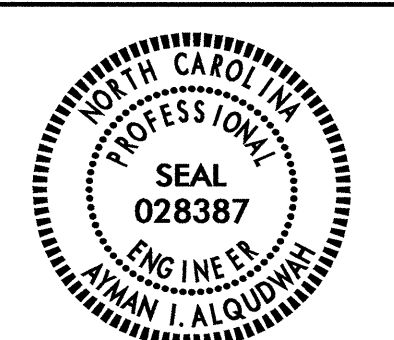


**STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION**

TIP NO. B-4949	SHEET NO. SIGN-1
APPROVED: <i>[Signature]</i>	
DATE: 4/25/12	
SEAL	
	

**T.I.P.: B-4949**

**SIGNING PLAN  
CUMBERLAND COUNTY**

**LOCATION: I-95 BUSINESS & US 301 - REPLACE BRIDGE NO. 61  
OVER CROSS CREEK IN FAYETTEVILLE**

**SUMMARY OF QUANTITIES**

ITEM NO.		ITEM DESCRIPTION	QUANTITY	UNIT
DESC. NO.	SECT. NO.			
4048000000	902	REINFORCED CONCRETE SIGN FOUNDATIONS	1	C.Y.
4057000000	SP	OVERHEAD FOOTINGS	20	C.Y.
4060000000	903	SUPPORTS, BREAKAWAY STEEL BEAM	724	LB
4072000000	903	SUPPORTS, 3-LB STEEL U-CHANNEL	342	L.F.
4082100000	SP	SUPPORTS, OVERHEAD SIGN STRUCTURE AT STA. 28+00 -L-	1	L.S.
4096000000	904	SIGN ERECTION, TYPE "D"	4	EA.
4102000000	904	SIGN ERECTION, TYPE "E"	5	EA.
4109000000	904	SIGN ERECTION, TYPE "F"	2	EA.
4110000000	904	SIGN ERECTION, TYPE "A" (GROUND MOUNTED)	2	EA.
4116100000	904	SIGN ERECTION, RELOCATE TYPE "E" (GROUND MOUNTED)	1	EA.
4149000000	907	DISPOSAL OF SIGN SYSTEM, OVERHEAD	1	EA.
4155000000	907	DISPOSAL OF SIGN SYSTEM, U-CHANNEL	12	EA.
4158000000	907	DISPOSAL OF SIGN SYSTEM, WOOD	2	EA.
4192000000	907	DISPOSAL OF SUPPORT, U-CHANNEL	1	EA.
4360000000	SP	DISPOSAL OF SIGN SYSTEM ON SPAN WIRE	1	EA.

**GENERAL NOTES**

- . SIGNS FURNISHED BY STATE
- . 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.

**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
901.50	ARROWS AND SHIELDS
901.70	SIGN STRINGERS AND SUPPORT SPACING
901.80	SIGN MOUNTING DETAILS
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

**NOTES**

- 1) DISPOSAL OF SIGN SYSTEM, "U" CHANNEL
- 2) DISPOSAL OF SIGN SYSTEM, WOOD
- 3) RELOCATE SIGN, TYPE "E"
- 4) DISPOSAL OF SUPPORT, "U" CHANNEL
- 5) DISPOSAL OF SIGN SYSTEM, OVERHEAD
- 6) DISPOSAL OF SIGN SYSTEM, SPAN WIRE

**INDEX**


SHEET NO.	DESCRIPTION
SIGN-1	TITLE SHEET, QUANTITIES, NOTES AND ROADWAY STANDARD DRAWINGS
SIGN-2	OVERHEAD STRUCTURE LINE DRAWING
SIGN-3	SUPPORTS INFORMATION
SIGN-4 - 6	SIGN DESIGNS
SIGN-7	TYPE "E" & "F" SIGNS
SIGN-8	EXISTING SIGNS
SIGN-9	SIGNING DETAIL SHEET

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

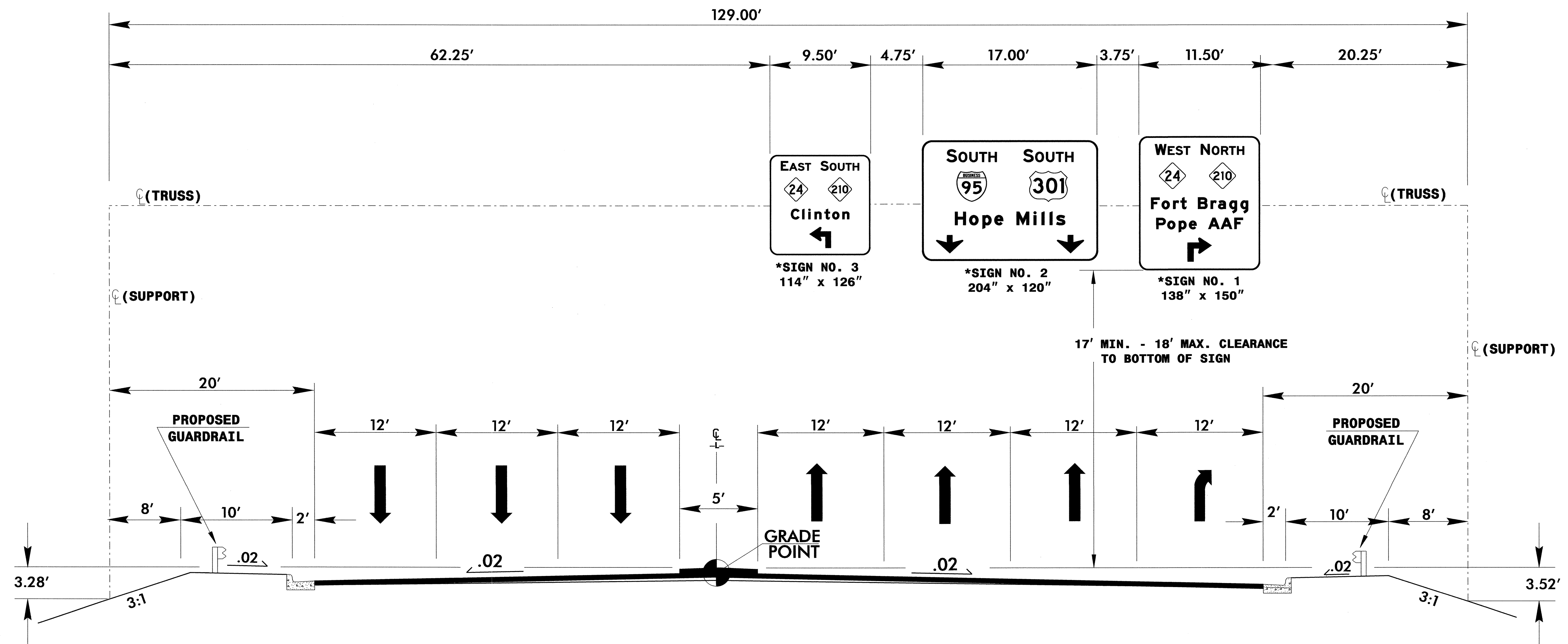
**AYMAN ALQUDWAH, PE, CPM.** SIGNING & DELINEATION REGIONAL ENGINEER  
**BASIR A. RASHID** SIGNING & DELINEATION PROJECT DESIGN ENGINEER



**CONTRACT:**

STATE	PROJECT NO.	SHEET NO.	TOTAL SHTS.
N.C.	B-4949	SIGN-2	
APPROVED: <i>Amman I. Alquodhi</i>			
DATE: 4/23/12			
SEAL			
			

\* THESE DIMENSIONS SHALL BE USED FOR WIND LOAD AND DEAD LOAD COMPUTATIONS IN DESIGN OF STRUCTURE AND FOOTING. DESIGN AND CONSTRUCTION REQUIREMENTS FOR SIGN STRUCTURES SHALL ACCOMMODATE WIND VELOCITY OF 110 M.P.H.



NOTES:

1. IF THE CONTRACTOR BIDS ALUMINUM SIGN STRUCTURE, EACH SHALL BE PROVIDED WITH AN APPROVED HIGHWAY TRUSS DAMPER DEVICE IN ACCORDANCE WITH AASHTO SPECIFICATIONS.
2. MOUNT SIGNS VERTICALLY CENTERED ON HORIZONTAL MEMBER OF STRUCTURE.
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 EXTEND AT LEAST 4 INCHES AND NOT MORE THAN 24 INCHES ABOVE THE HIGHEST POINT OF THE GROUND SURFACE AT THE FOOTING.
5. SIGN HANGERS AND ATTACHMENT HARDWARE SHALL BE PROVIDED AND INSTALLED ON THE ASSEMBLY TO ACCOMMODATE ALL SIGNS SHOWN IN THIS PLAN SHEET.
6. DESIGN AND CONSTRUCTION REQUIREMENTS FOR SIGN STRUCTURES SHALL ACCOMMODATE WIND VELOCITY OF 110 M.P.H.

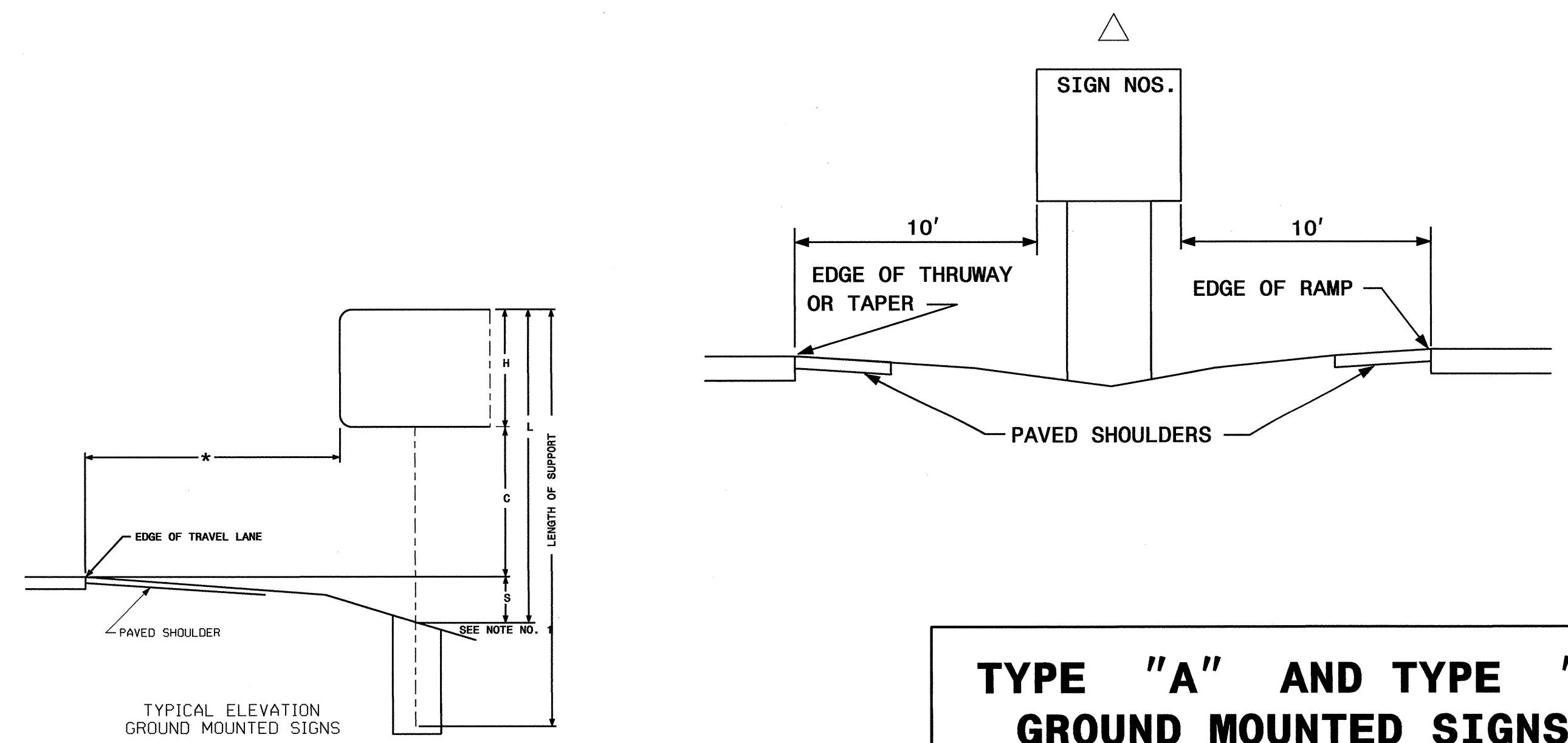
**OVERHEAD SIGN ASSEMBLY "A"**  
AT STA. 28+00 -L-

TIP NO. B-4949	SHEET NO. SIGN 3
APPROVED: <i>[Signature]</i>	
DATE: 4/25/12	
SEAL	

SIGN NO.	SIGN TYPE	SIGN SIZE (in.)			ROADWAY STATION	NO. OF SUP.	BEAM SECTION	SUPPORT TYPE	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.)	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	138	X	72	22+00	2	W6x9	BA	N/A	N/A	12.00	6.00	7.00	4.5	0.27	13.27	17.77	0.00	0.00	0.00	1.92	14.92	19.42	1.5	5	397.83	0.00	0.65																							
102	A	126	X	54	18+20	2	S4x7.7	BA	N/A	N/A	18.00	4.50	7.00	4.5	2.46	13.96	18.46	0.00	0.00	0.00	2.50	14.00	18.50	1	5	325.20	0.00	0.29																							
																							TOTAL	723.03	TOTAL	0.00	TOTAL	0.95																							
																							USE:	724	0	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**

65\_AFB-2012 (2) B-4949 Traffic Signing CADD Signing Layout Plans B-4949\_Sgn\_04entt1.tss.dgn  
 4/25/12 10:27:39 AM







SIGN NUMBER: 101 TYPE: A QUANTITY: 1 SIGN WIDTH: 11'-6" HEIGHT: 6'-0" TOTAL AREA: 69.0 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 1" RADII: 9" NO. Z BARS: 2 LENGTH: 130.0	BACKG COLOR: Green COPY COLOR: White SYMBOL X Y WID HT ARUP 11.2 49.2 8 12 ARUP 122.9 16.1 6 9	DESIGN BY: B. RASHID PROJECT ID: B-4949	CHECKED BY: DIV: 6	DATE: Aug 04, 2011
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------	--------------------------------------------	-----------------------	--------------------

BORDER R=9" TH=1" Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter

Series/Size	Text Length
D 2000	99.7
D 2000	92.9
D 2000	106.5
D 2000	110.8
D 2000	75.4

FILENAME: B-4949\_Sign -Designs NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 102 TYPE: A QUANTITY: 1 SIGN WIDTH: 10'-6" HEIGHT: 4'-6" TOTAL AREA: 47.3 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 1" RADII: 6" NO. Z BARS: 2 LENGTH: 118.0	BACKG COLOR: Blue COPY COLOR: White SYMBOL X Y WID HT ARUP 7.9 30.3 8 12 ARUP 103.7 6.7 8 12	DESIGN BY: B. RASHID PROJECT ID: B-4949	CHECKED BY: DIV: 6	DATE: Aug 04, 2011
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BORDER R=6" TH=1" Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter


Series/Size	Text Length
D 2000	94.2
D 2000	41.5
D 2000	85.4

FILENAME: B-4949\_Sign -Designs NORTH CAROLINA D.O.T. SIGN DETAIL

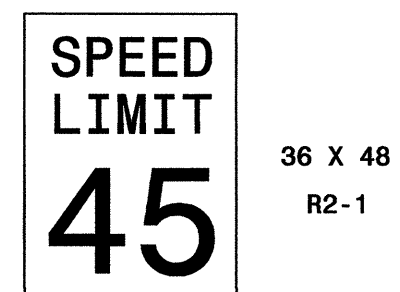
**SIGN DESIGNS**  
(TYPE "A" GROUND MOUNTED SIGNS)

24 APR 2012 13:28 B:\TIP\Projects\B-4949\Tr\ref.c\Signing\CADD\Signing Layout\Plans\B-4949\_Sign-Quantities.dgn B.Rashid



TIP NO. B-4949	SHEET NO. SIGN-7
APPROVED: <i>[Signature]</i>	
DATE: 4/25/12	
SEAL	
	

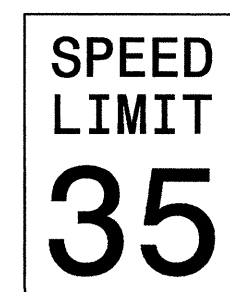
401 QUANTITY REQ'D .1\_



36 X 48  
R2-1

TWO "U" POSTS PER SIGN

402 QUANTITY REQ'D .1\_



36 X 48  
R2-1

TWO "U" POSTS PER SIGN

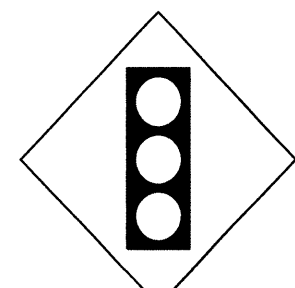
403 QUANTITY REQ'D .1\_



48 X 48  
W3-5

TWO "U" POSTS PER SIGN

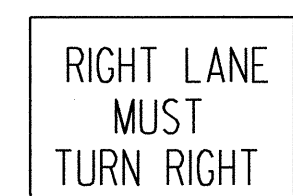
404 QUANTITY REQ'D .1\_



48 X 48  
W3-3

TWO "U" POSTS PER SIGN

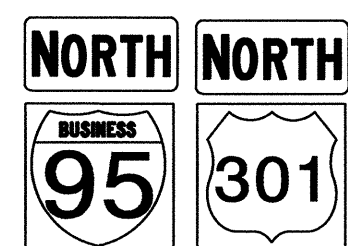
405 QUANTITY REQ'D .1\_



36 X 36  
R3-7

ONE "U" POST PER SIGN

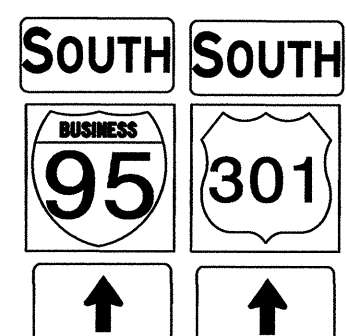
501 QUANTITY REQ'D .1\_



2 - 24 X 12  
1 - 24 X 24  
1 - 30 X 24

TWO "U" POSTS PER SIGN


502 QUANTITY REQ'D .1\_

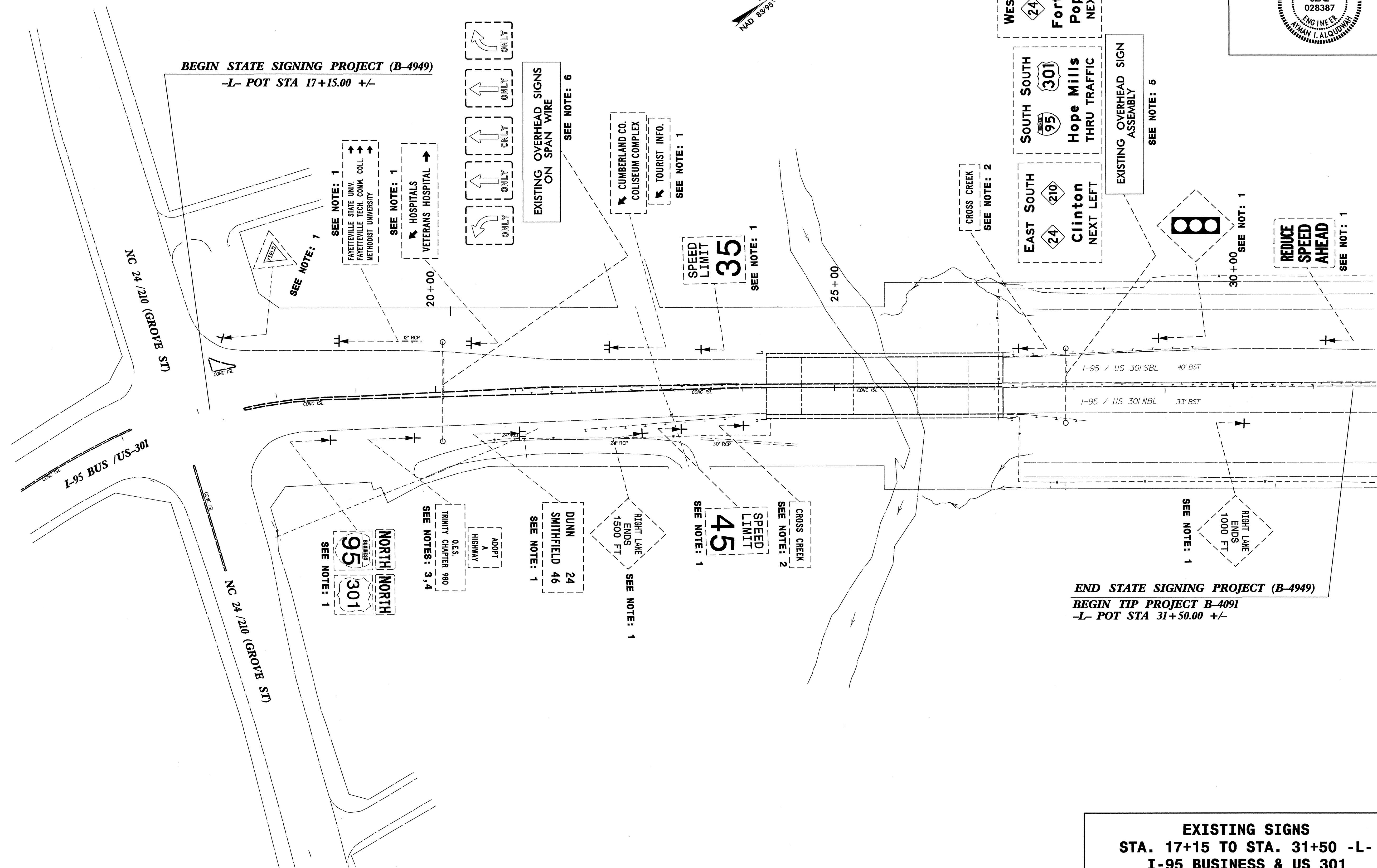


2 - 24 X 12  
1 - 24 X 24  
1 - 30 X 24  
2 - 21 X 15

MOUNT BELOW SIGN 304.  
IN 1. INSTALLATION


TYPE "E" AND "F" SIGNS

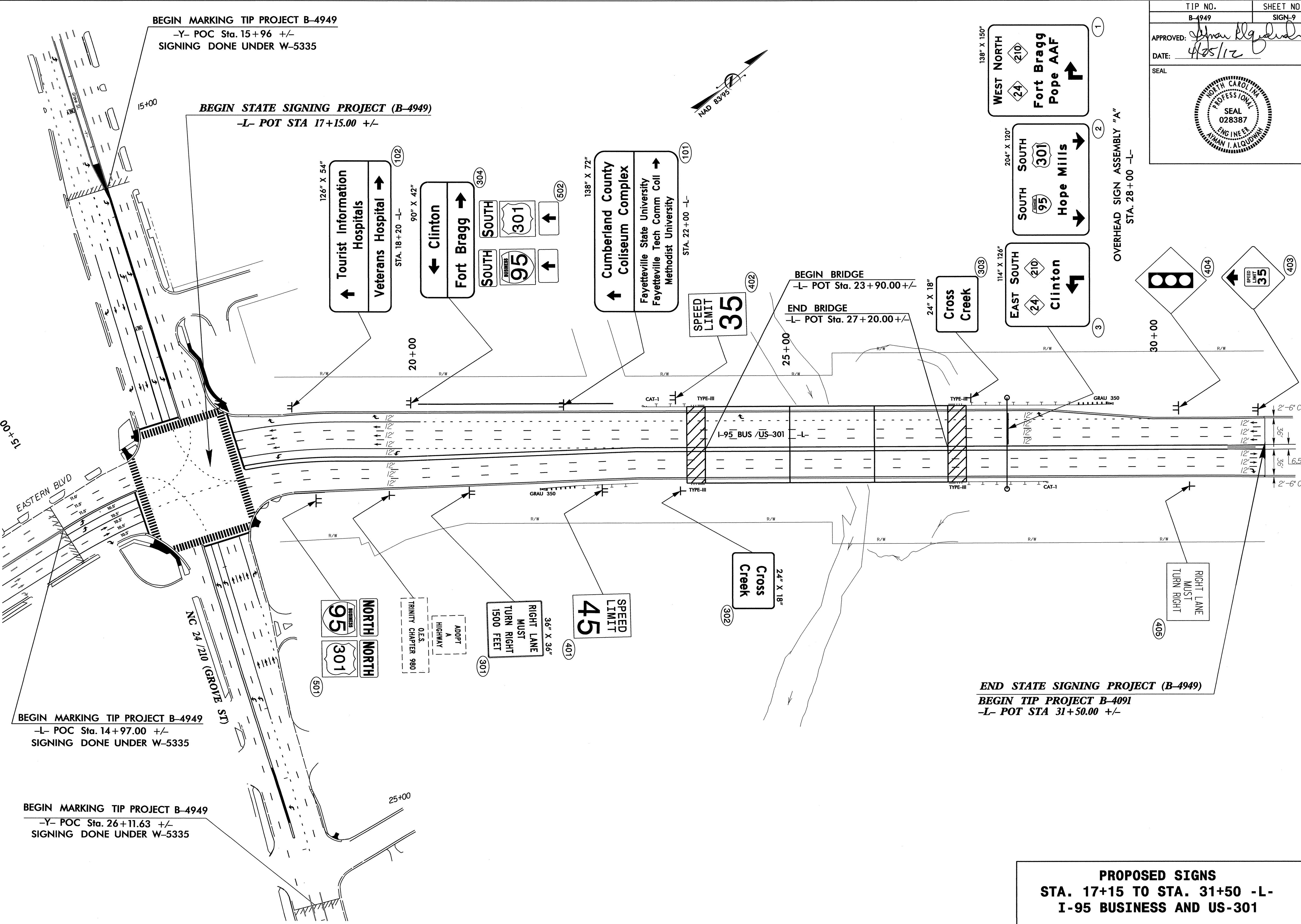
TIP NO. B-4949	SHEET NO. SIGN-8
APPROVED: <i>[Signature]</i>	
DATE: 4/23/12	
SEAL	
	



B:\11022012\_0922\11022012\_0922\11022012\_0922\Traffic\Signing\Layout\Plans\B-4949\_Sgn\_SGN\_Existing\_Signs.dgn  
 4/23/12 10:24:11 AM  
 brashid



TIP NO. B-4949	SHEET NO. SIGN-9
APPROVED: <i>[Signature]</i>	
DATE: 4/25/12	
SEAL	
	



BEGIN MARKING TIP PROJECT B-4949  
 -Y- POC Sta. 15+96 +/-  
 SIGNING DONE UNDER W-5335

BEGIN STATE SIGNING PROJECT (B-4949)  
 -L- POT STA 17+15.00 +/-

BEGIN MARKING TIP PROJECT B-4949  
 -L- POC Sta. 14+97.00 +/-  
 SIGNING DONE UNDER W-5335

BEGIN MARKING TIP PROJECT B-4949  
 -Y- POC Sta. 26+11.63 +/-  
 SIGNING DONE UNDER W-5335

BEGIN BRIDGE  
 -L- POT Sta. 23+90.00 +/-  
 END BRIDGE  
 -L- POT Sta. 27+20.00 +/-

OVERHEAD SIGN ASSEMBLY "A"  
 STA. 28+00 -L-

END STATE SIGNING PROJECT (B-4949)  
 BEGIN TIP PROJECT B-4091  
 -L- POT STA 31+50.00 +/-

**PROPOSED SIGNS**  
 STA. 17+15 TO STA. 31+50 -L-  
 I-95 BUSINESS AND US-301

25 APR 2012 12:03 04949 Traffic Signing\CADD\Signing Layout Plans\B4949\_Sgn\_SGN\_SIGN-PLANS.dgn  
 braahid 01 1227799