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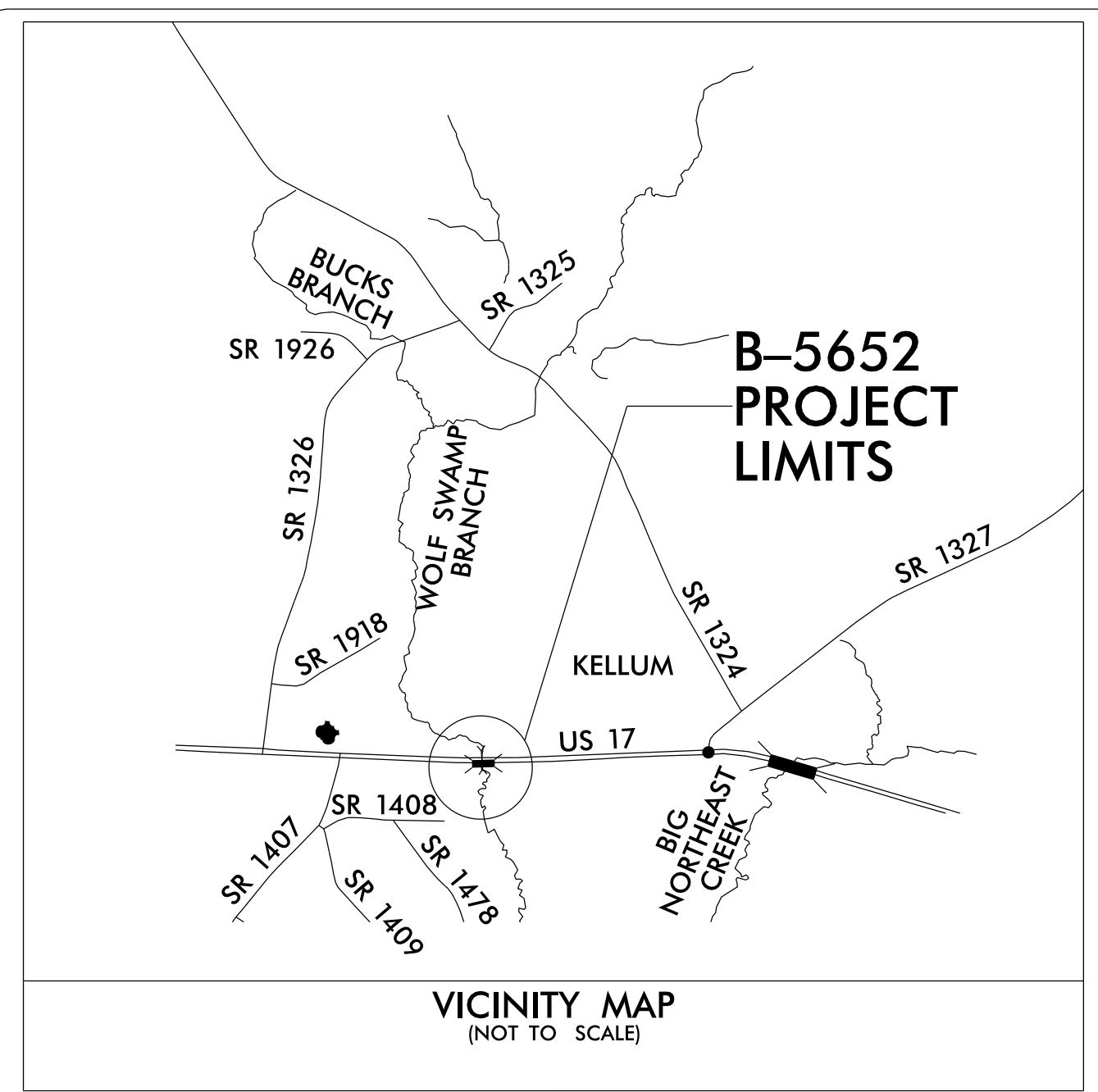
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**This file or an individual page
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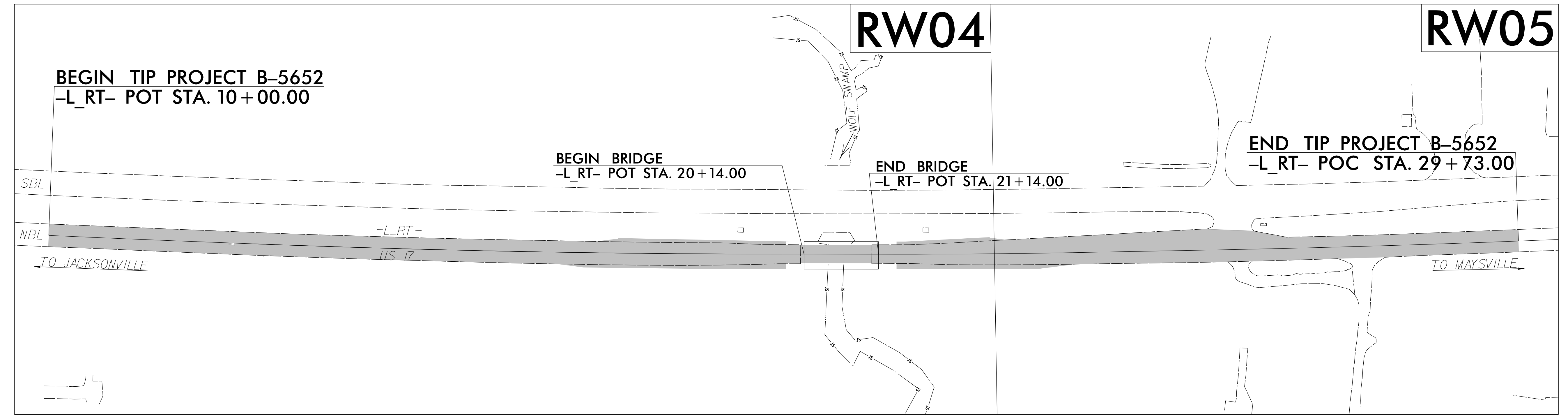
09/08/19

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5652	RW01	10

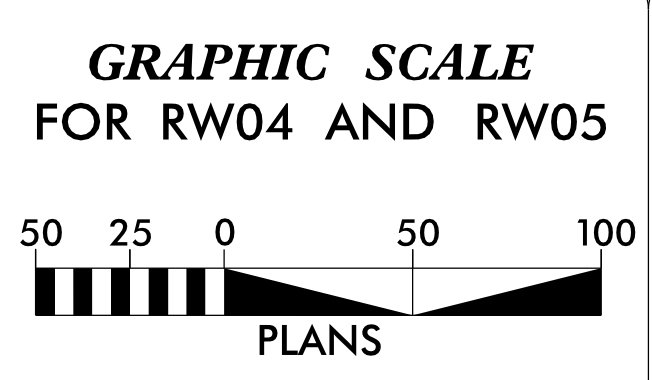
TIP PROJECT: B-5652



STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS
 SURVEY CONTROL, EXISTING CENTERLINES,
 RIGHT OF WAY, EASEMENTS AND PROPERTY TIES
ONSLOW COUNTY
 BRIDGE NO. 33 OVER WOLF SWAMP ON US 17



13-OCT-2022 13:56 S:\Units\Div03\Projects\Bridges\Onslow\B5652_0033\Working\150 series revised\B-5652_Is.rw01_221012_rev.dgn individual AT LS-328725L



DATUM DESCRIPTION
 THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCGS FOR MONUMENT "B5652-2" WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF NORTHING: 384,349.132(ft) EASTING: 2,490,002.206(ft) ELEVATION: 38.923(ft)
 THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.9999081101
 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "B5652-2" TO -L- STATION 10+00 IS N 45°47'55" E 462.19(ft)
 ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88

Prepared in the Office of:
 LOCATION AND SURVEYS UNIT
 DIVISION 3
 5310 BARBADOS BLVD, SUITE 102
 CASTLE HAYNE, NORTH CAROLINA 28429

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
 NOVEMBER 23, 2021

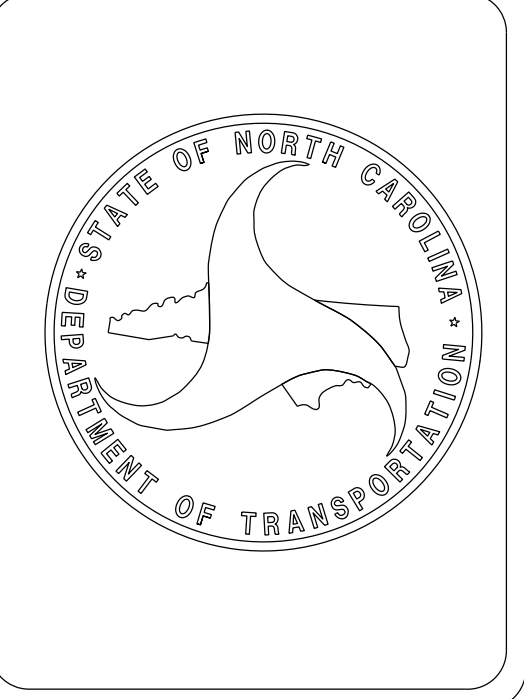
LETTING DATE:
 DECEMBER 12, 2022

PROFESSIONAL LAND SURVEYOR

Seal of Christopher J. Sawyer, Professional Land Surveyor, License No. L-4526, State of North Carolina.

DocuSigned by:
 Christopher J. Sawyer 10/14/2022

Signature: _____ Date: _____



6/2/19

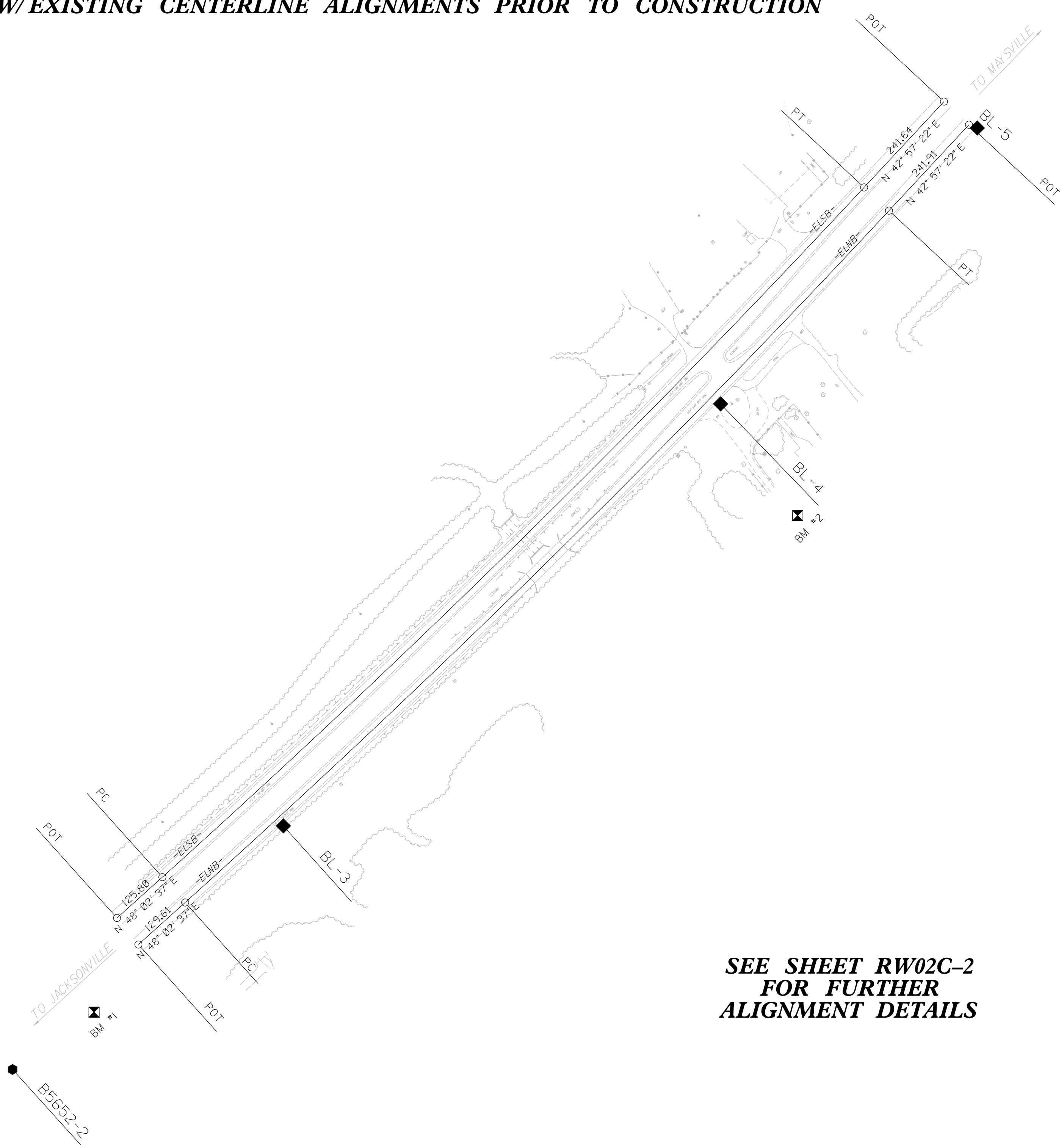
REVISIONS

3-MAR-2022 09:16
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MB Taylor

B5652-1

SURVEY CONTROL SHEET

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION



**SEE SHEET RW02C-2
FOR FURTHER
ALIGNMENT DETAILS**

PROJECT REFERENCE NO.	SHEET NO.
B-5652	RW02C-1
Location and Surveys	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

I, Richard A. Mitchell, 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: June, 2017
Datum/Epoch: NAD83(NA2011)
Published/Fixed-control use: N/A
Localized around: B5652-2
Northing: 384349.132'
Easting: 2490002.206'
Combined grid factor: 0.9999081101
Geoid model: G12B
Units: USFT

This 31st day of March, 2022.

DocuSigned by:

3/31/2022
561750558E6F

Richard A. Mitchell
Professional Land Surveyor L-5060

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.

SURVEY CONTROL SHEET

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

PROJECT REFERENCE NO. B-5652	SHEET NO. RW02C-2
Location and Surveys	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

BL	POINT	DESC.	NORTH	EAST	ELEVATION
B56521	GPS CAP & REBAR		383665.0990	2489244.9330	43.95
B56522	GPS CAP & REBAR		384349.1320	2490002.2060	38.92
BL3	TRV CAP & REBAR		384851.0450	2490560.3760	29.34
BL4	TRV CAP & REBAR		385720.7390	2491461.6440	32.26
BL5	TRV CAP & REBAR		386289.3550	2491990.8040	43.29

 BM1 ELEVATION = 37.70
 N 384467 E 2490170
 BENCHTIE IN 18" PINE

 BM2 ELEVATION = 29.54
 N 385491 E 2491621
 BENCHTIE IN 38" OAK

I, Richard A. Mitchell, 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: June, 2017
 Datum/Epoch: NAD83(NA2011)
 Published/Fixed-control use: N/A
 Localized around: B5652-2
 Northing: 384349.132'
 Easting: 2490002.206'
 Combined grid factor: 0.9999081101
 Geoid model: G12B
 Units: USFT

This 31st day of March, 2022.

DocuSigned by:

 3/31/2022

Richard A. Mitchell
 Professional Land Surveyor L-5060

ELNB									
POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	384606.638	2490261.553							
LINE			N 48°02'36.9" E	129.61					
PC	384693.292	2490357.940							
CURVE			N 45°29'59.7" E	2034.26	05°05'14.4"(LT)	00°15'00.0"	2034.93	1018.13	22918.31
PT	386119.126	2491808.874							
LINE			N 42°57'22.5" E	241.91					
POT	386296.174	2491973.721							

ELSB									
POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	384661.388	2490217.452							
LINE			N 48°02'36.9" E	125.80					
PC	384745.497	2490311.006							
CURVE			N 45°29'59.7" E	2028.03	05°05'14.4"(LT)	00°15'02.8"	2028.70	1015.01	22848.11
PT	386166.963	2491757.497							
LINE			N 42°57'22.5" E	241.64					
POT	386343.812	2491922.159							

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

3-MAR-2022 09:23
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 MB Taylor

RIGHT OF WAY CONTROL SHEET

PROJECT REFERENCE NO. B-5652	SHEET NO. RW03E
Location and Surveys	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

ROW MARKER IRON PIN AND CAP-E

ALIGN	STATION	OFFSET	NORTH	EAST
L_RT	15+20.00	30.00	385000.5012	2490737.6682
L_RT	15+20.00	22.40	385006.0499	2490732.4737
L_RT	16+80.00	30.00	385110.5132	2490854.1934
L_RT	19+00.00	95.00	385216.8205	2491058.2572
L_RT	21+50.00	95.00	385392.3423	2491237.0411
L_RT	22+05.00	30.00	385477.4289	2491230.5935
L_RT	23+80.00	30.00	385602.0284	2491354.0695
L_RT	23+80.00	23.16	385606.8088	2491349.1800

I, Richard A. Mitchell, 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 2/16/2022 to 2/18/2022, 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 March, 2022.

DocuSigned by:
Richard A. Mitchell 3/31/2022
5481700584E48F

Richard A. Mitchell
Professional Land Surveyor L-5060

ROW MARKER PERMANENT EASEMENT-E

ALIGN	STATION	OFFSET	NORTH	EAST
L_RT	21+25.00	94.97	385374.7454	2491219.1172
L_RT	21+25.00	160.00	385328.3756	2491264.7070
L_RT	21+75.00	165.00	385360.2950	2491304.2086
L_RT	22+10.00	135.00	385406.5491	2491308.2233
L_RT	23+55.00	130.00	385514.1080	2491407.9420
L_RT	24+30.00	95.00	385592.3394	2491435.5012
L_RT	24+30.00	23.39	385642.4026	2491384.2960
L_RT	24+91.00	-179.00	385827.5068	2491282.2260
L_RT	24+94.00	-166.45	385820.8786	2491293.2966
L_RT	25+11.00	-183.00	385844.6038	2491293.3476
L_RT	25+15.00	-166.50	385835.9305	2491307.9405
L_RT	25+22.00	57.00	385684.6880	2491472.6460
L_RT	25+29.00	23.51	385713.1030	2491453.5958
L_RT	25+69.00	46.00	385726.0165	2491497.6590
L_RT	25+69.00	23.45	385741.7673	2491481.5225
L_RT	25+82.00	70.00	385718.5889	2491523.9413
L_RT	25+86.00	50.00	385735.4214	2491512.4192

(NOT SET)

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 2/16/2022 TO 2/18/2022 .


REVISIONS

I:\0048\10641\MCM06829\80-Drawings\Revised Deliverables 2022-03-30\B-5652-1s-rw03e-220331.dgn

7-MAR-2022 09:29
MB Taylor

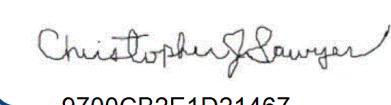
REVISIONS

RIGHT OF WAY CONTROL SHEET

PROJECT REFERENCE NO. B-5652	SHEET NO. RW03E_REV
Location and Surveys	
LOCATION AND SURVEYS UNIT DIVISION 3 5310 BARBADOS BLVD, SUITE 102 CASTLE HAYNE, NORTH CAROLINA 28429	
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

I, Christopher J. Sawyer, PLS, certify that the revised 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 10/06/22, and all coordinates are based on NAD83/2011; That this survey was performed to meet the requirements of 21NCAC 56.1600 as applicable.

This 13th day of October, 2022.

DocuSigned by:

 9700CB2E1D21467...
 Professional Land Surveyor L-4526

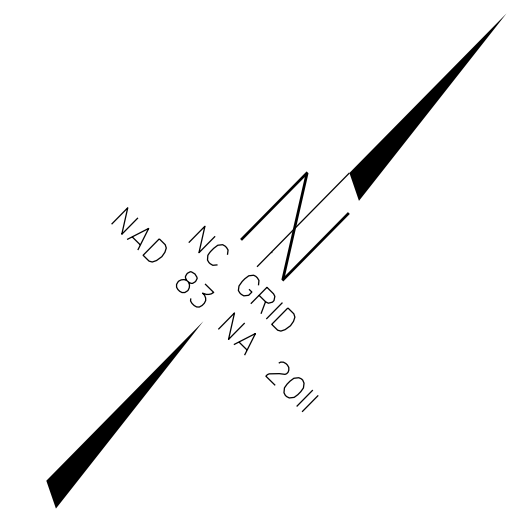
ROW MARKER PERMANENT EASEMENT-E

ALIGN	STATION	OFFSET	NORTH	EAST	
L_RT	19+20.00	94.94	385230.9019	2491072.6003	
L_RT	19+20.00	130.00	385205.8141	2491097.0980	
L_RT	19+41.00	94.89	385245.6873	2491087.6605	
L_RT	19+41.00	130.00	385220.5943	2491112.2175	
L_RT	24+91.00	179.00	385827.5068	2491202.2260	REMOVED
L_RT	24+94.00	166.45	385820.8786	2491293.2966	REMOVED
L_RT	25+11.00	183.00	385844.6038	2491293.3476	REMOVED
L_RT	25+15.00	166.50	385835.9305	2491307.9405	REMOVED

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. REVISED RIGHT OF WAY MONUMENTATION ESTABLISHED 10/06/22.

PROJECT REFERENCE NO. B-5652	SHEET NO. RW04
Location and Surveys	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



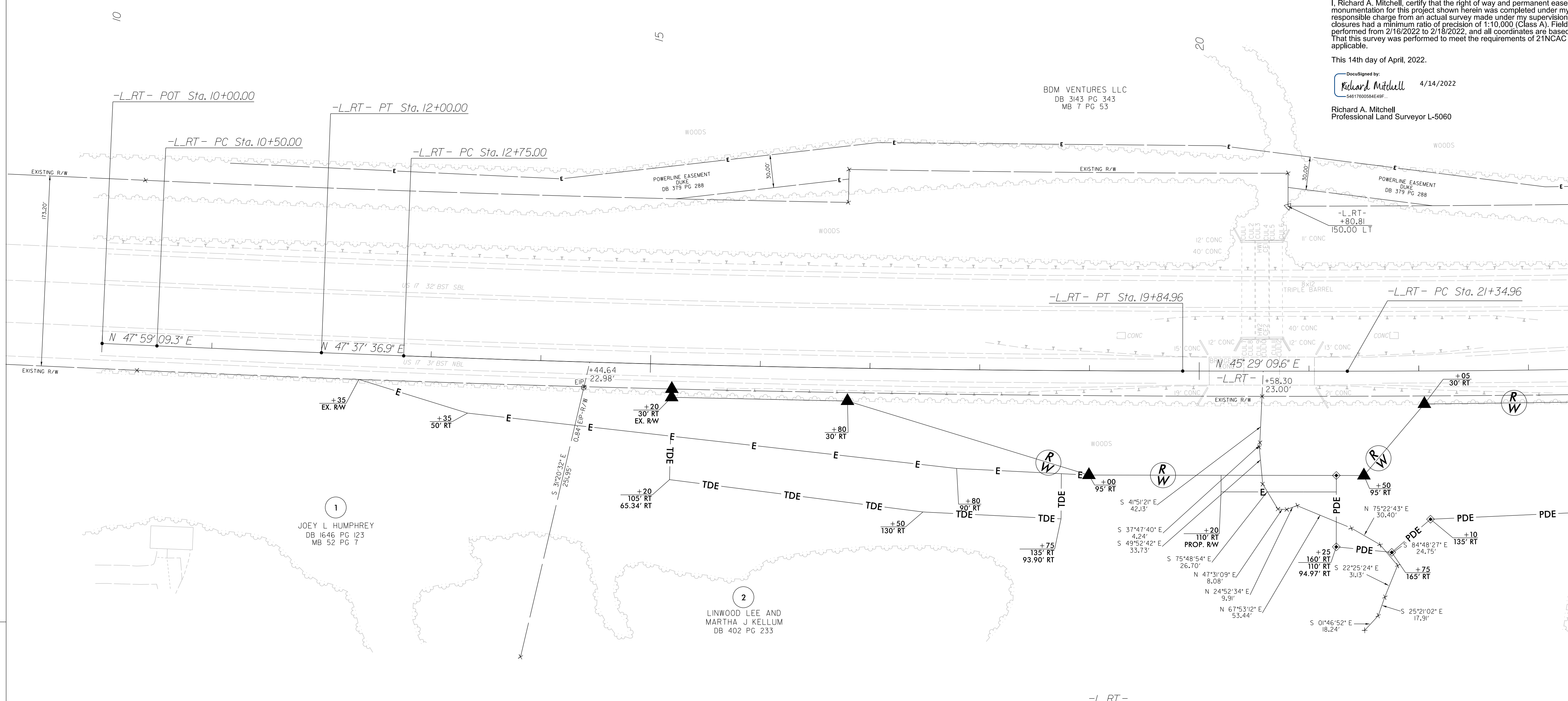
I, Richard A. Mitchell, certify that the right of way and permanent easement monumentation for this project shown herein was completed under my direct and responsible charge from an actual survey made under my supervision; that all horizontal closures had a minimum ratio of precision of 1:10,000 (Class A). Field work was performed from 2/16/2022 to 2/18/2022, and all coordinates are based on NAD83/2011; That this survey was performed to meet the requirements of 21NCAC 58.1600 as applicable.

This 14th day of April, 2022.
 DocuSigned by:
Richard A. Mitchell 4/14/2022
 54017600564E49F...
 Richard A. Mitchell
 Professional Land Surveyor L-5060

BDM VENTURES LLC
 DB 343 PG 343
 MB 7 PG 53

REVISIONS

MATCHLINE -L_RT- STA. 23 + 50.00 SEE SHEET 5



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 2/16/2022 TO 2/18/2022 .

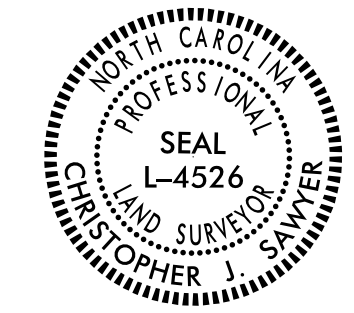
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PI Sta 11+25.00	PI Sta 16+30.02	PI Sta 22+54.50
$\Delta = 0^{\circ} 21' 32.4''$ (LT)	$\Delta = 2^{\circ} 08' 27.3''$ (LT)	$\Delta = 1^{\circ} 07' 55.5''$ (LT)
$D = 0^{\circ} 14' 21.6''$	$D = 0^{\circ} 18' 05.6''$	$D = 0^{\circ} 28' 24.7''$
$L = 150.00'$	$L = 709.96'$	$L = 239.08'$
$T = 75.00'$	$T = 355.02'$	$T = 119.54'$
$R = 23,940.00'$	$R = 19,000.00'$	$R = 12,100.00'$
	$SE = NC$	$SE = NC$

3
 ROBERT DALTON KELLUM
 DB 916 PG 585

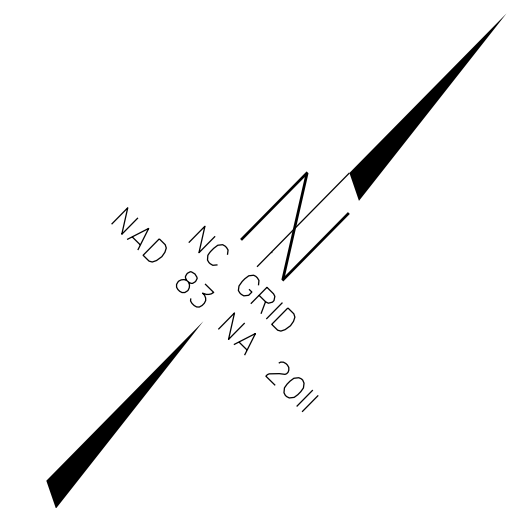
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 MB Taylor

Location and Surveys

LOCATION AND SURVEYS UNIT
 DIVISION 3
 5310 BARBADOS BLVD. SUITE 102
 CASTLE HAYNE, NORTH CAROLINA 28429



DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED



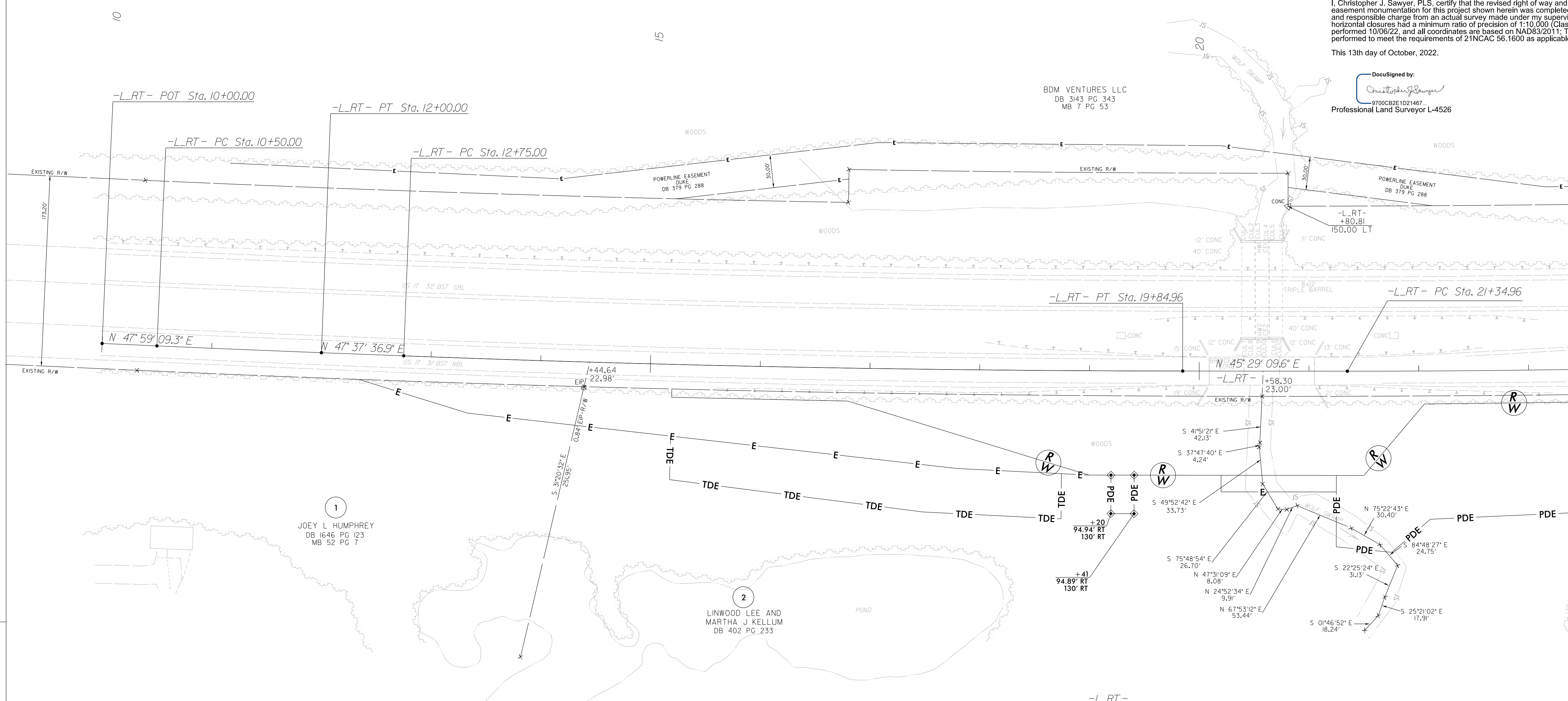
I, Christopher J. Sawyer, PLS, certify that the revised right of way and permanent easement monumentation for this project shown herein was completed under my direct and responsible charge from an actual survey made under my supervision; that all horizontal closures had a minimum ratio of precision of 1:10,000 (Class A). Field work was performed 10/06/22, and all coordinates are based on NAD83/2011. That this survey was performed to meet the requirements of 21NCAC 56.1600 as applicable.

This 13th day of October, 2022.

DocuSigned by:
 Christopher Sawyer
 9700CB2E1D21467...
 Professional Land Surveyor L-4526

REVISIONS

MATCHLINE -L_RT- STA. 23 + 50.00 SEE SHEET 5



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. REVISED RIGHT OF WAY MONUMENTATION ESTABLISHED 10/06/22.

-L_RT-	
PI Sta 11+25.00	PI Sta 16+30.02
$\Delta = 0' 21' 32.4''$ (LT)	$\Delta = 2' 08' 27.3''$ (LT)
$D = 0' 14' 21.6''$	$D = 0' 18' 05.6''$
$L = 150.00'$	$L = 709.96'$
$T = 75.00'$	$T = 355.02'$
$R = 23,940.00'$	$R = 19,000.00'$
	SE = NC
	PI Sta 22+54.50
	$\Delta = 1' 07' 55.5''$ (LT)
	$D = 0' 28' 24.7''$
	$L = 239.08'$
	$T = 119.54'$
	$R = 12,100.00'$
	SE = NC

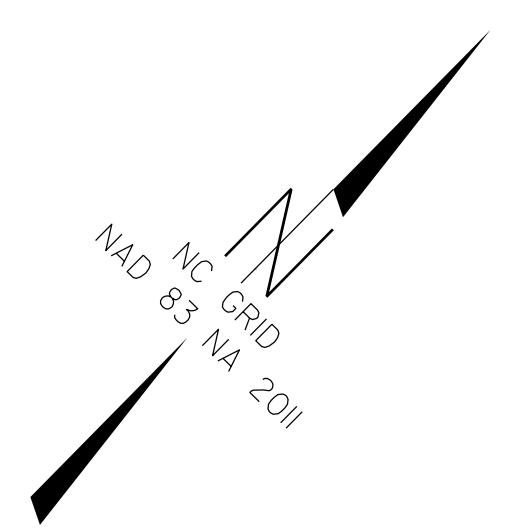
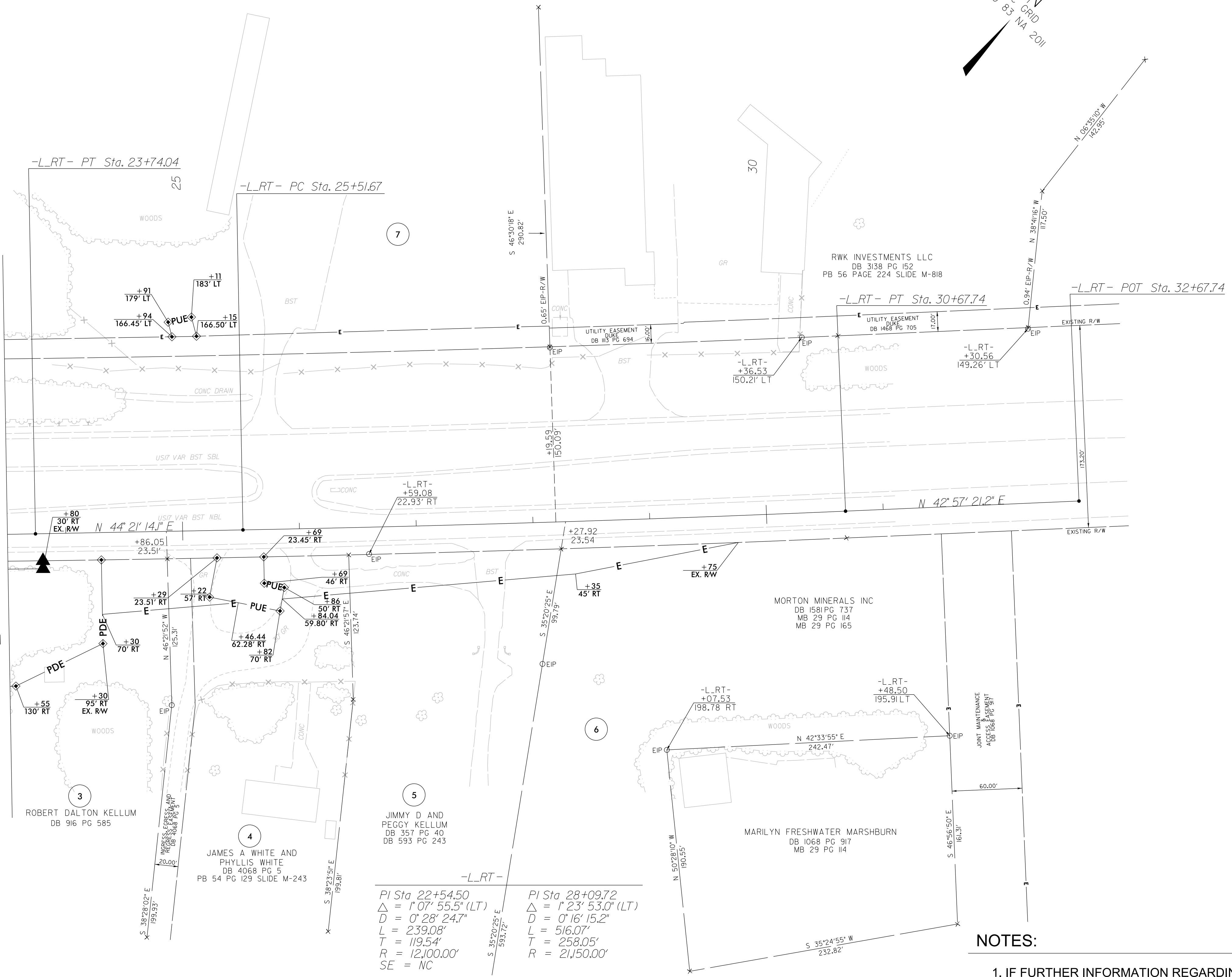
3
 ROBERT DALTON KELLUM
 DB 916 PG 585

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PROJECT REFERENCE NO. B-5652	SHEET NO. RW05
Location and Surveys	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

REVISIONS

MATCHLINE -L_RT- STA. 23+50.00 SEE SHEET 4



I, Richard A. Mitchell, 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 2/16/2022 to 2/18/2022, 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 March, 2022.
 Documented by:

 3/31/2022
 5461700584E49F...
 Richard A. Mitchell
 Professional Land Surveyor L-5060

-L_RT-
 PI Sta 22+54.50
 $\Delta = 1^{\circ}07'55.5''$ (LT)
 $D = 0'28'24.7''$
 $L = 239.08'$
 $T = 119.54'$
 $R = 12,100.00'$
 $SE = NC$

-L_RT-
 PI Sta 28+09.72
 $\Delta = 1^{\circ}23'53.0''$ (LT)
 $D = 0'16'15.2''$
 $L = 516.07'$
 $T = 258.05'$
 $R = 21,150.00'$

NOTES:

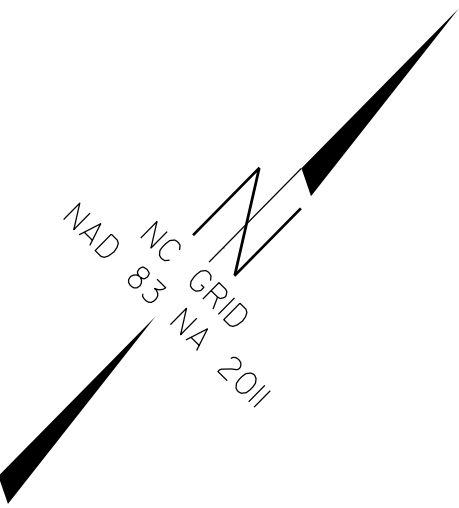
1. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
2. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
3. RIGHT OF WAY MONUMENTATION ESTABLISHED 2/16/2022 TO 2/18/2022 .

7:10:18 2022 08:47
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 MBTaylor
 2022-03-30\B-5652-1s-rw05-220331.dgn

REVISIONS

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MATCHLINE -L_RT- STA. 23 +50.00 SEE SHEET 4



PROJECT REFERENCE NO. B-5652	SHEET NO. RW05_REV
Location and Surveys	
LOCATION AND SURVEYS UNIT DIVISION 3 5310 BARBADOS BLVD, SUITE 102 CASTLE HAYNE, NORTH CAROLINA 28429	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

I, Christopher J. Sawyer, PLS, certify that the revised 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 10/06/22, and all coordinates are based on NAD83/2011. That this survey was performed to meet the requirements of 21NCAC 56.1600 as applicable.

This 13th day of October, 2022.

DocuSigned by:

 9700CB2E1D21467
 Professional Land Surveyor L-4526

-L_RT-
 PI Sta 22+54.50
 $\Delta = 1^{\circ}07'55.5''$ (LT)
 $D = 0'28'24.7''$
 $L = 239.08'$
 $T = 119.54'$
 $R = 12,100.00'$
 $SE = NC$

-L_RT-
 PI Sta 28+09.72
 $\Delta = 1^{\circ}23'53.0''$ (LT)
 $D = 0'16'15.2''$
 $L = 516.07'$
 $T = 258.05'$
 $R = 21,150.00'$

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. REVISED RIGHT OF WAY MONUMENTATION ESTABLISHED 10/06/22.