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**STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION**

**SIGNING PLAN  
BURKE COUNTY**

**LOCATION: BRIDGES 160 & 162 ON I-40 OVER SR 1758  
(BEREA CHURCH ROAD)**

PROJECT REFERENCE NO. <b>B-4447</b>	SHEET NO. <b>SIGN-1</b>
APPROVED: <i>Renee B. Roach</i> <small>3/13/2017</small>	
DATE: 3/13/2017	
SEAL 	
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**T.I.P.: B-4447**

**CONTRACT: C203935**

**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
901.10	TYPE 'A' SIGNS
901.20	TYPE 'B' SIGNS
901.70	SIGN STRINGERS AND SUPPORT SPACING
901.80	SIGN MOUNTING DETAILS - FOR TYPE A AND TYPE B SIGNS
904.10	ORIENTATION OF GROUND MOUNTED SIGNS
904.20	SECONDARY SIGN MOUNTING
904.50	MOUNTING OF TYPE 'D', 'E' AND 'F' SIGNS ON 'U' CHANNEL POSTS

**GENERAL NOTES**

- . SIGNS FURNISHED BY CONTRACTOR
- . 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.
- . 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.			
4025000000	901	CONTRACTOR FURNISHED, TYPE A SIGN	184	S.F.
4025000000	901	CONTRACTOR FURNISHED, TYPE B SIGN	27.5	S.F.
4025000000	901	CONTRACTOR FURNISHED, TYPE D SIGN	4	S.F.
4025000000	901	CONTRACTOR FURNISHED, MILEMARKER SIGN	8	S.F.
4048000000	902	REINFORCED CONCRETE SIGN FOUNDATION	1	C.Y.
4066000000	903	SUPPORTS, SIMPLE STEEL BEAM	1031	LB.
4072000000	903	SUPPORTS, 3 LB STEEL U-CHANNEL	45	L.F.
4078000000	903	SUPPORTS, 2 LB STEEL U-CHANNEL	2	EA.
4096000000	904	SIGN ERECTION, TYPE D	2	EA.
4110000000	904	SIGN ERECTION, TYPE A (GROUND MOUNTED)	1	EA.
4110000000	904	SIGN ERECTION, TYPE B (GROUND MOUNTED)	1	EA.
4114000000	904	SIGN ERECTION, MILEMARKERS	2	EA.
4116100000	904	SIGN ERECTION, RELOCATE SIGN TYPE D (GROUND MOUNTED)	1	EA.
4152000000	907	DISPOSAL OF SIGN SYSTEM, STEEL BEAM	1	EA.
4155000000	907	DISPOSAL OF SIGN SYSTEM, U-CHANNEL	4	EA.
4192000000	907	DISPOSAL OF SUPPORT, U-CHANNEL	1	EA.
4238500000	907	DISPOSAL OF SIGN, MILEMARKERS	2	EA.

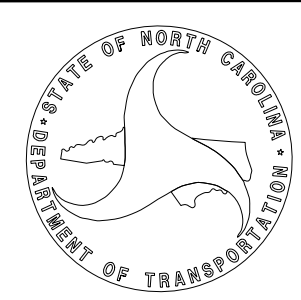
**INDEX**

SHEET NO.	DESCRIPTION
SIGN-1	TITLE SHEET
SIGN-2 - 2C	SUPPORT INFORMATION AND REVISED MILEPOST DETAIL
SIGN-3	TYPE A, B, D AND MILEPOST SIGN DESIGNS
SIGN-4 - 5	EXISTING AND PROPOSED SIGNS

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

KELVIN L. JORDAN SIGNING & DELINEATION REGIONAL ENGINEER

DERRICK H. BEARD SIGNING & DELINEATION PROJECT DESIGN ENGINEER



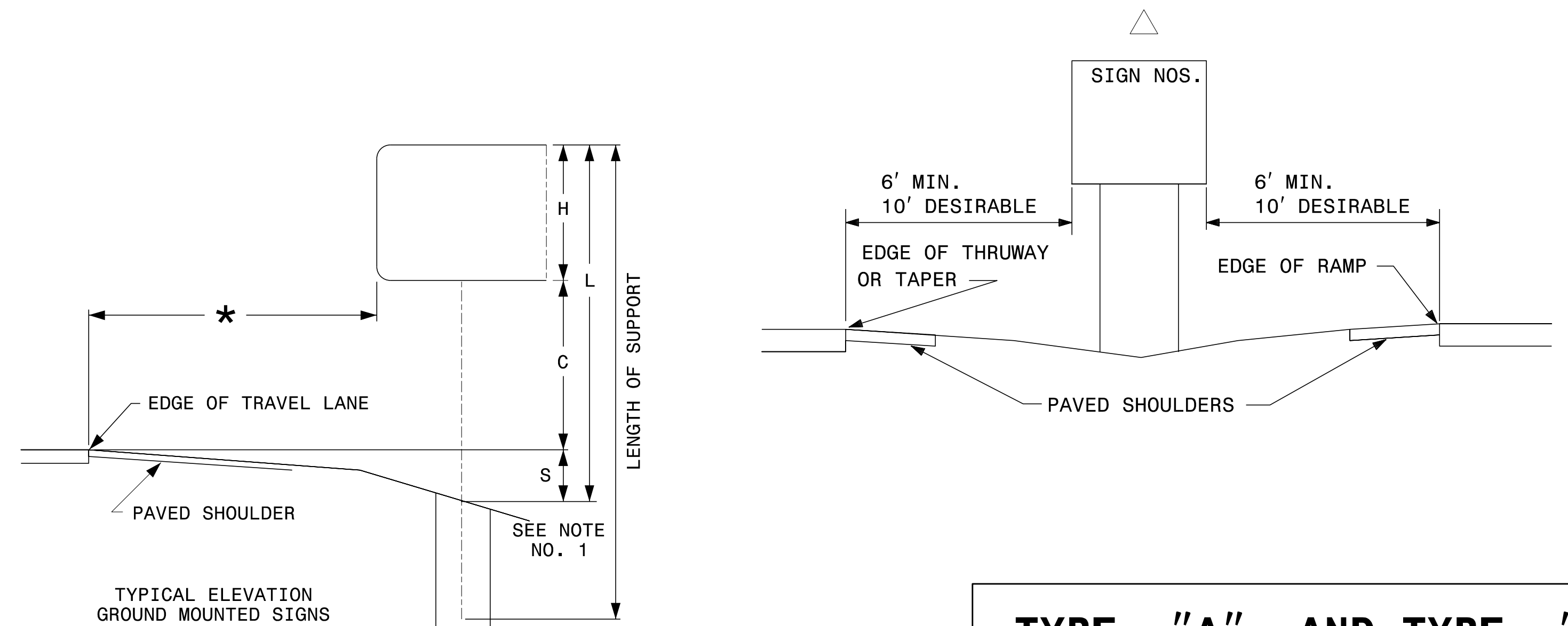
PROJECT REFERENCE NO. <b>B-4447</b>	SHEET NO. <b>SIGN-2</b>
APPROVED: <i>Renee B. Roach</i> <small>—BSCR0677CF4640D—</small>	
DATE: 3/13/2017	
SEAL	
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Version: 3.0 Posted: 9/14/2016

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)
		SIZE (in.)												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.)	
		w	x	h																												
101A	B	132	x	30	-L- STA. 21+00	3	W6x16	S	N/A	1-R N/A	N/A N/A	22.00	8.17	8.00	7.00	4.5	1.59	16.59	21.09	2.95	17.95	22.45	1.37	16.37	20.87	0.00	1030.6464	1.5	5	0.98	0.00	
101B	A	276	x	96																												
																	TOTAL	TOTAL	TOTAL				TOTAL									
																	0.00	1030.65	0.98				0.00									
																	USE:	0.00	1031.00	1.00				0.00								

**NOTES:**

- DIMENSION "S" REPRESENTS AN INCREASE (+), OR A DECREASE (-) IN POLE LENGTH, RELATIVE TO THE ELEVATION OF THE EDGE OF TRAVEL LANE.
- 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 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**

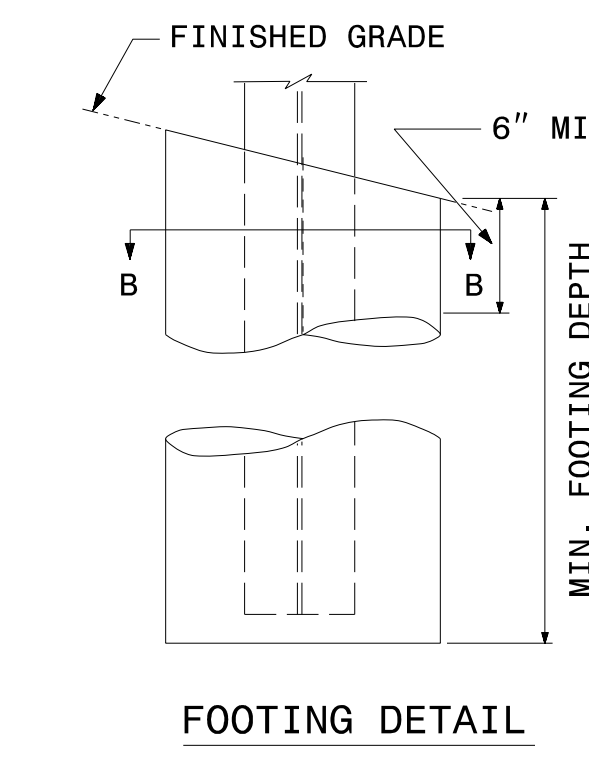
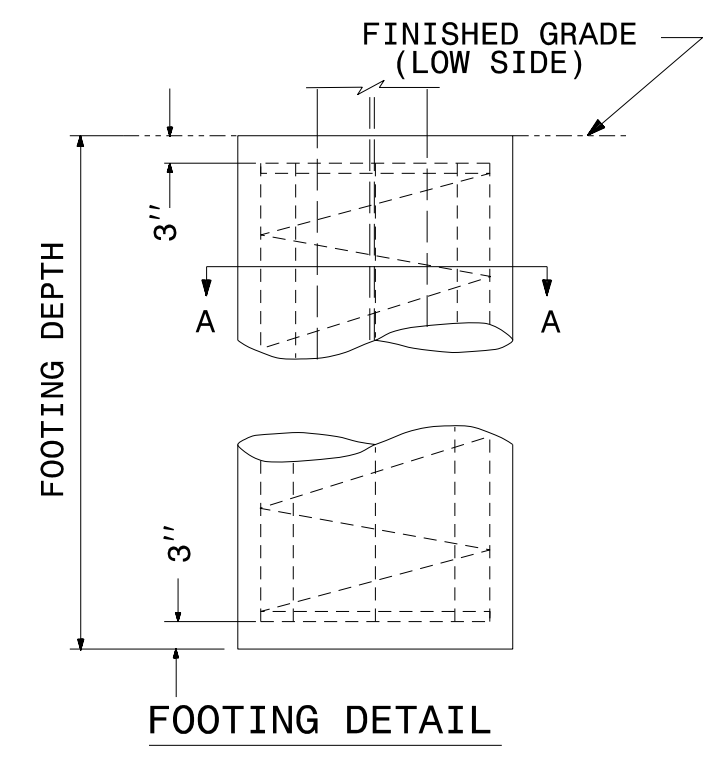
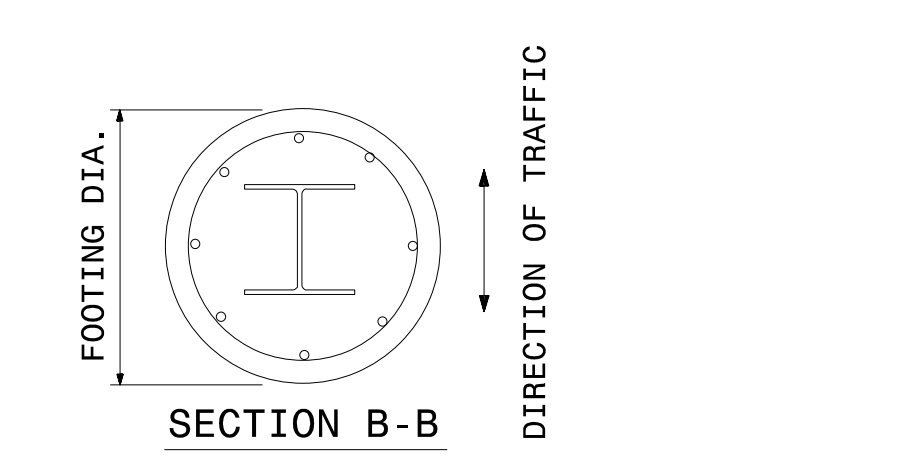
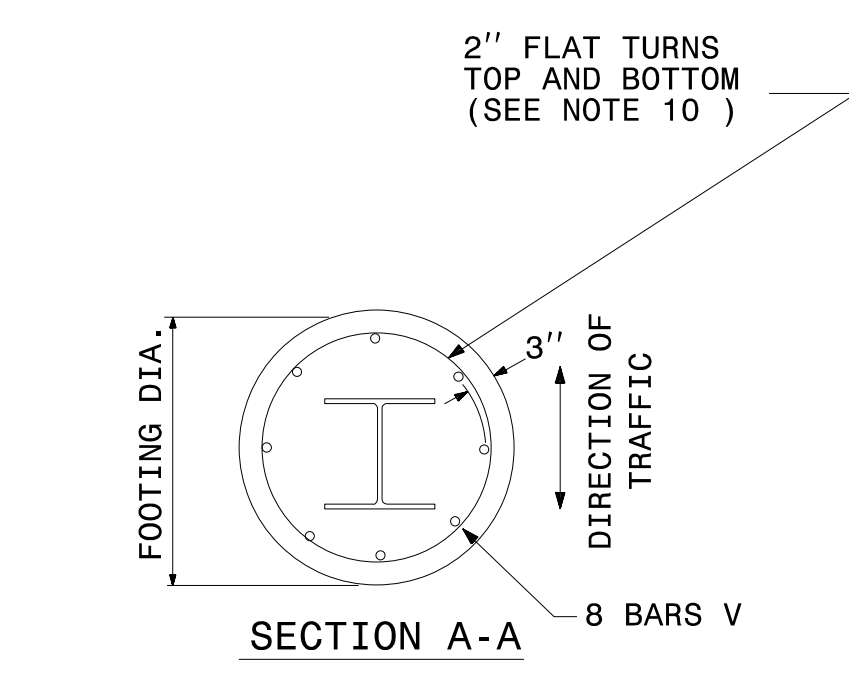
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ENGLISH DETAIL DRAWING FOR  
**GROUND MOUNTED SIGN SUPPORTS**

SHEET 2 OF 3  
**903D10**

BEAM SHAPE	SLIP BASE PLATE DATA								KEEPER PLATE DATA								HINGE CONNECTION DATA								BREAK AWAY SUPPORT WEIGHT CONSTANT LBS.	
	BOLT SIZE	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.X1 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.X1 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.X1 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.X2 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.X2 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.X2 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.X2 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.X2 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.X2 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.X3 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.X3 1/2"	6 1/2"	7"	8"	1 1/4"	2"	1"	4"	17/32"	7/8"	310



FOUNDATION DATA *		
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**



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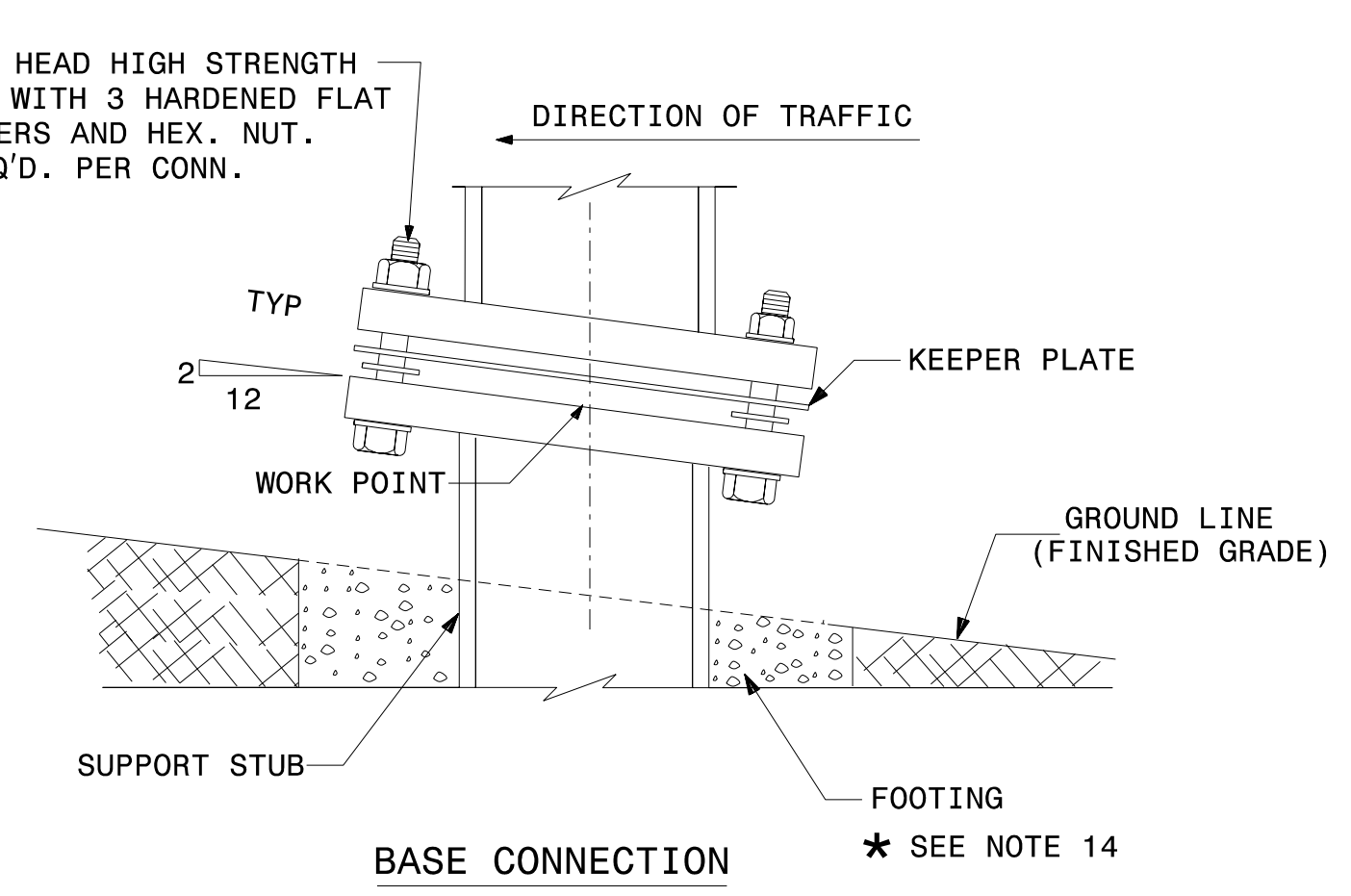
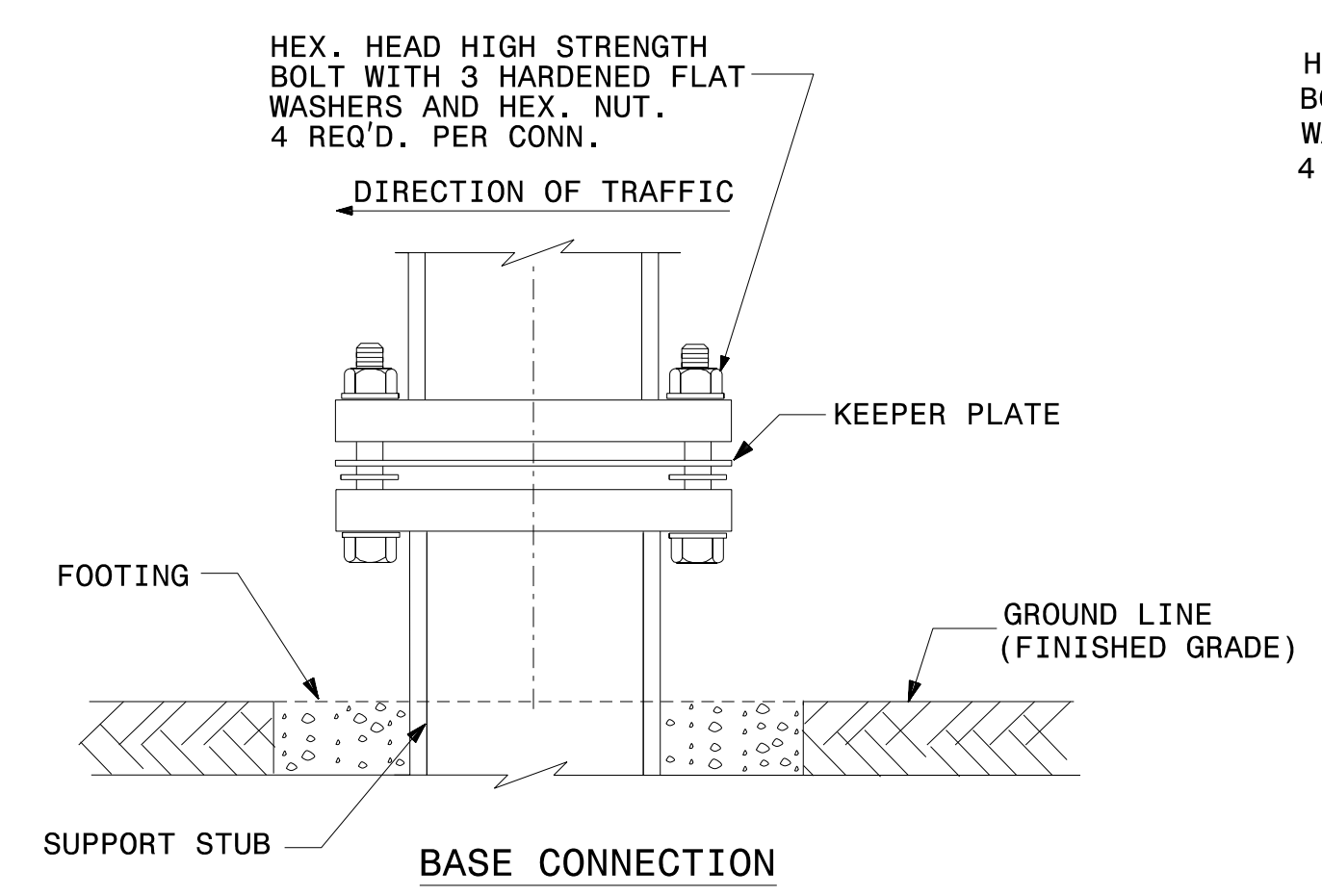
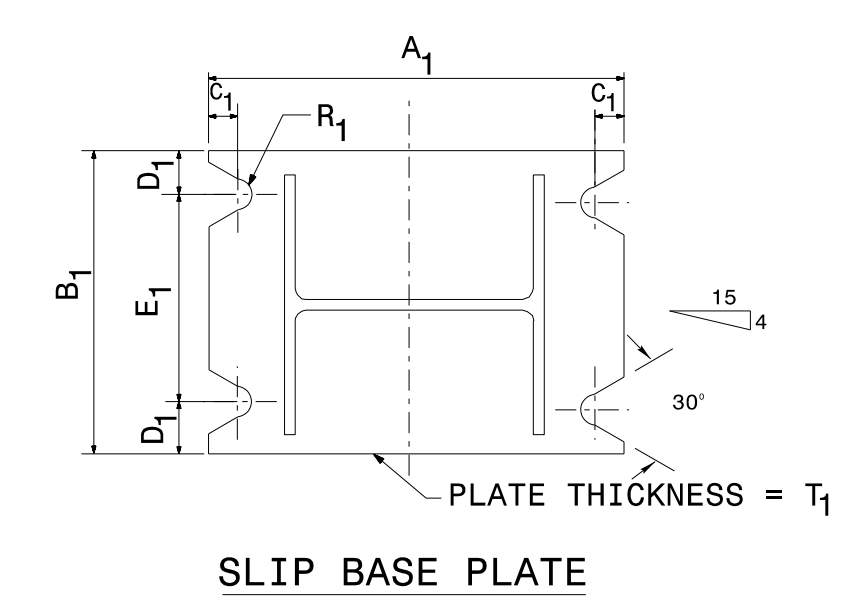
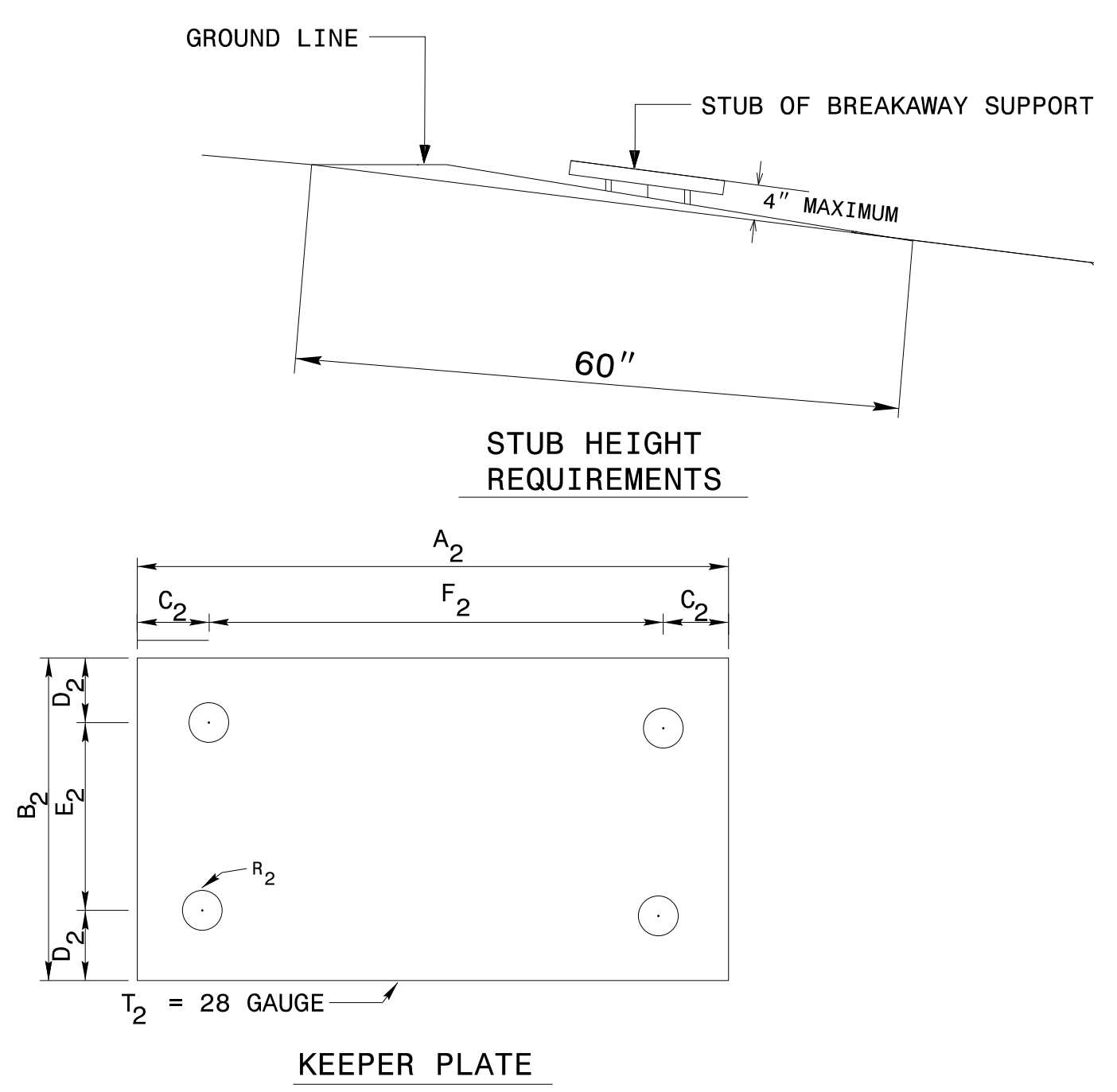
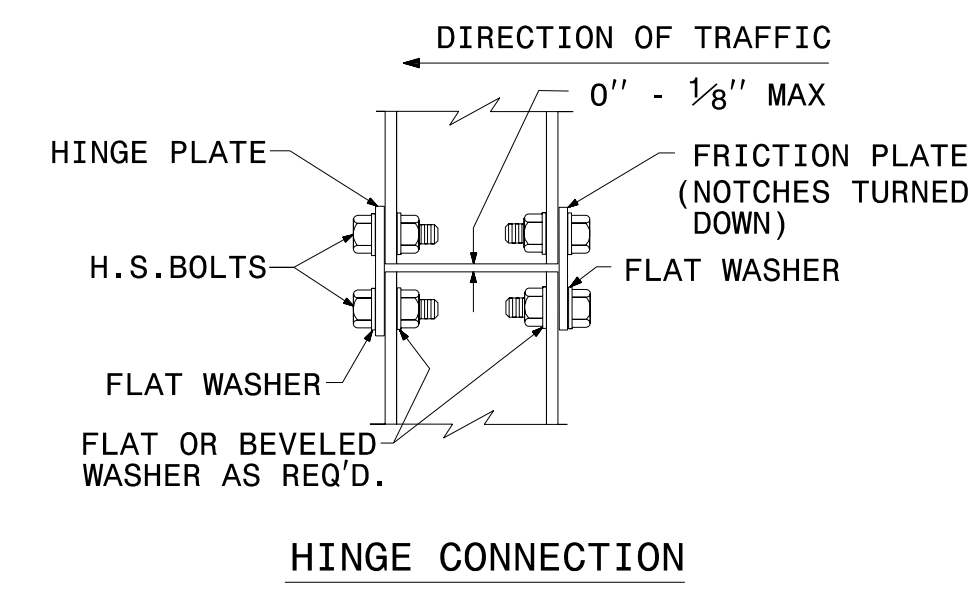
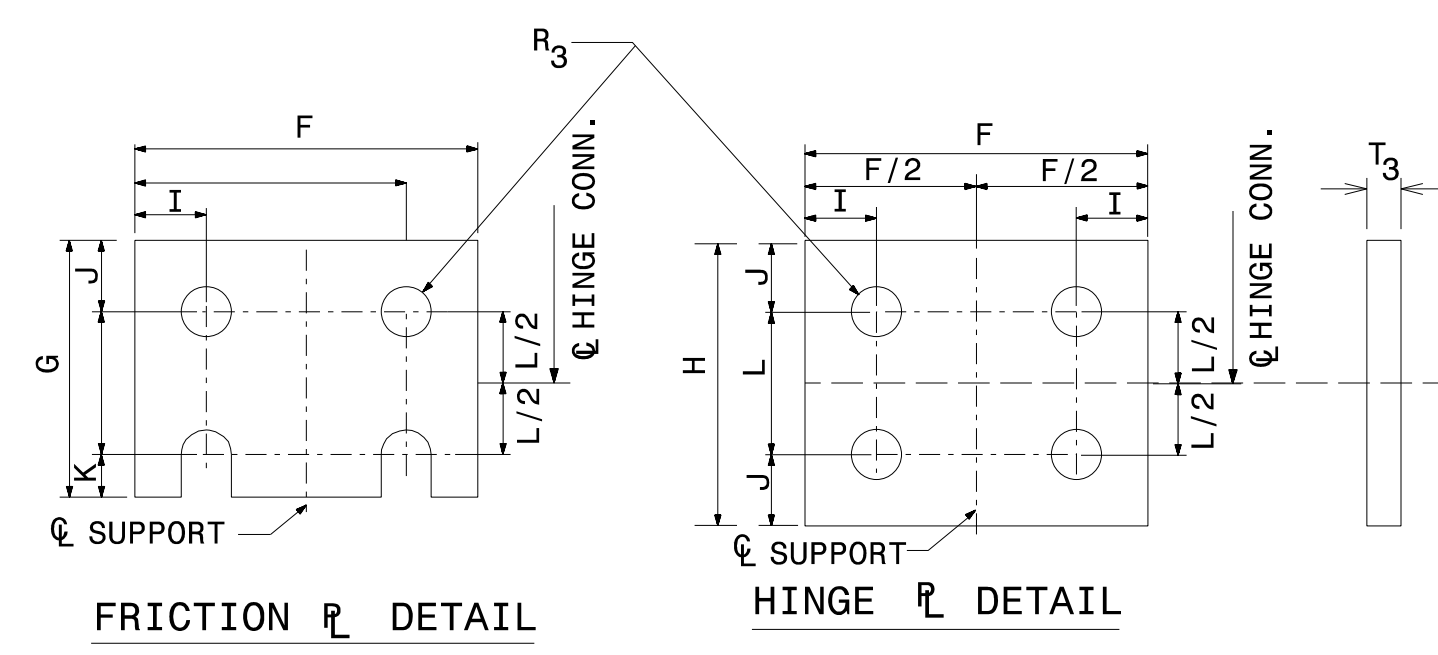
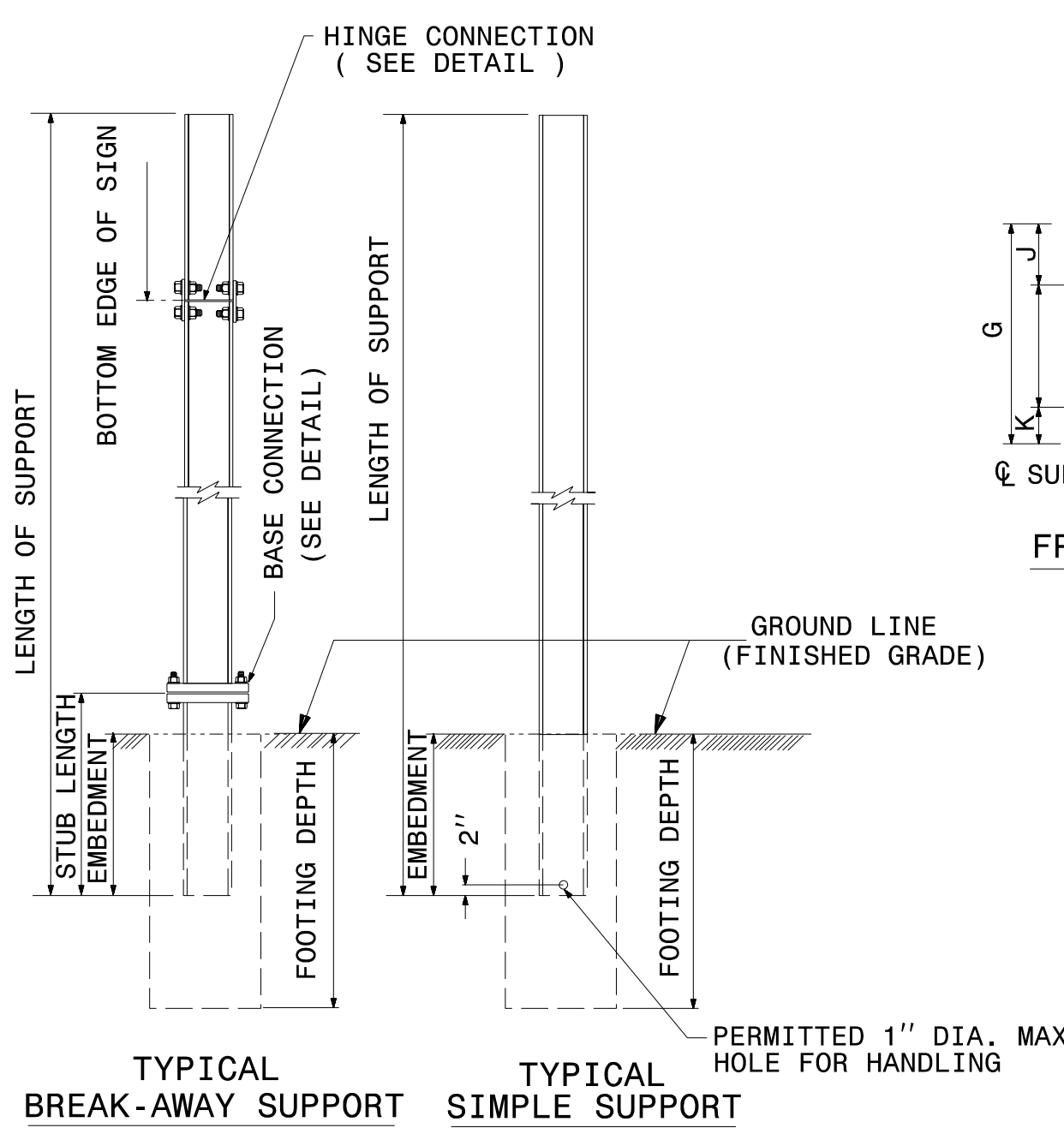
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1-12

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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 RALEIGH, N.C.

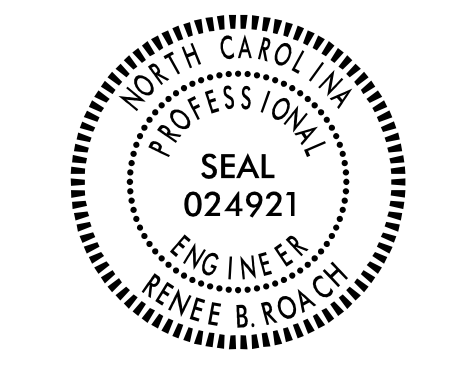
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ENGLISH STANDARD DRAWING FOR  
**GROUND MOUNTED SIGN SUPPORTS**

SHEET 1 OF 3

**903D10**

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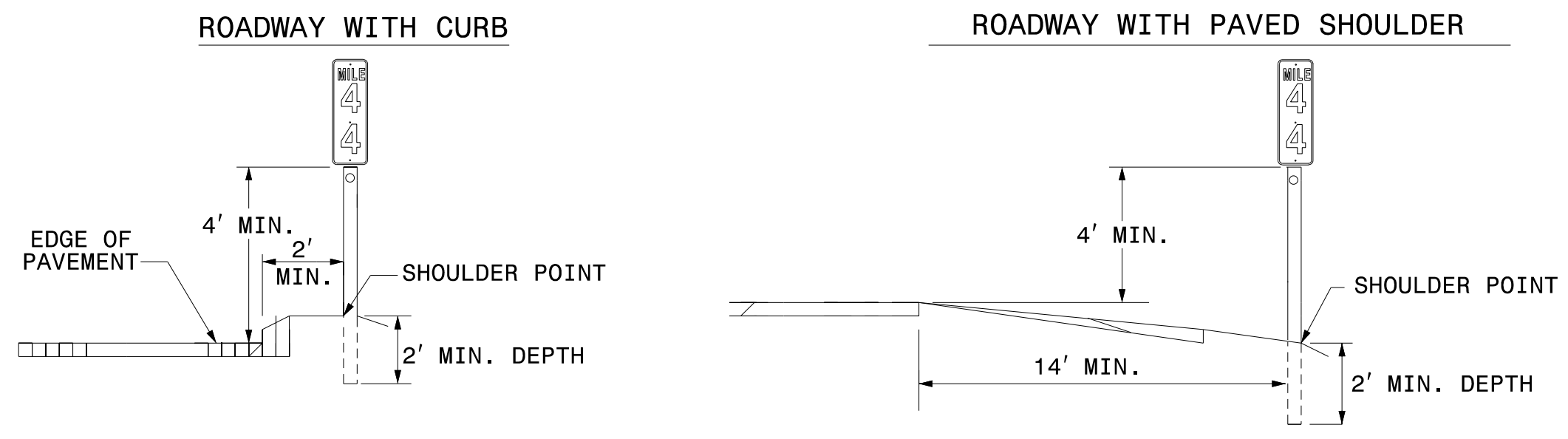
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1-12

ENGLISH STANDARD DRAWING FOR  
**MILEPOST AND PLACEMENT**

SHEET 1 OF 1  
**904D40**

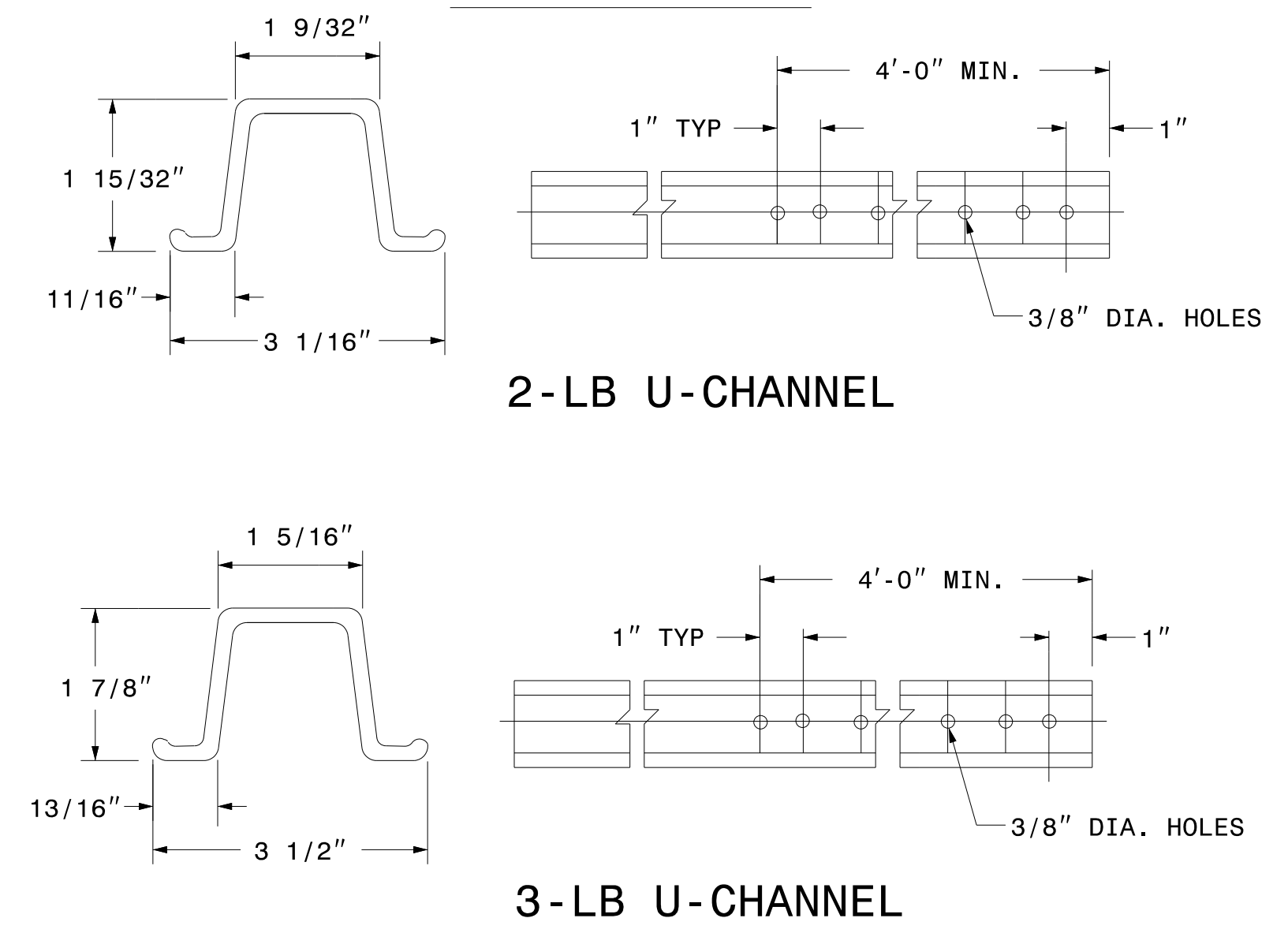
**MILEPOST PLACEMENT**



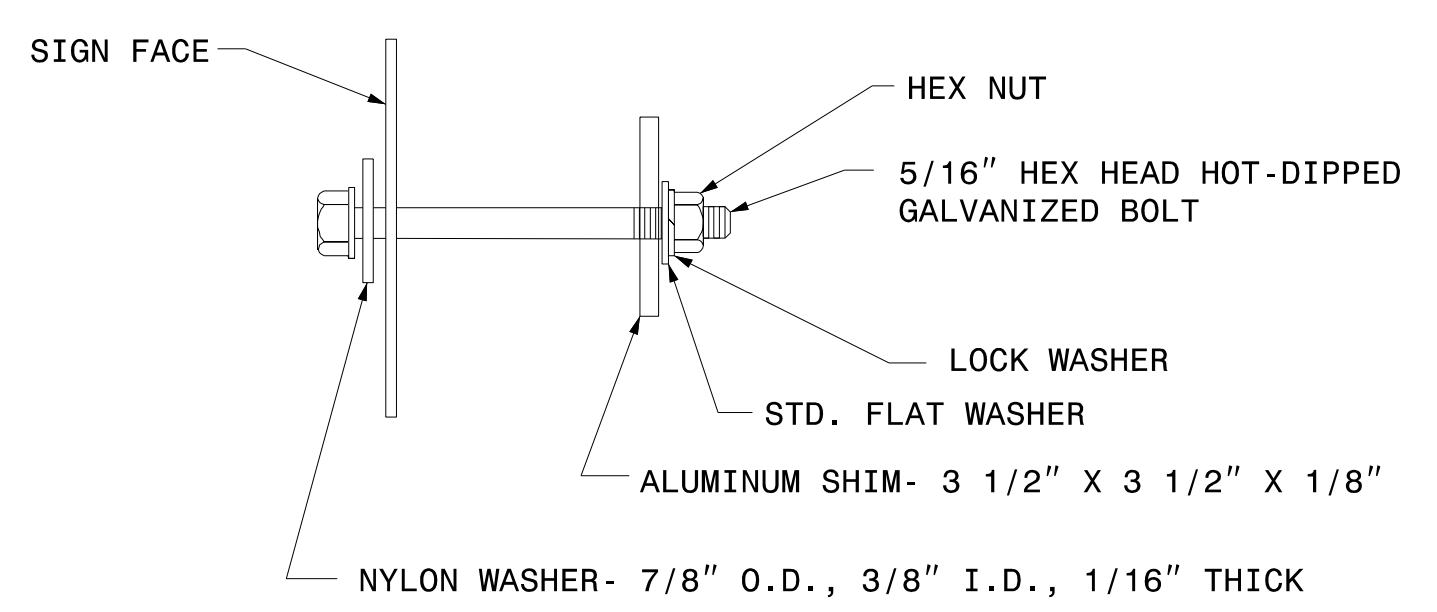
NOTES:

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**



**FASTENER**



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1-12

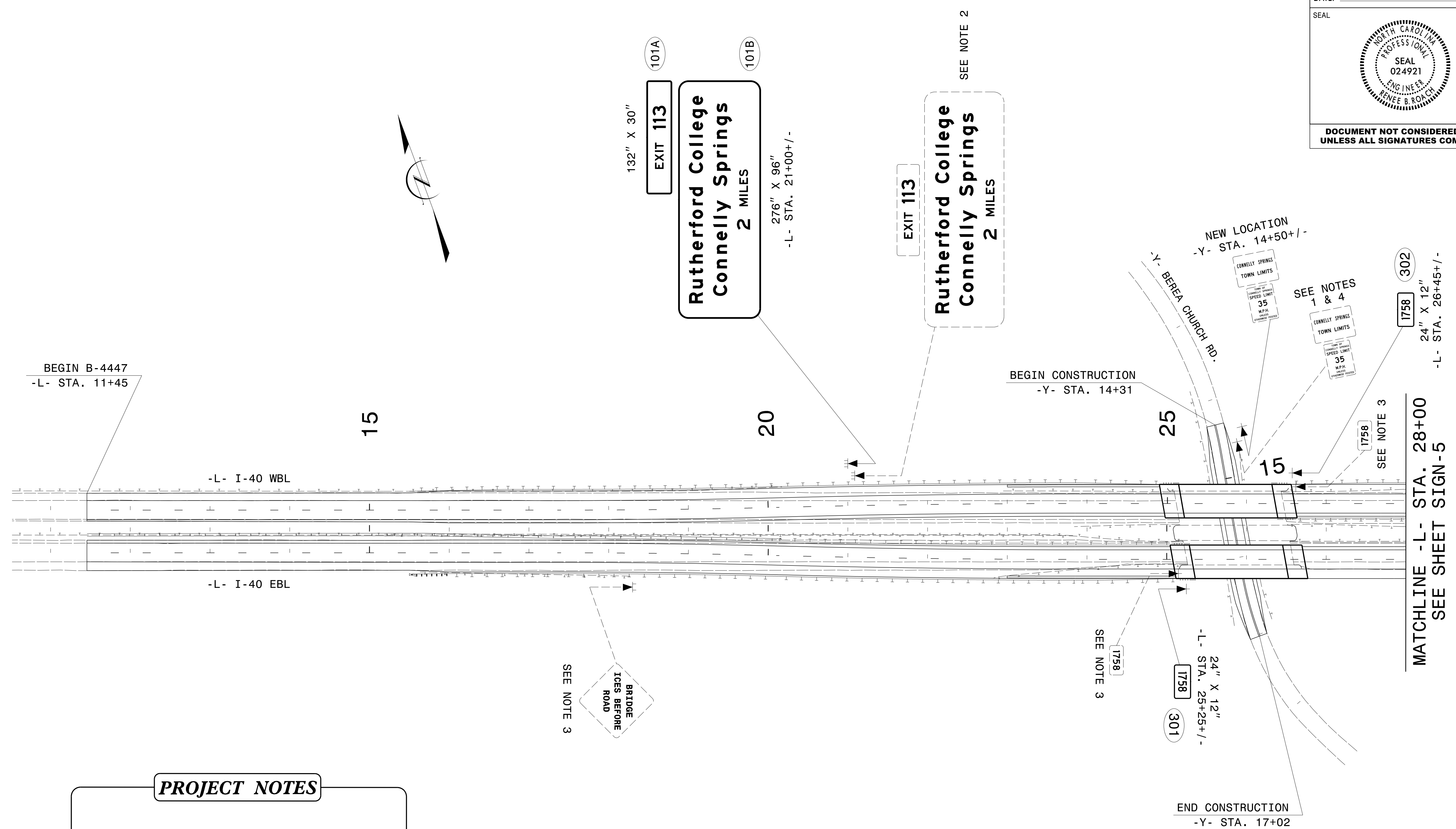
ENGLISH STANDARD DRAWING FOR  
**MILEPOST AND PLACEMENT**

SHEET 1 OF 1  
**904D40**

**REVISED SIGNING  
ROADWAY STANDARD DRAWING**

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**PROJECT NOTES**

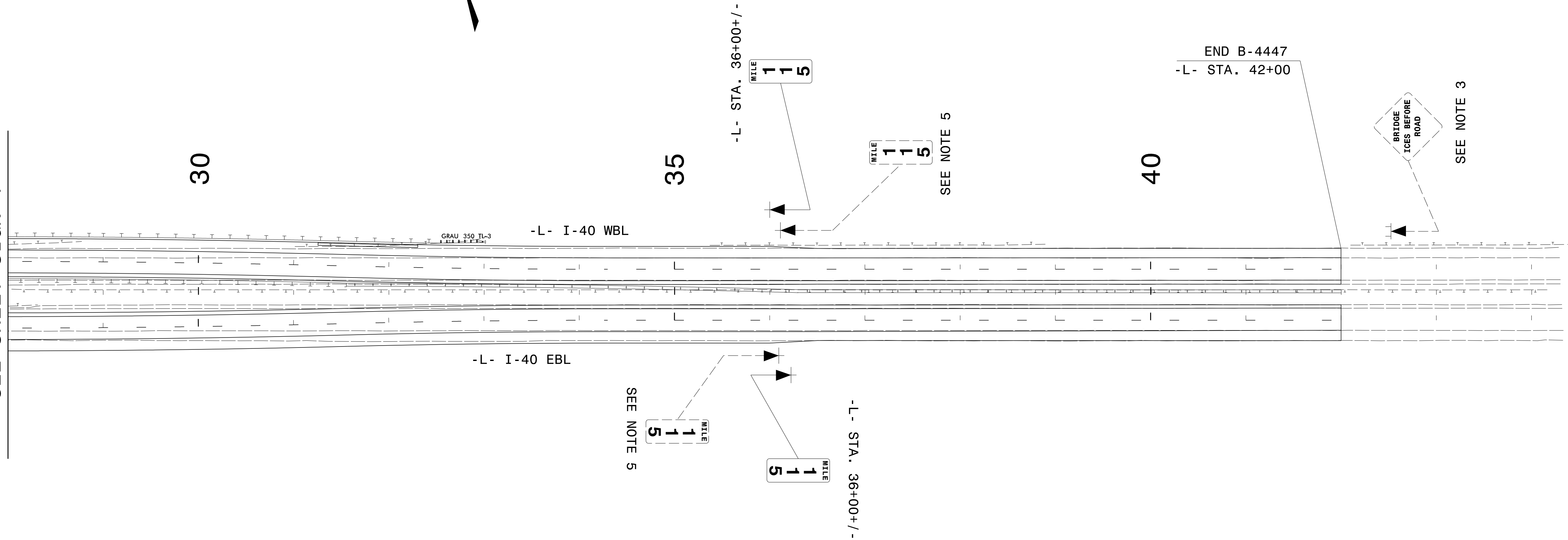
- 1) RELOCATE SIGN, TYPE D
- 2) DISPOSAL OF SIGN SYSTEM, STEEL BEAM
- 3) DISPOSAL OF SIGN SYSTEM, U-CHANNEL
- 4) DISPOSAL OF SUPPORT, U-CHANNEL
- 5) DISPOSAL OF SIGN, MILEMARKERS

**EXISTING AND  
PROPOSED SIGNS**

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 Jseribeard



MATCHLINE -L- STA. 28+00  
SEE SHEET SIGN-4



- PROJECT NOTES**
- 1) RELOCATE SIGN, TYPE D
  - 2) DISPOSAL OF SIGN SYSTEM, STEEL BEAM
  - 3) DISPOSAL OF SIGN SYSTEM, U-CHANNEL
  - 4) DISPOSAL OF SUPPORT, U-CHANNEL
  - 5) DISPOSAL OF SIGN, MILEMARKERS

**EXISTING AND  
PROPOSED SIGNS**