

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

TIP NO. R-2612A	SHEET NO. SIGN-1
APPROVED: _____	
DATE: _____	
SEAL	

SIGNING PLAN
GUILFORD COUNTY

LOCATION: US 421 AT SR 3389 (WOODY MILL ROAD)
SOUTH OF GREENSBORO

T.I.P.: R-2612A

CONTRACT: C202440

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 JULY 2006 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
901.10	TYPE 'A' SIGNS
901.20	TYPE 'B' SIGNS
901.30	VHB TAPE CONSTRUCTION - FOR TYPE 'A' SIGNS
901.40	VHB TAPE CONSTRUCTION - FOR TYPE 'B' SIGNS
901.50	ARROWS AND SHIELDS
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
904.10	ORIENTATION OF GROUND MOUNTED SIGNS
904.50	MOUNTING OF TYPE 'D', 'E' AND 'F' SIGNS ON 'U' CHANNEL POSTS

PROJECT NOTES

- DISPOSAL OF SIGN SYSTEM, U-CHANNEL

GENERAL NOTES

- SIGNS FURNISHED BY STATE
- ALL TYPE 'D' SIGNS SHALL BE MOUNTED ON TWO U-CHANNEL POSTS UNLESS OTHERWISE INDICATED ON THE PLANS.
- SIGNING PLANS DO NOT INCLUDE TEMPORARY CONSTRUCTION SIGNING OR PAVEMENT MARKINGS. SEE TRAFFIC CONTROL PLANS.
- WHEN NOT STATIONED OR DIMENSIONED ON PLANS, ALL 'E' AND 'F' SIGNS SHALL BE FIELD LOCATED BY THE ENGINEER
- 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.

SUMMARY OF QUANTITIES

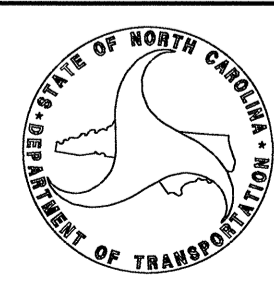
ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT
DESC. NO.	SECT. NO.		
4048000000	902	6	CY
4054000000	902	1	CY
4060000000	903	4842	LBS
4072000000	903	1465	LF
4096000000	904	12	EA
4108000000	904	8	EA
4102000000	904	32	EA
4110000000	904	6	EA
4155000000	907	109	EA

INDEX

SHEET NO.	DESCRIPTION
SIGN-1	TITLE SHEET
SIGN-2-2D	SUPPORT INFORMATION AND GROUND MOUNT SHEETS
SIGN-3	E AND F SHEET
SIGN-4-4C	SIGN DESIGNS
SIGN-5-12	SIGN DETAIL SHEETS

PLAN PREPARED BY: N.C.D.O.T. SIGNING AND DELINEATION UNIT

RON KING STATE SIGNING & DELINEATION ENGINEER
SAMUEL COLEMAN SIGNING & DELINEATION PROJECT DESIGN ENGINEER

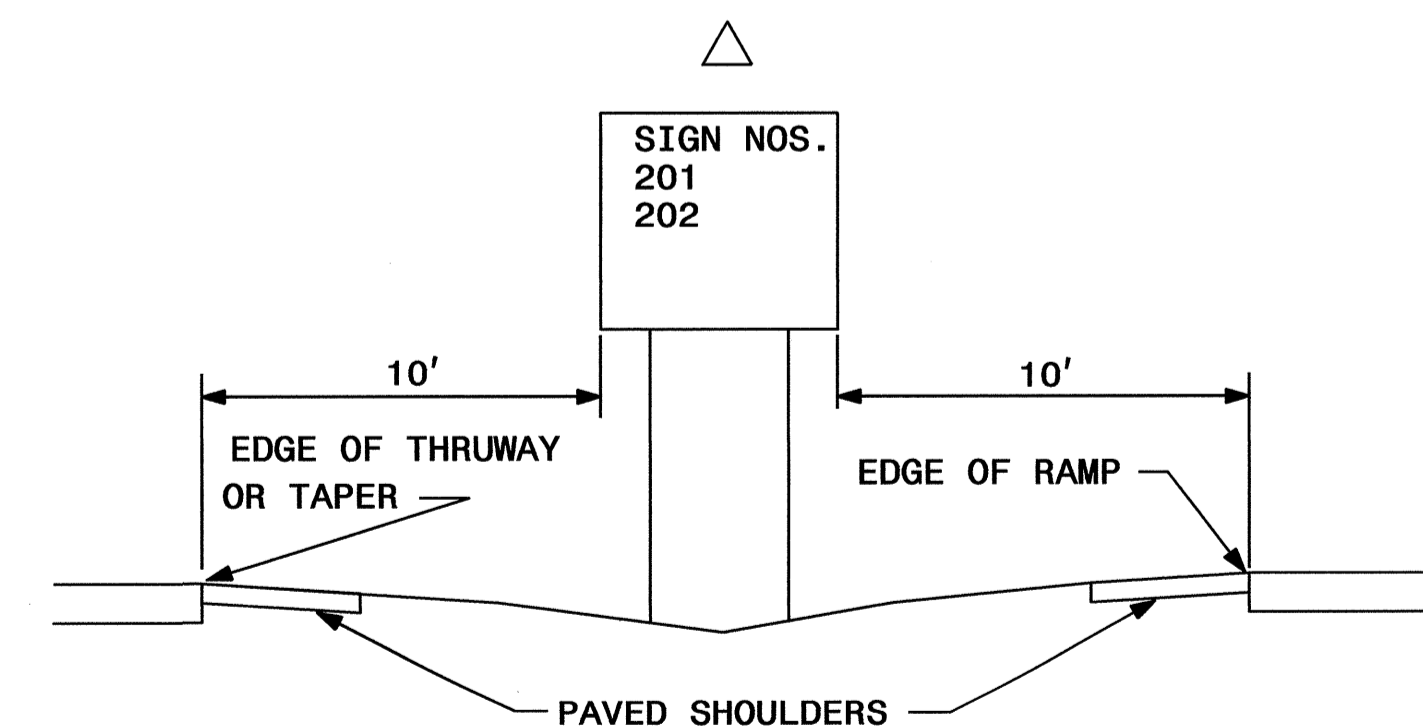
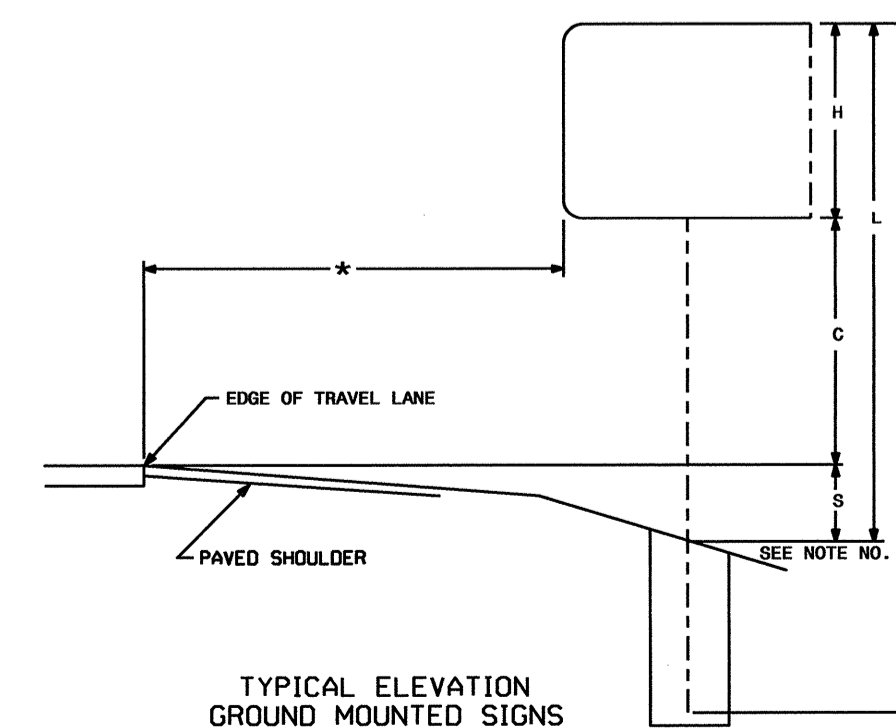


TIP NO. R-2612A	SHEET NO. SIGN-2
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SIGN NO.	SIGN TYPE	SIGN SIZE (in.)			ROADWAY STATION	NO. OF SUP.	BEAM SECTION	SUPPORT TYPE BA or S	ATTACH METHOD	MOUNTING METHOD	HORIZ. CLR. (ft.)	LENGTH (ft)				LEFT SUPPORT (ft)			CENTER SUPPORT (ft)			RIGHT SUPPORT (ft)			FOOTING DIAMETER (ft.)	FOOTING DEPTH (ft.)	B/A SUPPORT WEIGHTS (lbs.)	SIMPLE SUPPORT WEIGHTS (lbs.)	REINF. FTGS. (c.y.)	PLAIN FTGS. (c.y.)	FIELD VERIFIED SEE NOTE 2 (mm/dd/yy)																	
		w	x	h								SNS	HT	MTG	HT	EMBED-MENT	S	L	TOTAL LENGTH	S	L	TOTAL LENGTH	S	L								TOTAL LENGTH																
101	A	252	X	90	13+50 L	3	W8x18	BA	N/A	N/A	30.00	7.50	11.70	5	2.00	21.20	26.20	-1.20	18.00	23.00	-4.70	14.50	19.50	2	5.5	1479.79	0.00	1.92	0.00																			
102	A	294	X	66	53+00 L	3	W6x12	BA	N/A	N/A	30.00	5.50	7.00	5	2.60	15.10	20.10	2.50	15.00	20.00	2.40	14.90	19.90	1.5	5.5	848.04	0.00	1.08	0.00																			
103	A	252	X	90	96+00 L	3	W6x16	BA	N/A	N/A	30.00	7.50	7.00	5.5	2.96	17.46	22.96	3.35	17.85	23.35	3.57	18.07	23.57	1.5	6	1316.65	0.00	1.18	0.00																			
104	A	294	X	66	70+50 L	3	W6x12	BA	N/A	N/A	30.00	5.50	7.00	4.5	1.30	13.80	18.30	0.32	12.82	17.32	0.10	12.60	17.10	1.5	5	760.68	0.00	0.98	0.00																			
201	A	60	X	60	58+50 L	2	S3x5.7	BA	N/A	N/A	△	5.00	7.00	3	1.00	13.00	16.00	0.00	0.00	0.00	1.00	13.00	16.00	1	3.5	217.93	0.00	0.00	0.20																			
202	A	60	X	60	64+00 L	2	S3x5.7	BA	N/A	N/A	△	5.00	7.00	3	1.00	13.00	16.00	0.00	0.00	0.00	1.00	13.00	16.00	1	3.5	217.93	0.00	0.00	0.20																			
																								TOTAL	4841.03	TOTAL	0.00	TOTAL	5.16	TOTAL	0.41																	
																								USE:	4842	0	6	1																				

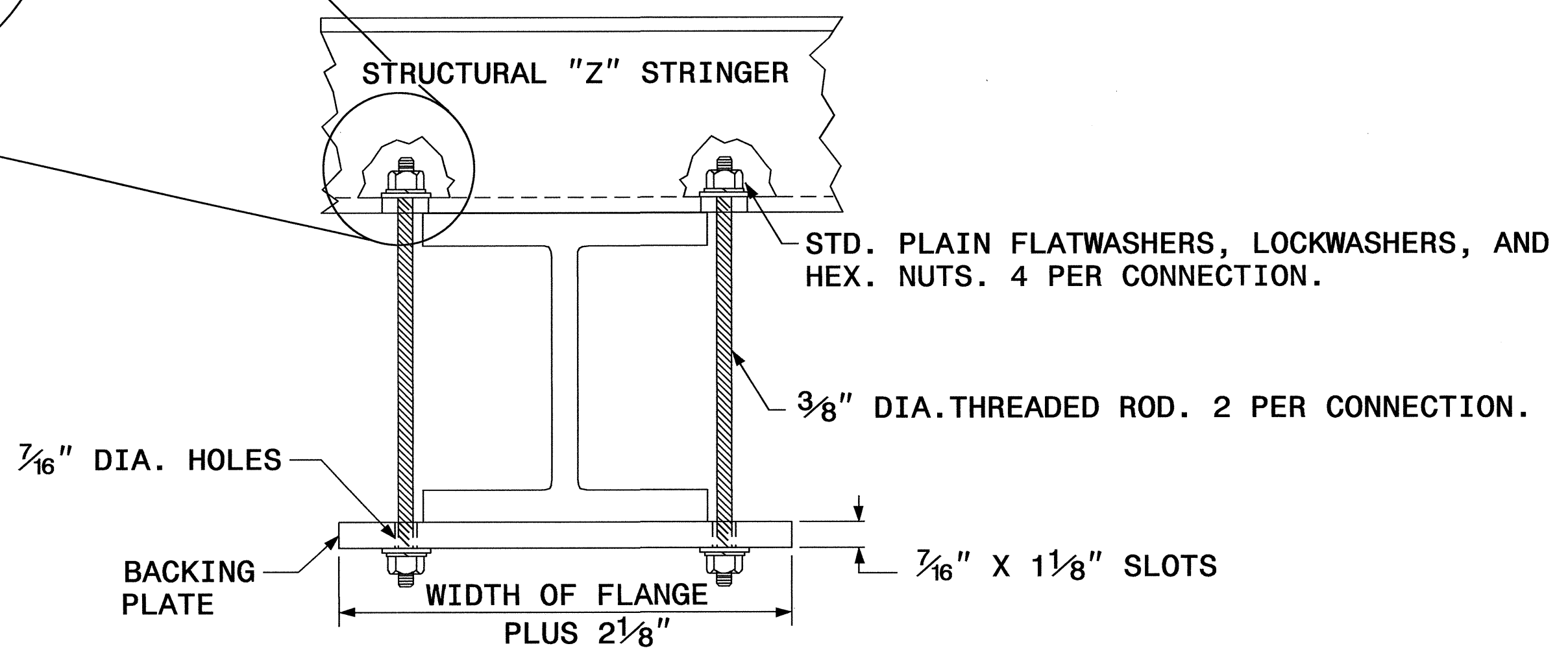
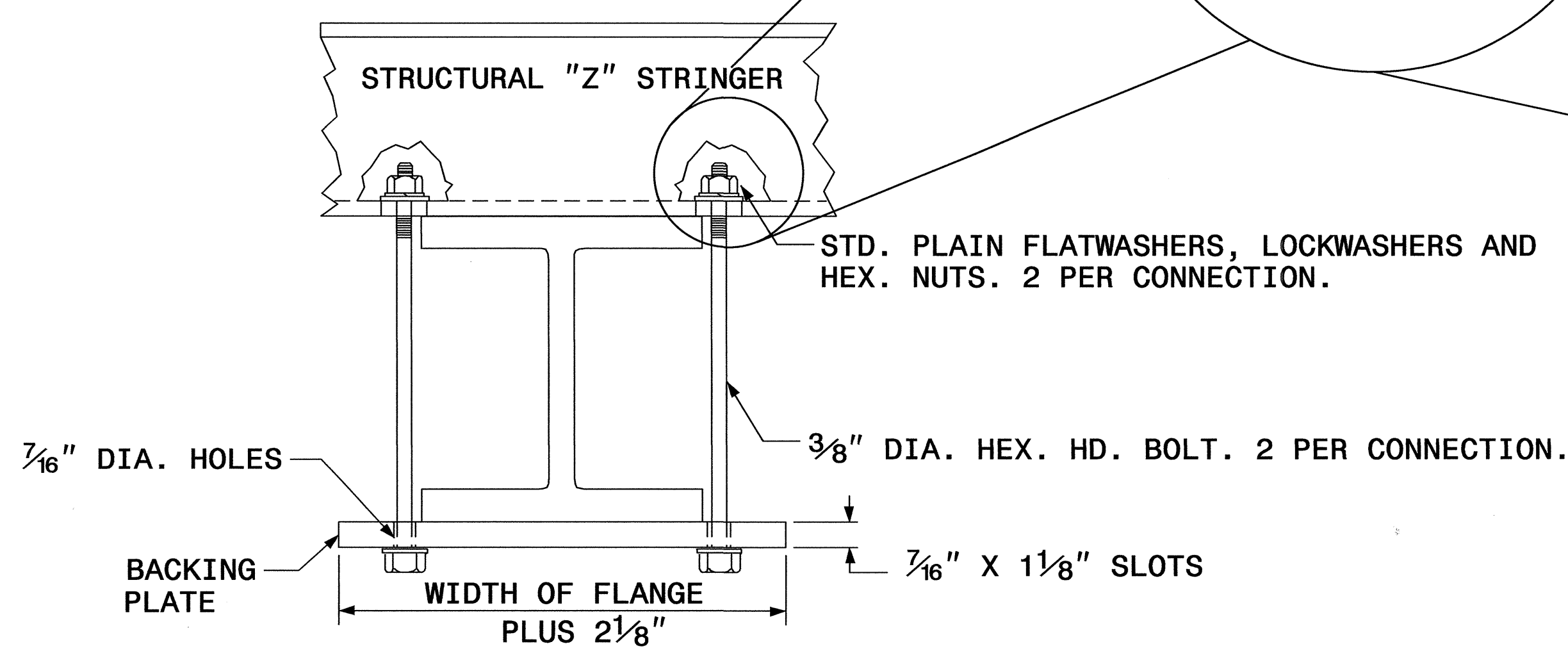
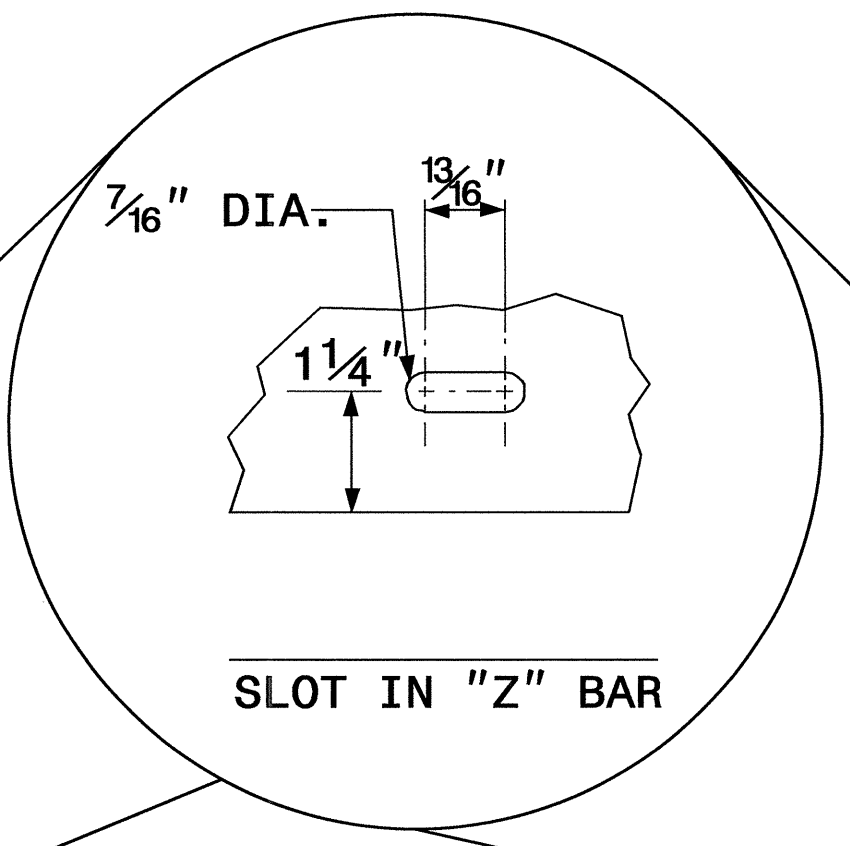
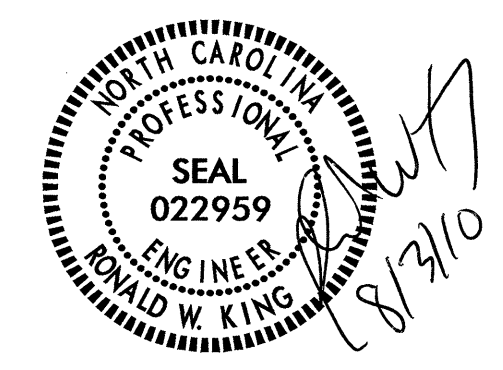
NOTES

- 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.

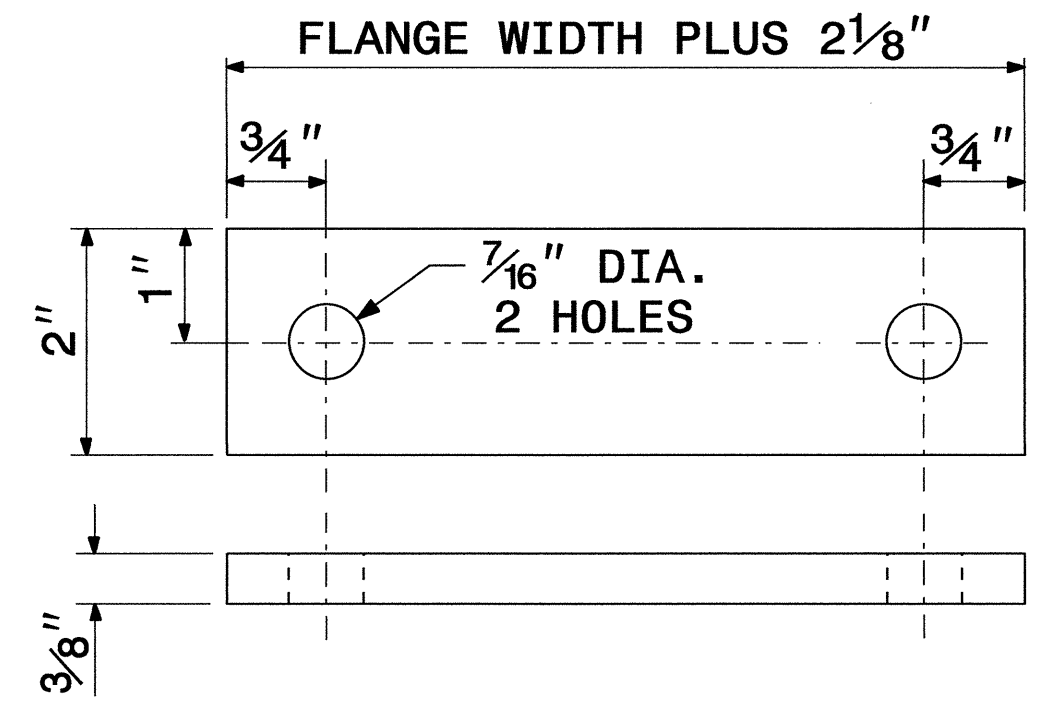


TYPE "A" AND TYPE "B" GROUND MOUNTED SIGNS

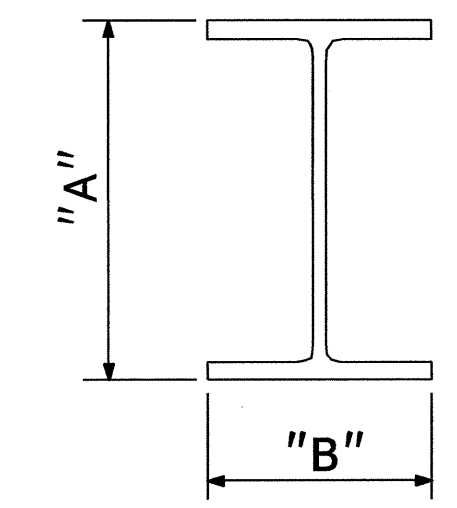
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**BACKING PLATE
DETAIL**



SIGN SUPPORTS SECTION DIMENSIONS




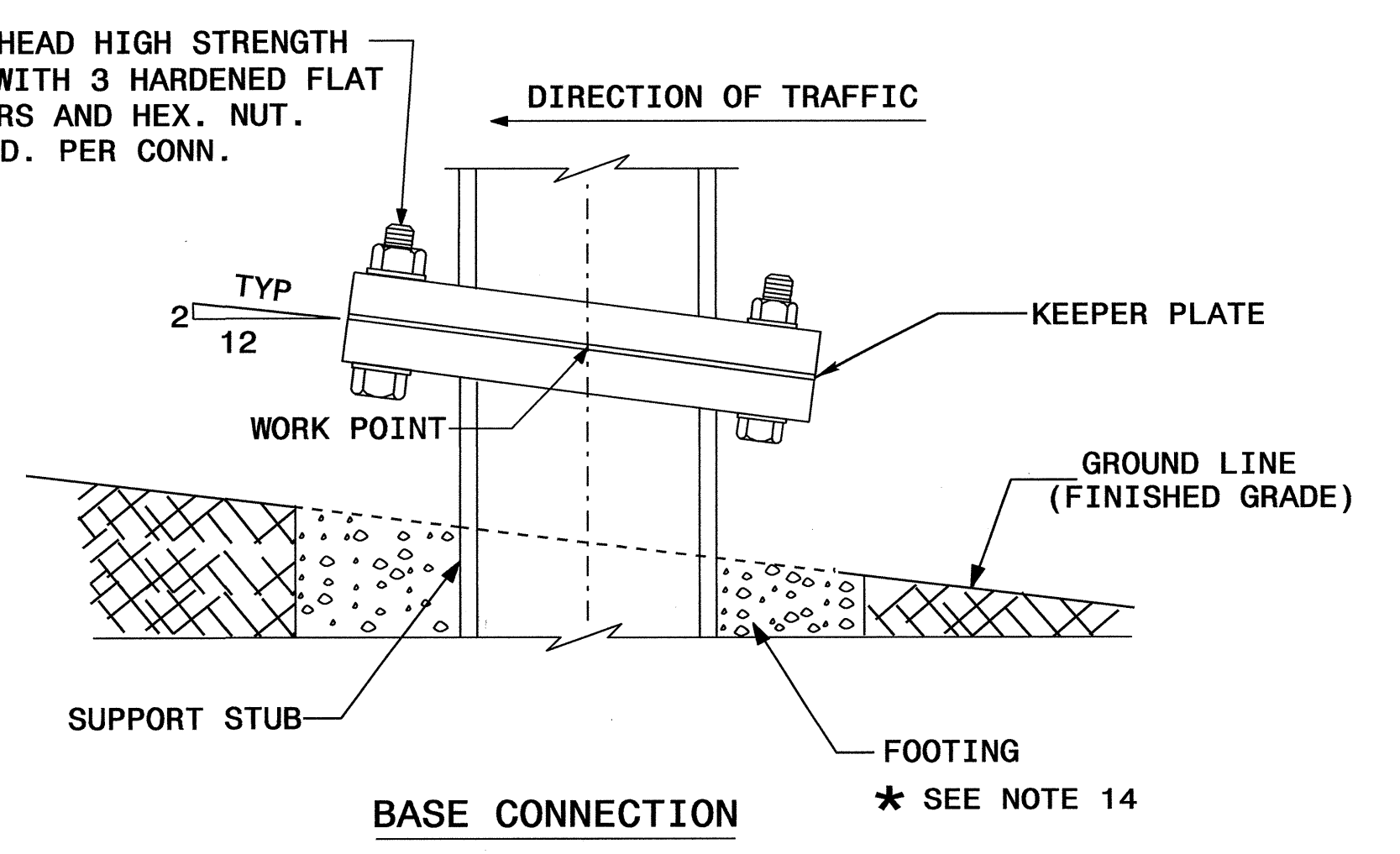
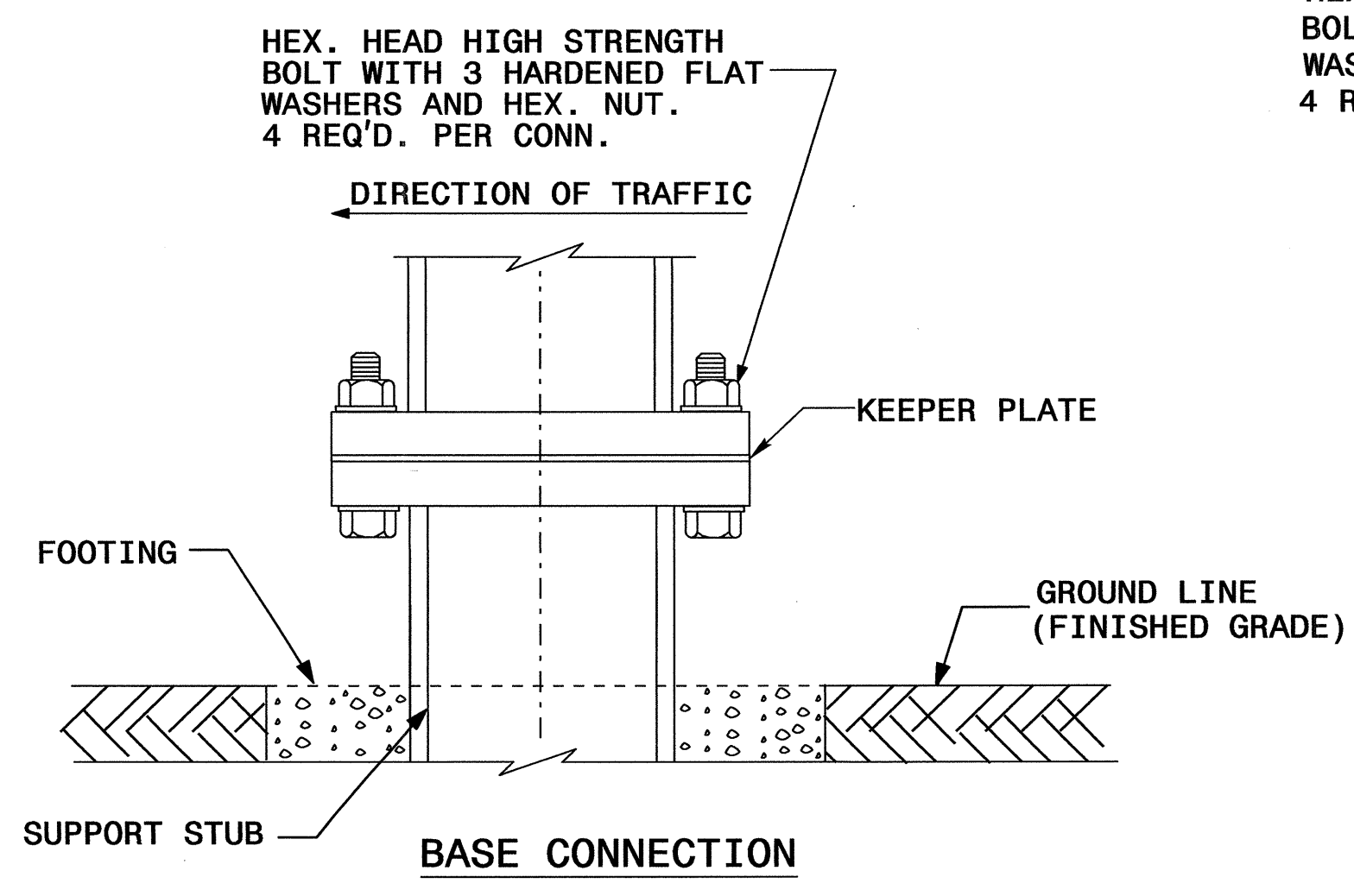
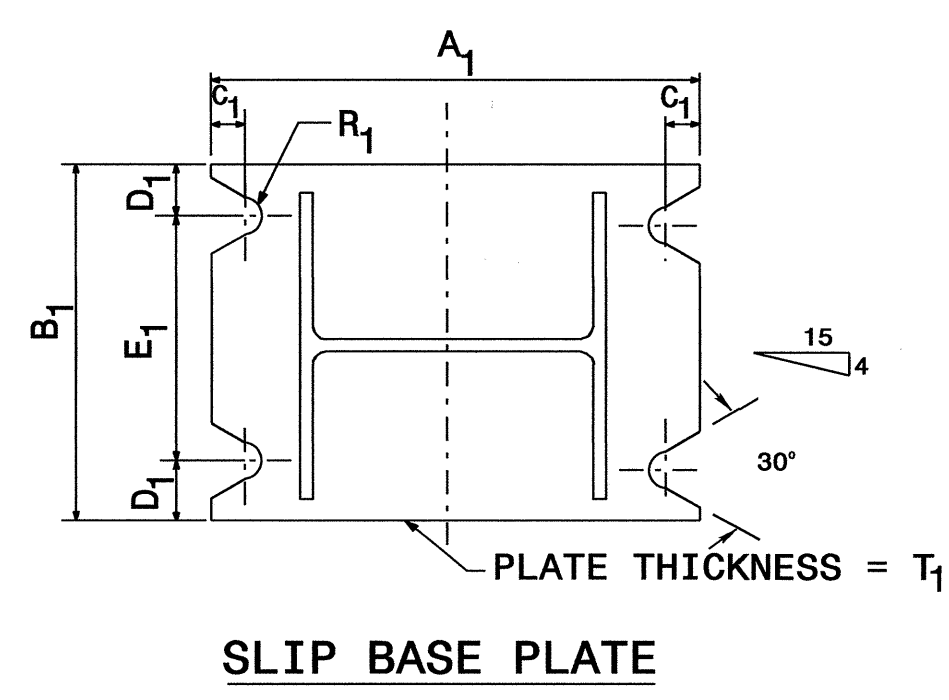
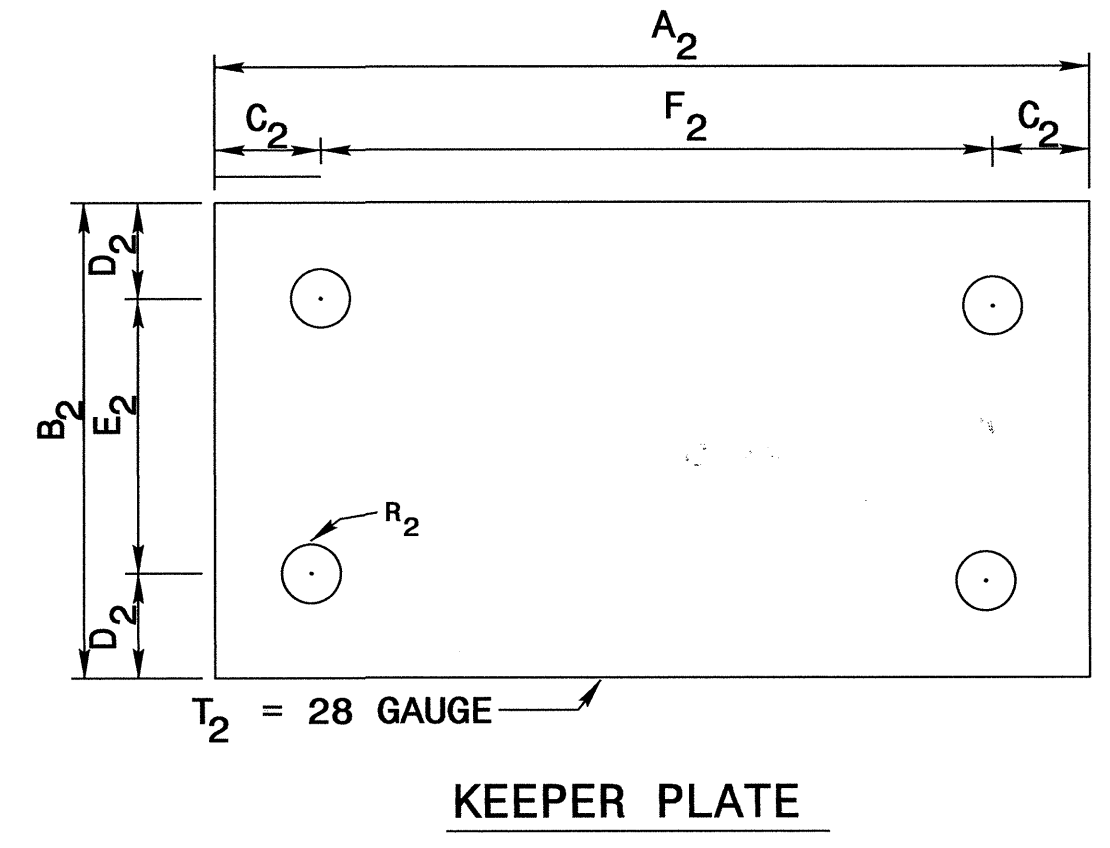
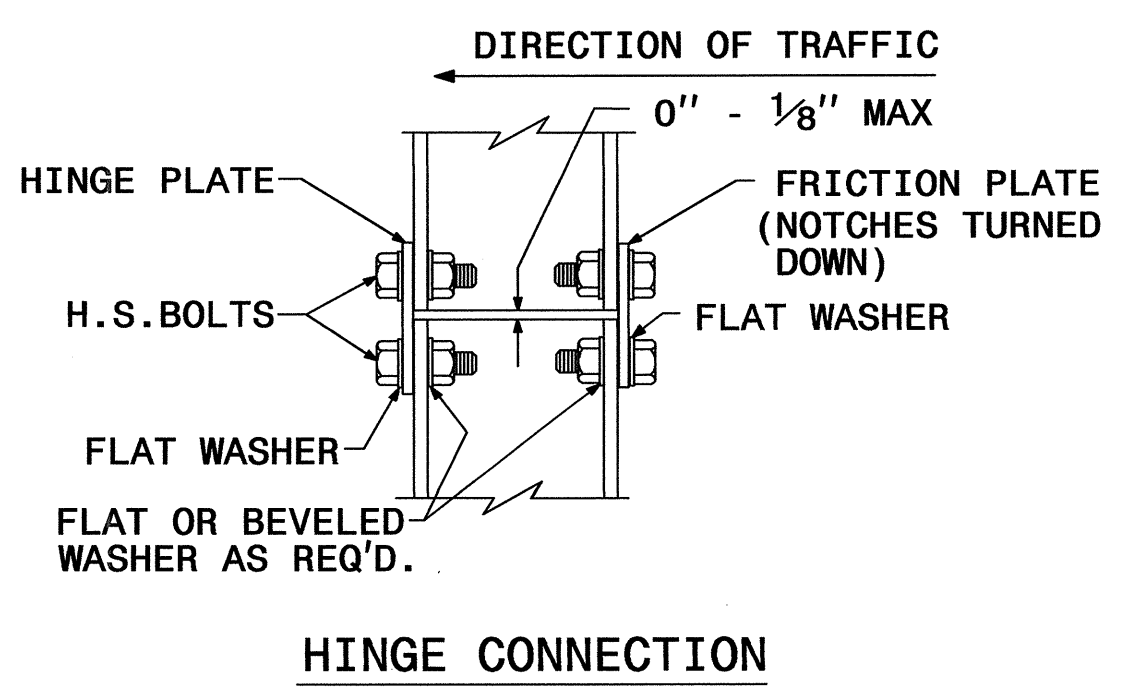
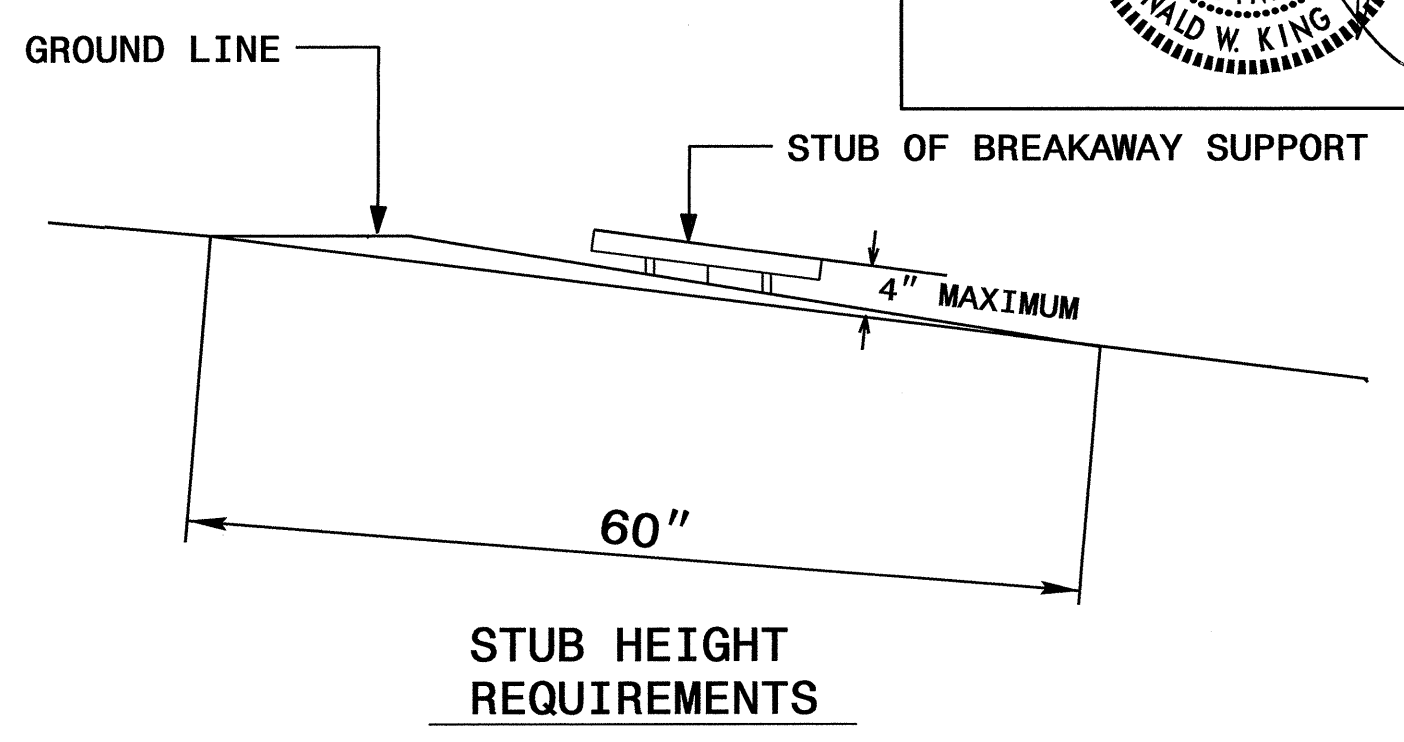
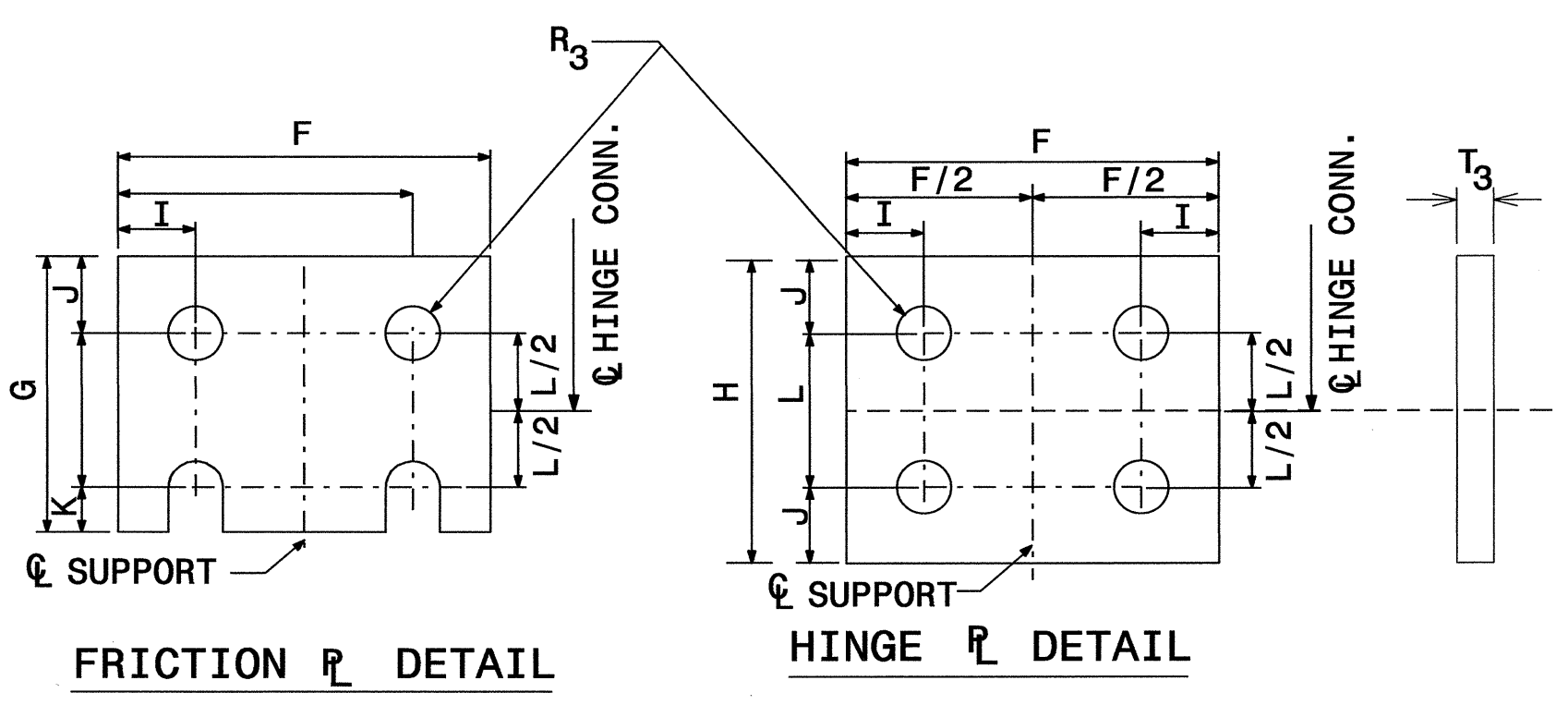
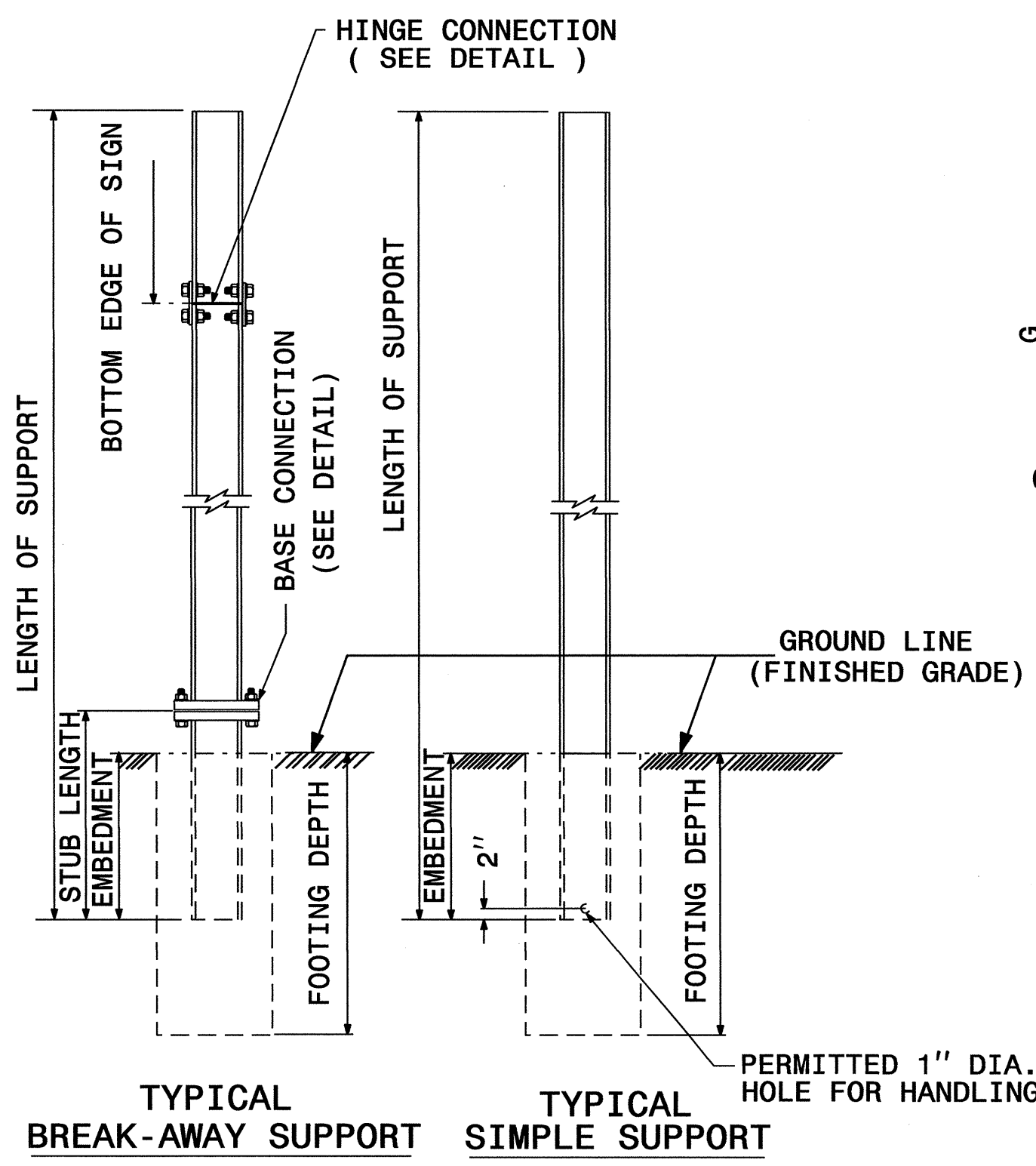
SECTION	A	B
S3 X 5.7	3"	2 3/8"
S4 X 7.7	4"	2 5/8"
W6 X 9	6"	4"
W6 X 12	6"	4"
W6 X 16	6 1/4"	4"
W8 X 18	8 1/8"	5 1/4"
W8 X 21	8 1/4"	5 1/4"
W10 X 22	10 1/8"	5 3/4"
W10 X 26	10 3/8"	5 3/4"
W12 X 26	12 1/4"	6 1/2"
W14 X 30	13 7/8"	6 3/4"
W16 X 31	15 7/8"	5 1/2"
W18 X 35	17 3/4"	6"
W18 X 40	17 7/8"	6"
W21 X 44	20 5/8"	6 1/2"

1. THE SUPPORT MOUNTING DETAIL SHOWS A "W" OR "S" BEAM. THIS DETAIL IS ALSO USED FOR MOUNTING SIGNS TO WOOD OR SQUARE TUBE SUPPORTS.
2. USE GALVANIZED STEEL FOR BACKING PLATES AND MOUNTING BOLTS IN ACCORDANCE WITH ASTM A123.
3. SEE NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES FOR TYPE OF MATERIAL TO BE USED FOR SIGN HANGER ASSEMBLIES AND SUPPORTS.
4. USE GALVANIZED STEEL FOR MOUNTING BOTS AND THREADED RODS IN COMPLIANCE WITH ASTM A307 AND ASTM A153.

SIGN MOUNTING DETAILS

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SEE SHEET SIGN-6 FOR DIMENSIONS.
SEE SHEET SIGN-7 FOR NOTES.

GROUND MOUNTED SIGN SUPPORT

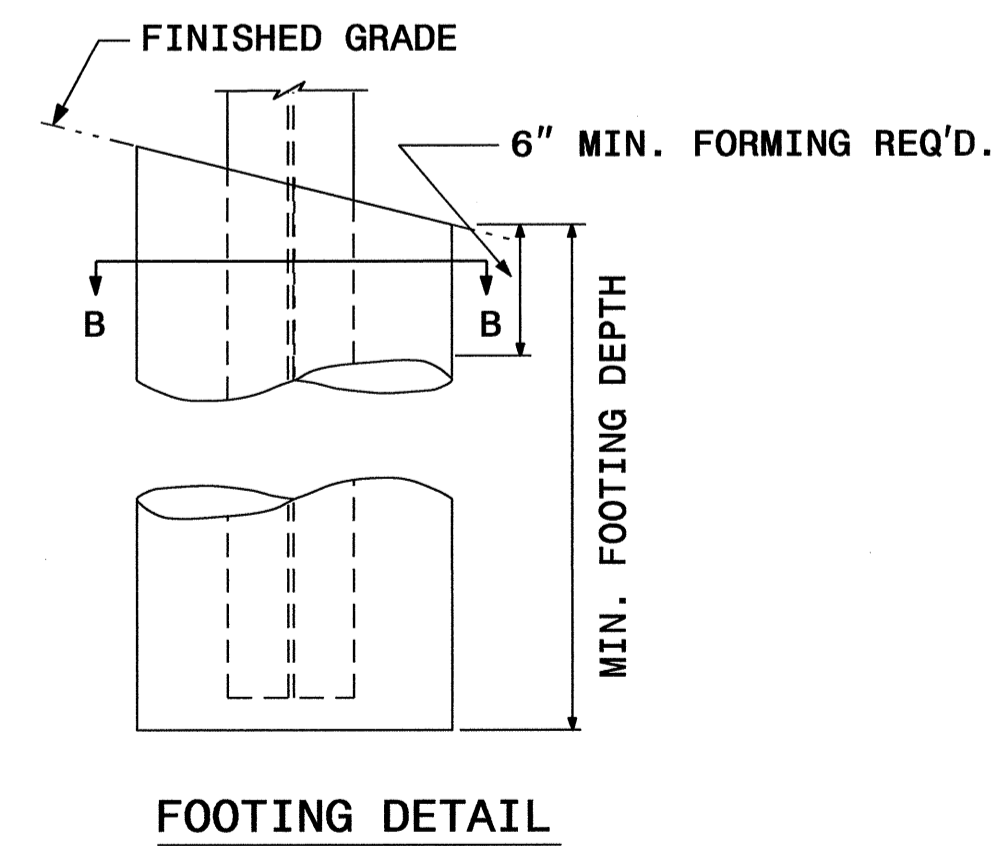
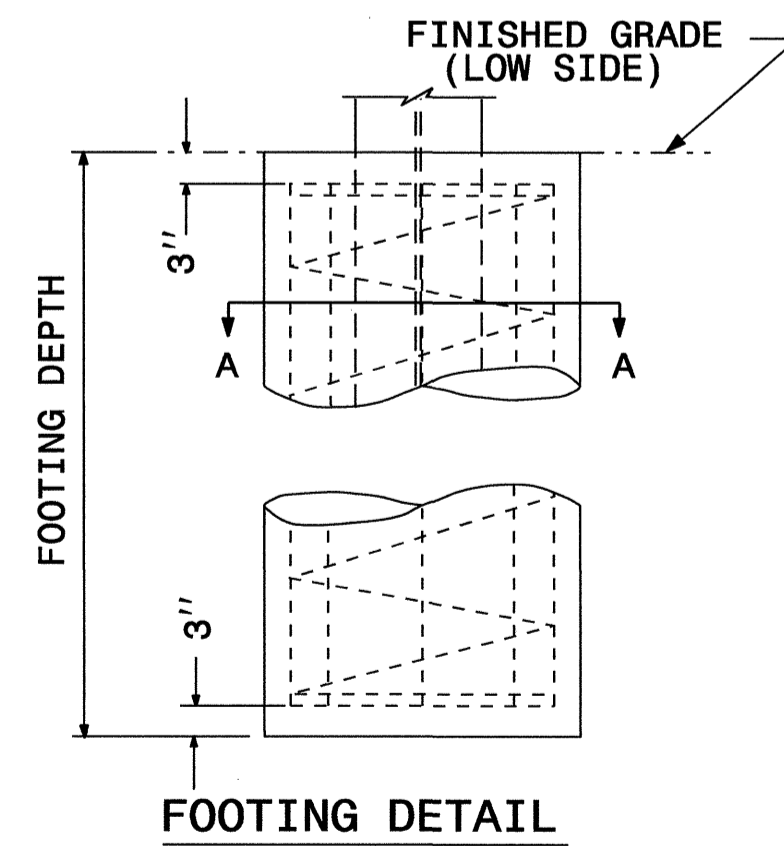
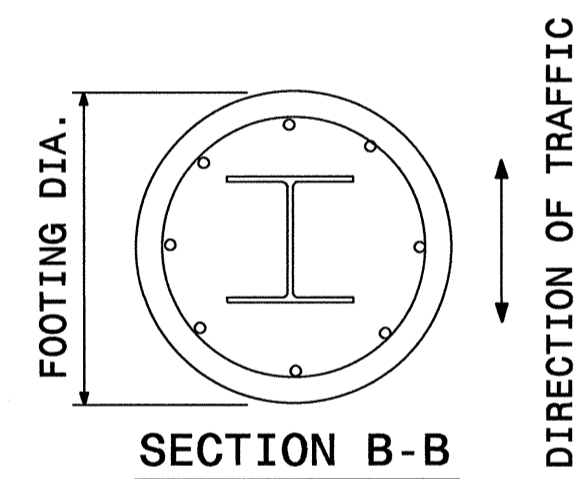
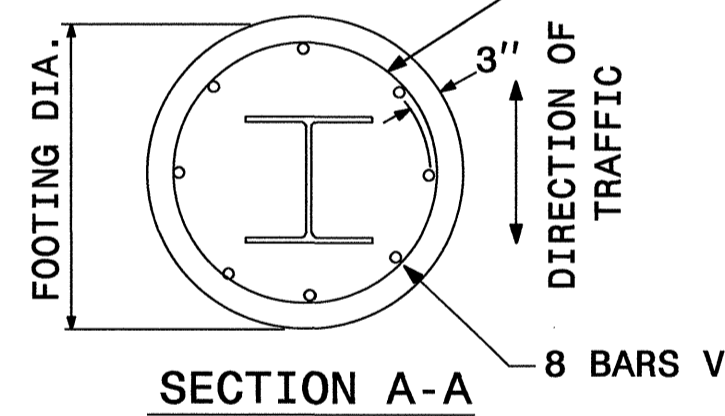
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BEAM SHAPE	SLIP BASE PLATE DATA								KEEPER PLATE DATA							HINGE CONNECTION DATA							BREAK AWAY SUPPORT WEIGHT CONSTANT LBS.			
	BOLT SIZE	A ₁	B ₁	C ₁	D ₁	E ₁	T ₁	R ₁	A ₂	B ₂	C ₂	D ₂	E ₂	R ₂	T ₂	BOLT SIZE	F	G	H	I	J	K		L	R ₃	T ₃
S3X5.7	1/2"DIA.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

2" FLAT TURNS
TOP AND BOTTOM
(SEE NOTE 10)



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

* FOUNDATION DIMENSIONS ARE SHOWN IN PLANS
SEE SHEET SIGN-7 FOR NOTES.

GROUND MOUNTED SIGN SUPPORT

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 AT TE247878
 S.Coleman

TIP NO. R-2612A	SHEET NO. SIGN-2D
APPROVED: _____	
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NOTES:

- DESIGN CONFORMS WITH THE SPECIFICATIONS FOR THE DESIGN AND CONSTRUCTION OF STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS - A.A.S.H.T.O.
- USE MATERIALS, FABRICATE AND ERECT SIGNS AND SUPPORTS THAT CONFORM TO THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.
- USE HIGH STRENGTH BOLTS, NUTS AND WASHERS THAT CONFORM TO A.S.T.M. A-325 AND THAT ARE GALVANIZED IN ACCORDANCE WITH A.S.T.M. A-153.
- USE BACKING PLATES, SLIP BASE PLATES, FRICTION PLATES, AND HINGE PLATES THAT CONFORM TO A.S.T.M. A-36 AND THAT ARE GALVANIZED IN ACCORDANCE WITH A.S.T.M. A-123 PRIOR TO GALVANIZING, GRIND SMOOTH ANY METAL PROJECTION BEYOND THE PLATE FACE. KEEPER PLATES SHALL BE MANUFACTURED FROM 28 GAUGE SHEET STEEL THAT CONFORMS TO A.S.T.M. A-36 AND IS GALVANIZED IN ACCORDANCE WITH A.S.T.M. A-123
- ASSEMBLE HINGE CONNECTIONS IN THE SHOP. SHOP TIGHTEN BOLTS BY USE OF EITHER A CALIBRATED POWER WRENCH OR A MANUAL TORQUE WRENCH. TIGHTEN EACH HINGE CONNECTION BOLT TO 1/3 PAST SNUG.
- BASE PLATES DETAILS ARE FOR INSTALLATIONS ON THE RIGHT SHOULDER AND IN GORE AREAS.
- ASSEMBLE UPPER SUPPORT TO STUB AS SHOWN IN DETAIL. SLIP BASE PLATES SHALL BE FILLET WELDED ONTO POSTS ALL AROUND THE STRUCTURAL SHAPE SO AS TO INSURE NO LOSS OF STRENGTH. ASSEMBLE IN EITHER SHOP OR FIELD. 28 GAUGE KEEPER PLATE IS PLACED BETWEEN SLIP BASE PLATES TO PREVENT BOLT SLIPPING. TIGHTEN BOLTS TO THE FOLLOWING PRESCRIBED TORQUE:

BOLT DIAMETER	TORQUE (LB. FT.)
1/2"	9
5/8"	22
3/8"	37
1"	48


COMPLETELY ASSEMBLE B/A POSTS PRIOR TO ERECTION. B/A POST TO BE SET IN ONE PIECE. AFTER SUPPORT HAS BEEN ERECTED AND THE CONCRETE FOOTINGS HAS CURED AT LEAST 48 HRS., CLEAN CONCRETE FROM BASE CONNECTION BOLTS THEN LOOSEN AND RETIGHTEN EACH BOLT IN A SYSTEMATIC ORDER TO THE PRESCRIBED TORQUE. DO NOT OVERTIGHTEN. BURR ALL BOLT THREADS OF BASE CONNECTIONS TO PREVENT LOOSENING.

- USE REINFORCED FOOTINGS WITH DIMENSIONS AS SHOWN IN PLANS. WHERE SOLID ROCK IS ENCOUNTERED, THE ENGINEER DIRECTS WHETHER TO PLACE THE FOOTING AT THE PRESCRIBED DEPTH OR EXTEND IT AT LEAST TWO FEET INTO THE ROCK. CONSTRUCT ALL FOOTINGS OF CLASS A CONCRETE.
- FORM TOP 6" OF FOOTINGS. ENGINEER APPROVES THE METHOD USED.
- THE FINAL FLAT TURN OF SPIRAL OR HOOPS NO. 3 OR LARGER PLACED 3" FROM TOP AND BOTTOM OF FOOTING MAY BE WELDED TO VERTICAL REINFORCING BARS. NO OTHER WELDING WILL BE PERMITTED.
- ELIMINATE HINGE CONNECTION FOR ALL SINGLE SUPPORT SIGNS.
- DETAIL IS FOR ONE DIRECTION BREAKAWAY. WHEN PLANS REQUIRE A TWO DIRECTION BREAKAWAY, TWO FRICTION PLATES SHALL BE USED IN LIEU OF ONE FRICTION PLATE AND ONE HINGE PLATE.
- SHAPE THE TOPS OF THE FOOTINGS TO CONFORM WITH FINISHED GROUND ELEVATIONS SUCH THAT WATER WILL NOT COLLECT AGAINST THE SUPPORTS.
- IF THE GROUNDWATER IS ENCOUNTERED AT AN 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.

GROUND MOUNTED SIGN SUPPORT

28-JUL-2010 11:38
 P:\Projects\261824\Traffic\Signing\CADD\Signing Layout Plans\Engseed.dgn
 Coleman AT 1E247878


401 QUANTITY REQ'D 1



30 X 30
R1-1

ONE "U" POST PER SIGN

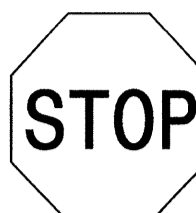
406 QUANTITY REQ'D 3



54 X 18
R6-1 (R)

TWO "U" POSTS PER SIGN
MOUNT BACK TO BACK WITH
SIGN 407 IN 2 INSTALLMENTS

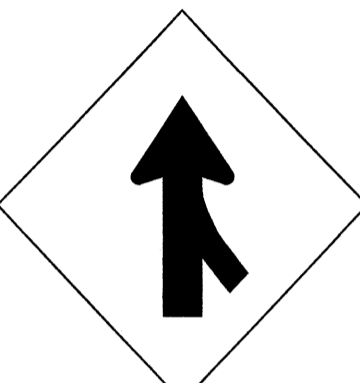
411 QUANTITY REQ'D 2



36 X 36
R1-1

ONE "U" POST PER SIGN


402 QUANTITY REQ'D 2



48 X 48
W4-1 (R)

TWO "U" POSTS PER SIGN

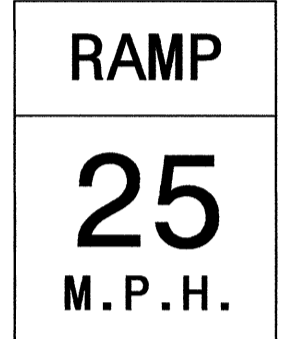
407 QUANTITY REQ'D 4



54 X 18
R6-1 (L)

TWO "U" POSTS PER SIGN

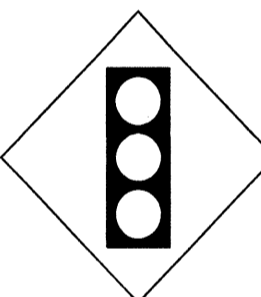
412 QUANTITY REQ'D 1



36 X 48
W13-3

TWO "U" POSTS PER SIGN

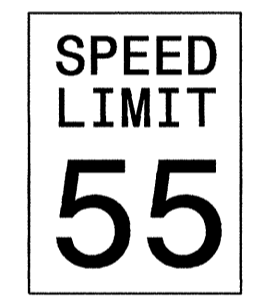
403 QUANTITY REQ'D 5



36 X 36
W3-3

ONE "U" POST PER SIGN

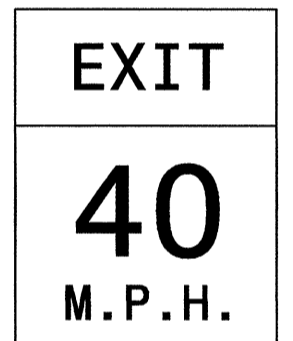
408 QUANTITY REQ'D 2



36 X 48
R2-1

TWO "U" POSTS PER SIGN

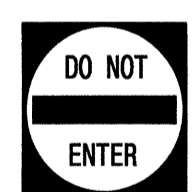
413 QUANTITY REQ'D 1



36 X 48
W13-2

TWO "U" POSTS PER SIGN

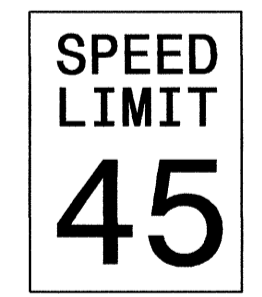
404 QUANTITY REQ'D 3



30 X 30
R5-1

ONE "U" POST PER SIGN


409 QUANTITY REQ'D 5



24 X 30
R2-1

TWO "U" POSTS PER SIGN


405 QUANTITY REQ'D 3



36 X 24
R5-1a

ONE "U" POST PER SIGN

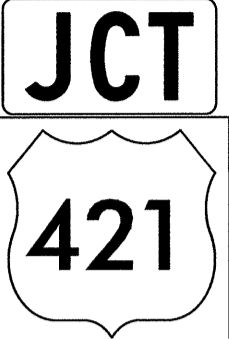
410 QUANTITY REQ'D 1



30 X 30
R3-7 (R)

ONE "U" POST PER SIGN


501 506



1 - 21" X 15"
1 - 30" X 24"

ONE "U" POST PER SIGN

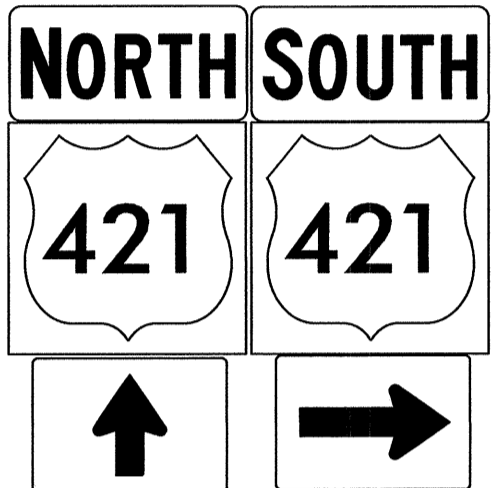
507



1 - 30" X 15"
1 - 45" X 36"

TWO "U" POSTS PER SIGN


502



2 - 24" X 12"
2 - 30" X 24"
2 - 21" X 15"

TWO "U" POSTS PER SIGN


508



1 - 30" X 15"
1 - 45" X 36"

TWO "U" POSTS PER SIGN


503



1 - 24" X 12"
1 - 30" X 24"
1 - 21" X 15"

ONE "U" POST PER SIGN

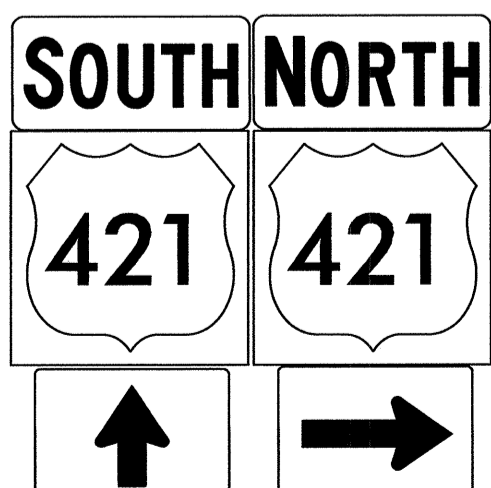
504



1 - 24" X 12"
1 - 30" X 24"
1 - 21" X 15"

ONE "U" POST PER SIGN

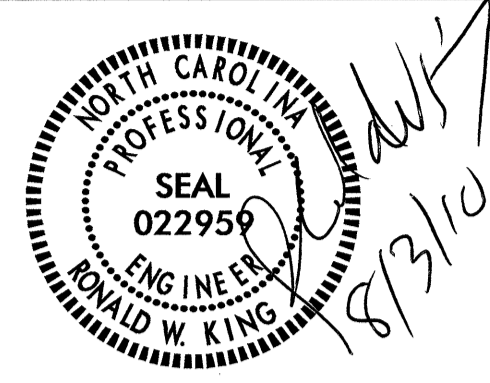
505



2 - 24" X 12"
2 - 30" X 24"
2 - 21" X 15"

TWO "U" POSTS PER SIGN

TIP NO. R-2612A	SHEET NO. SIGN-3
APPROVED: _____	
DATE: _____	
SEAL	



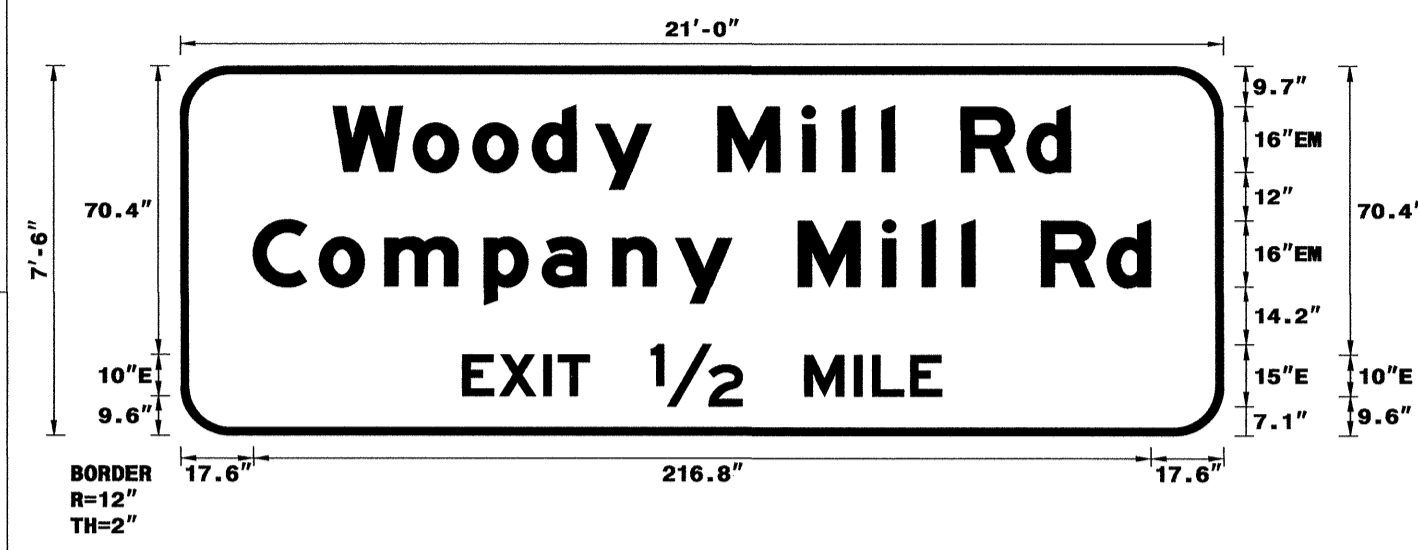
TYPE "E" AND "F" SIGNS

SIGN NUMBER: 103
 TYPE: A
 QUANTITY: 1
 SIGN WIDTH: 21'-0"
 HEIGHT: 7'-6"
 TOTAL AREA: 157.5 Sq.Ft.
 BORDER TYPE: FLUSH
 RECESS: 0"
 WIDTH: 2"
 RADII: 12"
 NO. Z BARS: 3
 LENGTH: 244.0

BACKG COLOR: Green
 COPY COLOR: White

SYMBOL	X	Y	WID	HT

DESIGN BY: SDC CHECKED BY: DATE: Jul 28, 2010
 PROJECT ID: R-2612A DIV: 7



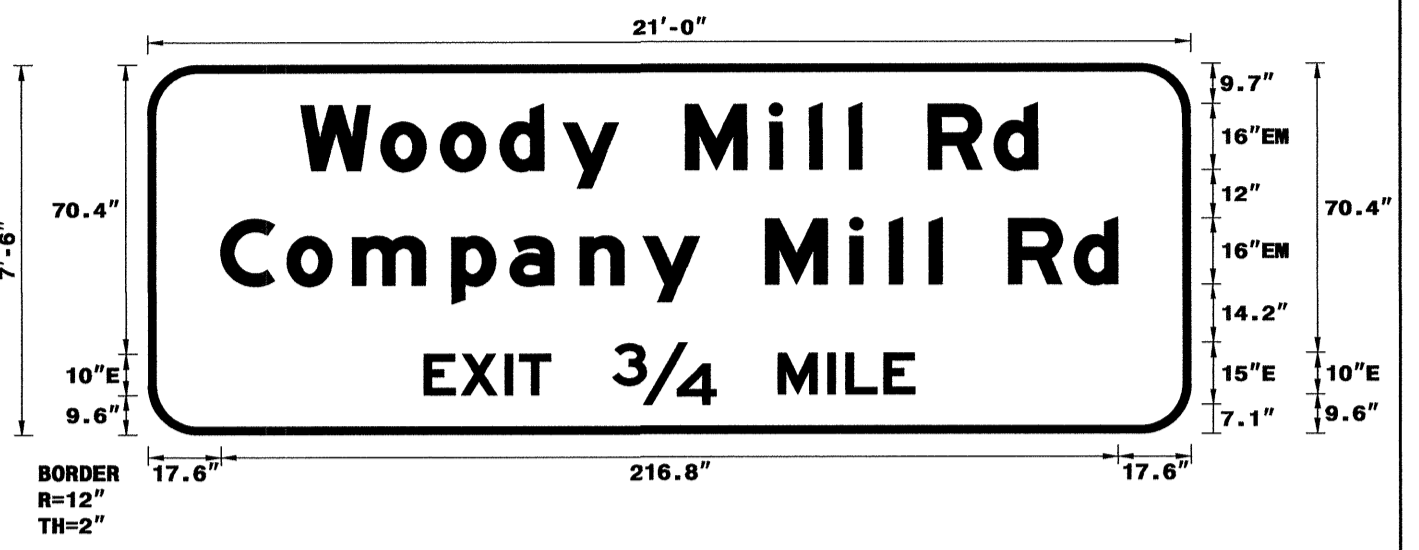
USE NOTES: 1,2
 1. Legend and border(except those that are colored black) shall be direct applied Grade B sheeting.
 2. Background shall be Grade C reflective sheeting.
 3. Shields; A, B, and C type arrows shall be on 0.032" (0.8mm) aluminum and demountable.

SIGN NUMBER: 101
 TYPE: A
 QUANTITY: 1
 SIGN WIDTH: 21'-0"
 HEIGHT: 7'-6"
 TOTAL AREA: 157.5 Sq.Ft.
 BORDER TYPE: FLUSH
 RECESS: 0"
 WIDTH: 2"
 RADII: 12"
 NO. Z BARS: 3
 LENGTH: 244.0

BACKG COLOR: Green
 COPY COLOR: White

SYMBOL	X	Y	WID	HT

DESIGN BY: SDC CHECKED BY: DATE: Jul 28, 2010
 PROJECT ID: R-2612A DIV: 7



USE NOTES: 1,2
 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.

APPROVED: _____
 DATE: _____
 SEAL

LETTER POSITIONS

Letter locations are panel edge to lower left corner

Series/Size	Text Length
EM 2000	178.1
EM 2000	216.8
E 2000	115.7

FILENAME: R-2612A Sign Designs NORTH CAROLINA D.O.T. SIGN DETAIL

LETTER POSITIONS

Letter locations are panel edge to lower left corner

Series/Size	Text Length
EM 2000	178.1
EM 2000	216.8
E 2000	118.7

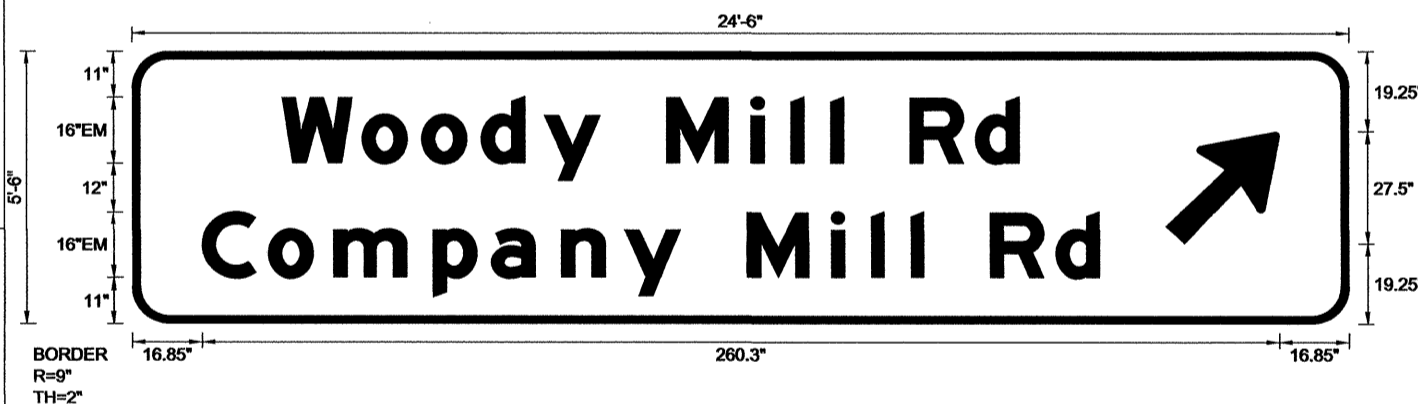
FILENAME: R-2612A Sign Designs NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 102, 104
 TYPE: A
 QUANTITY: 2
 SIGN WIDTH: 24'-6"
 HEIGHT: 5'-0"
 TOTAL AREA: 134.8 Sq.Ft.
 BORDER TYPE: FLUSH
 RECESS: 0"
 WIDTH: 2"
 RADII: 9"
 NO. Z BARS: 2
 LENGTH: 286.0

BACKG COLOR: Green
 COPY COLOR: White

SYMBOL	X	Y	WID	HT
ARMED	249.7	19.3	22.4	35.3

DESIGN BY: SDC CHECKED BY: DATE: Jul 06, 2010
 PROJECT ID: R-2612A DIV: 7



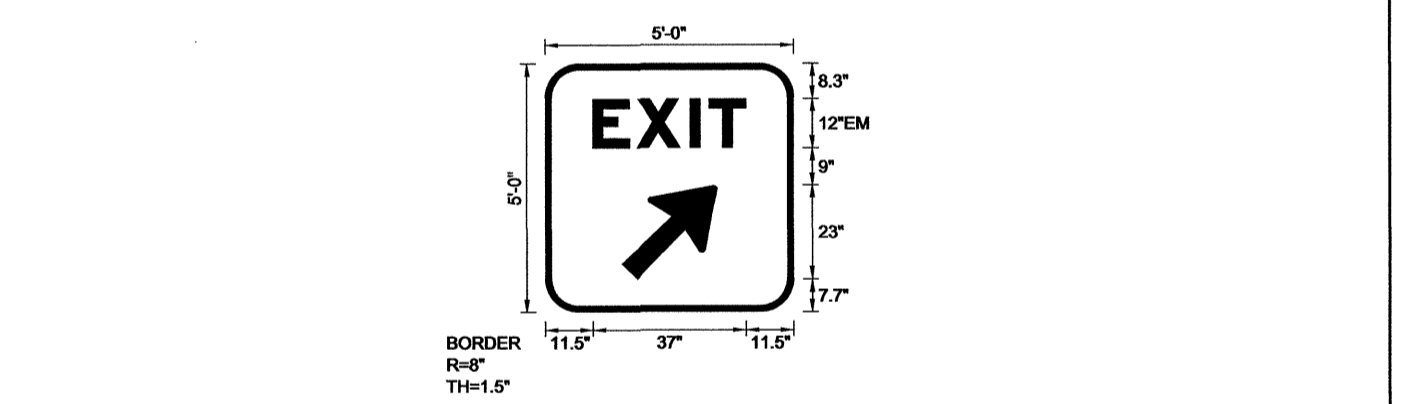
USE NOTES: 1,2
 1. Legend and border(except those that are colored black) shall be direct applied Grade C sheeting.
 2. Background shall be Grade C reflective sheeting.
 3. Shields; A, B, and C type arrows shall be on 0.032" (0.8mm) aluminum and demountable.

SIGN NUMBER: 201, 202
 TYPE: A
 QUANTITY: 2
 SIGN WIDTH: 5'-0"
 HEIGHT: 5'-0"
 TOTAL AREA: 25.0 Sq.Ft.
 BORDER TYPE: FLUSH
 RECESS: 0"
 WIDTH: 1.5"
 RADII: 8"
 NO. Z BARS: 2
 LENGTH: 52.0

BACKG COLOR: Green
 COPY COLOR: White

SYMBOL	X	Y	WID	HT
ARMED	18.5	7.7	18.8	29.5

DESIGN BY: SDC CHECKED BY: DATE: Jul 06, 2010
 PROJECT ID: R-2612A DIV: 7



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.

LETTER POSITIONS

Letter locations are panel edge to lower left corner

Series/Size	Text Length
EM 2000	178.1
EM 2000	216.8

FILENAME: R-2612A Sign Designs NORTH CAROLINA D.O.T. SIGN DETAIL

LETTER POSITIONS

Letter locations are panel edge to lower left corner

Series/Size	Text Length
EM 2000	37

FILENAME: R-2612A Sign Designs NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN DESIGNS

29-JUL-2010 11:49 AM C:\Users\jcolman\AppData\Local\Temp\Projects\1262612A\Traffic\Signing\CADD\Sign Designs\R-2612A Sign Designs-2.dgn

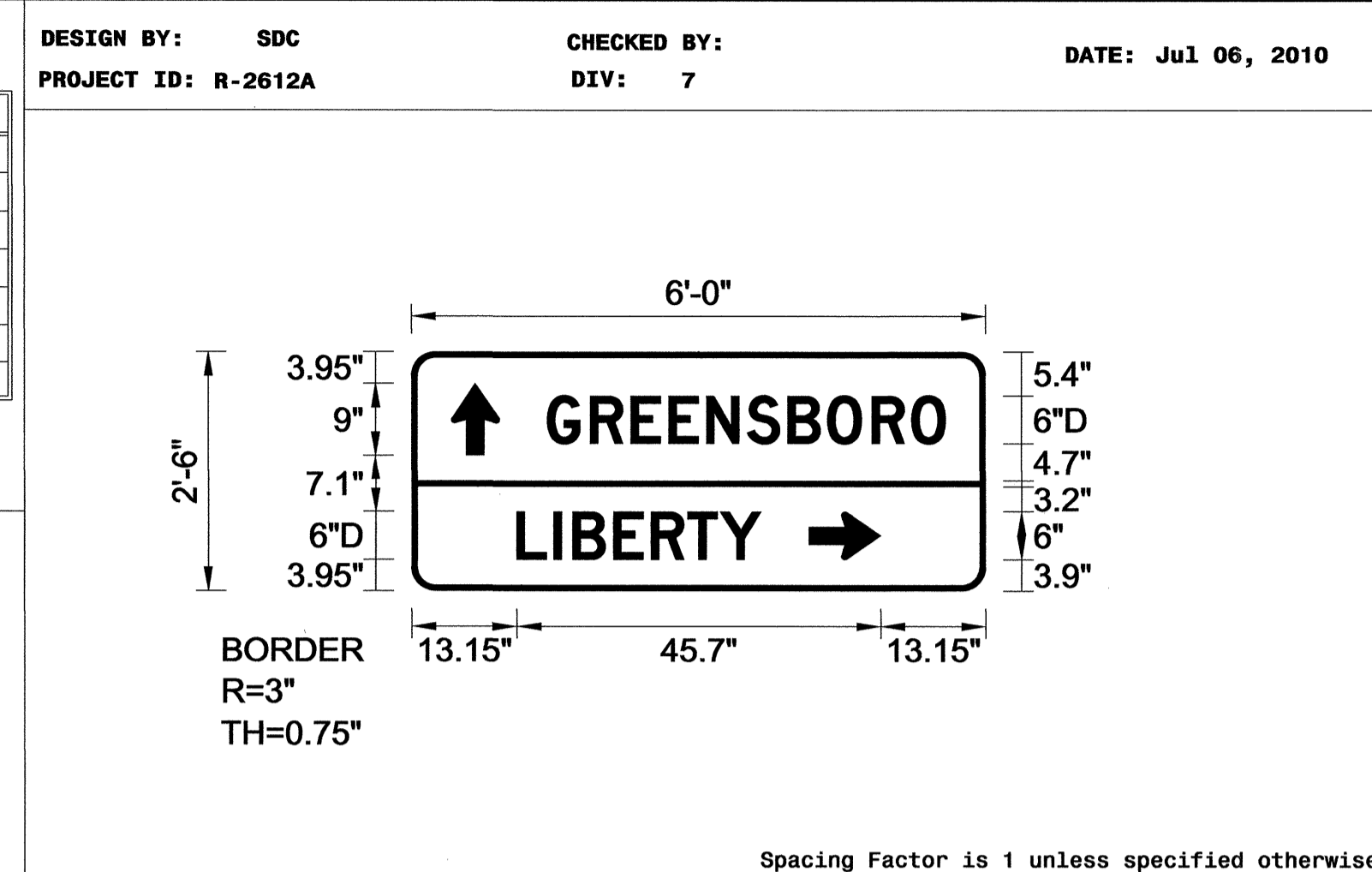
TIP NO. R-2612A	SHEET NO. SIGN-4A
APPROVED: _____	
DATE: _____	
SEAL	

SIGN NUMBER: 301
TYPE: D
QUANTITY: 1
SIGN WIDTH: 6'-0"
HEIGHT: 2'-6"
TOTAL AREA: 15.0 Sq.Ft.
BORDER TYPE: FLUSH
RECESS: 0"
WIDTH: 0.75"
RADIUS: 3"
NO. Z BARS:
LENGTH:

BACKG COLOR: Green/Green
COPY COLOR: White

SYMBOL	X	Y	WID	HT
ARUP	5	17.1	6	9
ARUP	49.8	3.9	6	9

MAT'L: 0.125" (3.2 mm) ALUMINUM



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.

LETTER POSITIONS

Letter locations are panel edge to lower left corner

Letter locations are panel edge to lower left corner											Series/Size
											Text Length
G	R	E	E	N	S	B	O	R	O		D 2000
17	22.4	27.5	32.3	37	42.1	47.2	52.2	57.8	62.7		50
L	I	B	E	R	T	Y					D 2000
13.2	17.8	20.2	25.3	30	34.6	38.7					30.7

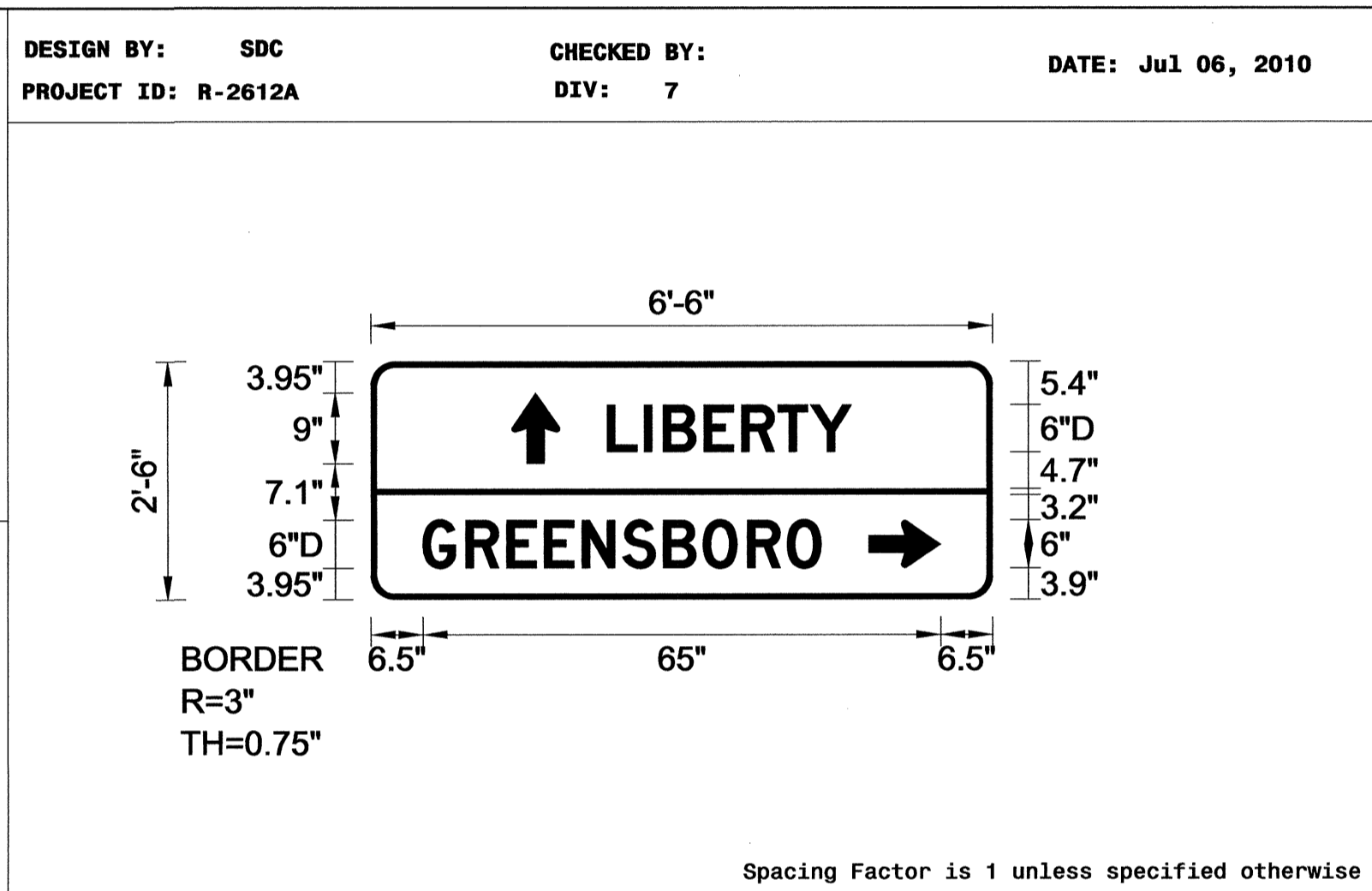
FILENAME: R-2612A Sign Designs
NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 302
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/Green
COPY COLOR: White

SYMBOL	X	Y	WID	HT
ARUP	17.7	17.1	6	9
ARUP	62.5	3.9	6	9

MAT'L: 0.125" (3.2 mm) ALUMINUM



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.

LETTER POSITIONS

Letter locations are panel edge to lower left corner

Letter locations are panel edge to lower left corner											Series/Size
											Text Length
L	I	B	E	R	T	Y					D 2000
29.7	34.3	36.7	41.8	46.5	51.1	55.2					30.7
G	R	E	E	N	S	B	O	R	O		D 2000
6.5	11.9	17	21.7	26.5	31.6	36.7	41.7	47.2	52.2		50

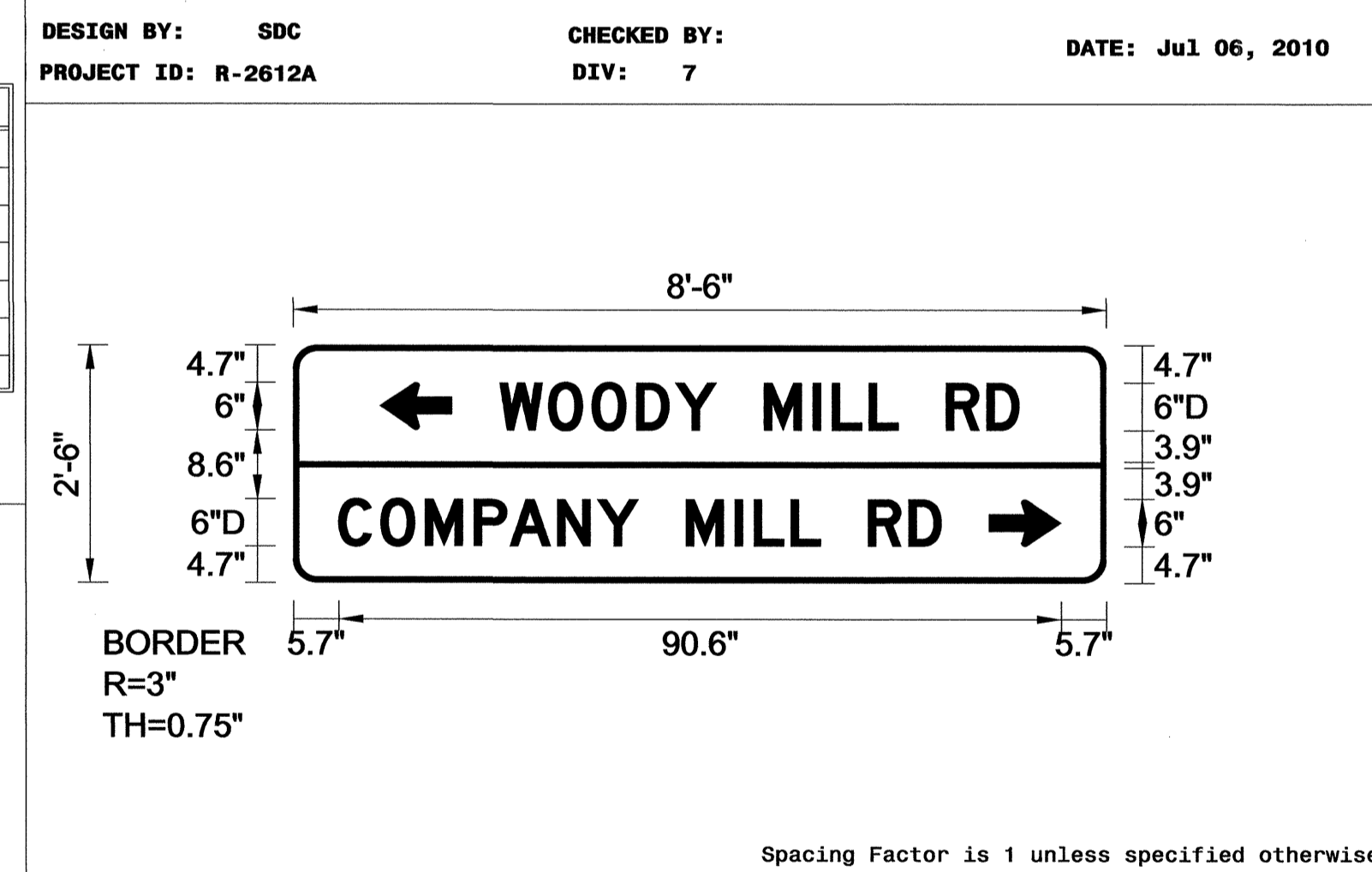
FILENAME: R-2612A Sign Designs
NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 303, 304
TYPE: D
QUANTITY: 2
SIGN WIDTH: 8'-6"
HEIGHT: 2'-6"
TOTAL AREA: 21.3 Sq.Ft.
BORDER TYPE: FLUSH
RECESS: 0"
WIDTH: 0.75"
RADIUS: 3"
NO. Z BARS:
LENGTH:

BACKG COLOR: Green/Green
COPY COLOR: White

SYMBOL	X	Y	WID	HT
ARUP	10.9	19.3	6	9
ARUP	87.3	4.7	6	9

MAT'L: 0.125" (3.2 mm) ALUMINUM



LETTER POSITIONS

Letter locations are panel edge to lower left corner

Letter locations are panel edge to lower left corner														Series/Size	
														Text Length	
W	O	O	D	Y		M	I	L	L	R	D			D 2000	
25.9	32	37.5	43.1	47.9	53.1	59.1	65.2	67.6	72.2	75.9	81.9	87		65.2	
C	O	M	P	A	N	Y		M	I	L	L	R	D	D 2000	
5.7	11	16.6	22.7	27.1	33.1	38.1	43.3	49.3	55.4	57.8	62.4	66.1	72.1	77.2	75.6

FILENAME: R-2612A Sign Designs
NORTH CAROLINA D.O.T. SIGN DETAIL

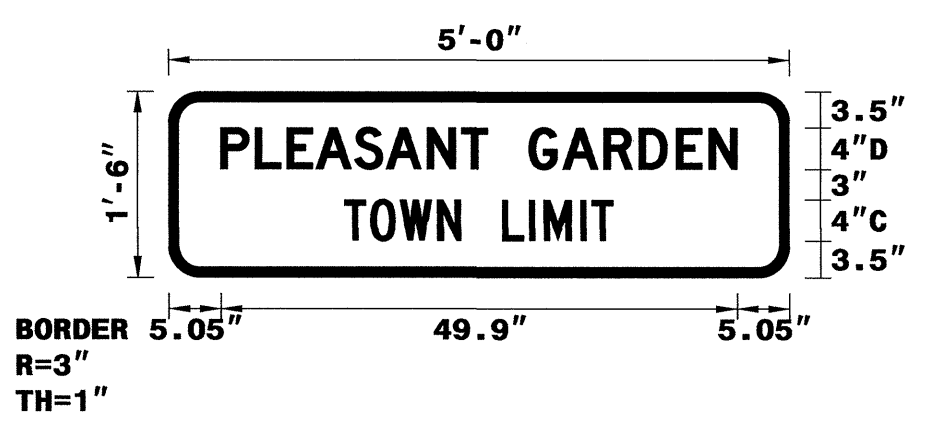
SIGN DESIGNS

29-JUL-2010 11:50
P:\Projects\R-2612A\Traffic\Signing\CADD\Sign Designs\R-2612A Sign Designs-2.dgn
SColeman AT TE247878

SIGN NUMBER: 305
 TYPE: D
 QUANTITY: 1
 SIGN WIDTH: 5'-0"
 HEIGHT: 1'-6"
 TOTAL AREA: 7.5 Sq.Ft.
 BORDER TYPE: FLUSH
 RECESS: 0"
 WIDTH: 1"
 RADII: 3"
 NO. Z BARS: _____
 LENGTH: _____

SYMBOL	X	Y	WID	HT

DESIGN BY: SDC CHECKED BY: _____ DATE: Jul 27, 2010
 PROJECT ID: R-2612A DIV: 7



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.

LETTER POSITIONS

Letter locations are panel edge to lower left corner

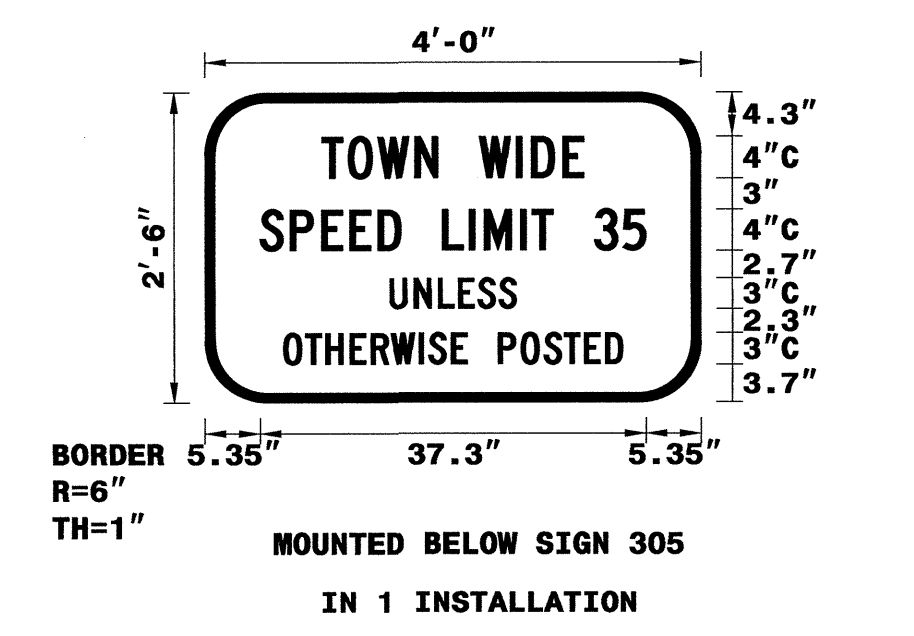
P	L	E	A	S	A	N	T	G	A	R	D	E	N	Series/Size
5.1	8.4	11.5	14.3	18	21	25	28.3	30.8	34.8	38.1	42.1	45.5	49.1	D 2000
T	O	W	N	L	I	M	I	T						C 2000
17	19.6	22.4	26	28.2	32.2	34.8	36.3	39.8	40.9					25.9

FILENAME: R-2612A Sign Designs NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 306
 TYPE: D
 QUANTITY: 1
 SIGN WIDTH: 4'-0"
 HEIGHT: 2'-6"
 TOTAL AREA: 10.0 Sq.Ft.
 BORDER TYPE: FLUSH
 RECESS: 0"
 WIDTH: 1"
 RADII: 6"
 NO. Z BARS: _____
 LENGTH: _____

SYMBOL	X	Y	WID	HT

DESIGN BY: SDC CHECKED BY: _____ DATE: Jul 27, 2010
 PROJECT ID: R-2612A DIV: 7



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.

LETTER POSITIONS

Letter locations are panel edge to lower left corner

T	O	W	N	W	I	D	E							Series/Size	
11.3	13.9	16.7	20.3	22.5	26.5	30.1	31.6	34.6						C 2000	
S	P	E	E	D	L	I	M	I	T	3	5			C 2000	
5.3	8.3	11.3	14	16.7	19	23	25.6	27	30.5	31.7	33.7	37.7	40.4	37.3	
U	N	L	E	S	S									C 2000	
17.9	20.2	22.6	24.5	26.4	28.4								12.2		
O	T	H	E	R	W	I	S	E	P	O	S	T	E	D	C 2000
7.6	9.7	11.7	14	16.1	18	20.7	21.6	23.8	25.4	28.4	30.6	32.8	34.7	36.7	38.7

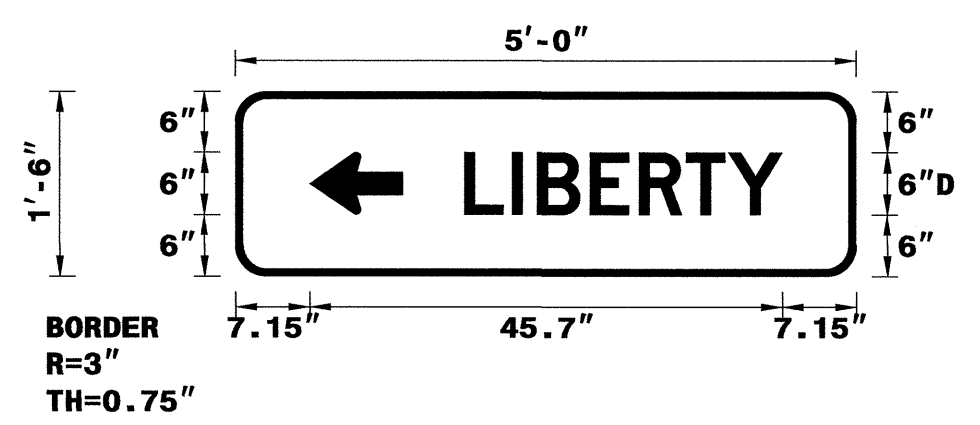
FILENAME: R-2612A Sign Designs NORTH CAROLINA D.O.T. SIGN DETAIL

APPROVED: _____
 DATE: _____
 SEAL

SIGN NUMBER: 307
 TYPE: D
 QUANTITY: 1
 SIGN WIDTH: 5'-0"
 HEIGHT: 1'-6"
 TOTAL AREA: 7.5 Sq.Ft.
 BORDER TYPE: FLUSH
 RECESS: 0"
 WIDTH: 0.75"
 RADII: 3"
 NO. Z BARS: _____
 LENGTH: _____

SYMBOL	X	Y	WID	HT
ARUP	7.2	6	6	9

DESIGN BY: SDC CHECKED BY: _____ DATE: Jul 27, 2010
 PROJECT ID: R-2612A DIV: 7



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.

LETTER POSITIONS

Letter locations are panel edge to lower left corner

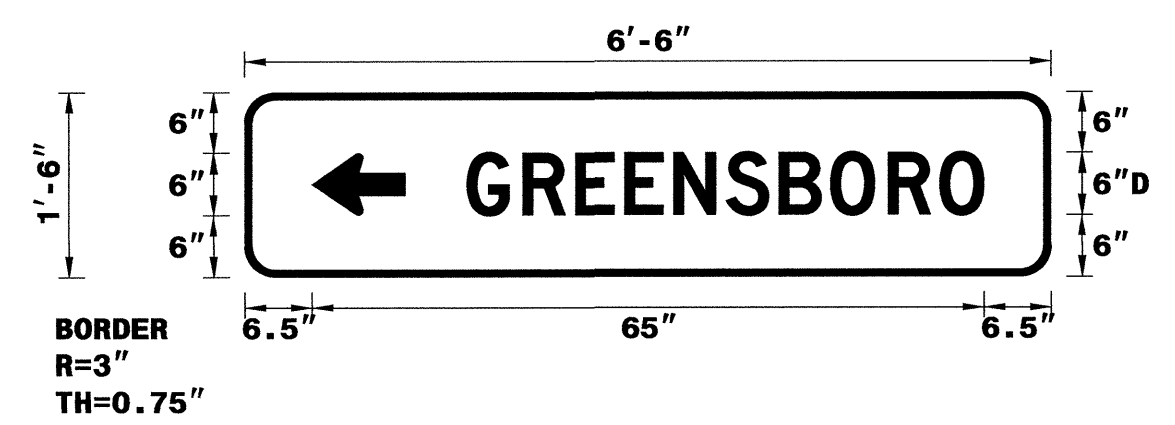
L	I	B	E	R	T	Y								Series/Size
22.2	26.8	29.2	34.3	39	43.6	47.7							D 2000	

FILENAME: R-2612A Sign Designs NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 308
 TYPE: D
 QUANTITY: 1
 SIGN WIDTH: 6'-6"
 HEIGHT: 1'-6"
 TOTAL AREA: 9.8 Sq.Ft.
 BORDER TYPE: FLUSH
 RECESS: 0"
 WIDTH: 0.75"
 RADII: 3"
 NO. Z BARS: _____
 LENGTH: _____

SYMBOL	X	Y	WID	HT
ARUP	6.5	6	6	9

DESIGN BY: SDC CHECKED BY: _____ DATE: Jul 27, 2010
 PROJECT ID: R-2612A DIV: 7



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.

LETTER POSITIONS

Letter locations are panel edge to lower left corner

G	R	E	E	N	S	B	O	R	O						Series/Size
21.5	26.9	32	36.8	41.5	46.6	51.7	56.7	62.3	67.2					D 2000	

FILENAME: R-2612A Sign Designs NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN DESIGNS

28-Jul-2010 11:54
 P:\Project\2612A\Sign Designs\2612A Sign Designs-2.dgn
 Scobleman AT 1E247878

TIP NO. R-2612A	SHEET NO. SIGN-4C
APPROVED: _____	
DATE: _____	
SEAL	

SIGN NUMBER: 309, 310, 311	BACKG COLOR: Brown	DESIGN BY: SDC	CHECKED BY:	DATE: Jul 28, 2010
TYPE: D	COPY COLOR: White	PROJECT ID: R-2612A	DIV: 7	
QUANTITY: 3				
SIGN WIDTH: 5'-6"				
HEIGHT: 2'-0"				
TOTAL AREA: 11.0 Sq.Ft.				
BORDER TYPE: FLUSH				
RECESS: 0"				
WIDTH: 0.75"				
RADII: 3"				
NO. Z BARS:	MAT'L: 0.125" (3.2 mm) ALUMINUM			
LENGTH:				

USE NOTES: 1,2

- Legend and border(except those that are colored black) shall be direct applied Grade C sheeting.
- Background shall be Grade C reflective sheeting.

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter locations are panel edge to lower left corner

Letter	H	A	G	A	N	-	S	T	O	N	E	Series/Size
	6.4	11.4	17.3	22.1	28.1	33.1	35.7	40.3	44.8	50.3	55.9	D 2000
												53.2
												D 2000
	15.6	20.1	26.1	31.2								19.7

FILENAME: R-2612A Sign Designs NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 312	BACKG COLOR: Brown	DESIGN BY: SDC	CHECKED BY:	DATE: Jul 28, 2010
TYPE: D	COPY COLOR: White	PROJECT ID: R-2612A	DIV: 7	
QUANTITY: 1				
SIGN WIDTH: 5'-6"				
HEIGHT: 2'-0"				
TOTAL AREA: 11.0 Sq.Ft.				
BORDER TYPE: FLUSH				
RECESS: 0"				
WIDTH: 0.75"				
RADII: 3"				
NO. Z BARS:	MAT'L: 0.125" (3.2 mm) ALUMINUM			
LENGTH:				

USE NOTES: 1,2

- Legend and border(except those that are colored black) shall be direct applied Grade C sheeting.
- Background shall be Grade C reflective sheeting.

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter locations are panel edge to lower left corner

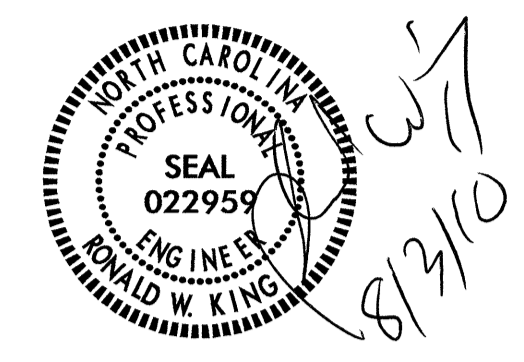
Letter	H	A	G	A	N	-	S	T	O	N	E	Series/Size
	6.4	11.4	17.3	22.1	28.1	33.1	35.7	40.3	44.8	50.3	55.9	D 2000
												53.2
												D 2000
	30.6	35.1	41.1	46.2								19.7

FILENAME: R-2612A Sign Designs NORTH CAROLINA D.O.T. SIGN DETAIL

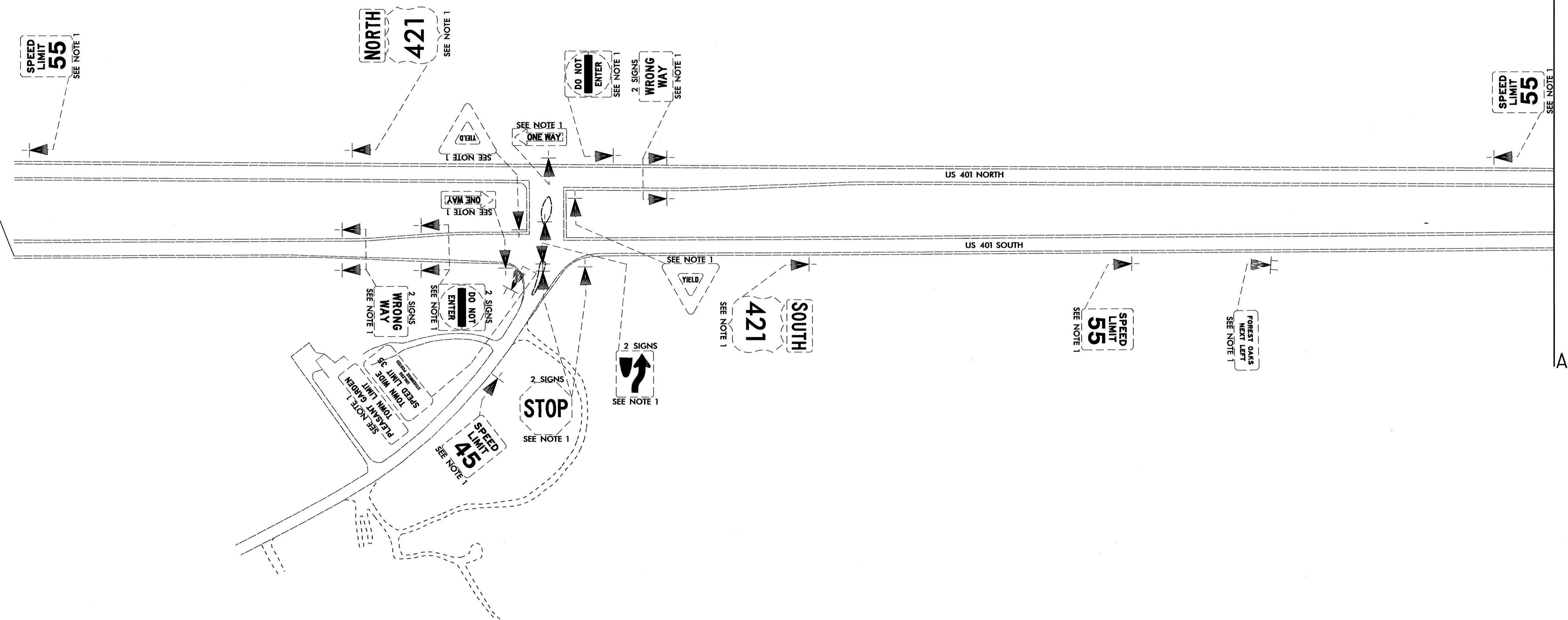
28-JUL-2010 11:50 AM \\pp-coj\projects\2612A\Traffic\Signing\CADD\Sign Designs\R-2612A Sign Designs.dgn S.Coleman AT TE27878

SIGN DESIGNS

TIP NO. R-2612A	SHEET NO. SIGN-5
APPROVED: _____	
DATE: _____	
SEAL	



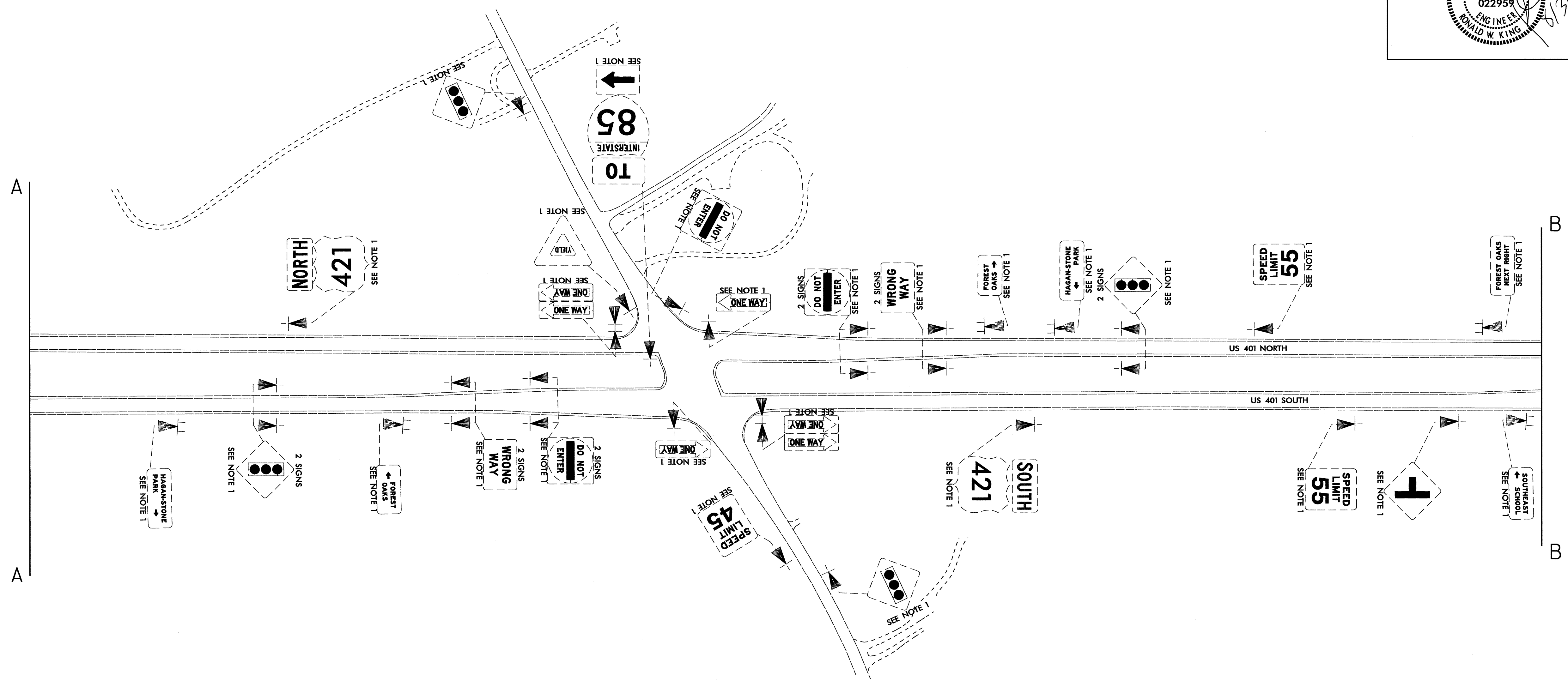
BEGIN CONSTRUCTION -L- STA. 13+19.89



EXISTING SIGNS

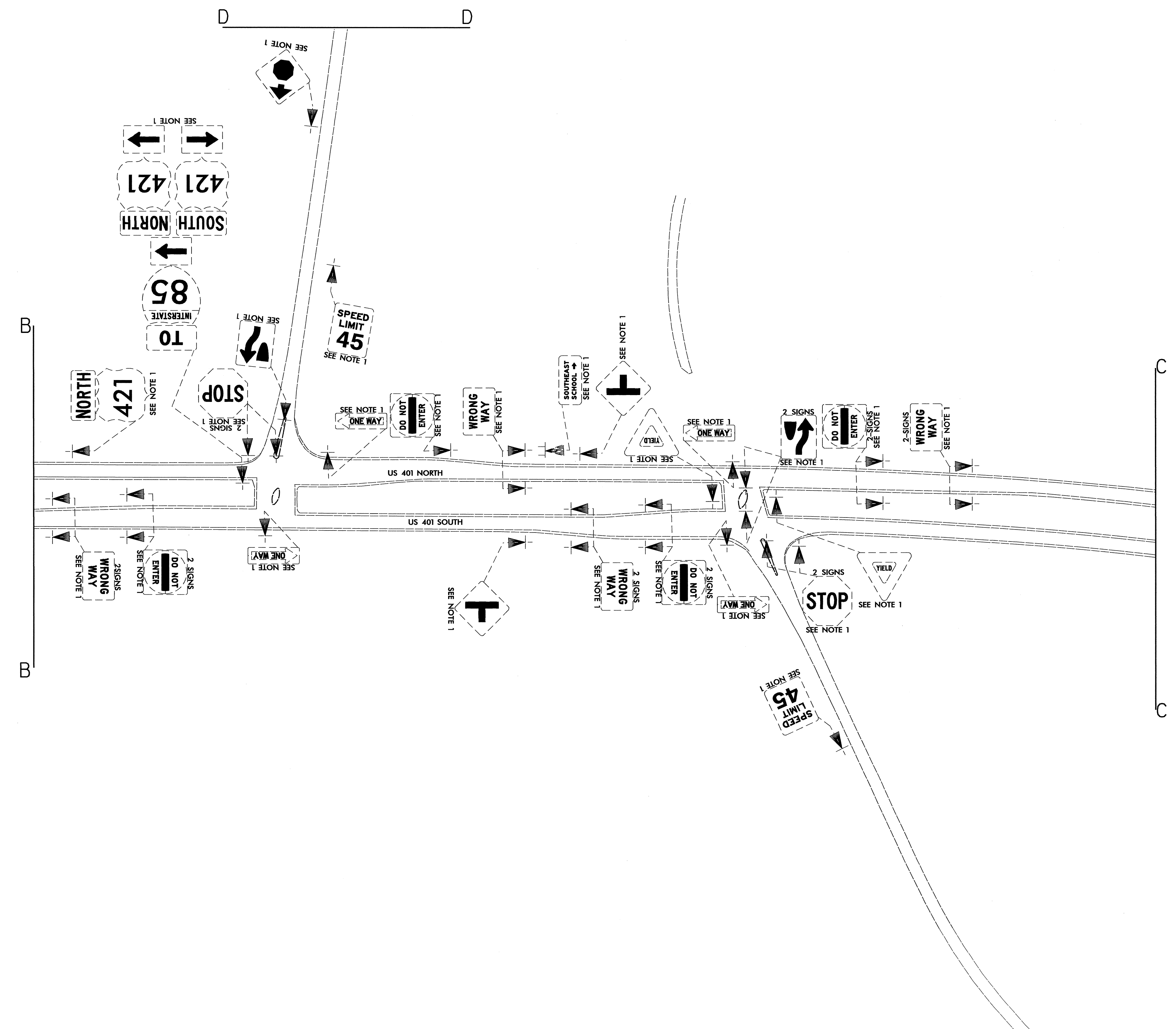
28-JUL-2010 11:40
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 Soleman AT E277878

TIP NO. R-2612A	SHEET NO. SIGN-6
APPROVED: _____	
DATE: _____	
SEAL	



EXISTING SIGNS

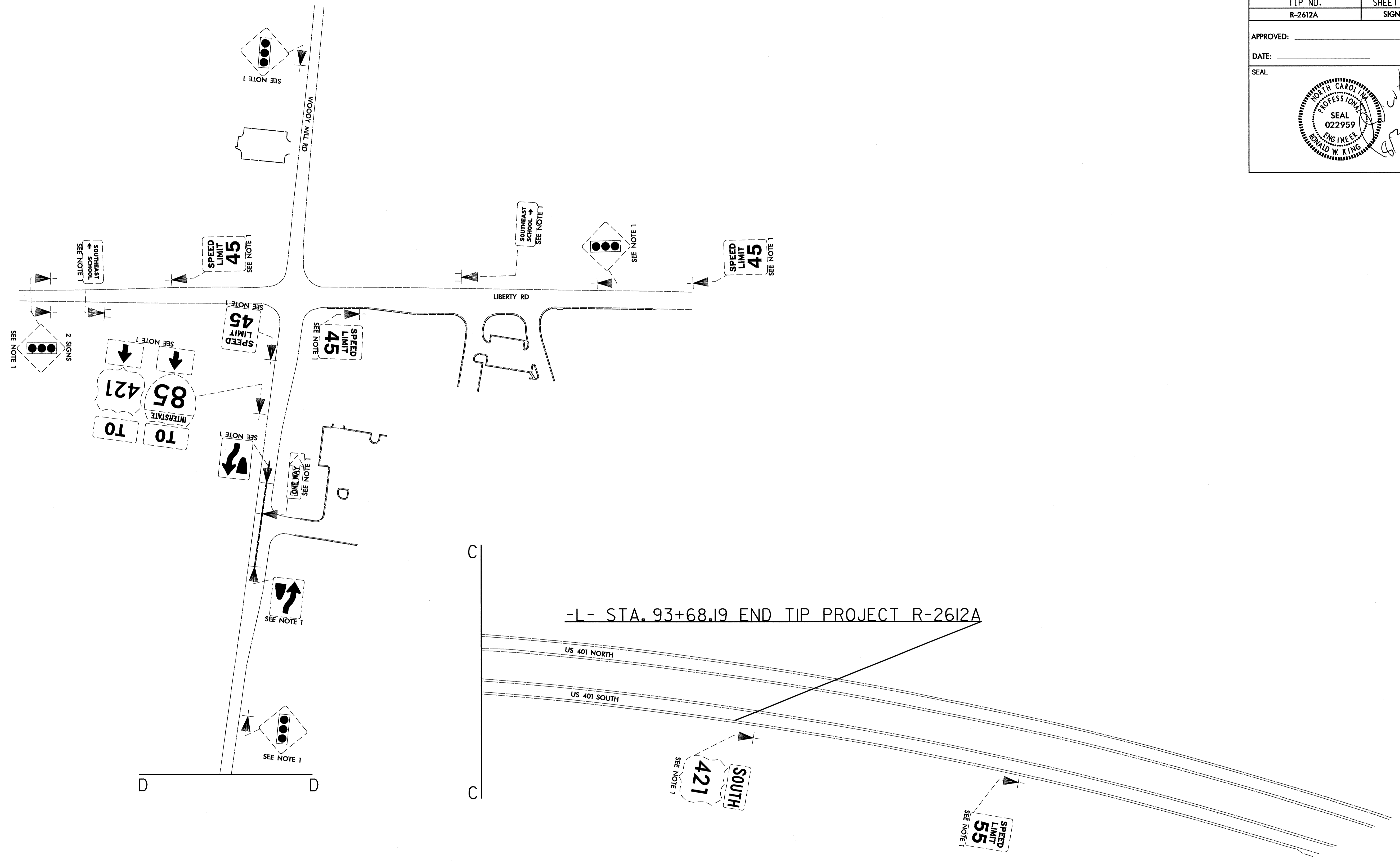
TIP NO. R-2612A	SHEET NO. SIGN-7
APPROVED: _____	
DATE: _____	
SEAL	



EXISTING SIGNS

28-JUL-2010 11:45
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 SColeman AT 1E247878

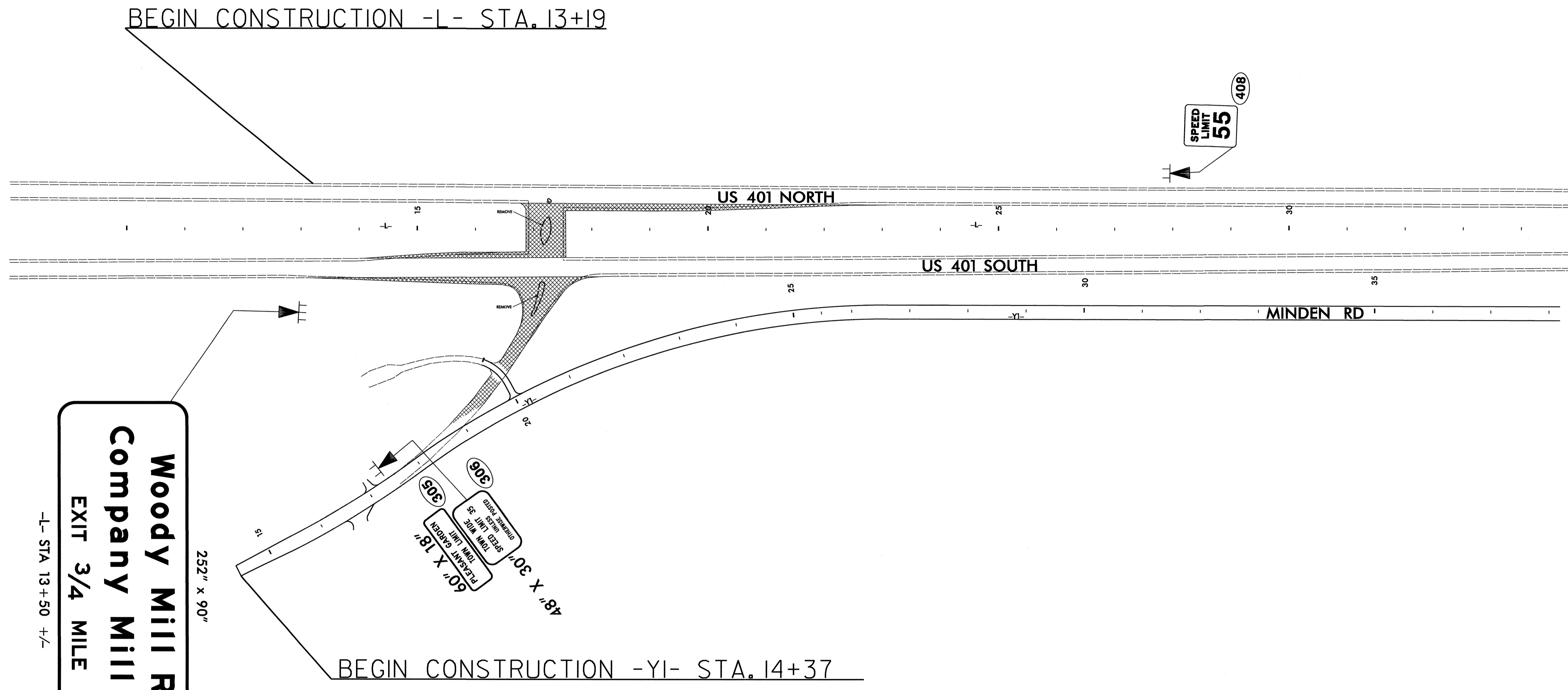
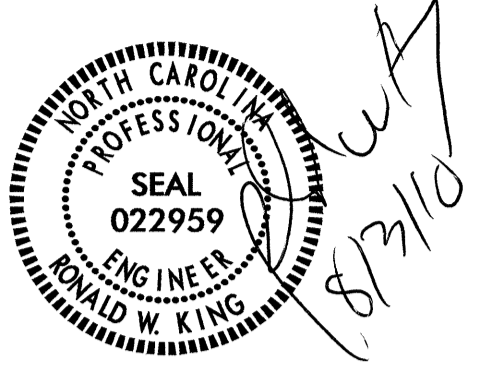
TIP NO.	SHEET NO.
R-2612A	SIGN-8
APPROVED: _____	
DATE: _____	
SEAL	



EXISTING SIGNS

28-JUL-2010 11:46
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 Soleman AT TE247878

TIP NO. R-2612A	SHEET NO. SIGN-9
APPROVED: _____	
DATE: _____	
SEAL	



MATCHLINE STA 32+80 -L- SEE SIGN 10

Woody Mill Rd
Company Mill Rd
EXIT 3/4 MILE

-L- STA 13+50 +/-

101

252" x 90"

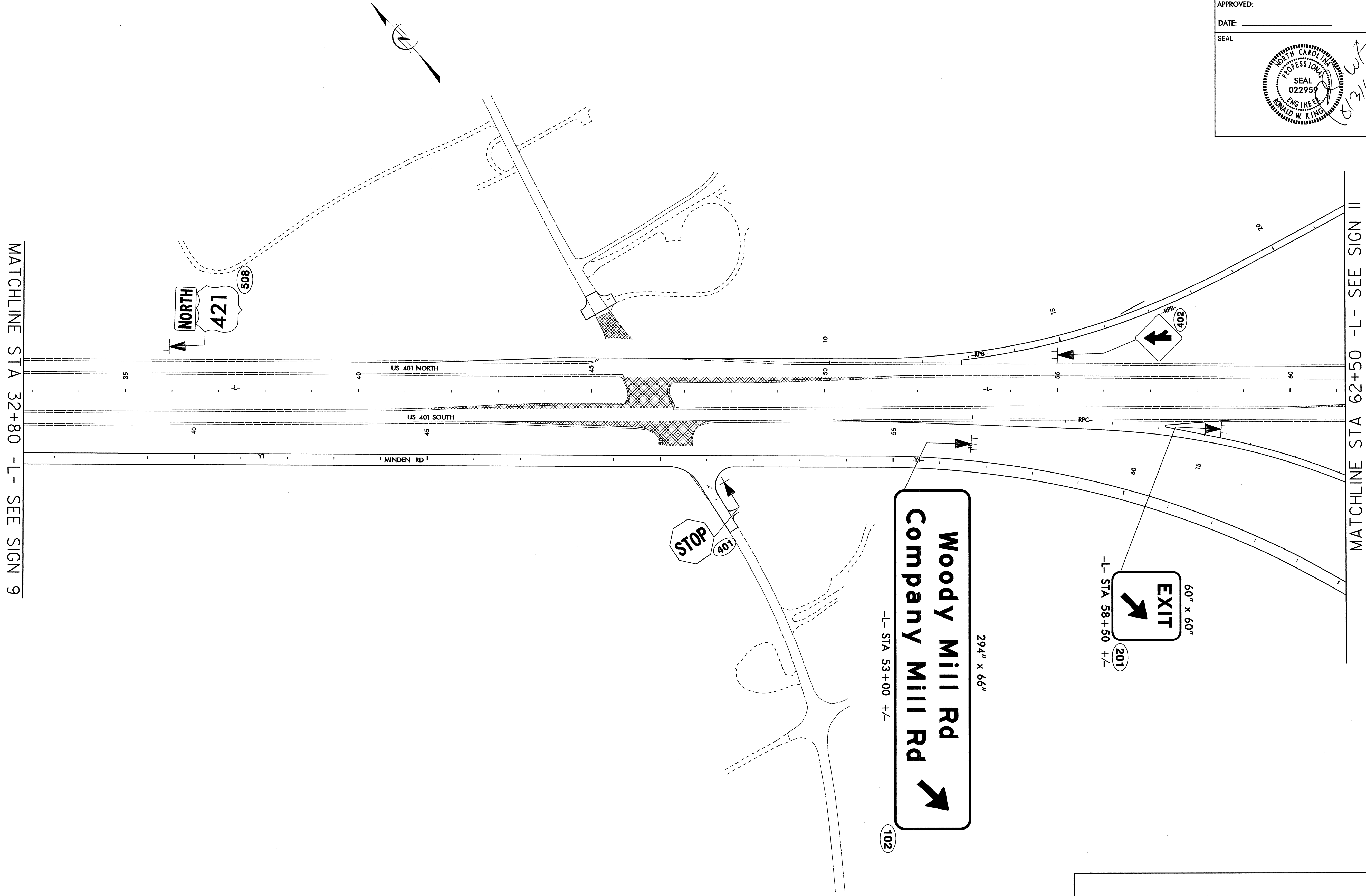
BEGIN CONSTRUCTION -YI- STA. 14+37

BEGIN CONSTRUCTION -L- STA. 13+19

SIGN DETAIL SHEET

28-JUL-2010 11:47
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 SColeman AT TE27878

TIP NO. R-2612A	SHEET NO. SIGN-10
APPROVED: _____	
DATE: _____	
SEAL	



MATCHLINE STA 32+80 -L- SEE SIGN 9

MATCHLINE STA 62+50 -L- SEE SIGN 11

SIGN DETAIL SHEET

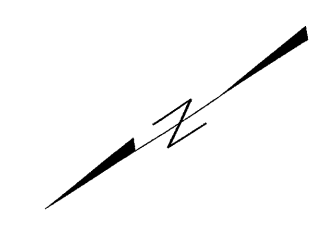
28 JUL 2010 11:48
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 SColeman AT TE277878

TIP NO. R-2612A	SHEET NO. SIGN-11
APPROVED: _____	
DATE: _____	
SEAL	

MATCHLINE STA 82+24 -L- SEE SIGN 12

MATCHLINE STA 18+50 -Y- SEE SIGN 12

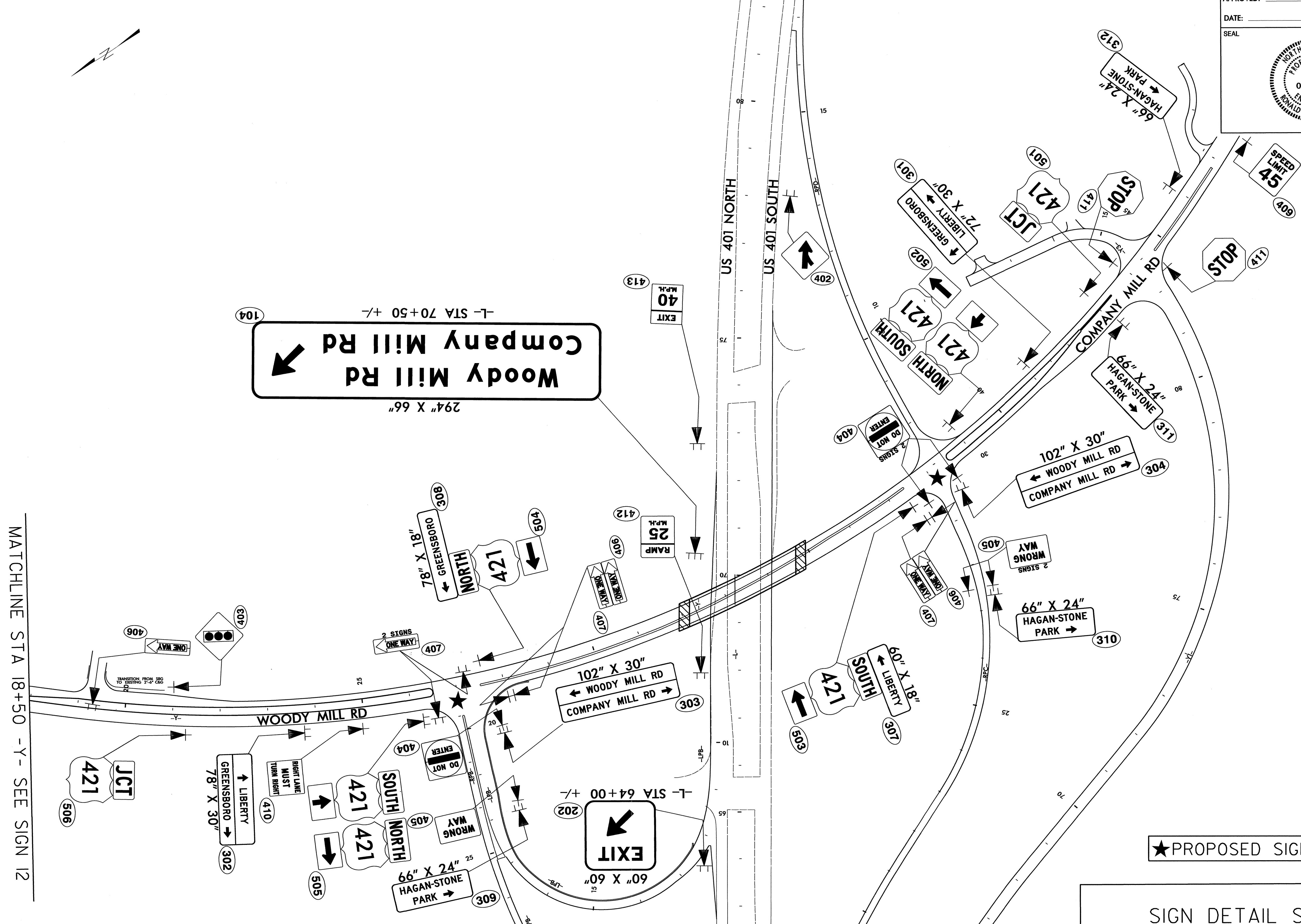
MATCHLINE STA 62+50 -L- SEE SIGN 10



Woody Mill Rd
 ←
 294" X 66"
 -L- STA 70+50 +/-
 104

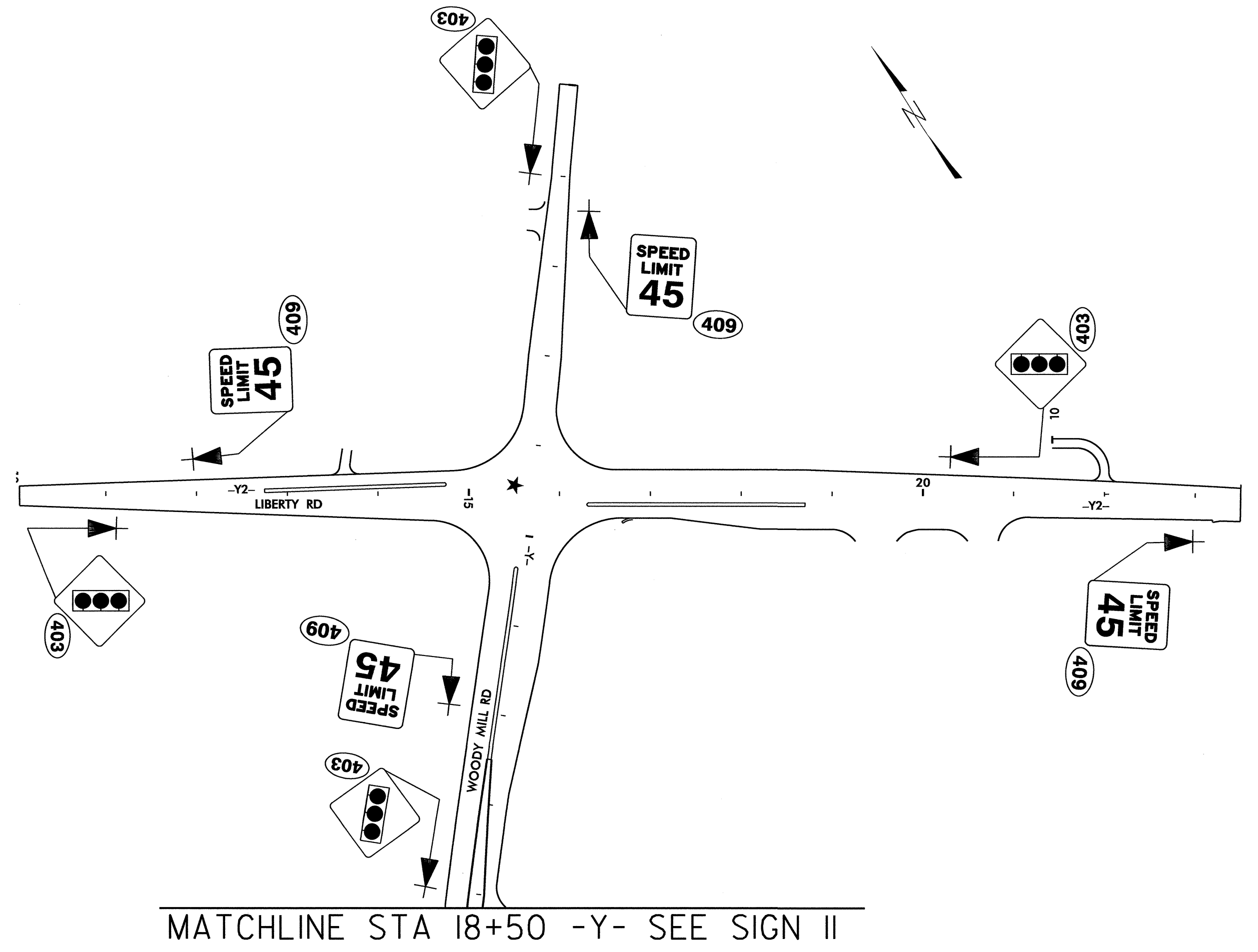
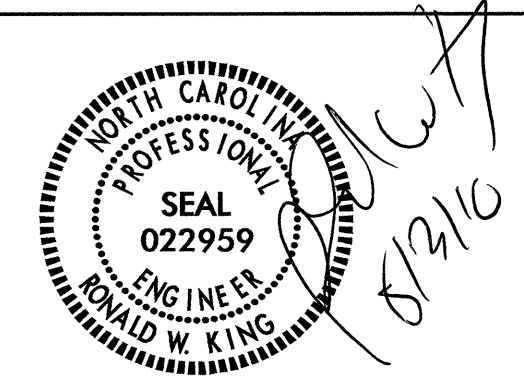
★ PROPOSED SIGNAL

SIGN DETAIL SHEET



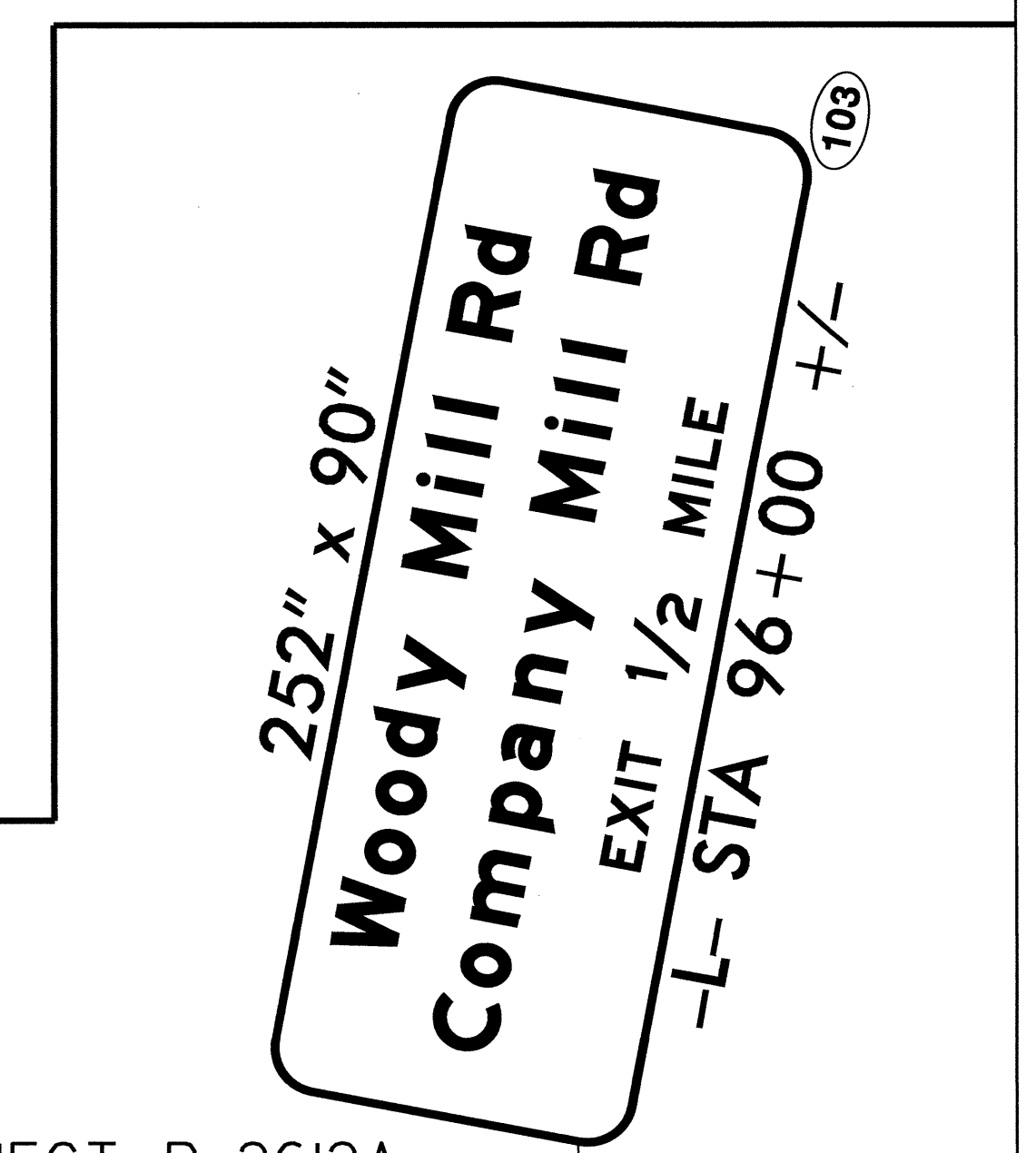
29-jul-2010 11:43
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 Coleman - AI 1247878

TIP NO. R-2612A	SHEET NO. SIGN-12
APPROVED: _____	
DATE: _____	
SEAL	

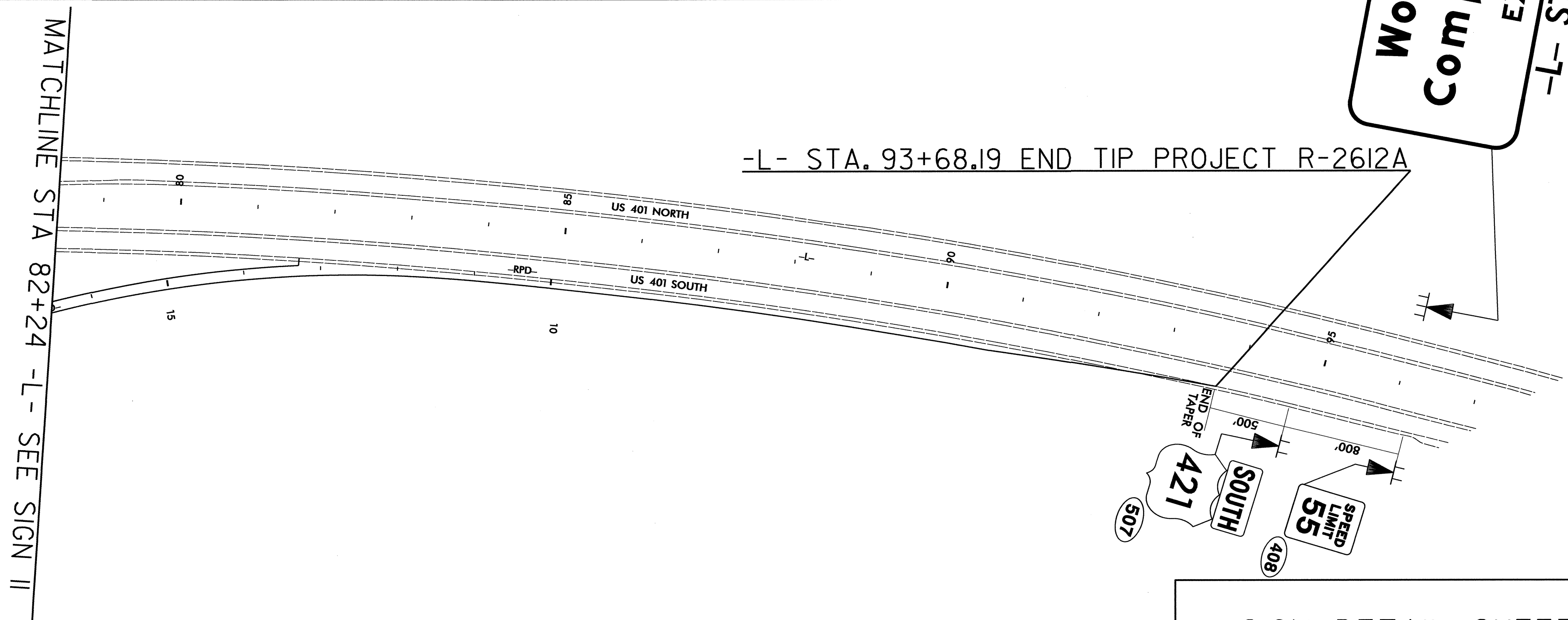


★ PROPOSED SIGNAL

MATCHLINE STA 18+50 -Y- SEE SIGN II



-L- STA. 93+68.19 END TIP PROJECT R-2612A



MATCHLINE STA 82+24 -L- SEE SIGN II

SIGN DETAIL SHEET

28-JUL-2010 11:50
 P:\Projects\2612A\Traffic\Signing\CADD\Signing_Layout\Plans\COPY of R-2612A_Sgn_SGN_Sheet.dgn
 AT TE247878
 S.Coleman