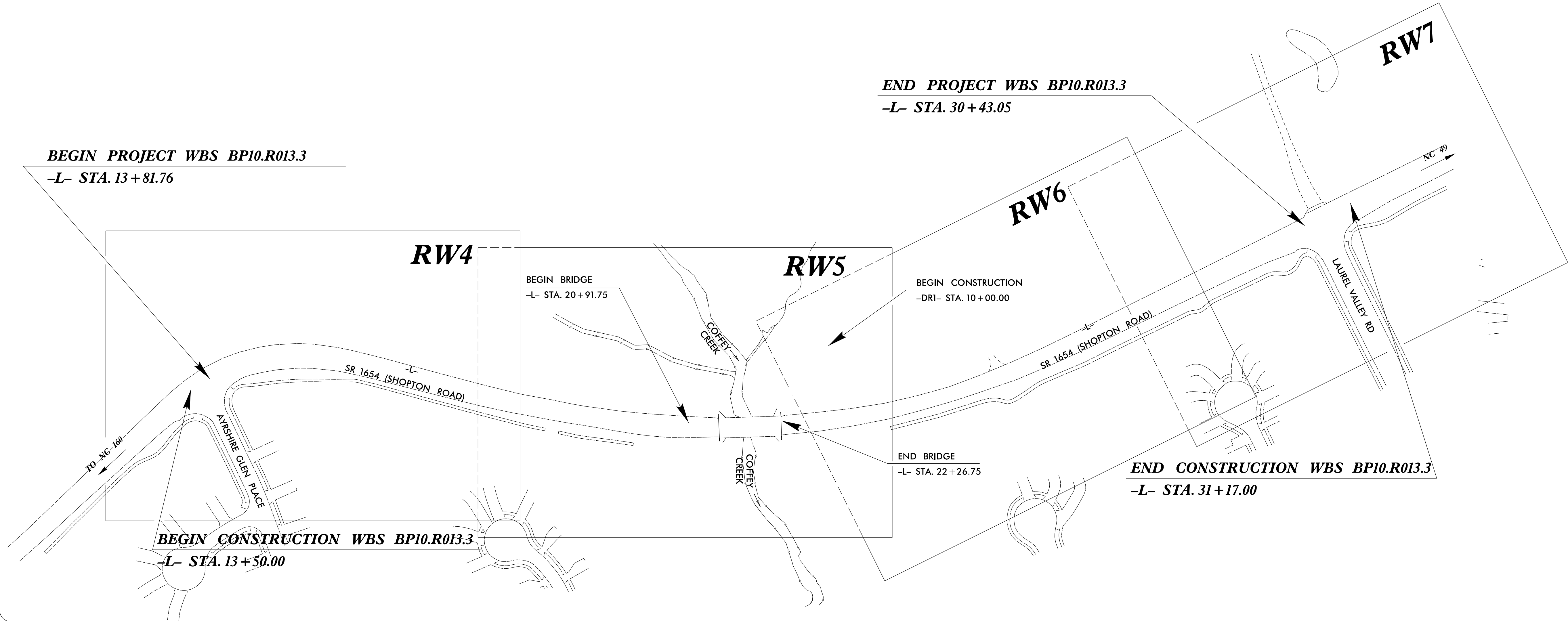
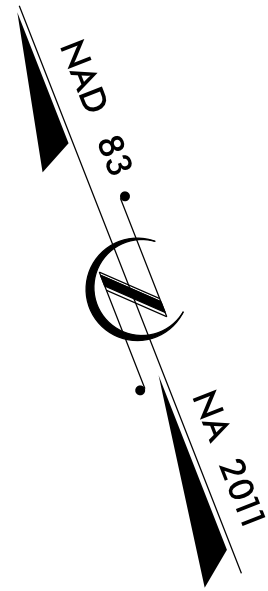


TIP PROJECT: BP10-R013

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BP10-R013	RW01	10

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
SURVEY CONTROL, EXISTING CENTERLINES,
RIGHT OF WAY, EASEMENTS AND PROPERTY TIES

MECKLENBURG COUNTY



GRAPHIC SCALE



DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT B5789-1 WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF NORTHING: 519855.487(ft) EASTING: 1423266.095(ft) ELEVATION: 610.177(ft) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.9998480764 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM B5789-1 TO -L- STATION 13+50.00 IS N 65°32'22" W 1012.44(ft) ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88

Prepared in the Office of:



WSP USA Inc.
128 TALBERT ROAD
SUITE A
MOORESVILLE, NC 28117
TEL: 704.662.0100
WWW.WSP.COM

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:

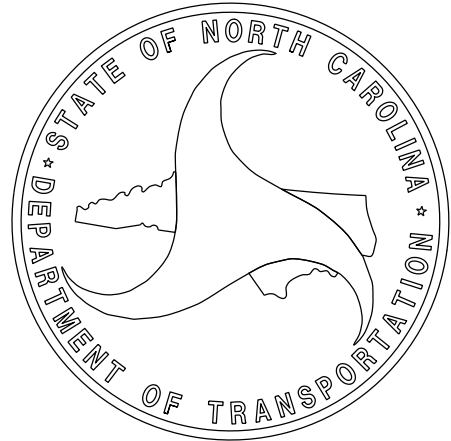
LETTING DATE:

PROFESSIONAL LAND SURVEYOR



DocuSigned by:
Clint Benbow
921CD8B87070436...
SIGNATURE:

5282025
Date:



SURVEY CONTROL SHEET

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

PROJECT REFERENCE NO.	SHEET NO.
BP10-R013	RW02C-1
Location and Surveys	
 WSP USA Inc. 128 TALBERT ROAD SUITE A MOORESVILLE, NC 28117 TEL: 704.662.0100 WWW.WSP.COM	
PROJECT SURVEYOR	
THEODORE C. BENBOW PROFESSIONAL LAND SURVEYOR SEAL L-5368	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

I, Theodore C. Benbow, PLS, certify that the Project Control was verified under my supervision from an actual GPS survey made under my supervision and the following information was used to perform the survey:

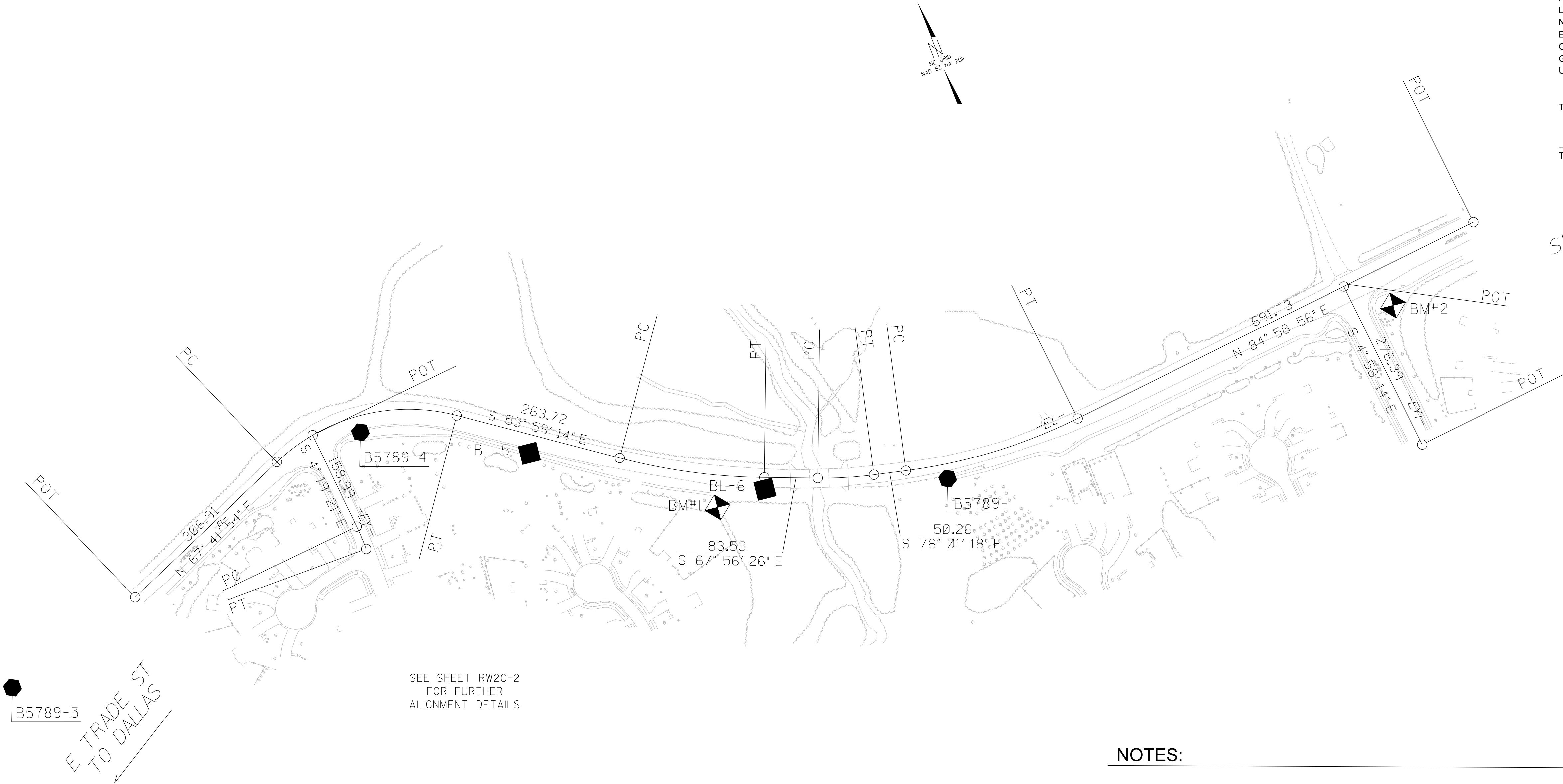
Class of survey: **AA**
Type of GPS field procedure: RTN
Dates of survey: 6/26/23 - 7/17/23
Datum/Epoch: 2023.199
Published/Fixed-control use: N/A
Localized around: B5789-1
Northing: 519855.487
Easting: 1423266.095
Combined grid factor: 0.9998480764
Geoid model: 12
Units: US Survey Feet

This 28th day of May, 2025.

Designed by:

621CD0887070436
Theodore C. Benbow L-5368

B5789-2



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.

REVISIONS	

SURVEY CONTROL SHEET

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

PROJECT REFERENCE NO.	SHEET NO.
BP10-R013	RW02C-2
Location and Surveys	



WSP USA Inc.

128 TALBERT ROAD

SUITE A

MOORESVILLE, NC 28117

TEL: 704.662.0100

WWW.WSP.COM

BL	POINT	DESC.	NORTH	EAST	ELEVATION
3		B5789-3	520084.5240	1421782.8670	655.85
4		B5789-4	520258.4010	1422436.1930	628.86
5		BL5	520131.2760	1422670.2680	617.62
6		BL6	519944.3230	1422993.6010	606.56
1		B5789-1	519855.4870	1423266.0950	610.14
2		B5789-2	519935.6800	1424608.4380	661.82

BM1 ELEVATION = 613.02
N 519945 E 1422914
BL STATION 17+47.00 39 RIGHT
BENCH TIE SPIKE IN 15" PINE

BM2 ELEVATION = 643.99
N 519854 E 1424015
BL STATION 28+50.00 46 RIGHT
BENCH TIE SPIKE IN 10" CRAPE MYRTLE

- 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

SURVEY CONTROL SHEET
W/EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

PROJECT REFERENCE NO.	SHEET NO.
BP10-R013	RW02C-3
Location and Surveys	
wsp WSP USA, Inc. 128 TALBERT ROAD SUITE A MOORESVILLE, NC 28117 TEL: 704.662.0100 WWW.WSP.COM	

EL POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	520146.123	1422013.543							
LINE			N 67°41'53.9" E	306.91					
PC	520262.590	1422297.496							
CURVE			S 83°08'39.1" E	290.92	58°18'50.8"(RT)	19°11'26.6"	303.87	166.57	298.56
PT	520227.863	1422586.336							
LINE			S 53°59'13.7" E	263.72					
PC	520072.804	1422799.655							
CURVE			S 60°57'49.1" E	228.57	13°57'12.9"(LT)	06°05'22.8"	229.14	115.14	940.87
PT	519961.864	1422999.497							
LINE			S 67°56'25.5" E	83.53					
PC	519930.492	1423076.915							
CURVE			S 71°58'56.0" E	88.51	08°05'00.9"(LT)	09°07'32.3"	88.58	44.36	627.85
PT	519903.115	1423161.082							
LINE			S 76°01'18.3" E	50.27					
PC	519890.973	1423209.860							
CURVE			S 85°31'15.2" E	281.07	18°59'37.5"(LT)	06°43'36.1"	282.36	142.49	851.77
PT	519869.023	1423490.075							
LINE			N 84°58'56.0" E	691.73					
POT	519929.525	1424179.152							

EY POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	520281.371	1422364.879							
LINE			S 04°19'21.4" E	158.99					
PC	520122.833	1422376.862							
CURVE			S 01°35'55.1" E	38.02	05°26'54.7"(RT)	14°19'26.2"	38.04	19.03	400.00
PT	520084.824	1422377.923							

EY1 POINT	N	E	BEARING	DIST
POT	519909.725	1423953.649		
LINE			S 04°58'14.1" E	276.39
POT	519634.376	1423977.596		

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.

28 MAY 2025 07:33
25570917
US5V70917
AT FMEFM3
Projects\30902822.000 NCDOT
BP10R RW\Delivery\BP10R\ls.zip\B-5789\B-5789\ls.rw02d-1 - Copy.dgn

6/2/99

REVISIONS

PROPOSED ALIGNMENT CONTROL SHEET

PROJECT REFERENCE NO.
BP10-R013

SHEET NO.
RW02D-1

Location and Surveys



WSP USA Inc.
128 TALBERT ROAD
SUITE A
MOORESVILLE, NC 28117
TEL: 704.662.0100
WWW.WSP.COM

L			
TYPE	STATION	NORTH	EAST
POT	10+00.00	520241.7816	1422250.2851
PC	10+46.42	520259.1677	1422293.3269
PCC	11+31.76	520279.5219	1422375.9078
PT	13+68.11	520217.9614	1422598.7320
PC	15+97.23	520082.3920	1422783.4410
PT	18+35.91	519969.8529	1422993.0363
PC	19+83.79	519918.8170	1423131.8333
PT	23+57.73	519869.8522	1423499.5226
POT	30+39.98	519929.5246	1424179.1525

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.

6/2/99

REVISIONS

28 MAY 2025 07:36 Projects\30902822.000 NCDOT L-5368 AT-FEFM3
US5V70917
BP10R RW Delivery\BP10R_Ls.zip\B-5789\B-5789 - Copy.dgn

RIGHT OF WAY CONTROL SHEETS

PROJECT REFERENCE NO.

BP10-R013

SHEET NO.

RW02E-1

Location and Surveys



WSP USA Inc.

128 TALBERT ROAD

SUITE A

MOORESVILLE, NC 28117

TEL: 704.662.0100

WWW.WSP.COM

ROW MARKER IRON PIN AND CAP				
ALIGN	STATION	OFFSET	NORTH	EAST
L	11+31.76	-75.00	520354.1515	1422368.4631
L	11+31.76	-33.34	520312.6947	1422372.5986
L	13+00.00	-75.00	520320.6041	1422570.8504
L	15+00.00	-95.00	520216.5059	1422761.2713
L	19+83.79	-90.00	520003.2876	1423162.8932
L	23+25.00	-50.00	519917.5575	1423464.4149
L	23+70.00	65.00	519806.1742	1423517.4270
L	24+20.00	48.00	519827.4822	1423565.7485
L	21+75.00	68.00	519806.0350	1423308.5366
L	19+75.00	85.00	519842.0728	1423094.2487
L	18+00.00	85.00	519904.4853	1422926.9291
L	18+00.00	38.52	519947.3903	1422944.7967
L	27+78.27	48.00	519858.8185	1423922.6480
L	13+68.11	35.00	520189.7457	1422578.0228
L	11+66.89	35.00	520245.9299	1422410.5003
L	23+25.00	-29.69	519897.2709	1423465.4111
L	23+00.00	55.00	519811.7694	1423442.9638
L	15+97.23	-95.00	520158.9774	1422839.6519
L	18+35.91	-95.00	520059.0163	1423025.8218
L	18+35.91	-90.00	520054.3235	1423024.0962
L	15+97.23	35.00	520054.1763	1422762.7317
L	16+91.20	35.00	520000.7588	1422844.6421
L	19+83.79	95.00	519829.6536	1423099.0477
L	18+35.91	85.00	519890.0751	1422963.7019
L	19+75.00	95.00	519832.6872	1423090.7976
L	24+20.00	65.00	519810.5474	1423567.2354
L	21+00.00	95.00	519793.4811	1423222.9738
L	23+57.73	62.99	519807.1056	1423505.0318

ROW MARKER PERMANENT EASEMENT				
ALIGN	STATION	OFFSET	NORTH	EAST
L	19+35.00	-115.00	520043.5896	1423125.7284
L	19+75.00	115.00	519813.9160	1423083.8954
L	19+35.00	-90.00	520020.1256	1423117.1006
L	20+70.00	-91.90	519982.2358	1423236.9344
L	23+55.00	-30.00	519899.5065	1423494.2715
L	23+05.00	-76.00	519942.8470	1423444.9410
L	20+45.00	95.00	519808.4875	1423163.7078
L	20+45.00	116.86	519787.4825	1423157.6598
L	20+14.21	127.84	519787.3441	1423120.7623
L	19+83.79	115.00	519810.8824	1423092.1455
L	20+20.58	115.00	519797.3215	1423131.6440
L	20+30.91	95.00	519812.9477	1423148.6865
L	20+05.04	95.00	519821.7773	1423121.3241
L	19+95.42	115.00	519806.4116	1423104.5657
L	21+19.00	87.32	519796.7323	1423245.1327
L	21+32.00	96.00	519785.5404	1423257.6844
L	21+35.00	96.00	519784.9550	1423260.9715
L	21+35.00	90.00	519790.8639	1423262.0129
L	27+08.00	72.00	519828.7641	1423854.7439
L	27+36.00	72.00	519831.2131	1423882.6366
L	27+36.00	82.00	519821.2514	1423883.5113
L	28+46.55	52.00	519860.8057	1423991.0130
L	28+67.00	52.00	519862.5944	1424011.3853
L	28+67.00	35.79	519878.7392	1424009.9677
L	28+65.00	-30.00	519944.1052	1424002.2208
L	28+65.00	-57.00	519971.0017	1423999.8593
L	28+50.91	-57.00	519969.7693	1423985.8235
L	28+49.32	-30.00	519942.7335	1423986.5985
L	22+83.00	-83.06	519949.6587	1423424.9126
L	22+78.25	-63.43	519930.0417	1423420.5064
L	18+00.00	75.00	519913.7168	1422930.7735
L	17+20.00	60.00	519964.1596	1422859.1400
L	14+85.89	60.00	520099.8990	1422658.1844
L	14+60.54	35.00	520135.0553	1422652.5367
L	27+24.00	82.00	519820.2019	1423871.5573
L	27+83.49	63.00	519844.3321	1423929.1549
L	11+68.00	-65.83	520346.7276	1422413.2506
L	11+76.00	-64.53	520345.1427	1422422.8119
L	11+76.00	-94.00	520374.5878	1422424.0512
L	11+68.00	-94.00	520374.8947	1422413.7422

I, Theodore C. Benbow, PLS, 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) (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 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 28th day of May, 2025.

DocuSigned by:

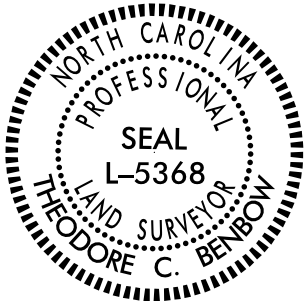
921CC8887070438

Professional Land Surveyor

L-5368

PLS #

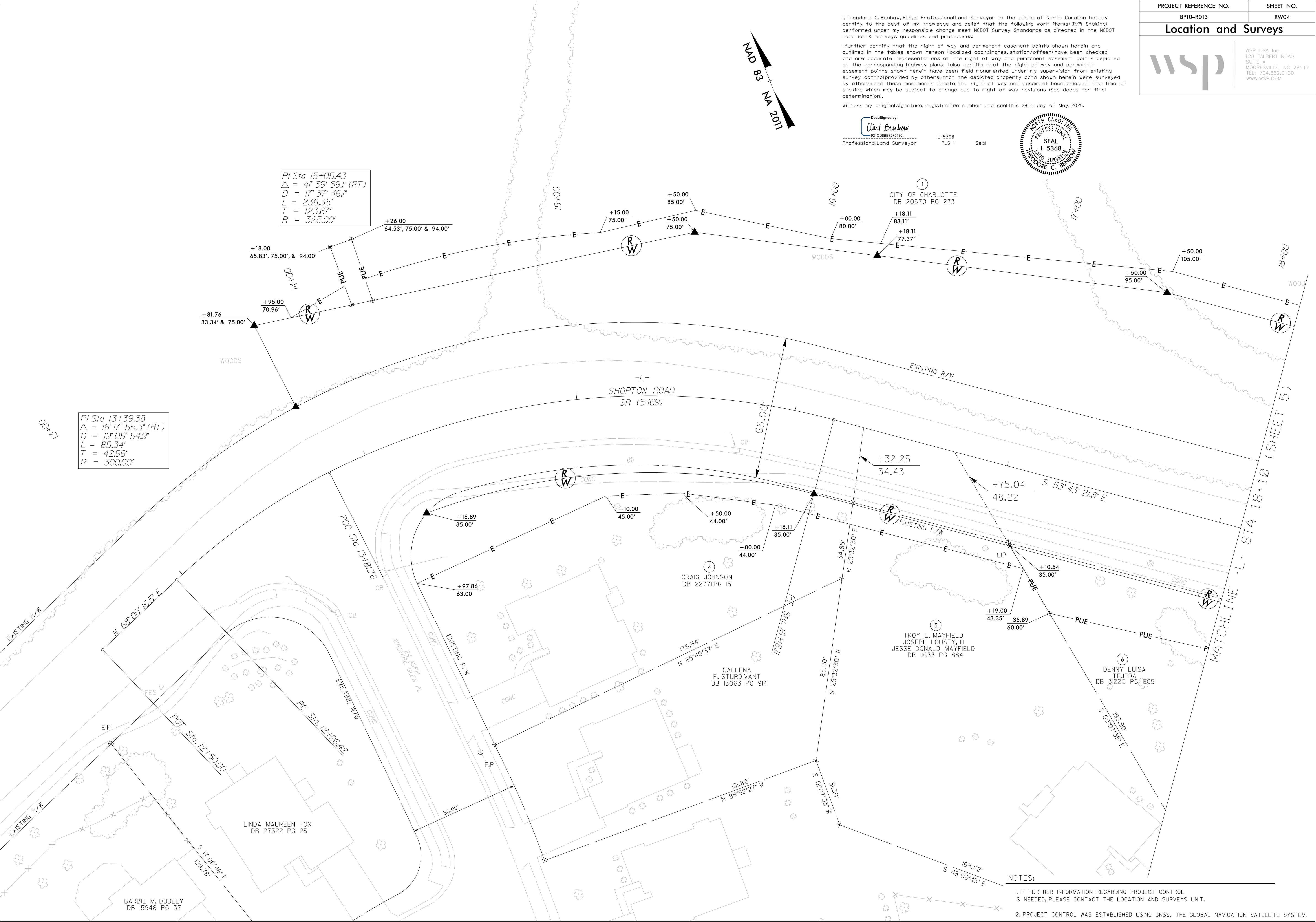
Seal



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.

8/17/2025 07:38
25 MAY 2025 07:38
US5570917
Projects 30902822.000 NCDOT
AT FME5M3
BP10R RW Delivery\BP10R.Ls.zip\B-5789\B-5789.Ls.rw04 - Copy.dgn



I, Theodore C. Benbow, PLS, 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) (R/W Staking) performed under my responsible charge meet NCDOT Survey Standards as directed in the NCDOT Location & Surveys guidelines and procedures.

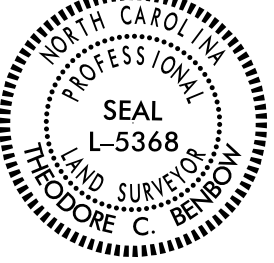
If further certify that the right of way and permanent easement points shown herein and outlined in the tables shown hereon (localized coordinates, station/offset) have been checked and are accurate representations of the right of way and permanent easement points depicted on the corresponding highway 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 28th day of May, 2025.

DocuSigned by:
Clint Benbow
921CD88B7070436
Professional Land Surveyor

L-5368
PLS #

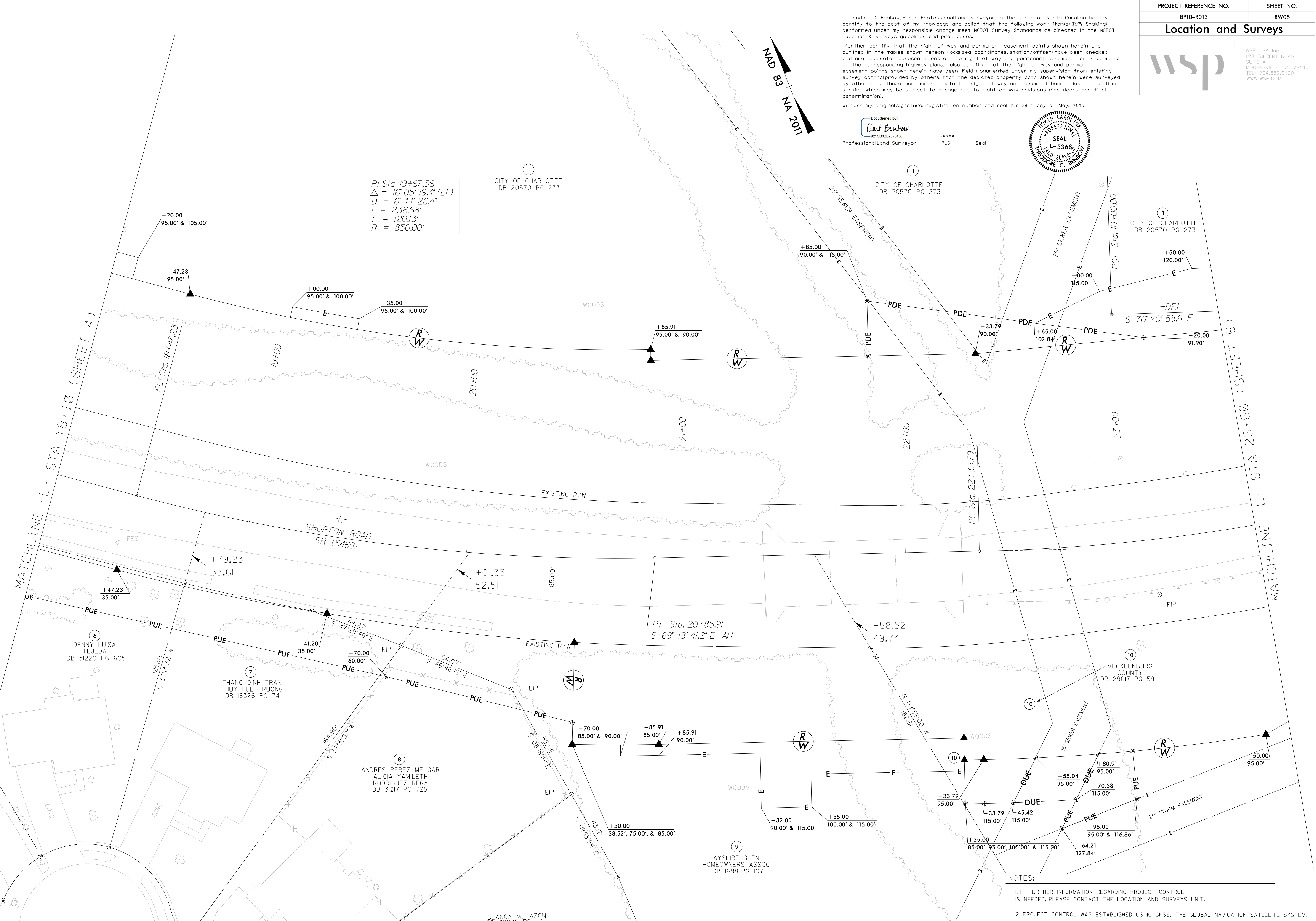
Seal

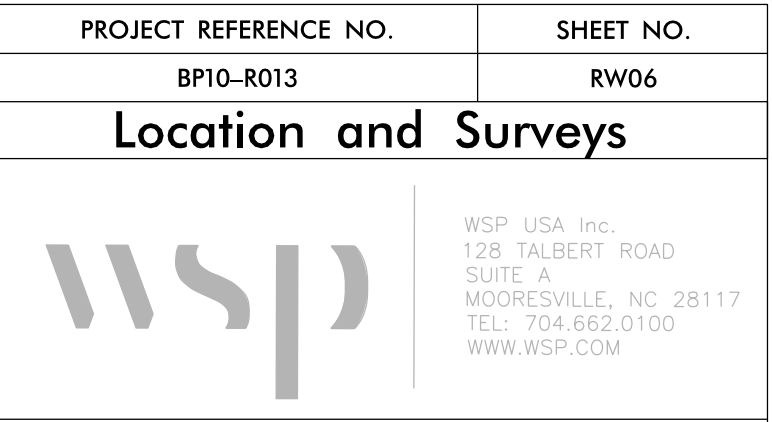


NOTES:

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.





נספח

WSP USA Inc.
128 TALBERT ROAD
SUITE A
MOORESVILLE, NC 28117
TEL: 704.662.0100
WWW.WSP.COM

I further certify that 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 direction 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 28th day of May, 2025.

DocuSigned by:

 921CD8BB7070436...
 Professional Land Surveyor

L-5368
PLS *

L-5368
PLS *

Seal

