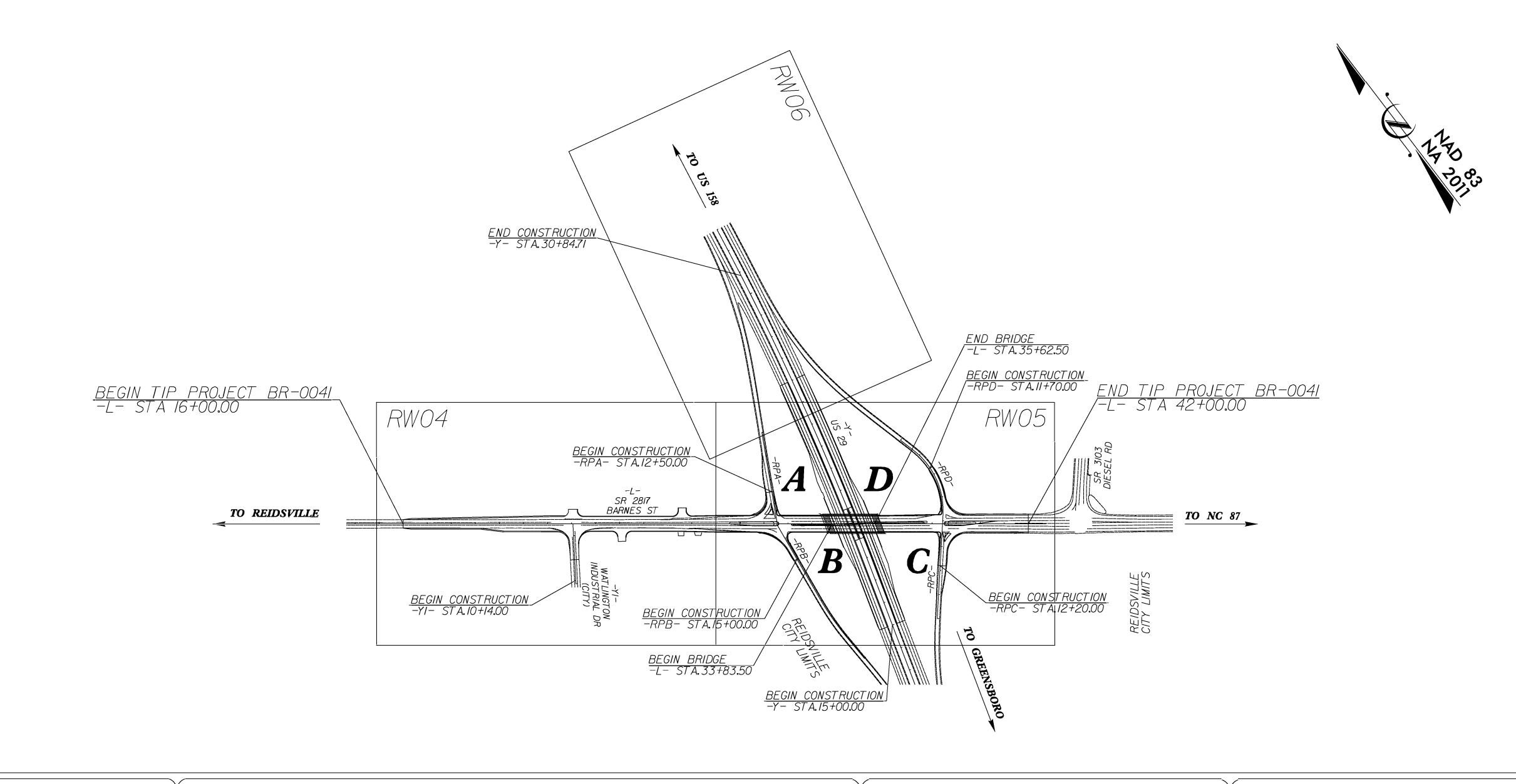
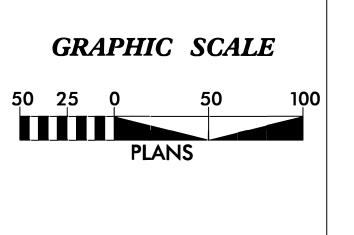
STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

N.C. $|\mathbb{R} \mathbb{W} 01|$ BR0041

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

ROCKINGHAM COUNTY



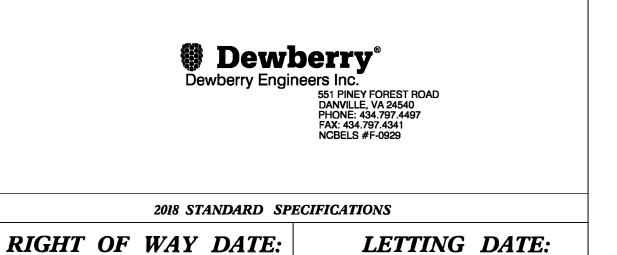


DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "R2560DB-3" WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF NORTHING: 938460.113(ft) EASTING: 1810834.187(ft) **ELEVATION: 809.49(ft)** THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 1.00001470 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "R2560DB-3" TO -L- STATION 34+73.00 IS N 63-51'33" W 325.16(ft)

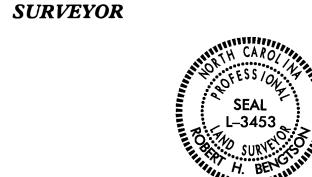
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES

VERTICAL DATUM USED IS NAVD88/ GEOID G12NC

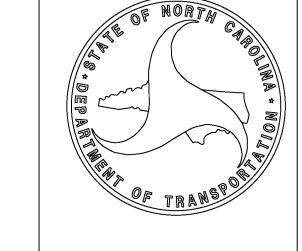


Prepared in the Office of:

LETTING DATE: 04/18/2023 06/15/2022



PROFESSIONAL LAND



Robert H. Bengtson EA79E7CA33894F1.

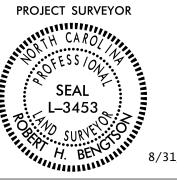
8/31/2022

⋖ ICR0S 29-AUG-2022 II:48 P:\50I54442\CAD\Survey bpowell AT PF2SGW9R

SIGNATURE:

Dewberry
Dewberry Engineers Inc.

551 PINEY FOREST ROAD
DANVILLE, VA 24540
PHONE: 434.797.4497
FAX: 434.797.4341
NCBELS #F-0929



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

I, Robert H. Bengtson, PLS, certify that the Project Control was verified under my supervision from an actual GPS survey made by others and the following information was used to perform the survey:

Class of survey: *AA*Type of GPS field procedure: RTN

Dates of survey: February 2018

Datum/Epoch:NAD 83/2011

Published/Fixed-control use: N/A

Localized around: R2560DB-3

Northing:938460.113

Easting:1810834.187

Combined grid factor:1.00001470

Geoid model:G12NC

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 from 7/17/18 to 7/19/18, 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 31st day of August, 2022.

Robert H. Bengtson

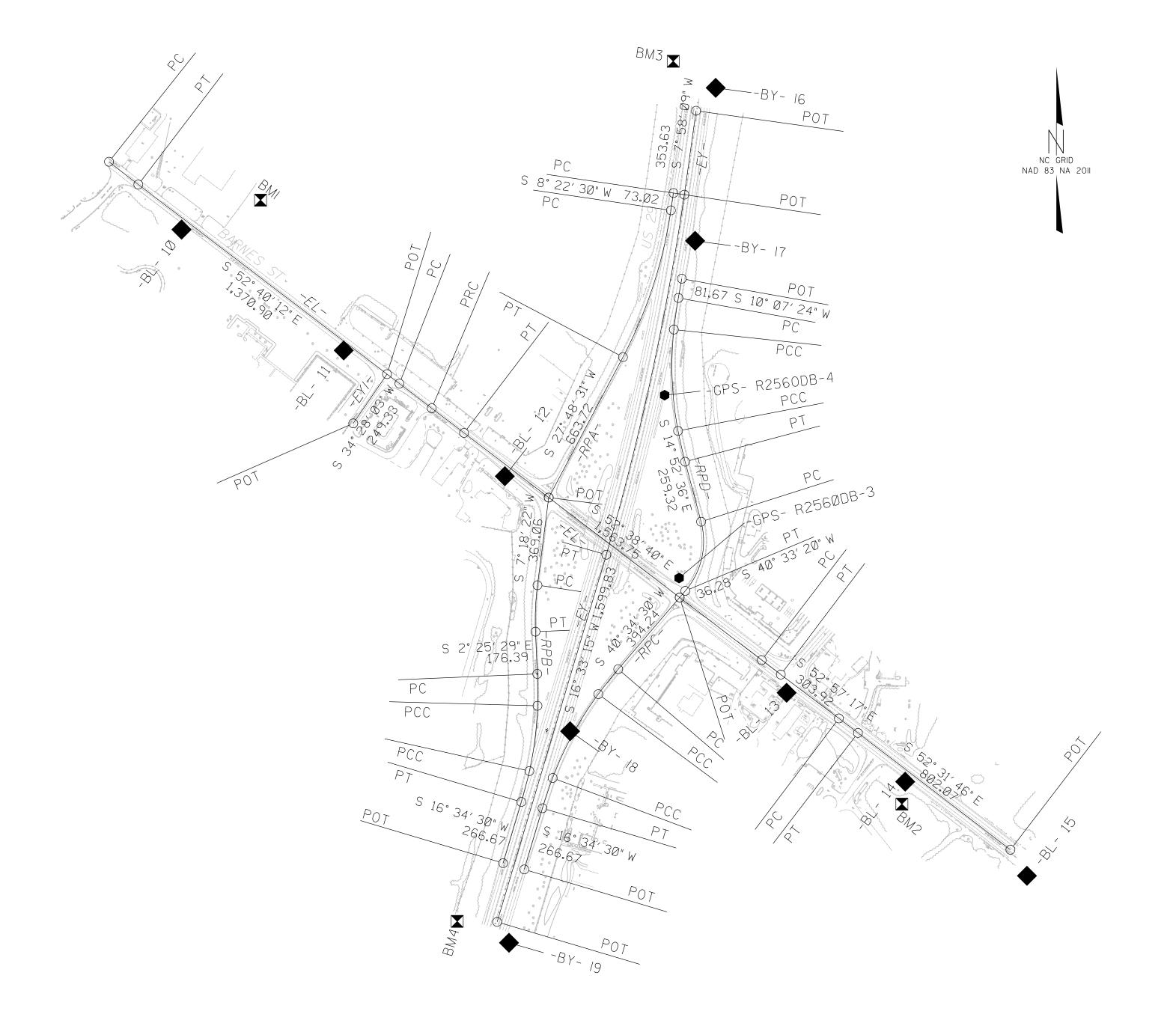
EA79E7CA33894F1...

Professional Land Surveyor L-3453

SEE SHEET RWO2C-3 FOR FURTHER ALIGNMENT DETAILS

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.



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SURVEY CONTROL SHEET

W/EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

BL			BASELINE CONTROL		
	POINT	DESC.	NORTH	EAST	ELEVATION
10		BL - 10	939915.2157	1808756.3568	792.94
1 1		BL - 11	939410.4395	1809433.4892	797.41
12		BL-12	938885. Ø275	1810106.1764	811.61
3		R256ØDB-3	938460.1130	1810834.1870	809.49
13		BL - 13	937980.7944	1811282.7935	802.35
14		BL - 14	937609.4124	1811777.8352	789.10
15		BL - 15	937216.2823	1812286.2293	784.56
BY					
	POINT	DESC.	NORTH	EAST	ELEVATION
16		BY - 16	940507.2314	1810986.6242	729.62
17		BY - 17	939868.2514	1810900.7152	752.46
4		R256ØDB-4	939223.7031	1810773.5994	777.29
3		R256ØDB-3	938460.1130	1810834.1870	809.49
18		BY - 18	937820.2655	1810379.3141	791.39
19		BY - 19	936936.7959	1810124.1648	778.14

BENCHMARKS

* * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *
BM1 ELEY	VATION = 794.99
N 940038	E 18Ø9Ø87
BL STATION 6+9	91.00 296 LEFT
RR SPIKE IN A	12"ASH
* * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *
* * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *
BM2 ELEY	VATION = 775.87
N 937516	E 1811764
BL STATION 43	+63.00 82 RIGHT
RR SPIKE IN A	12" OAK

* * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *
BM3 ELEVATIO	N = 732.09
N 94Ø618 E 18	10810
BY STATION 5+00.00	
N 57°55′18.6" W	DIST 208.89
RR SPIKE IN A 15"H	ICKORY
* * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *
* * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *
BM4 ELEVATIO	N = 783.23
N 937Ø26 E 18	Ø99Ø8
BY STATION 42+47.0	Ø 233 RIGHT
RR SPIKE IN A 10"M	APLE
* * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *

PROJECT REFERENCE NO.

BR0041

RW02C-2

Location and Surveys

Dewberry

Dewberry

Dewberry

Dewberry Engineers Inc.

551 PINEY FOREST ROAD

DANVILLE, VA 24540
PHONE: 434.797.4497
FAX: 434.797.4341
NCBELS #F-0929

PROJECT SURVEYOR

PROJECT SURVEYOR

SEAL

L-3453
SURVE

SURVE

BY31/2022

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

I, Robert H. Bengtson, PLS, certify that the Project Control was verified under my supervision from an actual GPS survey made by others and the following information was used to perform the survey:

Class of survey: *AA*Type of GPS field procedure: RTN
Dates of survey: February 2018
Datum/Epoch:NAD 83/2011
Published/Fixed-control use: N/A
Localized around: R2560DB-3
Northing:938460.113
Easting:1810834.187
Combined grid factor:1.00001470
Geoid model:G12NC
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 from 7/17/18 to 7/19/18, 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 31st day of August, 2022.

DocuSigned by:

Robert H. Bengtson

EA79E7CA33894F1...

Professional Land Surveyor L-3453

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.

SHEET\$\BR0041_LS_RW02C-2_220831.dgn

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SURVEY CONTROL SHEET

W/EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

ALIGNMENT DATA

EL									
POINT	N	Е	BEARING	DIST	DELTA	D	L	T	R
PC	940198.800	18Ø8453.763							
CURVE			S 52°Ø6′Ø8.4" E	155.18	Ø1°Ø8′Ø6.8"(LT)	ØØ°43′53.6"	155.18	77.59	7832.17
PT	940103.481	18Ø8576.217							
LINE			S 52°40′11.9" E	1370.90					
PC	939272.157	18Ø9666.299							
CURVE			S 52°38′Ø3.6" E	169.73	00°04′16.5"(RT)	ØØ°Ø2′31.1"	169.73	84.87	136478.31
PCC	939169.146	1809801.200							
CURVE			S 52°37′17.9" E	169.73	00°02′45.1"(LT)	ØØ°Ø1′37.3"	169.73	84.87	212057.14
PT	939066.105	1809936.077							
LINE			S 52°38′40.5" E	1563.75					
PC	938117.288	1811179.082							
CURVE			S 52°47′58.6" E	100.00	ØØ°18′36.3"(LT)	ØØ°18′36.3"	100.00	50.00	18477.62
PT	938Ø56.828	1811258.734							
LINE			S 52°57′16.8" E	3Ø3.92					
PC	937873.731	18115Ø1.312							
CURVE			S 52°44′31.5" E	100.00	ØØ°25′3Ø.6"(RT)	ØØ°25′3Ø.6"	100.00	50.00	13475.83
PT	937813.191	1811580.903							
LINE			S 52°31′46.1" E	802.07					
POT	937325.247	1812217.482							

ΕY									
POINT	N	Е	BEARING	DIST	DELTA	D	L	T	R
POT	940411.521	1810905.089							
LINE			S Ø7°58′Ø9.3" W	353.63					
PC	940061.307	1810856.062							
CURVE			S 12°13′30.0" W	1538.84	Ø7°42′ØØ.Ø"(RT)	00°30′00.0"	1540.00	771.16	11459.16
PT	938557.361	1810530.210							
LINE POT			S 16°33′15.Ø" W	1599.83					
POT	937023.844	1810074.384							

EY1				
POINT	N	E	BEARING	DIST
POT	939311.559	18Ø9614.633		
LINE			S 34°28′Ø3.Ø" W	249.33
POT	939106.002	1809473.530		

RPA									
POINT	N	Е	BEARING	DIST	DELTA	D	L	T	R
POT	940068.007	1810810.552							
LINE			S Ø8°22′3Ø.Ø" W	73.Ø2					
PC	939995.770	1810799.917							
CURVE			S 18°05′30.7" W	644.69	19°26′Ø1.3"(RT)	03°00′00.0"	647.79	327.04	1909.86
PT	939382.955	1810599.715							
LINE			S 27°48′31.3" W	663.72					
POT	938795.889	1810290.076							

RPB									
POINT	N	Е	BEARING	DIST	DELTA		L	T	R
POT	938796.211	1810289.653							
LINE			S Ø7°18′21.6" W	369.06					
PC	938430.144	1810242.720							
CURVE			S Ø2°26′26.2" W	194.38	09°43′50.8"(LT)	05°00′00.0"	194.62	97.54	1145.92
PT	938235.939	1810234.443							
LINE			S Ø2°25′29.2" E	176.39					
PC PC	938059.705	1810241.906							
CURVE			S ØØ°25′29.6" E	133.29	Ø3°59′59.2"(RT)	03°00′01.0"	133.31	66.68	1909.68
PCC	937926.422	1810242.894							
CURVE			S Ø7°Ø4′30.0" W	274.58	11°00′00.0"(RT)	04°00′00.0"	275.00	137.92	1432.39
PCC	937653.935	1810209.075							
CURVE			S 14°34′30.0" W	133.31	04°00′00.0"(RT)	Ø2°59′59.4"	133.34	66.7Ø	1909.97
PT	937524.911	1810175.527							
LINE			S 16°34′30.0" W	266.67					
POT	937269.323	1810099.454							
	·	·				·			

RPC									
POINT	N	Е	BEARING	DIST	DELTA	D	L	T	R
POT	938378.843	1810836.430							
LINE			S 40°34′30.0" W	394.24					
PC	938079.396	1810579.999							
CURVE			S 38°34′30.0" W	133.31	04°00′00.0"(LT)	Ø2°59′59.4"	133.34	66.70	1909.97
PCC	937975.172	1810496.873							
CURVE			S 28°34′30.0" W	398.7Ø	16°00′00.0"(LT)	04°00′00.0"	400.00	201.31	1432.39
PCC	937625.036	1810306.170							
CURVE			S 18°34′30.0" W	133.31	04°00′00.0"(LT)	Ø2°59′59.4"	133.34	66.70	1909.97
PT	937498.667	1810263.704							
LINE			S 16°34′30.0" W	266.67					
POT	937243.078	181Ø187.631							

POINT	N	Е	BEARING	DIST	DELTA			T	R
POT	939710.146	1810845.470							
LINE			S 10°07′24.2" W	81.67					
⊃C	939629.748	181Ø831.115							
CURVE			S Ø8°Ø7′24.2" W	133.31	04°00′00.0"(LT)	Ø2°59′59.4"	133.34	66.70	1909.97
PCC	939497.772	1810812.277							
CURVE			S Ø2°22′35.8" E	423.44	17°00′00.0"(LT)	04°00′00.0"	425.00	214.07	1432.39
PCC	939074.693	1810829.836							
CURVE			S 12°52′35.8" E	132.12	04°00′00.0"(LT)	Ø3°Ø1′37.1"	132.14	66.10	1892.83
PT	938945.898	1810859.279							
LINE			S 14°52′35.8" E	259.32					
PC	938695.272	1810925.856							
CURVE			S 12°50′22.1" W	296.27	55°25′55.7"(RT)	17°59′19.3"	3Ø8.15	167.34	318.51
PT	938406.408	1810860.018							
LINE			S 40°33′20.0" W	36.28					
POT	938378.843	1810836.430							

Dewberry
Dewberry Engineers Inc.

551 PINEY FOREST ROAD
DANVILLE, VA 24540
PHONE: 434.797.4497
FAX: 434.797.4341
NCBELS #F-0929 PROJECT SURVEYOR DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Location and Surveys

SHEET NO.

RW02C-3

PROJECT REFERENCE NO.

BR0041

I, Robert H. Bengtson, PLS, certify that the Project Control was verified under my supervision from an actual GPS survey made by others and the following information was used to perform the survey:

Class of survey: AA Type of GPS field procedure: RTN Dates of survey: February 2018 Datum/Epoch:NAD 83/2011 Published/Fixed-control use: N/A Localized around: R2560DB-3 Northing:938460.113 Easting:1810834.187 Combined grid factor:1.00001470 Geoid model:G12NC 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 from 7/17/18 to 7/19/18, 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 31st day of August, 2022.

Robert H. Bengtson

Professional Land Surveyor L-3453

NOTES:

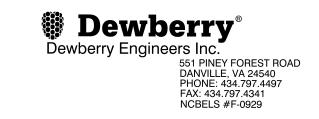
- 1. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
- 2. THE SURVEY CONTROL DATA FOR THIS PROJECT HAS BEEN COMPILED FROM VARIOUS SOURCES. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

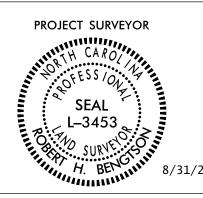
PROPOSED ALIGNMENT CONTROL SHEET

Location and Surveys	BR0041		RW02D-1
	Location	and	Surveys

PROJECT REFERENCE NO.

SHEET NO. RW02D-1





DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

I, Robert H. Bengtson, PLS, certify that the data compiled came from available surveys/mapping performed by others and provided to me by NCDOT and do not certify to the accuracy or quality of the individual data sources.

This 31st day of August, 2022.

Robert H. Bengtson EA79E7CA33894F1...

Professional Land Surveyor L-3453

		<u> </u>	
TYPE	STATION	NORTH	EAST
POT	10+00.00	940103.4808	1808576.2167
PC	20+98.30	939437.4649	1809449.5377
PT	22+00.25	939375.6232	1809530.5911
POT	42+74.12	938117.2879	1811179.0818

		Y	
TYPE	STATION	NORTH	EAST
POT	10+00.00	937691.3669	1810272.8001
TS	16+67.73	938331.4239	1810463.0520
SC	18+67.73	938523.2911	1810519.5034
CS	34+65.75	940083.7011	1810858.6356
ST	36+65.75	940281.6912	1810886.9140
POT	37+96.85	940411.5207	1810905.0893

		Y 1	
YPE	STATION	NORTH	EAST
POT	10+00.00	939106.0023	1809473.5299
POT	12+49.26	939311.5015	1809614.5941

		RPA	
TYPE	STATION	NORTH	EAST
POT	10+00.00	939136.6752	1810469.8185
POT	13+85.28	938795.8888	1810290.0760

		RPB	
TYPE	STATION	NORTH	EAST
POT	10+00.00	938131.1657	1810238.8795
PC	11+12.10	938243.1619	1810234.1370
PT	13+15.90	938446.5332	1810242.8051
POT	16+69.85	938797.6133	1810287.8168

		RPC	
TYPE	STATION	NORTH	EAST
POT	10+00.00	938079.3962	1810579.9992
POT	13+94.24	938378.8431	1810836.4296

		RPD	
TYPE	STATION	NORTH	EAST
POT	10+00.00	938761.2573	1810908.3274
PC	10+68.27	938695.2718	1810925.8559
PT	13+76.42	938406.4077	1810860.0183
POT	14+12.70	938378.8430	1810836.4296

NOTES:

- 1. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
- 2. THE PROPOSED ALIGNMENT 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.

3/2/99

RIGHT OF WAY CONTROL SHEET

PROJECT REFERENCE NO.

BR0041

BR0041 RW03E-1

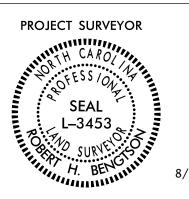
Location and Surveys

SHEET NO.

Dewberry

Dewberry Engineers Inc.

551 PINEY FOREST ROAD
DANVILLE, VA 24540
PHONE: 434.797.4497
FAX: 434.797.4341
NCREI S. #F-0929



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

I , Robert H. Bengtson, 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 8/8/22 to 8/16/22, and all coordinates are based on NAD83/2011; That this survey was performed to meet the requirements of 21NCAC 56.1600 as applicable.

This 31st day of August, 2022.

Robert H. Bengtson

Professional Land Surveyor L-3453

ROW MARKER PERMANENT EASEMENT-E
ALIGN | STATION | OFFSET | NORTH |

ALIUN	SIAIIUN	UFFSEI	NURTH	LAS I
L	22+23.00	-63.00	939411.8991	1809586.8982
L	22+23.00	-50.03	939401.5915	1809579.0302
L	22+71.00	-63.00	939382.7747	1809625.0527
L	23+37.00	-52.00	939333.9850	1809670.8409
L	23+37.00	-71.00	939349.0878	1809682.3693
L	23+57.00	63.00	939230.4378	1809616.9616
L	23+69.00	-71.00	939329.6716	1809707.8057
L	23+69.00	-50.10	939313.0563	1809695.1229
L	23+77.00	49.90	939228.7163	1809640.8083
L	26+51.00	49.99	939062.3912	1809858.5512
L	26+51.00	65.00	939050.4613	1809849.4448
L	26+54.00	-50.01	939140.0590	1809921.6111
L	26+54.00	-62.00	939149.5917	1809928.8877
L	26+85.00	-50.00	939121.2447	1809946.2490
L	26+85.00	-62.00	939130.7822	1809953.5292
L	26+89.00	50.00	939039.3287	1809888.7525
L	26+89.00	65.00	939027.4045	1809879.6505

ROW MARKER PERMANENT EASEMENT-E

ALIGN	STATION	OFFSET	NORTH	EAST
Y 1	11+49.00	32.47	939210.4671	1809584.6271
Y 1	11+49.00	39.00	939206.7733	1809590.0082

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 8/8/22 TO 8/16/22.

P;\5015442\CAD\Survey\MICROSTATION\RW_SHEET\$\BR0041_LS_RW0 bpowell at PF2SGW9R

