

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5710X	RW01	

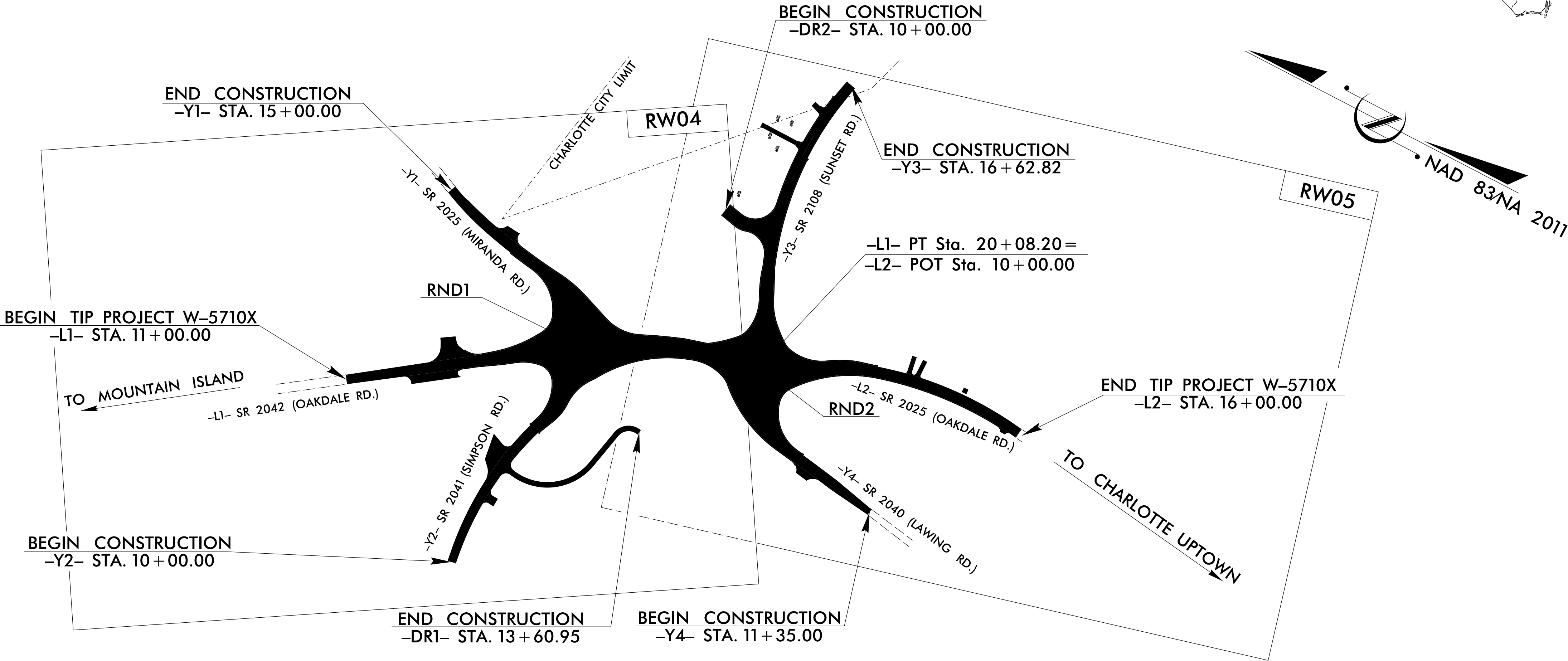
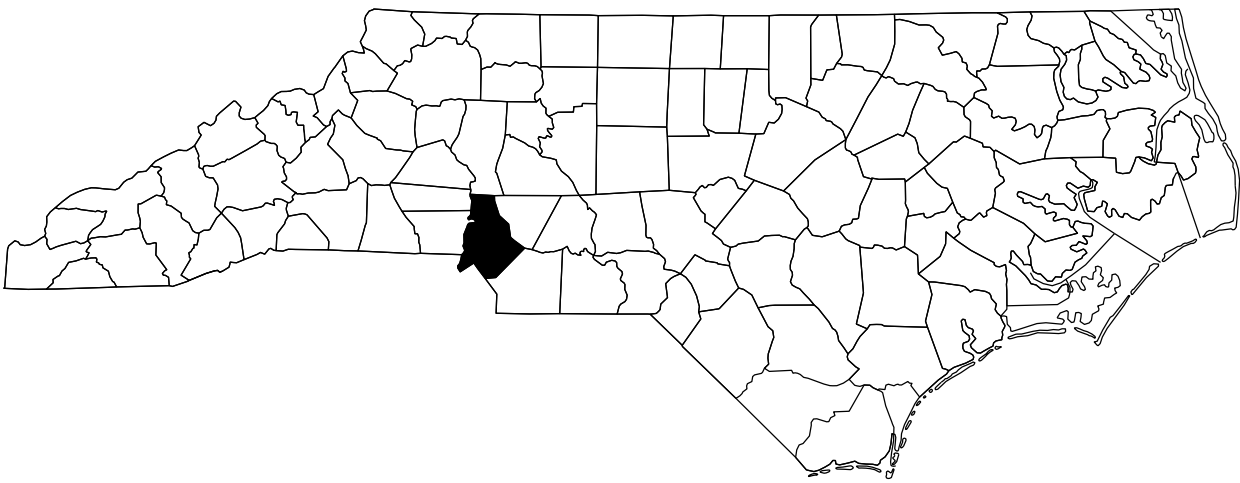
TIP PROJECT: W-5710X

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

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

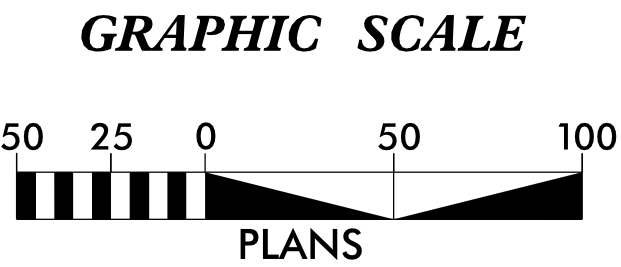
MECKLENBURG COUNTY

LOCATION: INTERSECTION IMPROVEMENTS AT SR 2025 AND SR 2042
(OAKDALE ROAD) FROM SR 2025 (MIRANDA ROAD) TO
SR 2108 (SUNSET ROAD)



See Sheets RW02C-1 thru RW021C-4 for Survey Control Sheets

REVISION 9/25: UPDATED THE STANDARD SPECIFICATIONS DATE FROM 2018 TO 2024 &
CHANGED LETTING DATE FROM MAY 3, 2023 TO NOVEMBER 18, 2025 AS SHOWN BELOW.
ORIGINALLY SIGNED/SEALED BY RANDY W. NANCE, PLS ON 10/6/2021



DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT
IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY
NCGS FOR MONUMENT "C5613L-5"
WITH NAD 83/NSRS 2011 STATE PLANE GRID COORDINATES OF
NORTHING: 577653.753(ft) EASTING: 1433461.415(ft)
ELEVATION: 737.316(ft)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT
(GROUND TO GRID) IS: 0.9998431
THE N.C. LAMBERT GRID BEARING AND
LOCALIZED HORIZONTAL GROUND DISTANCE FROM
"C5613L-5" TO -L1- STATION 5+00 IS
N 51-45°09.7" W 1,879.60(ft)
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

Prepared in the Office of:

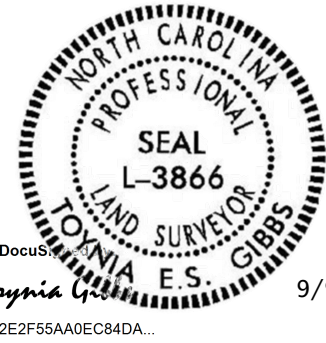
ESP ASSOCIATES, INC
3475 LAKEMONT BLVD
FT MILL, SC 29708

2024 STANDARD SPECIFICATIONS

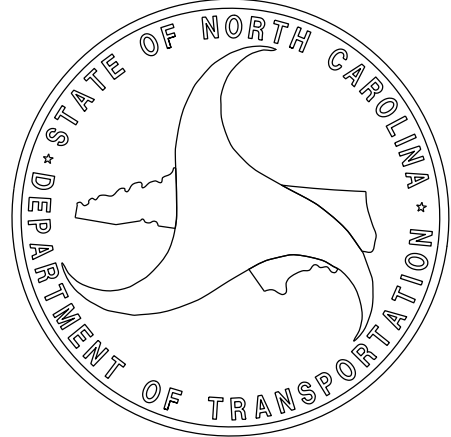
RIGHT OF WAY DATE: JULY 1, 2021

LETTING DATE: NOVEMBER 18, 2025

PROFESSIONAL LAND
SURVEYOR



SIGNATURE: Tanya L. Nance Date: 9/9/2025



SURVEY CONTROL SHEET

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 TO .

PROJECT REFERENCE NO.	SHEET NO.
W-5710X	RW02C-1

Location and Surveys

ESP ASSOCIATES, INC
345 LAKEMONT BLVD
FT MILL, SC 29708

PROJECT SURVEYOR

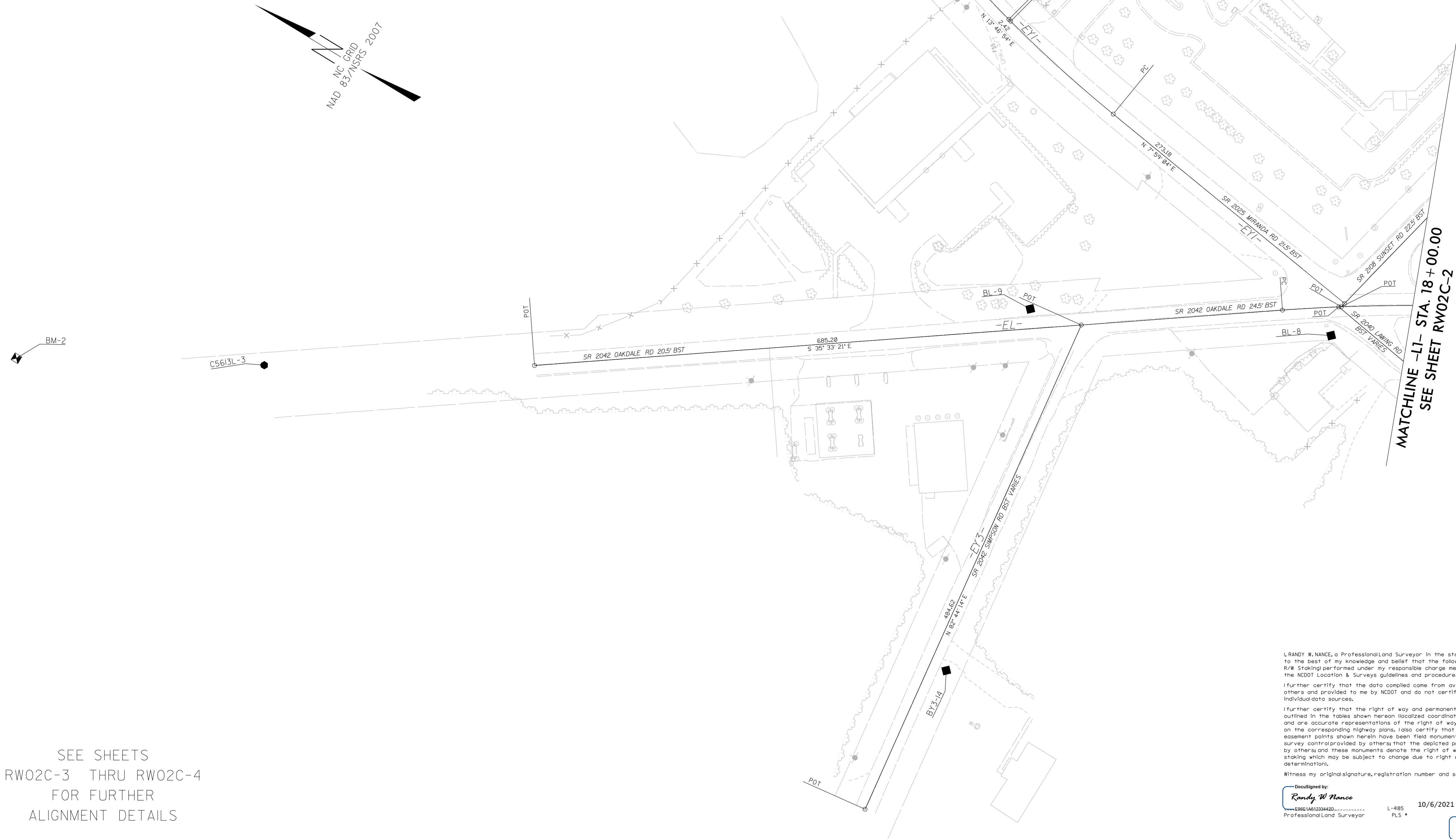
Designed by:

Randy W. Nance

ESPE-1A612334425

10/6/2021

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



SEE SHEETS
RW02C-3 THRU RW02C-4
FOR FURTHER
ALIGNMENT DETAILS

I, RANDY W. NANCE, a Professional Land Surveyor in the state of North Carolina hereby certify that I possess the knowledge and belief that the following work (Items) (Base map Completion, R/W Staking) performed under my responsible charge meet NCDDOT Survey Standards as directed by the NCDDOT Location & Surveying guidelines and procedures.

I further certify that the data compiled came from available surveys/mapping performed by others and provided to me by NCDDOT and do not certify to the accuracy or quality of the Individual data sources.

I further certify that the right of way and permanent easement points shown herein and outlined in the tables shown herein localized coordinates, stationing (if any) have been checked and are accurate representations of the right of way and permanent easement points depicted on the corresponding highway plans. I also certify that the right of way and permanent easement points shown herein were obtained under my supervision from existing survey control provided by others; that the depicted property data shown herein were surveyed by others; and these monuments denote the right of way and easement boundaries at the time of staking. I may be subject to change due to right of way revisions (See deeds for final determination).

Witness my original signature, registration number and seal this 6th day of October, 2021.

Declassified by:
Randy W Nance
Professional Land Surveyor
E-1485
P.L.S. *

10/6/2021

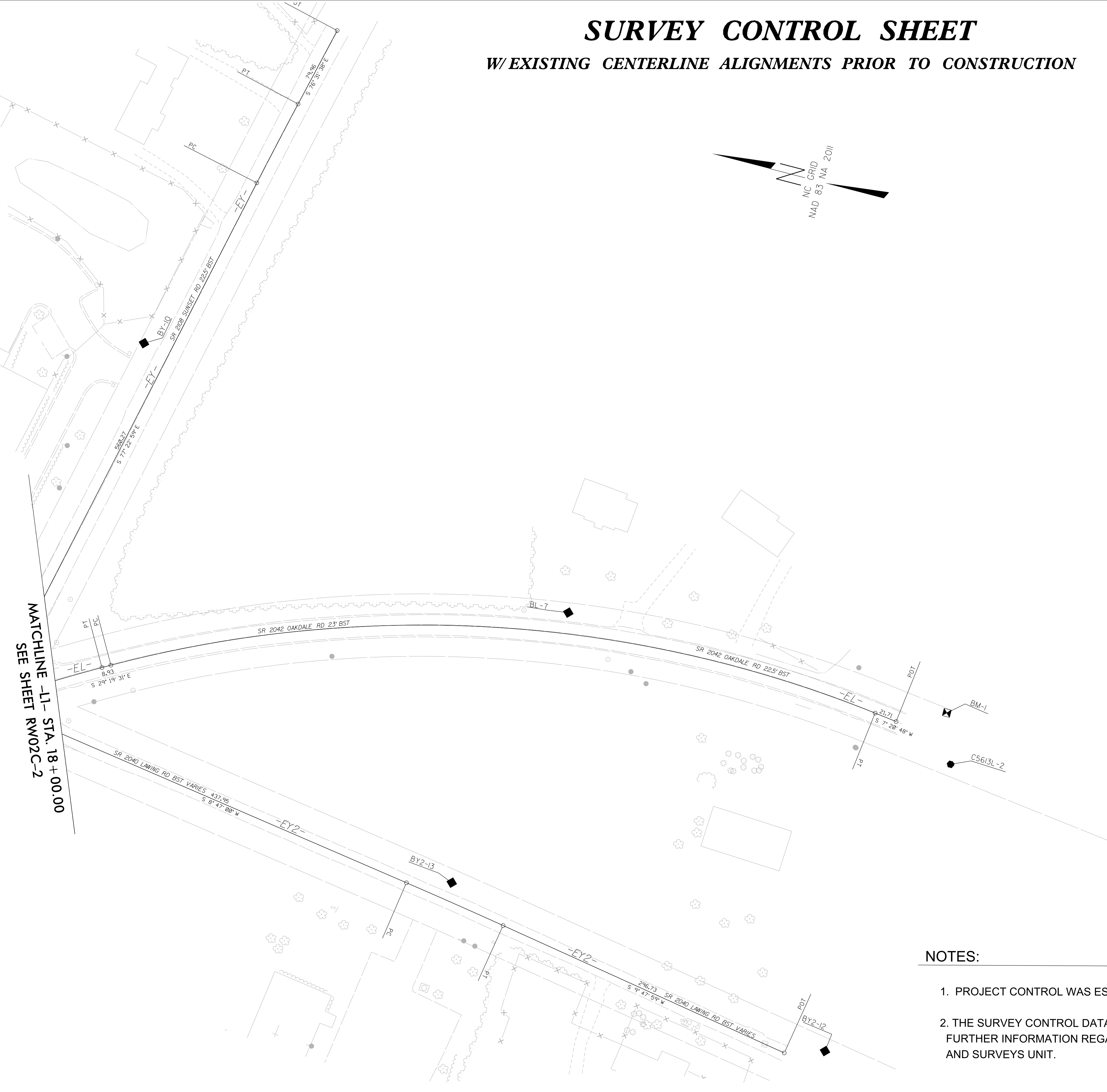
Declassified by:
Randy W Nance
Professional Land Surveyor
E-1485
P.L.S. *

Seal: NORTH CAROLINA PROFESSIONAL SURVEYORS SEAL 14185 RANDY W. NANCE E-1485

6/2/2025

06-OCT-2021 13:48
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petrucci AT ESPS2C061517

REVISIONS



SURVEY CONTROL SHEET

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

PROJECT REFERENCE NO.	SHEET NO.
W-5710X	RW02C-2
Location and Surveys	
ESP ASSOCIATES, INC 345 LAKEMONT BLVD FT MILL, SC 29708	
PROJECT SURVEYOR DocuSigned by: Randy W Nance E98E1A61233442D Seal: RANDY W. NANCE, L-4185, NC PROFESSIONAL LAND SURVEYOR 10/6/2021	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

SEE SHEETS
RW02C-3 THRU RW02C-4
FOR FURTHER
ALIGNMENT DETAILS

I, RANDY W. NANCE, a Professional Land Surveyor in the state of North Carolina hereby certify to the best of my knowledge and belief that the following work item(s) (Base map Completion, R/W Staking) performed under my responsible charge meet NCDOT Survey Standards as directed in the NCDOT Location & Surveys guidelines and procedures.

I further 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.

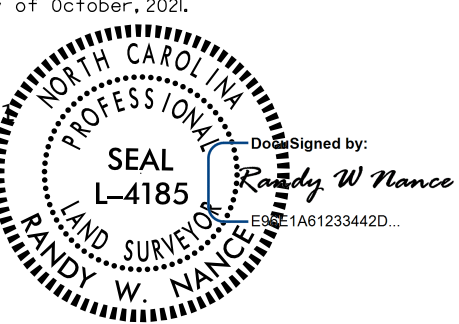
I further certify that the right of way and permanent easement points shown herein and outlined in the tables shown hereon (localized coordinates, station/offset) have been checked and are accurate representations of the right of way and permanent easement points depicted on the corresponding highway plans. I also certify that the right of way and permanent easement points shown herein have been field monumented under my supervision from existing survey control provided by others; that the depicted property data shown herein were surveyed by others and these monuments denote the right of way and easement boundaries of the time of staking which may be subject to change due to right of way revisions (See deeds for final determination).

Witness my original signature, registration number and seal this 6th day of October, 2021.

DocuSigned by:
Randy W Nance
E98E1A61233442D
Professional Land Surveyor

L-4185
PLS

10/6/2021
Seal



NOTES:

- PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
- 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.

6/2/2021

REVISIONS

06-06T-20210245
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SURVEY CONTROL SHEET

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

BL POINT	N	E	BEARING	DIST
POT	576899.863	1432878.033		
LINE			N 07°04'11.9" E	395.28
POT	577292.133	1432926.684		
LINE			N 26°03'19.7" W	568.21
POT	577802.595	1432677.103		
LINE			N 26°15'56.4" W	275.93
POT	578050.039	1432554.993		
LINE			N 35°31'04.4" W	701.69
POT	578621.170	1432147.340		

.....
BM1 ELEVATION = 735.99
N 576916 E 1432925
RR SPIKE IN BASE OF 16 INCH OAK
.....

.....
BM2 ELEVATION = 737.06
N 578818 E 1432035
RR SPIKE IN BASE OF 24 INCH OAK
.....

BY POINT	N	E	BEARING	DIST
POT	577802.595	1432677.103		
LINE			S 82°46'01.1" E	400.78
POT	577752.135	1433074.691		
LINE			S 75°43'36.5" E	399.04
POT	577653.753	1433461.415		

BY1 POINT	N	E	BEARING	DIST
POT	577802.595	1432677.103		
LINE			N 12°42'36.5" E	531.08
POT	578320.663	1432793.951		

BY2 POINT	N	E	BEARING	DIST
POT	576947.265	1432580.889		
LINE			N 09°42'20.7" E	393.66
POT	577335.293	1432647.256		
LINE			N 03°39'16.4" E	468.25
POT	577802.595	1432677.103		

BY3 POINT	N	E	BEARING	DIST
POT	577943.881	1432232.808		
LINE			N 71°45'47.7" E	339.22
POT	578050.039	1432554.993		

I, RANDY W. NANCE, a Professional Land Surveyor in the state of North Carolina hereby certify to the best of my knowledge and belief that the following work item(s) (Base map Compilation, R/W Staking) performed under my responsible charge meet NC DOT Survey Standards as directed in the NC DOT Location & Surveys guidelines and procedures.

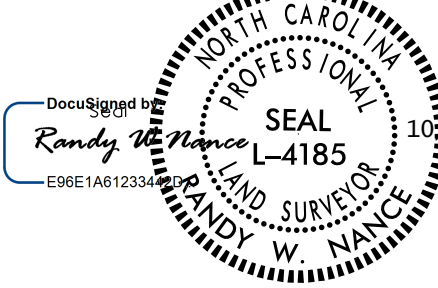
I further certify that the data compiled came from available surveys/mapping performed by others and provided to me by NC DOT and do not certify to the accuracy or quality of the individual data sources.

I further certify that the right of way and permanent easement points shown herein and outlined in the tables shown hereon (localized coordinates, station/offset) have been checked and are accurate representations of the right of way and permanent easement points depicted on the corresponding highway plans. I also certify that the right of way and permanent easement points shown herein have been field monumented under my supervision from existing survey control provided by others; that the depicted property data shown herein were surveyed by others and these monuments denote the right of way and easement boundaries at the time of staking which may be subject to change due to right of way revisions (See deeds for final determination).

Witness my original signature, registration number and seal this 6th day of October, 2021.

DocuSigned by:
Randy W Nance
-----E09E1A812334420-----
Professional Land Surveyor

10/6/2021
L-485
PLS *



10/6/2021

NOTES:

- PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
- 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.

6/2/95

REVISIONS

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SURVEY CONTROL SHEET
W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

EL POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	578410.125	1432275.416	S 35°33'20.8" E	685.20					
LINE									
PC	577852.680	1432673.857	S 32°26'26.0" E	165.75	06°13'49.5"(RT)	03°45'25.6"	165.83	83.00	1525.00
CURVE									
PT	577712.797	1432762.769	S 29°19'31.2" E	8.93					
LINE									
PC	577705.015	1432767.141	S 10°59'21.4" E	736.14	36°40'19.7"(RT)	04°53'49.5"	748.86	387.76	1170.00
CURVE									
PT	576982.373	1432907.468	S 07°20'48.4" W	21.71					
LINE									
POT	576960.843	1432904.692							

EY1 POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	577807.375	1432708.597	N 07°59'04.0" E	273.18					
LINE									
PC	578077.908	1432746.543	N 10°52'59.1" E	126.42	05°47'50.2"(RT)	04°35'01.2"	126.48	63.29	1250.00
CURVE									
PT	578202.057	1432770.412	N 13°46'54.2" E	2.42					
LINE									
PC	578204.412	1432770.989	N 19°55'43.5" E	173.47	12°17'38.6"(RT)	07°04'24.8"	173.80	87.24	810.00
CURVE									
PT	578367.494	1432830.117							

EY2 POINT	N	E	BEARING	DIST
POT	577941.326	1432085.976		
LINE			N 82°44'14.0" E	484.62
POT	578002.591	1432566.707		

EY3 POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	577808.314	1432704.399	S 77°22'59.0" E	560.27					
LINE									
PC	577685.933	1433251.143	S 76°57'18.4" E	85.59	00°51'21.2"(RT)	01°00'00.0"	85.59	42.79	5729.58
CURVE									
PT	577666.615	1433334.521	S 76°31'37.8" E	79.96					
LINE									
POT	577647.986	1433412.279							

EY4 POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	577810.243	1432703.119	S 08°47'00.0" W	437.95					
LINE									
PC	577377.432	1432636.245	S 09°17'29.6" W	101.64	01°00'59.2"(RT)	01°00'00.0"	101.64	50.82	5729.58
CURVE									
PT	577277.122	1432619.834	S 09°47'59.2" W	296.73					
LINE									
POT	576984.724	1432569.330							

PROJECT REFERENCE NO.
W-5710X

SHEET NO.
RW02C-4

Location and Surveys

ESP ASSOCIATES, INC
345 LAKEMONT BLVD
FT MILL, SC 29708

PROJECT SURVEYOR

DocuSigned by:
Randy W Nance
E98E1A61233442D

NORTH CAROLINA
PROFESSIONAL
SEAL
L-4185
LAND SURVEYOR
RANDY W. NANCE

10/6/2021

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

I, RANDY W. NANCE, a Professional Land Surveyor in the state of North Carolina hereby certify to the best of my knowledge and belief that the following work item(s) (Base map Compilation, R/W Staking) performed under my responsible charge meet NCDOT Survey Standards as directed in the NCDOT Location & Surveys guidelines and procedures.

I further 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.

I further certify that the right of way and permanent easement points shown herein and outlined in the tables shown hereon (localized coordinates, station/offset) have been checked and are accurate representations of the right of way and permanent easement points depicted on the corresponding highway plans. I also certify that the right of way and permanent easement points shown herein have been field monumented under my supervision from existing survey control provided by others; that the depicted property data shown herein were surveyed by others; and these monuments denote the right of way and easement boundaries at the time of staking which may be subject to change due to right of way revisions (See deeds for final determination).

Witness my original signature, registration number and seal this 6th day of October, 2021.

DocuSigned by:
Randy W Nance
E98E1A61233442D

L-4185
PLS *

10/6/2021

DocuSigned by:
Randy W Nance
E98E1A61233442D

NORTH CAROLINA
PROFESSIONAL
SEAL
L-4185
LAND SURVEYOR
RANDY W. NANCE

10/6/2021

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.

6/2/99

REVISIONS

05-OCT-2021 14:30
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pber-trucci AT EPS2C061517

I, RANDY W. NANCE, a Professional Land Surveyor in the state of North Carolina hereby certify to the best of my knowledge and belief that the following work item(s) (Base map Compilation, R/W Staking) performed under my responsible charge meet NCDOT Survey Standards as directed in the NCDOT Location & Surveys guidelines and procedures.

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Witness my original signature, registration number and seal this 6th day of October, 2021.

DocuSigned by:
Randy W Nance
Professional Land Surveyor
E000113940D

L-4185
PLS *

10/6/2021

DocuSigned by:
Randy W.
E96E1A81233442

E96E1A61233442

0/6/2021

RIGHT OF WAY CONTROL SHEET

R/W - 18" REBAR AND CAP				
ALIGN	STATION	OFFSET	NORTH	EAST
L1	14+99.00	-41.50	578028.2960	1432599.3448
L1	16+68.00	81.00	577823.2500	1432585.3366
L1	17+73.00	42.18	577750.7837	1432663.5762

R/W - 18" REBAR AND CAP				
ALIGN	STATION	OFFSET	NORTH	EAST
L2	12+13.17	35.00	577341.3790	1432834.6913
L2	15+89.48	35.00	576986.8741	1432872.7585

R/W - UNABLE TO BE SET				
ALIGN	STATION	OFFSET	NORTH	EAST
L2	16-10.00	30.00	576965,8869	1432875,0939
L2	16-10.00	35.00	576966,5262	1432870,1350

R/W - 18" REBAR AND CAP				
ALIGN	STATION	OFFSET	NORTH	EAST
RND2	13+05.00	60.00	577435.7429	1432726.6694
RND2	13+27.00	56.00	577430.4006	1432770.6313

R/W - 18" REBAR AND CAP				
ALIGN	STATION	OFFSET	NORTH	EAST
Y1	11+79.98	-38.45	578054.2406	1432703.3362

R/W - 18" REBAR AND CAP				
ALIGN	STATION	OFFSET	NORTH	EAST
Y2	10+14.08	35.00	577908.3865	1432104.3685
Y2	10+14.08	30.00	577913.3464	1432103.7364
Y2	10+31.08	35.00	577910.5354	1432121.2297
Y2	10+37.71	-35.00	577980.8217	1432119.2947
Y2	11+12.77	-35.00	577985.8337	1432197.9119
Y2	12+00.37	35.00	577896.2272	1432365.7364
Y2	14+05.36	26.75	577868.5802	1432476.9460
Y2	14+31.76	26.75	577864.8622	1432510.0961

R/W - UNABLE TO BE SET				
ALIGN	STATION	OFFSET	NORTH	EAST
Y2	10+37.71	-30.03	577975.8886	1432119.8759

R/W - 18" REBAR AND CAP				
ALIGN	STATION	OFFSET	NORTH	EAST
Y3	10+94.19	42.03	577533.5221	1432877.8997
Y3	11+37.12	37.00	577557.3707	1432917.9150
Y3	16+53.55	37.00	577614.1645	1433394.6397
Y3	16+62.50	30.00	577618.8869	1433404.9735
Y3	16+62.50	37.00	577612.0795	1433403.3426

PROJECT REFERENCE NO.	SHEET NO.
W-5710X	RW03E-1
Location and Surveys	
ESP ASSOCIATES, INC 345 LAKEMONT BLVD FT MILL, SC 29708	
PROJECT SURVEYOR	
DocuSigned by: <i>Randy W Vance</i> EP6E1A81233442	PROFESSIONAL SEAL L-4185 JAN 26 / 2021 SOUTH CAROLINA LAND SURVEYOR RANDY W VANCE
NO FINAL SIGNATURES COMPLETED	

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 TO .

REVISIONS

ES-001-2021-1001-039 w5710x-con-esp\Location\RW Sheets\w5710x_1s_rw03e-2_211006.dgn
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PERMANENT EASEMENT CONTROL SHEET

PERMANENT EASEMENT - 18" REBAR & CAP				
ALIGN	STATION	OFFSET	NORTH	EAST
L1	10+00.00	40.00	578386.9142	1432242.8397
L1	10+00.00	30.00	578392.6805	1432251.0099
L1	12+00.00	47.00	578220.0851	1432353.4786
L1	12+03.00	56.50	578212.1202	1432347.4943
L1	12+12.00	54.00	578206.2520	1432354.7617
L1	12+28.00	30.00	578207.1911	1432383.5908
L1	12+63.78	-41.50	578219.6601	1432462.5649
L1	12+92.20	-66.50	578211.0755	1432499.4303
L1	14+28.00	30.00	578044.4811	1432499.8898
L1	14+33.00	-41.50	578081.9903	1432560.9661
L1	14+33.00	-58.00	578091.5850	1432574.3897
L1	14+95.44	-67.21	578046.1440	1432618.1946
L1	15+09.00	-65.00	578033.8256	1432624.2782
L1	17+42.05	54.87	577772.6963	1432639.9179
L1	17+73.70	-121.11	577814.5448	1432813.9067
L1	17+97.43	82.77	577713.8355	1432635.0141

PERMANENT EASEMENT - MAG NAIL				
ALIGN	STATION	OFFSET	NORTH	EAST
L1	14+28.00	56.00	578029.3623	1432478.7375
L1	14+36.99	55.50	578022.3408	1432484.3708

PERMANENT EASEMENT - 18" REBAR & CAP				
ALIGN	STATION	OFFSET	NORTH	EAST
L2	12+44.08	-87.47	577349.9511	1432960.9386
L2	12+47.94	-95.98	577348.3701	1432970.3466
L2	12+50.55	-83.89	577342.0579	1432959.6355
L2	12+54.35	-92.42	577340.4808	1432969.0208
L2	12+75.00	-67.00	577311.6722	1432950.8015
L2	12+79.40	-75.50	577309.2467	1432960.2529
L2	12+82.30	-63.50	577303.1420	1432949.4516
L2	12+86.00	-72.00	577301.3881	1432958.6864
L2	12+91.19	-53.19	577291.3524	1432941.8248
L2	13+32.00	46.00	577229.7838	1432853.9484
L2	13+38.00	35.00	577226.2661	1432865.8257
L2	13+40.00	50.00	577221.6472	1432851.4295
L2	13+48.00	35.00	577216.8579	1432867.5366
L2	14+34.13	-42.91	577140.2666	1432955.1138
L2	14+34.19	-34.82	577139.6617	1432947.0486
L2	15+15.00	40.00	577058.0117	1432873.5702
L2	15+15.00	35.00	577057.8361	1432878.5671
L2	15+35.00	35.00	577038.7333	1432877.6567
L2	15+35.00	40.00	577039.0337	1432872.6658
L2	15+37.00	-30.55	577032.7223	1432942.9605
L2	15+57.00	-69.00	577008.6529	1432979.7052
L2	15+61.00	-30.16	577007.9176	1432940.6422
L2	15+75.00	-58.00	576990.4052	1432966.8418

PERMANENT EASEMENT - 18" REBAR & CAP				
ALIGN	STATION	OFFSET	NORTH	EAST
Y4	12+56.00	-52.00	577245.8394	1432561.6610
Y4	12+56.00	-30.00	577242.0949	1432583.3400
Y4	12+84.00	-60.00	577274.7925	1432558.5435
Y4	12+96.73	-30.00	577282.2279	1432590.2720
Y4	13+95.00	-40.00	577380.2304	1432596.2023
Y4	13+95.00	-30.00	577378.6976	1432606.0841
Y4	14+20.00	-40.00	577404.9138	1432600.0171
Y4	14+72.00	-36.06	577463.3885	1432619.1707
Y4	14+78.27	-53.97	577478.2648	1432606.2954
Y4	15+00.48	-77.70	577517.7566	1432601.8369

PERMANENT EASEMENT - 18" REBAR & CAP				
ALIGN	STATION	OFFSET	NORTH	EAST
RND1	13+13.96	63.16	577794.3606	1432598.3193
RND1	13+18.14	74.98	577780.8346	1432604.8035
RND1	13+19.14	55.04	577800.1124	1432610.3175

PERMANENT EASEMENT - 18" REBAR & CAP				
ALIGN	STATION	OFFSET	NORTH	EAST
Y1			578490.1550	1432841.1000
Y1			578480.4489	1432860.7907
Y1	11+15.00	65.00	577949.7435	1432768.6142
Y1	11+81.25	-72.05	578063.5273	1432671.0260
Y1	12+15.50	30.00	578075.2546	1432776.4650
Y1	12+15.50	41.00	578073.7130	1432787.3565
Y1	12+58.32	-63.12	578132.7295	1432691.3264
Y1	13+29.09	30.00	578184.1708	1432796.9654
Y1	13+29.37	35.00	578183.2862	1432801.8940
Y1	13+85.12	-55.47	578261.2112	1432729.0166
Y1	13+85.00	-64.74	578264.5858	1432720.3587
Y1	13+92.59	-54.88	578268.6650	1432731.9219
Y1	13+93.19	-64.15	578272.0396	1432723.2640
Y1	14+04.68	-60.56	578282.7292	1432730.4535
Y1	14+04.82	-52.93	578280.4924	1432737.7519
Y1	14+12.12	-60.76	578290.3780	1432732.7978
Y1	14+12.36	-51.83	578287.7615	1432741.3350
Y1	14+15.00	30.00	578263.9304	1432819.6631
Y1	15+00.00	-45.00	578371.4209	1432782.1401

PERMANENT EASEMENT - 18" REBAR & CAP				
ALIGN	STATION	OFFSET	NORTH	EAST
Y2	10+00.00	-50.00	577990.9244	1432079.6546
Y2	10+00.00	-30.00	577971.0849	1432082.1830
Y2	10+34.00	-51.00	577996.2351	1432113.4674
Y2	10+34.00	-60.00	578005.1676	1432112.3668
Y2	10+43.00	-51.00	577997.3542	1432123.0579
Y2	10+43.00	-60.00	578006.3000	1432122.0724
Y2	12+24.36	-58.74	578001.1631	1432318.1963

PERMANENT EASEMENT - 18" REBAR & CAP				
ALIGN	STATION	OFFSET	NORTH	EAST
Y3	11+54.67	37.00	577564.7712	1432932.8416
Y3	12+55.00	50.00	577587.6531	1433025.2142
Y3	12+55.00	37.00	577600.0302	1433021.2383
Y3	12+80.00	60.00	577584.7743	1433050.2342
Y3	12+87.26	47.29	577598.8184	1433053.3063
Y3	12+92.03	52.94	577594.5278	1433059.0666
Y3	12+94.00	37.00	577610.4064	1433056.7733
Y3	13+12.19	56.47	577595.6434	1433078.0097
Y3	13+19.15	63.13	577590.5963	1433085.7373
Y3	13+24.48	58.36	577596.3187	1433089.4747
Y3	13+25.00	78.00	577577.2346	1433094.1273
Y3	13+28.67	58.96	577596.5478	1433093.3649
Y3	13+33.00	37.00	577618.8703	1433092.8116
Y3	13+43.00	95.00	577563.7762	1433113.0899
Y3	13+52.00	61.87	577597.8172	1433114.9188
Y3	13+55.00	50.00	577609.9878	1433115.5726
Y3	14+50.00	48.00	577621.5847	1433203.3935
Y3	15+00.00	40.00	577630.0233	1433250.2930
Y3	15+80.00	37.00	577626.9868	1433326.0343
Y3	15+97.18	-56.40	577716.8500	1433356.8625
Y3	15+99.07	-32.12	577692.5593	1433354.9916
Y3	16+04.58	-57.09	577716.2357	1433364.8388
Y3	16+06.82	-31.56	577690.6718	1433362.8699
Y3	16+10.50	37.00	577622.5092	1433354.6380
Y3	16+12.73	47.35	577611.9495	1433354.8726

PERMANENT EASEMENT - UNABLE TO SET				
ALIGN	STATION	OFFSET	NORTH	EAST
L1	12+84.50	-64.00	578215.8861	1432492.9190
L1	17+02.04	82.90	577794.3606	1432598.3193
L1	17+02.33	69.60	577800.1124	1432610.3175
L1	17+18.21	83.10	577780.8346	1432604.8035
L1	17+18.34	63.86	577789.1512	1432622.1520

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 TO .

PROJECT REFERENCE NO.
W-5710X

SHEET NO.
RW03E-2

Location and Surveys

ESP ASSOCIATES, INC
345 LAKEMONT BLVD
FT MILL, SC 29708

PROJECT SURVEYOR

DocuSigned by:
Randy W Nance
E89E1A81233442D...

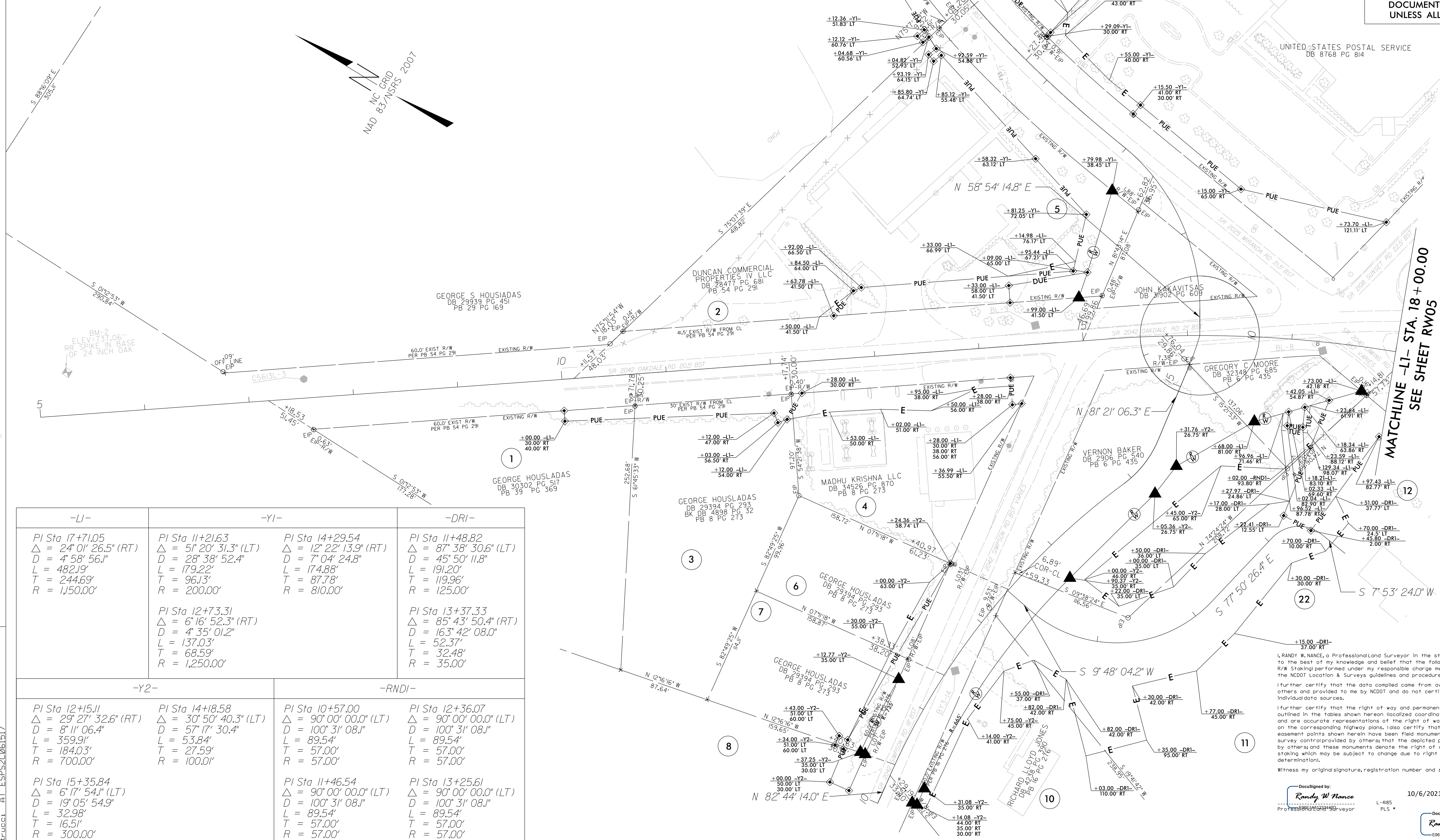
NO. 17 CAROLINA
PROFESSIONAL
SEAL
L-4185
LAND SURVEYOR
RANDY W. NANCE

10/6/2021

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PROJECT REFERENCE NO.		SHEET NO.
W-5710X		RW04
Location and Surveys		
ESP ASSOCIATES, INC 345 LAKEMONT BLVD FT MILL, SC 29708		
PROJECT SURVEYOR		
DocuSigned by: <i>Randy W Nance</i> ESPE1661233442D. 07/6/2017		
NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		

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 TO .



-LI-	-YI-		-DRI-
<i>PI Sta 17+71.05</i> $\Delta = 24^{\circ} 01' 26.5" (RT)$ $D = 4^{\circ} 58' 56.1"$ $L = 482.19'$ $T = 244.69'$ $R = 1,150.00'$	<i>PI Sta 11+21.63</i> $\Delta = 51^{\circ} 20' 31.3" (LT)$ $D = 28^{\circ} 38' 52.4"$ $L = 179.22'$ $T = 96.13'$ $R = 200.00'$ <i>PI Sta 12+73.31</i> $\Delta = 6^{\circ} 16' 52.3" (RT)$ $D = 4^{\circ} 35' 01.2"$ $L = 137.03'$ $T = 68.59'$ $R = 1,250.00'$	<i>PI Sta 14+29.54</i> $\Delta = 12^{\circ} 22' 13.9" (RT)$ $D = 7^{\circ} 04' 24.8"$ $L = 174.88'$ $T = 87.78'$ $R = 810.00'$	<i>PI Sta 11+48.82</i> $\Delta = 87^{\circ} 38' 30.6" (LT)$ $D = 45^{\circ} 50' 11.8"$ $L = 191.20'$ $T = 119.96'$ $R = 125.00'$ <i>PI Sta 13+37.33</i> $\Delta = 85^{\circ} 43' 50.4" (RT)$ $D = 163^{\circ} 42' 08.0"$ $L = 52.37'$ $T = 32.48'$ $R = 35.00'$
-Y2-	-RNDI-		
<i>PI Sta 12+15.11</i> $\Delta = 29^{\circ} 27' 32.6" (RT)$ $D = 8^{\circ} 11' 06.4"$ $L = 359.91'$ $T = 184.03'$ $R = 700.00'$ <i>PI Sta 15+35.84</i> $\Delta = 6^{\circ} 17' 54.1" (LT)$ $D = 19^{\circ} 05' 54.9"$ $L = 32.98'$ $T = 16.51'$ $R = 300.00'$	<i>PI Sta 14+18.58</i> $\Delta = 30^{\circ} 50' 40.3" (LT)$ $D = 57^{\circ} 17' 30.4"$ $L = 53.84'$ $T = 27.59'$ $R = 100.01'$	<i>PI Sta 10+57.00</i> $\Delta = 90^{\circ} 00' 00.0" (LT)$ $D = 100^{\circ} 31' 08.1"$ $L = 89.54'$ $T = 57.00'$ $R = 57.00'$ <i>PI Sta 11+46.54</i> $\Delta = 90^{\circ} 00' 00.0" (LT)$ $D = 100^{\circ} 31' 08.1"$ $L = 89.54'$ $T = 57.00'$ $R = 57.00'$	<i>PI Sta 12+36.07</i> $\Delta = 90^{\circ} 00' 00.0" (LT)$ $D = 100^{\circ} 31' 08.1"$ $L = 89.54'$ $T = 57.00'$ $R = 57.00'$ <i>PI Sta 13+25.61</i> $\Delta = 90^{\circ} 00' 00.0" (LT)$ $D = 100^{\circ} 31' 08.1"$ $L = 89.54'$ $T = 57.00'$ $R = 57.00'$

I, RANDY W. NANCE, a Professional Land Surveyor in the state of North Carolina hereby certify to the best of my knowledge and belief that the following work Item(s) Base map Compilation, R/W Staking performed under my responsible charge meet NCDOT Survey Standards as directed in the NCDOT Location & Surveys guidelines and procedures.

I further 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.

I further certify that the right of way and permanent easement points shown herein and outlined in the tables shown hereon (localized coordinates, station/offset) have been checked and are accurate representations of the right of way and permanent easement points depicted on the drawings. The use of these points in the field by the surveyor to determine the permanent easement points shown herein have been field monumented under my supervision from existing survey control/provided by others that the depicted property data shown herein were surveyed by others and these monuments denote the right of way and easement boundaries at the time of staking. The survey may be subject to change due to right of way revisions (see deeds for final determination).

Witness my original signature, registration number and seal this 6th day of October 2021.

DocuSigned by:
Randy W Nance 10/6/2021

Professional Land Surveyor

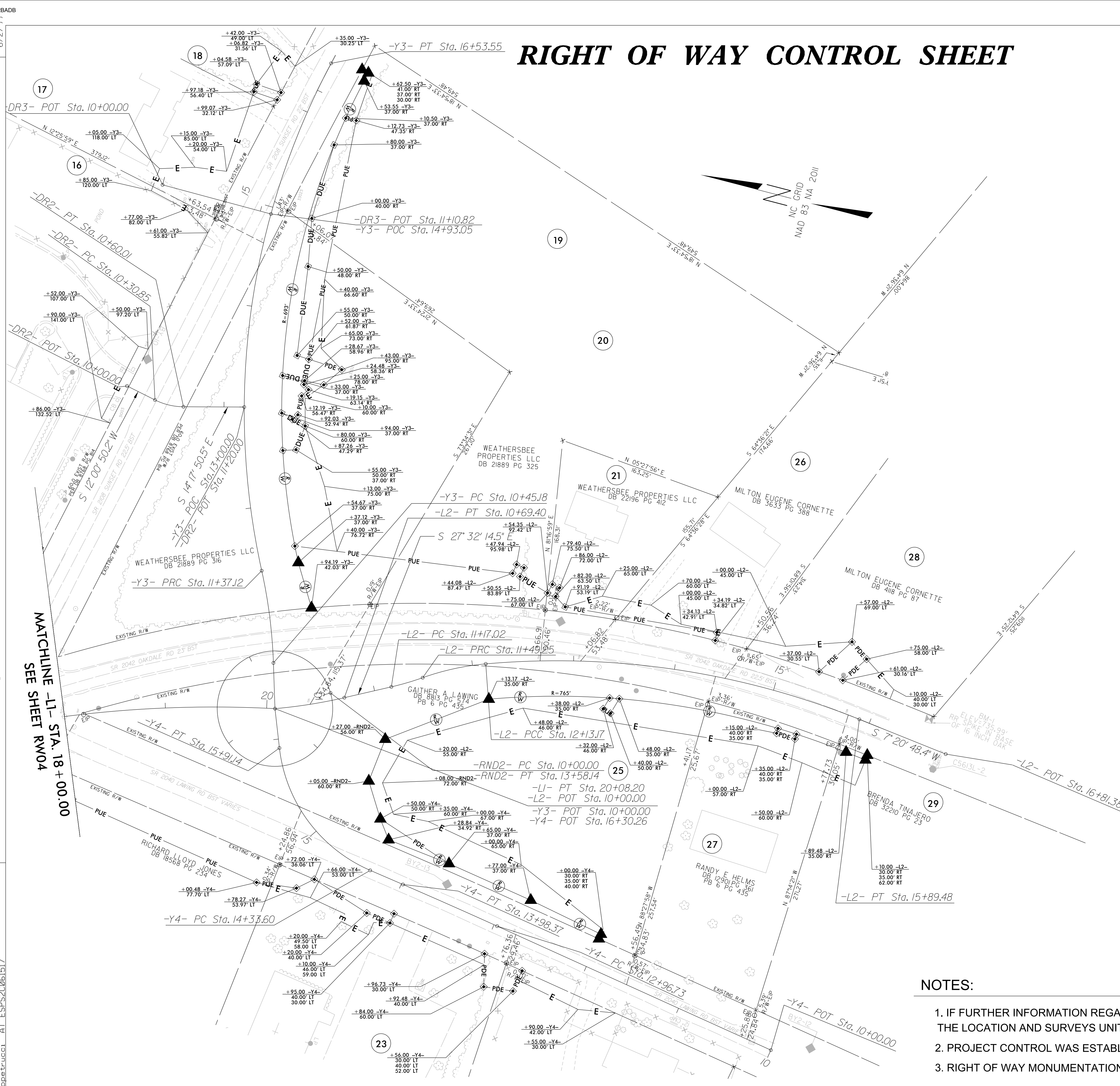
DocuSigned by:

Randy W
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6/2/2021

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petrucal AT ESP20061517

REVISIONS



RIGHT OF WAY CONTROL SHEET

PROJECT REFERENCE NO.
W-5710X

SHEET NO.
RW05

Location and Surveys

ENTER CONSULTANT'S NAME
IN THIS BOX

PROJECT SURVEYOR

DocuSigned by:
Randy W Nance
E80E1A61233442D

PROFESSIONAL
SEAL
L-4185
LAND SURVEYOR
RANDY W. NANCE

10/6/2021

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

-L2-		
<i>PI Sta 10+34.76</i> $\Delta = 7^{\circ} 57' 11.5" (LT)$ $D = 11^{\circ} 27' 33.0"$ $L = 69.40'$ $T = 34.76'$ $R = 500.00'$	<i>PI Sta 11+33.15</i> $\Delta = 6^{\circ} 42' 56.9" (LT)$ $D = 20^{\circ} 50' 05.4"$ $L = 32.23'$ $T = 16.14'$ $R = 275.00'$	-DR2- <i>PI Sta 10+45.69</i> $\Delta = 26^{\circ} 18' 40.7" (LT)$ $D = 90^{\circ} 13' 46.5"$ $L = 29.16'$ $T = 14.84'$ $R = 63.50'$
<i>PI Sta 11+81.39</i> $\Delta = 14^{\circ} 38' 54.1" (RT)$ $D = 22^{\circ} 55' 05.9"$ $L = 63.92'$ $T = 32.13'$ $R = 250.00'$	<i>PI Sta 14+04.87</i> $\Delta = 26^{\circ} 57' 05.7" (RT)$ $D = 7^{\circ} 09' 43.1"$ $L = 376.32'$ $T = 191.71'$ $R = 800.00'$	
-Y3-	-Y4-	
<i>PI Sta 10+91.28</i> $\Delta = 10^{\circ} 32' 07.6" (LT)$ $D = 11^{\circ} 27' 33.0"$ $L = 91.94'$ $T = 46.10'$ $R = 500.00'$	<i>PI Sta 13+47.55</i> $\Delta = 1^{\circ} 00' 59.2" (LT)$ $D = 1^{\circ} 00' 00.0"$ $L = 101.64'$ $T = 50.82'$ $R = 5,729.58'$	-RND2- <i>PI Sta 10+00.00</i> $\Delta = 359^{\circ} 58' 43.4" (LT)$ $D = 100^{\circ} 31' 08.1"$ $L = 358.14'$ $T = 0.01'$ $R = 57.00'$
<i>PI Sta 14+06.67</i> $\Delta = 40^{\circ} 31' 59.8" (RT)$ $D = 7^{\circ} 50' 55.5"$ $L = 516.43'$ $T = 269.55'$ $R = 730.00'$	<i>PI Sta 15+20.51</i> $\Delta = 60^{\circ} 10' 32.7" (RT)$ $D = 38^{\circ} 11' 49.9"$ $L = 157.54'$ $T = 86.91'$ $R = 150.00'$	

I, RANDY W. NANCE, a Professional Land Surveyor in the state of North Carolina hereby certify to the best of my knowledge and belief that the following work items (Base map Compilation, R/W Staking) performed under my responsible charge meet NCDOT Survey Standards as directed in the NCDOT Location & Surveys guidelines and procedures.

I further 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.

I further certify that the right of way and permanent easement points shown herein and outlined in the tables shown hereon (localized coordinates, station/offset) have been checked and are accurate representations of the right of way and permanent easement points depicted on the corresponding highway plans. I also certify that the right of way and permanent easement points shown herein have been field monumented under my supervision from existing survey control provided by others that the depicted property data shown herein were surveyed by others; and these monuments denote the right of way and easement boundaries at the time of staking which may be subject to change due to right of way revisions (See deeds for final determination).

Witness my original signature, registration number and seal this 6th day of October, 2021.

DocuSigned by:
Randy W Nance
E80E1A61233442D

Professional Land Surveyor

L-4185
PLS

10/6/2021

DocuSigned by:
Randy W Nance
E80E1A61233442D

Professional Land Surveyor

L-4185
PLS

10/6/2021

- 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 _____ TO _____ .