


T.I.P.: R-2809A

CONTRACT: C201737

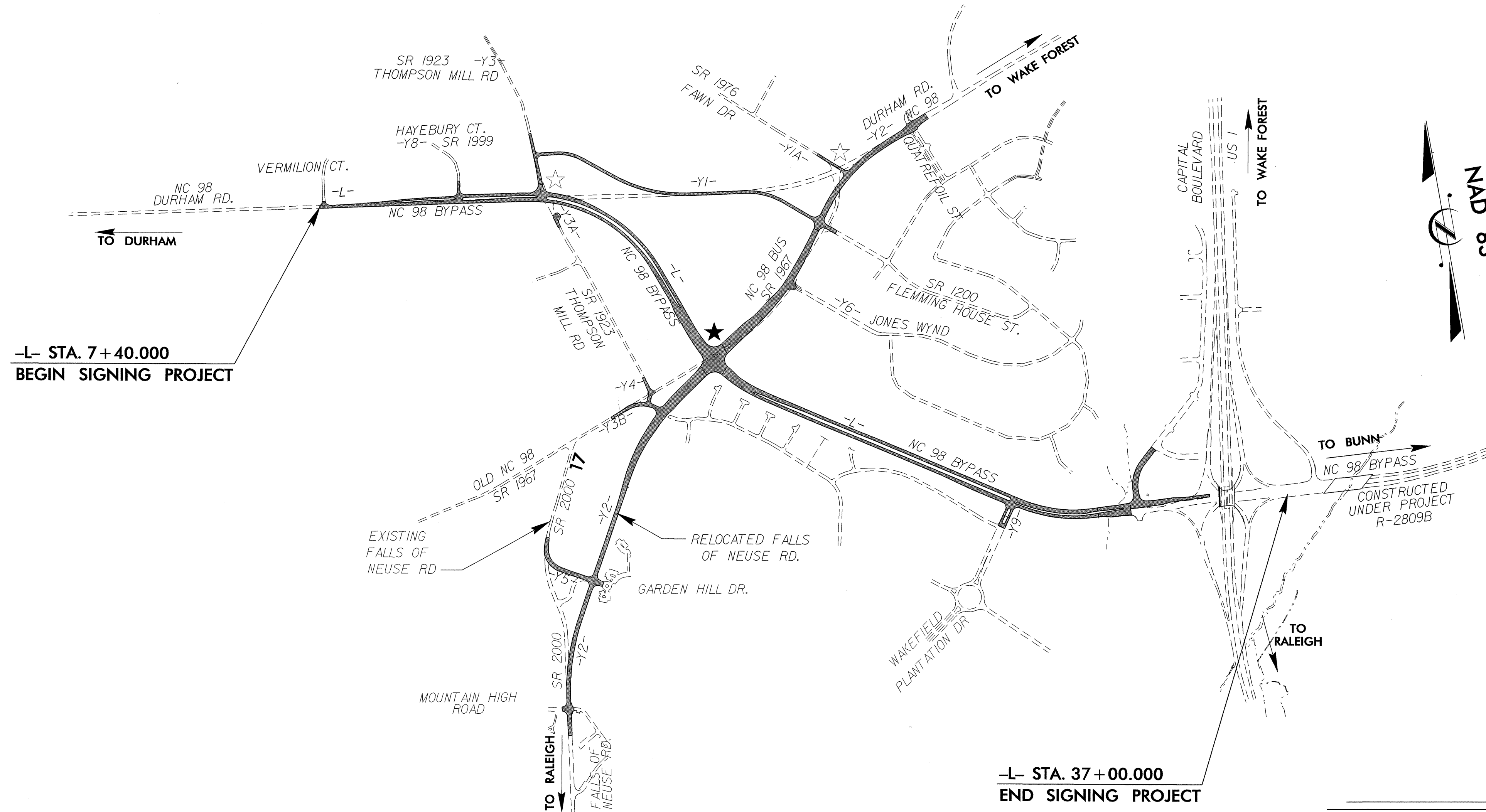


TIP NO. R-2809A	SHEET NO. SIGN-1
APPROVED: <i>Ayman Alqudwah</i>	
DATE: 8/27/07	
SEAL	
	

**STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION**

**SIGNING PLANS
WAKE COUNTY**

**LOCATION: NC 98 (WAKE FOREST BYPASS) FROM WEST OF
SR 1923 (THOMPSON MILL ROAD) TO WEST OF US 1 (CAPITAL BLVD.)**



MAP

INDEX

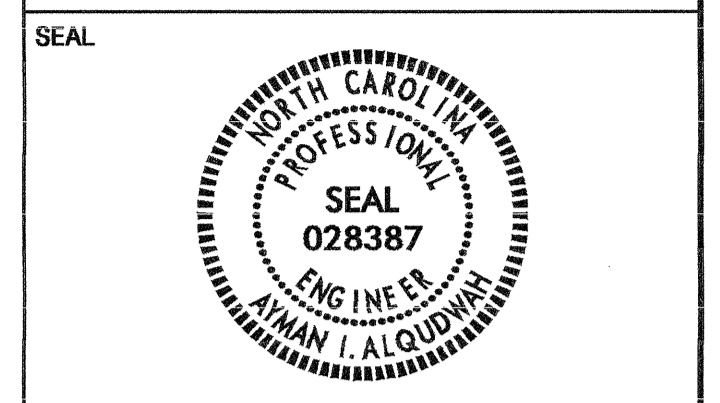
PLAN PREPARED BY: N.C.D.O.T. SIGNING SECTION	
RON KING, P.E.	SIGNING ENGINEER
AYMAN ALQUDWAH, P.E.	SIGNING PROJECT ENGINEER
MITCH EATON	SIGNING PROJECT DESIGN ENGINEER
ERIC WARD	SIGNING DESIGNER

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	SUMMARY OF QUANTITIES, NOTES and applicable ROADWAY STANDARD DRAWINGS
3A - 3H	SUPPORT INFORMATION AND EXISTING OVERHEAD STRUCTURE LINE DRAWINGS
4A - 4F	SIGN DESIGN SHEETS, "E" & "F" SHEETS
5 - 16	SIGN ROADWAY SHEETS



TIP NO. R-2809A SHEET NO. SIGN-2

APPROVED: *[Signature]*
DATE: 10/25/07



SIGNS SUMMARY OF QUANTITIES

ITEM NO.		ITEM DESCRIPTION	QUANTITY	UNIT
DESC. NO.	SECT. NO.			
404800000	902	REINFORCED CONCRETE SIGN FOOTINGS	7	C.M.
406000000	903	SUPPORTS, BREAKAWAY STEEL BEAM	3,142	KG.
407200000	903	SUPPORTS, 4.5 KG STEEL U-CHANNEL	589	L.M.
409600000	904	SIGN ERECTION, TYPE D	3	EA.
410200000	904	SIGN ERECTION, TYPE E	85	EA.
410800000	904	SIGN ERECTION, TYPE F	24	EA.
410900000	904	SIGN ERECTION, TYPE A (OVERHEAD)	3	EA.
411000000	904	SIGN ERECTION, TYPE A (GROUND MOUNTED)	8	EA.
411500000	904	SIGN ERECTION, OVERLAY (OVERHEAD)	2	EA.
411600000	904	SIGN ERECTION, OVERLAY (GROUND MOUNTED)	8	EA.
412900000	906	RELOCATE SIGN TYPE D	2	EA.
412900000	906	RELOCATE SIGN TYPE E	2	EA.
415200000	907	DISPOSAL OF SIGN SYSTEM, STEEL BEAM	5	EA.
415500000	907	DISPOSAL OF SIGN SYSTEM, U-CHANNEL	37	EA.
419200000	907	DISPOSAL OF SUPPORT, U-CHANNEL	2	EA.
423800000	907	DISPOSAL OF SIGN, D, E, OR F	2	EA.

**ROADWAY STANDARD DRAWINGS
APPLICABLE TO THESE SIGNING PLANS**

901.10 901.70 903.10
901.20 904.10 904.40
901.50 904.20 904.50

NOTES

Pay Item Notes:

- 1 DISPOSAL OF SIGN SYSTEM, U-CHANNEL
- 2 DISPOSAL OF SIGN SYSTEM, STEEL BEAM
- 3 RELOCATE SIGN, TYPE E
- 4 RELOCATE SIGN, TYPE D
- 5 DISPOSAL OF SUPPORT, U-CHANNEL
- 6 DISPOSAL OF SIGN, D, E, OR F

Project Notes:

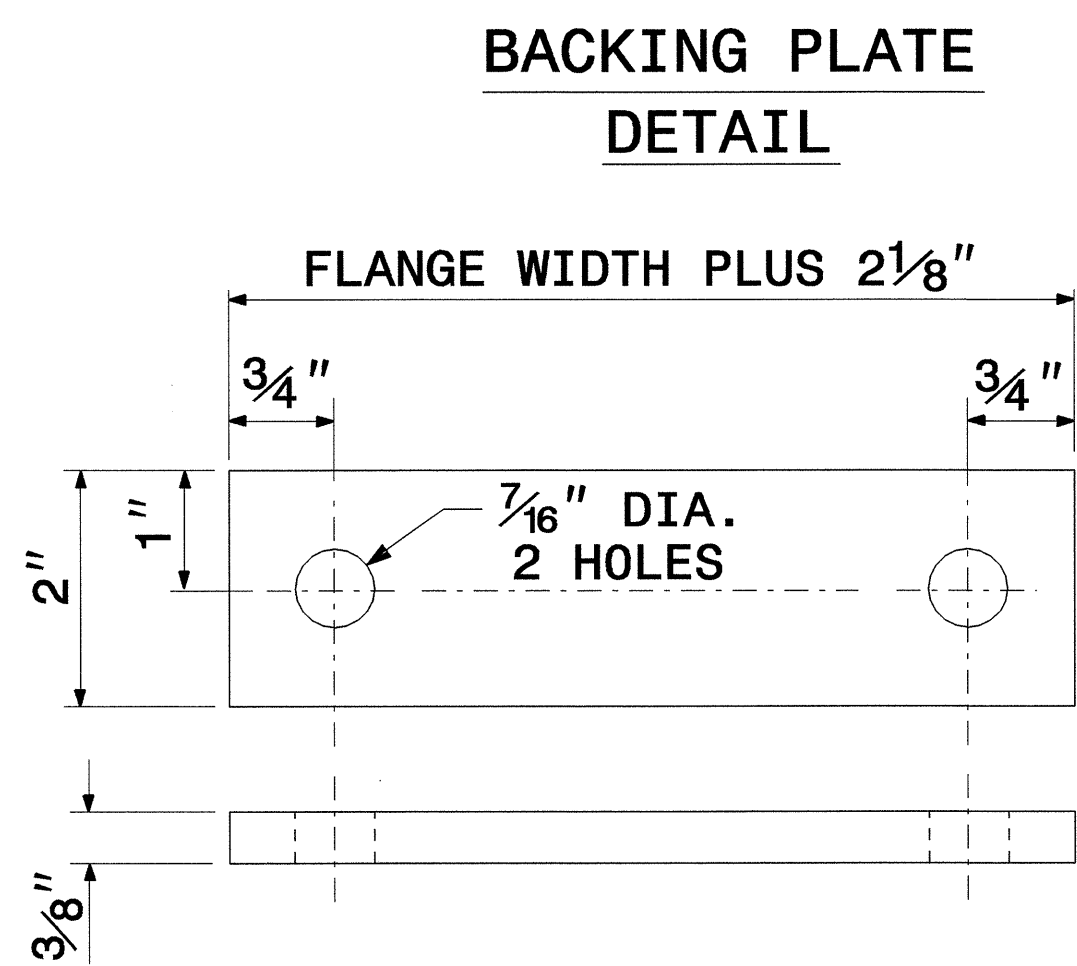
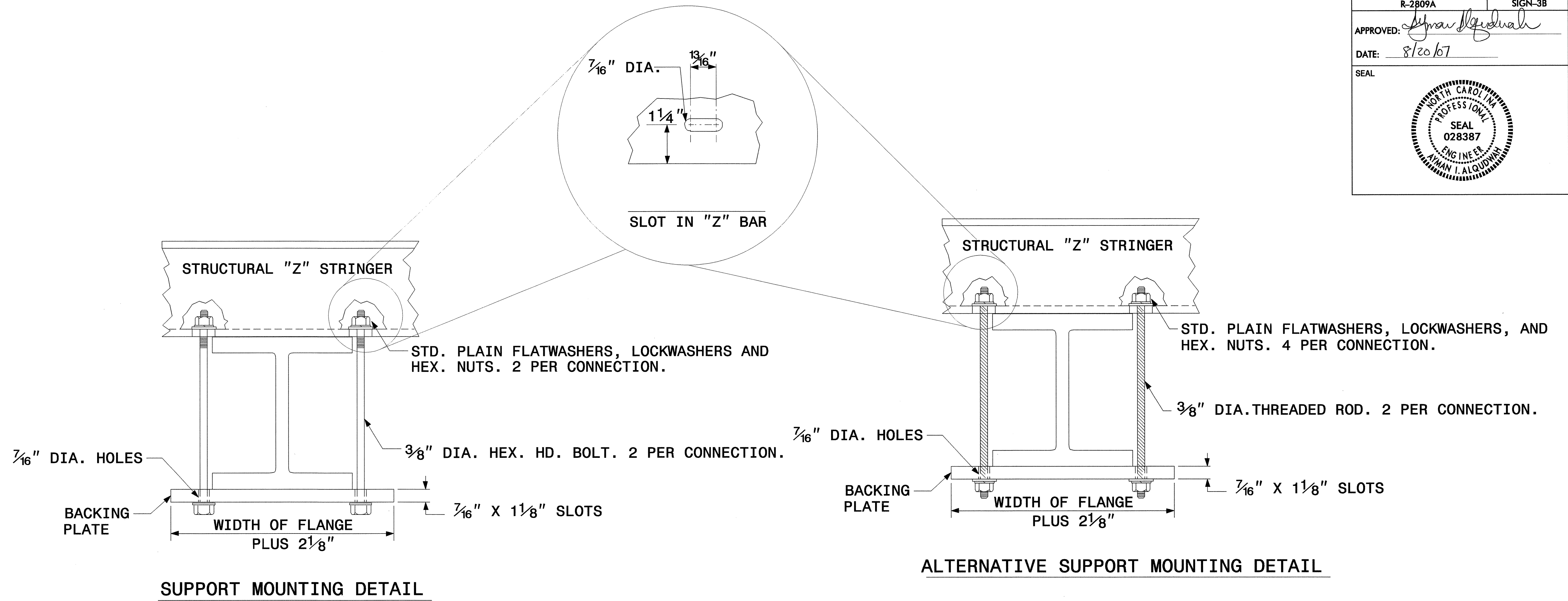
- A. REPLACE EXISTING OVERHEAD SPAN WIRE "WEST" PANEL WITH PROPOSED "BUSINESS" PANEL USING EXISTING SPAN WIRE HARDWARE MOUNTING SYSTEM.
- B. REPLACE PROPOSED SIGN PANELS ONLY, KEEP EXISTING SIGN SUPPORTS.
- C. RELOCATE EXISTING "BUSSINESS DISTRICT" SIGN PANEL.
- D. ADD "BUSINESS" SIGN PANEL TO EXISTING SIGN SUPPORT
- E. TOWN OF WAKE FOREST TO ERRECT STREET SIGN ON U-POST SIGN SUPPORT.
- F. REMOVE SHIELD IMMEDIATELY BEFORE PLACING OVERLAY
- G. COORDINATE WITH THE TOWN OF WAKE FOREST FOR SIGN PLACEMENT

General Notes:

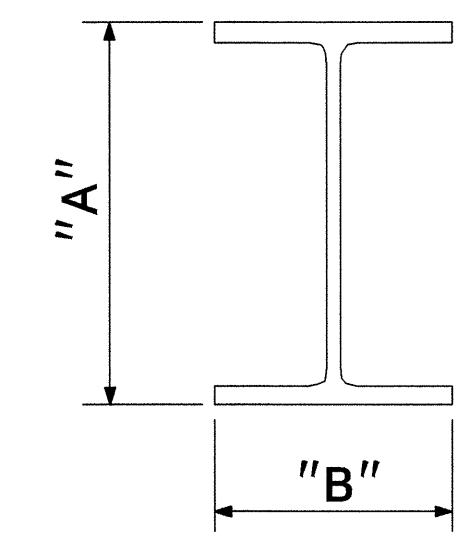
- . SIGNS FURNISHED BY STATE
- . ALL TYPE 'D' SIGNS SHALL BE MOUNTED ON TWO U-CHANNEL POSTS UNLESS OTHERWISE INDICATED ON THE PLANS.
- . IF REMOVAL OR RELOCATION OF SIGNS ON PRIVATE STREET (NON-STATE MAINTAINED) IS REQUIRED DUE TO CONSTRUCTION, THE CONTRACTOR SHALL INFORM THE ENGINEER. THE WORK WILL BE COMPLETED BY OTHERS.
- . 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
- . 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 III 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,
NOTES and applicable ROADWAY
STANDARD DRAWINGS**

*****SYTIME*****
*****PLOT DATE: 10/25/07*****



SIGN SUPPORTS SECTION DIMENSIONS

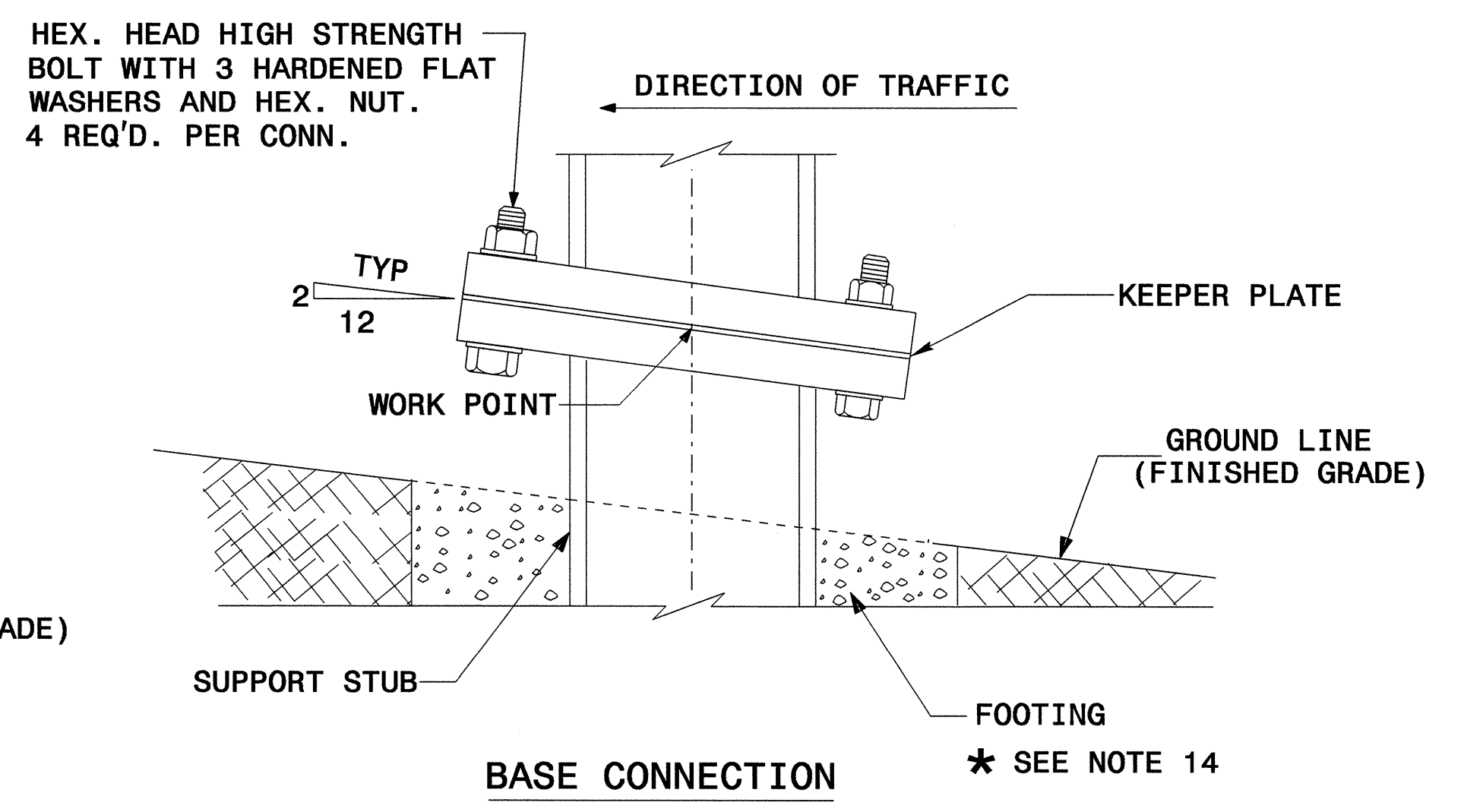
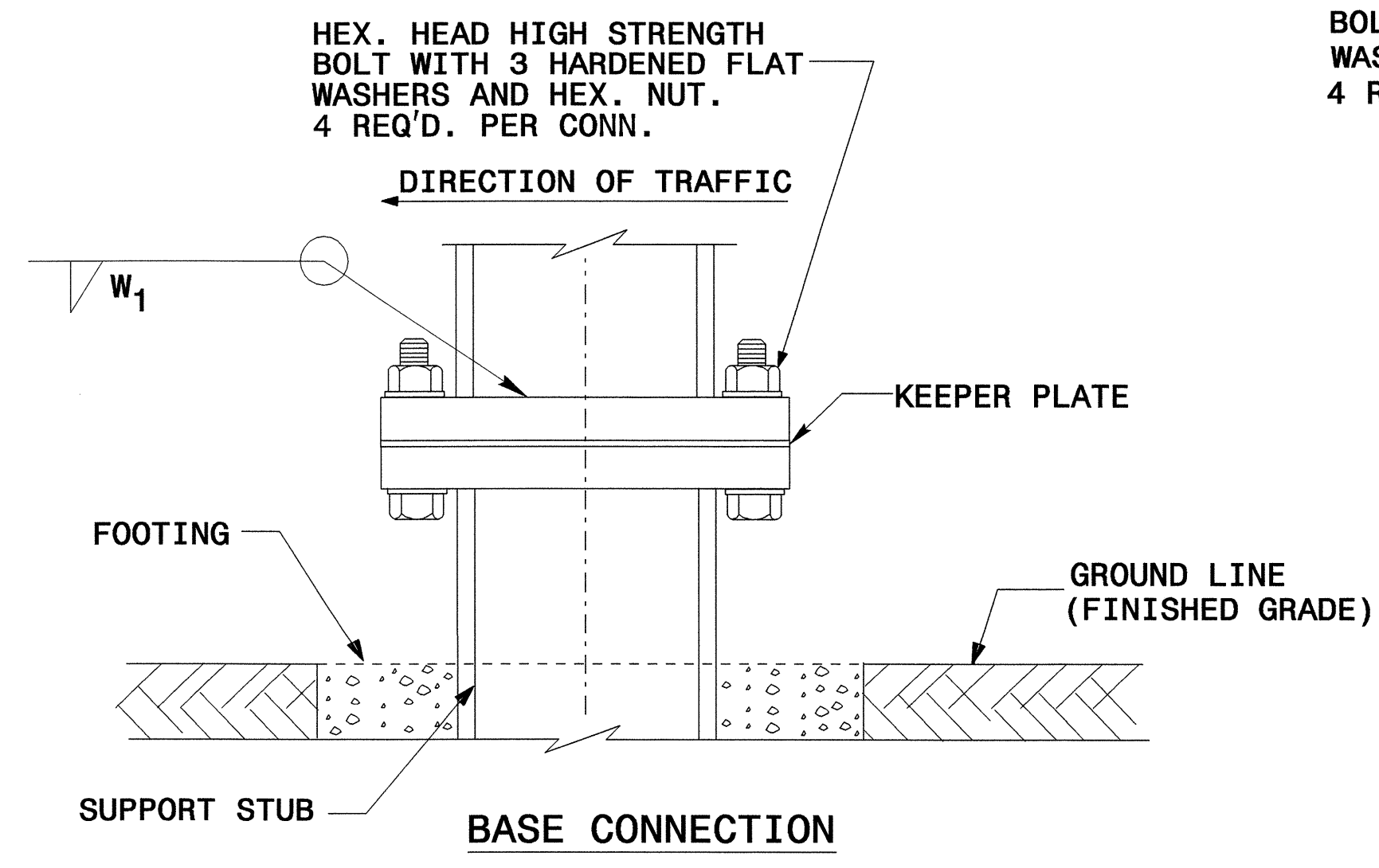
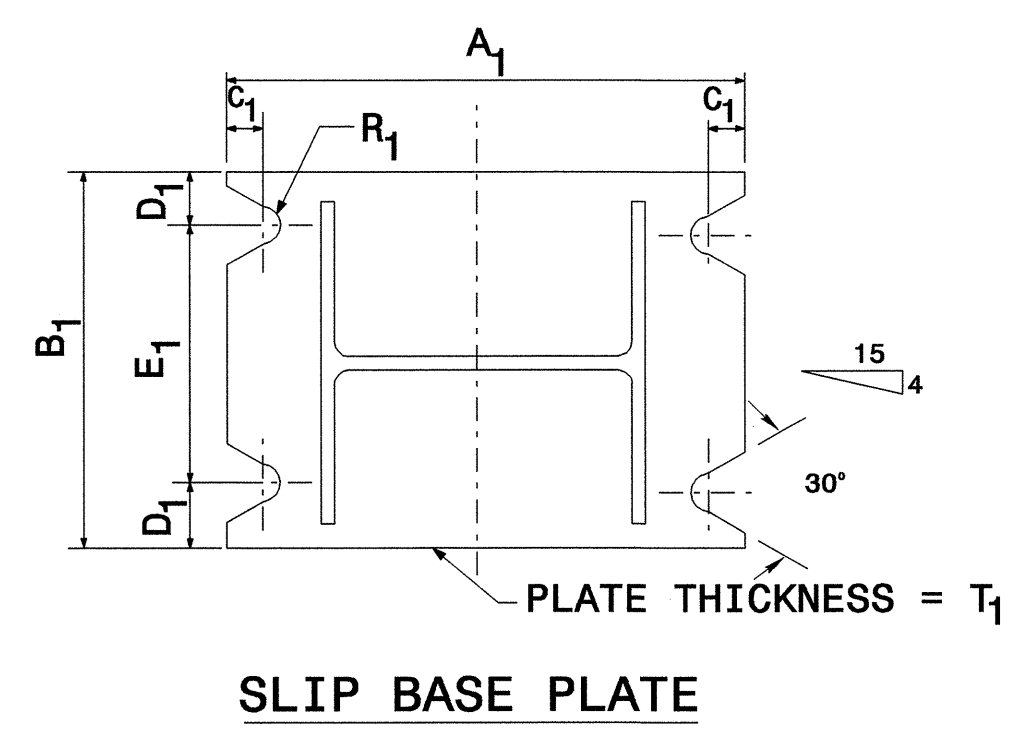
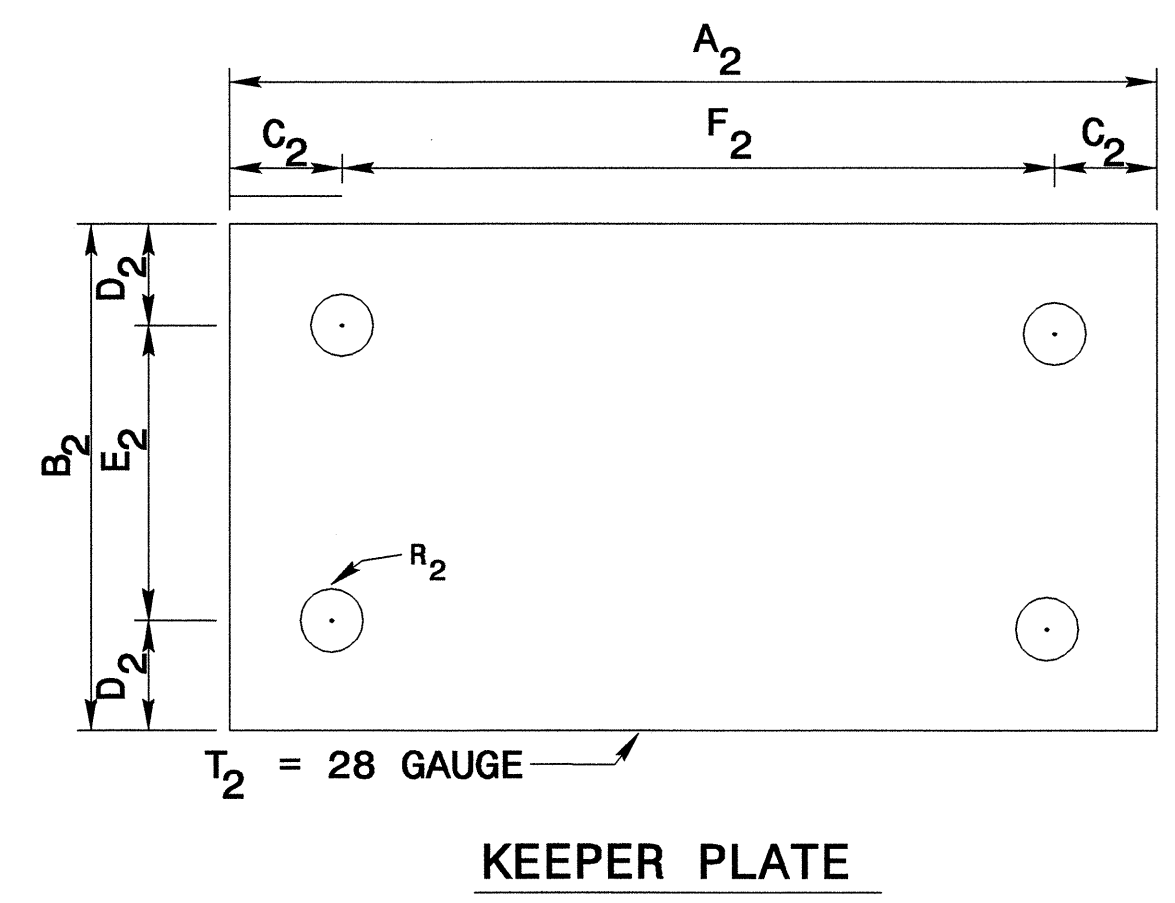
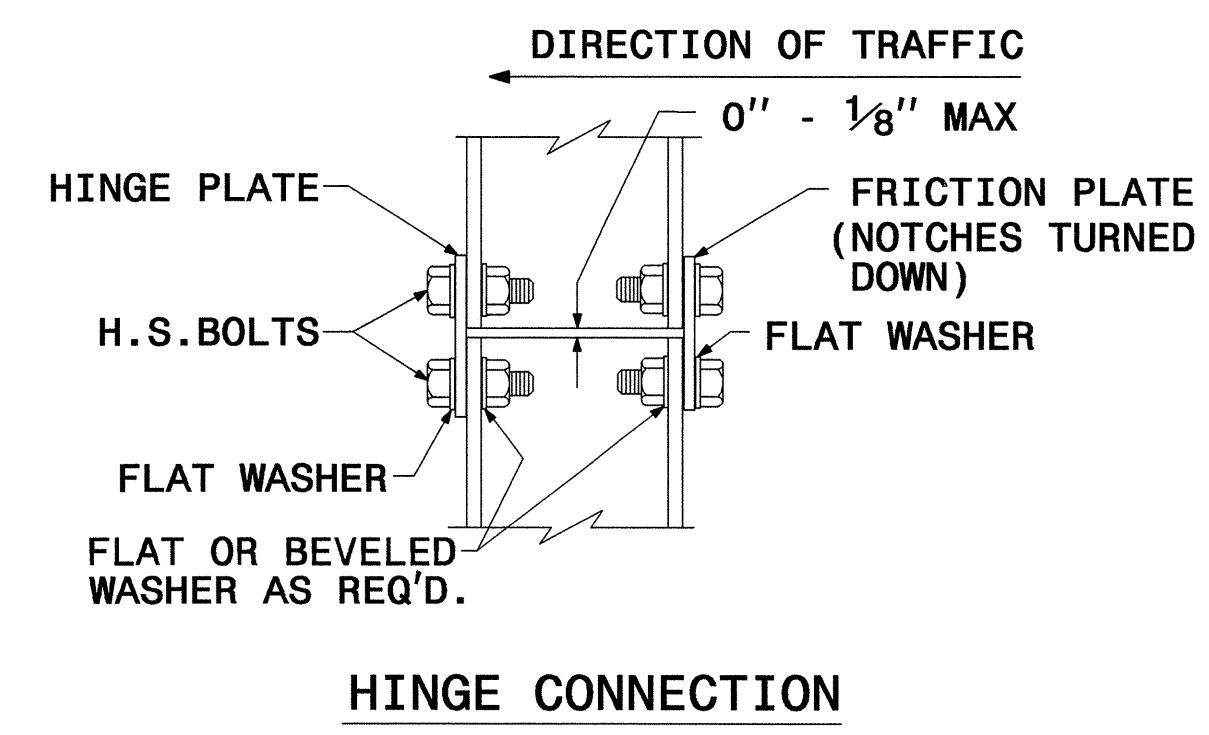
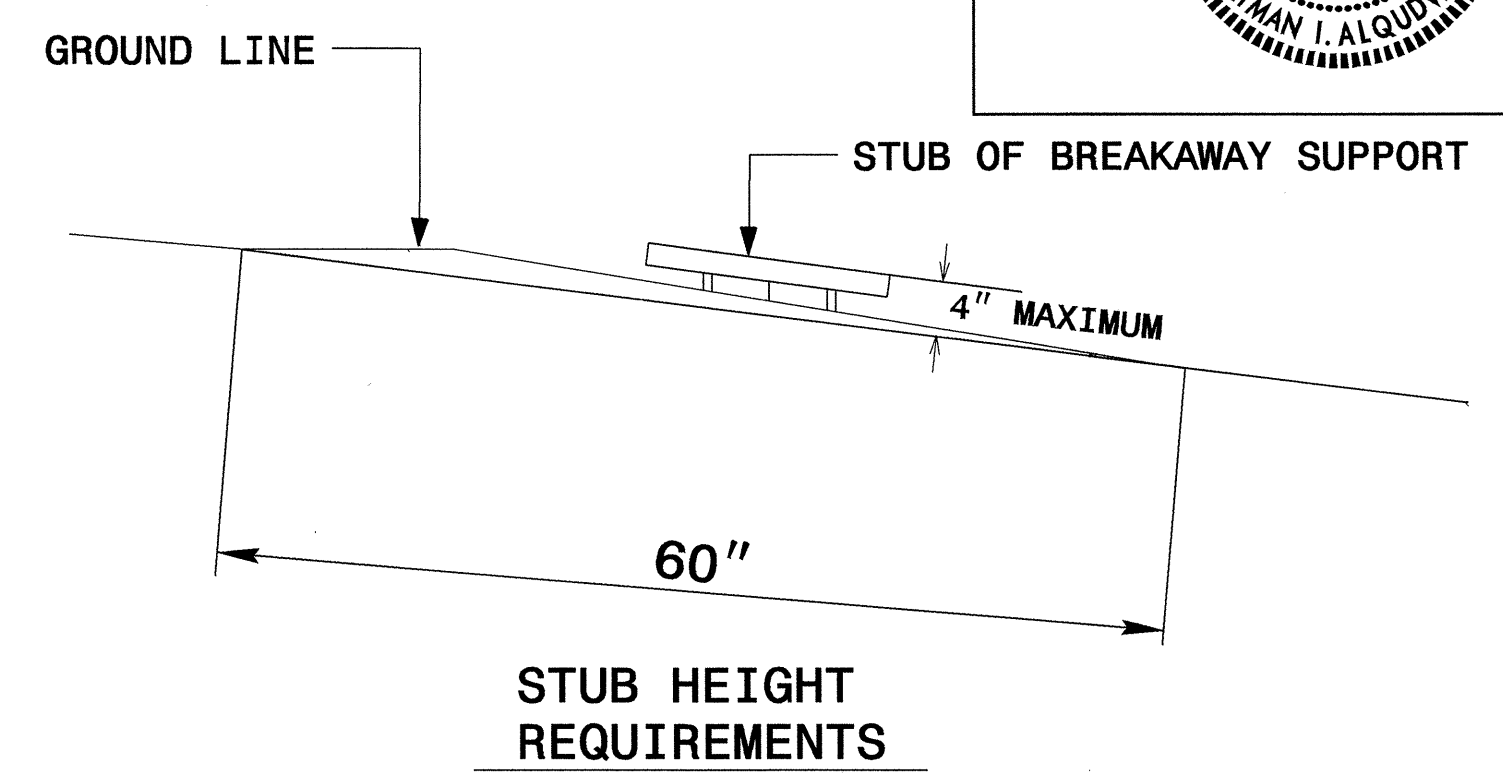
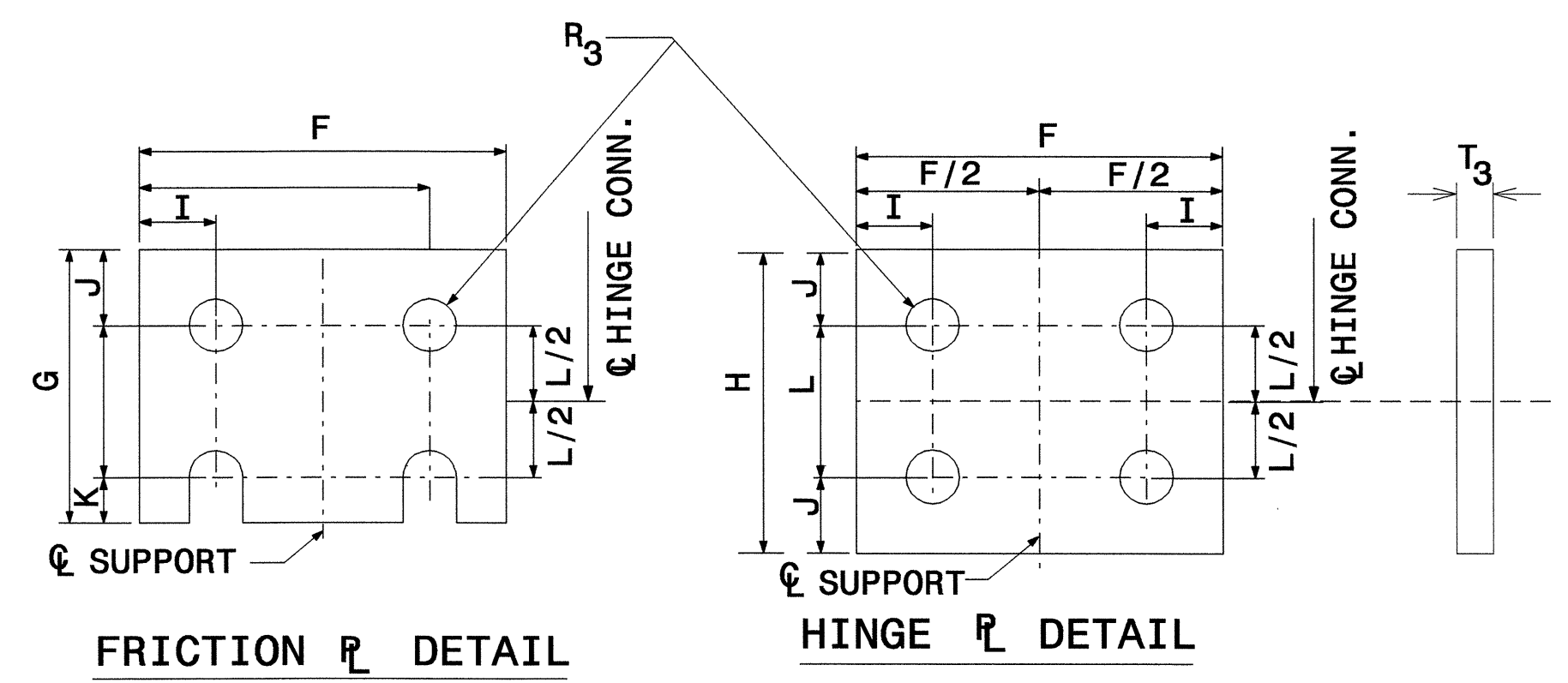
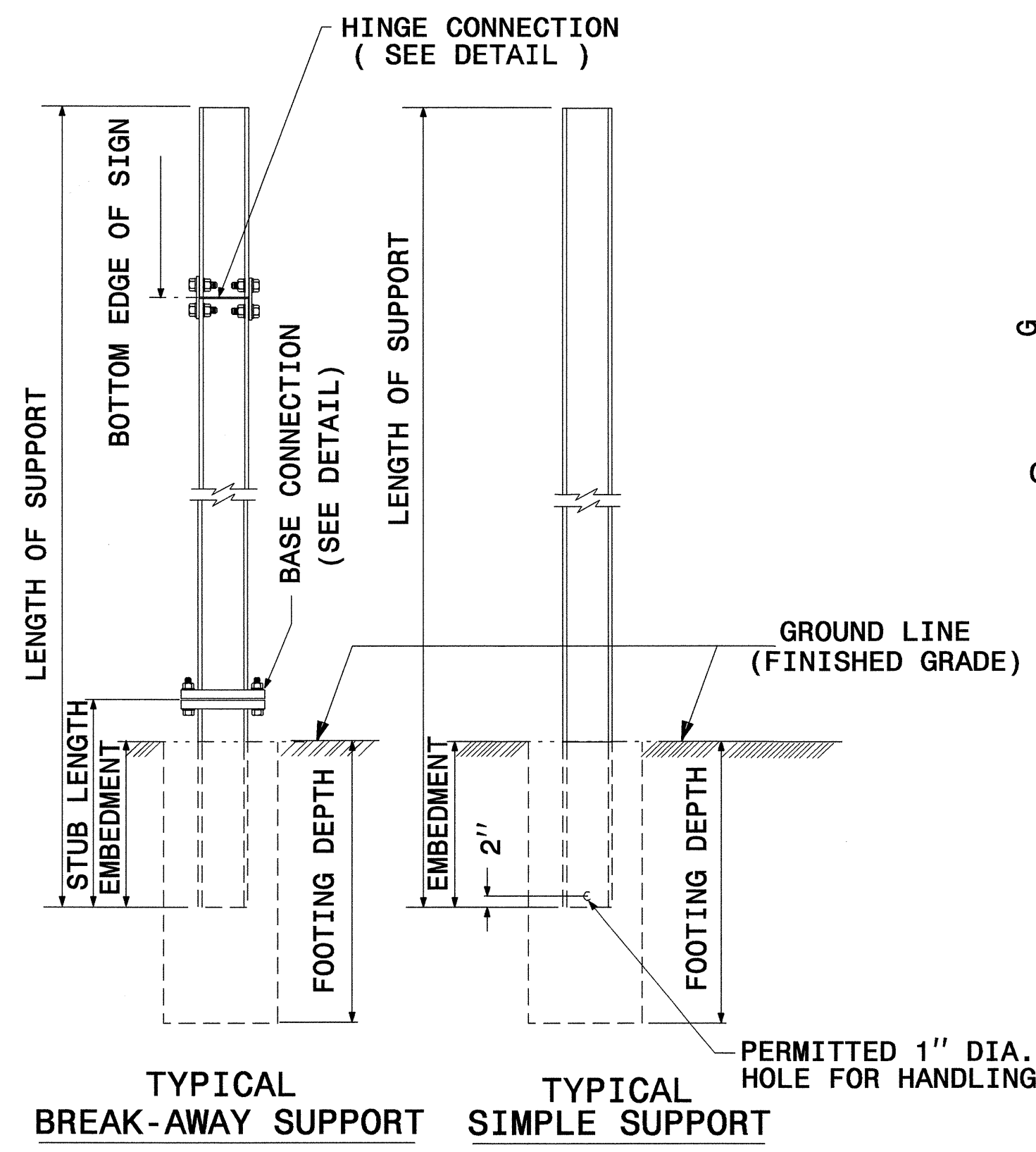


SECTION	A	B
S3 X 5.7	3"	$2\frac{3}{8}$ "
S4 X 7.7	4"	$2\frac{5}{8}$ "
W6 X 9	6"	4"
W6 X 12	6"	4"
W6 X 16	$6\frac{1}{4}$ "	4"
W8 X 18	$8\frac{1}{8}$ "	$5\frac{1}{4}$ "
W8 X 21	$8\frac{1}{4}$ "	$5\frac{1}{4}$ "
W10 X 22	$10\frac{1}{8}$ "	$5\frac{3}{4}$ "
W10 X 26	$10\frac{3}{8}$ "	$5\frac{3}{4}$ "
W12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

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

***** SYSTEMS *****
***** ENGINEERING *****

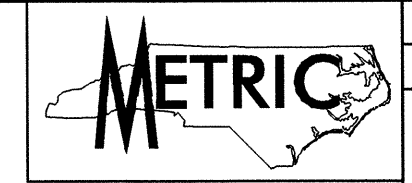


SEE SHEET SIGN-3D FOR DIMENSIONS.
SEE SHEET SIGN-3E FOR NOTES.

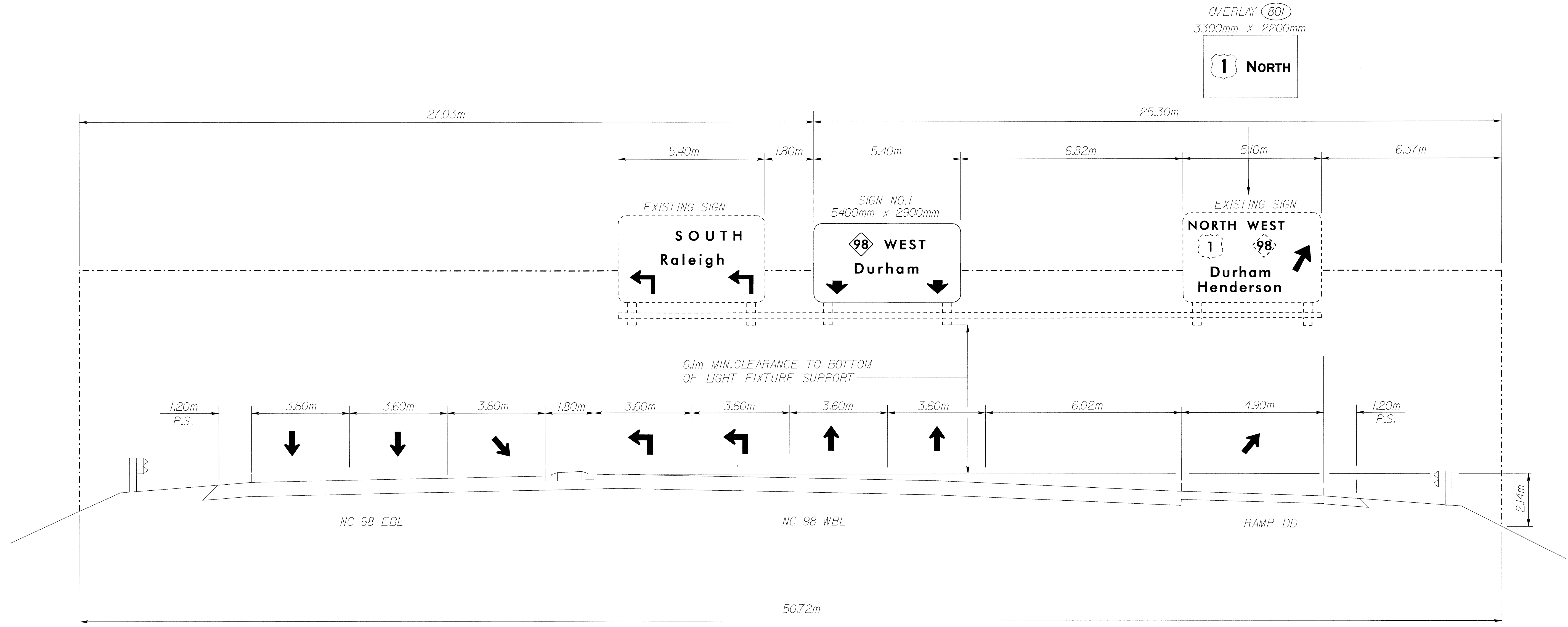
GROUND MOUNTED SIGN SUPPORT

3-Way check over hand

8/27/07



PROJECT REFERENCE NO. R-2809A	SHEET NO. SIGN-3F
APPROVED: <i>[Signature]</i>	
DATE: 8/27/07	
SEAL	



EXISTING OVERHEAD SIGN ASSEMBLY "B"
NC 98 WESTBOUND STA. 36+70.89 -L-

- NOTES:
1. ATTACH NEW OVERHEAD SIGN TO EXISTING OVERHEAD SIGN ASSEMBLY.
 2. THE BOTTOM EDGE OF ALL SIGNS IN EACH ASSEMBLY SHALL BE LOCATED ON A HORIZONTAL PLANE.
 3. MAINTAIN EXISTING LIGHTING FIXTURES, MOUNTING HARDWARE, AND WALKWAY. REFER TO SECTION 904-3(B) OF THE NCDOT STANDARD SPECIFICATIONS.

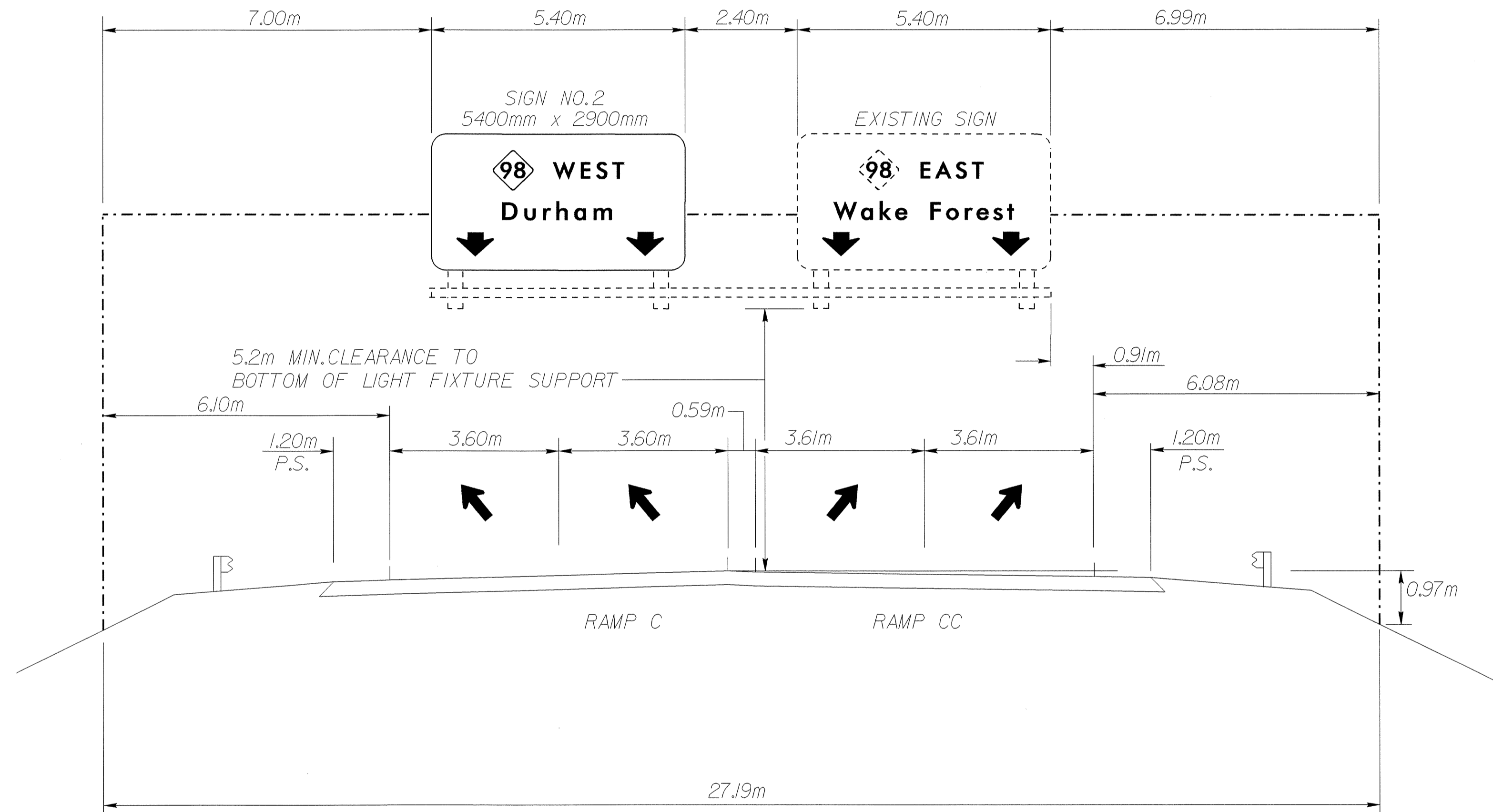
EXISTING OVERHEAD SIGN ASS'Y "B"
NC 98 WESTBOUND
STA. 36+60 -L-

8/17/07



PROJECT REFERENCE NO. R-2809A SHEET NO. SIGN-3G

APPROVED: [Signature] DATE: 8/20/07



EXISTING OVERHEAD SIGN ASSEMBLY "C"
RAMP "C" STA. 13+10 -RPC-

- NOTES:
1. ATTACH NEW OVERHEAD SIGN TO EXISTING OVERHEAD SIGN ASSEMBLY.
 2. THE BOTTOM EDGE OF ALL SIGNS IN EACH ASSEMBLY SHALL BE LOCATED ON A HORIZONTAL PLANE.
 3. MAINTAIN EXISTING LIGHTING FIXTURES, MOUNTING HARDWARE, AND WALKWAY. REFER TO SECTION 904-3(B) OF THE NCDOT STANDARD SPECIFICATIONS.

EXISTING OVERHEAD SIGN ASS'Y "C"
RAMP "C"
STA. 13+10 -RPC-

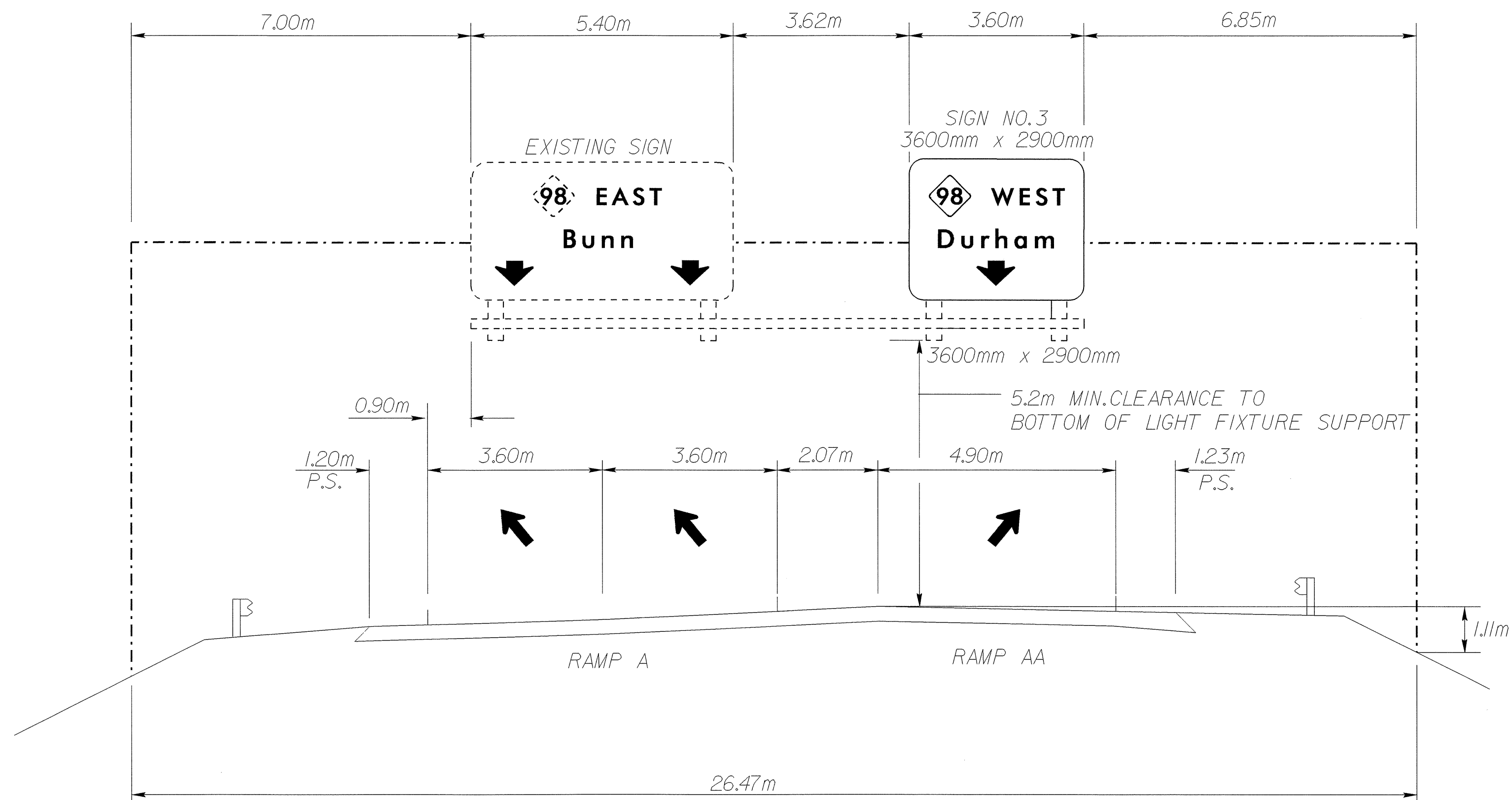
3-way check on Ward

8/17/09



PROJECT REFERENCE NO. R-2809A SHEET NO. SIGN-3H

APPROVED: *[Signature]* DATE: 8/20/07



EXISTING OVERHEAD SIGN ASSEMBLY "D"
RAMP "A" STA. 14+77 -RPA-

NOTES:

1. ATTACH NEW OVERHEAD SIGN TO EXISTING OVERHEAD SIGN ASSEMBLY.
2. THE BOTTOM EDGE OF ALL SIGNS IN EACH ASSEMBLY SHALL BE LOCATED ON A HORIZONTAL PLANE.
3. MAINTAIN EXISTING LIGHTING FIXTURES, MOUNTING HARDWARE, AND WALKWAY. REFER TO SECTION 904-3(B) OF THE NCDOT STANDARD SPECIFICATIONS.

EXISTING OVERHEAD SIGN ASS'Y "D"
RAMP "A"
STA. 14+77 -RPA-

3-wk check *[Signature]*



PROJECT REFERENCE NO. R-2809A SHEET NO. SIGN-4A

APPROVED: *[Signature]*
DATE: 8/20/07

SEAL



SIGN NUMBER: 105,108 TYPE: A QUANTITY: 2
 SIGN WIDTH: 4700mm HEIGHT: 3600mm TOTAL AREA: 16.9 Sq.m
 BORDER TYPE: FLUSH RECESS: 0mm WIDTH: 50mm RADII: 300mm
 NO. Z BARS: 3 LENGTH: 4496.8
 BACKG COLOR: Green COPY COLOR: White
 SYMBOL X Y WID HT
 NC482A 620 2271 900 900
 DESIGN BY: WARD CHECKED BY: EATON DATE: Aug 07, 2007
 PROJECT ID: I-2809A DIV: 5

USE NOTES: 1,3,4
 1. Legend and border shall be direct applied Type III reflective sheeting.
 2. Legend and border shall be direct applied non-reflective sheeting.
 3. Shields shall be Type III reflective sheeting on 0.032" (0.8mm) aluminum and demountable.
 4. Background shall be Type III reflective sheeting.
 5. Background shall be Type I reflective sheeting.
 6. Center arrow(s) vertically on sign.
 7. Bottom panel shall be yellow Type III sheeting. Legend shall be direct applied black non-reflective sheeting. Yellow panel is:

LETTER POSITIONS

Letter spacings are to start of next letter											Series/Size		
											Text Length		
B	U	S	I	N	E	S	S				E 2000		
1895	304	79	303	303	132	321	267	285	243	568	2237		
W	a	k	e	F	o	r	e	s	t		EM 2000		
426	484	424	352	264	400	368	396	260	344	348	208	426	3848
D	O	W	N	T	O	W	N				EM 2000		
1131	303	294	372	297	264	294	372	243	1131				2439
1/4	M	I	L	E							E 2000		
1474	549	375	300	110	230	188	1474				1752		

FILENAME: r2809a_sgn_guidsign NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 1,2 TYPE: A QUANTITY: 2
 SIGN WIDTH: 5400mm HEIGHT: 2900mm TOTAL AREA: 15.7 Sq.m
 BORDER TYPE: FLUSH RECESS: 0mm WIDTH: 50mm RADII: 300mm
 NO. Z BARS: 3 LENGTH: 5196.8
 BACKG COLOR: Green COPY COLOR: White
 SYMBOL X Y WID HT
 NC242 1453 1690 900 900
 ARDOWN 495 270 815 559
 ARDOWN 4090 270 815 559
 DESIGN BY: WARD CHECKED BY: EATON DATE: Aug 08, 2007
 PROJECT ID: I-2809A DIV: 5

USE NOTES: 1,3,4
 1. Legend and border shall be direct applied Type III reflective sheeting.
 2. Legend and border shall be direct applied non-reflective sheeting.
 3. Shields shall be Type III reflective sheeting on 0.032" (0.8mm) aluminum and demountable.
 4. Background shall be Type III reflective sheeting.
 5. Background shall be Type I reflective sheeting.
 6. Center arrow(s) vertically on sign.
 7. Bottom panel shall be yellow Type III sheeting. Legend shall be direct applied black non-reflective sheeting. Yellow panel is:

LETTER POSITIONS

Letter spacings are to start of next letter							Series/Size	
							Text Length	
W	E	S	T				E 2000	
2728	398	54	267	276	225	1453	1220	
D	u	r	h	a	m		EM 2000	
1492	444	424	296	368	424	440	1492	2416

FILENAME: r2809a_sgn_guidsign NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 106,107 TYPE: A QUANTITY: 2
 SIGN WIDTH: 4700mm HEIGHT: 3600mm TOTAL AREA: 16.9 Sq.m
 BORDER TYPE: FLUSH RECESS: 0mm WIDTH: 50mm RADII: 300mm
 NO. Z BARS: 3 LENGTH: 4496.8
 BACKG COLOR: Green COPY COLOR: White
 SYMBOL X Y WID HT
 NC482A 620 2440 900 900
 ARMED 2004 222 565 890
 DESIGN BY: WARD CHECKED BY: EATON DATE: Aug 16, 2007
 PROJECT ID: R-2809A DIV: 5

USE NOTES: 1,3,4
 1. Legend and border shall be direct applied Type III reflective sheeting.
 2. Legend and border shall be direct applied non-reflective sheeting.
 3. Shields shall be Type III reflective sheeting on 0.032" (0.8mm) aluminum and demountable.
 4. Background shall be Type III reflective sheeting.
 5. Background shall be Type I reflective sheeting.
 6. Center arrow(s) vertically on sign.
 7. Bottom panel shall be yellow Type III sheeting. Legend shall be direct applied black non-reflective sheeting. Yellow panel is:

LETTER POSITIONS

Letter spacings are to start of next letter											Series/Size		
											Text Length		
B	U	S	I	N	E	S	S				E 2000		
1895	304	79	303	303	132	321	267	285	243	568	2237		
W	a	k	e	F	o	r	e	s	t		EM 2000		
426	484	424	352	264	400	368	396	260	344	348	208	426	3848
D	O	W	N	T	O	W	N				EM 2000		
1131	303	294	372	297	264	294	372	243	1131				2439

FILENAME: r2809a_sgn_guidsign NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 3 TYPE: A QUANTITY: 1
 SIGN WIDTH: 3600mm HEIGHT: 2900mm TOTAL AREA: 10.4 Sq.m
 BORDER TYPE: FLUSH RECESS: 0mm WIDTH: 50mm RADII: 300mm
 NO. Z BARS: 3 LENGTH: 3396.8
 BACKG COLOR: Green COPY COLOR: White
 SYMBOL X Y WID HT
 NC242 553 1690 900 900
 ARDOWN 1353 270 815 559
 DESIGN BY: WARD CHECKED BY: EATON DATE: Aug 08, 2007
 PROJECT ID: I-2809B DIV: 5

USE NOTES: 1,3,4
 1. Legend and border shall be direct applied Type III reflective sheeting.
 2. Legend and border shall be direct applied non-reflective sheeting.
 3. Shields shall be Type III reflective sheeting on 0.032" (0.8mm) aluminum and demountable.
 4. Background shall be Type III reflective sheeting.
 5. Background shall be Type I reflective sheeting.
 6. Center arrow(s) vertically on sign.
 7. Bottom panel shall be yellow Type III sheeting. Legend shall be direct applied black non-reflective sheeting. Yellow panel is:

LETTER POSITIONS

Letter spacings are to start of next letter							Series/Size	
							Text Length	
W	E	S	T				E 2000	
1828	398	54	267	276	225	553	1220	
D	u	r	h	a	m		EM 2000	
592	444	424	296	368	424	440	592	2416

FILENAME: r2809a_sgn_guidsign NORTH CAROLINA D.O.T. SIGN DETAIL

TYPE A SIGNS
SIGN DESIGNS

2-10-07 Chuck Price, Roland



APPROVED: *[Signature]*
DATE: 8/20/07



SIGN NUMBER: 101
TYPE: A
QUANTITY: 1
SIGN WIDTH: 2400mm
HEIGHT: 1600
TOTAL AREA: 3.8 Sq.m
BORDER TYPE: FLUSH
RECESS: 0mm
WIDTH: 25mm
RADII: 225mm
NO. Z BARS: 2
LENGTH: 2196.8

BACKG COLOR: Brown/Brown
COPY COLOR: White

SYMBOL	X	Y	WID	HT
ARUP	175	1178	150	225
ARUP	165	399	150	225

DESIGN BY: WARD
PROJECT ID: R-2809A
CHECKED BY: EATON
DIV: 5
DATE: Jul 20, 2007

USE NOTES: 1,4,6
1. Legend and border shall be direct applied Type III reflective sheeting.
2. Legend and border shall be direct applied non-reflective sheeting.
3. Shields shall be Type III reflective sheeting on 0.032" (0.8mm) aluminum and demountable.
4. Background shall be Type III reflective sheeting.
5. Background shall be Type I reflective sheeting.
6. Center arrow(s) vertically on sign.
7. Bottom panel shall be yellow Type III sheeting. Legend shall be direct applied black non-reflective sheeting. Yellow panel is:

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter

	F	A	L	L	S	L	A	K	E		Series/Size									
	876	86	117	98	90	84	150	86	117	110	77	511	C 2000							
													1013							
	612	110	99	114	110	90	105	98	51	119	84	150	117	110	90	96	247	C 2000		
																		1541		
	899	86	117	98	90	84	150	102	117	99	559							C 2000		
																		942		
	832	117	117	84	150	114	47	110	42	95	119	84	491					C 2000		
																		1077		
	507	110	102	110	47	98	86	117	114	114	77	150	114	102	105	98	102	84	166	C 2000
																			1727	

FILENAME: r2809a_sgn_guidesign NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 103,104
TYPE: A
QUANTITY: 2
SIGN WIDTH: 4900mm
HEIGHT: 1900mm
TOTAL AREA: 9.3 Sq.m
BORDER TYPE: FLUSH
RECESS: 0mm
WIDTH: 50mm
RADII: 240mm
NO. Z BARS: 2
LENGTH: 4696.8

BACKG COLOR: Brown
COPY COLOR: White

SYMBOL	X	Y	WID	HT

DESIGN BY: WARD
PROJECT ID: R-2809A
CHECKED BY: EATON
DIV: 5
DATE: Aug 16, 2007

USE NOTES: 1,4
1. Legend and border shall be direct applied Type III reflective sheeting.
2. Legend and border shall be direct applied non-reflective sheeting.
3. Shields shall be Type III reflective sheeting on 0.032" (0.8mm) aluminum and demountable.
4. Background shall be Type III reflective sheeting.
5. Background shall be Type I reflective sheeting.
6. Center arrow(s) vertically on sign.
7. Bottom panel shall be yellow Type III sheeting. Legend shall be direct applied black non-reflective sheeting. Yellow panel is:

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter

	F	a	l	l	s	L	a	k	e		Series/Size							
	1097	304	350	198	162	218	330	287	350	290	218	1097	EM 2000					
													2706					
	343	327	290	320	215	290	317	277	168	327	218	330	412	215	290	218	343	EM 2000
																		4214
	1118	321	267	294	225	300	303	123	312	294	225	1118						E 2000
																		2664

FILENAME: r2809a_sgn_guidesign NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 102
TYPE: A
QUANTITY: 1
SIGN WIDTH: 3300mm
HEIGHT: 900mm
TOTAL AREA: 3.0 Sq.m
BORDER TYPE: FLUSH
RECESS: 0mm
WIDTH: 25mm
RADII: 75mm
NO. Z BARS: 2
LENGTH: 3096.8

BACKG COLOR: Brown
COPY COLOR: White

SYMBOL	X	Y	WID	HT
ARUP	186	350	200	300

DESIGN BY: WARD
PROJECT ID: I-2809A
CHECKED BY: EATON
DIV: 5
DATE: Jul 20, 2007

USE NOTES: 1,4,6
1. Legend and border shall be direct applied Type III reflective sheeting.
2. Legend and border shall be direct applied non-reflective sheeting.
3. Shields shall be Type III reflective sheeting on 0.032" (0.8mm) aluminum and demountable.
4. Background shall be Type III reflective sheeting.
5. Background shall be Type I reflective sheeting.
6. Center arrow(s) vertically on sign.
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Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter

	F	A	L	L	S	L	A	K	E		Series/Size							
	1100	136	200	154	140	136	200	136	200	174	124	600	D 2000					
													1600					
	686	170	154	180	170	140	182	154	76	186	136	200	200	170	140	170	186	D 2000
																		2428

FILENAME: r2809a_sgn_guidesign NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 303
TYPE: D
QUANTITY: 1
SIGN WIDTH: 2400mm
HEIGHT: 900mm
TOTAL AREA: 2.2 Sq.m
BORDER TYPE: FLUSH
RECESS: 0mm
WIDTH: 40mm
RADII: 115mm
NO. Z BARS: 2
LENGTH: 2196.8

BACKG COLOR: Green
COPY COLOR: White

SYMBOL	X	Y	WID	HT

DESIGN BY: WARD
PROJECT ID: R-2809A
CHECKED BY: EATON
DIV: 5
DATE: Aug 14, 2007

USE NOTES: 1,4
1. Legend and border shall be direct applied Type III reflective sheeting.
2. Legend and border shall be direct applied non-reflective sheeting.
3. Shields shall be Type III reflective sheeting on 0.032" (0.8mm) aluminum and demountable.
4. Background shall be Type III reflective sheeting.
5. Background shall be Type I reflective sheeting.
6. Center arrow(s) vertically on sign.
7. Bottom panel shall be yellow Type III sheeting. Legend shall be direct applied black non-reflective sheeting. Yellow panel is:

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

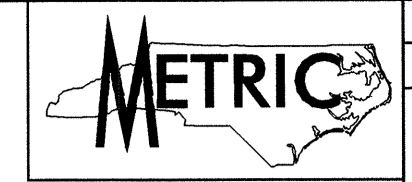
Letter spacings are to start of next letter

	W	a	k	e	F	o	r	e	s	t		Series/Size		
	238	242	212	176	132	200	184	198	130	172	174	104	238	EM 2000
														1924
	608	156	53	125	153	150	138	66	180	53	113	608		E 2000
														1185

FILENAME: r2809a_sgn_guidesign NORTH CAROLINA D.O.T. SIGN DETAIL

TYPE A & D SIGNS
SIGN DESIGNS

2-row check per Ward



APPROVED: *[Signature]*
DATE: 8/20/07



SIGN NUMBER: 301 **BACKG COLOR:** Brown **DESIGN BY:** WARD **CHECKED BY:** EATON **DATE:** Jul 19, 2007
TYPE: D **COPY COLOR:** White **PROJECT ID:** R-2809A **DIV:** 5

SYMBOL	X	Y	WID	HT
ARUP	2007	375	150	225

SIGN WIDTH: 2400mm
HEIGHT: 900mm
TOTAL AREA: 2.2 Sq.m

BORDER TYPE: FLUSH
RECESS: 0mm
WIDTH: 25mm
RADII: 75mm

NO. Z BARS: _____
LENGTH: _____

MAT'L: 0.125" (3.2 mm) ALUMINUM

USE NOTES: 1,4,6
1. Legend and border shall be direct applied Type III reflective sheeting.
2. Legend and border shall be direct applied non-reflective sheeting.
3. Shields shall be Type III reflective sheeting on 0.032" (0.8mm) aluminum and demountable.
4. Background shall be Type III reflective sheeting.
5. Background shall be Type I reflective sheeting.
6. Center arrow(s) vertically on sign.
7. Bottom panel shall be yellow Type III sheeting. Legend shall be direct applied black non-reflective sheeting. Yellow panel is:

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter													Series/Size
	F	A	L	L	S	L	A	K	E				Text Length
	560	86	117	98	90	84	150	102	117	99	898		C 2000
													942
	492	117	117	84	150	114	46	109	42	94	118	84	1077
	168	110	102	110	47	98	86	117	114	114	77	150	1727

FILENAME: r2809a_sgn_guidesign NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 605,606,607,608 **BACKG COLOR:** Green **DESIGN BY:** WARD **CHECKED BY:** EATON **DATE:** Aug 08, 2007
TYPE: OVERLAY **COPY COLOR:** WHITE **PROJECT ID:** R-2809A **DIV:** 5

SYMBOL	X	Y	WID	HT
NC242	1050	50	900	900

SIGN WIDTH: 3000mm
HEIGHT: 1000mm
TOTAL AREA: 3.0 Sq.m

BORDER TYPE: SQUARE
RECESS: 0mm
WIDTH: 0mm
RADII: 0mm

NO. Z BARS: _____
LENGTH: _____

MAT'L: 0.063" (1.6 mm) ALUMINUM

USE NOTES: 3,4
1. Legend and border shall be direct applied Type III reflective sheeting.
2. Legend and border shall be direct applied non-reflective sheeting.
3. Shields shall be Type III reflective sheeting on 0.032" (0.8mm) aluminum and demountable.
4. Background shall be Type III reflective sheeting.
5. Background shall be Type I reflective sheeting.
6. Center arrow(s) vertically on sign.
7. Bottom panel shall be yellow Type III sheeting. Legend shall be direct applied black non-reflective sheeting. Yellow panel is:

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter													Series/Size
	F	A	L	L	S	L	A	K	E				Text Length

FILENAME: r2809a_sgn_guidesign NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 302 **BACKG COLOR:** Brown **DESIGN BY:** WARD **CHECKED BY:** EATON **DATE:** Aug 14, 2007
TYPE: D **COPY COLOR:** White **PROJECT ID:** R-2809A **DIV:** 5

SYMBOL	X	Y	WID	HT
ARUP	2148	225	150	225

SIGN WIDTH: 2500mm
HEIGHT: 600mm
TOTAL AREA: 1.5 Sq.m

BORDER TYPE: FLUSH
RECESS: 0mm
WIDTH: 25mm
RADII: 75mm

NO. Z BARS: _____
LENGTH: _____

MAT'L: 0.125" (3.2 mm) ALUMINUM

USE NOTES: 1,4,6
1. Legend and border shall be direct applied Type III reflective sheeting.
2. Legend and border shall be direct applied non-reflective sheeting.
3. Shields shall be Type III reflective sheeting on 0.032" (0.8mm) aluminum and demountable.
4. Background shall be Type III reflective sheeting.
5. Background shall be Type I reflective sheeting.
6. Center arrow(s) vertically on sign.
7. Bottom panel shall be yellow Type III sheeting. Legend shall be direct applied black non-reflective sheeting. Yellow panel is:

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter													Series/Size
	F	A	L	L	S	L	A	K	E				Text Length
	462	102	150	116	105	102	150	102	150	131	93	838	D 2000
													1200
	152	128	116	135	128	105	136	116	57	139	102	150	D 2000
													1821

FILENAME: r2809a_sgn_guidesign NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 601,602,603,604 **BACKG COLOR:** Green **DESIGN BY:** WARD **CHECKED BY:** EATON **DATE:** Aug 07, 2007
TYPE: OVERLAY **COPY COLOR:** WHITE **PROJECT ID:** R-2809A **DIV:** 5

SYMBOL	X	Y	WID	HT

SIGN WIDTH: 2500mm
HEIGHT: 500mm
TOTAL AREA: 1.3 Sq.m

BORDER TYPE: SQUARE
RECESS: 0mm
WIDTH: 0mm
RADII: 0mm

NO. Z BARS: _____
LENGTH: _____

MAT'L: 0.063" (1.6 mm) ALUMINUM

USE NOTES: 1,4
1. Legend and border shall be direct applied Type III reflective sheeting.
2. Legend and border shall be direct applied non-reflective sheeting.
3. Shields shall be Type III reflective sheeting on 0.032" (0.8mm) aluminum and demountable.
4. Background shall be Type III reflective sheeting.
5. Background shall be Type I reflective sheeting.
6. Center arrow(s) vertically on sign.
7. Bottom panel shall be yellow Type III sheeting. Legend shall be direct applied black non-reflective sheeting. Yellow panel is:

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter													Series/Size
	F	A	L	L	S	L	A	K	E				Text Length
	42	444	424	296	388	424	440	42					EN 2000
													2416

FILENAME: r2809a_sgn_guidesign NORTH CAROLINA D.O.T. SIGN DETAIL

**TYPE D & OVERLAY SIGNS
SIGN DESIGNS**

3-way check per Ward



APPROVED: *[Signature]*

DATE: 8/27/07

SEAL



SIGN NUMBER: 801 TYPE: OVERLAY QUANTITY: 1 SIGN WIDTH: 3300mm HEIGHT: 2200mm TOTAL AREA: 7.3 Sq.m BORDER TYPE: SQUARE RECESS: 0mm WIDTH: 0mm RADII: 0mm NO. Z BARS: LENGTH:	BACKG COLOR: Green COPY COLOR: White SYMBOL X Y WID HT M1_4 263 650 900 900 MAT'L: 0.063" (1.6 mm) ALUMINUM	DESIGN BY: WARD PROJECT ID: R-2809A CHECKED BY: EATON DIV: 5 DATE: Aug 23, 2007
--	---	---

USE NOTES: 1,4
 1. Legend and border shall be direct applied Type III reflective sheeting.
 2. Legend and border shall be direct applied non-reflective sheeting.
 3. Shields shall be Type III reflective sheeting on 0.032" (0.8mm) aluminum and demountable.
 4. Background shall be Type III reflective sheeting.
 5. Background shall be Type I reflective sheeting.
 6. Center arrow(s) vertically on sign.
 7. Bottom panel shall be yellow Type III sheeting. Legend shall be direct applied black non-reflective sheeting. Yellow panel is:

Letter positions table:
 Letter spacings are to start of next letter
 Series/Size Text Length
 E 2000 1499

Spacing Factor is 1 unless specified otherwise

FILENAME: r2809a_sgn_guidesign NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 802 TYPE: OVERLAY QUANTITY: 1 SIGN WIDTH: 3300mm HEIGHT: 2200mm TOTAL AREA: 7.3 Sq.m BORDER TYPE: SQUARE RECESS: 0mm WIDTH: 0mm RADII: 0mm NO. Z BARS: LENGTH:	BACKG COLOR: Green COPY COLOR: White SYMBOL X Y WID HT M1_4 263 650 900 900 MAT'L: 0.063" (1.6 mm) ALUMINUM	DESIGN BY: WARD PROJECT ID: R-2809A CHECKED BY: EATON DIV: 5 DATE: Aug 23, 2007
--	---	---

USE NOTES: 1,4
 1. Legend and border shall be direct applied Type III reflective sheeting.
 2. Legend and border shall be direct applied non-reflective sheeting.
 3. Shields shall be Type III reflective sheeting on 0.032" (0.8mm) aluminum and demountable.
 4. Background shall be Type III reflective sheeting.
 5. Background shall be Type I reflective sheeting.
 6. Center arrow(s) vertically on sign.
 7. Bottom panel shall be yellow Type III sheeting. Legend shall be direct applied black non-reflective sheeting. Yellow panel is:

Letter positions table:
 Letter spacings are to start of next letter
 Series/Size Text Length
 E 2000 1499

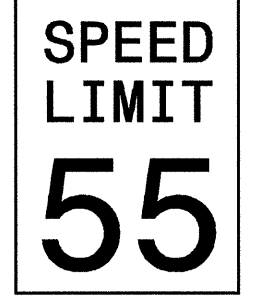
Spacing Factor is 1 unless specified otherwise

FILENAME: r2809a_sgn_guidesign NORTH CAROLINA D.O.T. SIGN DETAIL



TIP NO. R-2809A	SHEET NO. SIGN-4E
APPROVED: <i>Amman I. Alquodhi</i>	
DATE: 8/27/17	
SEAL	


401 QUANTITY REQ'D 3



914 X 1219
R2-1

TWO "U" POSTS PER SIGN

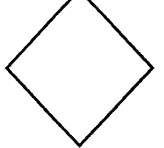
411 QUANTITY REQ'D 10



762 X 762
R5-1

ONE "U" POST PER SIGN

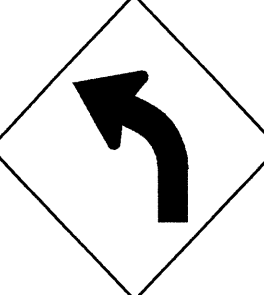
417 QUANTITY REQ'D 8



457 X 457
W23-15

MOUNT BELOW SIGN 415 & 416.
IN 8 INSTALLATIONS

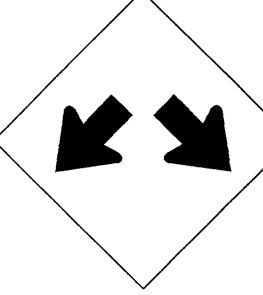
447 QUANTITY REQ'D 1



914 X 914
W1-2L

ONE "U" POST PER SIGN

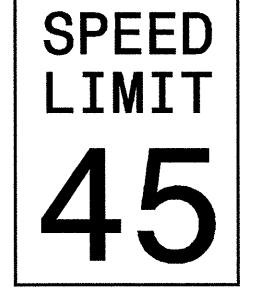
463 QUANTITY REQ'D 2



914 X 914
W12-1

ONE "U" POST PER SIGN


402 QUANTITY REQ'D 1



914 X 1219
R2-1

TWO "U" POSTS PER SIGN

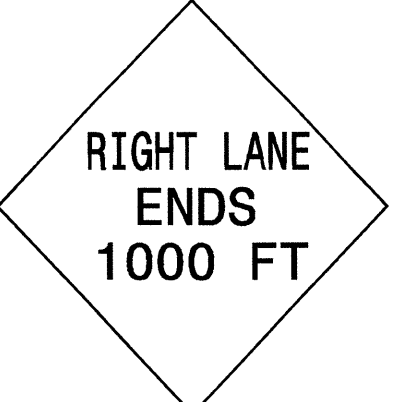
413 QUANTITY REQ'D 2



1372 X 457
R6-1 (R)

TWO "U" POSTS PER SIGN
MOUNT BACK TO BACK WITH
SIGN 414 IN 1 LOCATION

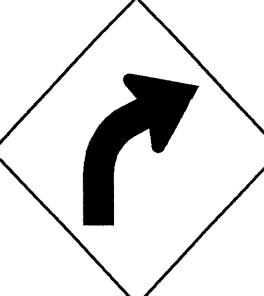
435 QUANTITY REQ'D 1



1219 X 1219
W19-10(R)

TWO "U" POSTS PER SIGN

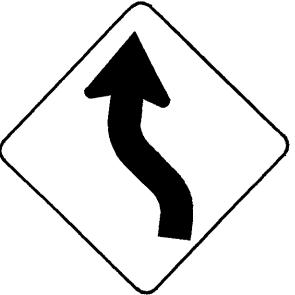
448 QUANTITY REQ'D 1



914 X 914
W1-2R

ONE "U" POST PER SIGN

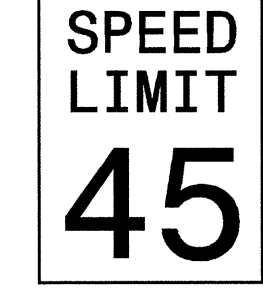
464 QUANTITY REQ'D 1



914 X 914
W1-4L

ONE "U" POST PER SIGN


403 QUANTITY REQ'D 3



610 X 762
R2-1

ONE "U" POST PER SIGN

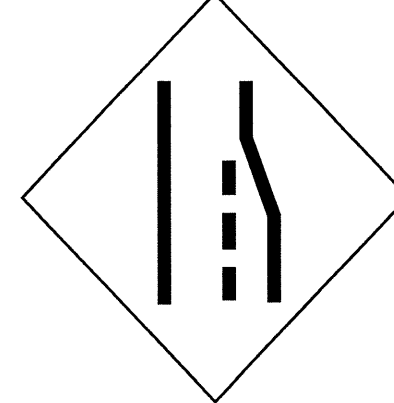
414 QUANTITY REQ'D 8



1372 X 457
R6-1 (L)

TWO "U" POSTS PER SIGN

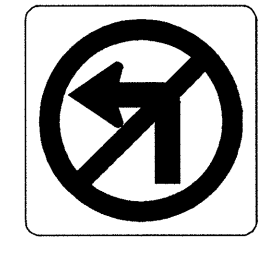
439 QUANTITY REQ'D 1



1219 X 1219
W19-10(R)

TWO "U" POSTS PER SIGN

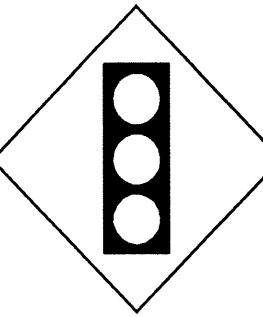
449 QUANTITY REQ'D 2



610 X 610
R3-2

MOUNT BELOW SIGN 408
IN 2 INSTALLATIONS

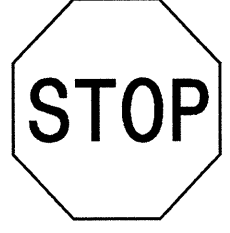
465 QUANTITY REQ'D 1



914 X 914
W3-3

ONE "U" POST PER SIGN

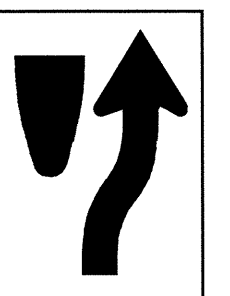
408 QUANTITY REQ'D 13



762 X 762
R1-1

ONE "U" POST PER SIGN

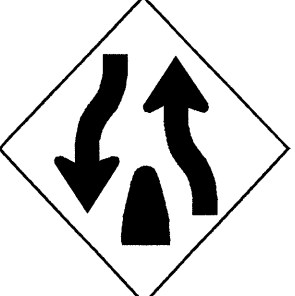
415 QUANTITY REQ'D 2



914 X 914
R4-7

TWO "U" POSTS PER SIGN


442 QUANTITY REQ'D 1



914 X 914
W6-2

ONE "U" POST PER SIGN


455 QUANTITY REQ'D 4



762 X 762
R3-7

ONE "U" POST PER SIGN

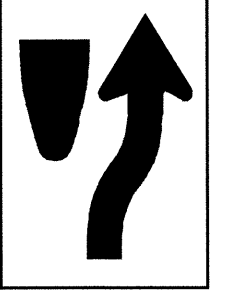
410 QUANTITY REQ'D 10



914 X 610
R5-1a

ONE "U" POST PER SIGN
MOUNT BACK TO BACK WITH
SIGN 511 & 512 IN 2 INSTALLATIONS

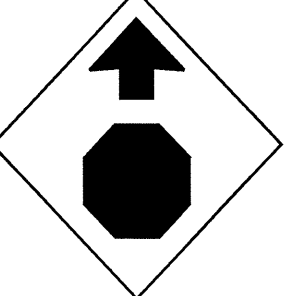
416 QUANTITY REQ'D 6



610 X 762
R4-7

ONE "U" POST PER SIGN

443 QUANTITY REQ'D 2



914 X 914
W3-1a

ONE "U" POST PER SIGN

462 QUANTITY REQ'D 2



762 X 762
W14-2

ONE "U" POST PER SIGN

NOTE: THIS DRAWING IS DIMENSIONED
IN MILLIMETERS UNLESS OTHERWISE
DEPICTED WITHIN THE DRAWING.

TYPE "E" SIGNS

*****SYSTEMS*****
*****CORPORATION*****
*****MEMPHIS, TN 38117*****
*****TEL: 901-505-0000*****
*****WWW.METRIC-USA.COM*****



APPROVED: *[Signature]*

DATE: 8/2/07



501

1-600 X 300
1-600 X 600

ONE "U" POST PER SIGN

505

2-600 X 300
2-600 X 600
2-525 X 375

TWO "U" POSTS PER SIGN

512

1-600 X 300
1-600 X 300
1-600 X 600

ONE "U" POST PER SIGN

518

2-600 X 300
3-600 X 300
3-600 X 600
3-525 X 375

SEE NOTE C

USE EXISTING SIGN SUPPORTS

502 508

1-600 X 300
1-600 X 600

ONE "U" POST PER SIGN

506

2-600 X 300
2-600 X 600
2-525 X 375

TWO "U" POSTS PER SIGN

513 514 515 523

1-600 X 300
1-600 X 300
1-600 X 600

ONE "U" POST PER SIGN

519

1-600 X 300
1-600 X 300
1-600 X 600
1-525 X 375

SEE NOTE C

ONE "U" POST PER SIGN

503

1-600 X 300
1-600 X 600
1-525 X 375

TWO "U" POSTS PER SIGN

507 509

1-525 X 375
1-600 X 600

ONE "U" POST PER SIGN

524

1-600 X 300
2-600 X 300
2-600 X 600
2-525 X 375

TWO "U" POSTS PER SIGN

520

1-600 X 300
1-600 X 300
1-600 X 600

ONE "U" POST PER SIGN

504

2-600 X 300
2-600 X 600
2-525 X 375

TWO "U" POSTS PER SIGN

510

1-600 X 300
1-600 X 600
1-525 X 375

ONE "U" POST PER SIGN

516

1-600 X 300
1-600 X 600
1-525 X 375

ONE "U" POST PER SIGN

521

1-600 X 300

EXISTING SPAN WIRE (SEE NOTE A)

504

2-600 X 300
2-600 X 600
2-525 X 375

TWO "U" POSTS PER SIGN

511

1-600 X 300
1-600 X 600
1-525 X 375

ONE "U" POST PER SIGN

517

1-600 X 300
2-600 X 300
2-600 X 600

TWO "U" POSTS PER SIGN

522

1-600 X 300

USE EXISTING SIGN SUPPORT

NOTE: THIS DRAWING IS DIMENSIONED IN MILLIMETERS UNLESS OTHERWISE DEPICTED WITHIN THE DRAWING.

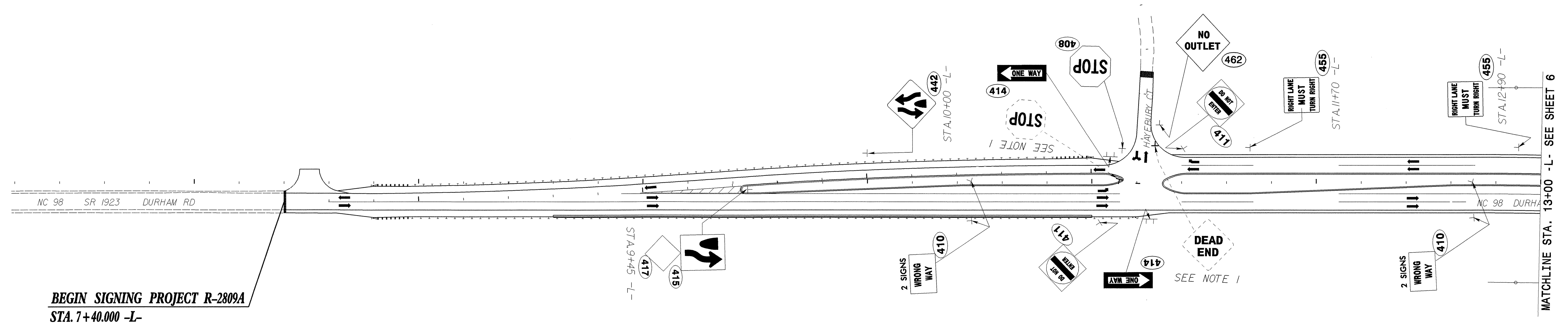
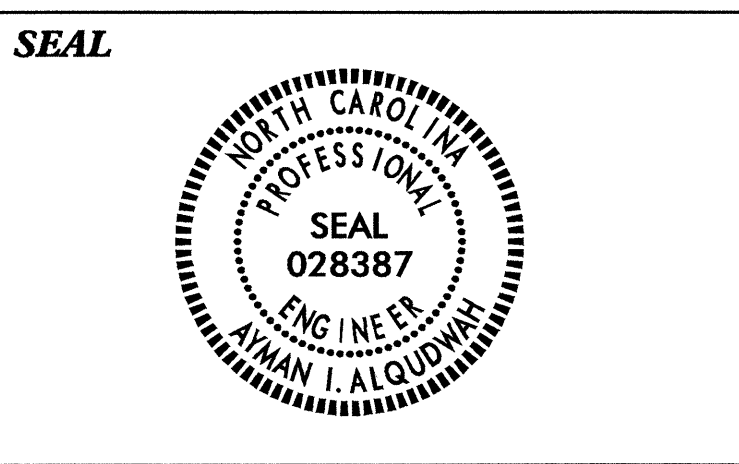
TYPE "F" SIGNS

***** SYSTEMS *****
***** DIMENSIONS *****
***** MILLIMETERS *****



PROJECT REFERENCE NO.	SHEET NO.
R-2809A	SIGN-5

APPROVED: *[Signature]*
 DATE: 8/20/07



BEGIN SIGNING PROJECT R-2809A
 STA. 7+40.000 -L-

MATCHLINE STA. 13+00 -L- SEE SHEET 6

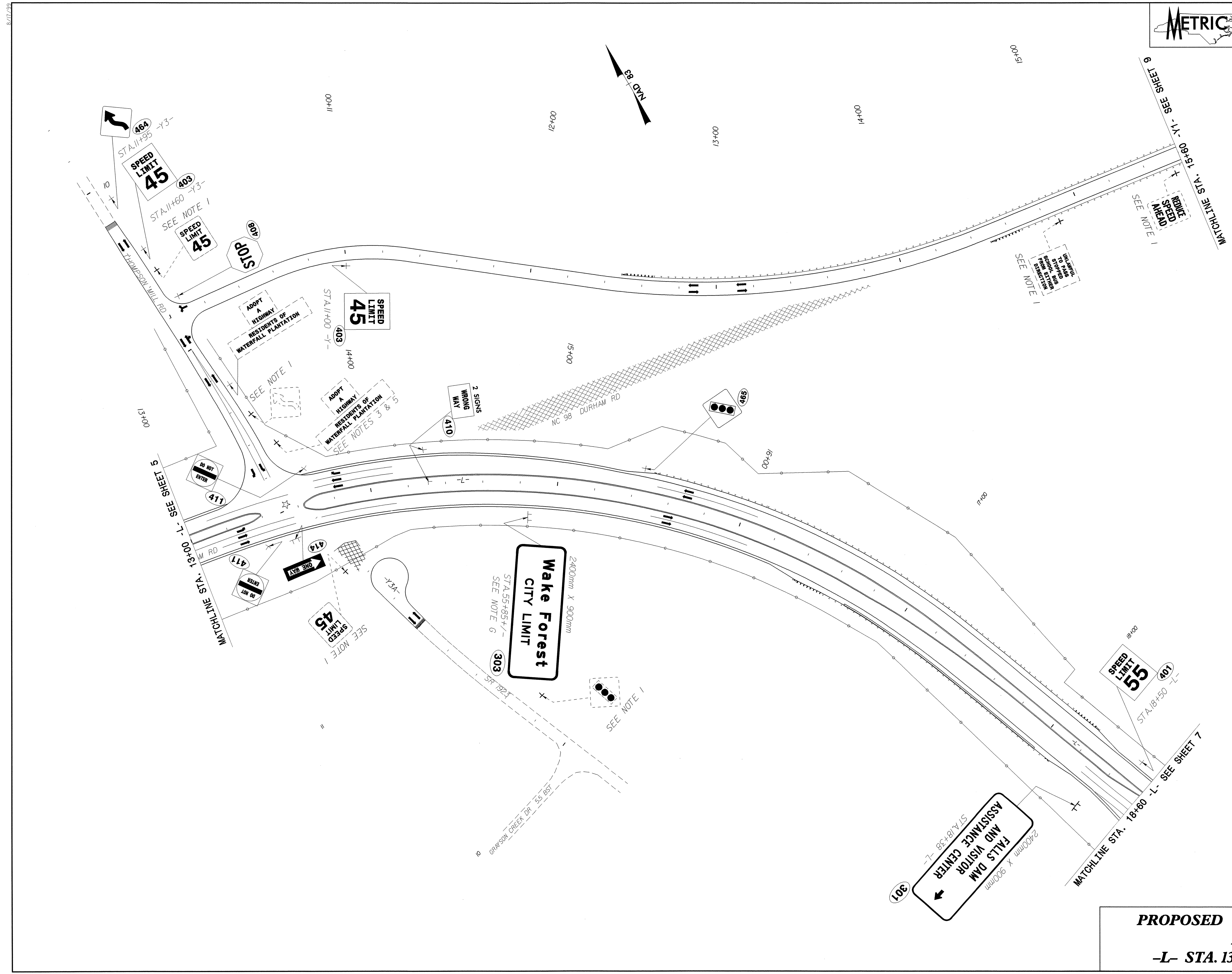
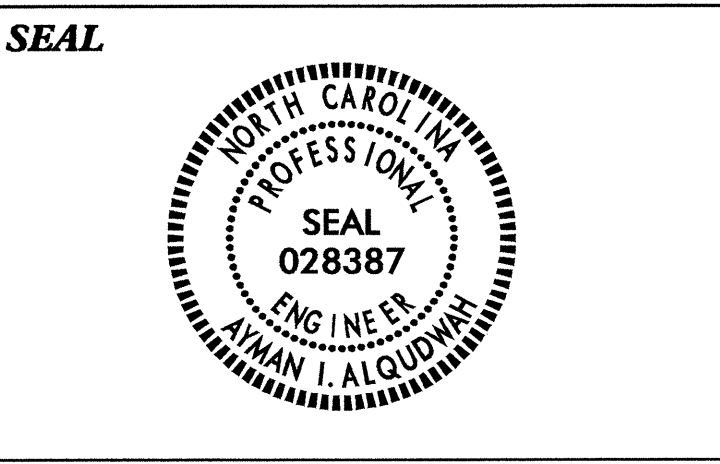
PROPOSED & EXISTING SIGNS
 NC 98
 -L- STA. 7+40 TO STA. 13+00

3-view check Eric Ward



PROJECT REFERENCE NO.	SHEET NO.
R-2809A	SIGN-6

APPROVED: *[Signature]*
 DATE: 8/20/07



PROPOSED & EXISTING SIGNS
NC 98
-L- STA. 13+00 TO STA. 18+60

3-way creek on Ward

8/27/07

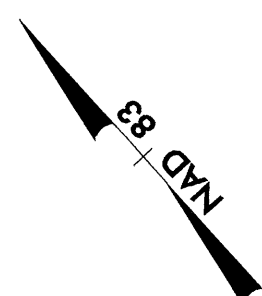
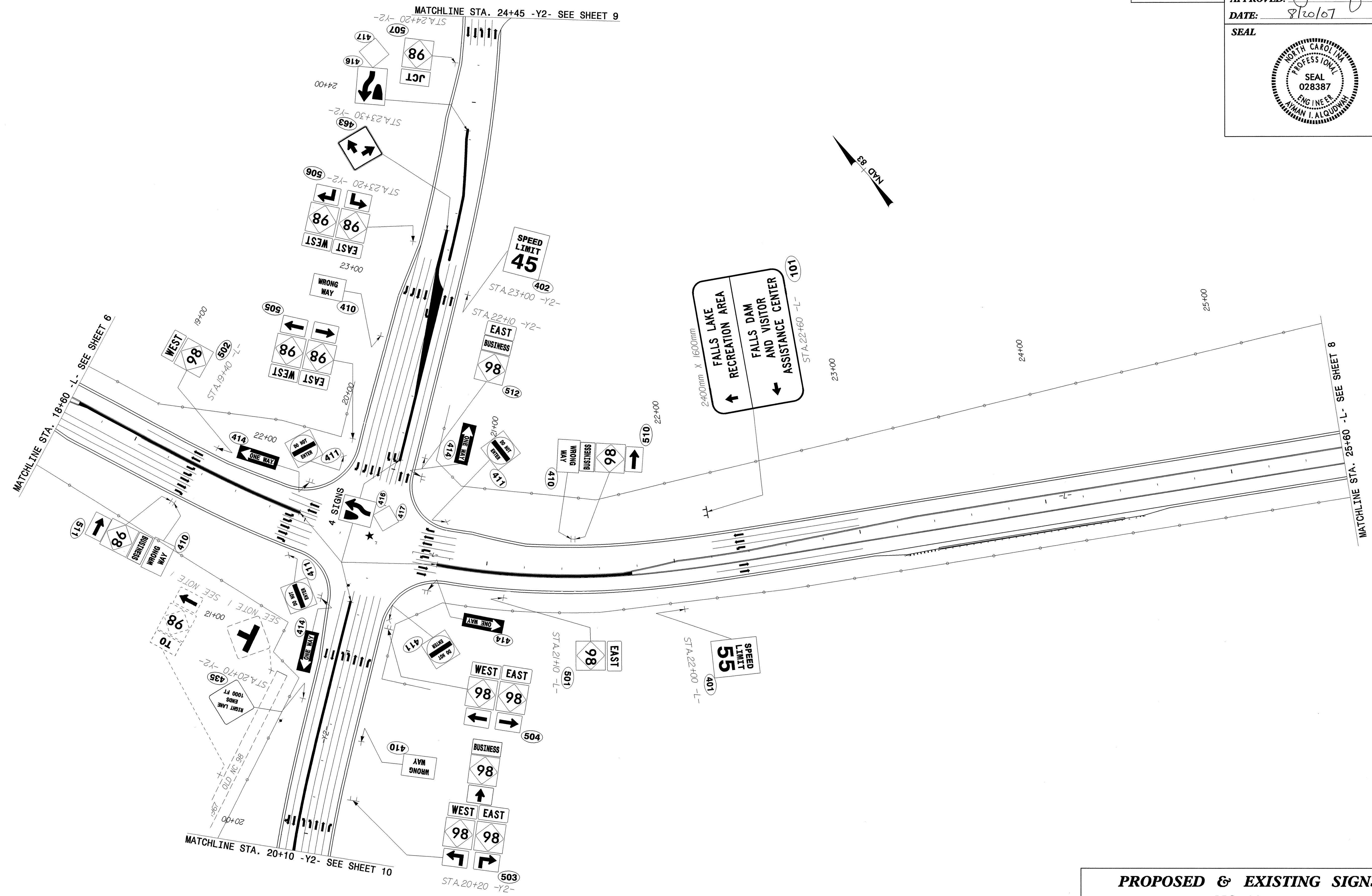


PROJECT REFERENCE NO. R-2809A SHEET NO. SIGN-7

APPROVED: *[Signature]*

DATE: 8/20/07

SEAL



PROPOSED & EXISTING SIGNS
NC 98
-L- STA. 18+60 TO STA. 25+60

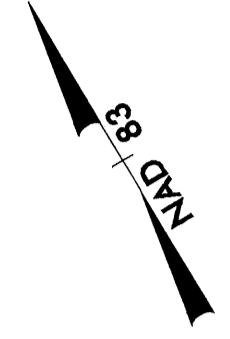
3-way creek overland

8/17/09



PROJECT REFERENCE NO. R-2809A SHEET NO. SIGN-8

APPROVED: *[Signature]*
DATE: 8/20/07



MATCHLINE STA. 25+60 -L- SEE SHEET 7

26+00

27+00

28+00

29+00

31+00

SPEED LIMIT 55

401 STA. 28+40 -L-

469 STA. 29+79 -L-

NO RIGHT TURN 411

WAKEFIELD PLANTATION DR.

STOP 408 449

WEST 89 STA. 32+30 -L- 508

419 AHEAD ONE WAY 414

419 417 STA. 32+85 -L-

34+00 35+00

REFUG DRIVE

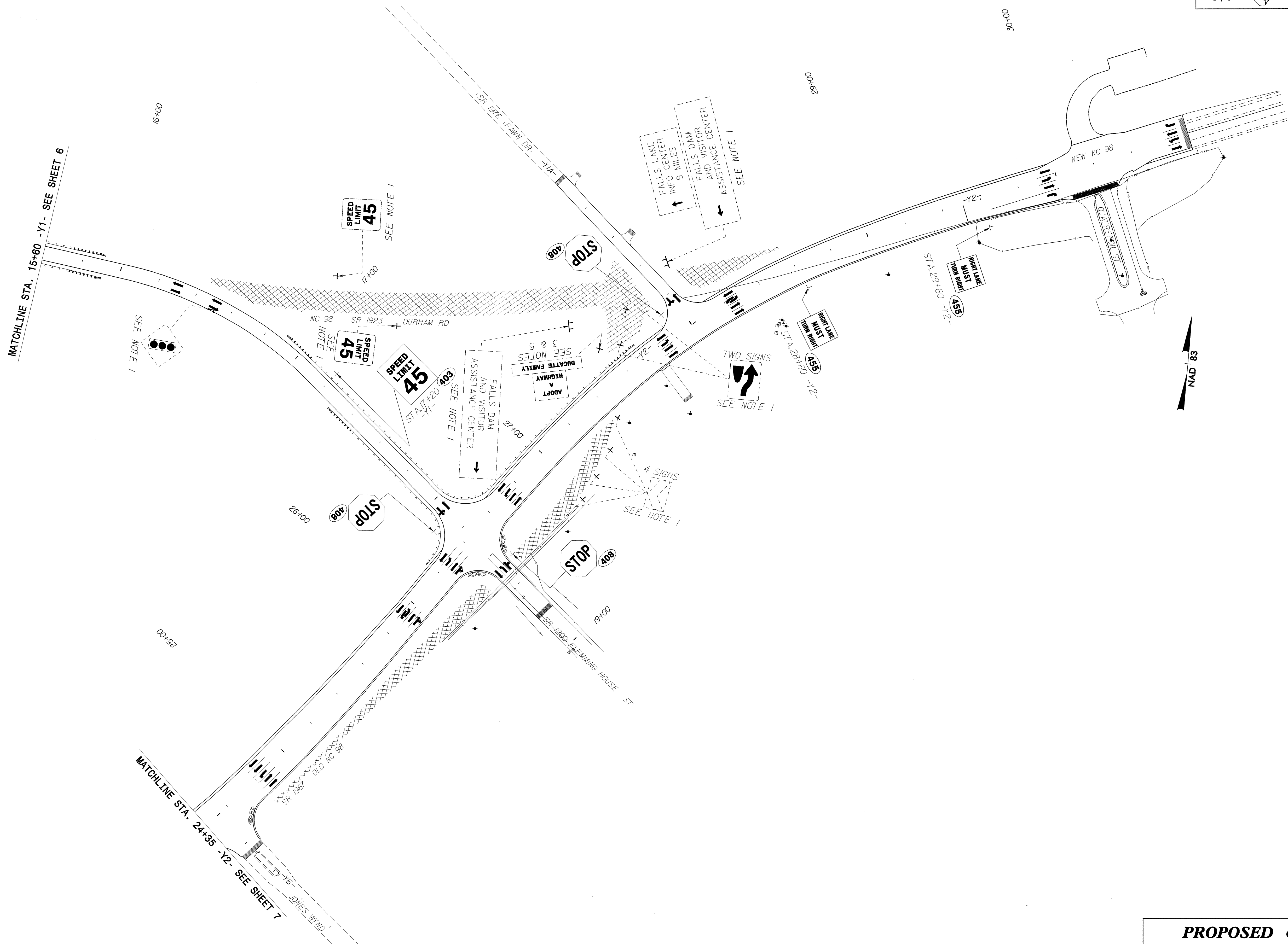
PROPOSED & EXISTING SIGNS
NC 98
-L- STA. 25+60 TO STA. 32+90

3-way check Eric Ward

8/17/07



PROJECT REFERENCE NO. R-2809A	SHEET NO. SIGN-9
APPROVED: <i>[Signature]</i>	
DATE: 8/20/07	
SEAL	



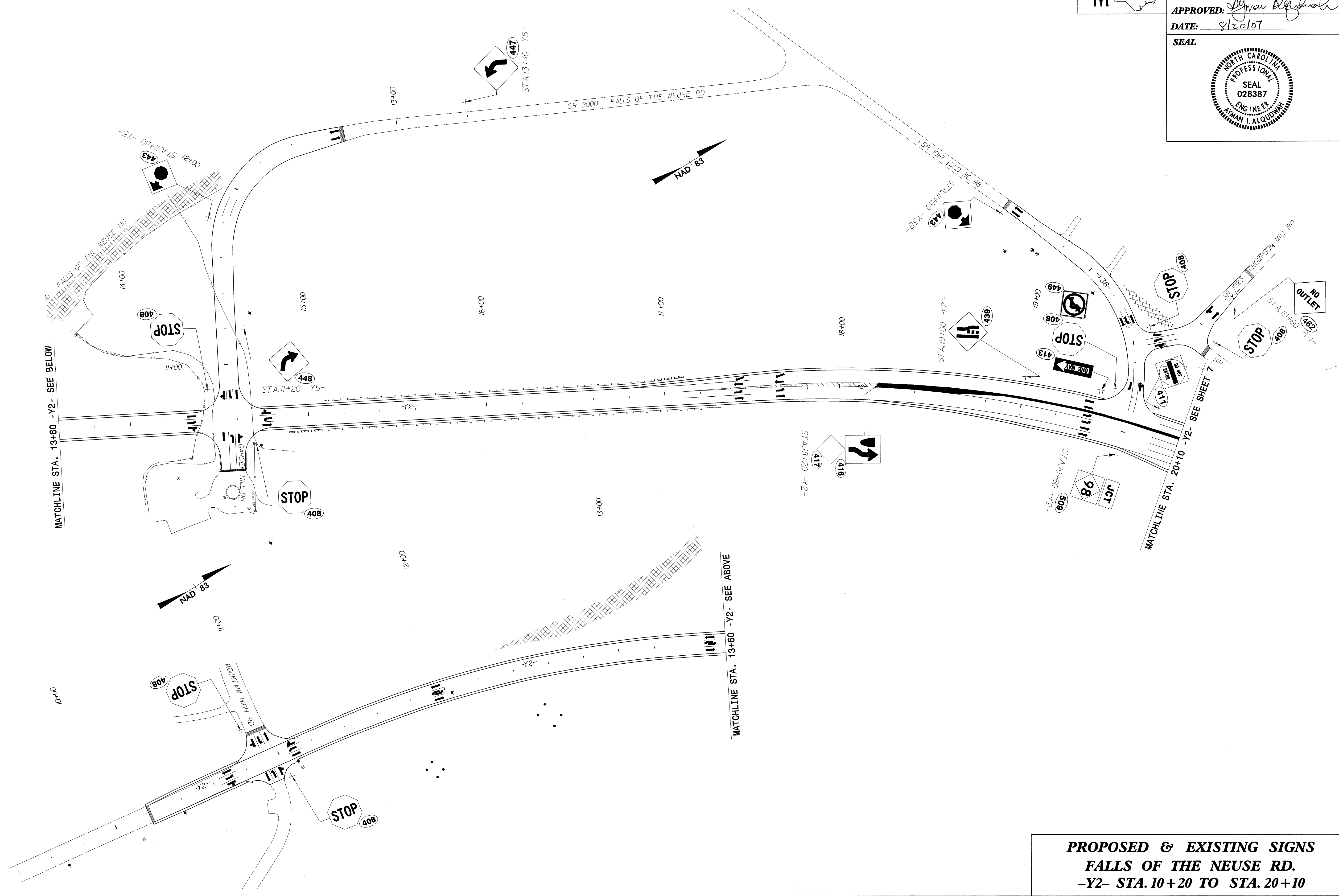
PROPOSED & EXISTING SIGNS
NC 98 BUSINESS
-Y2- STA. 21+35 TO STA. 30+70

2-way check que Ward

8/17/99



PROJECT REFERENCE NO. R-2809A	SHEET NO. SIGN-10
APPROVED: <i>Sydney [Signature]</i>	
DATE: 8/20/07	
SEAL	



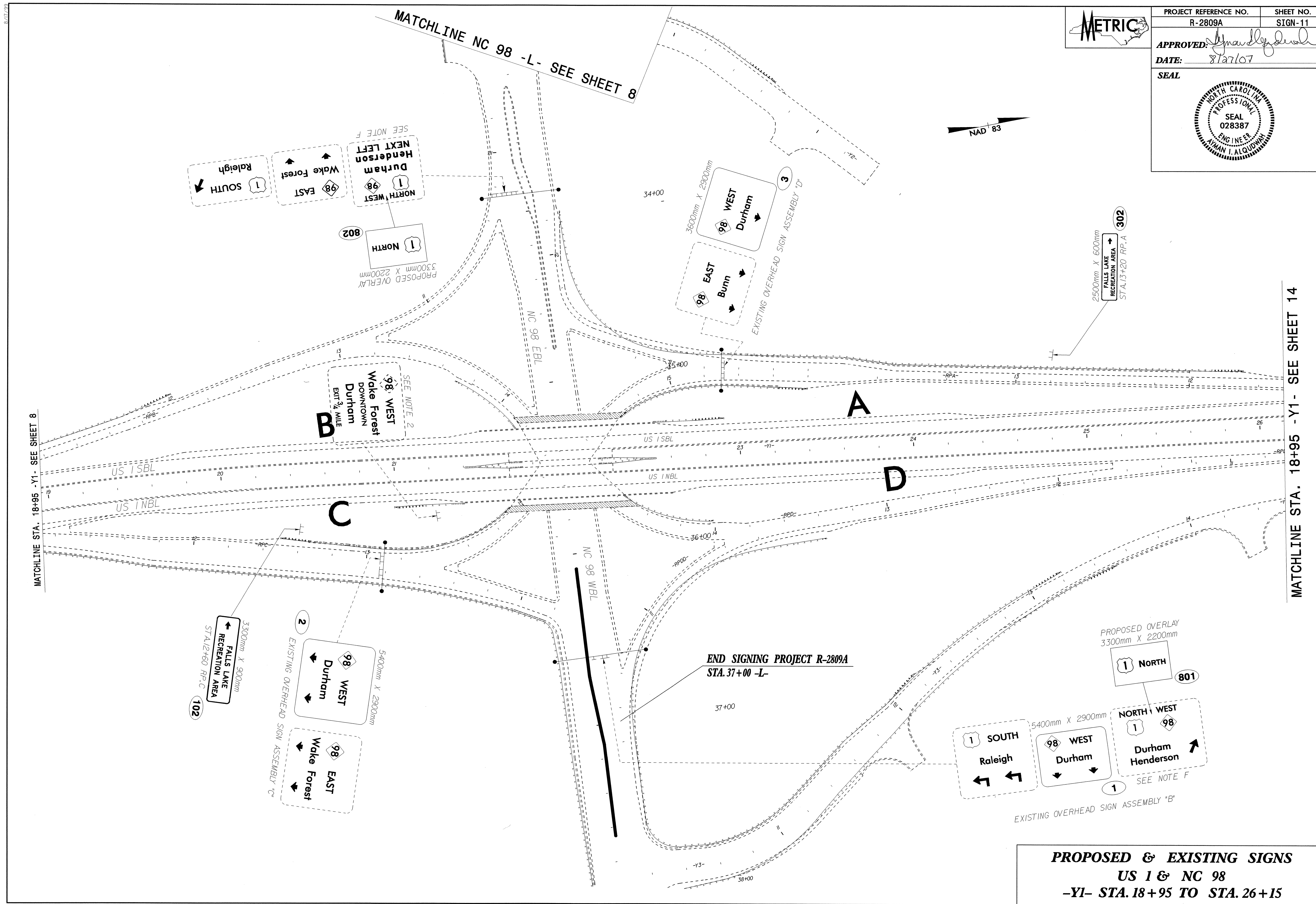
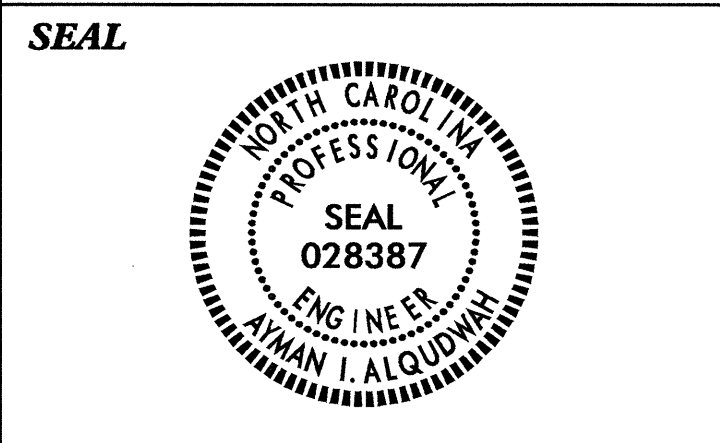
**PROPOSED & EXISTING SIGNS
FALLS OF THE NEUSE RD.
-Y2- STA. 10+20 TO STA. 20+10**

3-corr check per Ward



PROJECT REFERENCE NO. R-2809A SHEET NO. SIGN-11

APPROVED: *[Signature]*
DATE: 8/27/07



MATCHLINE STA. 18+95 -Y1- SEE SHEET 8

MATCHLINE STA. 18+95 -Y1- SEE SHEET 14

END SIGNING PROJECT R-2809A
STA. 37+00 -L-

PROPOSED & EXISTING SIGNS
US 1 & NC 98
-Y1- STA. 18+95 TO STA. 26+15

8/17/09

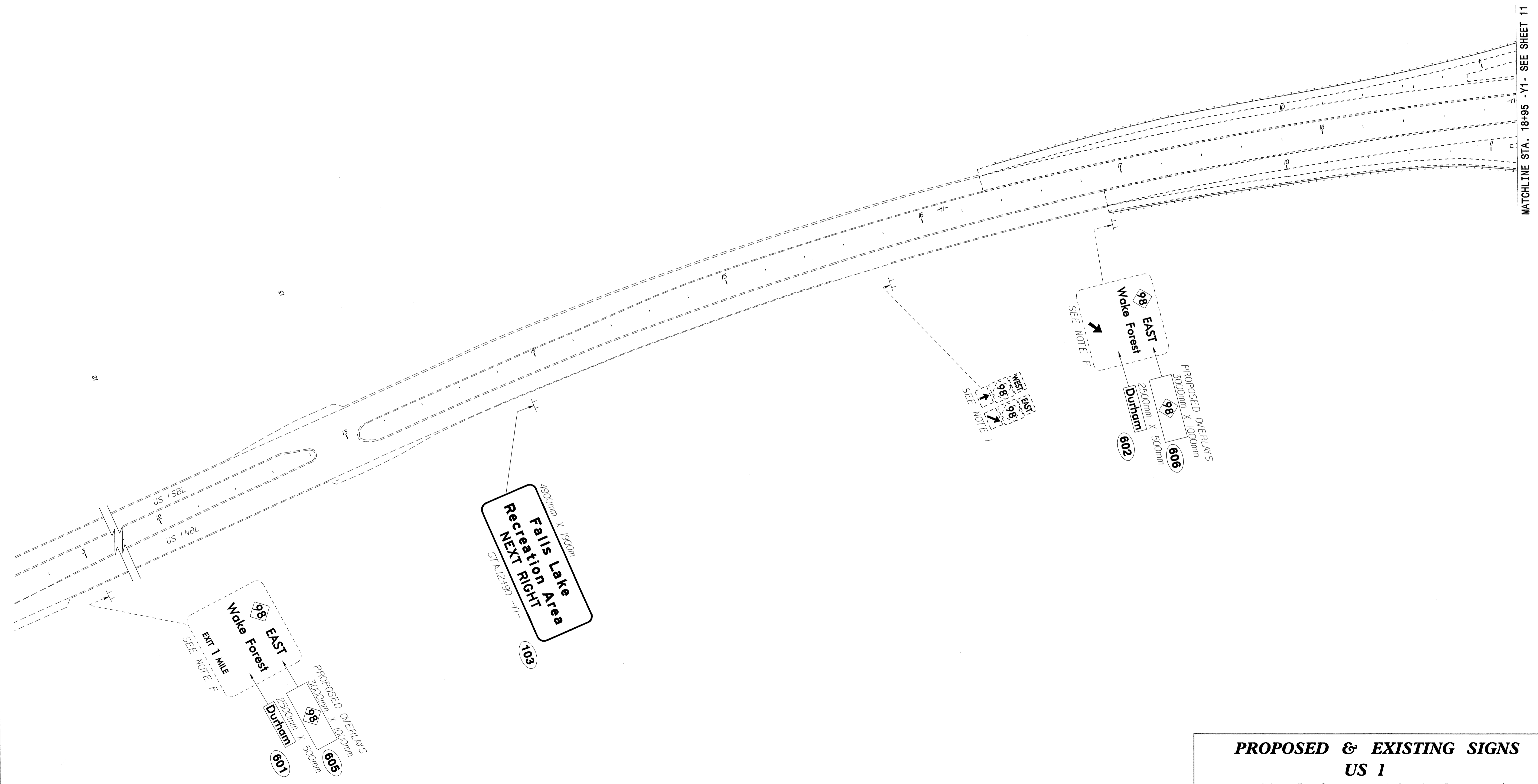
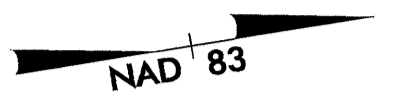
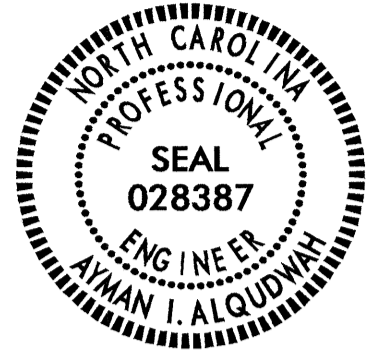


PROJECT REFERENCE NO. R-2809A SHEET NO. SIGN-12

APPROVED: *[Signature]*

DATE: 8/20/07

SEAL



MATCHLINE STA. 18+95 -Y1- SEE SHEET 11

Falls Lake Recreation Area
NEXT RIGHT
4800mm X 1000mm
STA. 12+80 -Y1-

Wake Forest EAST
EXIT 1 MILE
SEE NOTE F
2500mm X 500mm
3000mm X 1000mm
Durham
98
601
605

Wake Forest EAST
SEE NOTE F
2500mm X 500mm
3000mm X 1000mm
Durham
98
602
605

SEE NOTE I
Wake Forest EAST
Durham
98
601
605

PROPOSED & EXISTING SIGNS
US 1
-Y1- STA. 2+80 TO STA. 18+95

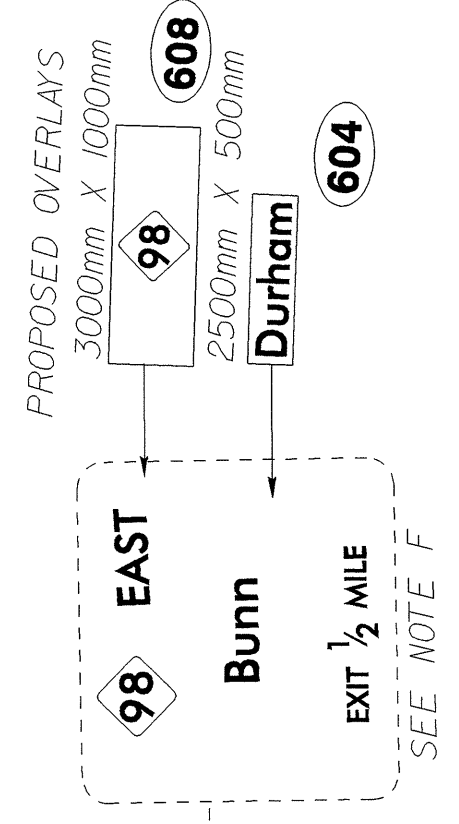
2-way creek over Ward

8/17/99

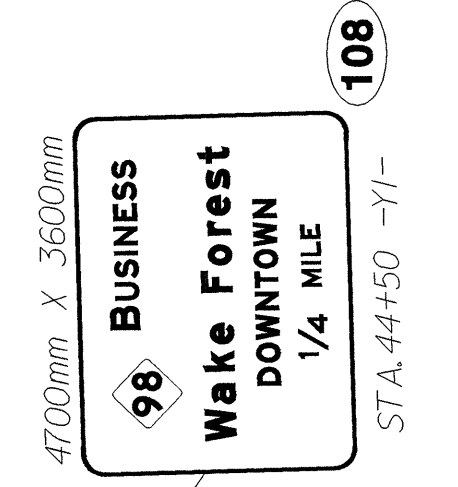
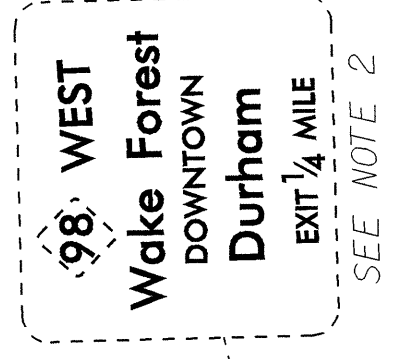
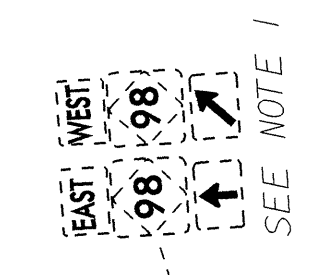
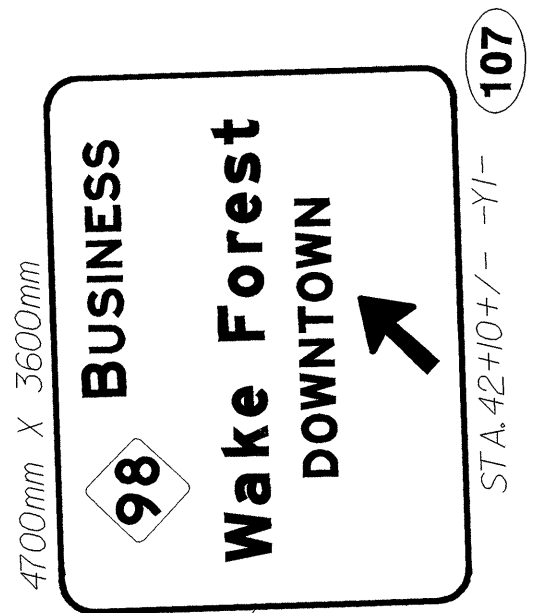
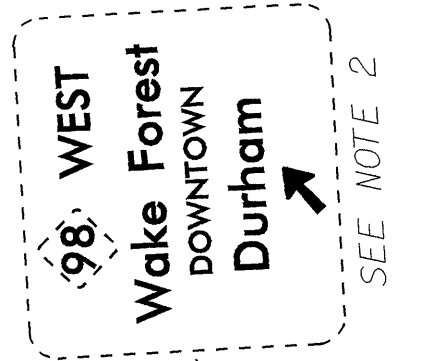
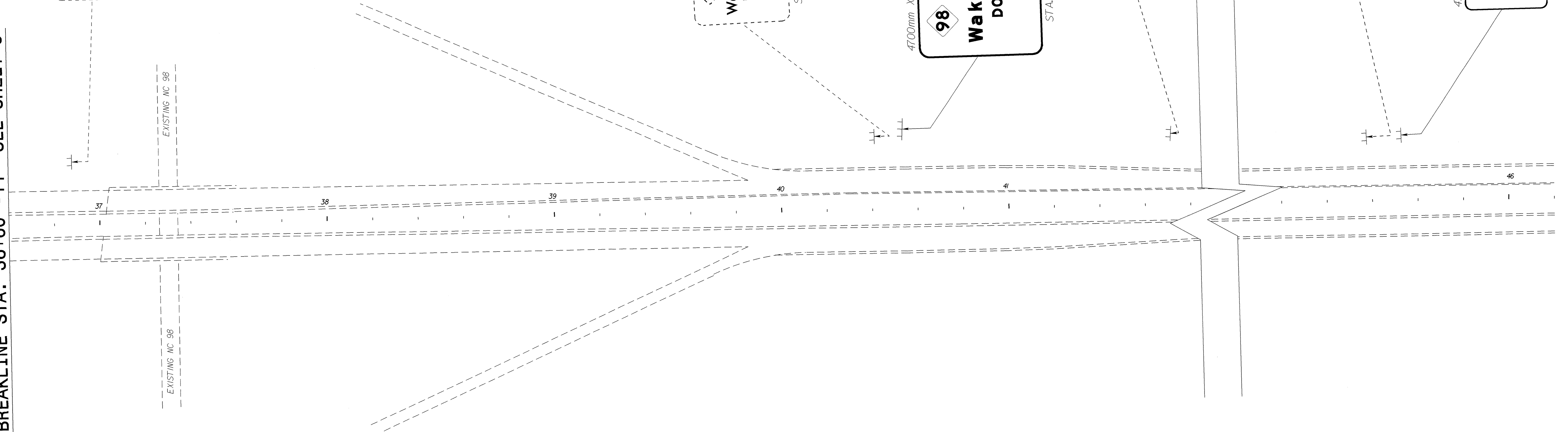


PROJECT REFERENCE NO. R-2809A	SHEET NO. SIGN-14
APPROVED: <i>[Signature]</i>	
DATE: 8/20/07	
SEAL	

BREAKLINE STA. 36+60 -Y1- SEE SHEET 9



EXISTING MC 98



**PROPOSED & EXISTING SIGNS
US 1
-Y1- STA. 36+60 TO STA. 46+20**

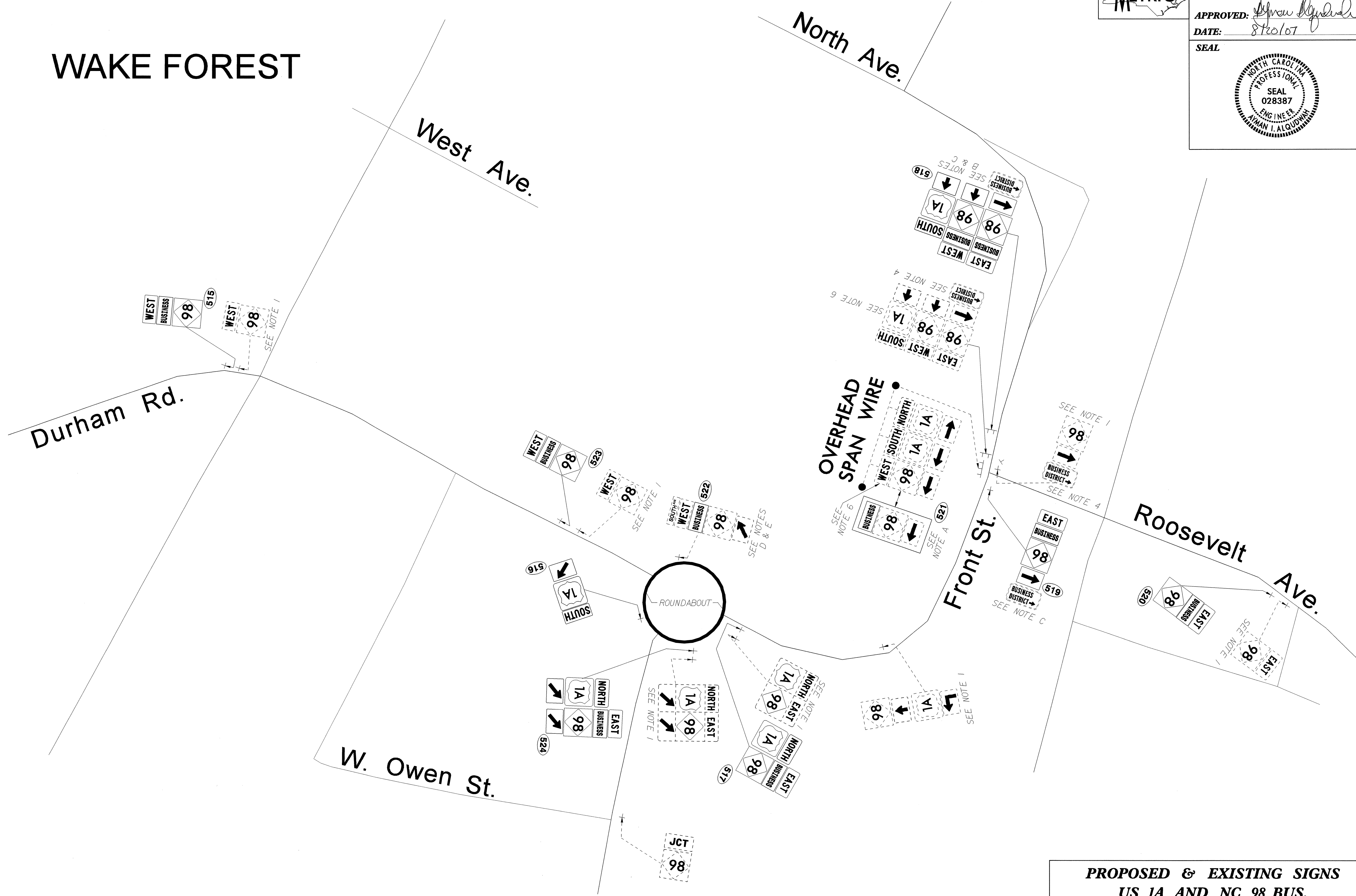
3-way check eue way

8/17/07

WAKE FOREST



PROJECT REFERENCE NO. R-2809A	SHEET NO. SIGN-15
APPROVED: <i>[Signature]</i>	
DATE: 8/20/07	
SEAL	



**PROPOSED & EXISTING SIGNS
US 1A AND NC 98 BUS.**

3-way chack on W. Owen

8/17/07



PROJECT REFERENCE NO. R-2809A SHEET NO. SIGN-16

APPROVED: *Yman Alquodani*

DATE: 8/20/07

SEAL



**PROPOSED & EXISTING SIGNS
US 1 AND NC 98 BUS.**

2-12-07 Check Over Alford