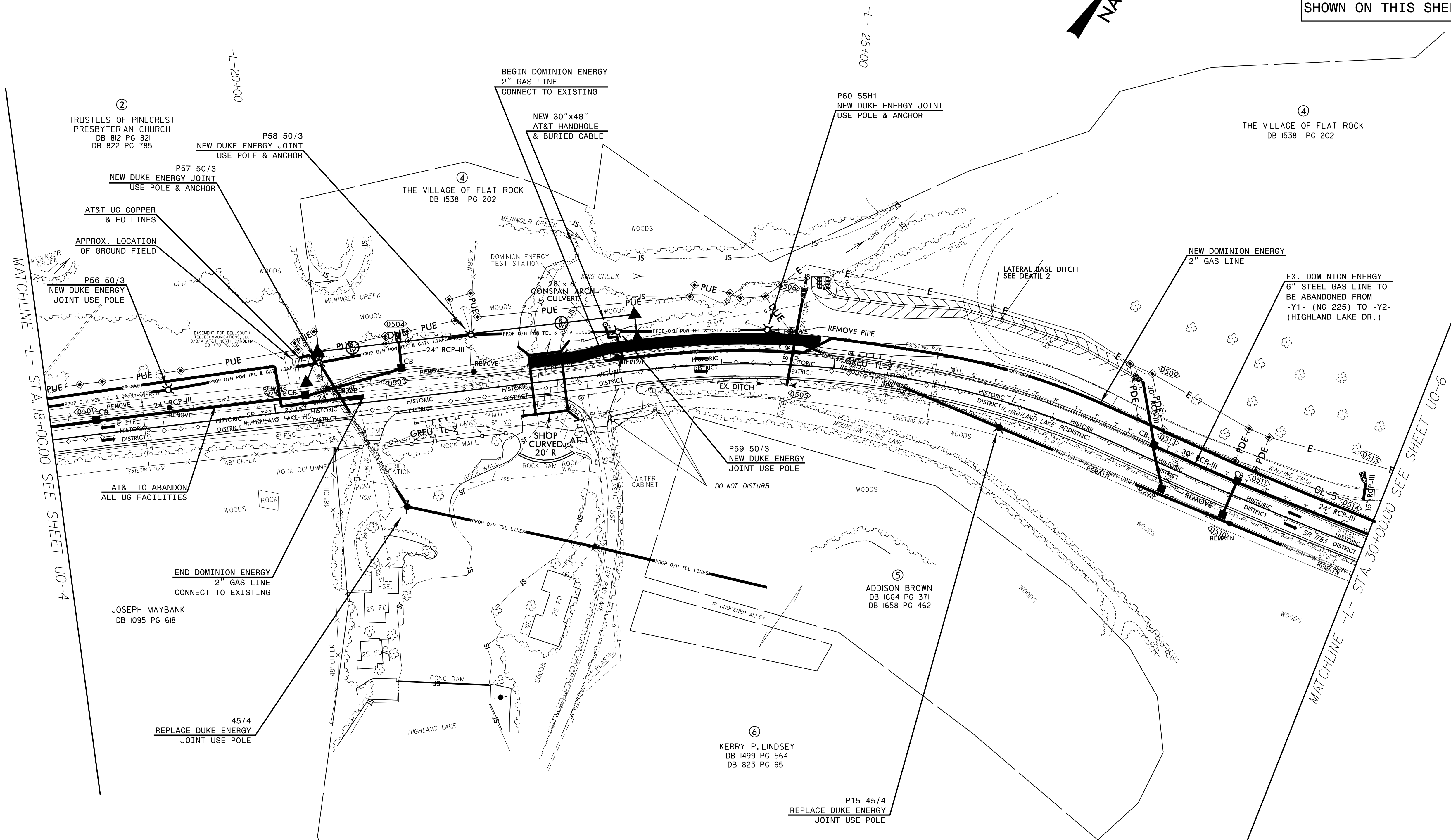
PROJECT REFERENCE NO.	SHEET NO.
U-5887	U0-5
THIS SHEET CORRESPONDS TO RDY-5	

UTILITIES BY OTHERS

ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR PROPOSED UTILITY WORK SHOWN ON THIS SHEET.

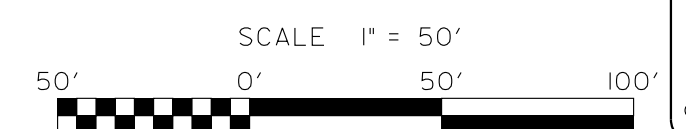
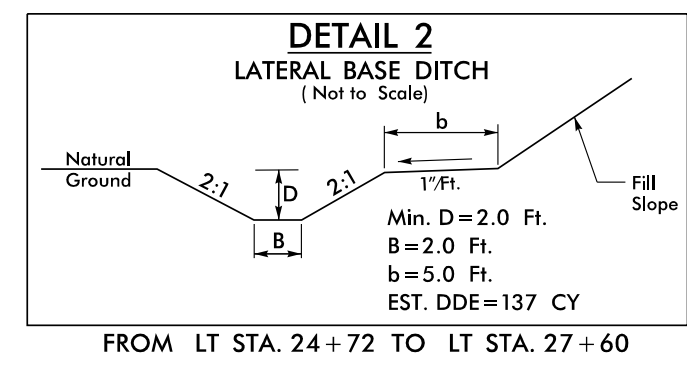
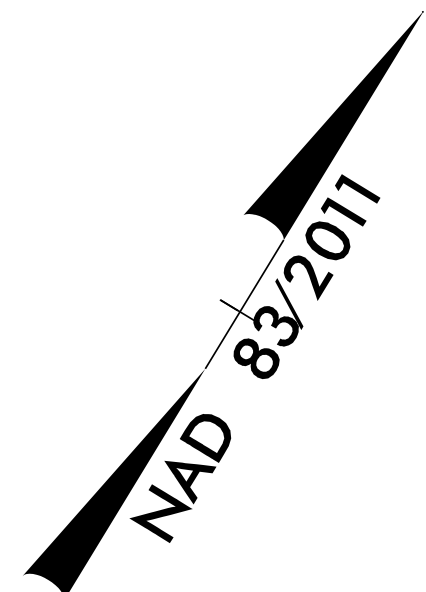
25% PLANS 11/29/18
DUKE ENERGY PLANS ADDED: 4/15/19
DUKE ENERGY PLANS ADDED: 1/15/20
MBE PLANS ADDED: 1/15/20
AT&T PLANS ADDED: 3/24/20
DUKE REV. POLE AT ATT SWITCH SITE 4/30/20
DOMINION ENERGY PLANS ADDED 5/7/20
AT&T UPDATED PLANS ADDED 6/11/20
NEW AT&T PLANS ADDED 7/20/20

- 0501 TOP=2112.83
INV. IN=2109.56 (0412)
INV. OUT=2109.56 (0503)
- 0503 TOP=2110.10
INV. IN=2106.85 (0501)
INV. OUT=2106.85 (0504)
- 0504 PIPE OUTLET=2105.55
- 0505 PIPE INLET=2107.33
- 0506 PIPE OUTLET=2105.61
- 0508 TOP=2106.83
INV. OUT=2103.83 (0513)
- 0509 PIPE OUTLET=2102.29
- 0510 TOP=2108.05
INV. OUT=2105.05 (0511)
- 0511 TOP=2110.25
INV. IN=2104.92 (0510)
INV. OUT=2104.45 (0512)
- 0512 TOP=2107.80
INV. IN=2103.33 (0511)
INV. IN=2102.83 (0620)
INV. OUT=2102.83 (0513)
- 0513 TOP=2107.80
INV. IN=2102.48 (0512)
INV. IN=2102.98 (0508)
INV. OUT=2102.48 (0509)
- 0514 PIPE INLET=2104.50
- 0515 PIPE OUTLET=2104.40



MATCHLINE -L- STA. 18+00.00 SEE SHEET U0-4

MATCHLINE -L- STA. 30+00.00 SEE SHEET U0-6



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Asheville, North Carolina
828-253-2796

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704-351-0488

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Knoxville, Tennessee
865-546-1809

Middlesboro, Kentucky
606-248-6600

Spottsylvania, Virginia
864-574-4775

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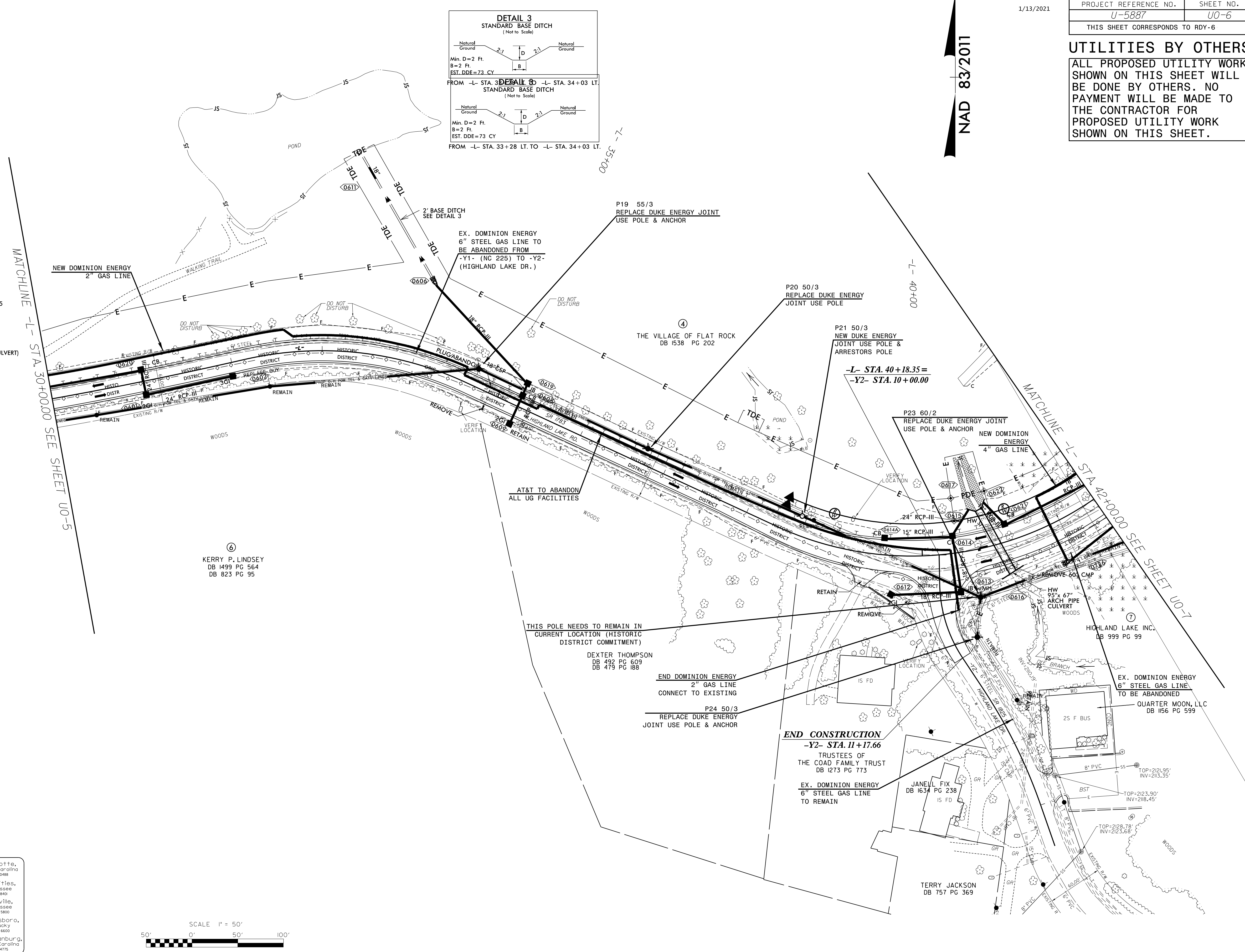
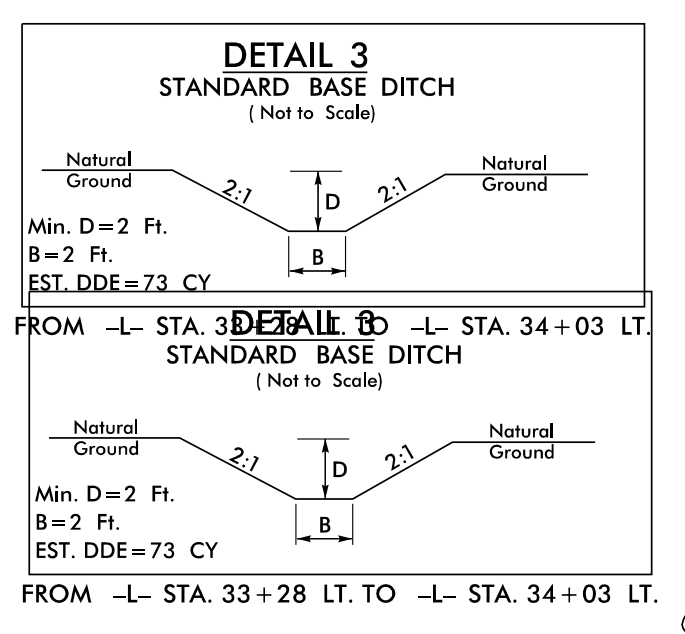
TRANSPORTATION\31535-26\UTILITIES\U-5887-UTL-U0-5.DGN

UTILITIES BY OTHERS

ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR PROPOSED UTILITY WORK SHOWN ON THIS SHEET.

NAD 83/2011

- 0601 TOP=2110.48
INV. IN=2106.98 (0602)
INV. OUT=2106.98 (0620)
- 0602 TOP=2111.76
INV. OUT=2108.26 (0601)
- 0605 TOP=2106.84
INV. IN=2102.61 (0607)
INV. OUT=2102.61 (0606)
- 0606 PIPE OUTLET=2102.47
- 0607 TOP=2105.80
INV. IN=2103.55 (0619)
INV. OUT=2103.55 (0605)
- 0608 TOP=2113.43
INV. IN=2108.59 (0609)
INV. OUT=2106.28 (0619)
- 0609 TOP=2112.09
INV. OUT=2109.09 (0608)
- 0610 TOP=2106.31
INV. =2104.06 (0611)
- 0611 PIPE OUTLET=2103.38
- 0612 TOP=2111.80
INV. OUT=2108.55 (0613)
- 0613 TOP=2112.37
INV. IN=2108.19 (0612)
INV. OUT=2108.19 (0618)
- 0614A TOP=2111.86
INV. OUT=2108.86 (0614)
- 0614 TOP=2111.67
INV. IN=2107.87 (0614A)
INV. OUT=2107.87 (0615)
- 0615 PIPE OUTLET=2107.69
- 0616 ARCH CULVERT INLET=2104.75
- 0617 HW OUTLET=2103.33
- 0618 TOP=2113.80
INV. IN=2107.87 (0613)
INV. OUT=2107.51 (0725)
INV. OUT=2105.92 (95X67 CULVERT)
- 0619 TOP=2111.09
INV. =2105.09
- 0620 TOP=2107.50
INV. =2103.73
- 0621 TOP=2111.88
INV. IN=2104.75 (0618,0725)
INV. OUT=2103.75 (0622)
- 0622 PIPE OUTLET=2104.61

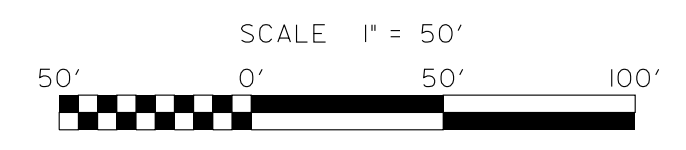


MATCHLINE -L- STA. 30+00.00 SEE SHEET U0-5

MATCHLINE -L- STA. 42+00.00 SEE SHEET U0-7

TRANSPORTATION 31535-06 U-5887 UTILITIES-U-5887-UTL-U06-DGN

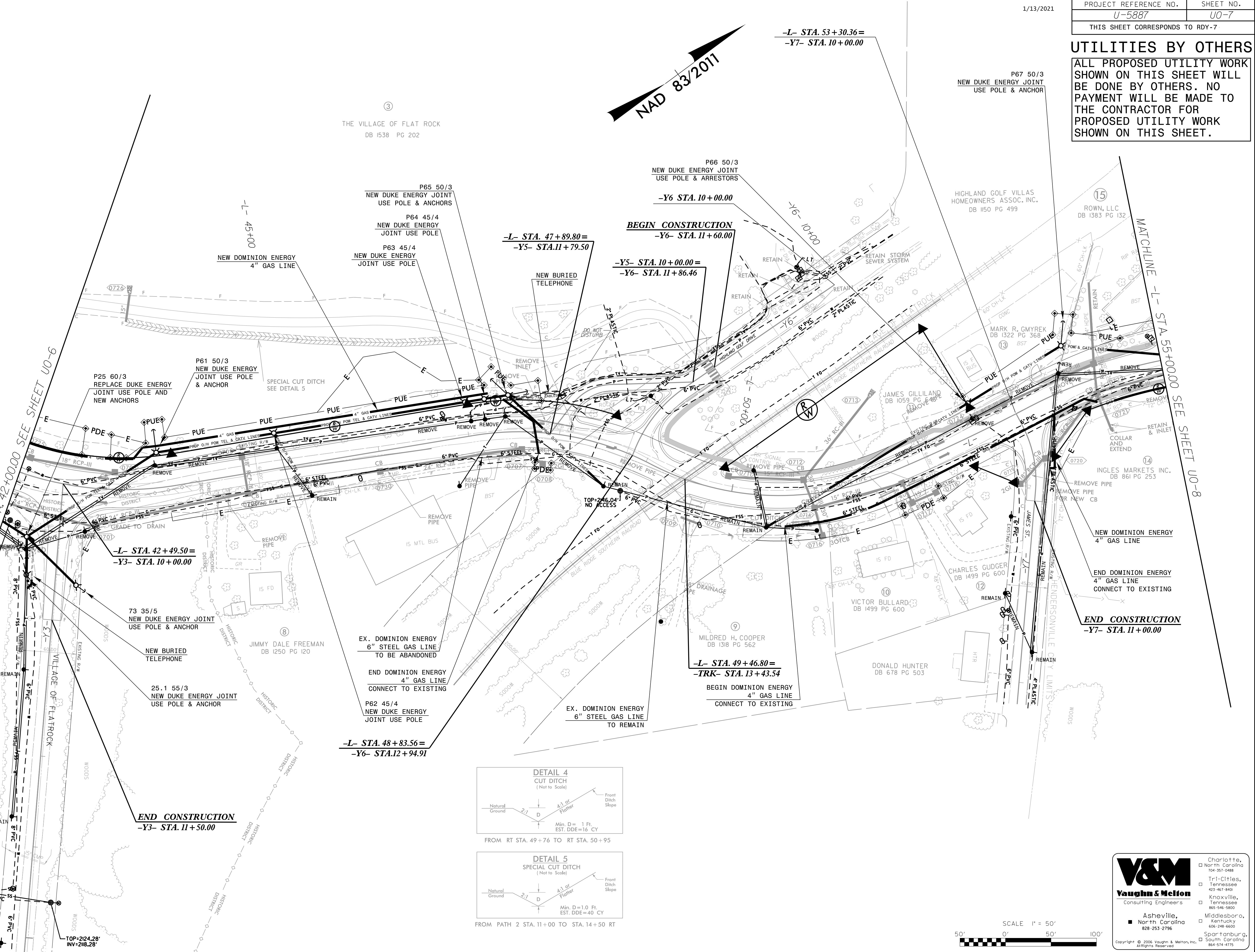
Charlotte, North Carolina 704-357-0488
 Tri-Cities, Tennessee 423-867-9400
 Knoxville, Tennessee 865-546-5800
 Asheville, North Carolina 828-253-2796
 Middlesboro, Kentucky 606-248-6600
 Spartanburg, South Carolina 864-574-4775



25% PLANS 11/29/18
DUKE ENERGY REV. PLANS ADDED: 4/15/19
MBB PLANS ADDED: 1/15/20
AT&T PLANS ADDED: 1/29/20
DOMINION ENERGY REV. PLANS ADDED: 3/24/20
AT&T REV. PLANS ADDED: 5/1/20
DUKE REV. POLE AT AIR SWITCH SITE 4/30/20
DOMINION ENERGY PLANS ADDED 5/1/20
AT&T REV. PLANS ADDED 5/1/20
NEW AT&T PLANS ADDED 7/20/20

- 0701 TOP=2115.00
INV. IN=2111.50 (0706)
INV. OUT=2110.00 (0726)
- 0703 TOP=2116.50
INV. OUT=2113.2 (0725)
- 0705 TOP=2123.38
INV. OUT=2121.88 (0706)
- 0706 TOP=2123.50
INV. IN=2120.58 (0705)
INV. IN=2120.08 (0707)
INV. OUT=2120.08 (0701)
- 0707 TOP=2138.83
INV. IN=2134.82 (0708)
INV. OUT=2134.82 (0706)
- 0708 TOP=2138.32
INV. OUT=2134.90 (0707)
- 0709 PIPE INLET=2145.87
- 0710 PIPE OUTLET=2145.48
- 0711 TOP=2145.98
INV. OUT=2142.75 (0712)
- 0712 TOP=2146.23
INV. IN=2138.40 (0711)
INV. IN=2138.40 (0714)
INV. OUT=2138.40 (0713)
- 0713 PIPE OUTLET=2137.98
- 0714 TOP=2147.47
INV. IN=2138.57 (0715)
INV. IN=2138.57 (0716)
INV. OUT=2138.57 (0712)
- 0715 TOP=2146.89
INV. IN=2141.08 (0717)
INV. OUT=2141.08 (0714)
- 0716 TOP=2142.05
INV. OUT=2138.72 (0714)
- 0717 TOP=2144.36
INV. IN=2141.19 (0718)
INV. OUT=2141.19 (0715)
- 0718 TOP=2144.91
INV. OUT=2141.74 (0717)
- 0719 TOP=2147.66
INV. OUT=2145.16 (0720)
- 0720 TOP=2146.14
INV. IN=2142.89 (0719)
INV. OUT=2142.89 (0722)
- 0721 INV.=2142.13 (0722)
- 0722 TOP=2144.68
INV. IN=2140.79 (07230)
INV. OUT=2140.79 (0801)
- 0723 TOP=2145.76
INV. IN=2140.63 (723A)
INV. OUT=2140.63 (0722)
- 0723A INV. IN=2141.25 (0724)
INV. OUT=2141.25 (07230)
- 0724 TOP=2145.43
INV. OUT=2142.18 (0723A)
- 0725 TOP=2150.50
INV. IN=2111.10 (0701)
INV. OUT=2111.10 (0618)
- 0726 PIPE INLET=2107.25
PIPE OUTLET=2107.00

- TOP=2124.28
INV=2118.28



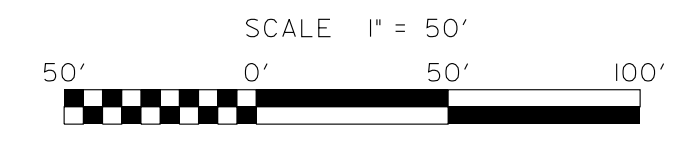
PROJECT REFERENCE NO. U-5887	SHEET NO. U0-7
THIS SHEET CORRESPONDS TO RDY-7	

UTILITIES BY OTHERS
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR PROPOSED UTILITY WORK SHOWN ON THIS SHEET.

V&M
Vaughn & Melton
Consulting Engineers

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Middleboro, Kentucky 606-248-6600
Spartanburg, South Carolina 864-574-4775

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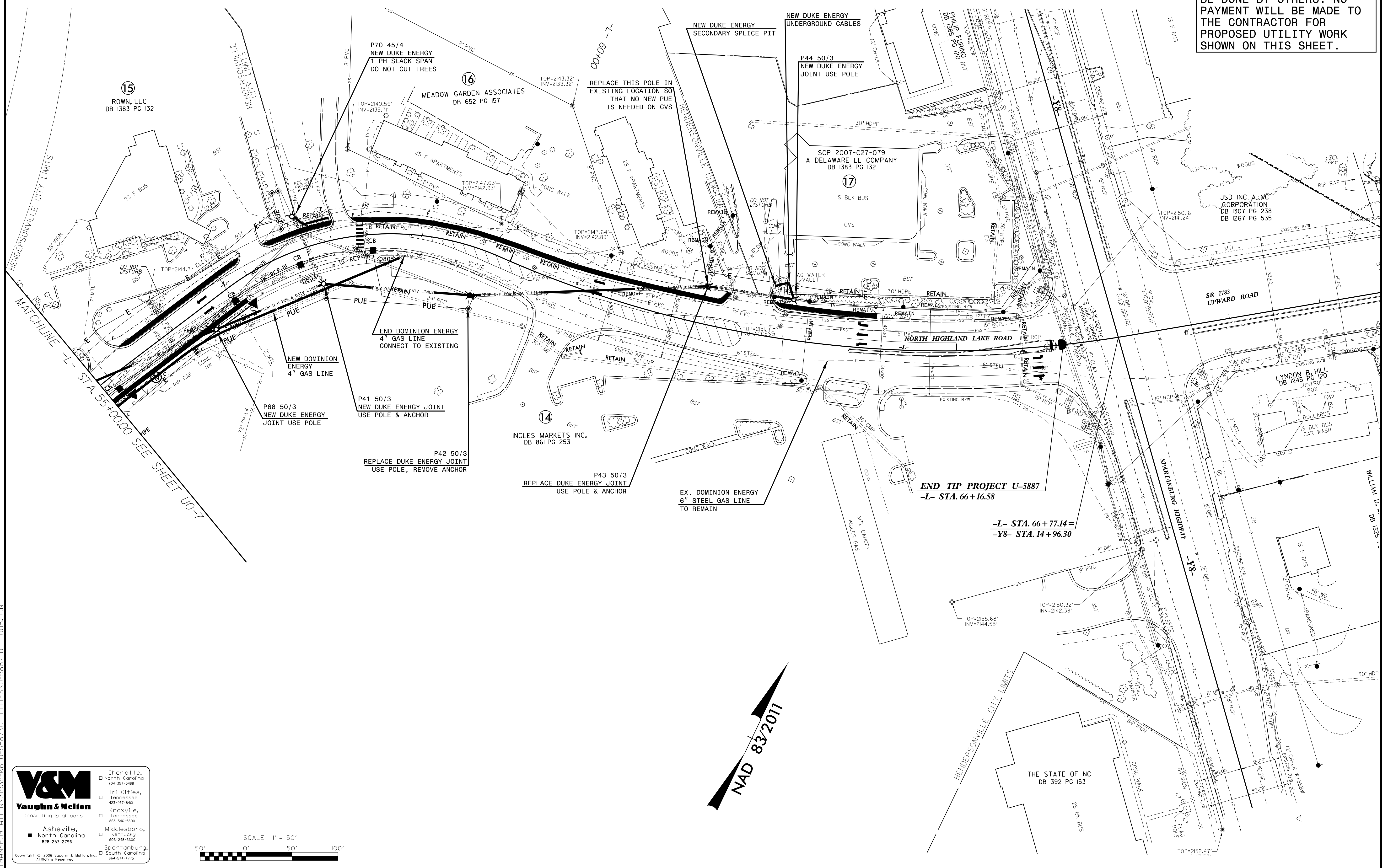
TRANSPORTATION 31535-06 U-5887 UTILITIES U-5887-UTL-U07.DGN

UTILITIES BY OTHERS

ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR PROPOSED UTILITY WORK SHOWN ON THIS SHEET.

25X PLANS 11/29/18
 DUKE ENERGY PLANS ADDED: 4/15/19
 DUKE ENERGY REV. PLANS ADDED: 1/15/20
 MBB PLANS ADDED: 1/29/20
 AT&T PLANS ADDED: 3/24/20
 DOMINION ENERGY PLANS ADDED: 4/30/20
 AT&T REV. POLE AT ATT SWITCH SHED 5/17/20
 DOMINION ENERGY PLANS ADDED: 5/17/20
 AT&T REV. PLANS ADDED: 6/11/20
 NEW AT&T PLANS ADDED: 7/20/20

- 0801 TOP=2144.49
INV. IN=2141.24 (0803)
INV. OUT=2141.24 (0722)
- 0803 TOP=2144.76
INV. IN=2141.99 (0804)
INV. OUT=2141.99 (0801)
- 0804 TOP=2145.25
INV. IN=2142.39 (0805)
INV. OUT=2142.39 (0803)
- 0805 TOP=2145.85
INV. OUT=2142.80 (0804)

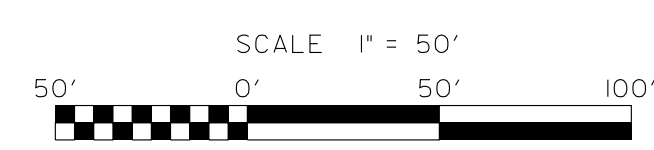


V&M
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 Consulting Engineers

Charlotte, NC 104-357-0488
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 Knoxville, TN 865-548-5800
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NAD 83/2011