

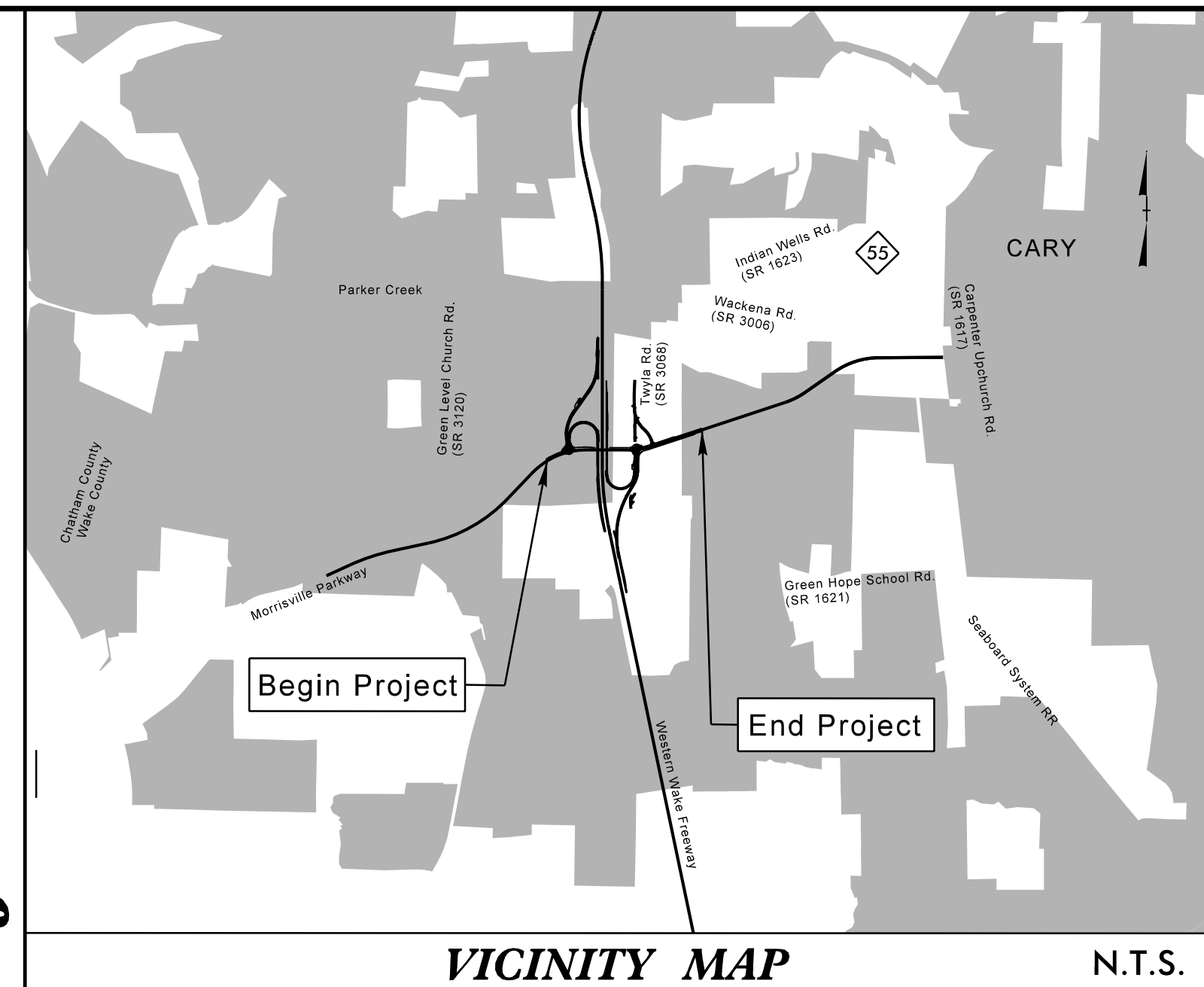
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09/08/09

CARY PROJECT: ST 1123/1220 TIP PROJECT: U-5315 A&B

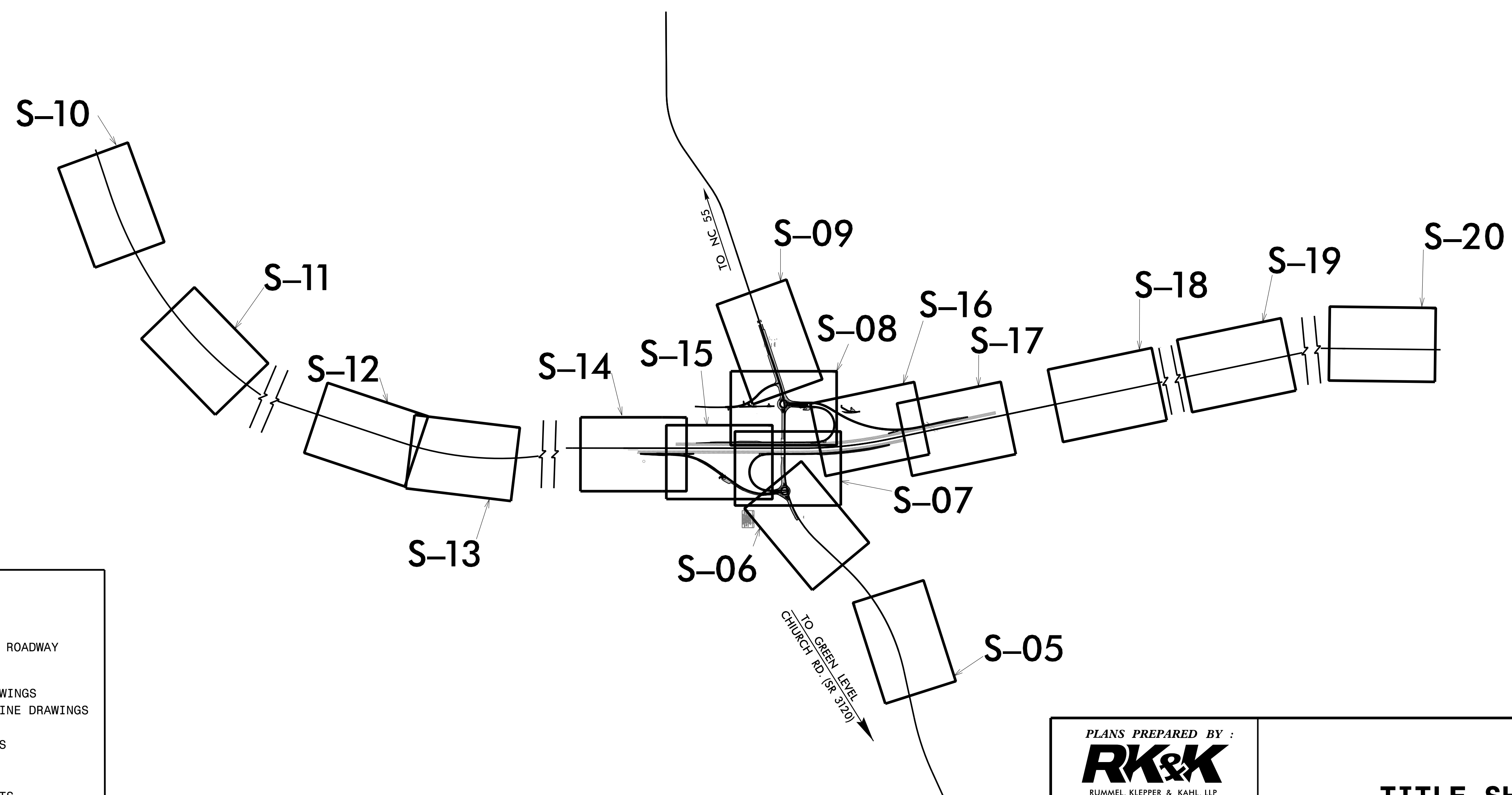
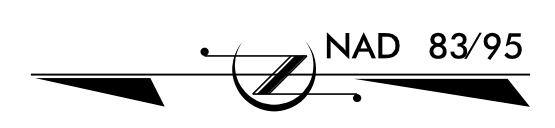


STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**SIGNING PLANS**  
**WAKE COUNTY**

**LOCATION: MORRISVILLE PARKWAY EXTENSION AND NC 540 INTERCHANGE**  
**FROM SR 1625 (GREEN LEVEL CHURCH RD.) TO NC 55**  
**TYPE OF WORK: SIGNING**

TIP NO. U-5315 A&B	SHEET NO. SIGN-1
APPROVED: _____	
DATE: _____	
SEAL	
<small>DocuSigned by: Barry Brandt</small> <b>DOCUMENT NOT CONSIDERED FINAL</b> <b>UNLESS ALL SIGNATURES COMPLETED</b>	



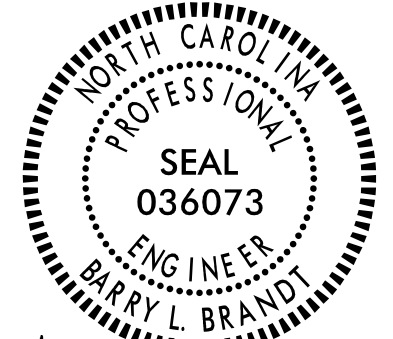
**INDEX**

SHEET NO.	DESCRIPTION
SIGN-1	TITLE SHEET
SIGN-2A	NOTES AND APPLICABLE ROADWAY STANDARD DRAWINGS
SIGN-2B - 2C	SUPPORT INFORMATION
SIGN-2D - 2H	REVISED STANDARD DRAWINGS
SIGN-3A - 3F	OVERHEAD STRUCTURE LINE DRAWINGS
SIGN-4A - 4I	SIGN DESIGN SHEETS
SIGN-4J	TOLL ROUTE ASSEMBLIES
SIGN-4K	TYPE "E" SIGNS
SIGN-4L	MILE MARKER SIGNS
SIGN-5 - SIGN-20	SIGNING ROADWAY SHEETS
SIGN-21	OVERHEAD STRUCTURES - TOTAL BILL OF MATERIAL
SIGN-22 - SIGN 32	OVERHEAD STRUCTURES - AESTHETIC COLUMNS AND FOUNDATIONS

PLANS PREPARED BY :  
**RK&K**  
 RUMMEL, KLEPPER & KAHL, LLP  
 900 RIDGEFIELD DRIVE SUITE 350  
 RALEIGH, NORTH CAROLINA 27609-3960  
 NC LICENSE NO. F-0112 (919) 878-9560  
 FOR  
 THE NORTH CAROLINA  
 TURNPIKE AUTHORITY

**TITLE SHEET**

11/14/2017  
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TIP NO. U-5315 A&B	SHEET NO. SIGN-02A
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**SUMMARY OF QUANTITIES**

ITEM NO.		ITEM DESCRIPTION	QUANTITY	UNIT
DESC. NO.	SECT. NO.			
4025000000	901	CONTRACTOR FURNISHED, TYPE A SIGN	2135.5	SF
4025000000	901	CONTRACTOR FURNISHED, TYPE B SIGN	218.75	SF
4025000000	901	CONTRACTOR FURNISHED, TYPE D SIGN	104.5	SF
4025000000	901	CONTRACTOR FURNISHED, TYPE E SIGN	508.5	SF
4025000000	901	CONTRACTOR FURNISHED, TYPE SIGN (OVERLAY)	4	SF
4366000000	SP	CONTRACTOR FURNISHED, TOLL ROUTE ASSEMBLY	484.25	SF
4025000000	901	CONTRACTOR FURNISHED, TYPE MILE MARKER SIGN	73.5	SF
4048000000	902	REINFORCED CONCRETE SIGN FOUNDATIONS	9	CY
4060000000	903	SUPPORTS, BREAKAWAY STEEL BEAM	8991	LB
4066000000	903	SUPPORTS, SIMPLE STEEL BEAM	1434	LB
4072000000	903	SUPPORTS, 3-LB STEEL U-CHANNEL	1447	LF
4096000000	904	SIGN ERECTION, TYPE D	9	EA
4102000000	904	SIGN ERECTION, TYPE E	68	EA
4109000000	904	SIGN ERECTION, TYPE A (GROUND MOUNTED)	9	EA
4366000000	SP	SIGN ERECTION, TOLL ROUTE ASSEMBLY	13	EA
4114000000	904	SIGN ERECTION, MILEMARKERS	5	EA
4116000000	904	SIGN ERECTION, OVERLAY (GROUND MOUNTED)	1	EA
4149000000	907	DISPOSAL OF SIGN SYSTEM, OVERHEAD	4	EA
4152000000	907	DISPOSAL OF SIGN SYSTEM, STEELBEAM	3	EA
4155000000	907	DISPOSAL OF SIGN SYSTEM, U-CHANNEL	6	EA
4955000000	1264	OBJECT MARKERS (END OF ROAD)	6	EA

**ROADWAY STANDARD DRAWING**

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:


STD. NO.	TITLE
862.01	GUARDRAIL PLACEMENT
862.02	GUARDRAIL INSTALLATION
862.03	STRUCTURE ANCHOR UNITS
901.10	TYPE 'A' SIGNS
901.20	TYPE 'B' SIGNS
901.50	ARROWS AND SHIELDS
901.60	RIVET SPACING FOR OVERLAYED SIGNS
901.70	SIGN STRINGERS AND SUPPORT SPACING
901.80	SIGN MOUNTING DETAILS - FOR TYPE A AND TYPE B SIGNS
903.10	GROUND MOUNTED SIGN SUPPORTS (EXCEPT 1 OF 3 WHICH IS REPLACED WITH SIGN-02D AND 2 OF 3 WHICH IS REPLACED WITH SIGN-02E IN THE PLANS)
904.10	ORIENTATION OF GROUND MOUNTED SIGNS
904.20	SECONDARY SIGN MOUNTING
904.40	MILEPOST AND PLACEMENT (REPLACED WITH SIGN-02F IN THE PLANS)
904.50	MOUNTING OF TYPE 'D', 'E' AND 'F' SIGNS ON 'U' CHANNEL POSTS
1264.01	OBJECT MARKERS
1264.02	OBJECT MARKERS

**GENERAL NOTES**

- . SIGNING PLANS DO NOT INCLUDE TEMPORARY CONSTRUCTION SIGNING OR PAVEMENT MARKINGS. SEE TRAFFIC CONTROL PLANS AND PAVEMENT MARKINGS PLANS FOR DETAILS.
- . ALL TYPE 'D' SIGNS SHALL BE MOUNTED ON TWO U-CHANNEL POSTS UNLESS OTHERWISE INDICATED ON THE PLANS.
- . IF REMOVAL OR RELOCATION OF SIGNS ON PRIVATE STREET (NON-STATE MAINTAINED) IS REQUIRED DUE TO CONSTRUCTION, THE CONTRACTOR SHALL INFORM THE ENGINEER. THE WORK WILL BE COMPLETED BY OTHERS.
- . WHEN NOT STATIONED OR DIMENSIONED ON PLANS, ALL 'E' AND 'F' SIGNS SHALL BE FIELD LOCATED BY THE ENGINEER.
- . ALL EXISTING SIGNS ON "U" CHANNEL POST WITHIN THE PROJECT LIMITS SHALL BE REMOVED AND DISPOSED OF UNLESS OTHERWISE NOTED ON PLANS.
- . WHEN EXISTING SIGNS ARE REMOVED AND INSTALLED ON NEW SUPPORTS, THE RE-ERECTION SHALL IMMEDIATELY FOLLOW THE REMOVAL.
- . THE BACKGROUND FOR TYPE E & F SIGNS SHALL BE TYPE C REFLECTIVE SHEETING.
- . DO NOT BEGIN FABRICATION FOR TYPES A & B SIGNS MOUNTED ON OVERHEAD STRUCTURES OR STEEL SUPPORTS UNTIL "S" DIMENSIONS HAVE BEEN FIELD VERIFIED.
- . SEE ROADWAY PLANS FOR GUARD/GUIDE RAIL DETAILS.
- . CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES AND STORM DRAINS PRIOR TO CONSTRUCTION.
- . EXIT GORE SIGNS SHALL BE ERECTED ON OMNI-DIRECTIONAL BREAKAWAY SUPPORTS.
- . IF THE GROUNDWATER IS ENCOUNTERED AT A DEPTH SHALLOWER THAN 7 FEET, THE SIGN FOUNDATION MUST BE REDESIGNED BASED UPON THE ACTUAL FIELD CONDITIONS. THE FOUNDATION DESIGN DOES NOT APPLY TO VERY SOFT OR LOOSE SOIL, MUCK, WEATHERED ROCK, OR HARD ROCK.
- . VHB TAPE SHALL ONLY BE USED ON TOLL ROUTE SIGN ASSEMBLIES ON STEEL SUPPORTS AS INDICATED ON SHEETS SIGN-02G AND SIGN-02H.
- . REFER TO OVERHEAD STRUCTURE DRAWINGS (SIGN-21, SIGN-22, SIGN-24, SIGN-25, SIGN-27, SIGN-28, SIGN-29, AND SIGN-32) FOR OVERHEAD SIGN STRUCTURE TRUSS, FOUNDATION AND AESTHETIC COLUMN DESIGNS AND QUANTITIES.
- . REFER TO OVERHEAD STRUCTURE DRAWINGS (SIGN-21, SIGN-23, SIGN-26, SIGN-27, SIGN-30, AND SIGN-31) FOR OVERHEAD GANTRY STRUCTURE TRUSS, FOUNDATION, AND AESTHETIC COLUMN DESIGNS AND QUANTITIES.

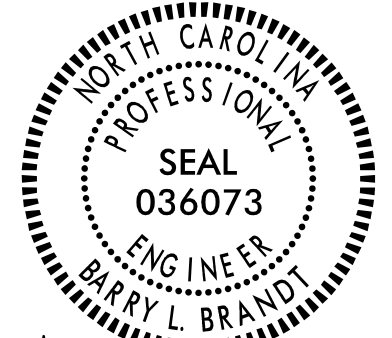
**CONSTRUCTION NOTES**

- 1 DISPOSAL OF SIGN SYSTEM, U-CHANNEL
- 2 DISPOSAL OF SIGN SYSTEM, OVERHEAD
- 3 DISPOSAL OF SIGN SYSTEM, STEEL BEAM
- 4 SIGN ERECTION, TYPE A (OVERHEAD)
- 5 SIGN ERECTION, TYPE B (OVERHEAD)
- 6 SIGN ERECTION, TYPE A (GROUND MOUNTED)
- 7 SIGN ERECTION, TYPE B (GROUND MOUNTED)
- 8 SIGN ERECTION, MILEMARKERS
- 9 SIGN ERECTION, TYPE D OR E
- 10 SIGN ERECTION, TOLL ROUTE SIGN ASSEMBLIES ON STEEL SUPPORTS
- 11 SIGN ERECTION, OVERLAY (GROUND MOUNTED)
- 12 OBJECT MARKERS, END OF ROAD

PLANS PREPARED BY :  
  
 RUMMEL, KLEPPER & KAHL, LLP  
 900 RIDGEFIELD DRIVE SUITE 350  
 RALEIGH, NORTH CAROLINA 27609-3960  
 NC LICENSE NO. F-0112 (919) 878-9560  
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**NOTES AND STANDARD DRAWINGS**

12/8/2017  
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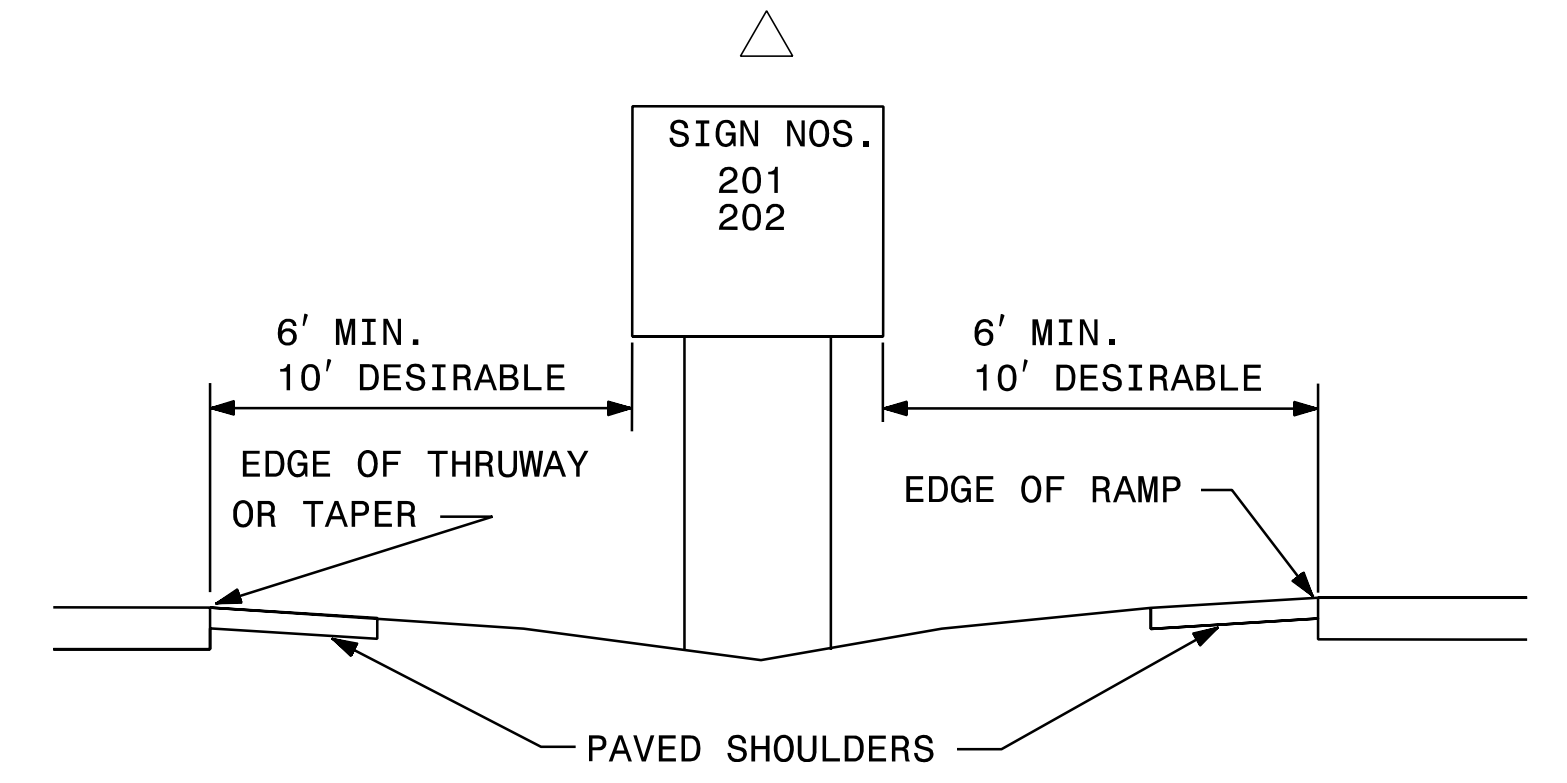
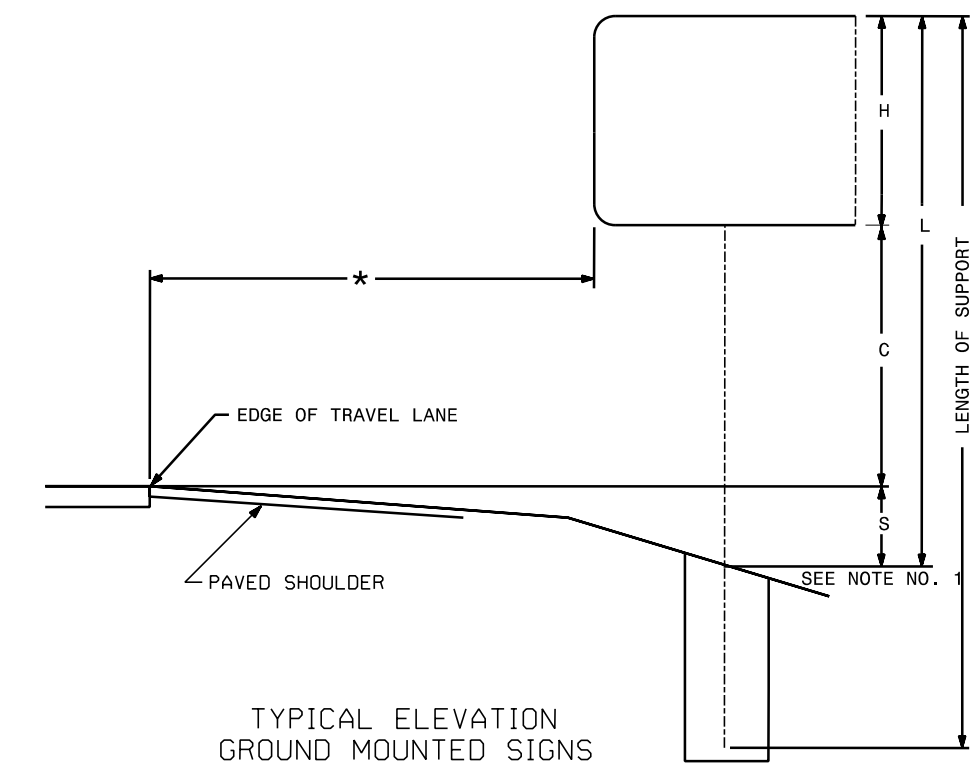
TIP NO. U-5315 A&B	SHEET NO. SIGN-02B
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Version: 3.0 Posted: 9/14/2016

NUMBER	TYPE	SIGN			ROADWAY STATION	NUMBER OF SUPPORTS	BEAM SECTION	SUPPORT TYPE BA or S	OMNI COUPLER	ATTACHMENT METHOD	MOUNTING METHOD	HORIZONTAL CLEARANCE* (ft.)	SUPPORT SPACING	LENGTH (ft)			LEFT SUPPORT (ft)			CENTER SUPPORT (ft)			RIGHT SUPPORT (ft)			SUPPORT WEIGHTS		FOOTINGS				FIELD VERIFIED SEE NOTE 2 (mm/dd/yy)																								
		w	x	h										SNS HT "H"	MTG HT "C"	EMBED-MENT	S	L	LENGTH	S	L	LENGTH	S	L	LENGTH	B/A (lbs.)	SIMPLE (lbs.)	DIAMETER (ft.)	DEPTH (ft.)	REINFORCED (c.y.)	PLAIN (c.y.)																									
101	A	132	x	66	-LPD- 22+18	2	W6x9	BA	N/A	N/A	N/A	18.00	6.45	5.50	7.00	3.0	1.80	14.30	17.30	0.00	0.00	0.00	3.41	15.91	18.91	389.89	0	1.5	3.5	0.46	0.00																									
102	A	156	x	108	-LPD- 21+56	2	W6x16	BA	N/A	N/A	N/A	18.00	7.62	9.00	7.00	4.0	1.90	17.90	21.90	0.00	0.00	0.00	3.81	19.81	23.81	825.36	0	1.5	4.5	0.59	0.00																									
103	A	132	x	66	-RPB- 17+00	2	W6x12	BA	N/A	N/A	N/A	25.00	6.45	5.50	7.00	3.0	4.44	16.94	19.94	0.00	0.00	0.00	6.05	18.55	21.55	575.88	0	1.5	3.5	0.46	0.00																									
104	A	156	x	108	-RBP- 19+00	2	W6x16	BA	N/A	N/A	N/A	25.00	7.62	9.00	7.00	4.0	4.24	20.24	24.24	0.00	0.00	0.00	6.78	22.78	26.78	910.32	0	1.5	4.5	0.59	0.00																									
105	A	180	x	72	-NC540- 519+00	2	W6x16	S	N/A	N/A	N/A	21.00	8.79	6.00	7.00	3.5	3.24	16.24	19.74	0.00	0.00	0.00	7.14	20.14	23.64	0.00	694.08	1.5	4	0.52	0.00																									
106	A	180	x	72	-NC540- 640+00	2	W6x16	S	N/A	N/A	N/A	20.00	8.79	6.00	7.00	4.0	3.87	16.87	20.87	0.00	0.00	0.00	8.34	21.34	25.34	0.00	739.36	1.5	4.5	0.59	0.00																									
107	A	162	x	78	-NC540- 719+00	2	W6x12	BA	N/A	N/A	N/A	20.00	7.91	6.50	7.00	3.5	0.76	14.26	17.76	0.00	0.00	0.00	4.34	17.84	21.34	547.20	0	1.5	4	0.52	0.00																									
201	A	78	x	60	-NC540- 556+70	2	S3x5.7	BA	YES	N/A	N/A	Δ	3.81	5.00	7.00	0.0	0.22	12.22	12.22	0.00	0.00	0.00	0.21	12.21	12.21	139.25	0	1.5	2.5	0.33	0.00																									
202	A	78	x	60	-NC540- 586+10	2	S3x5.7	BA	YES	N/A	N/A	Δ	3.81	5.00	7.00	0.0	0.99	12.99	12.99	0.00	0.00	0.00	0.35	12.35	12.35	144.44	0	1.5	2.5	0.33	0.00																									
																									TOTAL	3532.34	TOTAL	1433.44			TOTAL	4.39	TOTAL	0.00																						
																									USE:	3533.00	1434.00			5.00	0.00																									

**PROJECT NOTES**

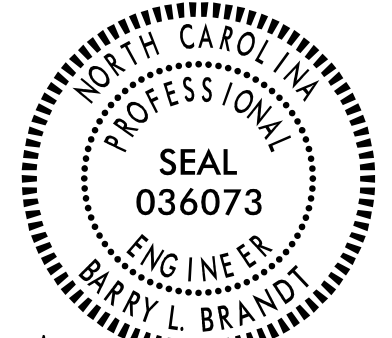
- NOTES
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  - FIELD VERIFICATIONS SHALL BE REQUIRED FOR ALL SUPPORTS, SEE (\*) ARTICLE 903-3. FABRICATORS SHALL BE AISC CERTIFIED IN CATEGORY 1, SEE (\*) ARTICLE 1072-1. (\*) = N.C.D.O.T. STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES
  - PLAN LOCATIONS FOR EXISTING UTILITIES ARE BASED ON THE BEST AVAILABLE INFORMATION AND, THEREFORE MAY NOT BE PRECISELY ACCURATE. THEREFORE, IT IS INCUMBENT UPON THE CONTRACTOR TO DETERMINE THE EXACT LOCATION OF UTILITIES BEFORE BEGINNING WORK IN A LOCATION.



PLANS PREPARED BY:  
**RK&K**  
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900 RIDGEFIELD DRIVE SUITE 350  
RALEIGH, NORTH CAROLINA 27609-3960  
NC LICENSE NO. F-0112 (919) 878-9560  
FOR  
THE NORTH CAROLINA  
TURNPIKE AUTHORITY

**TYPE "A" AND "B"  
GROUND MOUNTED  
SIGN CHART**

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TIP NO. U-5315 A&B	SHEET NO. SIGN-02C
APPROVED: _____	
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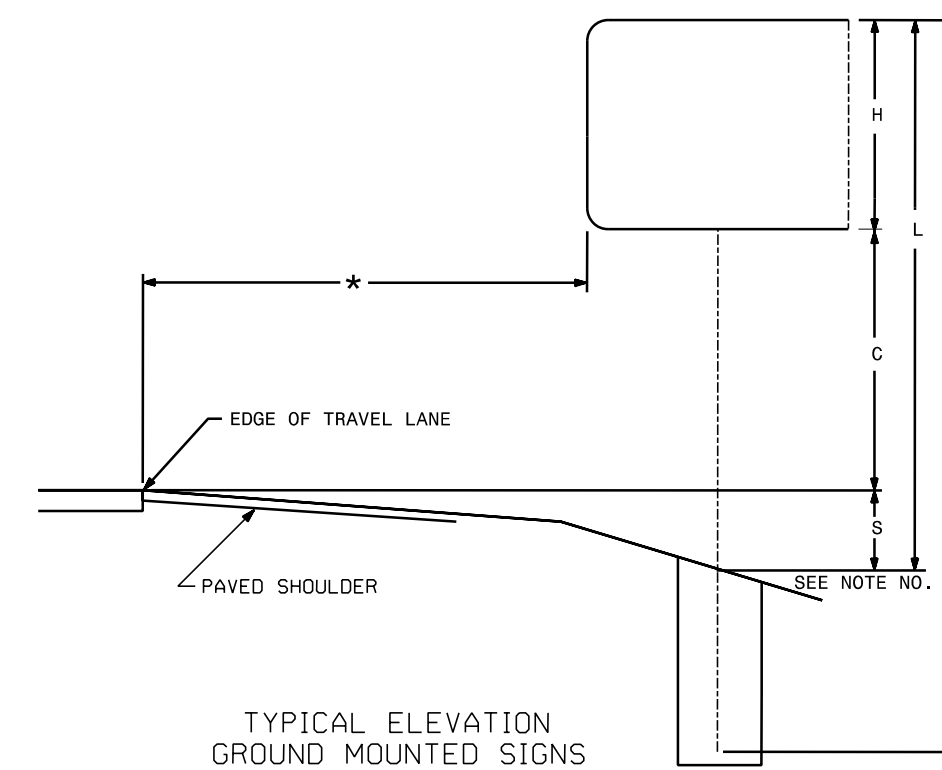
SIGN					ROADWAY STATION	NUMBER OF SUPPORTS	BEAM SECTION	SUPPORT TYPE BA or S	OMNI COUPLER	ATTACHMENT METHOD	MOUNTING METHOD	HORIZONTAL CLEARANCE* (ft.)	SUPPORT SPACING	LENGTH (ft)			LEFT SUPPORT (ft)			CENTER SUPPORT (ft)			RIGHT SUPPORT (ft)			SUPPORT WEIGHTS				FOOTINGS				FIELD VERIFIED SEE NOTE 2 (mm/dd/yy)
NUMBER	★ TYPE	SIZE (in.)												SNS HT	MTG HT	EMBED-MENT	S	L	LENGTH	S	L	LENGTH	S	L	LENGTH	B/A (lbs.)	SIMPLE (lbs.)	DIAMETER (ft.)	DEPTH (ft.)	REINFORCED (c.y.)	PLAIN (c.y.)			
		w	x	h																														
108	B	36	x	114	-L- 52+00	1	W6x16	BA	N/A	N/A	N/A	12.00	0.00	9.50	9.06	3.0	0.00	0.00	0.00	-2.06	16.50	19.50	0.00	0.00	0.00	359.00	0	1.5	3.5	0.23	0.00			
109	A	74	x	133	-L- 59+25	2	W6x12	BA	N/A	N/A	N/A	14.50	3.61	11.08	7.00	3.0	1.82	19.90	22.90	0.00	0.00	0.00	2.35	20.43	23.43	634.04	0	1.5	3.5	0.46	0.00			
110	B	36	x	133	-L- 63+00	1	W6x16	BA	N/A	N/A	N/A	19.50	0.00	11.08	8.33	3.0	0.00	0.00	0.00	-1.33	18.08	21.08	0.00	0.00	0.00	384.33	0	1.5	3.5	0.23	0.00			
111	B	36	x	133	-LPB- 20+50	1	W6x16	BA	N/A	N/A	N/A	18.50	0.00	11.08	9.65	3.5	0.00	0.00	0.00	-2.65	18.08	21.58	0.00	0.00	0.00	392.33	0	1.5	4	0.26	0.00			
112	A	74	x	133	-L- 62+00	2	W6x12	BA	N/A	N/A	N/A	15.00	3.61	11.08	7.00	3.0	1.73	19.81	22.81	0.00	0.00	0.00	2.23	20.31	23.31	631.52	0	1.5	3.5	0.46	0.00			
113	B	36	x	133	-L- 72+00	1	W6x16	BA	N/A	N/A	N/A	16.00	0.00	11.08	7.00	3.0	0.00	0.00	0.00	2.78	20.86	23.86	0.00	0.00	0.00	428.81	0	1.5	3.5	0.23	0.00			
114	B	36	x	133	-LPD- 22+71	1	W6x16	BA	N/A	N/A	N/A	12.00	0.00	11.08	7.00	3.0	0.00	0.00	0.00	2.25	20.33	23.33	0.00	0.00	0.00	420.33	0	1.5	3.5	0.23	0.00			
115	A	74	x	133	-L- 76+50	2	W6x9	BA	N/A	N/A	N/A	7.42	3.61	11.08	7.70	3.0	-0.70	18.08	21.08	0.00	0.00	0.00	-0.57	18.21	21.21	444.67	0	1.5	3.5	0.46	0.00			
116	A	74	x	133	-L- 73+25	2	W6x12	BA	N/A	N/A	N/A	27.55	3.61	11.08	7.00	3.0	1.31	19.39	22.39	0.00	0.00	0.00	2.81	20.89	23.89	633.44	0	1.5	3.5	0.46	0.00			
117	B	36	x	114	-L- 85+00	1	W6x16	BA	N/A	N/A	N/A	10.00	0.00	9.50	7.00	3.0	0.00	0.00	0.00	1.52	18.02	21.02	0.00	0.00	0.00	383.32	0	1.5	3.5	0.23	0.00			
118	B	36	x	74	-NC540- 649+50	1	W6x12	BA	N/A	N/A	N/A	20.00	0.00	6.17	7.00	2.5	0.00	0.00	0.00	1.64	14.81	17.31	0.00	0.00	0.00	246.68	0	1.5	3	0.20	0.00			
119	B	36	x	74	-NC540- 585+00	1	W6x12	BA	N/A	N/A	N/A	20.00	0.00	6.17	7.00	2.5	0.00	0.00	0.00	2.08	15.25	17.75	0.00	0.00	0.00	251.96	0	1.5	3	0.20	0.00			
120	B	36	x	74	-NC540- 555+00	1	W6x12	BA	N/A	N/A	N/A	20.00	0.00	6.17	7.00	2.5	0.00	0.00	0.00	1.64	14.81	17.31	0.00	0.00	0.00	246.68	0	1.5	3	0.20	0.00			
																	TOTAL	TOTAL		TOTAL	TOTAL													
																	5457.12	0.00		3.83	0.00													
																	USE:	5458.00	0.00	4.00	0.00													

\* SIGN TYPE, BASED ON OVERALL WINDLOAD AREA AS SHOWN ON SHEET SIGN-04H, USED FOR CALCULATIONS. SIGN PANELS WILL FOLLOW SPECIFICATIONS FOR TYPE "B" SIGNS, EXCEPT FOR MOUNTING METHODS AND SILK SCREENING.

**PROJECT NOTES**

NOTES

- DIMENSION "S" REPRESENTS AN INCREASE (+), OR A DECREASE (-) IN POLE LENGTH, RELATIVE TO THE ELEVATION OF THE EDGE OF PAVEMENT.
- FIELD VERIFICATIONS SHALL BE REQUIRED FOR ALL SUPPORTS, SEE (\*) ARTICLE 903-3. FABRICATORS SHALL BE AISC CERTIFIED IN CATEGORY 1, SEE (\*) ARTICLE 1072-1. (\*) = N.C.D.O.T. STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES
- PLAN LOCATIONS FOR EXISTING UTILITIES ARE BASED ON THE BEST AVAILABLE INFORMATION AND, THEREFORE MAY NOT BE PRECISELY ACCURATE. THEREFORE, IT IS INCUMBENT UPON THE CONTRACTOR TO DETERMINE THE EXACT LOCATION OF UTILITIES BEFORE BEGINNING WORK IN A LOCATION.



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**TOLL ROUTE SIGN  
 ASSEMBLIES  
 STEEL SUPPORT CHART**

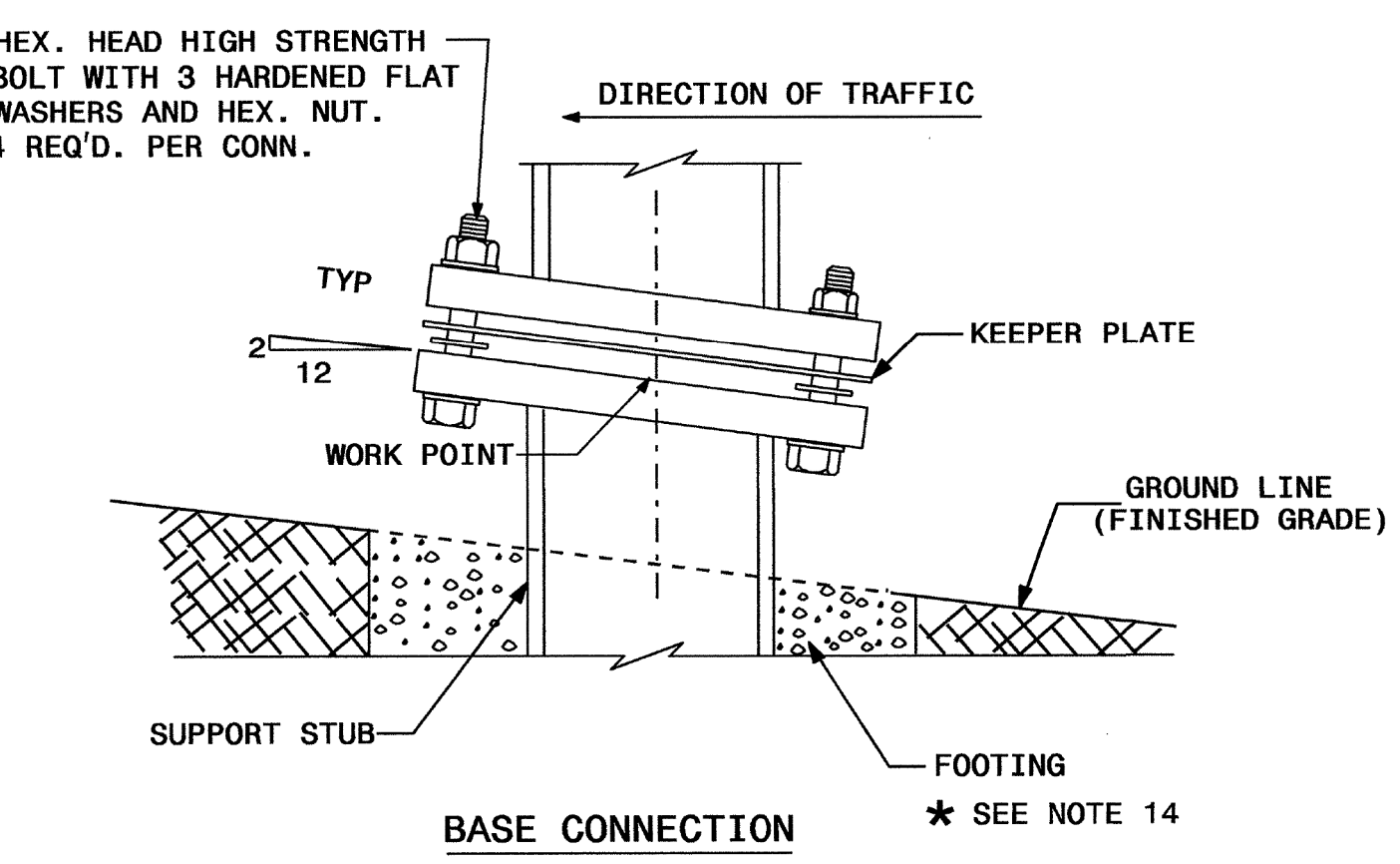
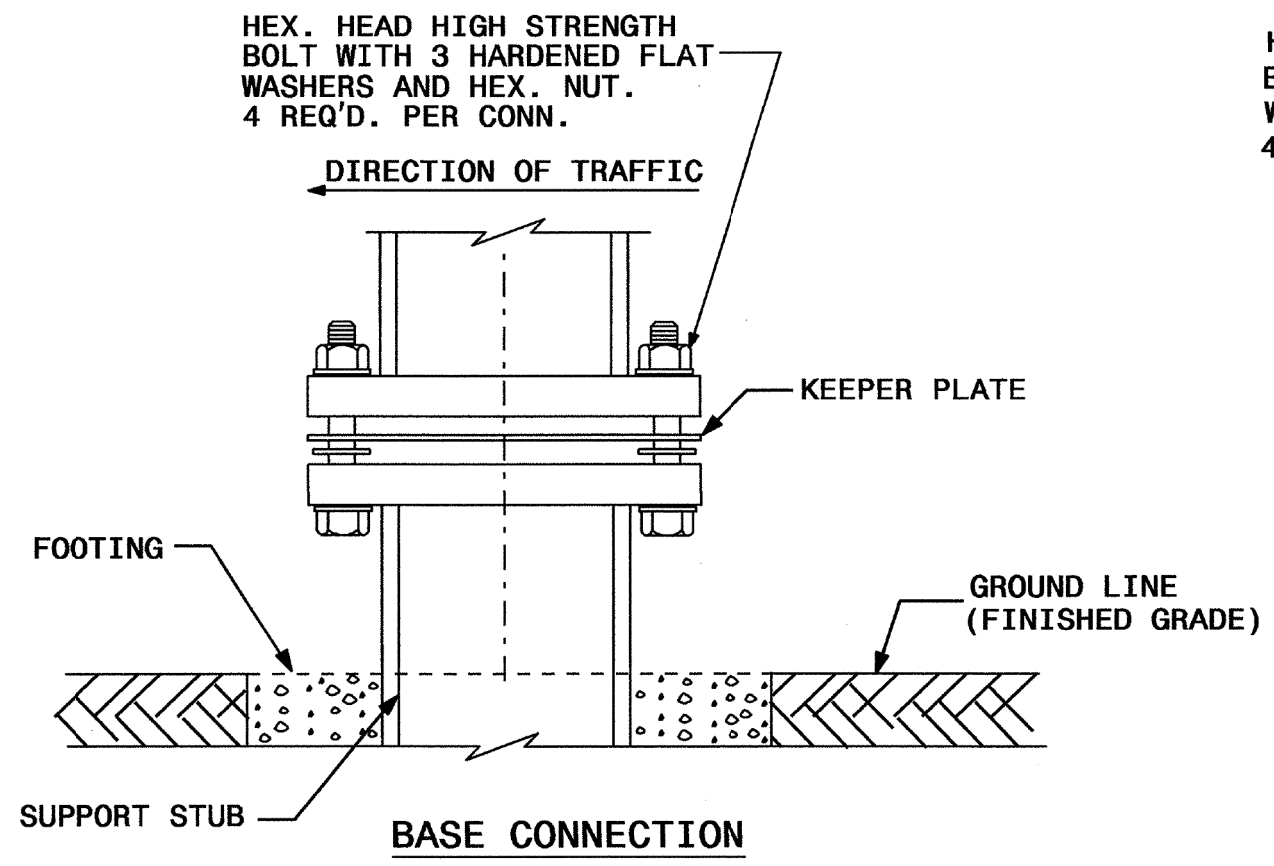
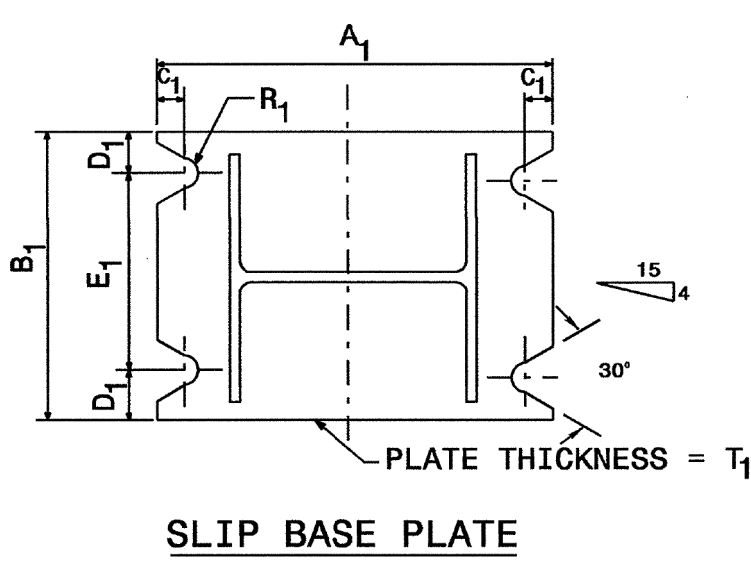
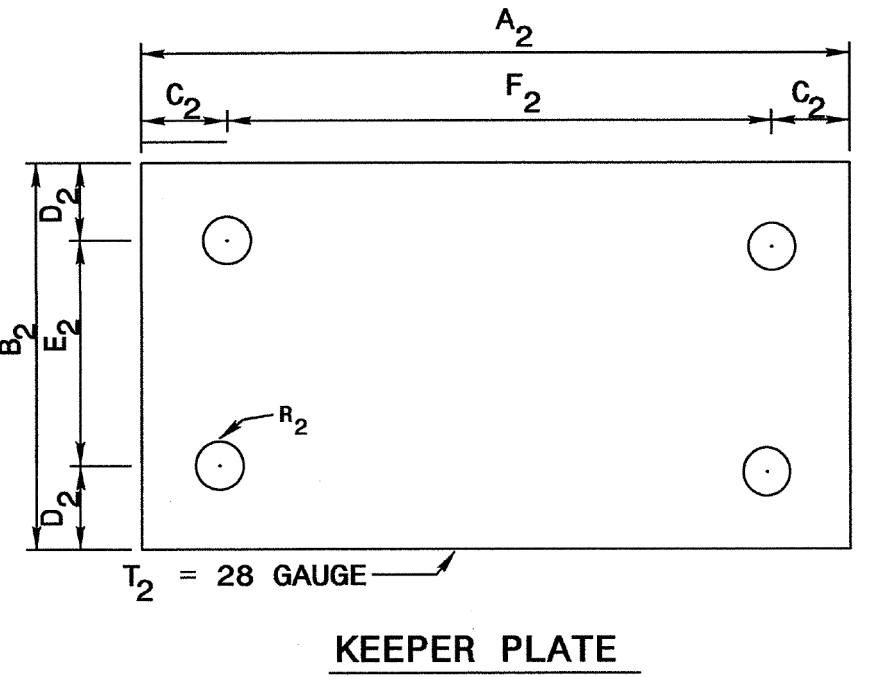
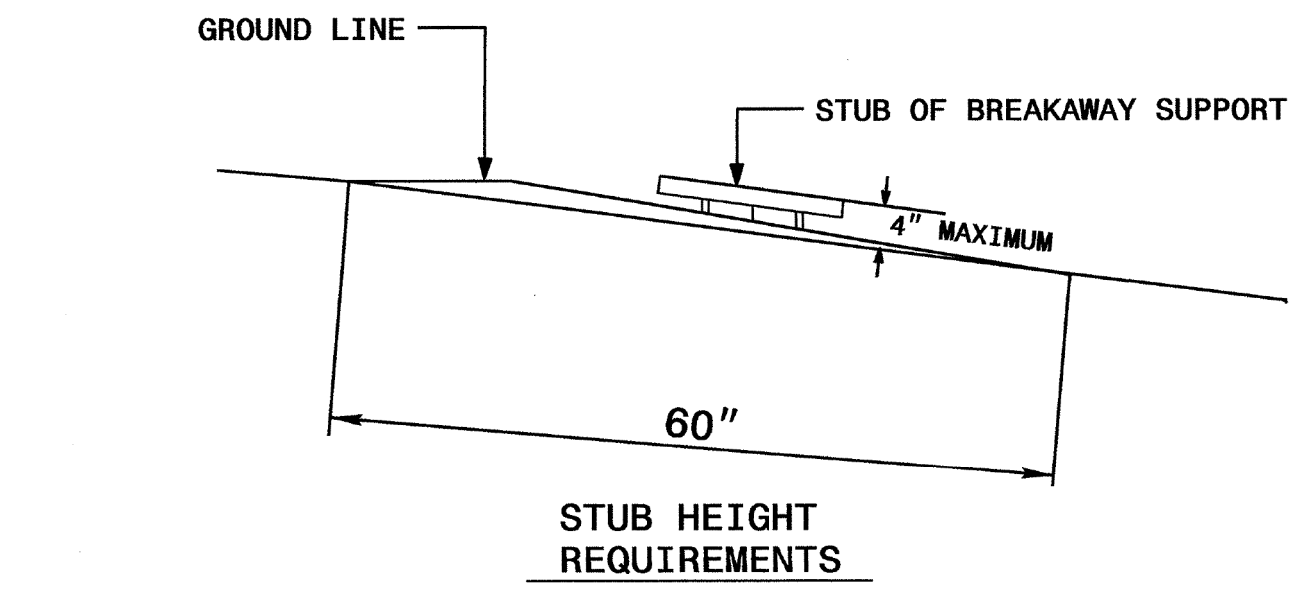
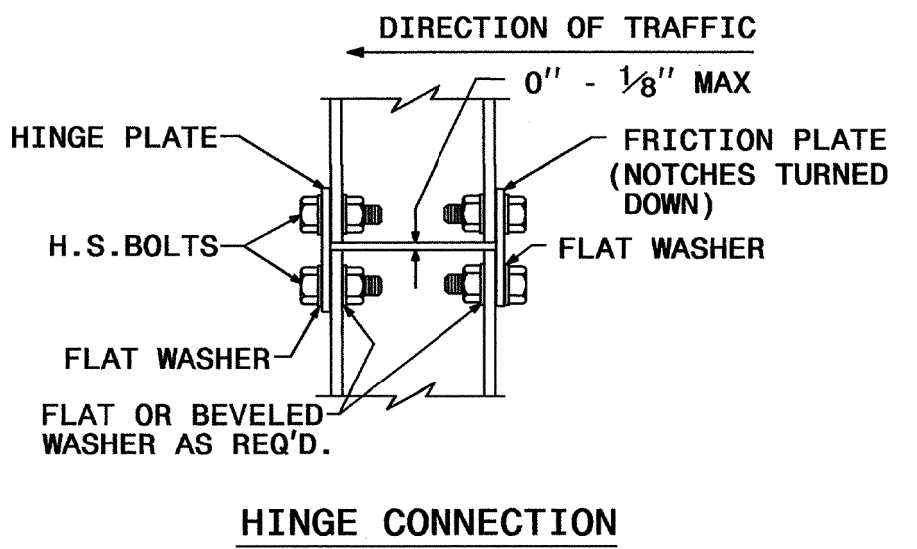
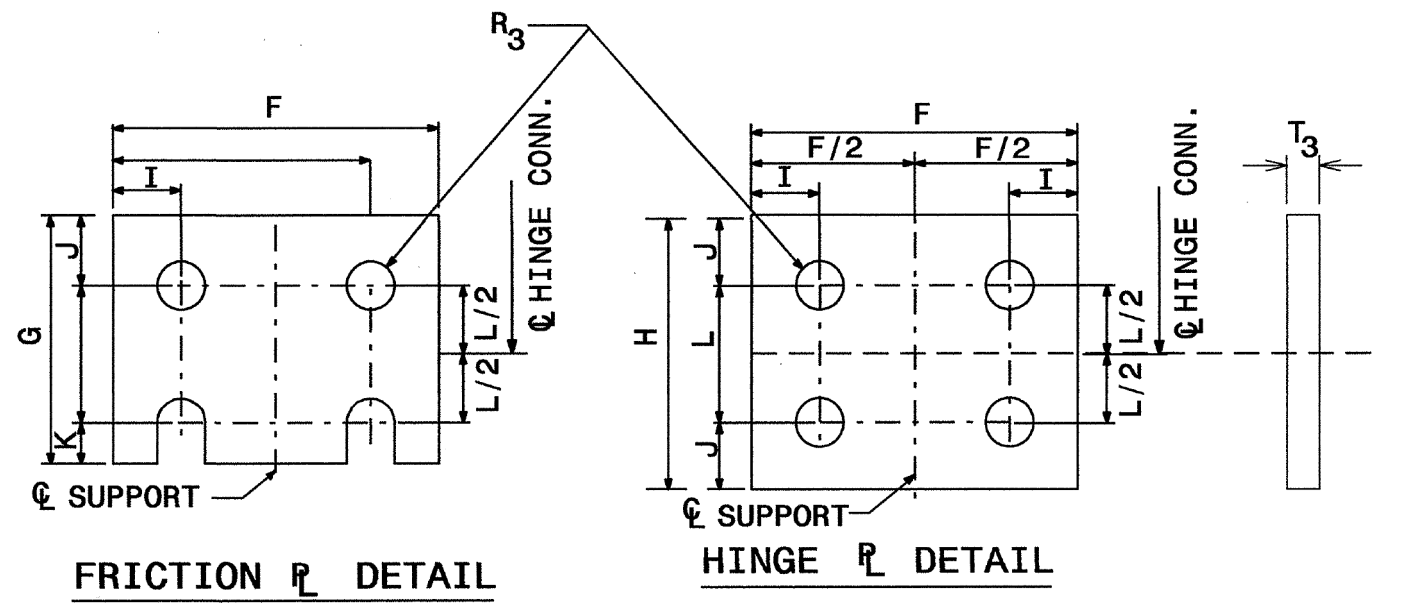
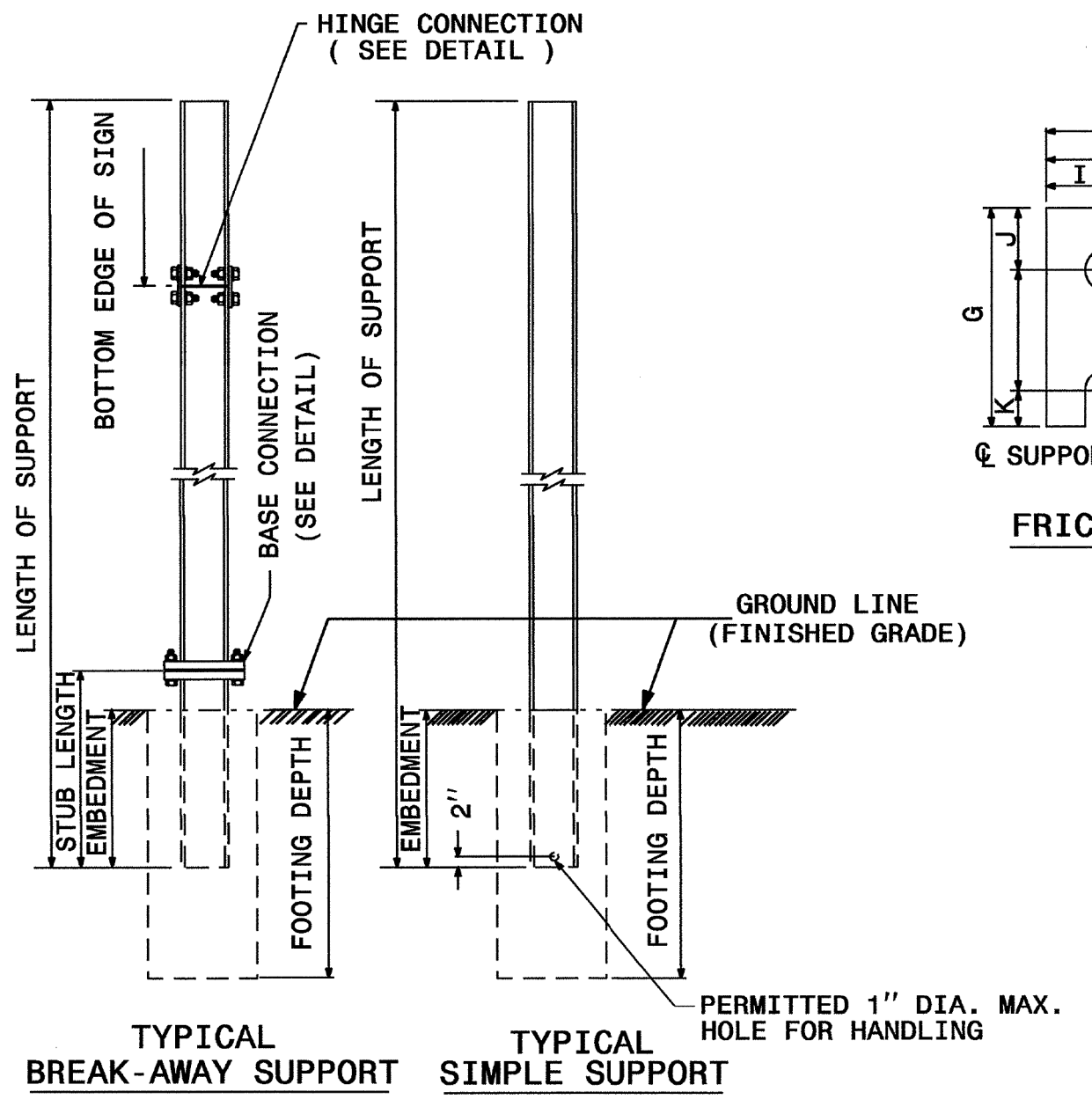
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1-12

**ENGLISH STANDARD DRAWING FOR  
 GROUND MOUNTED SIGN SUPPORTS**

SHEET 1 OF 3  
**903D10**



SEE SHEET 2 OF 3 FOR  
 BASE CONNECTION DATA  
 HINGE CONNECTION DATA  
 & FOUNDATION DATA.  
 SEE SHEET 3 OF 3 FOR  
 GENERAL NOTES.

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1-12

**ENGLISH STANDARD DRAWING FOR  
 GROUND MOUNTED SIGN SUPPORTS**

SHEET 1 OF 3  
**903D10**

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**REVISED SIGNING  
 ROADWAY STANDARD DRAWING**

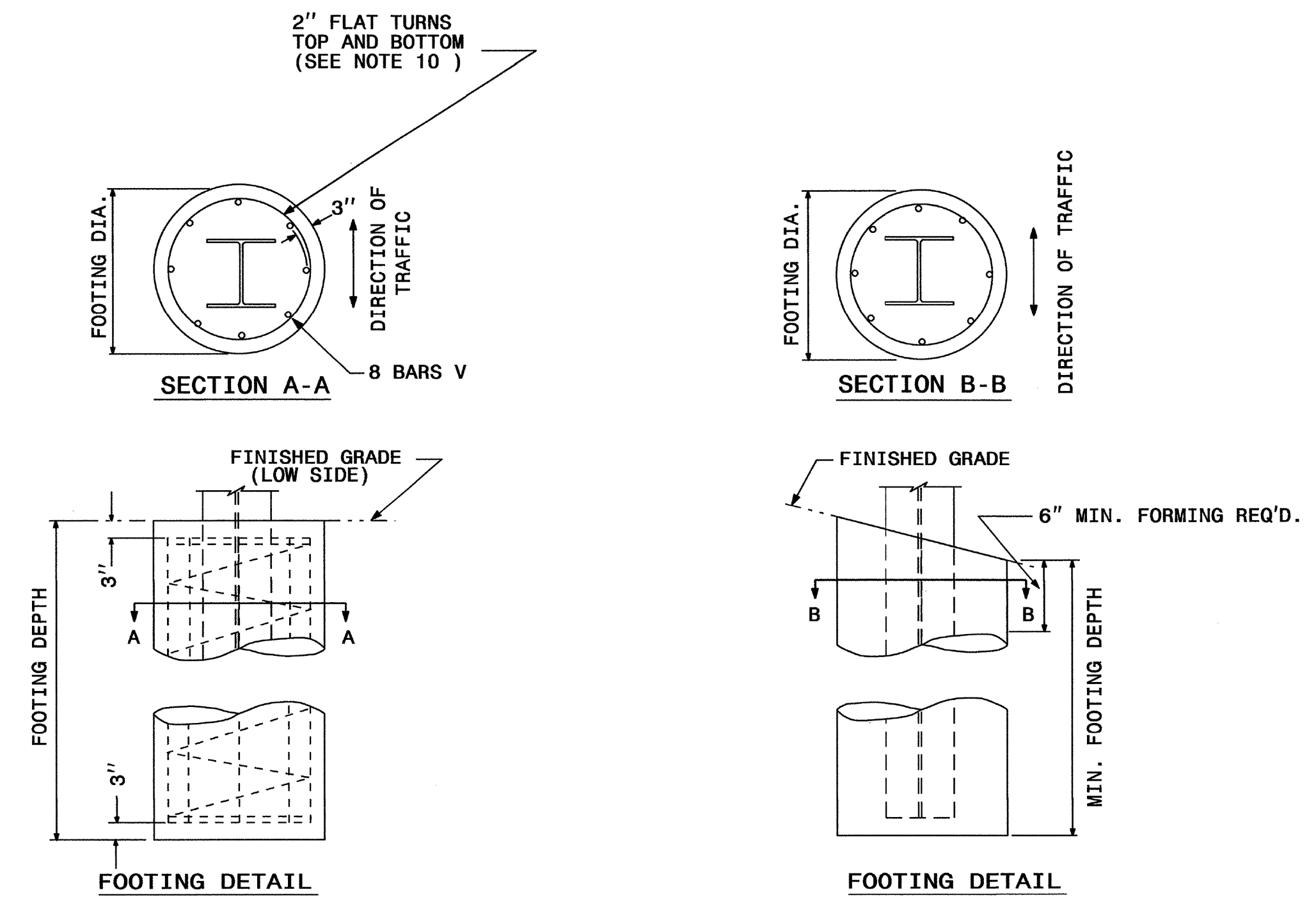
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ENGLISH DETAIL DRAWING FOR  
**GROUND MOUNTED SIGN SUPPORTS**

SHEET 2 OF 3  
**903D10**

BEAM SHAPE	BOLT SIZE	SLIP BASE PLATE DATA							KEEPER PLATE DATA							HINGE CONNECTION DATA							BREAK AWAY SUPPORT WEIGHT CONSTANT LBS.			
		A <sub>1</sub>	B <sub>1</sub>	C <sub>1</sub>	D <sub>1</sub>	E <sub>1</sub>	T <sub>1</sub>	R <sub>1</sub>	A <sub>2</sub>	B <sub>2</sub>	C <sub>2</sub>	D <sub>2</sub>	E <sub>2</sub>	T <sub>2</sub>	R <sub>2</sub>	T <sub>2</sub>	BOLT SIZE	F	G	H	I	J		K	L	R <sub>3</sub>
S3X5.7	1/2"DIA. X 3/4"	7"	4"	1"	3/4"	2 1/2"	1"	9/32"	7"	4"	1"	3/4"	2 1/2"	9/32"	28 GAUGE	1/2"DIA. X 1 3/4"	2 1/4"	3 1/2"	4"	1 1/2"	1"	1 1/2"	2"	9/32"	3/8"	18
S4X7.7	1/2"DIA. X 3/4"	8"	4"	1"	3/4"	2 1/2"	1"	9/32"	8"	4"	1"	3/4"	2 1/2"	9/32"	28 GAUGE	1/2"DIA. X 1 3/4"	2 5/8"	3 1/2"	4"	1 1/2"	1"	1 1/2"	2"	9/32"	3/8"	20
W6X9	1/2"DIA. X 3/4"	10"	5"	1"	3/4"	3 1/2"	1"	9/32"	10"	5"	1"	3/4"	3 1/2"	9/32"	28 GAUGE	1/2"DIA. X 1 3/4"	4"	3 1/2"	4"	3/4"	1"	1 1/2"	2"	9/32"	3/8"	32
W6X12	5/8"DIA. X 4"	11"	5"	1 1/4"	7/8"	3 1/4"	1 1/4"	11/32"	11"	5"	1 1/4"	7/8"	3 1/4"	11/32"	28 GAUGE	5/8"DIA. X 2"	4"	4"	4 1/2"	3/4"	1 1/8"	5/8"	2 1/4"	11/32"	3/8"	39
W6X16	5/8"DIA. X 4 1/2"	12"	6"	1 1/4"	7/8"	4 1/4"	1 1/2"	11/32"	12"	6"	1 1/4"	7/8"	4 1/4"	11/32"	28 GAUGE	5/8"DIA. X 2 1/4"	4"	4"	4 1/2"	3/4"	1 1/8"	5/8"	2 1/4"	11/32"	1/2"	47
W8X18	5/8"DIA. X 4 1/2"	13 1/2"	6 1/2"	1 1/4"	7/8"	4 3/4"	1 1/2"	11/32"	13 1/2"	6 1/2"	1 1/4"	7/8"	4 3/4"	11/32"	28 GAUGE	5/8"DIA. X 2 1/4"	5 1/4"	4"	4 1/2"	1"	1 1/8"	5/8"	2 1/4"	11/32"	1/2"	70
W8X21	3/4"DIA. X 4 1/2"	14"	7"	1 1/2"	1"	5"	1 1/2"	13/32"	14"	7"	1 1/2"	1"	5"	13/32"	28 GAUGE	3/4"DIA. X 2 1/2"	5 1/4"	6"	7"	1"	1 3/4"	3/4"	3 1/2"	13/32"	1/2"	73
W10X22	3/4"DIA. X 4 1/2"	16"	8"	1 1/2"	1"	6"	1 1/2"	13/32"	16"	8"	1 1/2"	1"	6"	13/32"	28 GAUGE	3/4"DIA. X 2 1/2"	5 3/4"	6"	7"	1"	1 3/4"	3/4"	3 1/2"	13/32"	1/2"	119
W10X26	3/4"DIA. X 5 1/2"	16 1/2"	8"	1 1/2"	1"	6"	1 3/4"	13/32"	16 1/2"	8"	1 1/2"	1"	6"	13/32"	28 GAUGE	3/4"DIA. X 2 3/4"	5 3/4"	6"	7"	1"	1 3/4"	3/4"	3 1/2"	13/32"	5/8"	140
W12X26	3/4"DIA. X 5 1/2"	18 1/2"	9"	1 1/2"	1"	7"	1 3/4"	13/32"	18 1/2"	9"	1 1/2"	1"	7"	13/32"	28 GAUGE	3/4"DIA. X 2 3/4"	6 1/2"	6"	7"	1"	1 3/4"	3/4"	3 1/2"	13/32"	5/8"	176
W14X30	1"DIA. X 6"	22"	9"	2"	1 1/2"	6"	2"	17/32"	22"	9"	2"	1 1/2"	6"	17/32"	28 GAUGE	1"DIA. X 3"	6 3/4"	7"	8"	1 1/4"	2"	1"	4"	17/32"	5/8"	205
W16X31	1"DIA. X 6"	24"	9"	2"	1 1/2"	6"	2"	17/32"	24"	9"	2"	1 1/2"	6"	17/32"	28 GAUGE	1"DIA. X 3"	5 1/2"	7"	8"	1 1/4"	2"	1"	4"	17/32"	3/4"	223
W18X35	1"DIA. X 6"	25"	9"	2"	1 1/2"	6"	2"	17/32"	25"	9"	2"	1 1/2"	6"	17/32"	28 GAUGE	1"DIA. X 3"	6"	7"	8"	1 1/4"	2"	1"	4"	17/32"	3/4"	243
W18X40	1"DIA. X 6 1/2"	26"	9"	2"	1 1/2"	6"	2 1/4"	17/32"	26"	9"	2"	1 1/2"	6"	17/32"	28 GAUGE	1"DIA. X 3 1/2"	6"	7"	8"	1 1/4"	2"	1"	4"	17/32"	7/8"	278
W21X44	1"DIA. X 7"	29"	9"	2"	1 1/2"	6"	2 1/2"	17/32"	29"	9"	2"	1 1/2"	6"	17/32"	28 GAUGE	1"DIA. X 3 1/2"	6 1/2"	7"	8"	1 1/4"	2"	1"	4"	17/32"	7/8"	310



FOOTING DIAMETER	REINFORCEMENT	SPIRAL BAR
1'-6"	8 # 6 BARS	#3 BAR, 6" PITCH
2'	8 # 7 BARS	#3 BAR, 6" PITCH
2'-6"	8 # 9 BARS	#3 BAR, 6" PITCH
3'	8 # 11 BARS	#3 BAR, 6" PITCH
3'-6"	8 # 12 BARS	#3 BAR, 6" PITCH
4'	8 # 14 BARS	#3 BAR, 6" PITCH

\* FOUNDATION DIMENSIONS ARE SHOWN IN PLANS

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ENGLISH DETAIL DRAWING FOR  
**GROUND MOUNTED SIGN SUPPORTS**

SHEET 2 OF 3  
**903D10**

PLANS PREPARED BY :  
  
 RUMMEL, KLEPPER & KAHL, LLP  
 900 RIDGEFIELD DRIVE SUITE 350  
 RALEIGH, NORTH CAROLINA 27609-3960  
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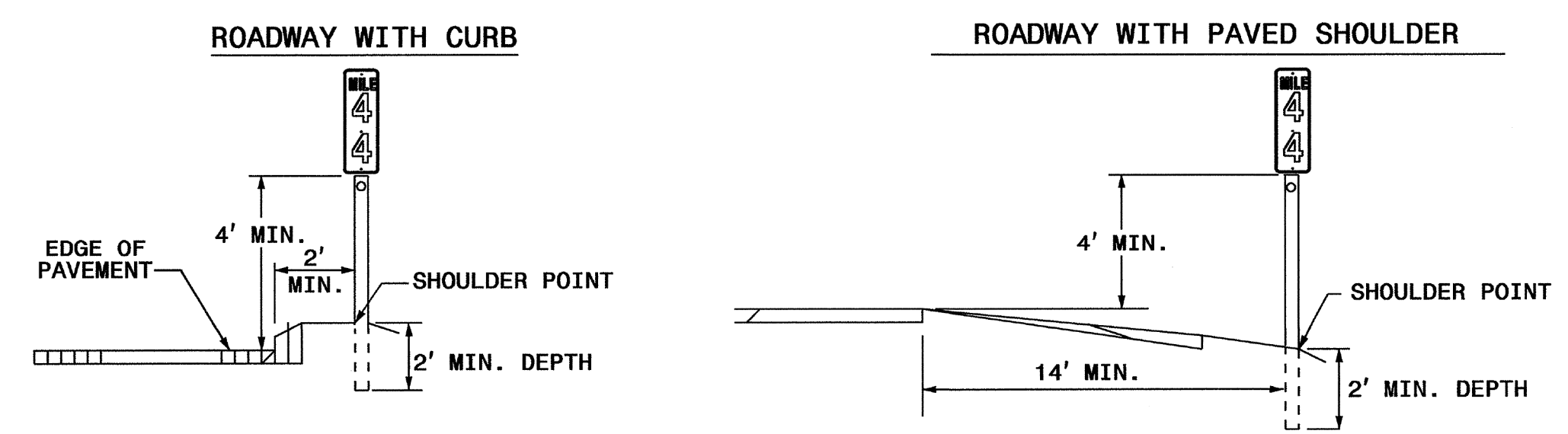
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 RALEIGH, N.C.

1-12

ENGLISH STANDARD DRAWING FOR  
**MILEPOST AND PLACEMENT**

SHEET 1 OF 1  
**904D40**

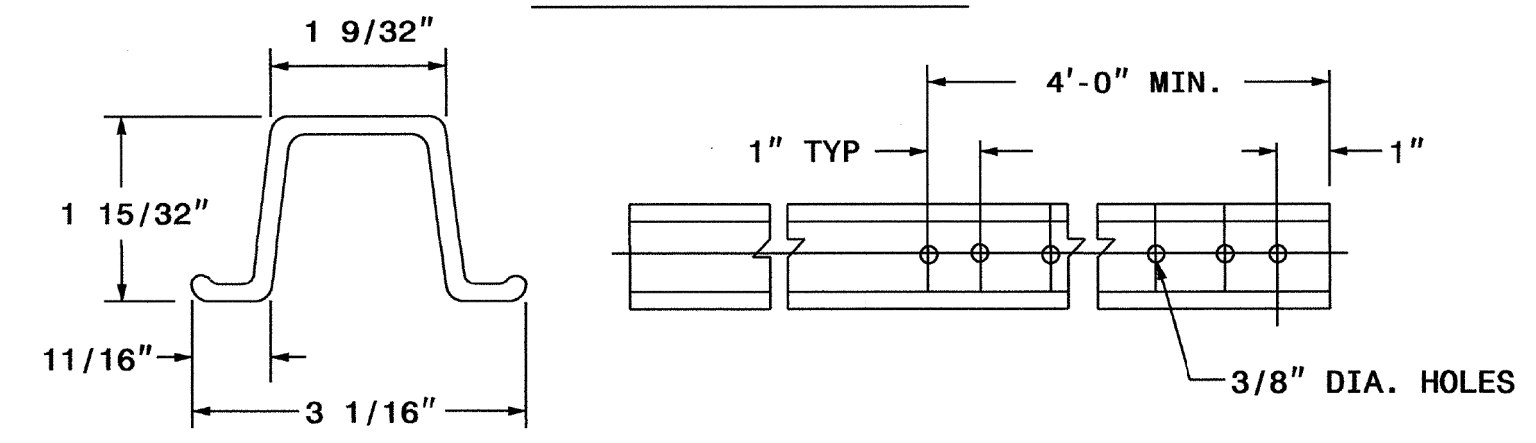
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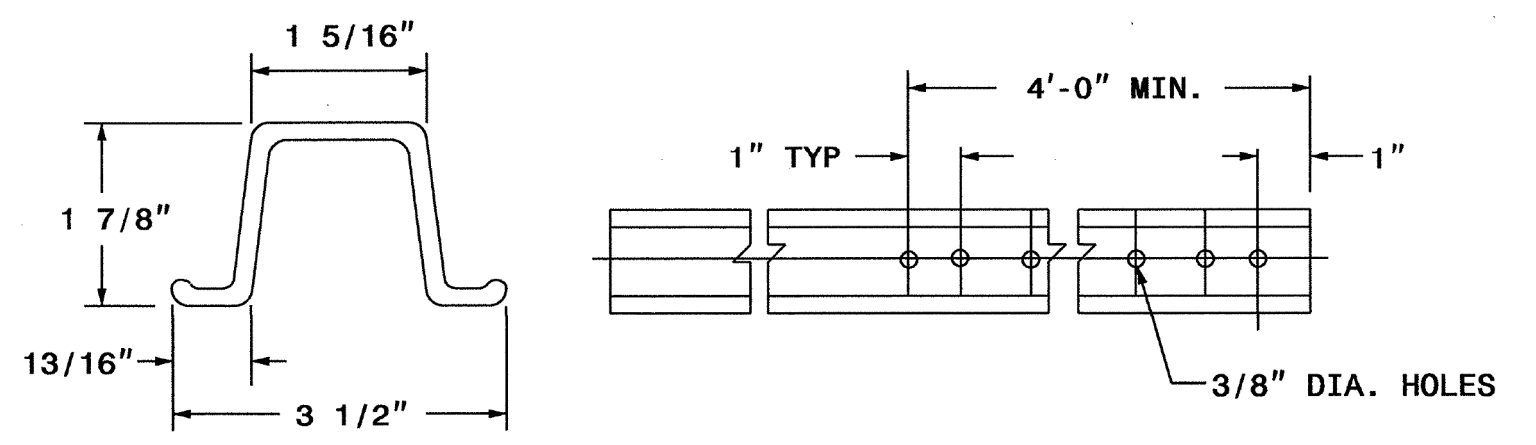
**NOTES:**

1. A MILEPOST SIGN SHALL CONSIST OF ONE (1) 12" X 24", 12" X 36" OR 12" X 48" SIGN PANEL. AN ENHANCED REFERENCE LOCATION SIGN SHALL CONSIST OF ONE (1) 18" X 54" SIGN PANEL. AN INTERMEDIATE ENHANCED REFERENCE LOCATION SIGN SHALL CONSIST OF ONE (1) 18" X 60" SIGN PANEL.
2. FABRICATE SIGNS FROM .080" SHEET ALUMINUM. EACH SIGN SHALL HAVE WHITE STUCK-ON MESSAGE AND BORDER ON GREEN BACKGROUND. MESSAGE, BORDER AND BACKGROUND TO BE REFLECTORIZED.
3. MILEPOST LOCATION SIGNS REQUIRE ONE (1) 2-LB GALVANIZED STEEL U-CHANNEL POST AND ENHANCED REFERENCE LOCATION SIGNS REQUIRE ONE (1) 3-LB GALVANIZED STEEL U-CHANNEL POST. THE POST'S LENGTH MUST MEET THE REQUIREMENTS SHOWN IN THESE STANDARDS.
4. POSTS SHALL BE DRIVEN. THE TOP OF POST SHALL NOT PROJECT ABOVE THE TOP OF SIGN.
5. ATTACH EACH SIGN TO THE WIDE FACE (FLANGES) OF THE POST BY MEANS OF THE FOLLOWING COMBINATION- 5/16" HEX HEAD BOLT, NYLON WASHER, SHIM, FLAT WASHER, LOCK WASHER, HEX NUT. FULL CONTACT BETWEEN THE SIGN AND THE POST SHALL BE ACHIEVED. NO BUCKLING OF THE SIGN WILL BE PERMITTED.
6. PLACE MILEPOST SIGNS AT THE SHOULDER POINT UNLESS THE ENGINEER DIRECTS OTHERWISE.

**POST DETAILS**

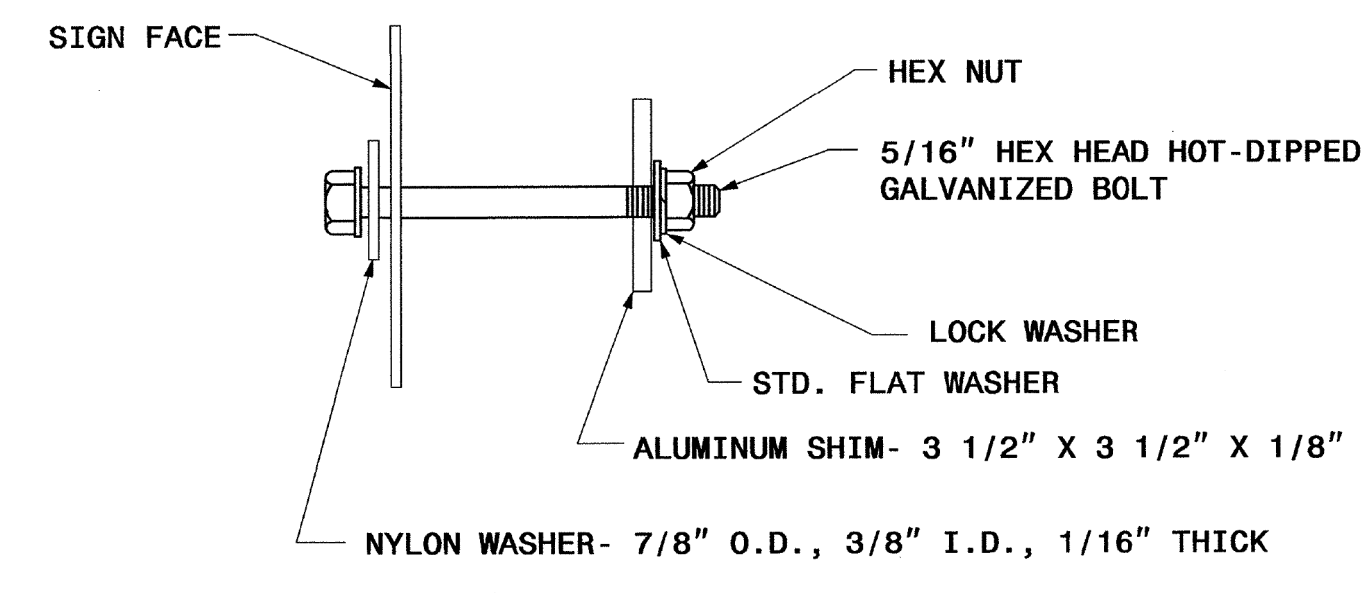


**2-LB U-CHANNEL**



**3-LB U-CHANNEL**

**FASTENER**



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1-12

ENGLISH STANDARD DRAWING FOR  
**MILEPOST AND PLACEMENT**

SHEET 1 OF 1  
**904D40**

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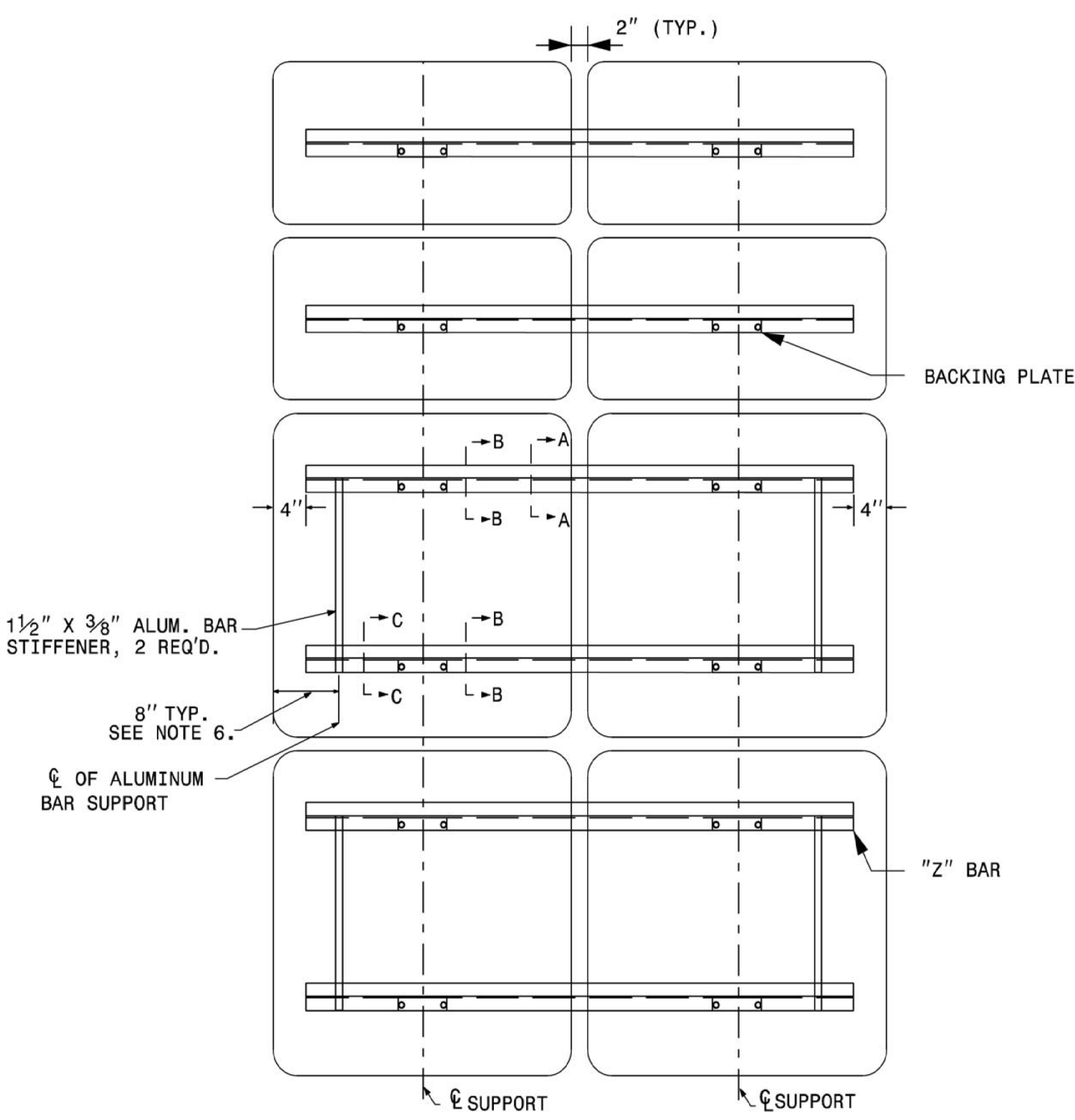
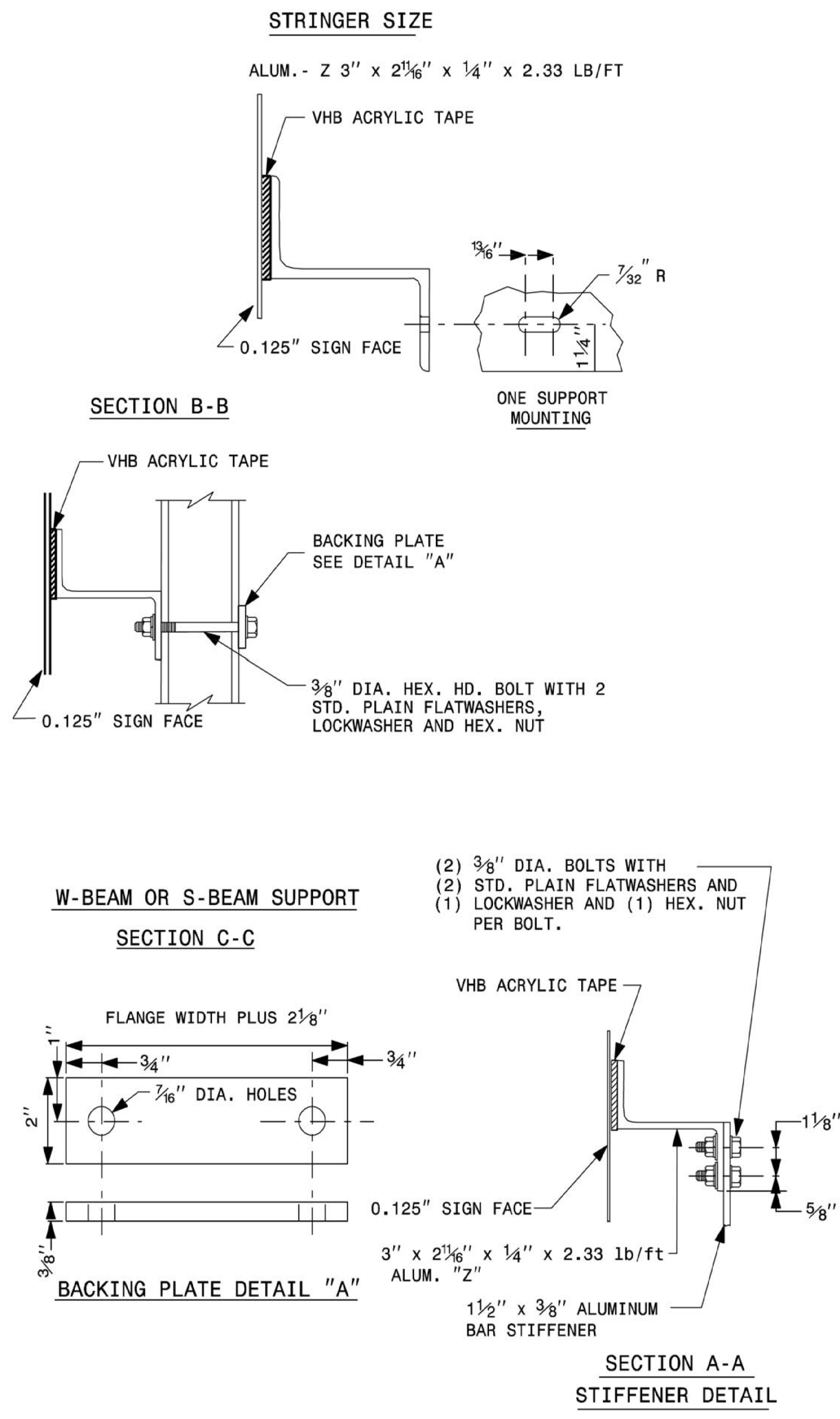


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8-16 STATE OF NORTH CAROLINA  
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ENGLISH STANDARD DRAWING FOR  
**VHB TAPE CONSTRUCTION**  
 FOR TYPE 'B' ROUTE SIGN  
 ASSEMBLIES WITH STEEL SUPPORTS

SHEET 1 OF 1  
**901.40**



1. USE NUMBER AND SIZE OF SUPPORTS AS SHOWN ON SUPPORT CHART IN PROJECT PLAN SHEETS.
2. SEE NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES FOR TYPE OF MATERIAL TO BE USED FOR SIGN PANELS, HANGER ASSEMBLIES, AND SUPPORT.
3. FURNISH ALL MOUNTING HARDWARE.
4. USE GALVANIZED STEEL FOR BACKING PLATES AND MOUNTING BOLTS.
5. THE VERTICAL DIMENSION BETWEEN PRIMARY AND SECONDARY SIGNS IS ONE (1) INCH.
6. ADJUST STIFFENERS TO AVOID CONFLICT WITH SUPPORTS.
7. FABRICATE EACH SIGN WITH AN APPROVED VHB ACRYLIC TAPE WITH FULL FACE CONTACT BETWEEN "Z" BARS AND SIGN PANELS AND BETWEEN SPLICE PLATES AND SIGN PANELS.
8. SEE ROADWAY STANDARD 901.70 FOR SUPPORT AND "Z" BAR SPACING.

8-16 STATE OF NORTH CAROLINA  
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ENGLISH STANDARD DRAWING FOR  
**VHB TAPE CONSTRUCTION**  
 FOR TYPE 'B' ROUTE SIGN  
 ASSEMBLIES WITH STEEL SUPPORTS

SHEET 1 OF 1  
**901.40**

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PLANS PREPARED BY :

**RK&K**

RUMMEL, KLEPPER & KAHL, LLP  
 900 RIDGEFIELD DRIVE SUITE 350  
 RALEIGH, NORTH CAROLINA 27609-3960  
 NC LICENSE NO. F-0112 (919) 878-9560

FOR  
 THE NORTH CAROLINA  
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**REVISED SIGNING  
ROADWAY STANDARD DRAWING**

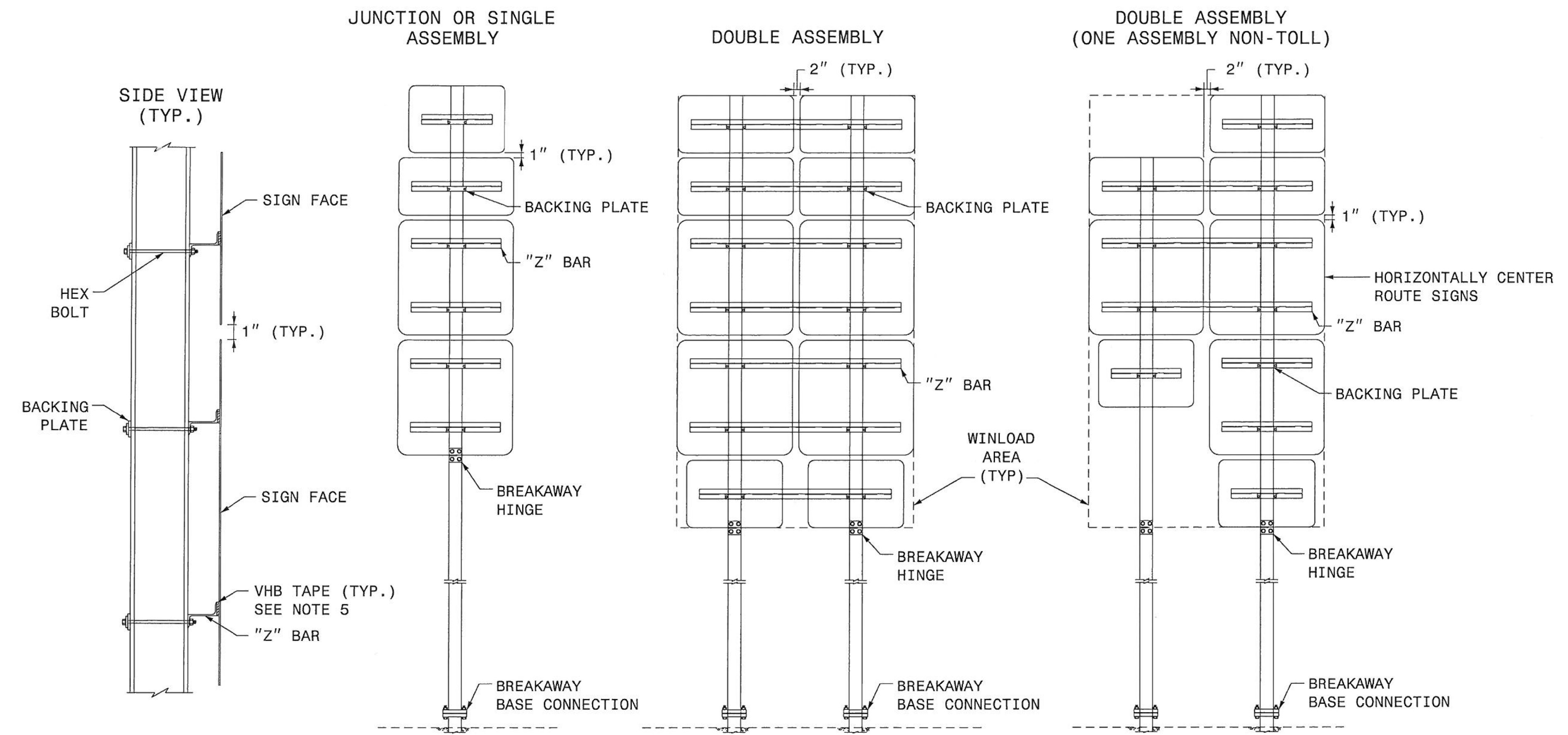
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7-15

ENGLISH DETAIL DRAWING FOR  
TOLL FACILITY ROUTE SIGN ASSEMBLIES  
MOUNTING METHOD

SHEET 9 OF 11



- NOTES:
- SUPPORTS SHALL BE BREAKAWAY STEEL BEAMS.
  - VERTICAL CLEARANCE SHALL BE 7' FROM EDGE OF TRAVEL; HOWEVER, IF THE GROUND ELEVATION IS ABOVE THE EDGE OF TRAVEL, THE VERTICAL CLEARANCE SHALL BE 7' FROM THE GROUND.
  - REFER TO 2009 MUTCD FIGURE 2A-2 FOR LATERAL CLEARANCE REQUIREMENTS.
  - ALL SIGN PANELS SHALL BE AFFIXED TO "Z" BARS WITH VHB TAPE (REFER TO 2006 NCDOT ROADWAY STANDARD DRAWING 901.40).
  - SUPPORTS SHALL BE DESIGNED WITH LATEST NCDOT SUPPORT DESIGN PROGRAM.
  - DOUBLE ASSEMBLIES SHALL BE DESIGNED WITH TWO SUPPORTS.
  - TYPE D SIGNS SHALL NOT BE MOUNTED ON SAME SUPPORTS AS NCTA ROUTE SIGN ASSEMBLIES.

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7-15

ENGLISH DETAIL DRAWING FOR  
TOLL FACILITY ROUTE SIGN ASSEMBLIES  
MOUNTING METHODS

SHEET 9 OF 11

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NC LICENSE NO. F-0112 (919) 878-9560

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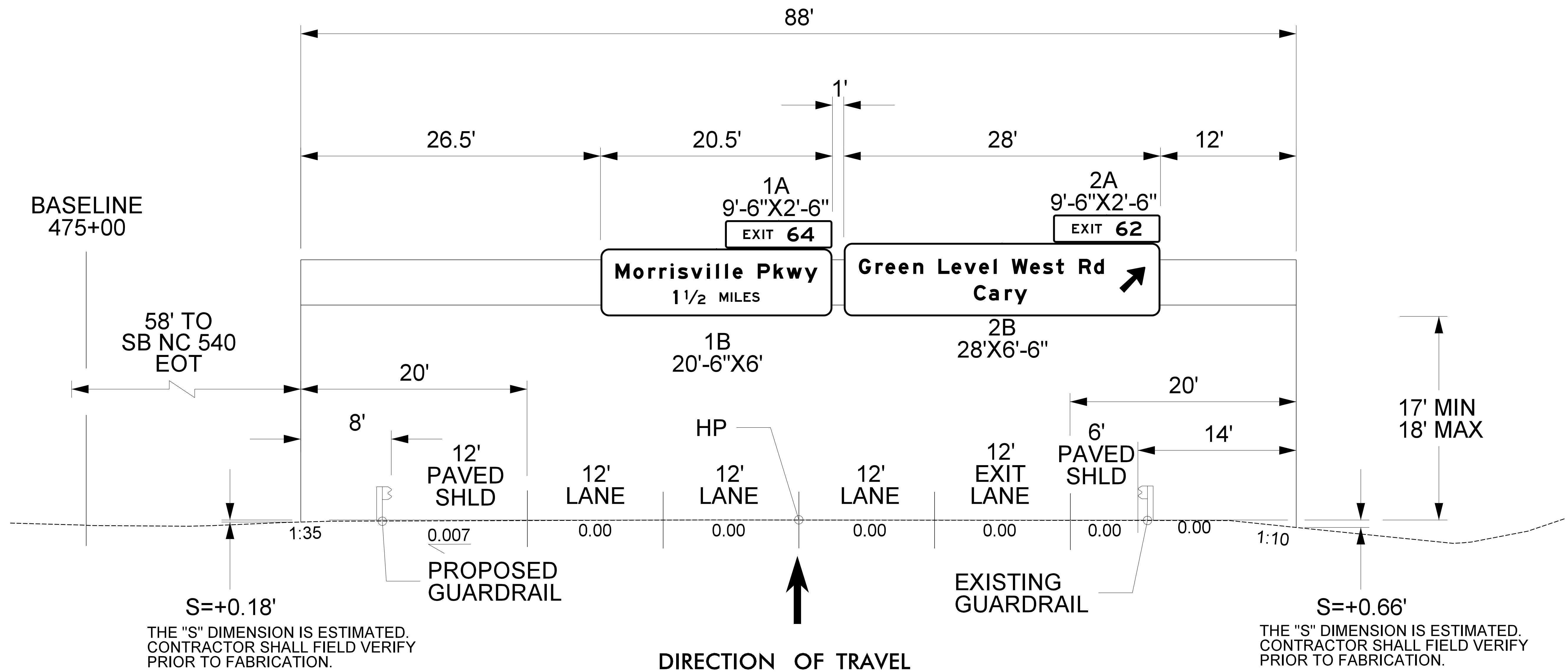
**TOLL ROUTE SIGN  
ASSEMBLIES  
NCDOT STANDARD DRAWING**

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**NOTES:**

- IF THE CONTRACTOR PROVIDES ALUMINUM SIGN STRUCTURE, EACH SHALL BE PROVIDED WITH AN APPROVED HIGHWAY TRUSS DAMPER DEVICE IN ACCORDANCE WITH AASHTO SPECIFICATIONS.
- MOUNT SIGNS ON THE HORIZONTAL MEMBER OF THE STRUCTURE SUCH THAT THE BOTTOM OF THE SIGNS ARE ALIGNED.
- FIELD VERIFICATION SHALL BE REQUIRED FOR ALL FOOTING ELEVATIONS, PER THE LATEST NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES. PROVIDE FIELD VERIFICATION TO THE SIGNING SECTION.
- THE TOP OF THE FOOTING SHALL BE AT LEAST 1 FOOT 6 INCHES BELOW FINISHED GRADE.
- SIGN HANGERS AND ATTACHMENT HARDWARE SHALL BE PROVIDED AND INSTALLED ON THE ASSEMBLY TO ACCOMMODATE ALL SIGNS SHOWN IN THE PLANS.
- DESIGN AND CONSTRUCTION REQUIREMENTS FOR SIGN STRUCTURES SHALL ACCOMMODATE WIND VELOCITY OF 90 M.P.H.
- THE EXACT SPAN DIMENSIONS SHALL BE DETERMINED BY THE FABRICATOR.
- FOR SIGN STRUCTURE DETAILS, REFER TO AESTHETIC SIGN STRUCTURE DRAWINGS.

**STATION -NC540- 475+00  
OVERHEAD SIGN ASSEMBLY "A"**



THE "S" DIMENSION IS ESTIMATED.  
CONTRACTOR SHALL FIELD VERIFY  
PRIOR TO FABRICATION.

THE "S" DIMENSION IS ESTIMATED.  
CONTRACTOR SHALL FIELD VERIFY  
PRIOR TO FABRICATION.

**DIRECTION OF TRAVEL**  
**NB NC 540**

**PLANS PREPARED BY :**  
  
 RUMMEL, KLEPPER & KAHL, LLP  
 900 RIDGEFIELD DRIVE SUITE 350  
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 NC LICENSE NO. F-0112 (919) 878-9560  
 FOR  
**THE NORTH CAROLINA  
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**AESTHETIC OVERHEAD  
 SIGN ASSEMBLY  
 "A"  
 STATION -NC540- 475+00**

10/13/2017  
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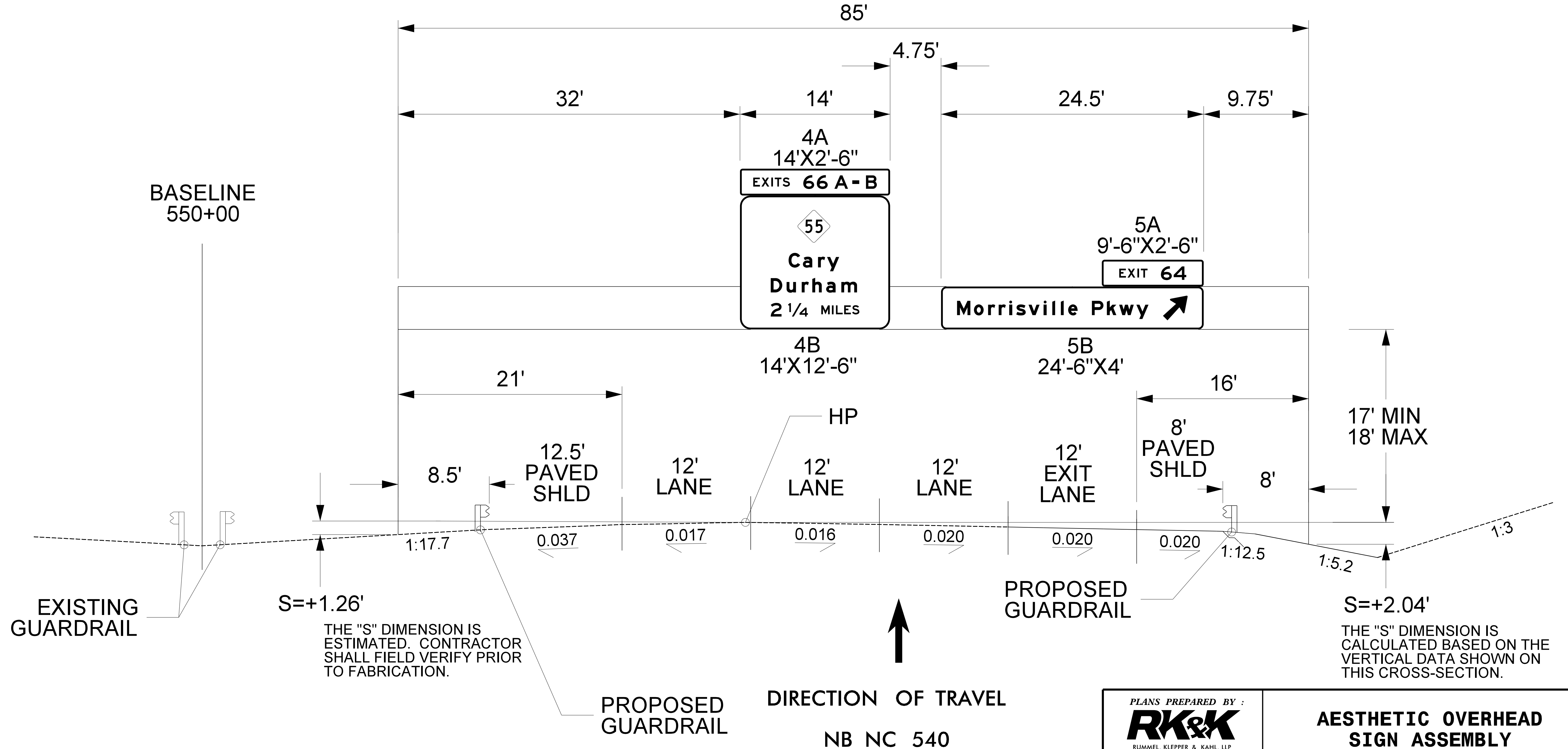


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- MOUNT SIGNS ON THE HORIZONTAL MEMBER OF THE STRUCTURE SUCH THAT THE BOTTOM OF THE SIGNS ARE ALIGNED.
- FIELD VERIFICATION SHALL BE REQUIRED FOR ALL FOOTING ELEVATIONS, PER THE LATEST NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES. PROVIDE FIELD VERIFICATION TO THE SIGNING SECTION.
- THE TOP OF THE FOOTING SHALL BE AT LEAST 1 FOOT 6 INCHES BELOW FINISHED GRADE.
- SIGN HANGERS AND ATTACHMENT HARDWARE SHALL BE PROVIDED AND INSTALLED ON THE ASSEMBLY TO ACCOMMODATE ALL SIGNS SHOWN IN THE PLANS.
- DESIGN AND CONSTRUCTION REQUIREMENTS FOR SIGN STRUCTURES SHALL ACCOMMODATE WIND VELOCITY OF 90 M.P.H.
- THE EXACT SPAN DIMENSIONS SHALL BE DETERMINED BY THE FABRICATOR.
- FOR SIGN STRUCTURE DETAILS, REFER TO AESTHETIC SIGN STRUCTURE DRAWINGS.

**STATION -NC540- 550+00  
OVERHEAD SIGN ASSEMBLY "C"**



10/13/2017  
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 NUM

**PLANS PREPARED BY :**  
  
 RUMMEL, KLEPPER & KAHL, LLP  
 900 RIDGEFIELD DRIVE SUITE 350  
 RALEIGH, NORTH CAROLINA 27609-3960  
 NC LICENSE NO. F-0112 (919) 878-9560  
 FOR  
 THE NORTH CAROLINA  
 TURNPIKE AUTHORITY

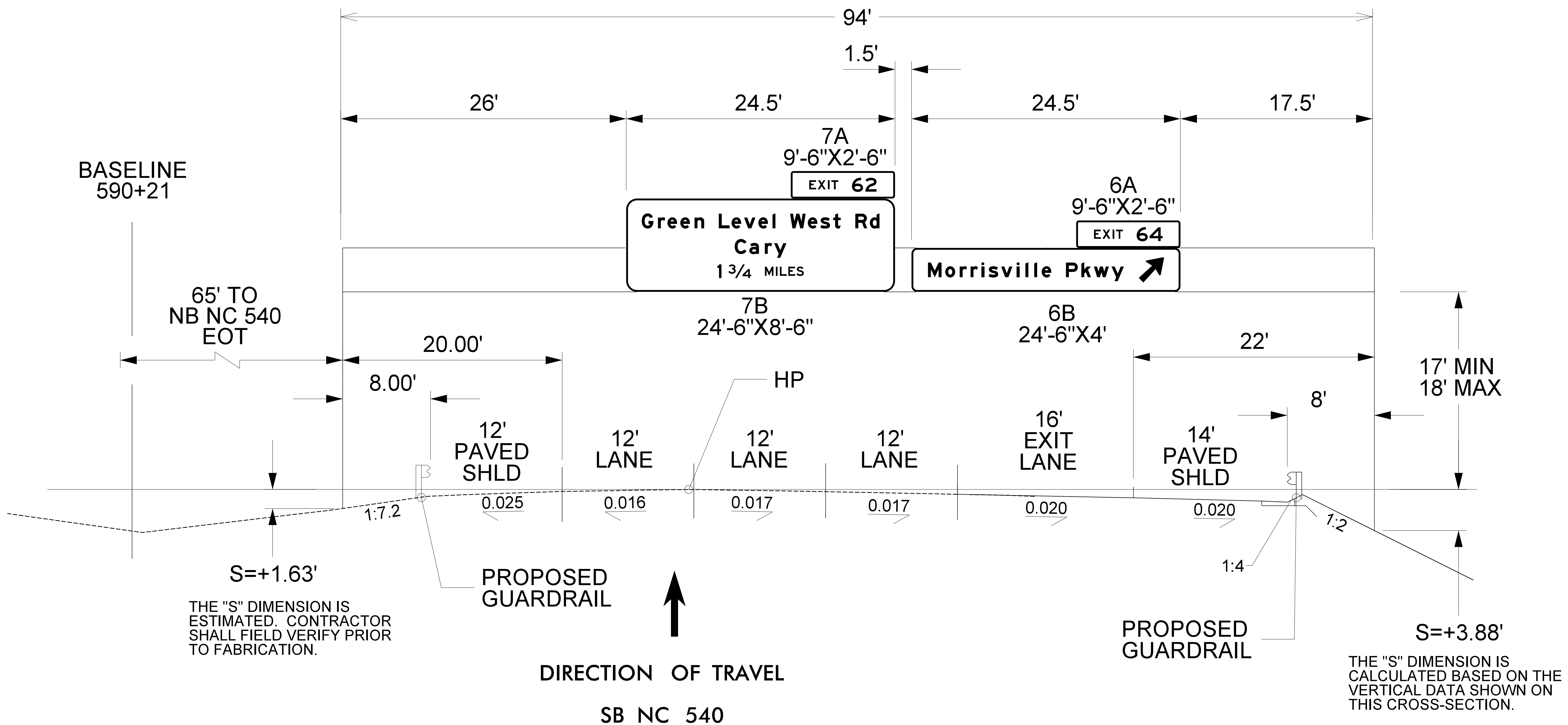
**AESTHETIC OVERHEAD  
SIGN ASSEMBLY  
"C"**  
**STATION -NC540- 550+00**

TIP NO. U-5315 A&B	SHEET NO. SIGN-03D
APPROVED: _____	
DATE: _____	
SEAL	
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**NOTES:**

- IF THE CONTRACTOR PROVIDES ALUMINUM SIGN STRUCTURE, EACH SHALL BE PROVIDED WITH AN APPROVED HIGHWAY TRUSS DAMPER DEVICE IN ACCORDANCE WITH AASHTO SPECIFICATIONS.
- MOUNT SIGNS ON THE HORIZONTAL MEMBER OF THE STRUCTURE SUCH THAT THE BOTTOM OF THE SIGNS ARE ALIGNED.
- FIELD VERIFICATION SHALL BE REQUIRED FOR ALL FOOTING ELEVATIONS, PER THE LATEST NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES. PROVIDE FIELD VERIFICATION TO THE SIGNING SECTION.
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- FOR SIGN STRUCTURE DETAILS, REFER TO AESTHETIC SIGN STRUCTURE DRAWINGS.

**STATION -NC540- 590+21  
OVERHEAD SIGN ASSEMBLY "D"**



THE "S" DIMENSION IS ESTIMATED. CONTRACTOR SHALL FIELD VERIFY PRIOR TO FABRICATION.

THE "S" DIMENSION IS CALCULATED BASED ON THE VERTICAL DATA SHOWN ON THIS CROSS-SECTION.

10/13/2017 R:\TrafFic\Signing\CADD\Signing\_Layout\_Plans\Pages\U5315\_sgn\_S-03D.dgn

**PLANS PREPARED BY :**  
  
 RUMMEL, KLEPPER & KAHL, LLP  
 900 RIDGEFIELD DRIVE SUITE 350  
 RALEIGH, NORTH CAROLINA 27609-3960  
 NC LICENSE NO. F-0112 (919) 878-9560  
 FOR  
 THE NORTH CAROLINA  
 TURNPIKE AUTHORITY

**AESTHETIC OVERHEAD  
SIGN ASSEMBLY  
"D"**

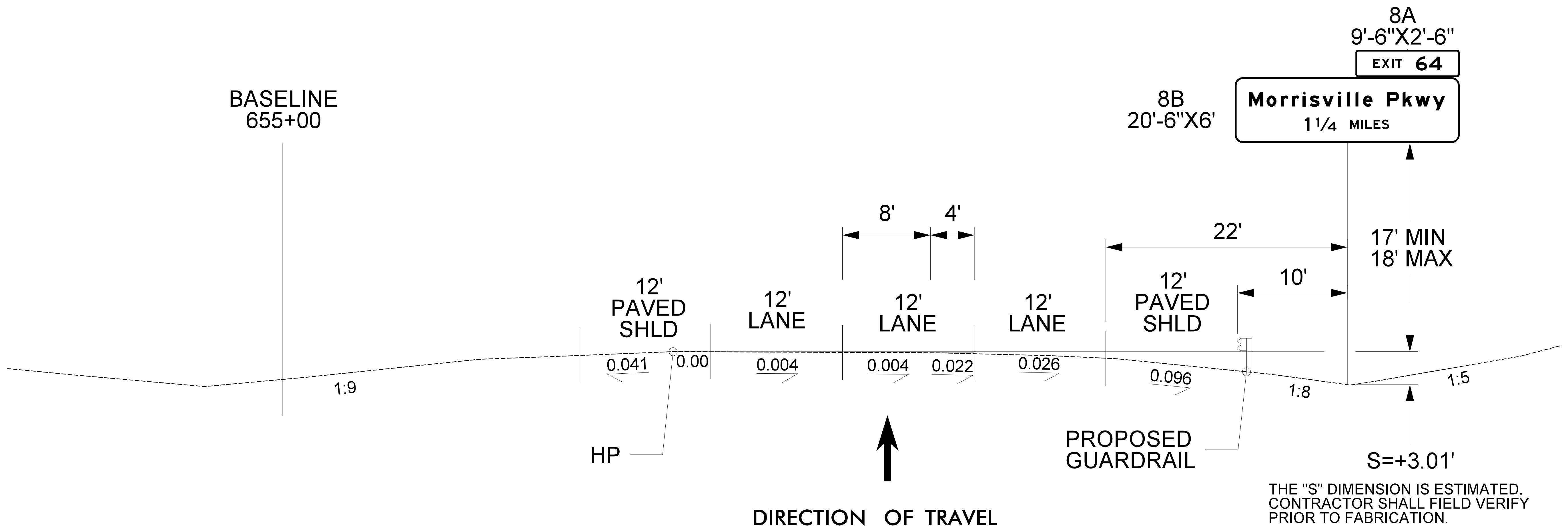
**STATION -NC540- 590+21**

TIP NO. U-5315 A&B	SHEET NO. SIGN-03E
APPROVED: _____	
DATE: _____	
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**NOTES:**

1. IF THE CONTRACTOR PROVIDES ALUMINUM SIGN STRUCTURE, EACH SHALL BE PROVIDED WITH AN APPROVED HIGHWAY TRUSS DAMPER DEVICE IN ACCORDANCE WITH AASHTO SPECIFICATIONS.
2. MOUNT SIGNS ON THE HORIZONTAL MEMBER OF THE STRUCTURE SUCH THAT THE BOTTOM OF THE SIGNS ARE ALIGNED.
3. FIELD VERIFICATION SHALL BE REQUIRED FOR ALL FOOTING ELEVATIONS, PER THE LATEST NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES. PROVIDE FIELD VERIFICATION TO THE SIGNING SECTION.
4. THE TOP OF THE FOOTING SHALL BE AT LEAST 1 FOOT 6 INCHES BELOW FINISHED GRADE.
5. SIGN HANGERS AND ATTACHMENT HARDWARE SHALL BE PROVIDED AND INSTALLED ON THE ASSEMBLY TO ACCOMMODATE ALL SIGNS SHOWN IN THE PLANS.
6. DESIGN AND CONSTRUCTION REQUIREMENTS FOR SIGN STRUCTURES SHALL ACCOMMODATE WIND VELOCITY OF 90 M.P.H.
7. THE EXACT SPAN DIMENSIONS SHALL BE DETERMINED BY THE FABRICATOR.
8. FOR SIGN STRUCTURE DETAILS, REFER TO AESTHETIC SIGN STRUCTURE DRAWINGS.

**STATION -NC540- 655+00  
OVERHEAD SIGN ASSEMBLY "E"**




DIRECTION OF TRAVEL  
SB NC 540

**PLANS PREPARED BY :**  
**RK&K**  
 RUMMEL, KLEPPER & KAHL, LLP  
 900 RIDGEFIELD DRIVE SUITE 350  
 RALEIGH, NORTH CAROLINA 27609-3960  
 NC LICENSE NO. F-0112 (919) 878-9560  
 FOR  
 THE NORTH CAROLINA  
 TURNPIKE AUTHORITY

**AESTHETIC OVERHEAD  
SIGN ASSEMBLY  
"E"  
STATION -NC540- 655+00**

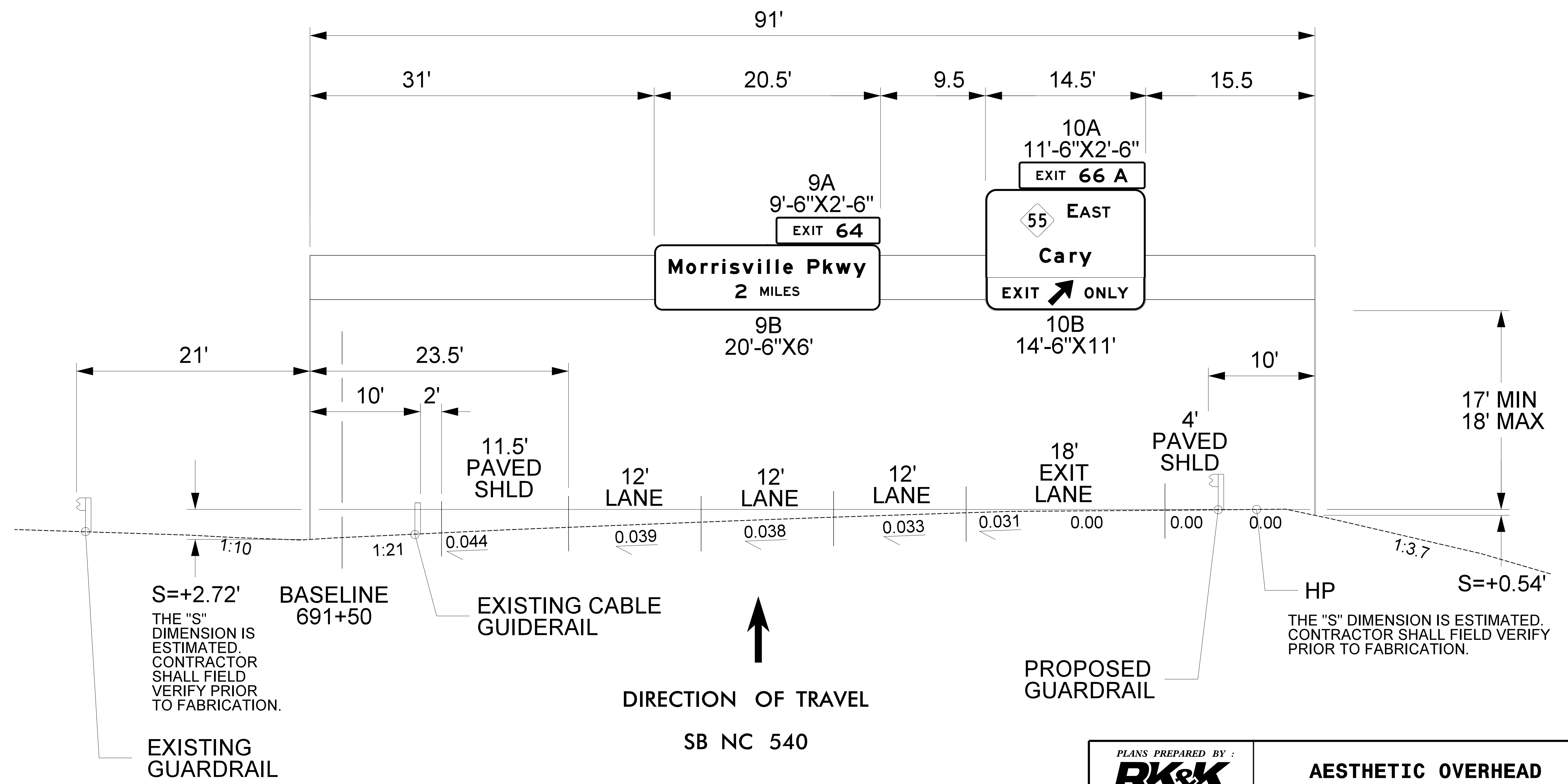
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TIP NO. U-5315 A&B	SHEET NO. SIGN-03F
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**NOTES:**

- IF THE CONTRACTOR PROVIDES ALUMINUM SIGN STRUCTURE, EACH SHALL BE PROVIDED WITH AN APPROVED HIGHWAY TRUSS DAMPER DEVICE IN ACCORDANCE WITH AASHTO SPECIFICATIONS.
- MOUNT SIGNS ON THE HORIZONTAL MEMBER OF THE STRUCTURE SUCH THAT THE BOTTOM OF THE SIGNS ARE ALIGNED.
- FIELD VERIFICATION SHALL BE REQUIRED FOR ALL FOOTING ELEVATIONS, PER THE LATEST NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES. PROVIDE FIELD VERIFICATION TO THE SIGNING SECTION.
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- FOR SIGN STRUCTURE DETAILS, REFER TO AESTHETIC SIGN STRUCTURE DRAWINGS.

**STATION -NC540- 691+50  
OVERHEAD SIGN ASSEMBLY "F"**



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PLANS PREPARED BY :

**RK&K**

RUMMEL, KLEPPER & KAHL, LLP  
900 RIDGEFIELD DRIVE SUITE 350  
RALEIGH, NORTH CAROLINA 27609-3960  
NC LICENSE NO. F-0112 (919) 878-9560  
FOR  
THE NORTH CAROLINA  
TURNPIKE AUTHORITY

**AESTHETIC OVERHEAD  
SIGN ASSEMBLY  
"F"  
STATION -NC540- 691+50**



TIP NO. U-5315 A&B	SHEET NO. SIGN-04A
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STATE OF NORTH CAROLINA  
 DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 RALEIGH, N.C.

7-15

ENGLISH DETAIL DRAWING FOR  
 TOLL FACILITY ETC PANEL AND  
 TOLL PLAQUE DETAILS

SHEET 4 OF 11

VERTICALLY  
CENTER LOGOS & WORDS

ETC PANEL MINIMUM DIMENSIONS

SIGN MAJOR COPY	H	A	B	C	D	E	F	BORDER	INSET
20"	54"	36"	8"	15"E	15"	15"	6"	1.25"	0.75"
16"	42"	30"	6"	12"E	12"	12"	6"	1.25"	0.75"
13.33"	36"	24"	6"	10"E	10"	10"	6"	1.25"	0.75"

BACKG COLOR: WHITE  
COPY & BORDER COLOR: BLACK

MINIMUM PICTOGRAPH SIZES		
SIGN MAJOR COPY		
20"	122.8" x 36"	48" x 36"
16"	102.3" x 30"	40" x 30"
13.33"	81.9" x 24"	32" x 24"
10.67" OR 10"	51.2" x 15"	24" x 18"
8"	40.9" x 12"	20" x 15"
6"	30.7" x 9"	13.33" x 10"
ROUTE SIGN ASSEMBLY	30.7" x 9"	16" x 12"
TRAILBLAZER (24")	20.5" x 6"	10.67" x 8"

ROUTE SIGN ASSEMBLY  
ETC PANEL DIMENSIONS

A	B	C	D	E	F	BORDER	INSET
36"	2.25"	2.75"	9"	4" D	12"	0.875"	0.625"

"TOLL" PLAQUE (M4-15) SIZES		
ROUTE SIGN SIZE	SIZE	COPY
48"	72" x 30"	15"E
36"	54" x 24"	12"E
24"	36" x 18"	8"E
ROUTE SIGN ASSEMBLY	36" x 18"	8"D

BACKG COLOR: YELLOW  
COPY & BORDER COLOR: BLACK

"NO TOLL" PLAQUE SIZES		
ROUTE SIGN SIZE	SIZE	COPY
48"	102" x 30"	15"E
36"	84" x 24"	12"E
24"	60" x 18"	8"E

BACKG COLOR: WHITE  
COPY COLOR: BLACK

MISC. SIGN DATA	
SIGN	MINIMUM
EXIT GORE "TOLL" PANEL COPY	12"E
"TOLL ROAD BEGINS" SIGN COPY	15"EMOD

- NOTES:
- ALL SIGNS OR SECTIONS OF SIGNS WITH WHITE OR YELLOW BACKGROUND SHALL HAVE AN INSET BORDER.
  - "TOLL" AND "NO TOLL" PLAQUES MOUNTED ON GREEN OR BLUE SIGNS SHALL NOT HAVE BORDERS.
  - MINIMUM SIZES ARE AS SHOWN UNLESS OTHERWISE SPECIFICALLY STATED IN NCTA, NCDOT OR FHWA STANDARDS. IN SUCH CASES, THE LARGEST MINIMUM SHALL APPLY.
  - PLAQUES AND ETC LOGOS SHALL BE DEMOUNTABLE EXCEPT FOR ROUTE SIGN AND TRAILBLAZER ASSEMBLIES.

STATE OF NORTH CAROLINA  
 DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 RALEIGH, N.C.

7-15

ENGLISH DETAIL DRAWING FOR  
 TOLL FACILITY ETC PANEL AND  
 TOLL PLAQUE DETAILS

SHEET 4 OF 11

PLANS PREPARED BY :

RUMMEL, KLEPPER & KAHL, LLP  
 900 RIDGEFIELD DRIVE SUITE 350  
 RALEIGH, NORTH CAROLINA 27609-3960  
 NC LICENSE NO. F-0112 (919) 878-9560  
 FOR  
 THE NORTH CAROLINA  
 TURNPIKE AUTHORITY

**SIGN DESIGN DETAILS**

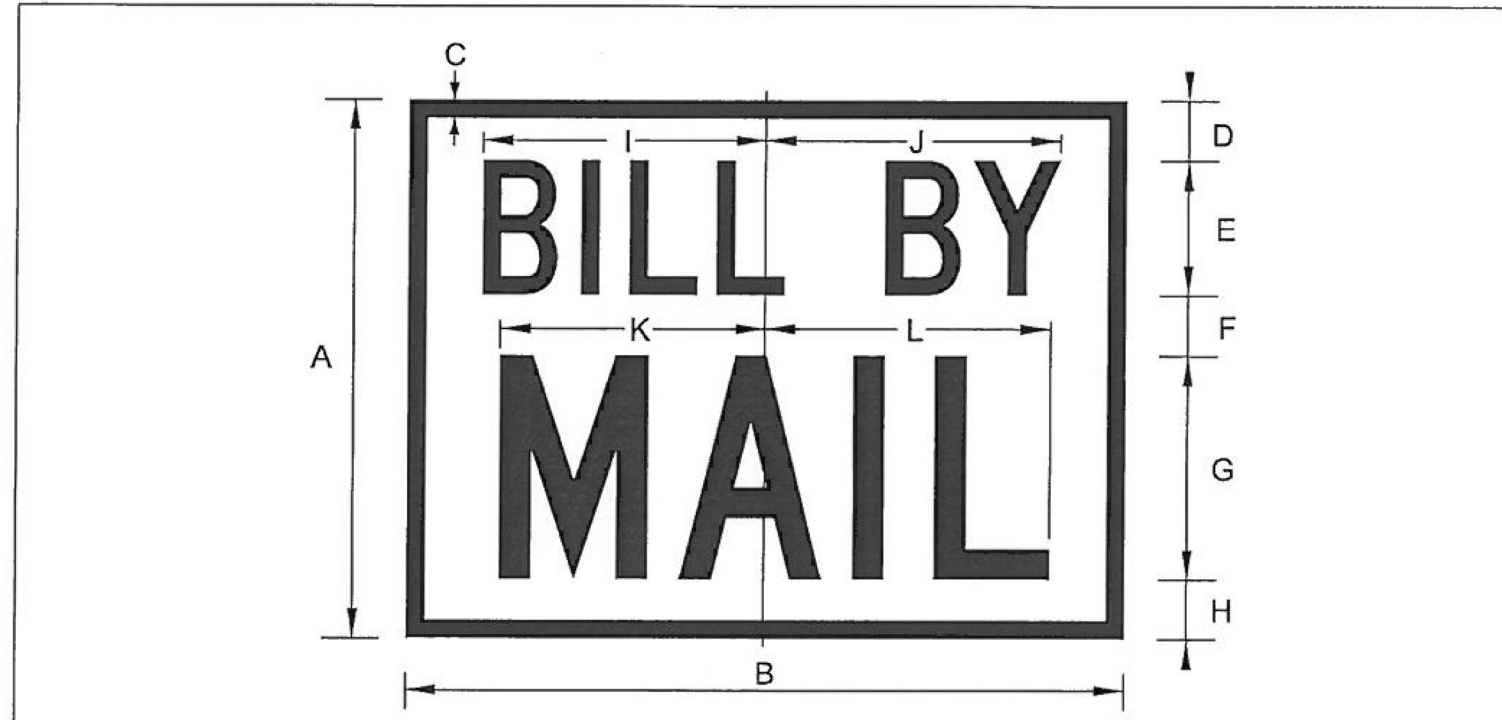
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STATE OF NORTH CAROLINA  
 DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 RALEIGH, N.C.

7-15

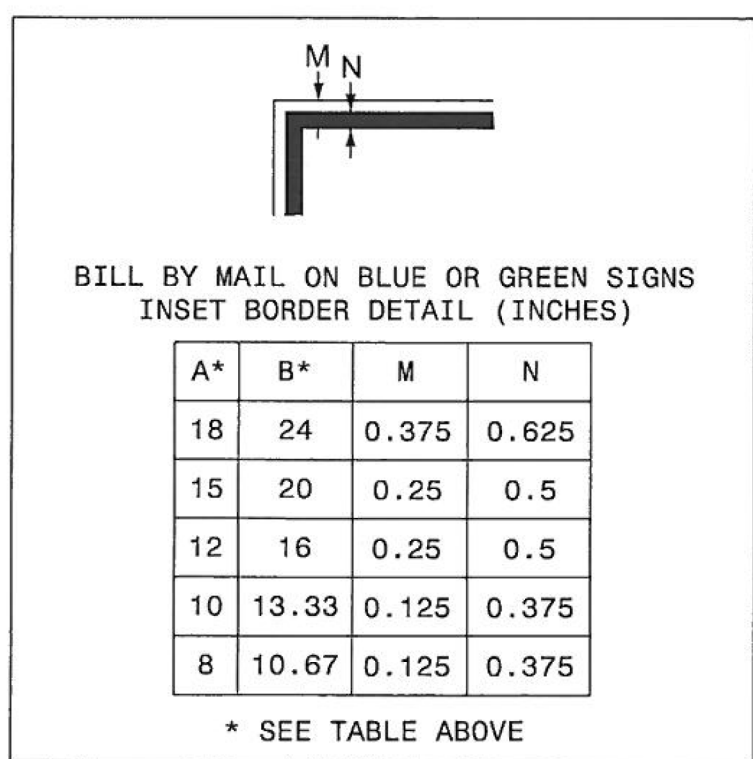
ENGLISH DETAIL DRAWING FOR  
 TOLL FACILITY ETC  
 LOGO DETAILS



BILL BY MAIL LOGO DIMENSIONS (INCHES)

A	B	C	D	E	F	G	H	I	J	K	L
36	48	1.25	4	9 C	4	15 C	4	19	19.61	17.75	19
30	40	0.875	3.3	7.5 C	3.4	12.5 C	3.3	15.833	16.33	14.791	15.833
24	32	0.75	2.6	6 C	2.8	10 C	2.6	12.667	13.074	11.833	12.667
18	24	0.625	2	4.5 C	2	7.5 C	2	9.512	9.817	8.875	9.5
15	20	0.5	1.7	4 C	1.6	6 C	1.7	8.488	8.672	7.056	7.644
12	16	0.375	1.3	3 C	1.4	5 C	1.3	6.333	6.537	5.917	6.333
10	13.33	0.375	1.2	2.5 C	1.1	4 C	1.2	5.294	5.455	4.708	5.093
8	10.67	0.375	0.8	2 C	0.9	3.5 C	0.8	4.224	4.356	4.174	4.402

BACKG COLOR: WHITE  
 COPY & BORDER COLOR: BLACK  
 SPACING BETWEEN "BILL" AND "BY" IS 0.75 TIMES LETTER HEIGHT  
 "BILL BY MAIL" LOGOS MOUNTED ON BLUE OR GREEN SIGNS SHALL HAVE AN INSET BORDER. SEE DETAIL BELOW.



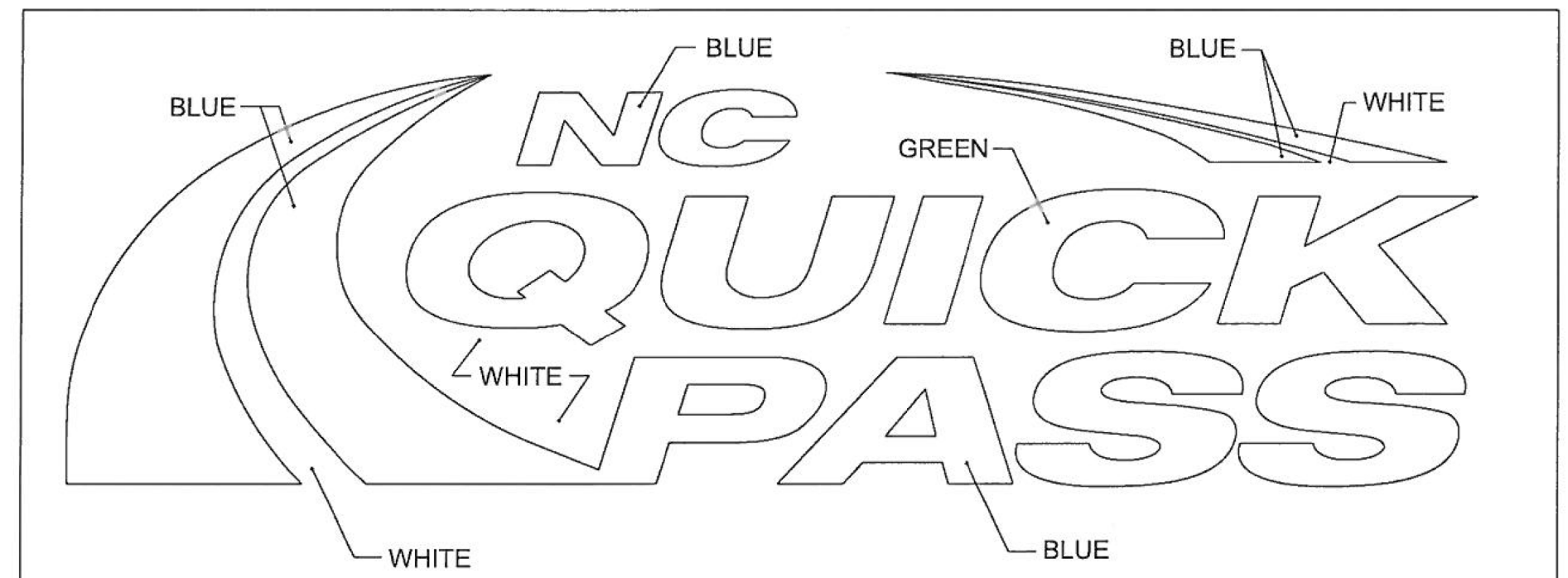
BILL BY MAIL ON BLUE OR GREEN SIGNS  
INSET BORDER DETAIL (INCHES)

A*	B*	M	N
18	24	0.375	0.625
15	20	0.25	0.5
12	16	0.25	0.5
10	13.33	0.125	0.375
8	10.67	0.125	0.375

\* SEE TABLE ABOVE

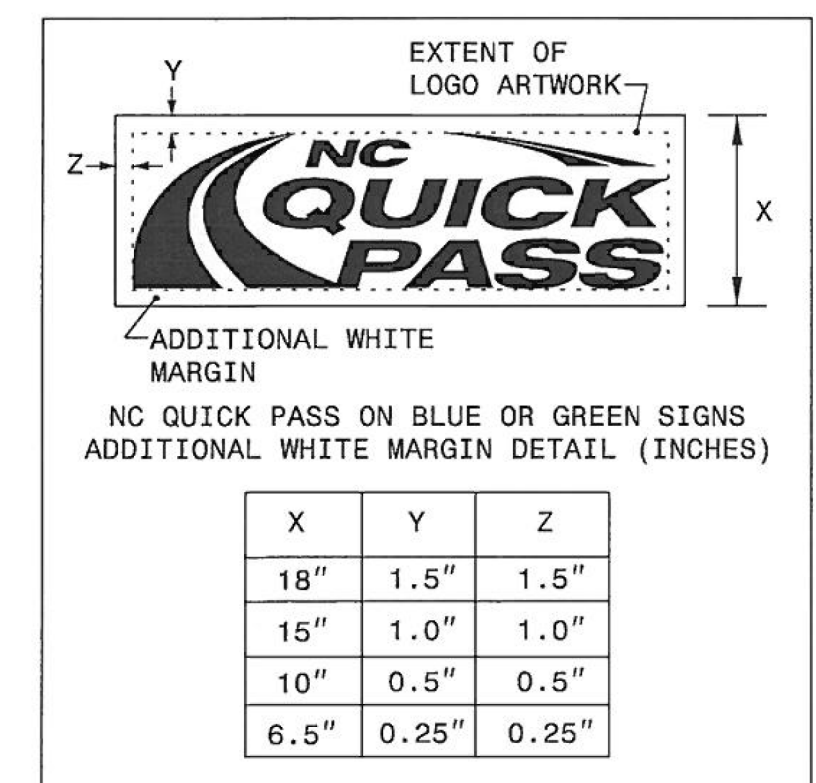
NOTE:  
 1. ETC LOGOS SHALL BE DEMOUNTABLE EXCEPT FOR ROUTE SIGN AND TRAILBLAZER ASSEMBLIES.

SHEET 5 OF 11



NC QUICK PASS LOGO DETAIL

NOTES:  
 A. COLORS FOR USE ON THE NC QUICK PASS LOGO SHALL BE FHWA BLUE AND FHWA GREEN  
 B. THE NC QUICK PASS LOGO SHALL BE SCALED PROPORTIONALLY TO MEET REQUIRED DIMENSIONS SHOWN IN THE TOLL SIGNING STANDARDS.  
 C. NCTA WILL PROVIDE AN ELECTRONIC ARTWORK FILE OF THE NC QUICK PASS LOGO IN AN EPS FORMAT FOR PANEL FABRICATION.  
 D. DO NOT USE BORDER FOR NC QUICK PASS LOGO.  
 E. SEE DETAIL BELOW FOR ADDITIONAL WHITE MARGIN REQUIRED FOR BLUE OR GREEN SIGNS.



NC QUICK PASS ON BLUE OR GREEN SIGNS  
ADDITIONAL WHITE MARGIN DETAIL (INCHES)

X	Y	Z
18"	1.5"	1.5"
15"	1.0"	1.0"
10"	0.5"	0.5"
6.5"	0.25"	0.25"

STATE OF NORTH CAROLINA  
 DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 RALEIGH, N.C.

7-15

ENGLISH DETAIL DRAWING FOR  
 TOLL FACILITY ETC  
 LOGO DETAILS

SHEET 5 OF 11

9/12/2017  
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 NJM

PLANS PREPARED BY :  
  
 RUMMEL, KLEPPER & KAHL, LLP  
 900 RIDGEFIELD DRIVE SUITE 350  
 RALEIGH, NORTH CAROLINA 27609-3960  
 NC LICENSE NO. F-0112 (919) 878-9560  
 FOR  
 THE NORTH CAROLINA  
 TURNPIKE AUTHORITY

**SIGN DESIGN DETAILS**

TIP NO. U-5315 A&B	SHEET NO. SIGN-04C
APPROVED: _____	
DATE: _____	
SEAL	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

SIGN NUMBER: 1B TYPE: A QUANTITY: 1 SIGN WIDTH: 20'-6" HEIGHT: 6'-0" TOTAL AREA: 123.0 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 2" RADII: 9" NO. Z BARS: 2 LENGTH: 238.0	BACKG COLOR: Green COPY COLOR: White SYMBOL X Y WID HT AR_Type A 292.4 25 22.3 35	DESIGN BY: NJM PROJECT ID: US315 A&B CHECKED BY: HEH LOCATION: STA. -NC540- 475+00 Nov 07, 2016 DIV: 5
--	--	---

USE NOTES: 1,2

- Legend and border(except those that are colored black) shall be direct applied Grade A sheeting.
- Background shall be Grade C reflective sheeting.
- Shields: A, B, and C type arrows shall be on 0.032" (0.8mm) aluminum and demountable.
- Bottom panel shall be yellow Grade C sheeting. Legend shall be direct applied black non-reflective sheeting. Yellow panel list

Letter positions																	
Letter spacings are to start of next letter																	
M	O	R	R	I	S	V	I	L	L	E	P	K	W	Y			
15.9	18.9	15.8	11.8	11.8	7.8	13.8	17	9.6	9.6	8.2	10.6	16	16.8	13.8	19.2	13.6	15.9
1	1/2																
77.2	4.5	7.5	22	15	12	4.4	9.2	8.9	8.1	77.2							

FILENAME: u5315\_sgn\_011 NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 2B TYPE: A QUANTITY: 1 SIGN WIDTH: 28'-0" HEIGHT: 6'-6" TOTAL AREA: 182.0 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 2" RADII: 9" NO. Z BARS: 2 LENGTH: 328.0	BACKG COLOR: Green COPY COLOR: White SYMBOL X Y WID HT AR_Type A 292.4 25 22.3 35	DESIGN BY: NJM PROJECT ID: US315 A&B CHECKED BY: HEH LOCATION: STA. -NC540- 475+00 Nov 07, 2016 DIV: 5
--	--	---

USE NOTES: 1,2,3

- Legend and border(except those that are colored black) shall be direct applied Grade A sheeting.
- Background shall be Grade C reflective sheeting.
- Shields: A, B, and C type arrows shall be on 0.032" (0.8mm) aluminum and demountable.
- Bottom panel shall be yellow Grade C sheeting. Legend shall be direct applied black non-reflective sheeting.

Letter positions																					
Letter spacings are to start of next letter																					
G	R	E	E	N	L	E	V	E	L	W	E	S	T	R	D	C	A	R	Y		
16	17.8	10.4	14.1	15.5	10.6	16	13.9	13.6	15.5	15.3	3.2	16	19.4	13.8	13.9	8.3	16	15.8	10.6	60	
138	16	17	10.1	13.6	141.4																

FILENAME: u5315\_sgn\_011 NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 3B TYPE: A QUANTITY: 1 SIGN WIDTH: 20'-6" HEIGHT: 6'-0" TOTAL AREA: 123.0 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 2" RADII: 9" NO. Z BARS: 2 LENGTH: 238.0	BACKG COLOR: Green COPY COLOR: White SYMBOL X Y WID HT AR_Type A 292.4 25 22.3 35	DESIGN BY: NJM PROJECT ID: US315 A&B CHECKED BY: HEH LOCATION: STA. -NC540- 527+50 Nov 07, 2016 DIV: 5
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USE NOTES: 1,2

- Legend and border(except those that are colored black) shall be direct applied Grade A sheeting.
- Background shall be Grade C reflective sheeting.
- Shields: A, B, and C type arrows shall be on 0.032" (0.8mm) aluminum and demountable.
- Bottom panel shall be yellow Grade C sheeting. Legend shall be direct applied black non-reflective sheeting.

Letter positions																	
Letter spacings are to start of next letter																	
M	O	R	R	I	S	V	I	L	L	E	P	K	W	Y			
15.9	18.9	15.8	11.8	11.8	7.8	13.8	17	9.6	9.6	8.2	10.6	16	16.8	13.8	19.2	13.6	15.9
1/2																	
86.5	22	15	12	4.4	9.2	7.5	89.5										

FILENAME: u5315\_sgn\_011 NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 4B TYPE: A QUANTITY: 1 SIGN WIDTH: 14'-0" HEIGHT: 12'-6" TOTAL AREA: 175.0 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 2" RADII: 12" NO. Z BARS: 4 LENGTH: 160.0	BACKG COLOR: Green COPY COLOR: White SYMBOL X Y WID HT M1-S-2-36-15C 64.7 97.5 36 36	DESIGN BY: NJM PROJECT ID: US315 A&B CHECKED BY: HEH LOCATION: STA. -NC540- 550+00 Nov 07, 2016 DIV: 5
--	---	---

USE NOTES: 1,2,3

- Legend and border(except those that are colored black) shall be direct applied Grade A sheeting.
- Background shall be Grade C reflective sheeting.
- Shields: A, B, and C type arrows shall be on 0.032" (0.8mm) aluminum and demountable.
- Bottom panel shall be yellow Grade C sheeting. Legend shall be direct applied black non-reflective sheeting.

Letter positions														
Letter spacings are to start of next letter														
C	A	R	Y	D	U	R	H	A	M	M	I	L	E	S
54.4	16	17	10.1	13.6	57									
34.4	17.8	17	11.8	15.5	17	17.6	37							
2	1/4													
34.4	12.2	7.5	22	15	12	4.4	9.2	8.9	8.1	34.4				

FILENAME: u5315\_sgn\_011 NORTH CAROLINA D.O.T. SIGN DETAIL

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PLANS PREPARED BY:  RUMMEL, KLEPPER & KAHL, LLP 900 RIDGEFIELD DRIVE SUITE 350 RALEIGH, NORTH CAROLINA 27609-3960 NC LICENSE NO. F-0112 (919) 878-9560 FOR THE NORTH CAROLINA TURNPIKE AUTHORITY	<h2>SIGN DESIGN DETAILS</h2>
--	------------------------------

TIP NO. U-5315 A&B	SHEET NO. SIGN-04D
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DocuSigned by: <b>Barry Brandt</b> ENGINEER 11/13/2017	
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SIGN NUMBER: 5B,6B TYPE: A QUANTITY: 2 SIGN WIDTH: 24'-6" HEIGHT: 4'-0" TOTAL AREA: 98.0 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 2" RADII: 6" NO. Z BARS: 2 LENGTH: 286.0 USE NOTES: 1,2,3 1. Legend and border(except those that are colored black) shall be direct applied Grade A sheeting. 2. Background shall be Grade C reflective sheeting. 3. Shields: A, B, and C type arrows shall be on 0.032" (0.8mm) aluminum and demountable. 4. Bottom panel shall be yellow Grade C sheeting. Legend shall be direct applied black non-reflective sheeting.	BACKG COLOR: Green COPY COLOR: White SYMBOL X Y WID HT AR_Type A 248.4 10.2 22.3 35	DESIGN BY: NJM PROJECT ID: US315 A&B CHECKED BY: HEH LOCATION: STA. -NC540- 550+00, 590+21 Nov 07, 2016 DIV: 5
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Letter spacings are to start of next letter													Series/Size					
M	O	R	R	I	S	V	I	L	E	P	K	W	Y	EM 2000				
18	18.9	15.8	11.8	11.8	7.8	13.8	17	9.6	9.6	8.2	10.6	16	16.8	13.8	19.2	13.6	61.8	214.2

FILENAME: u5315\_sgn\_011 NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 7B TYPE: A QUANTITY: 1 SIGN WIDTH: 24'-6" HEIGHT: 8'-6" TOTAL AREA: 208.3 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 2" RADII: 12" NO. Z BARS: 3 LENGTH: 286.0 USE NOTES: 1,2 1. Legend and border(except those that are colored black) shall be direct applied Grade A sheeting. 2. Background shall be Grade C reflective sheeting. 3. Shields: A, B, and C type arrows shall be on 0.032" (0.8mm) aluminum and demountable. 4. Bottom panel shall be yellow Grade C sheeting. Legend shall be direct applied black non-reflective sheeting.	BACKG COLOR: Green COPY COLOR: White SYMBOL X Y WID HT	DESIGN BY: NJM PROJECT ID: US315 A&B CHECKED BY: HEH LOCATION: STA. -NC540- 590+21 Nov 07, 2016 DIV: 5
--	--	---

Letter spacings are to start of next letter													Series/Size								
G	R	E	E	N	L	E	V	E	I	W	E	S	T	R	D	EM 2000					
17	17.8	10.4	14.1	15.5	10.6	16	13.9	13.6	15.5	15.5	3.2	16	19.4	13.8	13.9	8.3	16	15.8	10.6	17	260
													EM 2000								
													56.6								
													E 2000								
													94.6								

FILENAME: u5315\_sgn\_013 NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 8B TYPE: A QUANTITY: 1 SIGN WIDTH: 20'-6" HEIGHT: 6'-0" TOTAL AREA: 123.0 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 2" RADII: 9" NO. Z BARS: 2 LENGTH: 238.0 USE NOTES: 1,2,3 1. Legend and border(except those that are colored black) shall be direct applied Grade B sheeting. 2. Background shall be Grade C reflective sheeting. 3. Shields: A, B, and C type arrows shall be on 0.032" (0.8mm) aluminum and demountable. 4. Bottom panel shall be yellow Grade C sheeting. Legend shall be direct applied black non-reflective sheeting. Yellow panel is:	BACKG COLOR: Green COPY COLOR: White SYMBOL X Y WID HT	DESIGN BY: NJM PROJECT ID: US315 A&B CHECKED BY: HEH LOCATION: STA. -NC540- 655+00 Sep 01, 2017 DIV: 5
--	--	---

Letter spacings are to start of next letter													Series/Size					
M	O	R	R	I	S	V	I	L	E	P	K	W	Y	EM 2000				
15.9	18.9	15.8	11.8	11.8	7.8	13.8	17	9.6	9.6	8.2	10.6	16	16.8	13.8	19.2	13.6	15.9	214.2
													E 2000					
													91.6					

FILENAME: u5315\_sgn\_011 NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 9B TYPE: A QUANTITY: 1 SIGN WIDTH: 20'-6" HEIGHT: 6'-0" TOTAL AREA: 123.0 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 2" RADII: 9" NO. Z BARS: 2 LENGTH: 238.0 USE NOTES: 1,2 1. Legend and border(except those that are colored black) shall be direct applied Grade A sheeting. 2. Background shall be Grade C reflective sheeting. 3. Shields: A, B, and C type arrows shall be on 0.032" (0.8mm) aluminum and demountable. 4. Bottom panel shall be yellow Grade C sheeting. Legend shall be direct applied black non-reflective sheeting.	BACKG COLOR: Green COPY COLOR: White SYMBOL X Y WID HT	DESIGN BY: NJM PROJECT ID: US315 A&B CHECKED BY: HEH LOCATION: STA. -NC540- 691+50 Nov 07, 2016 DIV: 5
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Letter spacings are to start of next letter													Series/Size					
M	O	R	R	I	S	V	I	L	E	P	K	W	Y	EM 2000				
15.9	18.9	15.8	11.8	11.8	7.8	13.8	17	9.6	9.6	8.2	10.6	16	16.8	13.8	19.2	13.6	15.9	214.2
													E 2000					
													69.8					

FILENAME: u5315\_sgn\_013 NORTH CAROLINA D.O.T. SIGN DETAIL

10/13/2017  
 R:\Tr-Fic\Signing\CADD\Signing Layout Plans\Pages\US315\_sgn\_S-04D.dgn  
 NJM

PLANS PREPARED BY :

RUMMEL, KLEPPER & KAHL, LLP  
 900 RIDGEFIELD DRIVE SUITE 350  
 RALEIGH, NORTH CAROLINA 27609-3960  
 NC LICENSE NO. F-0112 (919) 878-9560  
 FOR  
 THE NORTH CAROLINA  
 TURNPIKE AUTHORITY

**SIGN DESIGN DETAILS**

TIP NO. U-5315 A&B	SHEET NO. SIGN-04E
APPROVED: _____	
DATE: _____	
SEAL	
DocuSigned by: <i>Barry Brandt</i> 11/13/2017	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

SIGN NUMBER: 10B TYPE: A QUANTITY: 1 SIGN WIDTH: 14'-6" HEIGHT: 11'-0" TOTAL AREA: 159.5 Sq.Ft. TOP BORDER TYPE: FLUSH RECESS: 0" WIDTH: 2" RADII: 12" NO. Z BARS: 3 LENGTH: 166.0	BACKG COLOR: Green/Yellow COPY COLOR: White/black <table border="1"> <tr> <th>SYMBOL</th> <th>X</th> <th>Y</th> <th>WID</th> <th>HT</th> </tr> <tr> <td>W1-S-2-36-15C</td> <td>36.3</td> <td>44</td> <td>36</td> <td>36</td> </tr> <tr> <td>AR_Type A</td> <td>73</td> <td>5</td> <td>22.6</td> <td>35.6</td> </tr> </table>	SYMBOL	X	Y	WID	HT	W1-S-2-36-15C	36.3	44	36	36	AR_Type A	73	5	22.6	35.6	DESIGN BY: NJM PROJECT ID: US315 A&B CHECKED BY: HEH LOCATION: STA. -NC540-691+50 Jun 06, 2017 DIV: 5
SYMBOL	X	Y	WID	HT													
W1-S-2-36-15C	36.3	44	36	36													
AR_Type A	73	5	22.6	35.6													

LETTER POSITIONS									
Letter spacings are to start of next letter									
	E	A	S	T					
89.3	11.3	1.5	13.6	11	9	38.3			
	C	a	r	y					
58.7	16	17	10.1	13.6	58.7				
	E	X	I	T					
18.6	11.3	14	5.4	8.9	113				
	O	N	L	Y					
113	13	13.1	9.6	12.1	13.2				

NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 1A,3A,5A,6A,8A,9A TYPE: B QUANTITY: 6 SIGN WIDTH: 9'-6" HEIGHT: 2'-6" TOTAL AREA: 23.8 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 2" RADII: 3" NO. Z BARS: 2 LENGTH: 106.0	BACKG COLOR: Green COPY COLOR: White <table border="1"> <tr> <th>SYMBOL</th> <th>X</th> <th>Y</th> <th>WID</th> <th>HT</th> </tr> </table>	SYMBOL	X	Y	WID	HT	DESIGN BY: NJM PROJECT ID: US315 A&B CHECKED BY: HEH LOCATION: STA. -NC540- 475+00, 518+00, 550+00, 590+21, 655+00, 691+50 Nov 07, 2016 DIV: 5
SYMBOL	X	Y	WID	HT			

LETTER POSITIONS									
Letter spacings are to start of next letter									
	E	X	I	T					
19.5	9.2	11.1	3.8	7.5	82.9				
	6	4							
66.1	14.3	14.1	19.5						

NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 2A,7A TYPE: B QUANTITY: 2 SIGN WIDTH: 9'-6" HEIGHT: 2'-6" TOTAL AREA: 23.8 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 2" RADII: 3" NO. Z BARS: 2 LENGTH: 106.0	BACKG COLOR: Green COPY COLOR: White <table border="1"> <tr> <th>SYMBOL</th> <th>X</th> <th>Y</th> <th>WID</th> <th>HT</th> </tr> </table>	SYMBOL	X	Y	WID	HT	DESIGN BY: NJM PROJECT ID: US315 A&B CHECKED BY: HEH LOCATION: STA. -NC540- 475+00, 590+21 Nov 07, 2016 DIV: 5
SYMBOL	X	Y	WID	HT			

LETTER POSITIONS									
Letter spacings are to start of next letter									
	E	X	I	T					
20.3	9.2	11.1	3.8	7.5	62.1				
	6	2							
66.9	14.7	12.2	20.3						

NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 4A TYPE: A QUANTITY: 1 SIGN WIDTH: 14'-0" HEIGHT: 2'-6" TOTAL AREA: 35.0 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 2" RADII: 3" NO. Z BARS: 2 LENGTH: 160.0	BACKG COLOR: Green COPY COLOR: White <table border="1"> <tr> <th>SYMBOL</th> <th>X</th> <th>Y</th> <th>WID</th> <th>HT</th> </tr> </table>	SYMBOL	X	Y	WID	HT	DESIGN BY: NJM PROJECT ID: US315 A&B CHECKED BY: HEH LOCATION: STA. -NC540- 550+00 Nov 07, 2016 DIV: 5
SYMBOL	X	Y	WID	HT			

LETTER POSITIONS									
Letter spacings are to start of next letter									
	E	X	I	T	S				
14.8	9.2	11.1	3.8	8.8	8.1	112.1			
	6	6	A	A	B				
70.9	15.1	12.2	7.5	15.3	5	7.5	7.5	12.2	14.8

NORTH CAROLINA D.O.T. SIGN DETAIL

9/11/2017  
 R:\1-Ref\c\Signing\CADD\Signing Layout Plans\Pages\5315\_sgn\_5-04E.dgn  
 NJM

PLANS PREPARED BY :  RUMMEL, KLEPPER & KAHL, LLP 900 RIDGEFIELD DRIVE SUITE 350 RALEIGH, NORTH CAROLINA 27609-3960 NC LICENSE NO. F-0112 (919) 878-9560 FOR THE NORTH CAROLINA TURNPIKE AUTHORITY	<h2>SIGN DESIGN DETAILS</h2>
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TIP NO. U-5315 A&B	SHEET NO. SIGN-04F
APPROVED: _____	
DATE: _____	
SEAL	
DocuSigned by:  11/13/2017	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

SIGN NUMBER: 10A TYPE: B QUANTITY: 1 SIGN WIDTH: 11'-6" HEIGHT: 2'-8" TOTAL AREA: 28.8 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 2" RADII: 3" NO. Z BARS: 2 LENGTH: 130.0	BACKG COLOR: Green COPY COLOR: White SYMBOL X Y WID HT QUICK PASS 10.7 25.1 40.9 12 MAIL PLAQUE 20.3 7.7 20 15	DESIGN BY: NJM PROJECT ID: US315 A&B CHECKED BY: HEH LOCATION: STA. -NC540- 691+50 Mar 01, 2016 DIV: 5
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USE NOTES: 1,2  
 1. Legend and border(except those that are colored black) shall be direct applied Grade A sheeting.  
 2. Background shall be Grade C reflective sheeting.  
 3. Shields; A, B, and C type arrows shall be on 0.032" (0.8mm) aluminum and demountable.  
 4. Bottom panel shall be yellow Grade C sheeting. Legend shall be direct applied black non-reflective sheeting.

Spacing Factor is 1 unless specified otherwise

Letter locations are panel edge to lower left corner											Series/Size
E	X	I	T	G	6	A					Text Length
21.2	30.1	40.8	44.3	66.8	81.9	101.6					E 2000
											95.7

FILENAME: u5315\_sgn\_011 NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 101,103 TYPE: A QUANTITY: 2 SIGN WIDTH: 11'-0" HEIGHT: 5'-6" TOTAL AREA: 60.5 Sq.Ft. BORDER TYPE: RECESSED RECESS: 0.75" WIDTH: 1.25" RADII: 6" NO. Z BARS: 2 LENGTH: 124.0	BACKG COLOR: White COPY COLOR: Black SYMBOL X Y WID HT QUICK PASS 10.7 25.1 40.9 12 MAIL PLAQUE 20.3 7.7 20 15	DESIGN BY: NJM PROJECT ID: US315 A&B CHECKED BY: HEH LOCATION: STA. -LPD- 22+18, -RPB- 17+00 Jun 06, 2017 DIV: 5
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USE NOTES: 1,2,3  
 1. Legend and border(except those that are colored black) shall be direct applied Grade C sheeting.  
 2. Background shall be Grade C reflective sheeting.  
 3. Plaques; A, B, and C type arrows shall be on 0.032" (0.8mm) aluminum and demountable.

Spacing Factor is 1 unless specified otherwise

Letter spacings are to start of next letter											Series/Size					
T	O	L	L	C	O	L	L	E	C	T	I	O	N	Text Length		
11.5	7.1	8.6	7.4	6	8	8.1	8.6	7.4	7.4	7.6	7.4	3.3	8.6	6.5	11.5	E 2000
																109
57.8	5.5	5.5	7.1	6.1	6.1	5.7	6.4	6.4	6.2	5.7	4.9	8.5				E 2000
																65.6
57.8	7.1	5.5	4.5	6	5.9	5.5	6.4	5.7	5.7	4.9	16.9					E 2000
																57.2

FILENAME: u5315\_sgn\_011 NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 102,104 TYPE: A QUANTITY: 2 SIGN WIDTH: 13'-0" HEIGHT: 9'-0" TOTAL AREA: 117.0 Sq.Ft. BORDER TYPE: RECESSED RECESS: 0.75" WIDTH: 1.25" RADII: 12" NO. Z BARS: 3 LENGTH: 148.0	BACKG COLOR: White COPY COLOR: Black SYMBOL X Y WID HT QUICK PASS 3 65.3 63.4 40.9 12 MAIL PLAQUE 118.7 61.9 20 15	DESIGN BY: NJM PROJECT ID: US315 A&B CHECKED BY: HEH LOCATION: STA. -LPD- 21+56, -RPB- 19+00 Jun 06, 2017 DIV: 5
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USE NOTES: 1,2,3  
 1. Legend and border(except those that are colored black) shall be direct applied Grade C sheeting.  
 2. Background shall be Grade C reflective sheeting.  
 3. Plaques; A, B, and C type arrows shall be on 0.032" (0.8mm) aluminum and demountable.

Spacing Factor is 1 unless specified otherwise

Letter spacings are to start of next letter											Series/Size											
T	O	L	L	R	A	T	E	S			Text Length											
40.9	7.1	8.6	7.4	6	8	7.4	8.8	7.4	7.1	6.5	40.9	E 2000										
												74.2										
2	A	X	L	E	S	S	0	.	0	0	S	0	.	0	0	D 2000						
																	133.4					
11.1	5.4	8	7.4	6.8	6.2	5.8	5.4	15.2	6.6	6.8	2.6	7.3	5.7	15.2	6.6	6.8	2.6	7.3	5.7	11.5	D 2000	
																						133.6
11	5.4	8	7.4	6.8	6.2	5.8	5.4	15.3	6.6	6.8	2.6	7.3	5.7	15.3	6.6	6.8	2.6	7.3	5.7	11.5	D 2000	
																						133.5

FILENAME: u5315\_sgn\_011 NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 105,106 TYPE: A QUANTITY: 2 SIGN WIDTH: 15'-0" HEIGHT: 6'-0" TOTAL AREA: 90.0 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 2" RADII: 9" NO. Z BARS: 2 LENGTH: 172.0	BACKG COLOR: Green COPY COLOR: White SYMBOL X Y WID HT	DESIGN BY: NJM PROJECT ID: US315 A&B CHECKED BY: HEH LOCATION: STA. -NC540- 519+00, 640+00 Nov 07, 2016 DIV: 5
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USE NOTES: 1,2  
 1. Legend and border(except those that are colored black) shall be direct applied Grade C sheeting.  
 2. Background shall be Grade C reflective sheeting.  
 3. Shields; A, B, and C type arrows shall be on 0.032" (0.8mm) aluminum and demountable.

Spacing Factor is 1 unless specified otherwise

Letter spacings are to start of next letter											Series/Size			
U	S	A	B	a	s	e	b	a	l	l	Text Length			
19.5	14.1	12.8	13.5	13.3	13.3	12.7	11.7	12.9	11.7	14.1	8	2.7	19.5	EM 2000
														140.9
55.8	8.8	10.8	3.8	7.4	9.6	14.1	13.9	55.8						EM 2000
														68.4

FILENAME: u5315\_sgn\_011 NORTH CAROLINA D.O.T. SIGN DETAIL

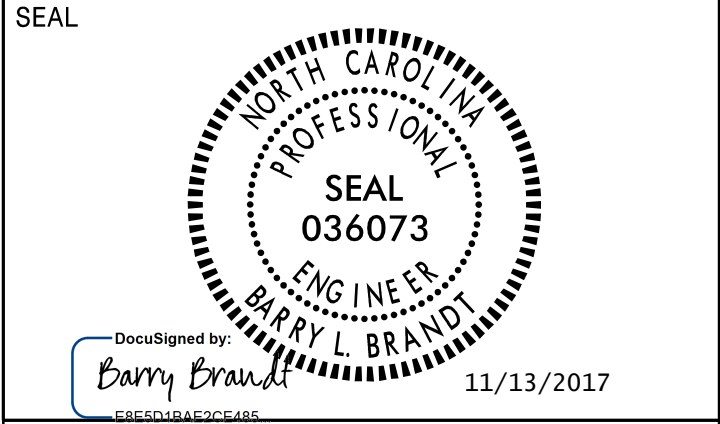
9/11/2017  
 R:\Triffic\Signing\CADD\Signing Layout Plans\Pages\U5315\_sgn\_5-04F.dgn  
 NJM

PLANS PREPARED BY :  RUMMEL, KLEPPER & KAHL, LLP 900 RIDGEFIELD DRIVE SUITE 350 RALEIGH, NORTH CAROLINA 27609-3960 NC LICENSE NO. F-0112 (919) 878-9560 FOR THE NORTH CAROLINA TURNPIKE AUTHORITY	<h2>SIGN DESIGN DETAILS</h2>
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APPROVED: \_\_\_\_\_

DATE: \_\_\_\_\_



**DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED**

SIGN NUMBER: 303 TYPE: D QUANTITY: 1 SIGN WIDTH: 4'-6" HEIGHT: 2'-6" TOTAL AREA: 11.3 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 0.75" RADIUS: 3" NO. Z BARS: LENGTH:	BACKG COLOR: Green COPY COLOR: White SYMBOL X Y WID HT AR_Type D 8 17.9 6 9 AR_FISHOOK 6.1 2.3 9.9 10.8 MAT'L: 0.125" (3.2 mm) ALUMINUM	DESIGN BY: NJM PROJECT ID: U5315 A&B CHECKED BY: HEH LOCATION: STA. -L- 56+50 Nov 09, 2015 DIV: 5
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Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter

Series/Size	Text Length
D 2000	25.8
D 2000	18.7

FILENAME: u5315\_sgn\_dt1 NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 304 TYPE: D QUANTITY: 1 SIGN WIDTH: 6'-6" HEIGHT: 2'-6" TOTAL AREA: 16.3 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 0.75" RADIUS: 3" NO. Z BARS: LENGTH:	BACKG COLOR: Green COPY COLOR: White SYMBOL X Y WID HT AR_FISHOOK 6.9 16.9 9.9 10.8 AR_Type D 62.2 4.9 6 9 MAT'L: 0.125" (3.2 mm) ALUMINUM	DESIGN BY: NJM PROJECT ID: U5315 A&B CHECKED BY: HEH LOCATION: STA. -RPB- 25+48 Nov 09, 2015 DIV: 5
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Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter

Series/Size	Text Length
D 2000	36.1
D 2000	49.3

FILENAME: u5315\_sgn\_dt1 NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 305 TYPE: D QUANTITY: 1 SIGN WIDTH: 6'-6" HEIGHT: 2'-6" TOTAL AREA: 16.3 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 0.75" RADIUS: 3" NO. Z BARS: LENGTH:	BACKG COLOR: Green COPY COLOR: White SYMBOL X Y WID HT AR_Type D 8.3 17.8 6 9 AR_Type D 46.8 4.7 6 9 MAT'L: 0.125" (3.2 mm) ALUMINUM	DESIGN BY: NJM PROJECT ID: U5315 A&B CHECKED BY: HEH LOCATION: STA. -L- 65+62 May 01, 2017 DIV: 5
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Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter

Series/Size	Text Length
D 2000	49.3
D 2000	18.7

FILENAME: u5315\_sgn\_dt1 NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 306 TYPE: D QUANTITY: 1 SIGN WIDTH: 5'-6" HEIGHT: 2'-6" TOTAL AREA: 13.8 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 0.75" RADIUS: 3" NO. Z BARS: LENGTH:	BACKG COLOR: Green COPY COLOR: White SYMBOL X Y WID HT AR_Type D 9 17.9 6 9 AR_Type D 44.4 4.8 6 9 MAT'L: 0.125" (3.2 mm) ALUMINUM	DESIGN BY: NJM PROJECT ID: U5315 A&B CHECKED BY: HEH LOCATION: STA. -L- 69+45 May 01, 2017 DIV: 5
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Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter

Series/Size	Text Length
D 2000	36.1
D 2000	25.8

FILENAME: u5315\_sgn\_dt1 NORTH CAROLINA D.O.T. SIGN DETAIL

9/11/2017 R:\Treffic\Signing\CADD\Signing Layout Plans\Pages\U5315\_sgn\_S-04H.dgn NJM

PLANS PREPARED BY :

RUMMEL, KLEPPER & KAHL, LLP  
900 RIDGECREST DRIVE SUITE 350  
RALEIGH, NORTH CAROLINA 27609-3960  
NC LICENSE NO. F-0112 (919) 878-9560  
FOR  
THE NORTH CAROLINA  
TURNPIKE AUTHORITY

## SIGN DESIGN DETAILS



TIP NO. U-5315 A&B	SHEET NO. SIGN-041
APPROVED: _____	
DATE: _____	
SEAL	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

SIGN NUMBER: 307 TYPE: D QUANTITY: 1 SIGN WIDTH: 6'-6" HEIGHT: 2'-6" TOTAL AREA: 16.3 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 0.75" RADII: 3" NO. Z BARS: _____ LENGTH: _____	BACKG COLOR: Green COPY COLOR: White SYMBOL <table border="1"> <tr><th>SYMBOL</th><th>X</th><th>Y</th><th>WID</th><th>HT</th></tr> <tr><td>AR_FISHHOOK</td><td>6.4</td><td>16.9</td><td>9.9</td><td>10.8</td></tr> <tr><td>AR_Type D</td><td>55.5</td><td>4.8</td><td>6</td><td>9</td></tr> </table> MAT'L: 0.125" (3.2 mm) ALUMINUM	SYMBOL	X	Y	WID	HT	AR_FISHHOOK	6.4	16.9	9.9	10.8	AR_Type D	55.5	4.8	6	9	DESIGN BY: NJM PROJECT ID: U5315 A&B CHECKED BY: HEH LOCATION: STA. -RPD- 25+00 May 01, 2017 DIV: 5	
SYMBOL	X	Y	WID	HT														
AR_FISHHOOK	6.4	16.9	9.9	10.8														
AR_Type D	55.5	4.8	6	9														

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS													Series/Size	
Letter spacings are to start of next letter													Text Length	
	U	S	A		B	a	s	e	b	a	l	l	D 2000	
	22.3	5.1	4.6	5.1	6	4.7	4.2	3.4	4.4	4.3	4.6	2.2	1	6.4
	M	o	r	r	i	s	v	i	l	l	e		D 2000	
	13.5	5.8	4.6	3	3	1.8	3.1	5	2.2	2.2	1.9	3.5	28.5	36.1

NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 308 TYPE: D QUANTITY: 1 SIGN WIDTH: 4'-6" HEIGHT: 2'-6" TOTAL AREA: 11.3 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 0.75" RADII: 3" NO. Z BARS: _____ LENGTH: _____	BACKG COLOR: Green COPY COLOR: White SYMBOL <table border="1"> <tr><th>SYMBOL</th><th>X</th><th>Y</th><th>WID</th><th>HT</th></tr> <tr><td>AR_Type D</td><td>8</td><td>17.9</td><td>6</td><td>9</td></tr> <tr><td>AR_FISHHOOK</td><td>6.1</td><td>2.3</td><td>9.9</td><td>10.8</td></tr> </table> MAT'L: 0.125" (3.2 mm) ALUMINUM	SYMBOL	X	Y	WID	HT	AR_Type D	8	17.9	6	9	AR_FISHHOOK	6.1	2.3	9.9	10.8	DESIGN BY: NJM PROJECT ID: U5315 A&B CHECKED BY: HEH LOCATION: STA. -L- 80+00 May 01, 2017 DIV: 5	
SYMBOL	X	Y	WID	HT														
AR_Type D	8	17.9	6	9														
AR_FISHHOOK	6.1	2.3	9.9	10.8														

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS													Series/Size
Letter spacings are to start of next letter													Text Length
	A	p	e	x									D 2000
	22	5.9	4.3	3.8	4.7	13.4							18.7
	R	a	i	e	i	g	h						D 2000
	22	4.7	4.6	1.9	4.4	1.9	4.8	3.5	6.2				25.8

NORTH CAROLINA D.O.T. SIGN DETAIL

9/11/2017  
 R:\Trafic\Signing\CADD\Signing\_Layout\_Plans\Pages\U5315\_sgn\_S-041.dgn  
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PLANS PREPARED BY :  RUMMEL, KLEPPER & KAHL, LLP 900 RIDGEFIELD DRIVE SUITE 350 RALEIGH, NORTH CAROLINA 27609-3960 NC LICENSE NO. F-0112 (919) 878-9560 FOR THE NORTH CAROLINA TURNPIKE AUTHORITY	SIGN DESIGN DETAILS
---	---------------------

**108**  
**117**

30"X 21" M2-1  
36"X 18" M4-15  
36"X 36" M1-5  
36"X 36" ETC PANEL

ONE BREAKAWAY STEEL POST PER ASSEMBLY

**109**

36"X 18" M4-15  
36"X 18" M3-3  
36"X 36" M1-5  
36"X 36" ETC PANEL  
30"X 21" M5-3

36"X 18" M4-15  
36"X 18" M3-1  
36"X 36" M1-5  
36"X 36" ETC PANEL  
30"X 21" M6-3

TWO BREAKAWAY STEEL POSTS PER ASSEMBLY

**110**

36"X 18" M4-15  
36"X 18" M3-3  
36"X 36" M1-5  
36"X 36" ETC PANEL  
30"X 21" M6-1R

ONE BREAKAWAY STEEL POST PER ASSEMBLY

**111**

36"X 18" M4-15  
36"X 18" M3-3  
36"X 36" M1-5  
36"X 36" ETC PANEL  
30"X 21" M6-2R

ONE BREAKAWAY STEEL POST PER ASSEMBLY

**112**

36"X 18" M4-15  
36"X 18" M3-3  
36"X 36" M1-5  
36"X 36" ETC PANEL  
30"X 21" M6-1L

36"X 18" M4-15  
36"X 18" M3-1  
36"X 36" M1-5  
36"X 36" ETC PANEL  
30"X 21" M6-2R

TWO BREAKAWAY STEEL POSTS PER ASSEMBLY

APPROVED: \_\_\_\_\_  
DATE: \_\_\_\_\_

SEAL

DocuSigned by:  
Barry Brandt  
11/13/2017

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UNLESS ALL SIGNATURES COMPLETED**

**113**

36"X 18" M4-15  
36"X 18" M3-1  
36"X 36" M1-5  
36"X 36" ETC PANEL  
30"X 21" M6-1R

ONE BREAKAWAY STEEL POST PER ASSEMBLY

**114**

36"X 18" M4-15  
36"X 18" M3-1  
36"X 36" M1-5  
36"X 36" ETC PANEL  
30"X 21" M6-2R

ONE BREAKAWAY STEEL POST PER ASSEMBLY

**115**

36"X 18" M4-15  
36"X 18" M3-1  
36"X 36" M1-5  
36"X 36" ETC PANEL  
30"X 21" M5-3

36"X 18" M4-15  
36"X 18" M3-3  
36"X 36" M1-5  
36"X 36" ETC PANEL  
30"X 21" M6-3

TWO BREAKAWAY STEEL POSTS PER ASSEMBLY

**116**

36"X 18" M4-15  
36"X 18" M3-1  
36"X 36" M1-5  
36"X 36" ETC PANEL  
30"X 21" M6-1L

36"X 18" M4-15  
36"X 18" M3-3  
36"X 36" M1-5  
36"X 36" ETC PANEL  
30"X 21" M6-2R

TWO BREAKAWAY STEEL POSTS PER ASSEMBLY

**118**  
**120**

36"X 18" M4-15  
36"X 18" M3-3  
36"X 36" M1-5

ONE BREAKAWAY STEEL POST PER ASSEMBLY

**119**

36"X 18" M4-15  
36"X 18" M3-1  
36"X 36" M1-5

ONE BREAKAWAY STEEL POST PER ASSEMBLY

NOTES:

FOR STEEL SUPPORTS DETAILS, SEE SHEET SIGN-02C.

SEE MOUNTING INFORMATION ON SHEETS SIGN-02G AND SIGN-02H.

SIGN PANEL WILL CONFORM TO TYPE "B" REQUIREMENTS EXCEPT FOR:

- MOUNTING- DO NOT DRILL HOLES IN SIGN PANELS
- SILK SCREENINGS- USE TYPE "E" AND TYPE "F" SPECIFICATIONS ON 0.125" ALUMINUM SHEETING.

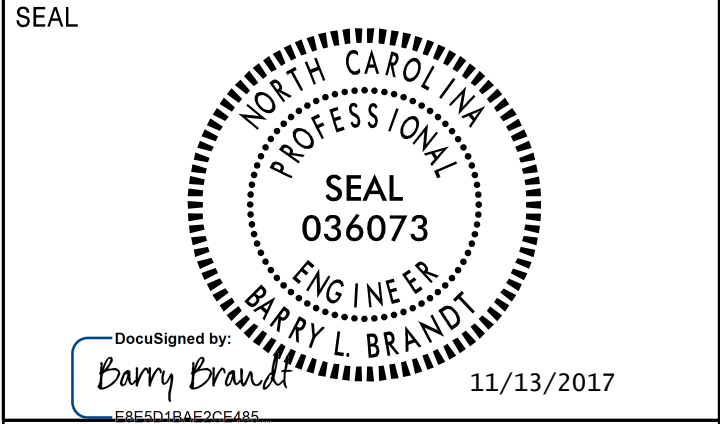
9/11/2017 R:\T-Ref\c\Signing\CADD\Signing Layout Plans\Pages\5315\_sgn\_5-04J.dgn NJM

PLANS PREPARED BY :

RUMMEL, KLEPPER & KAHL, LLP  
900 RIDGEFIELD DRIVE SUITE 350  
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NC LICENSE NO. F-0112 (919) 878-9560  
FOR  
THE NORTH CAROLINA  
TURNPIKE AUTHORITY

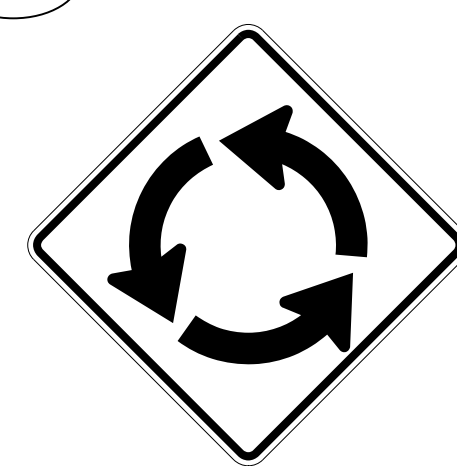
**TOLL ROUTE SIGN  
ASSEMBLIES ON  
STEEL SUPPORTS**

APPROVED: \_\_\_\_\_  
DATE: \_\_\_\_\_



**DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED**

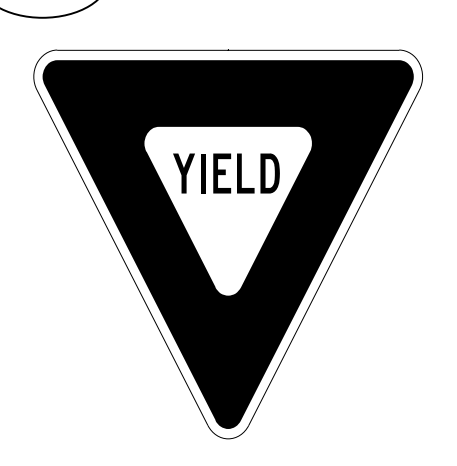
401 QUANTITY REQ'D 6



30" X 30"  
W2-6

ONE "U" POST PER SIGN

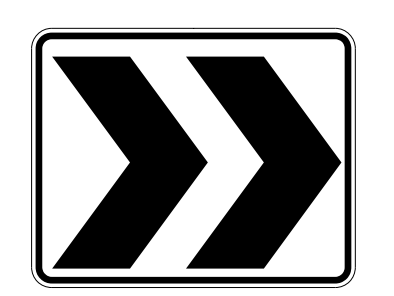
402 QUANTITY REQ'D 10



36" X 36" X 36"  
R1-2

ONE "U" POST PER SIGN


403 QUANTITY REQ'D 3



30" X 24"  
R6-4

ONE "U" POST PER SIGN


404 QUANTITY REQ'D 6



36" X 24"  
R6-1a

ONE "U" POST PER SIGN


405 QUANTITY REQ'D 6



36" X 36"  
R5-1

ONE "U" POST PER SIGN

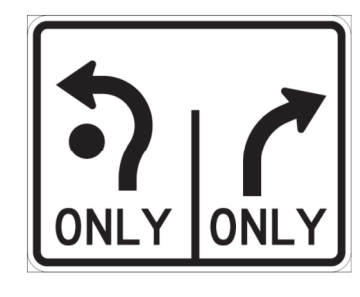
406 QUANTITY REQ'D 2



54" X 18"  
R6-1R

TWO "U" POSTS PER SIGN


407 QUANTITY REQ'D 2



36" X 30"  
R3-8

ONE "U" POST PER SIGN

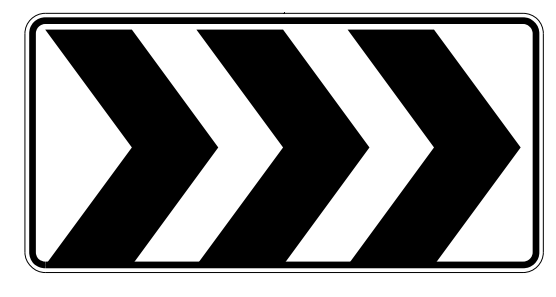
408 QUANTITY REQ'D 2



36" X 36"  
R3-8

ONE "U" POST PER SIGN

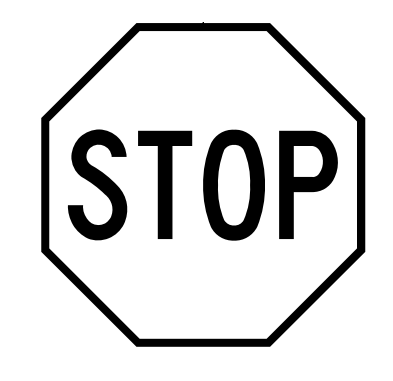
409 QUANTITY REQ'D 3



48" X 24"  
R6-4A

TWO "U" POSTS PER SIGN


410 QUANTITY REQ'D 2



36" X 36"  
R1-1

ONE "U" POST PER SIGN


411 QUANTITY REQ'D 1



36" X 36"  
R3-8

ONE "U" POST PER SIGN


412 QUANTITY REQ'D 4



30" X 24"  
R5-11

ONE "U" POST PER SIGN

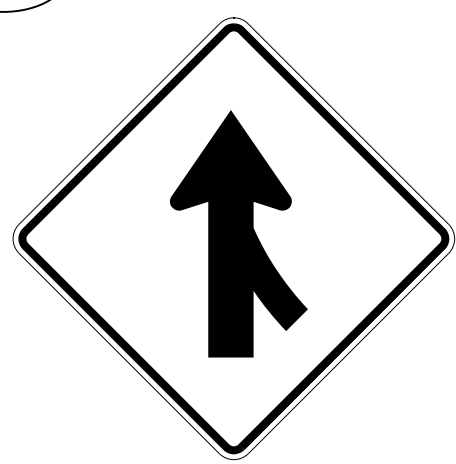
413 QUANTITY REQ'D 2



48" X 60"  
R2-1

TWO "U" POSTS PER SIGN


414 QUANTITY REQ'D 2



48" X 48"  
W4-1R

TWO "U" POSTS PER SIGN

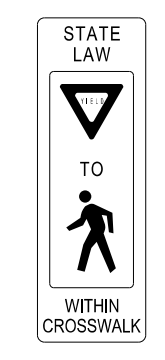
415 QUANTITY REQ'D 2



30" X 30"  
W14-2

ONE "U" POST PER SIGN

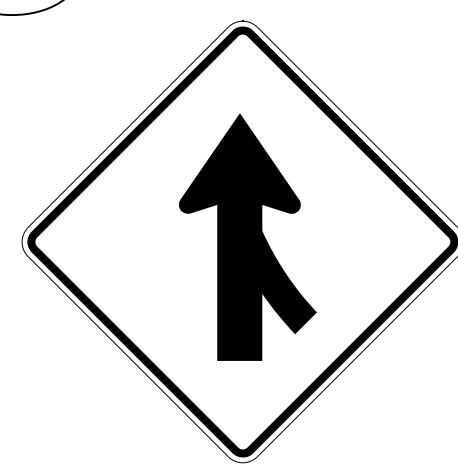
416 QUANTITY REQ'D 2



12" X 36"  
R6-1

ONE "U" POST PER SIGN


417 QUANTITY REQ'D 1



36" X 36"  
W4-1R

ONE "U" POST PER SIGN


418 QUANTITY REQ'D 1



24" X 24"  
R3-2

ONE "U" POST PER SIGN

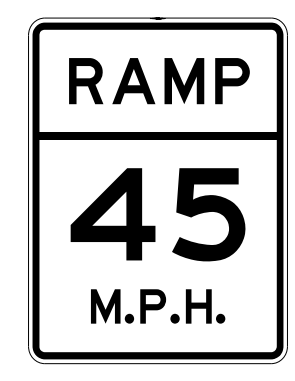
419 QUANTITY REQ'D 2



24" X 30"  
R2-1

ONE "U" POST PER SIGN


420 QUANTITY REQ'D 1



36" X 48"  
W13-3

ONE "U" POST PER SIGN

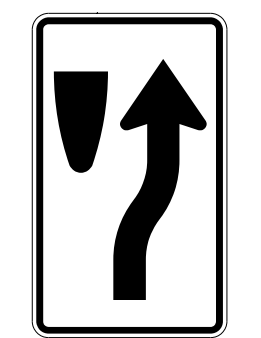
421 QUANTITY REQ'D 1



36" X 12"  
R6-1R

ONE "U" POST PER SIGN

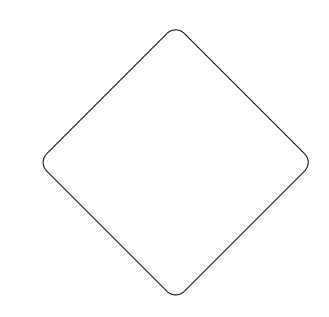
422 QUANTITY REQ'D 3



18" X 30"  
R4-7c

ONE "U" POST PER SIGN

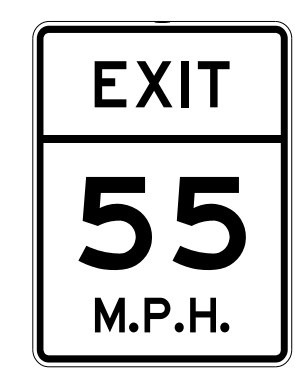
423 QUANTITY REQ'D 3



18" X 18"  
OM4-3

MOUNT BELOW SIGN 422  
AS SHOWN ON PLANS

424 QUANTITY REQ'D 1



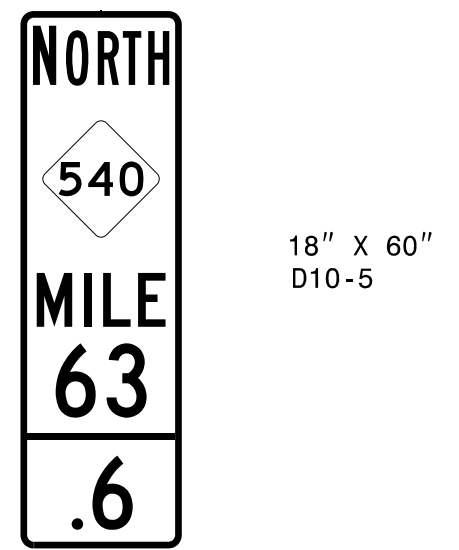
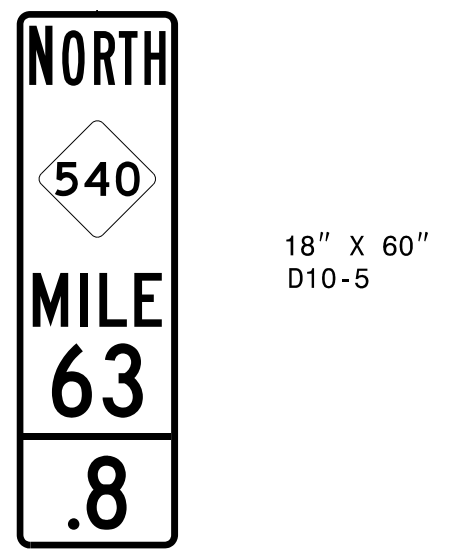
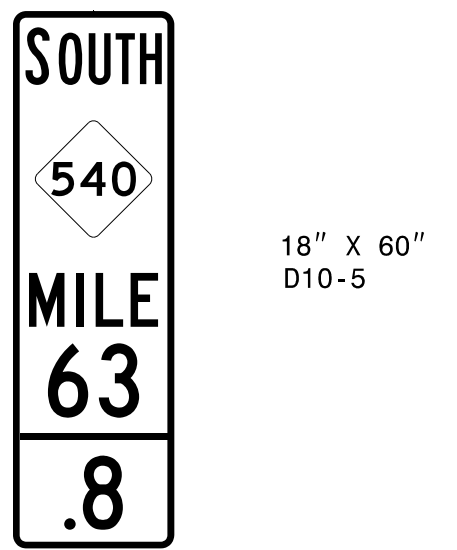
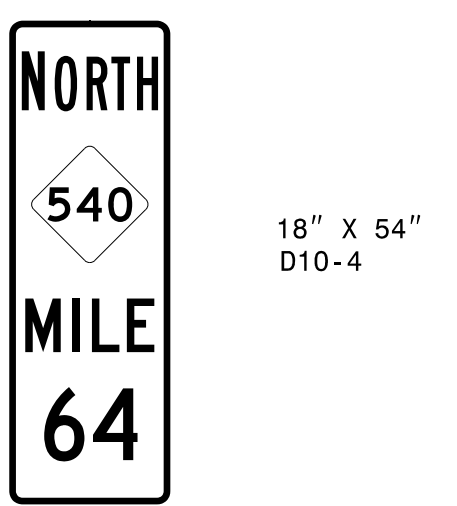
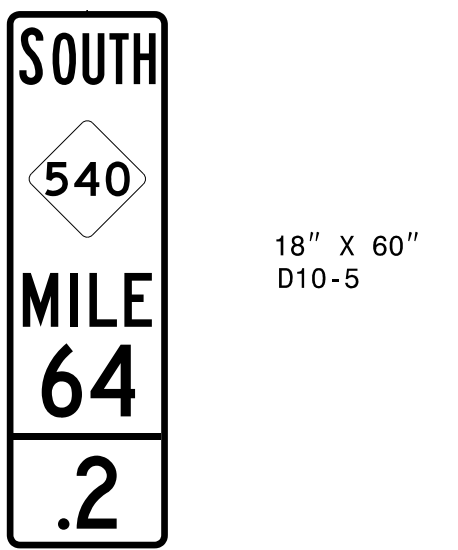
36" X 48"  
W13-2

ONE "U" POST PER SIGN

PLANS PREPARED BY :  
**RK&K**  
RUMMEL, KLEPPER & KAHL, LLP  
900 RIDGEFIELD DRIVE SUITE 350  
RALEIGH, NORTH CAROLINA 27609-3960  
NC LICENSE NO. F-0112 (919) 878-9560  
FOR  
THE NORTH CAROLINA  
TURNPIKE AUTHORITY


**TYPE "E" SIGN DESIGNS**

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QUANTITY REQ'D <u>2</u>  ONE "U" POST PER SIGN	QUANTITY REQ'D <u>2</u>  ONE "U" POST PER SIGN	QUANTITY REQ'D <u>2</u>  ONE "U" POST PER SIGN	QUANTITY REQ'D <u>2</u>  ONE "U" POST PER SIGN	QUANTITY REQ'D <u>2</u>  ONE "U" POST PER SIGN
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NOTE:  
 REFER TO STANDARD DRAWING  
 904D40 ON SHEET SIGN-02F  
 FOR INSTALLATION DETAILS.

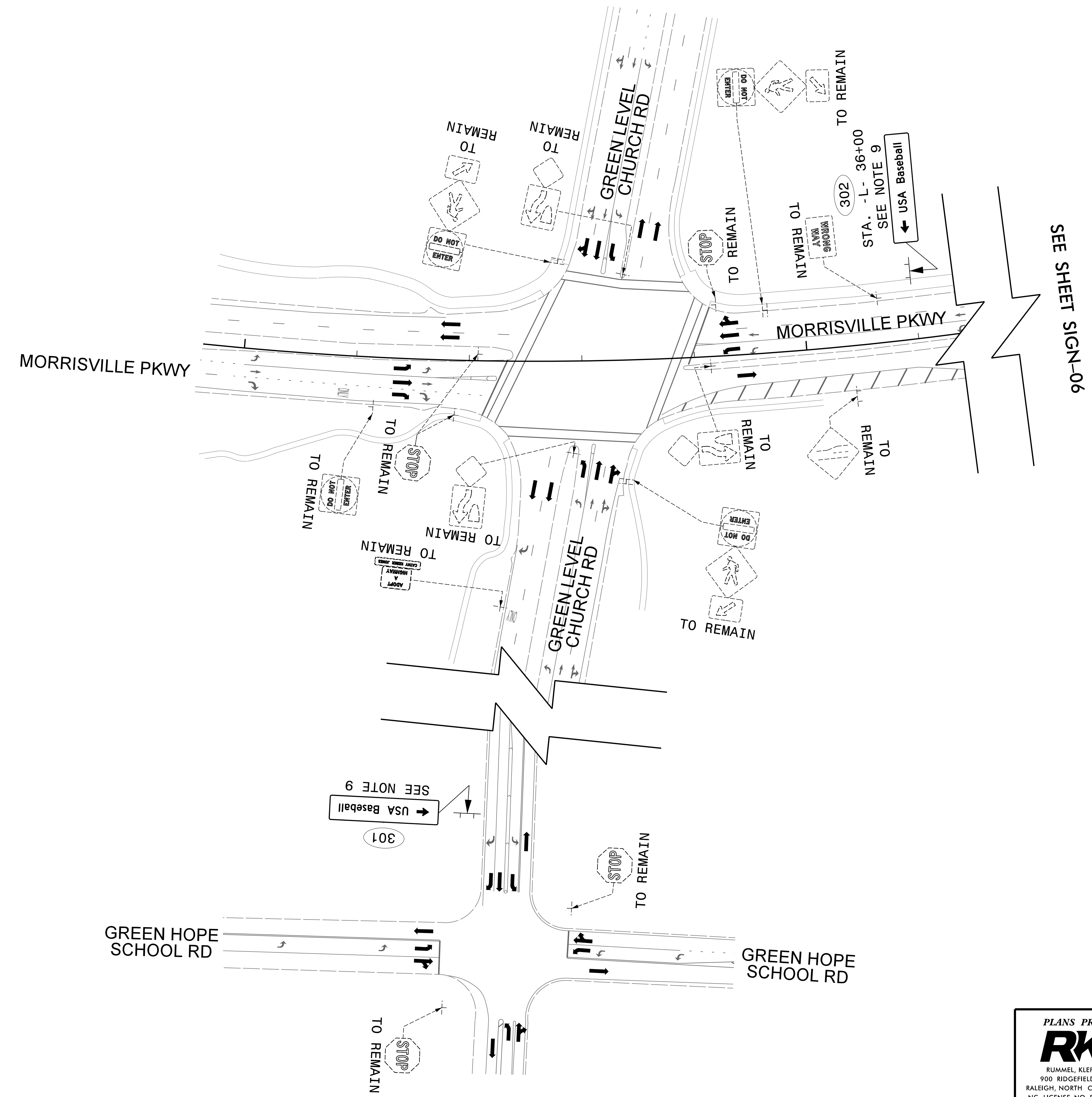
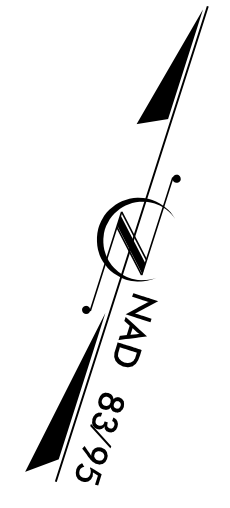
A 3 LB U CHANNEL SUPPORT  
 IS REQUIRED FOR INSTALLATION

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SEE SHEET SIGN-06

**CONSTRUCTION NOTES**

9 SIGN ERECTION, TYPE D OR E

PLANS PREPARED BY :

**RK&K**

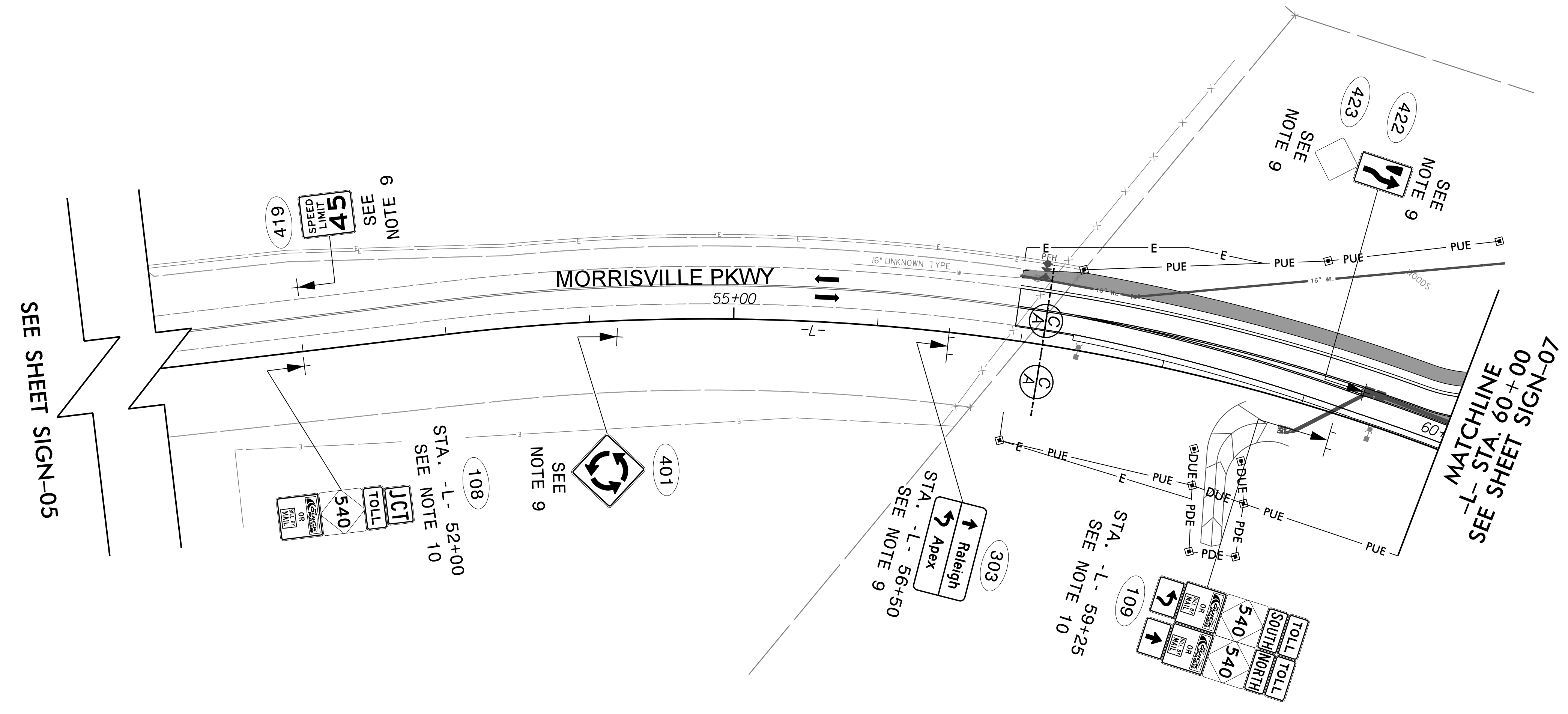
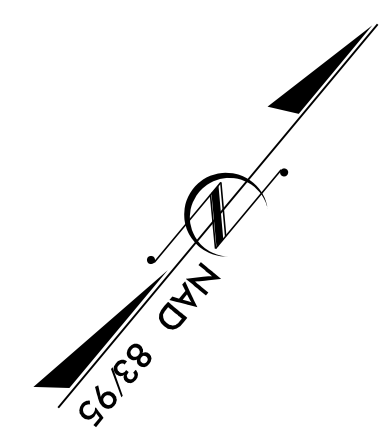
RUMMEL, KLEPPER & KAHL, LLP  
 900 RIDGEFIELD DRIVE SUITE 350  
 RALEIGH, NORTH CAROLINA 27609-3960  
 NC LICENSE NO. F-0112 (919) 878-9560

FOR  
 THE NORTH CAROLINA  
 TURNPIKE AUTHORITY

**EXISTING AND  
 PROPOSED SIGNS  
 MORRISVILLE PKWY AT  
 GREEN LEVEL CHURCH RD**

10/13/2017  
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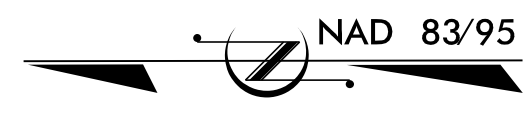
**CONSTRUCTION NOTES**

9 SIGN ERECTION, TYPE D OR E  
 10 SIGN ERECTION, TOLL ROUTE SIGN ASSEMBLIES ON STEEL SUPPORTS

**PLANS PREPARED BY :**  
**RK&K**  
 RUMMEL, KLEPPER & KAHL, LLP  
 900 RIDGEFIELD DRIVE SUITE 350  
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 NC LICENSE NO. F-0112 (919) 878-9560  
 FOR  
 THE NORTH CAROLINA  
 TURNPIKE AUTHORITY

**PROPOSED SIGNS  
 STA. -L- 51+00 TO 60+00**

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MATCHLINE  
-L- STA. 68+75  
SEE SHEET SIGN-08

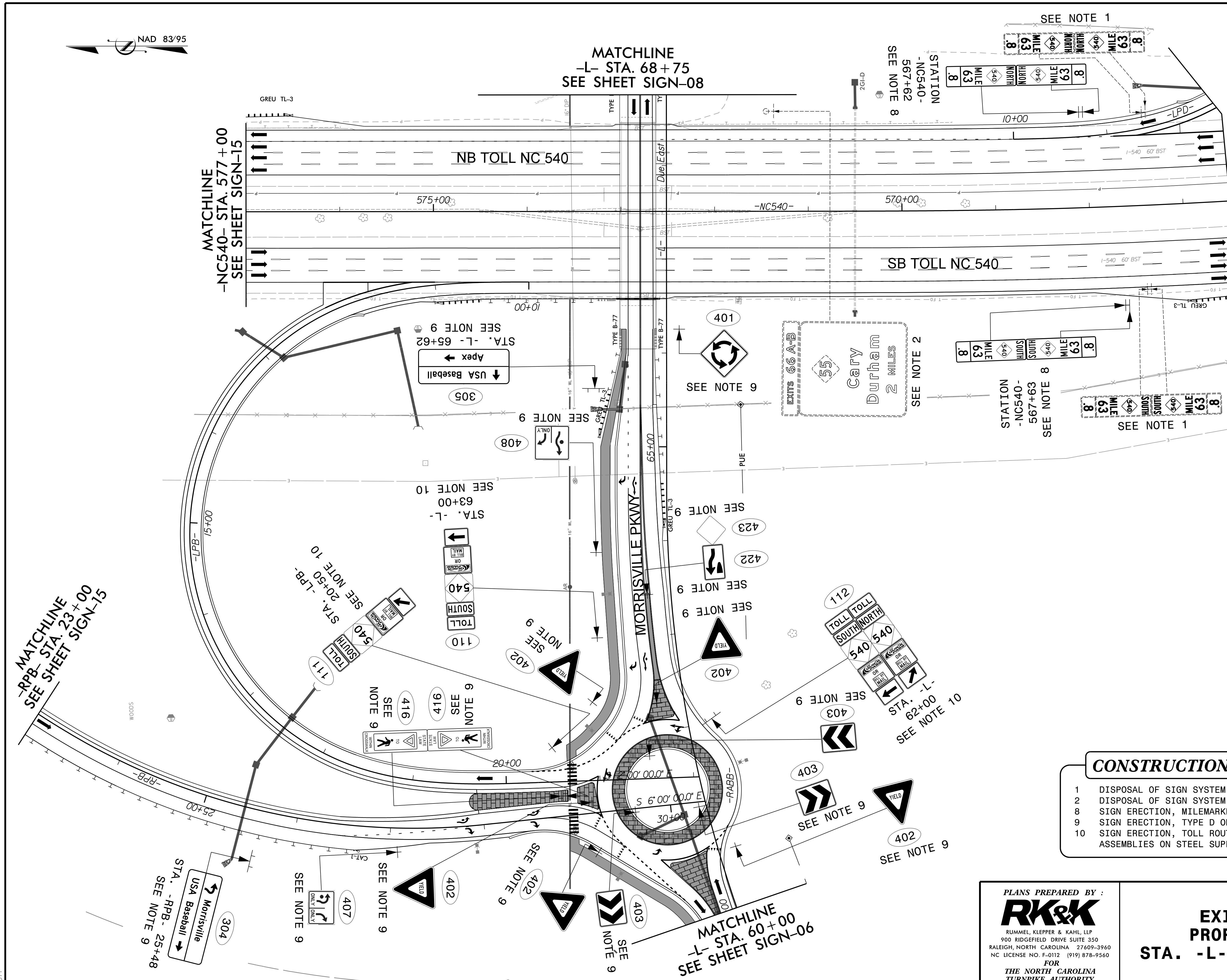
MATCHLINE  
-NC540- STA. 577+00  
SEE SHEET SIGN-15

MATCHLINE  
-NC540- STA. 566+50  
SEE SHEET SIGN-16

MATCHLINE  
-RPB- STA. 23+00  
SEE SHEET SIGN-15

MATCHLINE  
-L- STA. 60+00  
SEE SHEET SIGN-06

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- CONSTRUCTION NOTES**
- DISPOSAL OF SIGN SYSTEM, U-CHANNEL
  - DISPOSAL OF SIGN SYSTEM, OVERHEAD
  - SIGN ERECTION, MILEMARKERS
  - SIGN ERECTION, TYPE D OR E
  - SIGN ERECTION, TOLL ROUTE SIGN ASSEMBLIES ON STEEL SUPPORTS

PLANS PREPARED BY :

**RK&K**

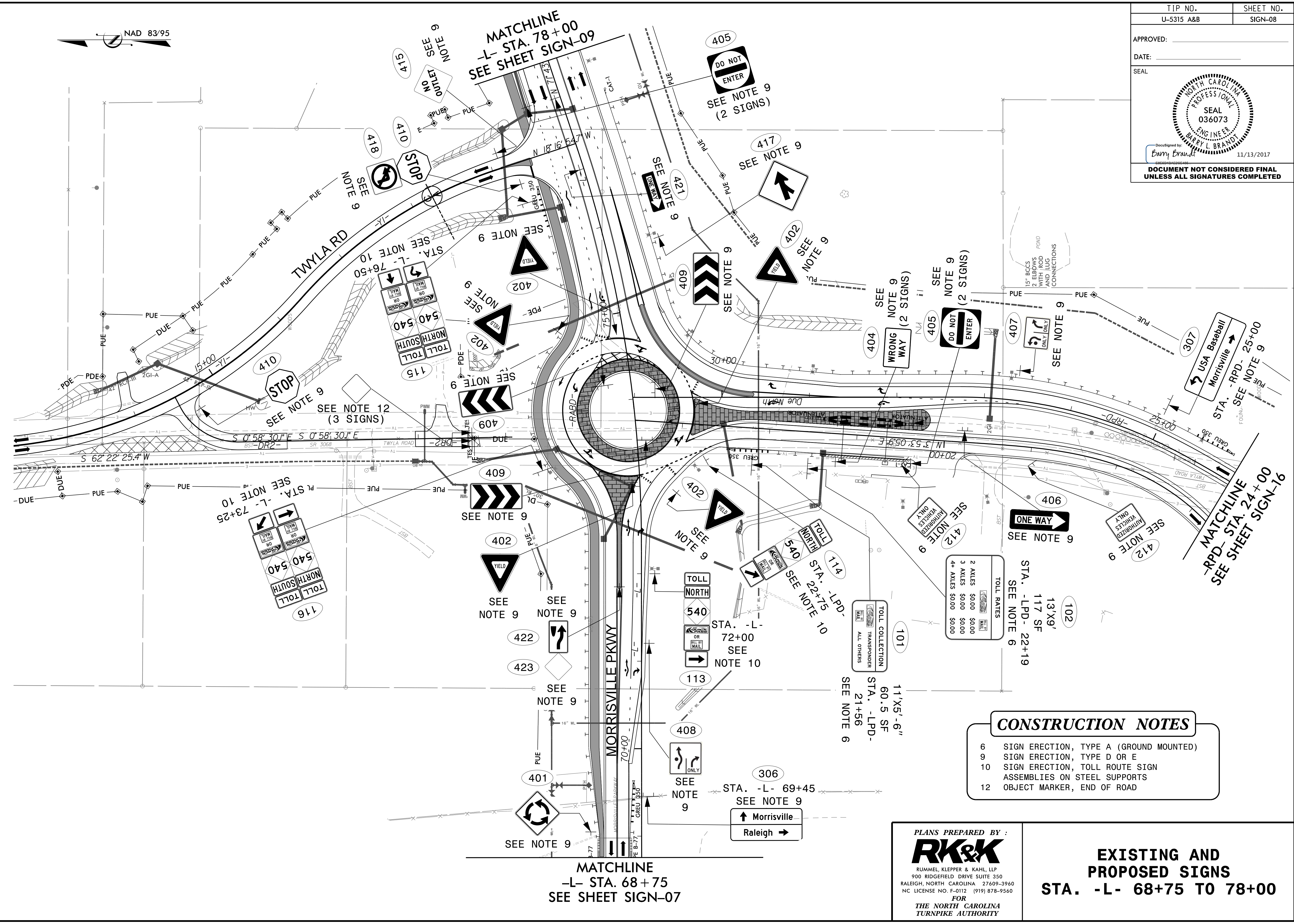
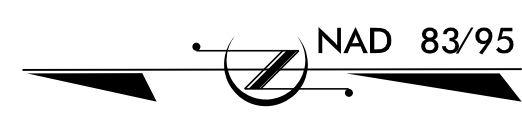
RUMMEL, KLEPPER & KAHL, LLP  
 900 RIDGEFIELD DRIVE SUITE 350  
 RALEIGH, NORTH CAROLINA 27609-3960  
 NC LICENSE NO. F-0112 (919) 878-9560

FOR  
**THE NORTH CAROLINA  
 TURNPIKE AUTHORITY**

**EXISTING AND  
 PROPOSED SIGNS  
 STA. -L- 60+00 TO 68+75**

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 11/13/2017  
 NMT

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CONSTRUCTION NOTES	
6	SIGN ERECTION, TYPE A (GROUND MOUNTED)
9	SIGN ERECTION, TYPE D OR E
10	SIGN ERECTION, TOLL ROUTE SIGN ASSEMBLIES ON STEEL SUPPORTS
12	OBJECT MARKER, END OF ROAD

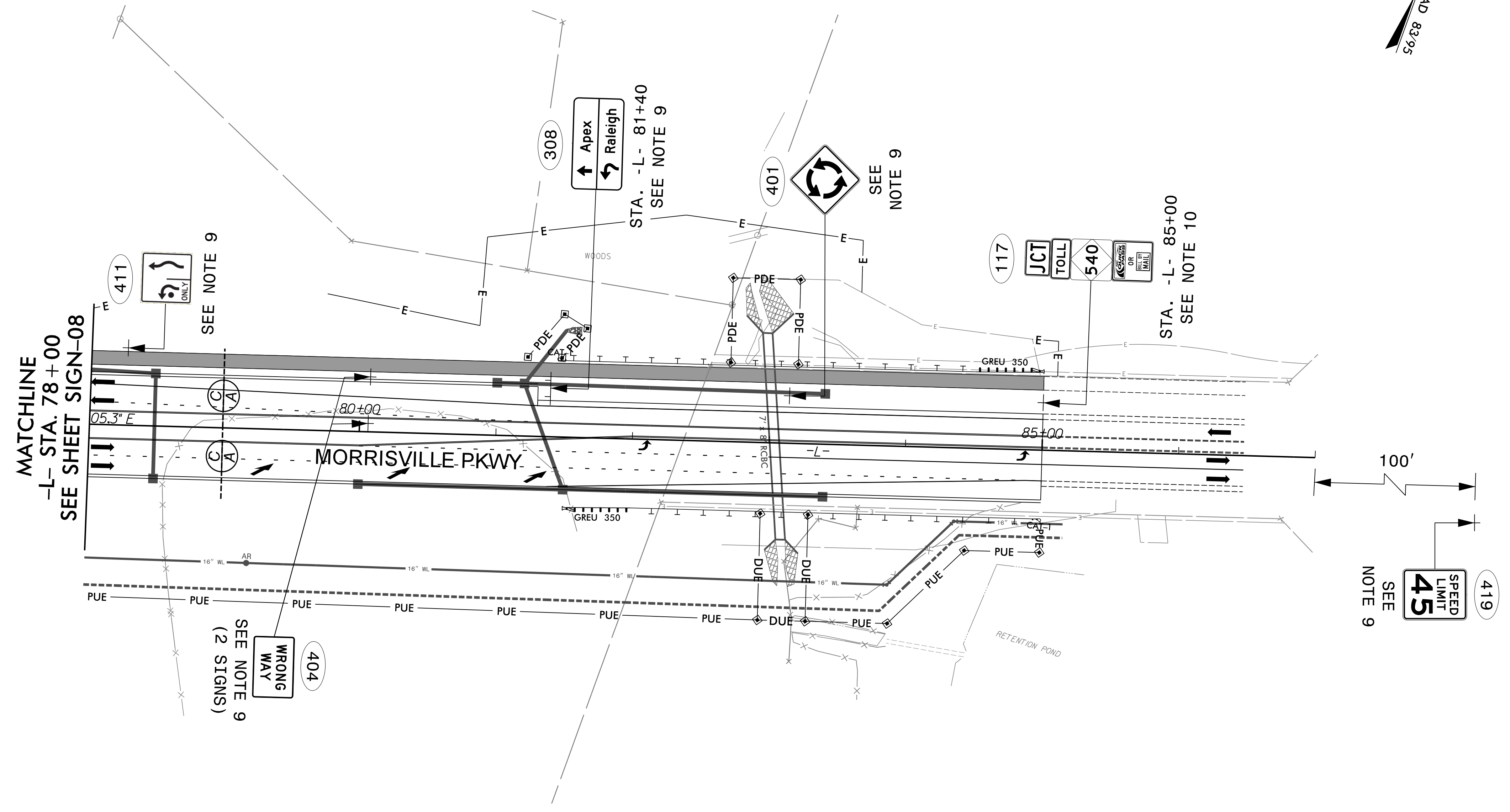
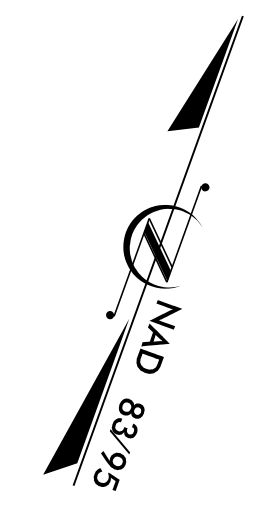
PLANS PREPARED BY:  
**RK&K**  
 RUMMEL, KLEPPER & KAHL, LLP  
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**EXISTING AND  
PROPOSED SIGNS**  
**STA. -L- 68+75 TO 78+00**

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SEAL	
DataSigned by: <i>Barry Brandt</i> 11/13/2017 CREDENTIAL NO. 036073	
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- CONSTRUCTION NOTES**
- 9 SIGN ERECTION, TYPE D OR E
  - 10 SIGN ERECTION, TOLL ROUTE SIGN ASSEMBLIES ON STEEL SUPPORTS

PLANS PREPARED BY :

**RK&K**

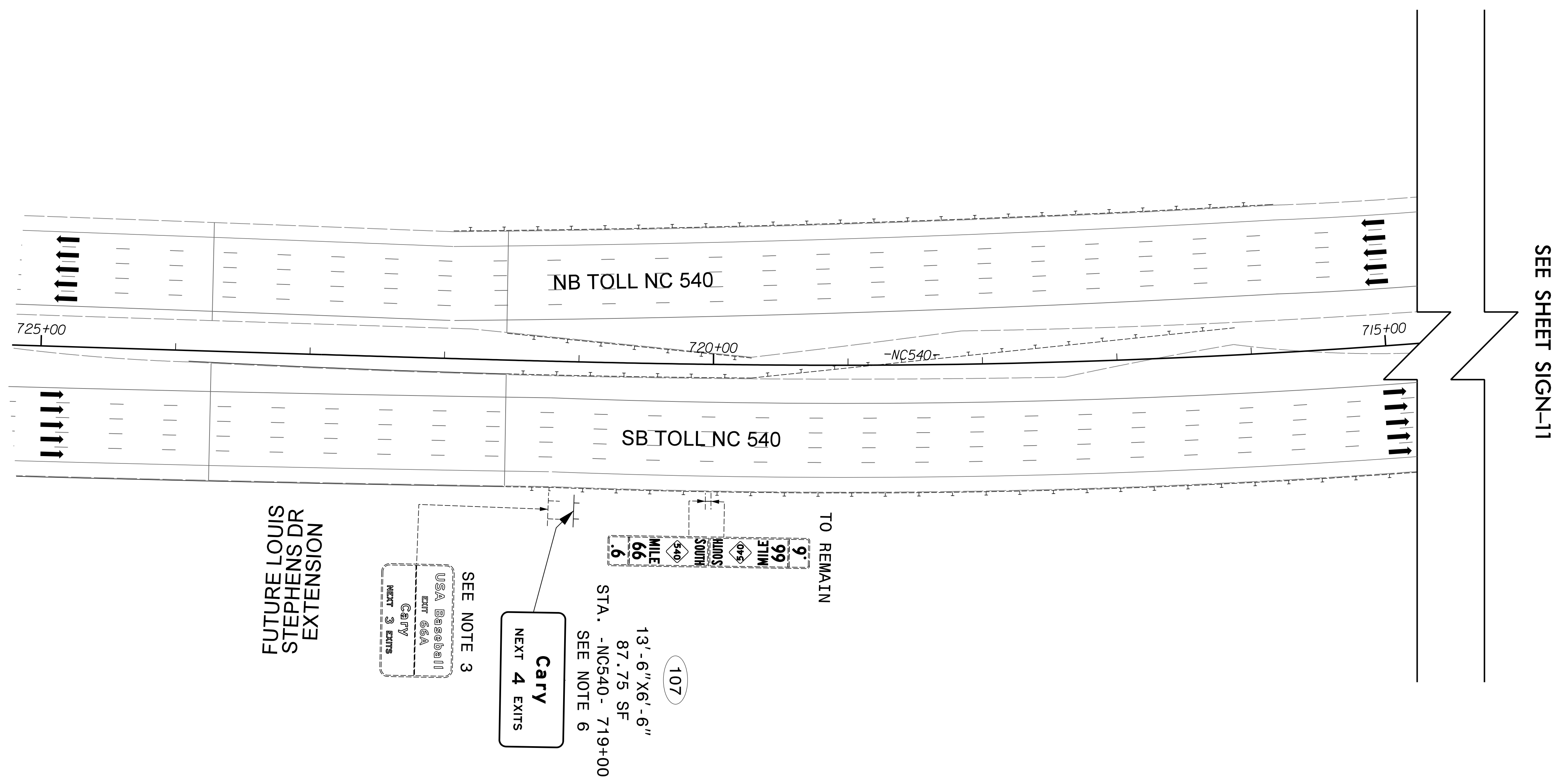
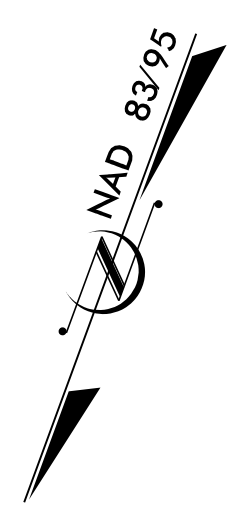
RUMMEL, KLEPPER & KAHL, LLP  
 900 RIDGEFIELD DRIVE SUITE 350  
 RALEIGH, NORTH CAROLINA 27609-3960  
 NC LICENSE NO. F-0112 (919) 878-9560

FOR  
**THE NORTH CAROLINA  
 TURNPIKE AUTHORITY**

**EXISTING AND  
 PROPOSED SIGNS  
 STA. -L- 78+00 TO 105+00**

10/13/2017  
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SEE SHEET SIGN-11

- CONSTRUCTION NOTES**
- 3 DISPOSAL OF SIGN SYSTEM, STEEL BEAM
  - 6 SIGN ERECTION, TYPE A (GROUND MOUNTED)

PLANS PREPARED BY :

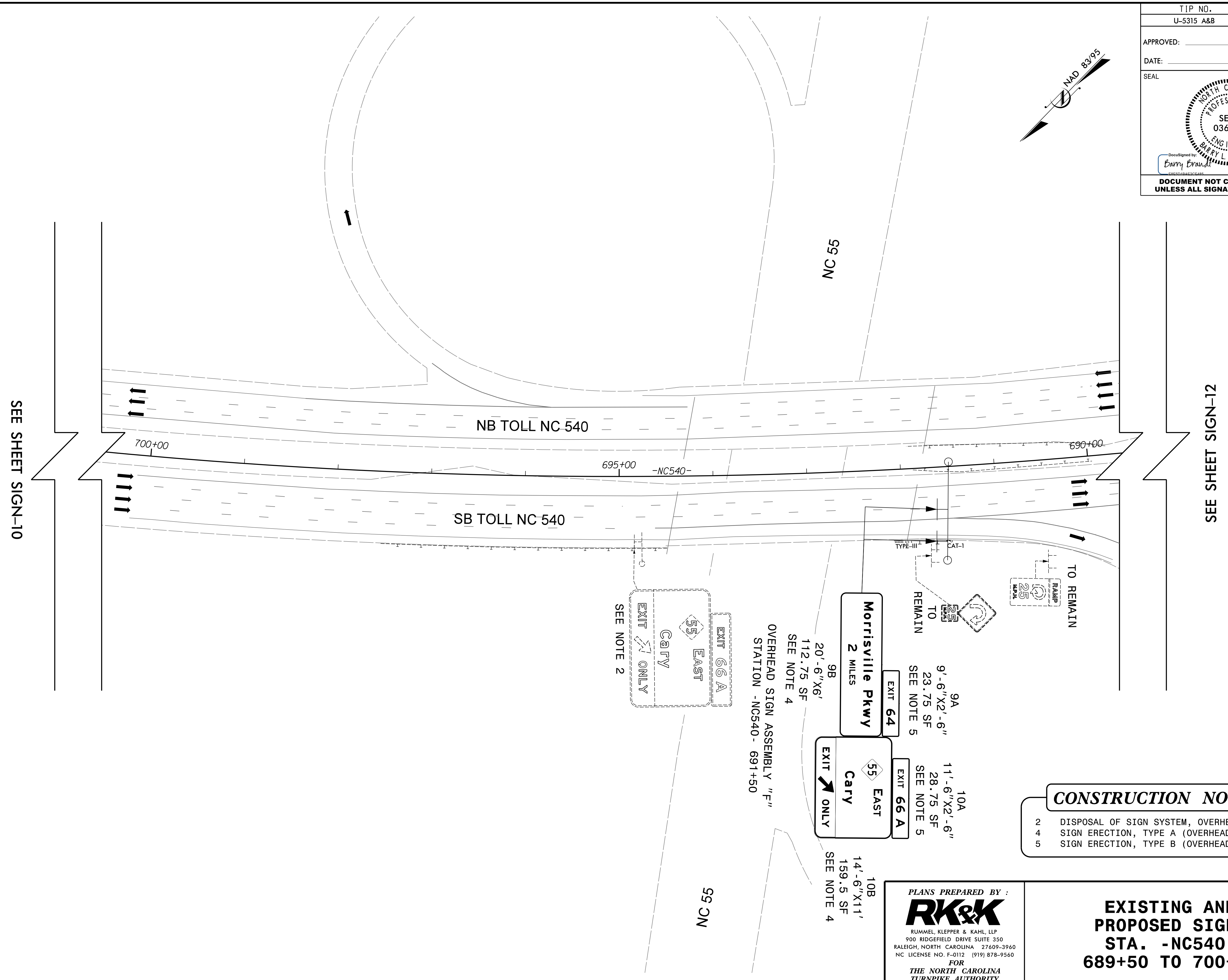
**RK&K**

RUMMEL, KLEPPER & KAHL, LLP  
 900 RIDGEFIELD DRIVE SUITE 350  
 RALEIGH, NORTH CAROLINA 27609-3960  
 NC LICENSE NO. F-0112 (919) 878-9560

FOR  
**THE NORTH CAROLINA  
 TURNPIKE AUTHORITY**

**EXISTING AND  
 PROPOSED SIGNS  
 STA. -NC540-  
 715+00 TO 725+00**

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SEE SHEET SIGN-12

- CONSTRUCTION NOTES**
- 2 DISPOSAL OF SIGN SYSTEM, OVERHEAD
  - 4 SIGN ERECTION, TYPE A (OVERHEAD)
  - 5 SIGN ERECTION, TYPE B (OVERHEAD)

PLANS PREPARED BY :

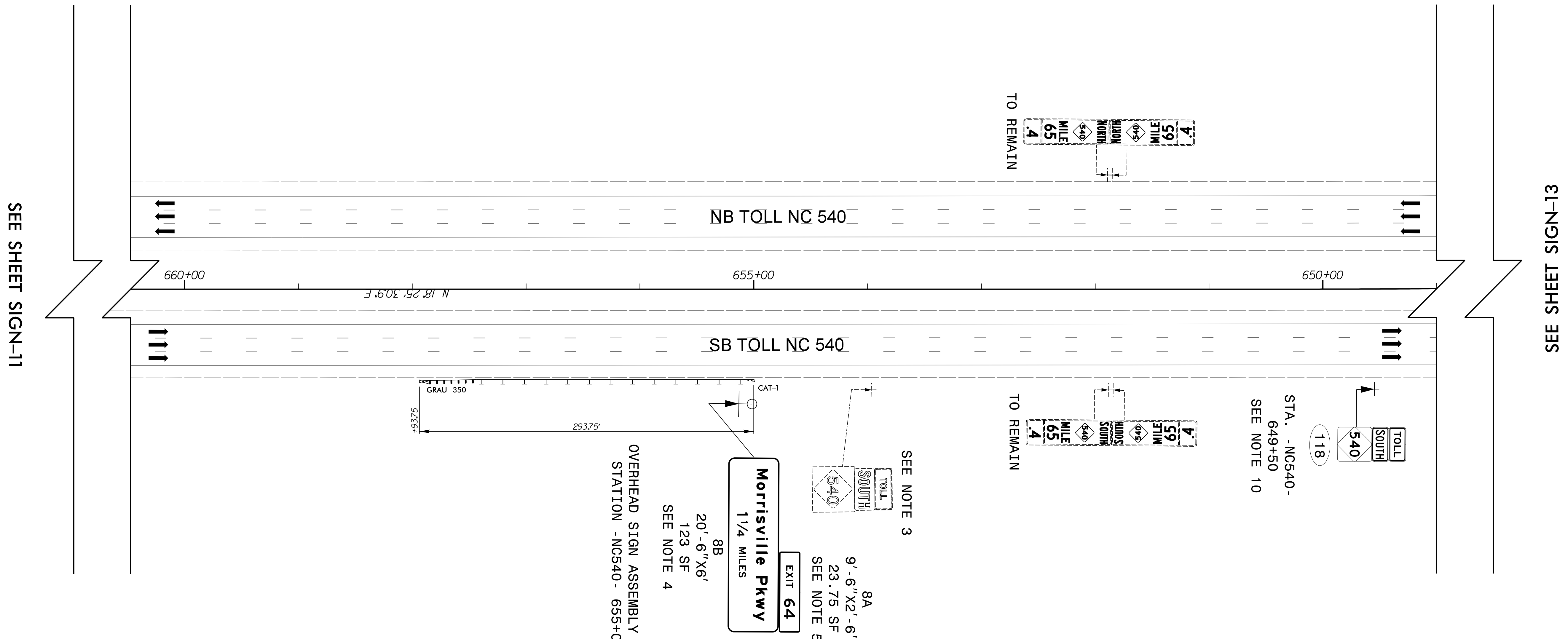
**RK&K**

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**EXISTING AND  
 PROPOSED SIGNS  
 STA. -NC540-  
 689+50 TO 700+50**

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- CONSTRUCTION NOTES**
- 3 DISPOSAL OF SIGN SYSTEM, STEEL BEAM
  - 4 SIGN ERECTION, TYPE A (OVERHEAD)
  - 5 SIGN ERECTION, TYPE B (OVERHEAD)
  - 10 SIGN ERECTION, TOLL ROUTE SIGN ASSEMBLIES ON STEEL SUPPORTS

PLANS PREPARED BY :

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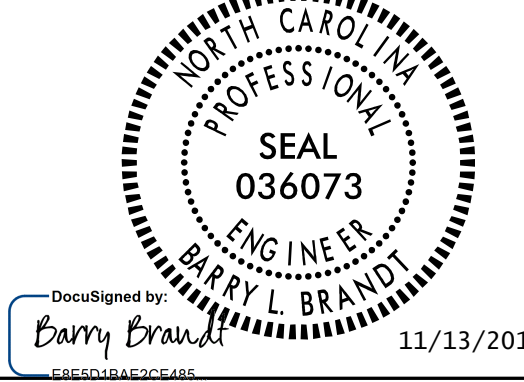
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THE NORTH CAROLINA  
TURNPIKE AUTHORITY

**EXISTING AND  
PROPOSED SIGNS  
STA. -NC540-  
649+00 TO 660+50**

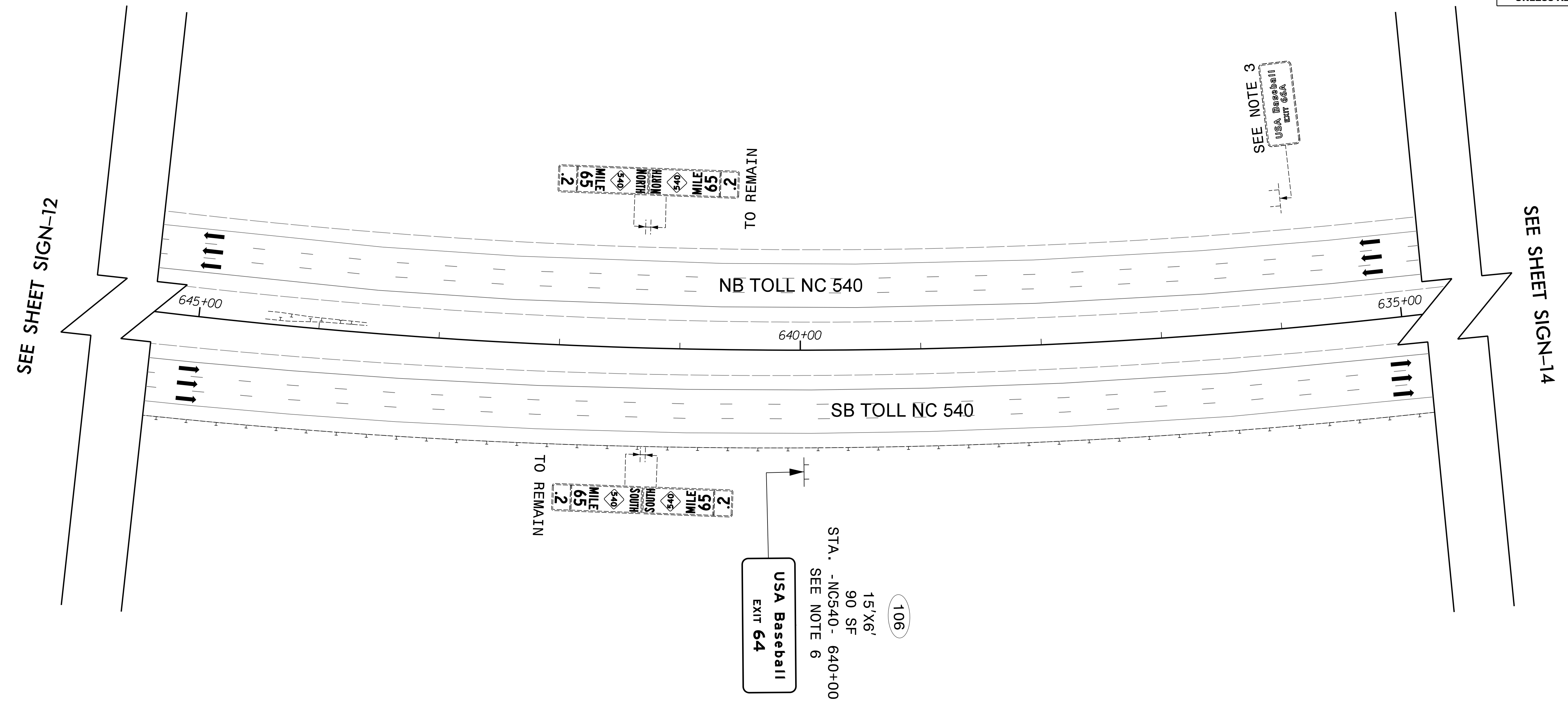
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SEE SHEET SIGN-14

- CONSTRUCTION NOTES**
- 3 DISPOSAL OF SIGN SYSTEM, STEEL BEAM
  - 6 SIGN ERECTION, TYPE A (GROUND MOUNTED)

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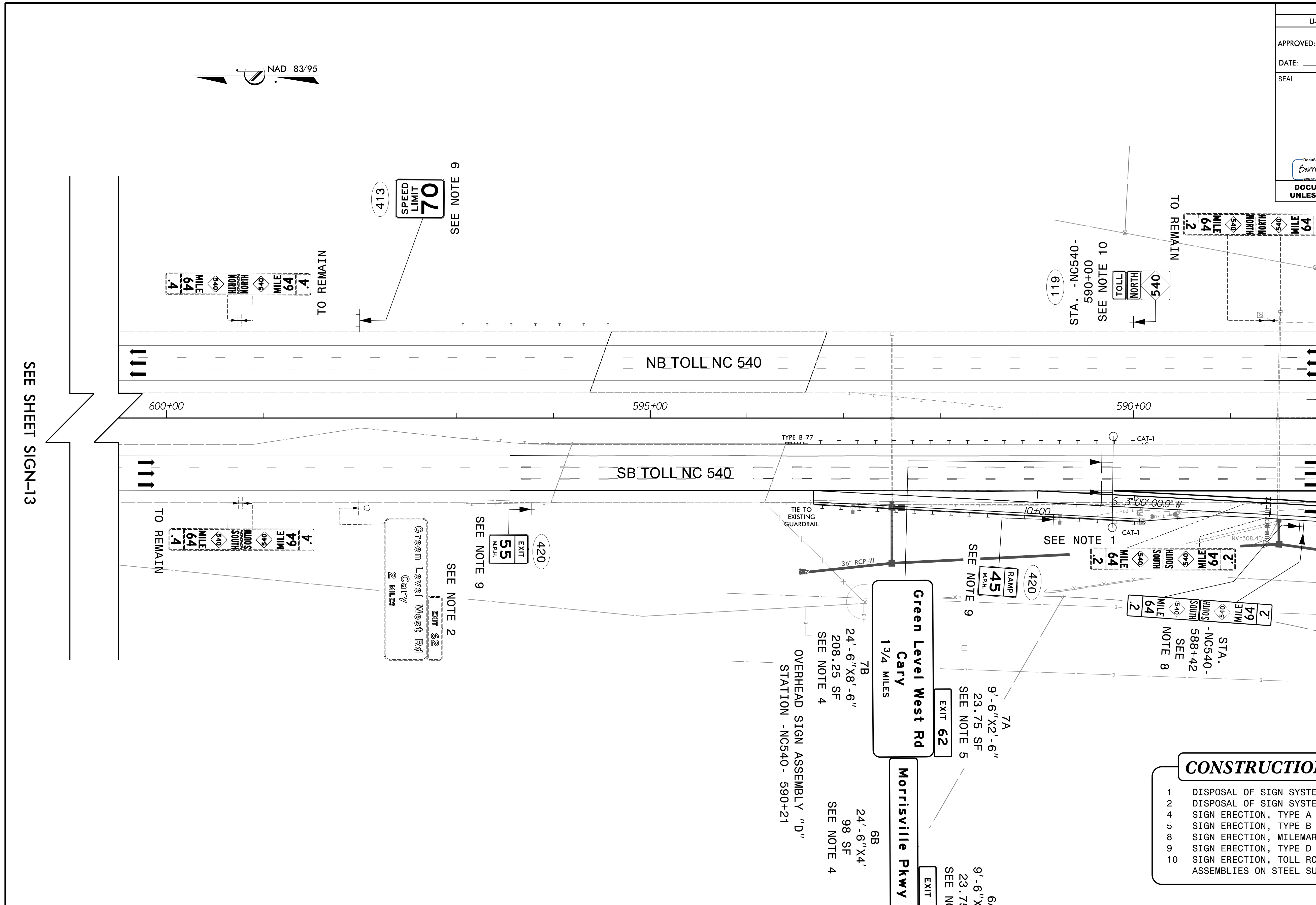
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**EXISTING AND  
 PROPOSED SIGNS  
 STA. -NC540-  
 635+75 TO 645+50**

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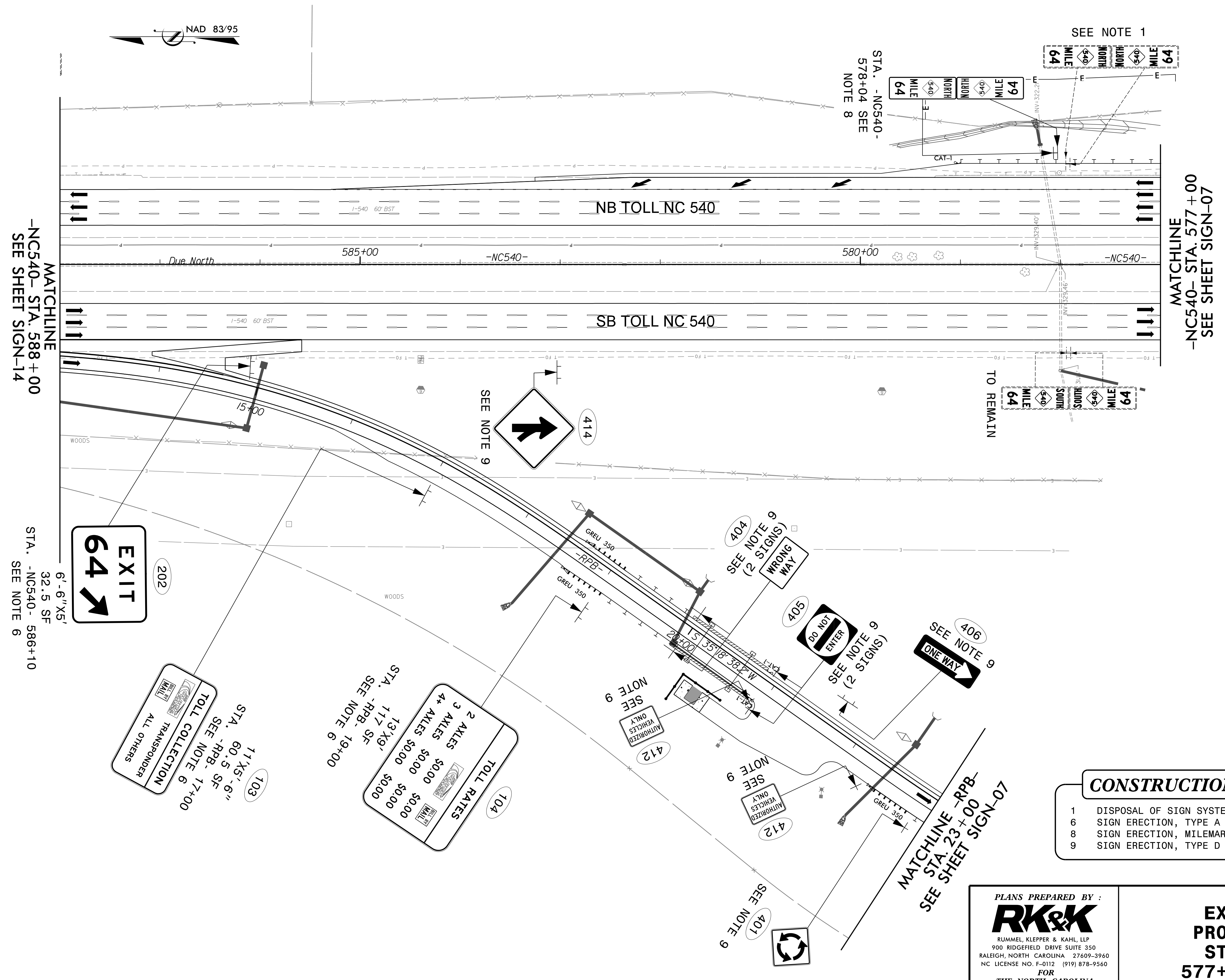
- CONSTRUCTION NOTES**
- DISPOSAL OF SIGN SYSTEM, U-CHANNEL
  - DISPOSAL OF SIGN SYSTEM, OVERHEAD
  - SIGN ERECTION, TYPE A (OVERHEAD)
  - SIGN ERECTION, TYPE B (OVERHEAD)
  - SIGN ERECTION, MILEMARKERS
  - SIGN ERECTION, TYPE D OR E
  - SIGN ERECTION, TOLL ROUTE SIGN ASSEMBLIES ON STEEL SUPPORTS

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 FOR  
**THE NORTH CAROLINA  
 TURNPIKE AUTHORITY**

**EXISTING AND  
 PROPOSED SIGNS  
 STA. -NC540-  
 600+50 TO 588+00**

10/13/2017  
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- CONSTRUCTION NOTES**
- DISPOSAL OF SIGN SYSTEM, U-CHANNEL
  - SIGN ERECTION, TYPE A (GROUND MOUNTED)
  - SIGN ERECTION, MILEMARKERS
  - SIGN ERECTION, TYPE D OR E

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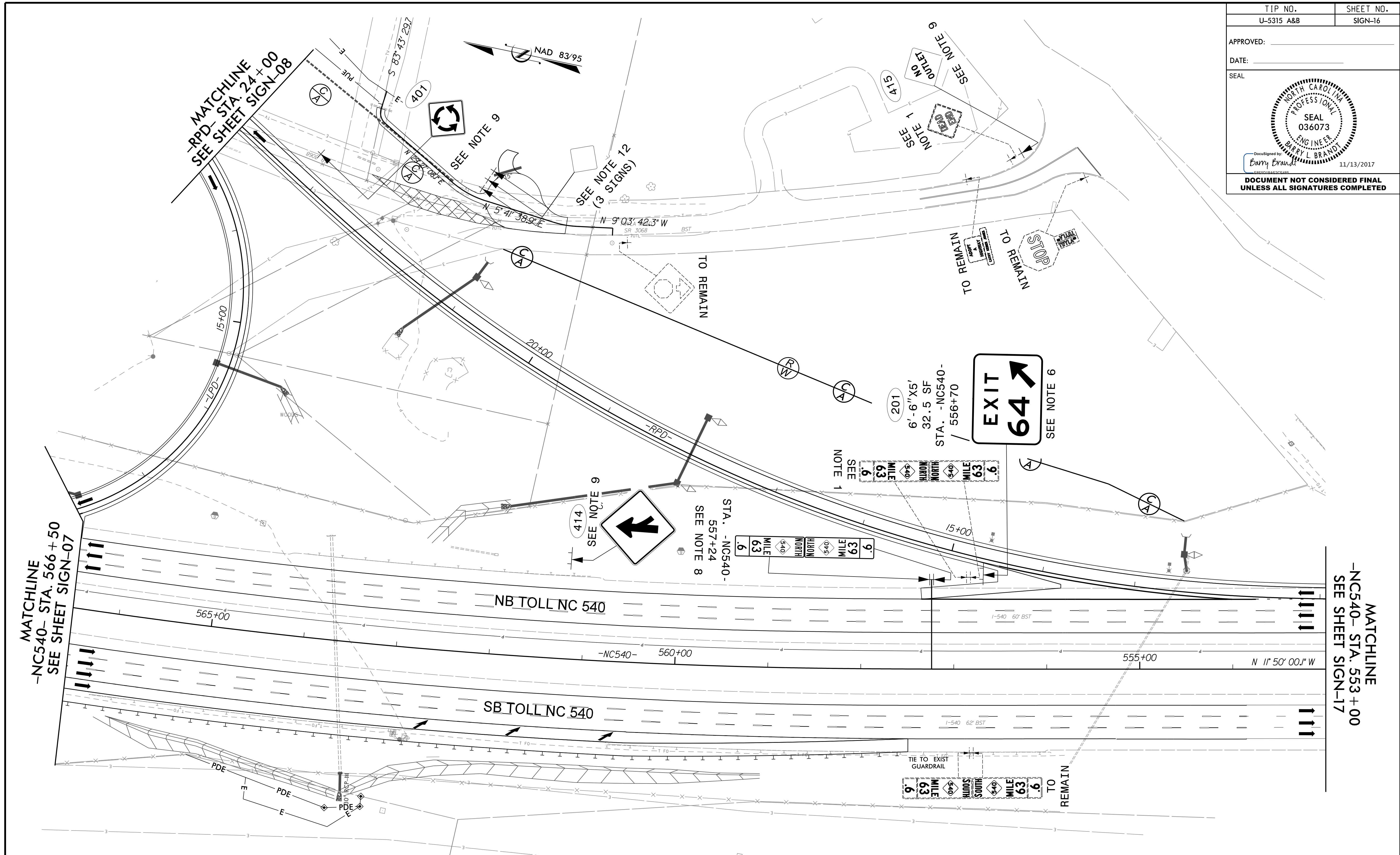
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**EXISTING AND  
 PROPOSED SIGNS  
 STA. -NC540-  
 577+00 TO 588+00**

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- CONSTRUCTION NOTES**
- 1 DISPOSAL OF SIGN SYSTEM, U-CHANNEL
  - 6 SIGN ERECTION, TYPE A (GROUND MOUNTED)
  - 8 SIGN ERECTION, MILEMARKERS
  - 9 SIGN ERECTION, TYPE D OR E
  - 12 OBJECT MARKER, END OF ROAD

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FOR  
**THE NORTH CAROLINA  
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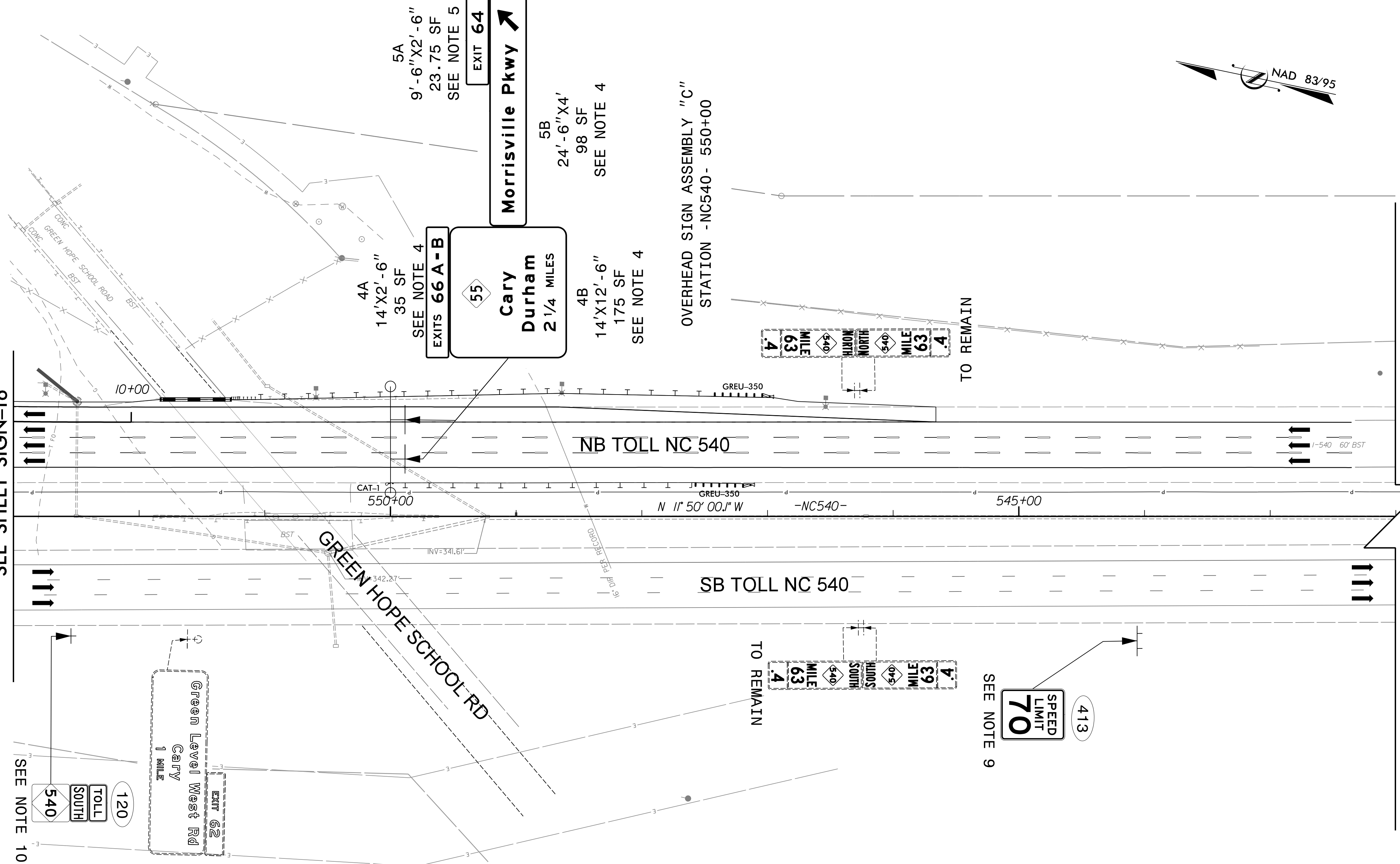
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 PROPOSED SIGNS  
 STA. -NC540-  
 553+00 TO 566+50**

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MATCHLINE  
 -NC540- STA. 553+00  
 SEE SHEET SIGN-16



SEE SHEET SIGN-18

- CONSTRUCTION NOTES**
- 4 SIGN ERECTION, TYPE A (OVERHEAD)
  - 5 SIGN ERECTION, TYPE B (OVERHEAD)
  - 9 SIGN ERECTION, TYPE D OR E
  - 10 SIGN ERECTION, TOLL ROUTE SIGN ASSEMBLIES ON STEEL SUPPORTS

PLANS PREPARED BY :  
**RK&K**  
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PROPOSED SIGNS  
STA. -NC540-  
542+00 TO 553+00**