

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W03293	RW01	8

STATE OF NORTH CAROLINA  
 DIVISION OF HIGHWAYS

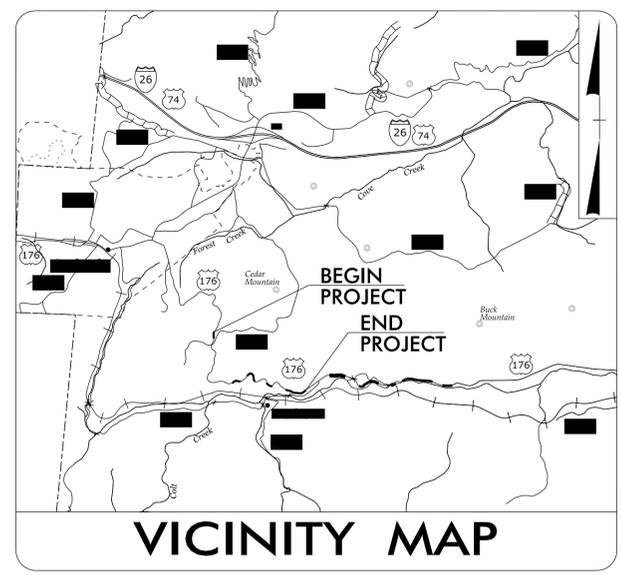
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SURVEY CONTROL, EXISTING CENTERLINES,  
 RIGHT OF WAY, EASEMENTS AND PROPERTY TIES

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**POLK COUNTY**

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**PROJECT: W03293**

**BEGIN PROJECT  
 W03293  
 -L316- STA. 10 + 85.00**

**END CONSTRUCTION  
 -L316- STA. 13 + 50.00  
 (Site 316)**

**BEGIN CONSTRUCTION  
 -L317- STA. 11 + 00.00  
 (Sites 317 & 318)**

**END CONSTRUCTION  
 -L317- STA. 16 + 50.00  
 (Sites 317 & 318)**

**END CONSTRUCTION  
 -L314- STA. 16 + 00.00  
 (Site 314)**

**BEGIN CONSTRUCTION  
 -L314- STA. 11 + 10.00  
 (Site 314)**

**BEGIN CONSTRUCTION  
 -L319 STA. 9 + 50.00  
 (Site 319)**

**END PROJECT  
 W03293  
 -L320- STA. 20 + 50.00  
 (SITES 320 & 321)**

**RW05**

**END CONSTRUCTION  
 -L319 STA. 17 + 30.00  
 (Site 319)**

**BEGIN CONSTRUCTION  
 -L320- STA. 12 + 00.00  
 (Sites 320 & 321)**

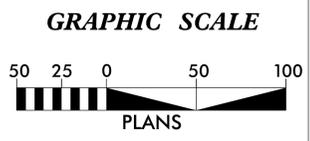
**RW06**

**RW07**



**DATUM DESCRIPTION**

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON COORDINATES AS SHOWN ON SHEET RW02C-1 CONTAINED WITHIN THIS PLANSET. SEE SHEET RW02C-1 FOR FURTHER REFERENCE.



Prepared in the Office of:

**TGS ENGINEERS**  
 201 WEST MARION STREET  
 SUITE 200  
 SHELBY, NC 28150  
 PH (704) 476-0003  
 CORP. LICENSE NO.: C-0275

2024 STANDARD SPECIFICATIONS

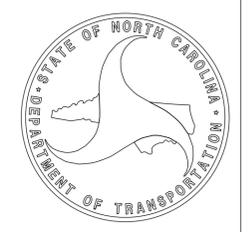
**RIGHT OF WAY DATE:**  
 AUGUST 29, 2025

**LETTING DATE:**  
 MARCH 17, 2026

**PROFESSIONAL LAND SURVEYOR**

Signed by:  
 Matthew Cornwell  
 EBD039F11473E475  
 SIGNATURE: \_\_\_\_\_

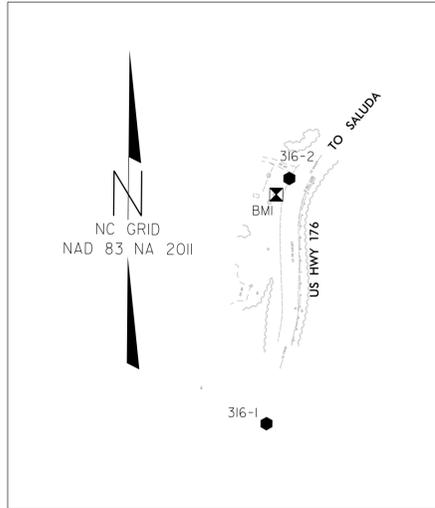
Date: 10/21/2025



21-OCT-2025 10:57  
 S:\Surveyors\projects\ncdot\W03293 - US176 (Saluda)\US176 300's Site\RW STAKING\MTC\us176\_ls\_rw01.dgn  
 mcornewell AT M CORNWELL AP TOP

# SURVEY CONTROL SHEET

PROJECT REFERENCE NO.	SHEET NO.
W03293	RW02C-1
<b>Location and Surveys</b>	
 <b>TGS ENGINEERS</b> 201 WEST MARION STREET SUITE 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	
PROJECT SURVEYOR	
Signed by:  <b>Matthew Cornwell</b> <small>ES030811473E475</small>	
10/21/2025	
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



BL	POINT	DESC.	NORTH	EAST	ELEVATION
1	316-1		553701.5430	1004974.9000	1879.89
2	316-2		554237.1820	1005020.2820	1921.96

.....

B.M1 ELEVATION = 1927.07  
 N 554202 E 1004992  
 BL STATION 10+00.00 25 LEFT  
 RR SPIKE IN BASE OF DBL 16' FIR

.....

## SITE LOCALIZATION INFORMATION FOR SITE 316:

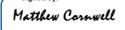
**LOCALIZED ABOUT: 316-2**  
**N: 554237.182**  
**E: 1005020.282**  
**EL: 1921.96**  
**CGF: 0.99978565**

I, Matthew T. Cornwell, PLS, certify that the Project Control was performed under my supervision from an actual GPS survey made under my supervision and the following information was used to perform the survey:

Class of survey: **AA**  
 Type of GPS field procedure: **RTN**  
 Dates of survey: **February 2025**  
 Datum/Epoch: **NAD83/2011**  
 Published/Fixed-control use: **N/A**  
 Localized around: **SEE NOTES**  
 Northing: **SEE NOTES**  
 Easting: **SEE NOTES**  
 Combined grid factor: **SEE NOTES**  
 Geoid model: **GEOID18**  
 Units: **US SURVEY FEET**

I also certify that the Baseline Control for this project was completed under my direct and responsible charge from an actual survey made under my supervision; that all horizontal closures had a minimum ratio of precision of 1:20,000 (Class AA) and Vertical accuracy to Class A. Field work was performed March - July 2025, and all coordinates are based on NAD 83/2011 and all elevations are based on NAVD 88; that this survey was performed to meet the requirements of 21NCAC 56.1600 as applicable.

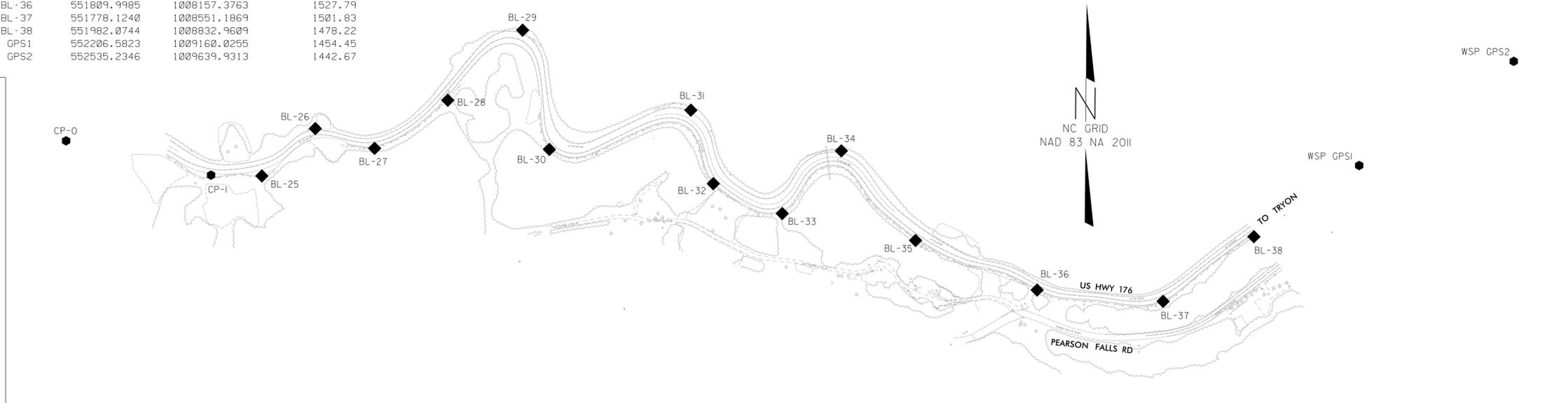
This 10/21/2025

Signed by:  
  
**Matthew Cornwell**  
ES030811473E475  
 Professional Land Surveyor L-4775

BL	POINT	DESC.	NORTH	EAST	ELEVATION
10	CP-0		552248.3883	1005120.7544	1766.89
11	CP-1		552145.4224	1005574.3907	1739.13
25	BL-25		552144.2984	1005733.1151	1732.03
26	BL-26		552293.2353	1005898.7313	1716.90
27	BL-27		552233.2746	1006084.4303	1703.69
28	BL-28		552384.9928	1006311.7093	1684.09
29	BL-29		552605.2712	1006543.5148	1664.95
30	BL-30		552234.5872	1006630.2686	1647.00
31	BL-31		552360.7368	1007071.2238	1625.88
32	BL-32		552132.3832	1007143.1460	1610.17
33	BL-33		552041.2916	1007359.1823	1593.70
34	BL-34		552238.0630	1007542.1764	1577.24
35	BL-35		551961.0802	1007776.3698	1551.90
36	BL-36		551809.9985	1008157.3763	1527.79
37	BL-37		551778.1240	1008551.1869	1501.83
38	BL-38		551982.0744	1008832.9609	1478.22
1	WSP GPS1		552206.5823	1009160.0255	1454.45
2	WSP GPS2		552535.2346	1009639.9313	1442.67

## SITE LOCALIZATION INFORMATION FOR SITES 314, 317, 318, 319, 320 & 321:

**LOCALIZED ABOUT: WSP GPS1**  
**N: 552206.5823**  
**E: 1009160.0255**  
**EL: 1454.45**  
**CGF: 0.99980806**



### NOTES:

1. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
2. THE SURVEY CONTROL DATA FOR THIS PROJECT HAS BEEN COMPILED FROM VARIOUS SOURCES. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

REVISIONS



# RIGHT OF WAY & PERMANENT EASEMENT CONTROL SHEET

PROJECT REFERENCE NO.	SHEET NO.
W03293	RW03E-1
<b>Location and Surveys</b>	
 TGS ENGINEERS 201 WEST MARION STREET SUITE 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	
PROJECT SURVEYOR	
Signed by:  EBO06F11473E475	
	
11/17/2025	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

ROW MARKER IRON PIN AND CAP

ALIGN	STATION	OFFSET	NORTH	EAST
L317	11+79.02	30.00	552507.6123	1006426.3267
L317	14+27.65	50.00	552455.6148	1006548.4153
L317	14+80.39	47.08	552403.9957	1006559.5996

ROW MARKER IRON PIN AND CAP

ALIGN	STATION	OFFSET	NORTH	EAST
L320	12+65.00	49.99	551847.9465	1007946.4753
L320	12+65.00	81.00	551817.8376	1007939.0536
L320	13+32.00	80.00	551804.5786	1008008.2178
L320	14+19.00	117.03	551749.7770	1008051.0231
L320	17+16.00	30.00	551755.1531	1008386.4602
L320	17+16.00	91.91	551693.7148	1008378.8352

MAGNAIL SET

ROW MARKER PERMANENT EASEMENT

ALIGN	STATION	OFFSET	NORTH	EAST
L314	11+95.86	50.00	552205.6375	1005865.9839
L314	14+38.00	89.00	552162.0561	1006067.9375
L314	14+50.00	30.00	552222.0369	1006079.3865
L314	15+67.00	30.00	552271.0643	1006199.6890
L314	15+74.00	63.00	552247.9115	1006224.4184
L314	15+89.00	30.00	552284.3463	1006218.8808
L314	15+98.00	53.00	552271.6620	1006240.4035

ROW MARKER PERMANENT EASEMENT

ALIGN	STATION	OFFSET	NORTH	EAST
L317	10+77.00	104.00	552385.2843	1006420.0095
L317	12+38.00	71.94	552487.2413	1006474.1391
L317	12+73.00	-52.39	552612.3859	1006495.5810
L317	12+88.00	-94.00	552650.2847	1006525.4043
L317	13+65.00	-101.00	552585.0123	1006649.0265
L317	13+87.00	-40.86	552521.6868	1006620.1297
L317	15+03.00	145.00	552366.2516	1006466.4623

ROW MARKER PERMANENT EASEMENT

ALIGN	STATION	OFFSET	NORTH	EAST
L319	9+50.00	49.79	552282.1592	1006959.1317
L319	9+52.00	97.00	552238.4823	1006977.1281
L319	10+00.00	-50.00	552391.9921	1006977.9173
L319	10+00.00	-60.00	552401.7228	1006975.6122
L319	10+23.00	-50.00	552396.1058	1007011.7623
L319	10+23.00	-56.00	552402.1056	1007011.7065
L319	11+13.00	50.00	552277.5112	1007053.5059
L319	17+16.00	-51.64	552260.9902	1007484.2262
L319	17+16.00	-67.00	552276.0631	1007481.2681
L319	17+30.00	-67.00	552278.9849	1007503.5898
L319	17+30.00	-51.68	552263.6942	1007504.6084

MAGNAIL SET  
MAGNAIL SET  
NOT SET - FALLS IN TREE  
MAGNAIL SET

ROW MARKER PERMANENT EASEMENT

ALIGN	STATION	OFFSET	NORTH	EAST
L320	19+72.00	30.00	551825.3917	1008645.1993
L320	19+72.00	43.00	551815.3285	1008653.4293
L320	20+00.00	44.00	551832.0633	1008675.5836
L320	20+00.00	30.00	551842.9519	1008666.7838

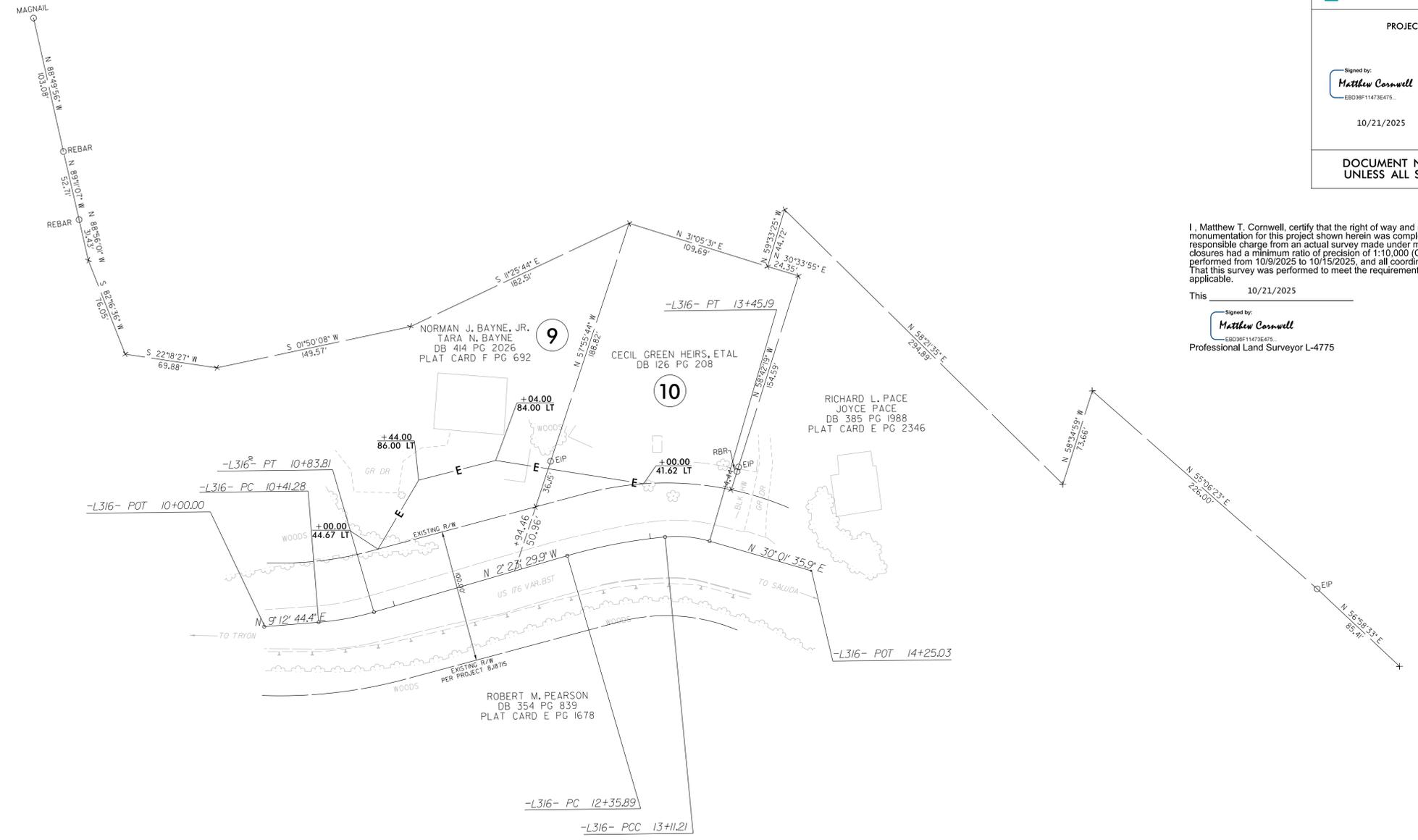
REVISIONS

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 M:\CORNWELL\TOP

**NOTES:**

1. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
2. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
3. RIGHT OF WAY MONUMENTATION ESTABLISHED 10/9/2025 TO 11/14/2025.

PROJECT REFERENCE NO.	SHEET NO.
W03293	RW04
<b>Location and Surveys</b>	
 <b>TGS ENGINEERS</b> 201 WEST MARION STREET SUITE 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	
PROJECT SURVEYOR	
Signed by:  EBO39F11473E475... 10/21/2025	
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



I, Matthew T. Cornwell, certify that the right of way and permanent easement monumentation for this project shown herein was completed under my direct and responsible charge from an actual survey made under my supervision; that all horizontal closures had a minimum ratio of precision of 1:10,000 (Class A). Field work was performed from 10/9/2025 to 10/15/2025, and all coordinates are based on NAD83/2011; That this survey was performed to meet the requirements of 21NCAC 56.1600 as applicable.

This 10/21/2025  
 Signed by:  
  
 EBO39F11473E475...  
 Professional Land Surveyor L-4775

-L316- CURVE DATA

PI Sta 10+62.62	PI Sta 12+73.66	PI Sta 13+28.41
$\Delta = 11' 36'' 14.4''$ (LT)	$\Delta = 10' 47'' 22.5''$ (RT)	$\Delta = 21' 37'' 43.3''$ (RT)
D = 27' 17'' 01.3''	D = 14' 19'' 26.2''	D = 63' 39'' 43.1''
L = 42.53'	L = 75.33'	L = 33.97'
T = 21.34'	T = 37.77'	T = 17.19'
R = 210.00'	R = 400.00'	R = 90.00'
SE = EXIST.	SE = EXIST.	SE = EXIST.

**NOTES:**

1. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
2. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
3. RIGHT OF WAY MONUMENTATION ESTABLISHED 10/9/2025 TO 10/15/2025.

REVISIONS

2:\01-2025\101\Projects\ncdot\W03293 - US176 (Saluda)\US176 300's Stee\RW STAKING\MTC\us176\_1s\_rw04.dgn  
 10/21/2025 10:10 AM  
 Matthew T. Cornwell  
 Professional Land Surveyor L-4775

Location and Surveys

TGS ENGINEERS 201 WEST MARION STREET SUITE 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275

PROJECT SURVEYOR

Signature: Matthew Cornwell, Professional Land Surveyor L-4775, Seal L-4775, 11/17/2025

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

I, Matthew T. Cornwell, certify that the right of way and permanent easement monumentation for this project shown herein was completed under my direct and responsible charge from an actual survey made under my supervision; that all horizontal closures had a minimum ratio of precision of 1:10,000 (Class A). Field work was performed from 10/9/2025 to 11/14/2025, and all coordinates are based on NAD83/2011; That this survey was performed to meet the requirements of 21NCAC 56.1600 as applicable.

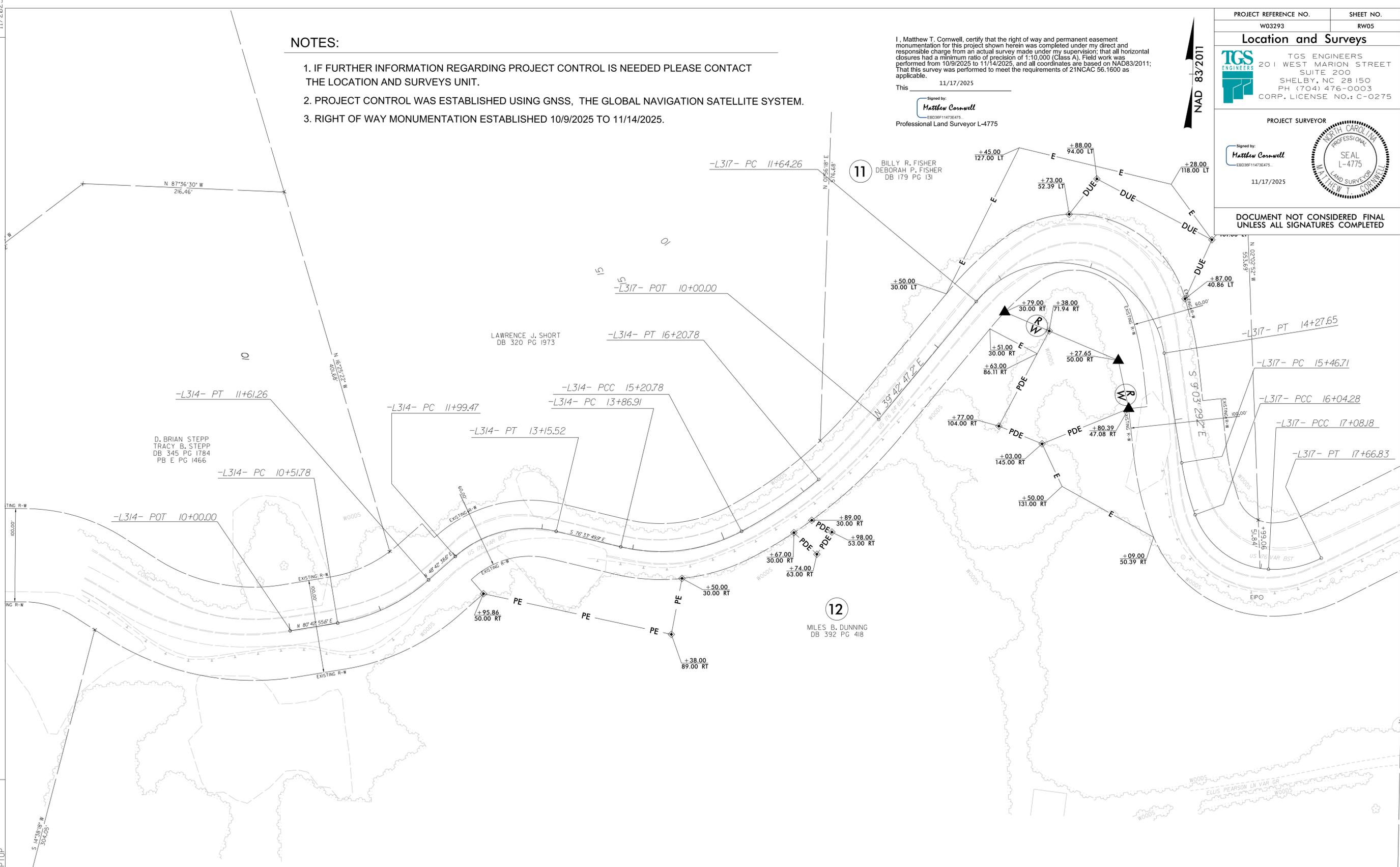
11/17/2025  
Signed by: Matthew Cornwell, Professional Land Surveyor L-4775

NAD 83/2011

NOTES:

- 1. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
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3. RIGHT OF WAY MONUMENTATION ESTABLISHED 10/9/2025 TO 11/14/2025.

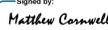
REVISIONS



-L314- Curve Data table with columns for PI Sta, Delta, D, L, T, R, and SE.

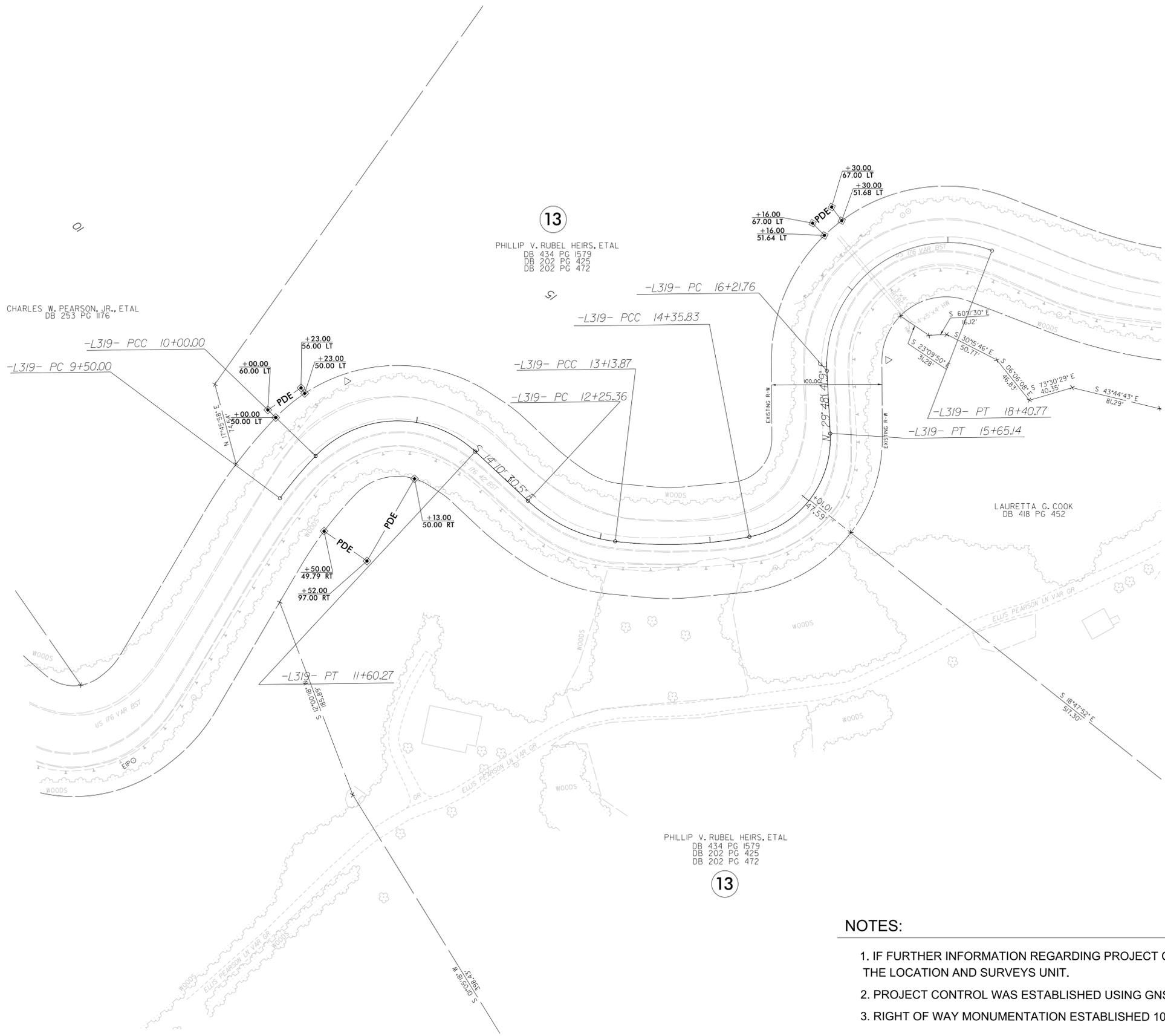
-L317- Curve Data table with columns for PI Sta, Delta, D, L, T, R, SE, and DS.

17 NOV 2025 07:35 S:\SAS\Projects\W03293 - US176 (Saluda)\US176 300's Stee\RW STAKING\MTC\us176\_1s\_rw05.dgn

PROJECT REFERENCE NO.	SHEET NO.
W03293	RW06
<b>Location and Surveys</b>	
 <b>TGS ENGINEERS</b> 201 WEST MARION STREET SUITE 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	
PROJECT SURVEYOR	
Signed by:  EBD36F11473E475	
	
10/21/2025	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

-L319- CURVE DATA

PI Sta 9+75.03 Δ = 7° 14' 03.5" (RT) D = 14' 28' 07.1" L = 50.00' T = 25.03' R = 396.00' SE = EXIST.	PI Sta 11+01.49 Δ = 89° 09' 07.3" (RT) D = 55' 37' 37.1" L = 160.27' T = 101.49' R = 103.00' SE = EXIST.	PI Sta 12+71.15 Δ = 36° 13' 20.5" (LT) D = 40' 55' 32.0" L = 88.51' T = 45.79' R = 140.00' SE = EXIST.	PI Sta 13+75.33 Δ = 17° 28' 10.4" (LT) D = 14' 19' 26.2" L = 121.96' T = 61.46' R = 400.00' SE = EXIST.	PI Sta 15+14.51 Δ = 82° 19' 16.6" (LT) D = 63' 39' 43.1" L = 129.31' T = 78.68' R = 90.00' SE = EXIST.	PI Sta 17+91.38 Δ = 114° 04' 17.2" (RT) D = 52' 05' 13.5" L = 219.00' T = 169.62' R = 110.00' SE = EXIST.
--	--	--	---	--	---



I, Matthew T. Cornwell, certify that the right of way and permanent easement monumentation for this project shown herein was completed under my direct and responsible charge from an actual survey made under my supervision; that all horizontal closures had a minimum ratio of precision of 1:10,000 (Class A). Field work was performed from 10/9/2025 to 10/15/2025, and all coordinates are based on NAD83/2011; That this survey was performed to meet the requirements of 21NCAC 56.1600 as applicable.

This 10/21/2025  
 Signed by:  
  
 EBD36F11473E475  
 Professional Land Surveyor L-4775

- NOTES:**
1. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
  2. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
  3. RIGHT OF WAY MONUMENTATION ESTABLISHED 10/9/2025 TO 10/15/2025.

REVISIONS

21-OCT-2025 11:03  
 S:\Surveys\Projects\ncdot\W03293 - US176 (Saluda)\US176 300's Stee\RW STAKING\MTC\us176\_1s\_rw06.dgn  
 M. CORNWELL

-L320- CURVE DATA

PI Sta 10+99.39 Δ = 10° 01' 34.8" (LT) D = 8' 04" 11.4" L = 124.24' T = 62.28' R = 710.00' SE = EXIST.	PI Sta 12+38.45 Δ = 15° 52' 01.8" (LT) D = 20' 27" 46.0" L = 77.54' T = 39.02' R = 280.00' SE = EXIST.	PI Sta 13+73.53 Δ = 16° 21' 11.1" (RT) D = 19' 45" 25.8" L = 82.77' T = 41.67' R = 290.00' SE = EXIST.	PI Sta 15+36.23 Δ = 24° 24' 38.2" (LT) D = 22' 02" 12.6" L = 110.77' T = 56.24' R = 260.00' SE = EXIST.	PI Sta 16+65.69 Δ = 3° 44' 05.8" (RT) D = 6' 13" 40.1" L = 59.97' T = 30.00' R = 920.00' SE = EXIST.	PI Sta 18+54.39 Δ = 46° 21' 07.6" (LT) D = 27' 17" 01.3" L = 169.89' T = 89.90' R = 210.00' SE = EXIST.	PI Sta 21+27.70 Δ = 4° 06' 20.2" (RT) D = 1' 20" 49.9" L = 304.75' T = 152.44' R = 4,253.00' SE = EXIST.
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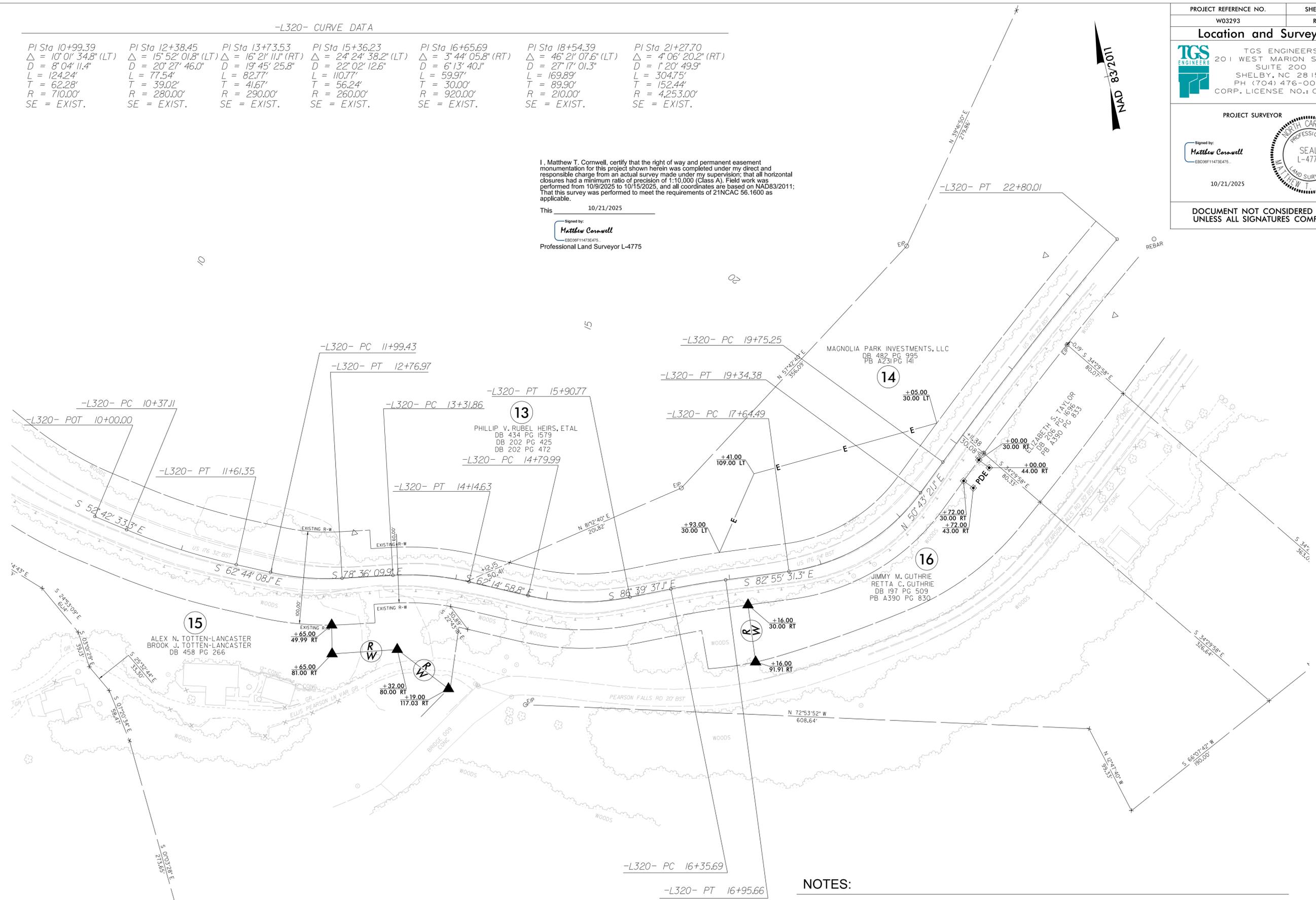
I, Matthew T. Cornwell, certify that the right of way and permanent easement monumentation for this project shown herein was completed under my direct and responsible charge from an actual survey made under my supervision; that all horizontal closures had a minimum ratio of precision of 1:10,000 (Class A). Field work was performed from 10/9/2025 to 10/15/2025, and all coordinates are based on NAD83/2011; That this survey was performed to meet the requirements of 21NCAC 56.1600 as applicable.

This 10/21/2025  
Signed by:  
**Matthew Cornwell**  
Professional Land Surveyor L-4775

PROJECT REFERENCE NO. W03293	SHEET NO. RW07
<b>Location and Surveys</b>	
 <b>TGS ENGINEERS</b> 201 WEST MARION STREET SUITE 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	
PROJECT SURVEYOR	
Signed by:  EBO38F11473E475	
 10/21/2025	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

REVISIONS

2:\01-2025\1104 - Surveys\Projects\ncdot\W03293 - US176 (Saluda)\US176 300's Stee.RW STAKING\MTC\us176\_1s\_rw07.dgn  
 A:\MORRIS\ELLIPTOP  
 m.cornwell



NOTES:

1. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
2. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
3. RIGHT OF WAY MONUMENTATION ESTABLISHED 10/9/2025 TO 10/15/2025.