



REVISIONS

TOTAL

35

PROJECT IDENTIFICATION NUMBER

10-77-035-010-05

PROJECT NUMBER

IM-080-4(086)138--13-77

R.O.W. PROJECT NUMBER

INDEX OF SHEETS	
No.	DESCRIPTION
A Sheets	Title Sheets
* A.1	Title Sheet
B Sheets	Details
* B.1 - 8	Signing Detail Sheets
C Sheets	Quantities and General Information
C.1 - 6	Estimated Project Quantites and Estimated Reference Information
C.7 - 10	Tabulations
J Sheets	Traffic Control and Staging Sheets
J.1	Traffic Control Plan
N Sheets	Signing Sheets
* N.1 - 4	Signing Staging Layout
* N.5 - 13	Truss and Signing Cross Sections
* N.14 - 15	Signing Details
	* Color Plan Sheets

PLANS OF PROPOSED IMPROVEMENT ON THE

INTERSTATE ROAD SYSTEM

POLK COUNTY

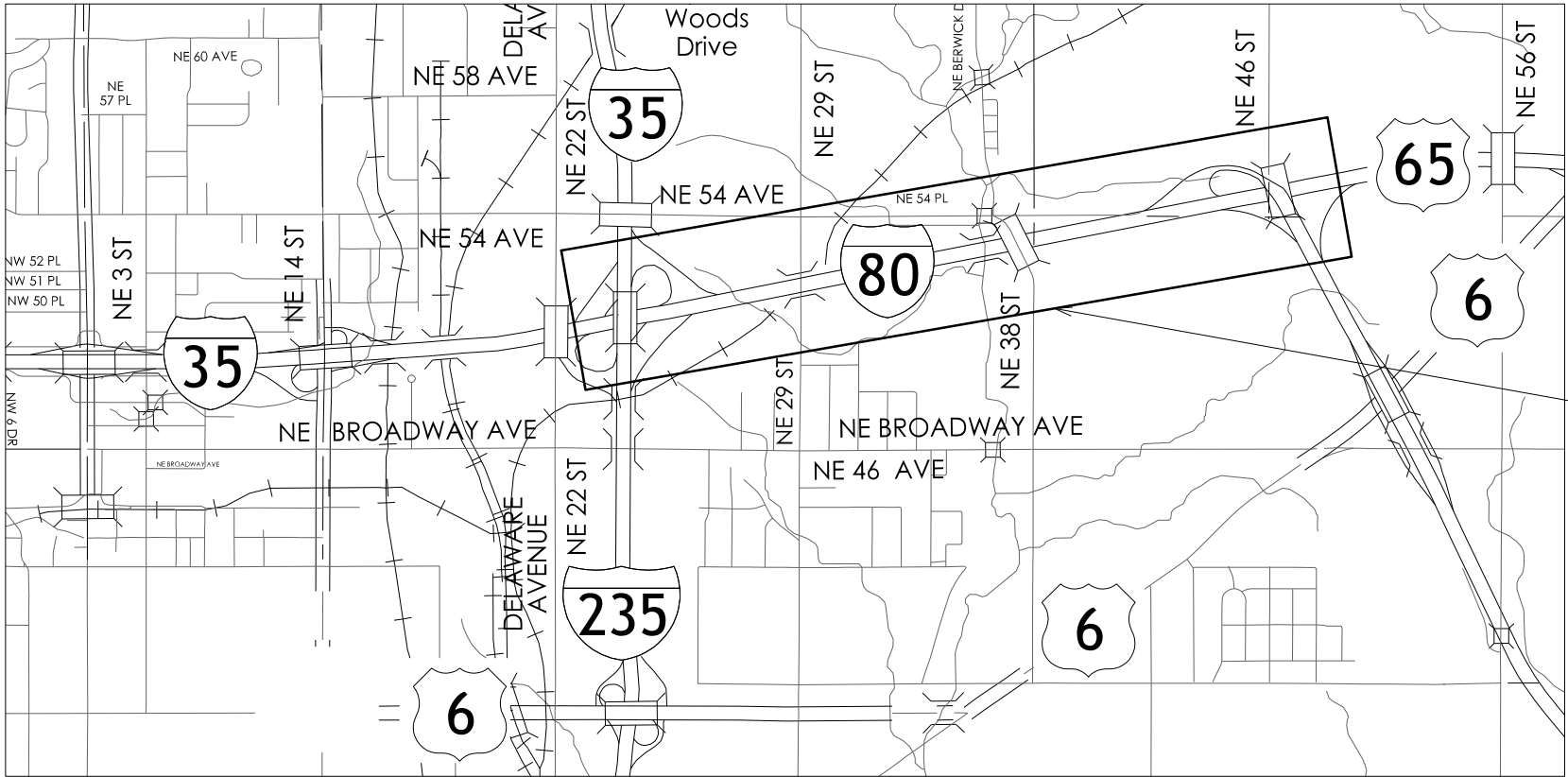
TRAFFIC SIGNS

NE-35/235 Interchange to W US 65 Interchange (EB)

SCALES: As Noted

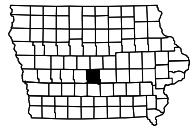
Refer to the Proposal Form for list of applicable specifications.

Value Engineering Saves. Refer to Article 1105.14 of the Specifications.



PROJECT LOCATION

LOCATION MAP NOT TO SCALE



SIGNING DESIGN



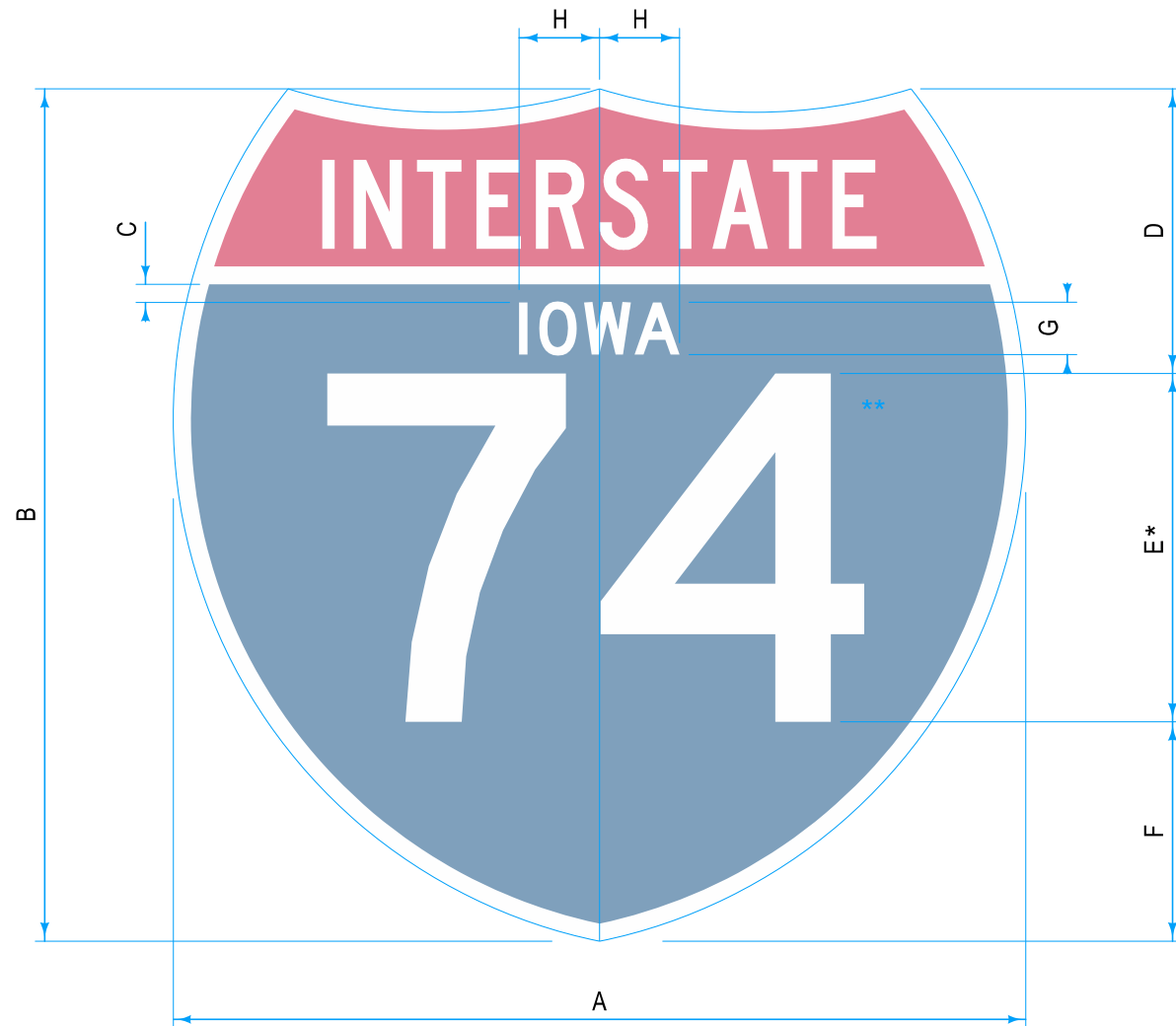
I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Signature
GARRET H. MENARD
Printed or Typed Name

10/7/2025
Date

My license renewal date is December 31, 2025

Pages or sheets covered by this seal: A, B, C, J and N Sheets



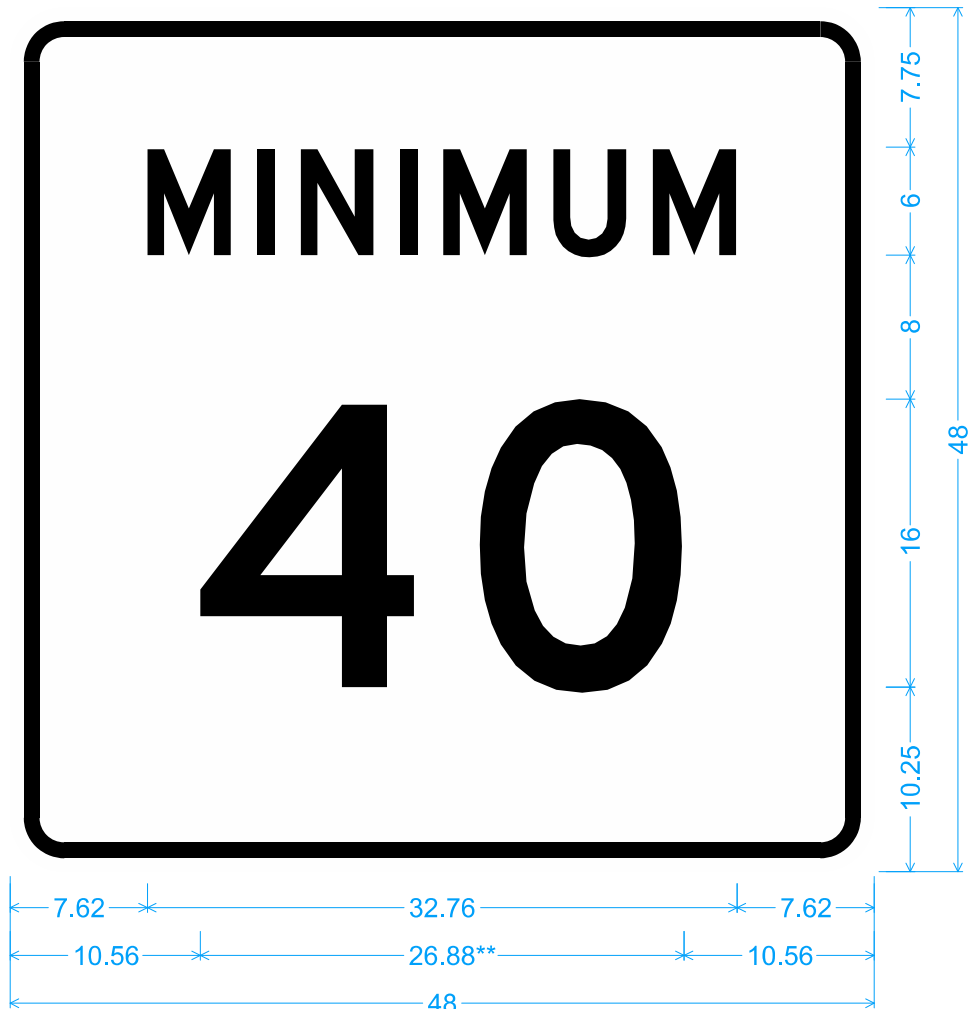
M1-1 (Iowa)
Stand Alone Route Shield
(Not for use on guide signs)

* Series 2000 Standard Alphabets.
** Optically space numerals about vertical centerline.

SIGN	A	B	C	D	E	F	G	H
1,2 digits	24	24	0.5	8	10 D	6	1.5 D	2.27
1, 2 digits	36	36	0.75	12	15 D	9	2.25 D	3.4
3 digits	30	24	0.5	8	10 C	6	1.5 D	2.27
3 digits	45	36	0.75	12	15 C	9	2.25 D	3.4

Refer to FHWA 'Standard Highway Signs, 2004 Edition' for additional sign layout and dimension information.

TYPE A SIGN DETAIL
M1-1 (IOWA)

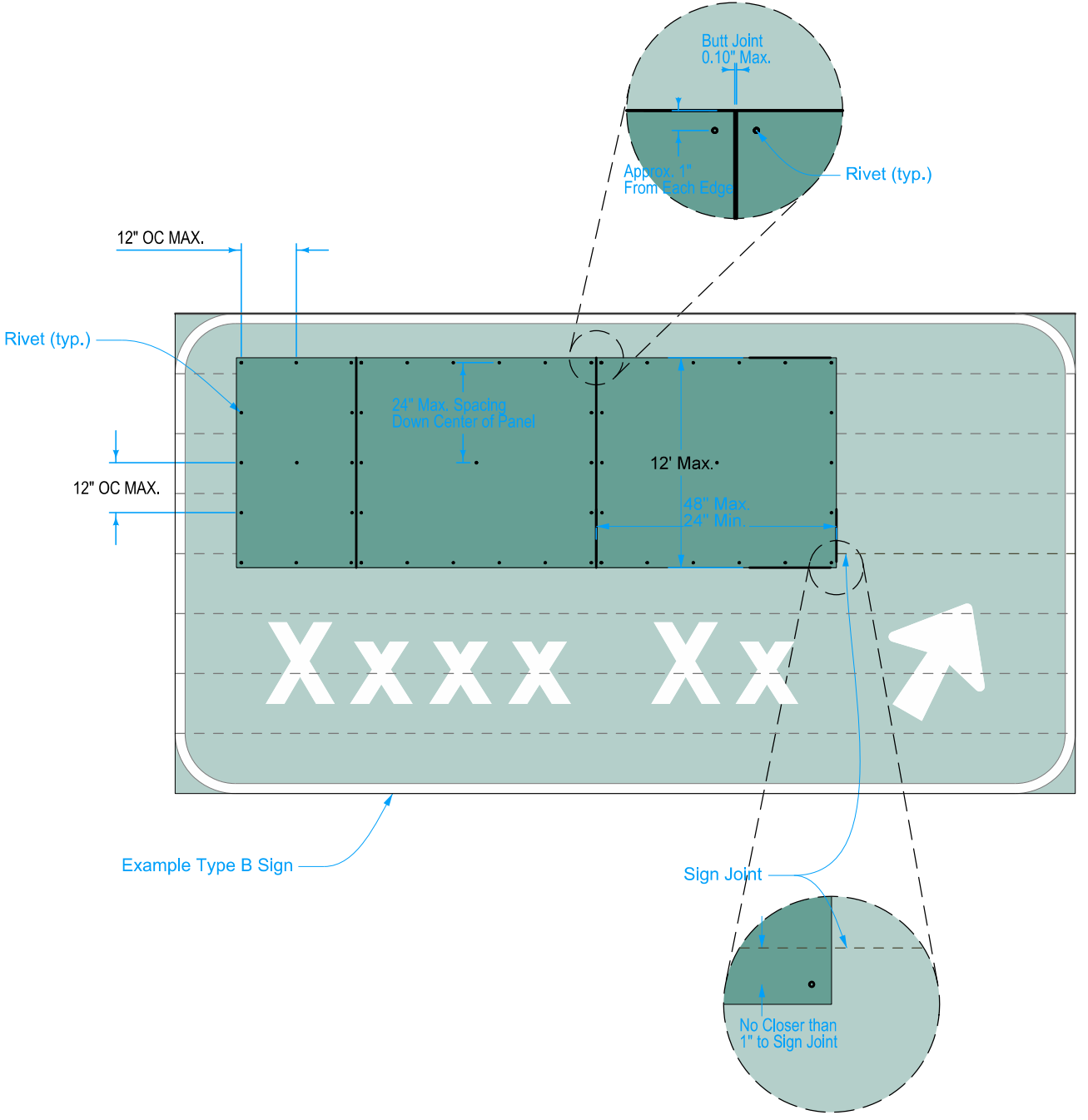


R2-4A;
3.000" Radius, 0.875" Border, 0.750" Indent, Black on White;
[MINIMUM] D 2K; [40] D 2K; *


R2-4 (Iowa)
Interstate/Freeway/Expressway use only.

* Series 2000 Standard Alphabets.
** Optically space numerals about vertical centerline.

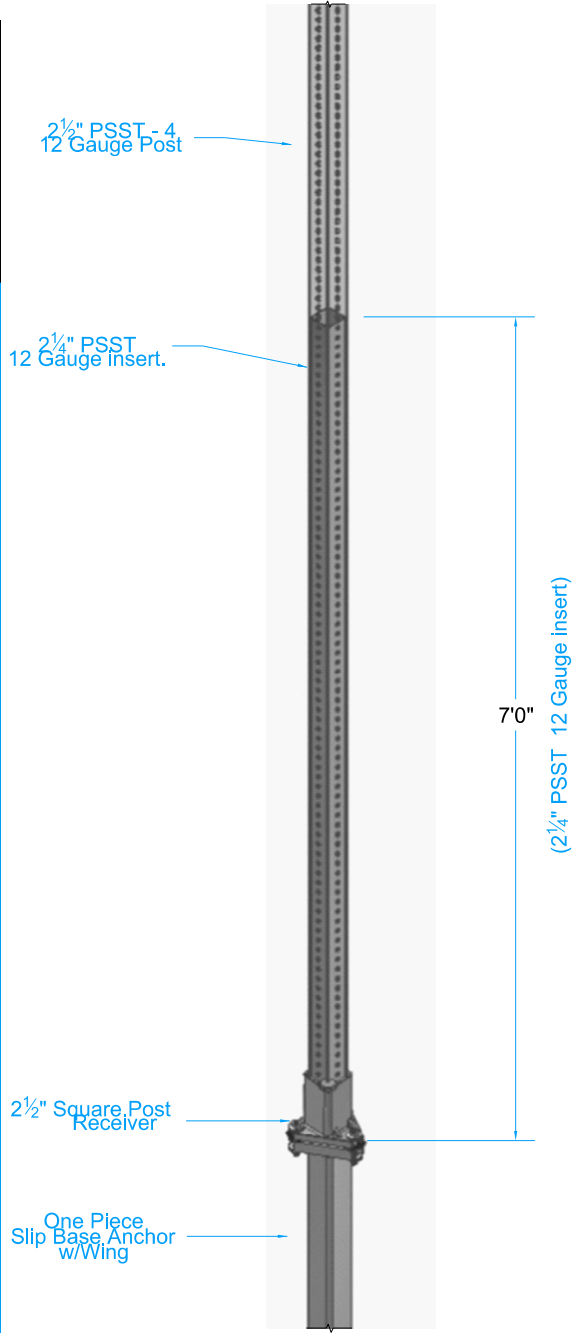
TYPE A SIGN DETAIL
R2-4 (IOWA)



TYPE B SIGN
OVERLAY DETAILS

WINDLOAD COORDINATES FOR TELES PAR AT 90 MPH														Legend:		Post type not used.
SIGN CENTROID	SIGN AREA (SQ-FT) YIELDING DESIGN															
	SOIL OR CONCRETE SOLID WALL ANCHOR			SLIP BASE REQUIRED												
	2" x 12ga perf.		2-1/2" x 12ga perf.	2-1/2" x 12ga perf.		2-1/2" x 10ga perf.			2-1/4" x 12ga inserted into a 2-1/2" x 12ga perf.			2-3/16" x 10ga inserted into a 2-1/2" x 10ga perf.				
	1 Post	2 Post	1 Post	2 Post	3 Post	1 Post	2 Post	3 Post	1 Post	2 Post	3 Post	1 Post	2 Post	3 Post		
16.5	6.48	12.96	10.44	20.88	31.32	13.16	26.32	39.48	18.78	37.56	56.34	23.04	46.08	69.12		
16	6.68	13.36	10.76	21.52	32.28	13.57	27.14	40.71	19.36	38.72	58.08	23.75	47.5	71.25		
15.5	6.9	13.8	11.11	22.22	33.33	14.01	28.02	42.03	19.99	39.98	59.97	24.52	49.04	73.56		
15	7.13	14.26	11.48	22.96	34.44	14.48	28.96	43.44	20.65	41.3	61.95	25.34	50.68	76.02		
14.5	7.37	14.74	11.87	23.74	35.61	14.98	29.96	44.94	21.36	42.72	64.08	26.22	52.44	78.66		
14	7.64	15.28	12.3	24.6	36.9	15.51	31.02	46.53	22.13	44.26	66.39	27.15	54.3	81.45		
13.5	7.92	15.84	12.75	25.5	38.25	16.09	32.18	48.27	22.95	45.9	68.85	28.16	56.32	84.48		
13	8.22	16.44	13.24	26.48	39.72	16.7	33.4	50.1	23.83	47.66	71.49	29.23	58.46	87.69		
12.5	8.55	17.1	13.77	27.54	41.31	17.37	34.74	52.11	24.78	49.56	74.34	30.41	60.82	91.23		
12	8.91	17.82	14.35	28.7	43.05	18.1	36.2	54.3	25.82	51.64	77.46	31.68	63.36	95.04		
11.5	9.3	18.6	14.97	29.94	44.91	18.88	37.76	56.64	26.94	53.88	80.82	33.05	66.1	99.15		
11	9.72	19.44	15.65	31.3	46.95	19.74	39.48	59.22	28.16	56.32	84.48	34.55	69.1	103.65		
10.5	10.18	20.36	16.4	32.8	49.2	20.68	41.36	62.04	29.5	59	88.5	36.2	72.4	108.6		
10	10.69	21.38	17.22	34.44	51.66	21.72	43.44	65.16	30.98	61.96	92.94	38.01	76.02	114.03		
9.5	11.25	22.5	18.12	36.24	54.36	22.86	45.72	68.58	32.61	65.22	97.83	40.01	80.02	120.03		
9	11.88	23.76	19.13	38.26	57.39	24.13	48.26	72.39	34.42	68.84	103.26	42.23	84.46	126.69		
8.5	12.58	25.16	20.26	40.52	60.78	25.55	51.1	76.65	36.45	72.9	109.35	44.72	89.44	134.16		
8	13.36	26.72	21.52	43.04	64.56	27.14	54.28	81.42	38.72	77.44	116.16	47.51	95.02	142.53		


Legend:  Post type not used.



* NESTING DETAIL FOR PERFORATED SQUARE STEEL TUBE POST

Post Code	a1	a2	b1	b2	b3	c1	c2	c3	d1	d2	d3	e1	e2	e3
-----------	----	----	----	----	----	----	----	----	----	----	----	----	----	----

*SEE NESTING DETAIL



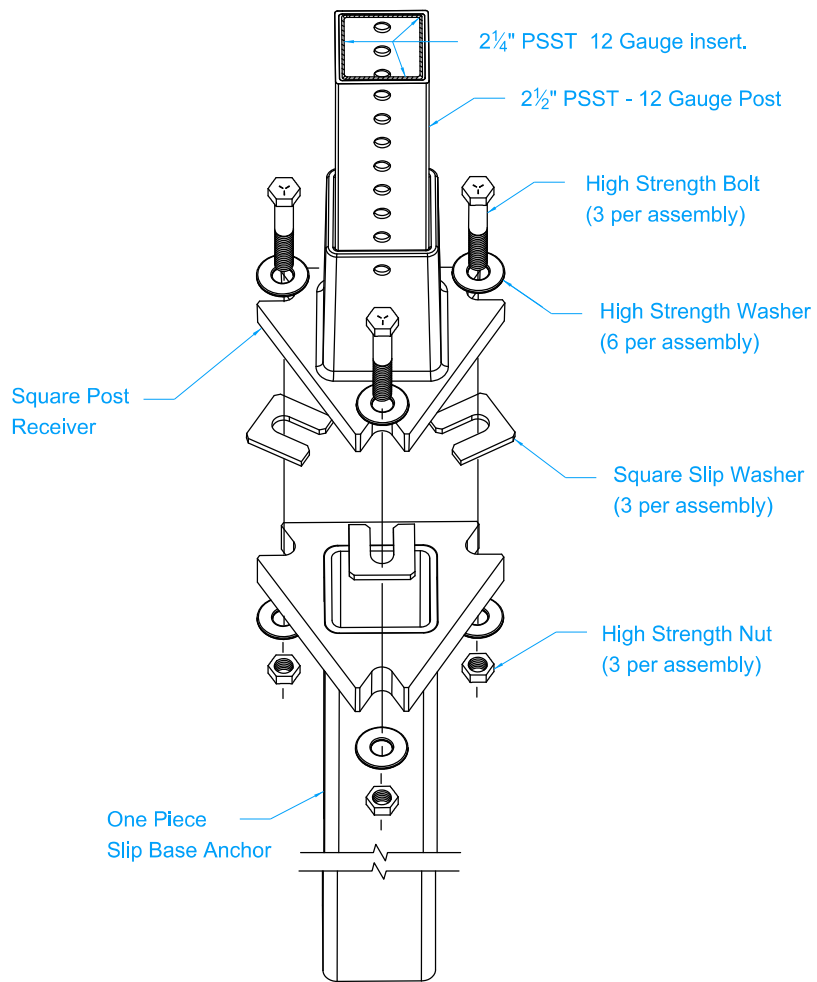
REVISION

-00-00-00

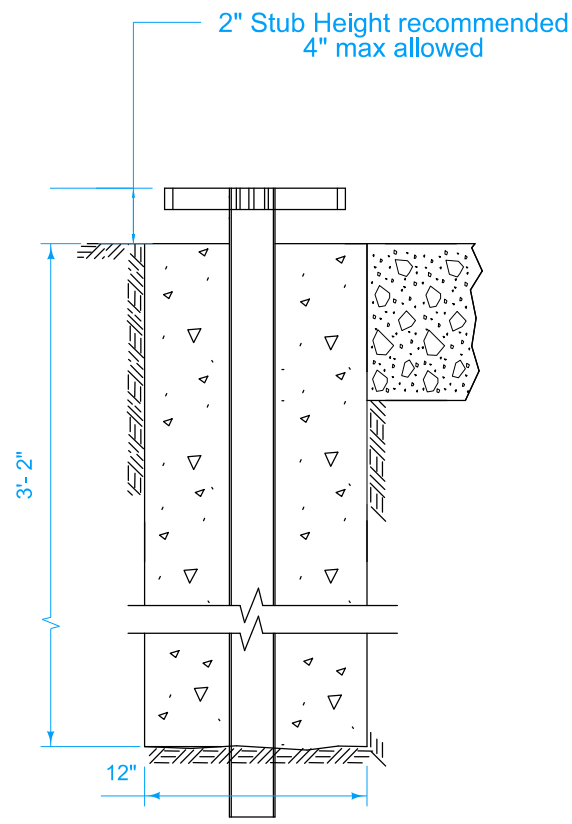
TAS STANDARD

Perforated Square Steel Tube Anchor and Post

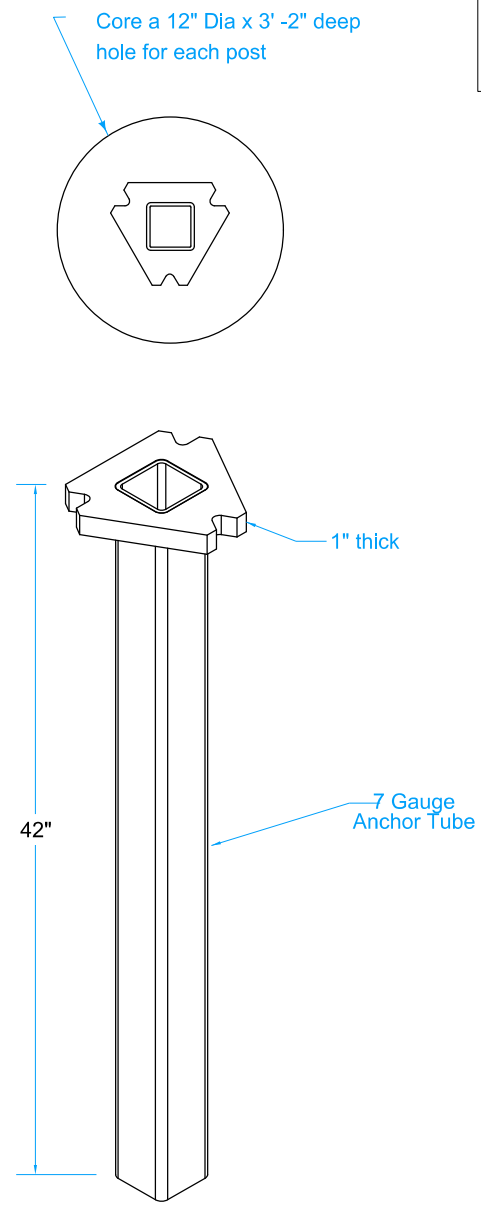
NOTE: FASTENER SIZE AND INSTALLATION
PROCEDURE SHALL BE ACCORDING TO
MANUFACTURER'S RECOMMENDATION.



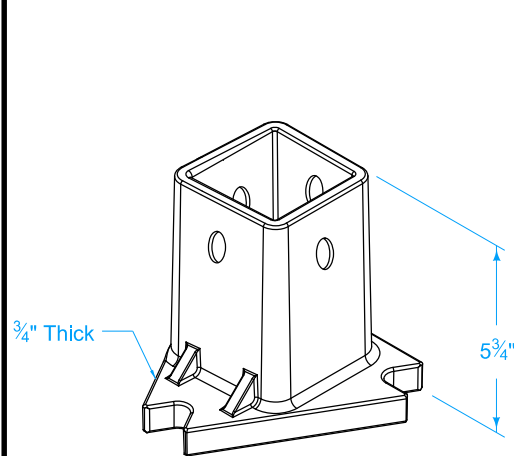
EXPLODED VIEW
SLIP BASE, RECEIVER AND
CONNECTION HARDWARE



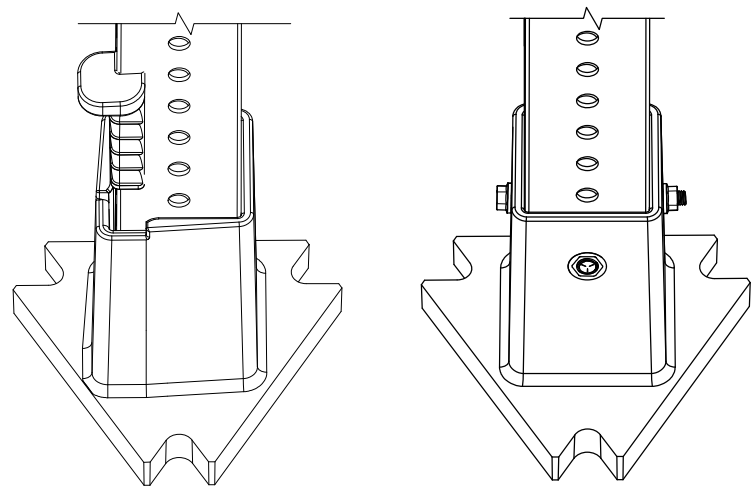
SLIP BASE ANCHOR
FOOTING DETAIL



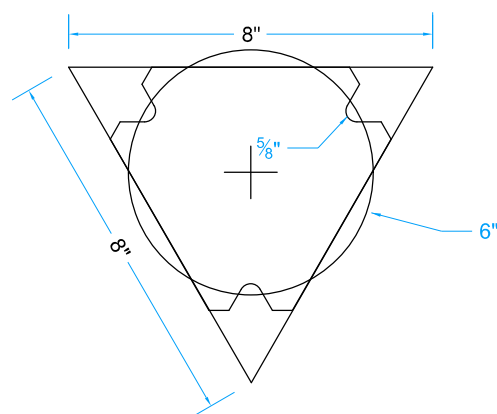
ONE PIECE
SLIP BASE ANCHOR



2-1/2" SQUARE POST
RECEIVER




POST CONNECTION OPTIONS



SLIP PLATE DIMENSIONS

DETAILS OF
PERFORATED SQUARE STEEL TUBE POST TRIANGULAR SLIP BASE

 IOWA DOT	REVISION	
	-	00-00-00
	TAS STANDARD	
<p>Perforated Square Steel Tube Anchor and Post</p>		

2½" PSST - 12 Gauge Post

2¼" PSST 12 Gauge Insert

Sign Face

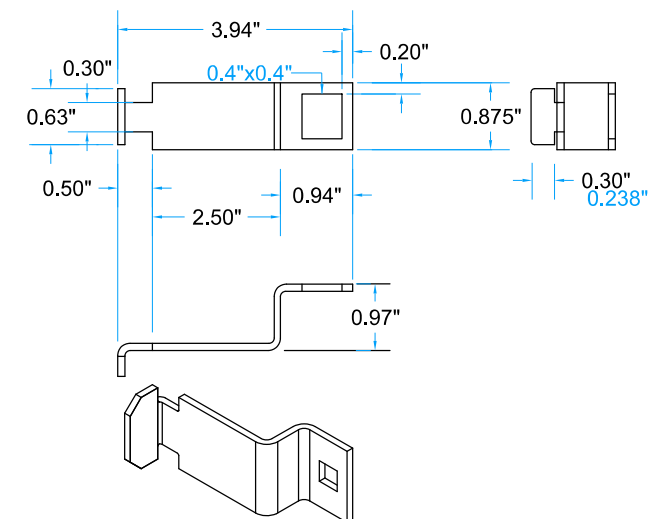
Post Clamps

Post

Rib

DETAIL A

Install post clamps at top and bottom of the sign,
and at each joint for each post.



POST CLAMP DETAIL

Post clamp shall be stainless.

Sign Face

2½" SQUARE POST
RECEIVER




ONE PIECE
SLIP BASE ANCHOR

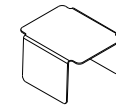
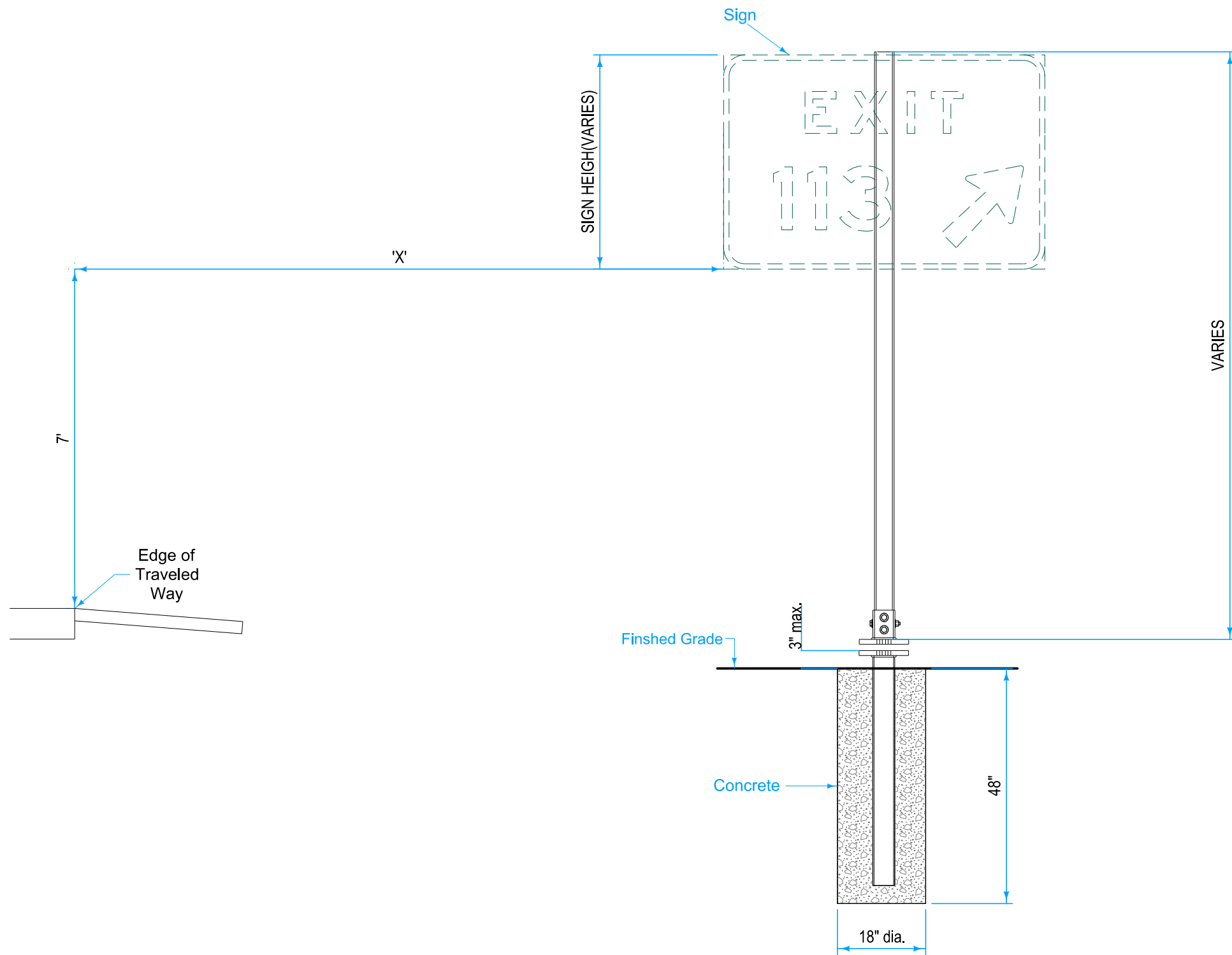
¾" x 16 x 2" Carriage Bolt
and Serated Flange Nut
Bolt and Nut shall be stainless steel

PLAN VIEW

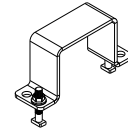
DETAILS OF
PERFORATED SQUARE STEEL TUBE POST
TYPE "B" SIGN ATTACHMENT

SLIP BASE WITH INSERTED PERFORATED SQUARE STEEL TUBE POST

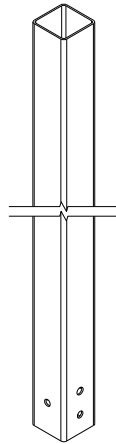
IOWA IDOT 	REVISION	
	-	00-00-00
		
	TAS STANDARD	
REVISION: ____		
<p>Perforated Square Steel Tube Anchor and Post</p>		



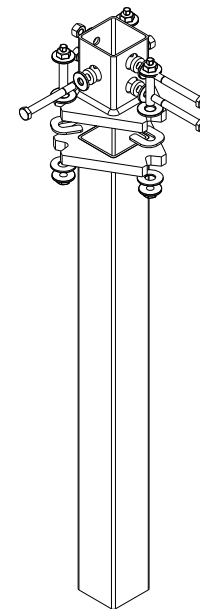
X4SQCC
Post Cap



UPC400SQ
Post Clamp



4" x 8ga
galvanized
sign post



RT13UX-400A-48C-G
slip base assembly

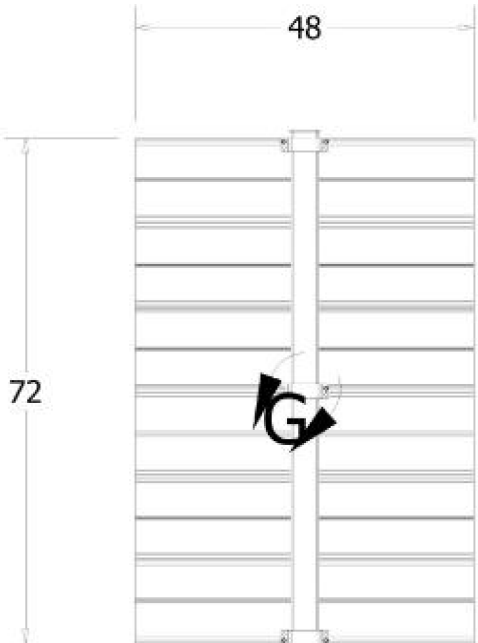
TYPICAL INSTALLATION

NOTE:

1. For sign installations, install 18" diameter by 48" depth concrete foundation.
Top of concrete foundation shall be flush with surrounding grade.
Top of slip base plate shall extend no higher than 3" above ground.
2. Contractor must follow manufacturer's installation guidelines.
3. For all installations the Contractor shall follow the manufacturer's installation guidelines.

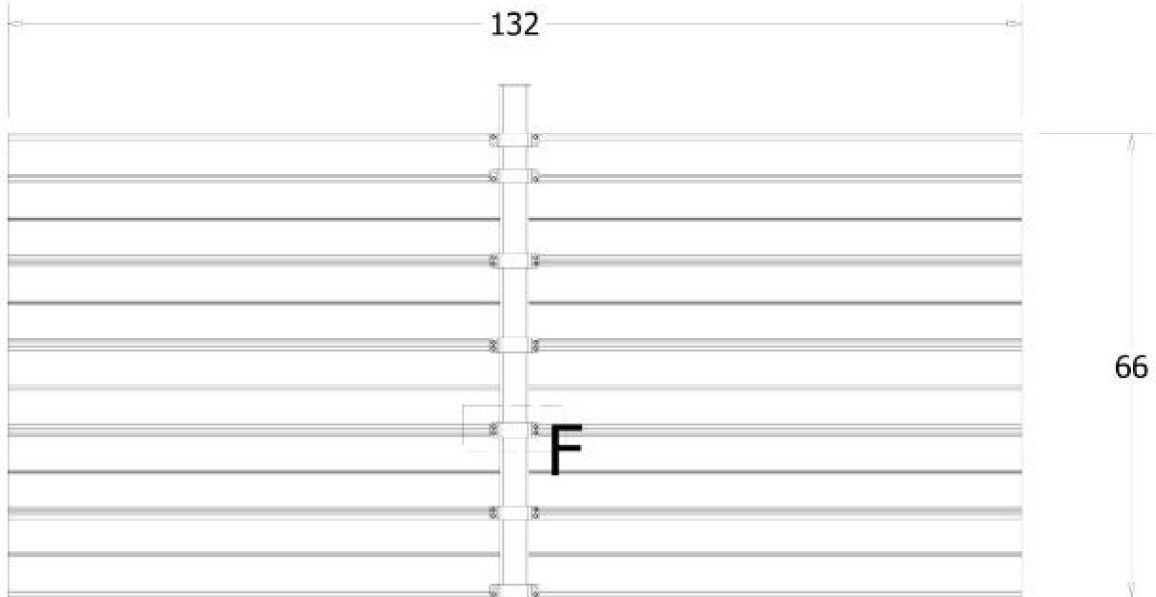
MASSH-400 SIGN
POST DETAILS

24 ft² Sign Area
3 brackets required
1 @ top, 1 @ bottom
1 in the middle
(2 bolts each)



DETAIL
G

61 ft² Sign Area
7 brackets required
1 @ each channel junction
top & bottom - 2 bolts each
all others - 4 bolts each



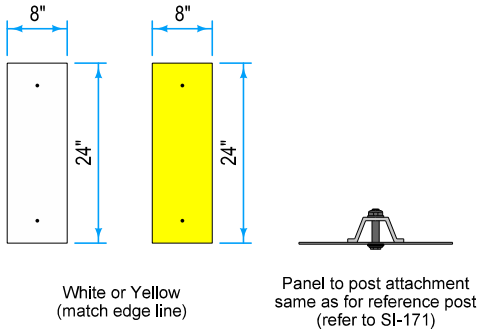
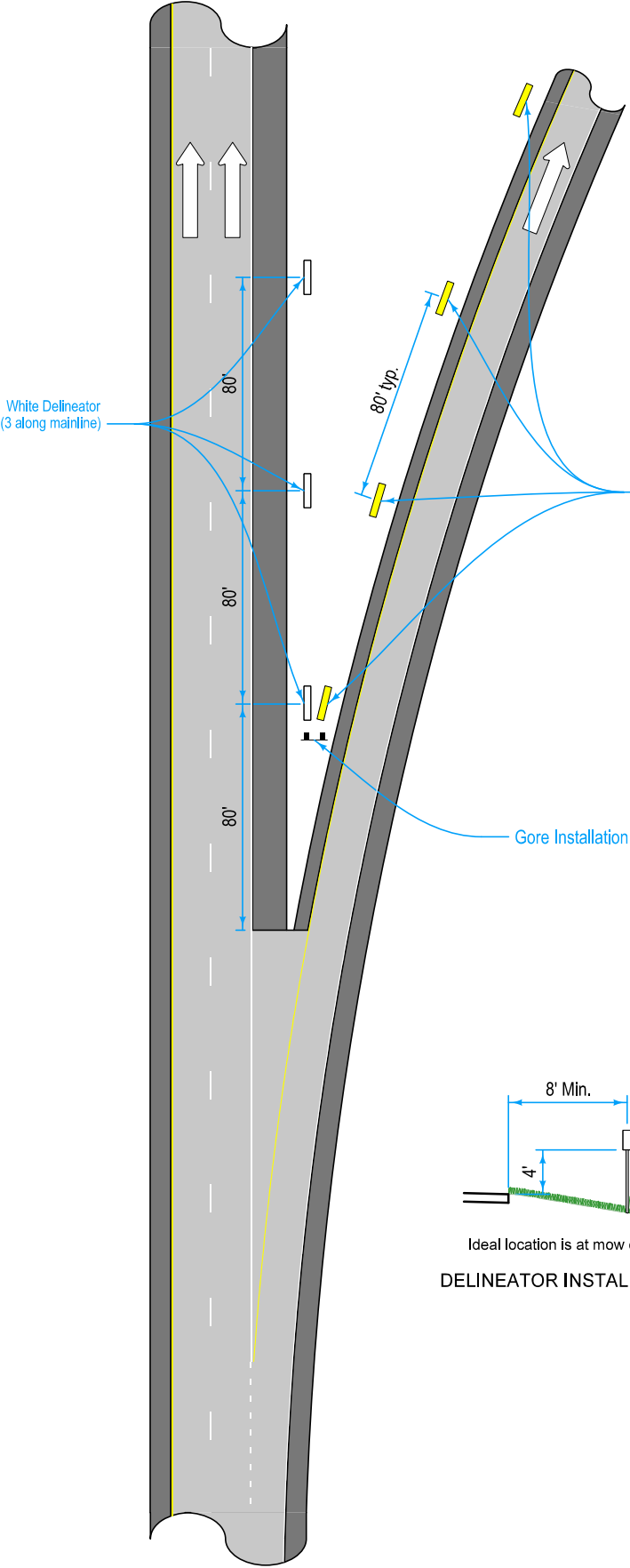
DETAIL
F

NOTE: Sign bracket capacity is 10 ft² each.
Signs wider than 10 feet must use 4 bolts per
bracket engaging in both joined extruded panels.

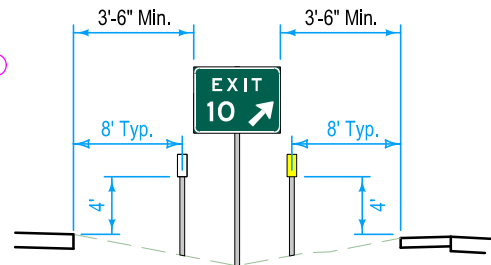
Besides top and bottom bracket, distribute
all other brackets as evenly as possible.

MASSH-400 Single Post system
Bracket attachment examples

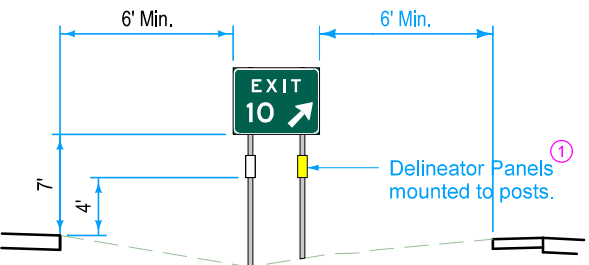
MASSH-400 SIGN
POST DETAILS



RETROREFLECTIVE DELINEATOR PANEL



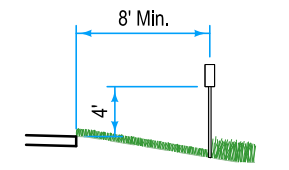
MASSH-400 POST GORE INSTALLATION




Exit gore sign must be installed at 7' height above edge of roadway and be less than 80' from end of paved gore.

GORE INSTALLATION

This is a typical layout. Additional route signing may be required.
Only one direction of travel shown.
The distances given are for a rural application and may vary to fit existing conditions.



DELINEATOR INSTALLATION

 IOWA IDOT	REVISION	
	NEW	MODIFIED
	TAS-811	
TYPICAL SIGNING LAYOUT	TAS STANDARD	
REVISION: ____		
Gore Delineation		

ESTIMATED PROJECT QUANTITIES AND REFERENCE NOTES

Division 1 : Traffic Sign Items
Division 2 :

Item no.	Item Code	Item	Unit	Quantities			Estimate Reference Notes
				Estimated			
				Division 1	Division 2	Total	
1	2401-6745358	REMOVAL OF CONCRETE FOUNDATIONS OF HIGHWAY SIGNS	EACH	8		8	<p>Refer to Tabulation 190-62 for locations and details.</p> <p>This item shall consist of removal of concrete foundations for steel breakaway sign support posts.</p> <p>Concrete footings or parts of concrete foundations removed shall become the property of the Contractor, and shall be removed in accordance with Article 1104.08.</p> <p>Unless otherwise provided or ordered, concrete foundations for steel breakaway sign support posts shall be removed 1 foot below natural ground surface. Where portions of the existing concrete foundations lie wholly or in part within limits for a new structure (culvert, concrete footing, or other), they shall be removed as necessary to accommodate construction of the proposed structure.</p> <p>Holes remaining from the removal of concrete foundations for steel breakaway sign support posts shall be backfilled with suitable earth to the original level or to the natural ground surface in accordance with Article 2402.09.</p> <p>Measurement: The Engineer will count each concrete foundation for steel breakaway sign support post removed.</p> <p>Payment: For each concrete foundation for steel breakaway sign support post removed, the Contractor shall be paid the contract unit price. This payment shall be full compensation for furnishing all material, equipment, and labor and for the performance of all work necessary for removal of the concrete foundations from the project and for any backfilling made necessary by these operations.</p>

Item no.	Item Code	Item	Unit	Quantities			Estimate Reference Notes
				Estimated			
				Division 1	Division 2	Total	
2	2401-6745916	REMOVAL OF SIGN SUPPORT STRUCTURE AND FOUNDATION	EACH	2		2	<p>Refer to Tabulation 190-62 for location and details.</p> <p>This item shall consist of removal of Type B Sign Support Structures and Foundations from the project.</p> <p>Each of the following is to be considered a Type B Sign Support Structure:</p> <ul style="list-style-type: none">- Overhead sign truss and foundations- Cantilevered sign truss and foundations- Bridge mounted brackets- Monotube sign structure and foundations- Mastarm sign structure and foundation <p>The Contractor shall remove each sign support structure identified in the plans. Unless otherwise noted, all sign support structures or parts of sign support structures to be removed shall become property of the Contractor.</p> <p>Sign support structures which may be reused shall be match marked, dismantled, and stored as designated in the plans. Dismantling and handling shall be done in such a way to not impair strength or usefulness of the material. All loose parts shall be wired to adjacent members or packed in suitable containers. Dismantled members shall be stored in neat piles at locations specified in the plans or within the right-of-way in the vicinity of the work at points designated by the Engineer.</p> <p>When provided in the plans, the Contractor shall deliver the sign support structure to be reused to a DOT storage area within 50 miles, as designated by the Engineer.</p> <p>Unless otherwise provided or ordered, concrete foundations for sign support structures shall be removed 3 foot below natural ground surface. Where portions of the existing concrete foundations lie wholly or in part within the limits for a new structures (culvert, concrete foundation, or other), they shall be removed as necessary to accommodate construction of the proposed structure.</p> <p>Holes remaining from the removal of concrete foundations for sign support structures shall be backfilled with suitable earth to the original level or to the natural ground surface in accordance with Article 2402.09.</p> <p>Measurement: The Engineer will count each Type B Sign Structure removed</p> <p>Payment: For each Type B Sign Support Structure removed, the Contractor shall be paid the contract unit price. This payment shall be full compensation for furnishing all material, equipment, and labor and for performance of all work necessary for removal of the Type B Sign Support Structure from the project and for any backfilling made necessary by these operations. Removal of crash cushions identified in the plans shall be incidental.</p>
3	2402-2720000	EXCAVATION, CLASS 20	CY	791.3		791.3	Refer to Tabulation 190-52 for locations and details.
4	2403-0100000	STRUCTURAL CONCRETE (MISCELLANEOUS)	CY	128.8		128.8	
5	2404-7775005	REINFORCING STEEL, EPOXY COATED	LB	20,064		20,064	Refer to Tabulation 190-52 for locations and details.

Item no.	Item Code	Item	Unit	Quantities			Estimate Reference Notes
				Estimated			
				Division 1	Division 2	Total	
6	2423-1051380	STEEL CANTILEVER SIGN TRUSS, 38 FT. ARM	EACH	2		2	<p>Refer to Tabulation 190-52 for locations and details. Includes all costs for furnishing and installing steel cantilever sign truss, including 1/8" neoprene pads at lower chord saddle assemblies.</p> <p>For fabrication and installation of steel cantilever sign truss, refer to SCST series standards for dimensions and details. These items shall be constructed per section 2423 of the Standard Specifications.</p>
7	2423-1060110	STEEL OVERHEAD SIGN TRUSS, 110 FT. SPAN	EACH	1		1	<p>Refer to Tabulation 190-52 for locations and details. Includes all costs for furnishing and installing steel overhead sign truss, including 1/8" neoprene pads at lower chord saddle assemblies.</p> <p>For fabrication and installation of steel overhead sign truss, refer to SOST series standards for dimensions and details. These items shall be constructed as per section 2423 of the Standard Specifications.</p>
8	2524-6765010	REMOVE AND REINSTALL SIGN AS PER PLAN	EACH	8		8	<p>Refer to Tabulations 190-50 and 190-62.</p> <p>The Contractor shall remove each sign and the hardware used to secure the sign to another sign, posts, or sign support structure. For signs mounted directly to posts, removal of the sign shall include removal of the posts. Posts may be either wood posts or steel breakaway sign posts. The removal of concrete footings for steel breakaway sign posts will be measured and paid for separately.</p> <p>Holes remaining from the removal of wood posts shall be backfilled with suitable earth to the original level or to the natural ground surface in accordance with Article 2402.09 of the Standard Specifications. All steel posts removed shall become the property of the Contractor. Unless otherwise noted, wood posts removed shall remain the property of DOT. The Contractor shall deliver the wood posts to a DOT storage area within 50 miles, as designated by the Engineer.</p> <p>**The existing sign shall be removed and stored. The Contractor shall remove the sign and transport it to a DOT storage area within 50 miles, as designated by the Engineer. The Contractor shall transport the sign back to the job site when ready for reinstallation.</p> <p>The Contractor shall furnish all necessary hardware to install the signs. When the new installation is similar to the original installation, unless otherwise noted, the existing hardware may be used to reinstall the sign.</p> <p>Signs damaged by the Contractor's activities shall be replaced at the Contractor's expense. Replacement materials shall be new. The DOT will furnish all details necessary for fabrication of the replacement materials.</p> <p>MEASUREMENT: The Engineer will count each sign removed and reinstalled.</p> <p>PAYMENT: For each sign removed and reinstalled, the Contractor shall be paid the contract unit price.</p>

Item no.	Item Code	Item	Unit	Quantities			Estimate Reference Notes
				Estimated			
				Division 1	Division 2	Total	
9	2524-6765210	REMOVAL OF TYPE A SIGN ASSEMBLY	EACH	2		2	Refer to Tabulation 190-62 for location and details. This item for the removal of Type A Sign Assemblies, including the sign panels, sign brackets, supporting structures and hardware. Contractor shall carefully dismantle each sign assembly. Sign posts, brackets and hardware shall become property of the Contractor. Sign panels shall become property of the DOT and shall be delivered to the nearest DOT maintenance facility. All holes resulting from removal of post shall be filled level with the adjacent grade with backfill material conforming to the Standard Specifications. Measurement: The Engineer will count the number of sign assemblies removed. Payment: The Contractor will be paid the contract unit price for each sign assembly removed.
10	2524-6765220	REMOVAL OF TYPE B SIGN ASSEMBLY	EACH	8		8	Refer to Tabulation 190-62 for location and details. This item for the removal of Type B Sign Assemblies, including the sign panels, sign brackets, supporting structures and hardware. Contractor shall carefully dismantle each sign assembly. Sign posts, brackets and hardware shall become property of the Contractor. All holes resulting from removal of posts shall be filled level with the adjacent grade with backfill material conforming to the Standard Specifications. Measurement: The Engineer will count the number of sign assemblies removed. Payment: The Contractor will be paid the contract unit price for each sign assembly removed.
11	2524-9081275	CONCRETE FOOTING FOR BREAKAWAY SIGN POST, 2'-8" DIA. X 7'-6"	EACH	6		6	Refer to Tabulation(s) 190-50 (and 190-51) for details.
12	2524-9089100	DELINEATOR, RIGID - TYPE I	EACH	58		58	Refer to Tabulation 190-25 for locations and details. Removal of existing delineators and mileposts shall be incidental.
13	2524-9276010	PERFORATED SQUARE STEEL TUBE POSTS	LF	78		78	Refer to Tabulation(s) 190-50 and/or 190-51 for locations and details.
14	2524-9276027	PERFORATED SQUARE STEEL TUBE POST ANCHOR, TRIANGULAR SLIP BASE ASSEMBLY	EACH	6		6	
15	2524-9281210	STEEL BREAKAWAY SIGN POSTS FOR TYPE A OR B SIGNS, W 8 X 21	LF	78		78	Refer to Tabulation 190-50 for locations and details.
16	2524-9325001	TYPE A SIGNS, SHEET ALUMINUM	SF	65.5		65.5	Refer to Tabulation 190-51 and 190-66 for locations and details.
17	2524-9380001	TYPE B SIGNS, EXTRUDED ALUMINUM STRUCTURAL PANEL	SF	1,627.5		1,627.5	Refer to Tabulation 190-50 for locations and details.
18	2533-4980005	MOBILIZATION	LS	1		1	- -
19	2545-1000000	OVERLAY TYPE B GUIDE SIGNS	SF	194.4		194.4	Refer to Tabulation "Sign Overlays and Covers" and "N" sheets for locations and details. Removal of overlays shall be incidental to this bid item.

Item no.	Item Code	Item	Unit	Quantities			Estimate Reference Notes
				Estimated			
				Division 1	Division 2	Total	
20	2555-0000010	DELIVER AND STOCKPILE SALVAGED MATERIALS	LS		1	1	Refer to Tab. 110-13.
21	2599-9999005	('EACH' ITEM) ANCHOR BOLT ASSEMBLY - INSTALL AND SURVEY	EACH	6		6	Refer to Tabulation 190-52 for locations and details. For accurately installing and surveying anchor bolt assemblies. Measurement: The Engineer shall count Each Anchor Bolt Assembly installed and surveyed. Payment: The Contractor shall be paid the contract unit price for each Anchor Bolt Assembly installed and surveyed.
22	2599-9999005	('EACH' ITEM) COVER TYPE B SIGN	EACH	2		2	Refer to Tabulation "Sign Overlays and Covers" and "N" sheets for locations and details. Measurement: The Engineer will count each sign being covered. Basis of Payment: For each Type B Sign Covered, the Contractor shall be paid the contract unit price. Uncovering the sign shall be incidental.
23	2599-9999005	('EACH' ITEM) DELINEATOR, GORE	EACH	7		7	This item refers to the 7 gore markers as per TAS 8-11 shown in the "B" sheets. Refer to Tabulation 190-25. Gore markers are tabulated under Type 2 Object Markers. Gore markers shall only be installed where they can be ground mounted and shall not be installed on concrete bridge barriers.
24	2599-9999005	('EACH' ITEM) MASSH-400 SIGN POST	EACH	1		1	Item is for furnishing and installing MASSH-400 breakaway post system. Refer to B sheets for installation details. Item includes: - (1) 13" slip base top kit - (1) 13" unibase 4"X48" (including concrete for complete 18"X48" footing) - (1) 18"X48" concrete footing - (1) 3/4" redi torque kit - (3) universal post clamp - (1) closure cap for 4" sq post - (1) sign post 4"X(varies)" 8ga. - All hardware required to assemble the sign post system complete Refer to Tabulation 190-50 for location and detail on posts. Post lengths are assumed and not based on survey information. The Contractor should take steps to verify post lengths prior to ordering / fabrication to minimize installation conflicts. Measurement: Each. The Engineer shall count each MASSH-400 post furnished and installed. Payment: Each. The Contractor shall be paid the contract unit price for each MASSH-400 post furnished and installed complete.
25	2599-9999005	('EACH' ITEM) SKID MOUNT TYPE B SIGN	EACH	2		2	See plan sheets for locations. Includes placement, mounting hardware and equipment, and setup for skid mounted signs. Once installed, 2 moves of the sign will be incidental.

Item no.	Item Code	Item	Unit	Quantities			Estimate Reference Notes
				Estimated			
				Division 1	Division 2	Total	
26	2599-9999008	('POUNDS' ITEM) ANCHOR BOLT ASSEMBLY - FURNISH	LB	5,714		5,714	Refer to Tabulation 190-52 for locations and details. For furnishing anchor bolt assemblies. Measurement: The Engineer shall count Each Anchor Bolt Assembly Furnished. Payment: The Contractor shall be paid the contract unit price for each Anchor Bolt Assembly Furnished.

110-13
04-20-10

DELIVERY AND STOCKPILING

Item Description	Quantity	Units	Delivery Location	Contact Name & Number	Remarks
Removed Type A and B Signs	1	LS	1530 NE 53rd Ave #2127 Des Moines, IA 50313	Jacob Bennet (515-262-2375)	

110-2
04-16-13

REMOVAL OF EXISTING STRUCTURES

Location	Description	Remarks
33548+75 1172+01.67	SOST 60' Truss 32' Cantilever	Stage 1 (Includes removal of crash cushions). Stage 2

190-62
10-15-13

EXISTING SIGNS TO BE REMOVED

SIGN NUMBER OR DESCRIPTION	LOCATION STATION	DIRECTION OF TRAVEL	TYPE 'A' SIGN ASSEMBLY	TYPE 'B' SIGN ASSEMBLY	REMOVE & REINSTALL EXISTING SIGNS		CONCRETE FOUNDATION	SUPPORT STRUCTURE & FOUNDATION	APPLICABLE SIGNING NOTES	REMARKS
			RA	RB	RR	RR				
			EACH	EACH	EACH	EACH				
Stage 1										
North/South Gore Overhead Assembly	2045+58.77 33548+75	NB/EB EB		1 1			2.0	1.0	RB, RF RB, RS	
Stage 2										
80-77-137A-R02	33548+00	NB		1					RB	
80-77-137A-R03	33548+00	NB		1					RB	
137 Ramp D	33550+00 to	33564+00			4				RR	
M3-2 Assembly	1134+14.41	EB	1						RA	
Speed Limit Assembly	1147+39.06	EB	1				1.0		RA	
Altoona Supplemental	1060+29.11	EB		1			2.0		RB, RF	
Altoona Advance	1172+01.67	EB		1				1.0	RB, RS	
State Fairgrounds	1006+29.22	EB		1			3.0		RB, RF	
Stage 3										
80-77-141-M01	1152+00	EB		1					RB	
-77-137A-R05 Assembly	33548+98.37	EB				2.0			RR	
Stage 4										
80-77-137A-R05	33548+98.37	EB				2.0			RR	

105-4
10-18-11

STANDARD ROAD PLANS

The following Standard Road Plans apply to construction work on this project.

SI-101	04-19-16	Locations - Type 'A' Signs
SI-102	04-19-16	Locations - Type 'B' Signs
SI-112	04-19-16	Footings For Steel Breakaway Posts
SI-113	10-15-19	Support Structures - Steel Breakaway Posts
SI-119	10-17-17	Support Structures - Mounting Brackets
SI-121	10-16-18	Fabrication - Sign Legend Components
SI-123	10-20-20	Fabrication - Type 'B' Signs
SI-131	10-18-16	Installation - Type 'A' Signs
SI-132	04-17-18	Installation - Type 'B' Signs
SI-133	10-17-17	Installation - Type "A" Sign Shim
SI-171	04-18-17	Reference Location Sign Posts
SI-172	04-19-16	Delineators
TC-1	10-15-19	Work Not Affecting Traffic (Two-Lane or Multi-Lane)
TC-402	04-18-23	Work Within 15 ft of Traveled Way
TC-416	10-15-19	Partial Lane Closure on Ramps
TC-417	04-21-20	Ramp Closure
TC-418	04-18-23	Lane Closure on Divided Highway
TC-420	10-16-18	Lane Closure at Ramps
TC-422	04-18-23	Closure of Two Adjacent Lanes on Divided Highway
TC-451	04-18-23	Temporary Road Closure on Divided Highway
TC-454	04-18-23	Temporary Detour Using Ramps on Divided Highway

190-25
10-21-14

REFERENCE LOCATION SIGNS AND DELINEATORS

Refer to SI-171, SI-172 and SI-173.

Begin Station	End Station	Location	Reference Location Signs									Enhanced Reference Location Signs									Intermediate Reference Location Signs	Delineators								Object Markers			Installation	
			D10-1	D10-2	D10-3	D10-5	D10-6	D10-7	D10-8	D10-9	D10-1A	D10-2A	D10-3A	D10-5A	D10-6A	D10-7A	D10-8A	D10-9A	D10-1D	D10-2D		D10-3D	White	Yellow	White	Yellow	White	Yellow	White	Yellow	Type 1	Type 2	Type 3	Type
STAGE 2		INSTALL																																
1090+00	1220+00	I-80 EB Ramp and mainline																				50											8.0	
Stage 3																																		
33546+00	33559+00	I-80 EB Ramp																				8								7		8.0		

190-52
04-18-17

MATERIALS FOR OVERHEAD SIGN SUPPORT STRUCTURES

LOCATION				SPAN LENGTH	STRUCTURE DESIGNATION	SIGN TRUSS STANDARD SERIES	INSIDE FOUNDATION OFFSET	OUTSIDE FOUNDATION OFFSET	ADDITIONAL STEM HEIGHT 'L'		FOUNDATION QUANTITIES								
ROADWAY	REFERENCE LOCATION SIGN	STATION	DIRECTION OF TRAVEL						EXCAVATION (CLASS 20)	REINFORCING EPOXY-COATED STEEL	REINFORCING UNCOATED STEEL	STRUCTURAL CONCRETE	42" DIA. DRILLED SHAFT	ANCHOR BOLT ASSEMBLIES					
														INSIDE	OUTSIDE	NUMBER	TOTAL		
I-80 RAMP	SOST 105'	33548+98.37	EB	105'	Truss and Foundation	SOST	-74.2	30.8	3.0	6.0	274.7	7362.0	-	61.2	-	4	1588.0		
I-80	SCST 38'	1171+75.00	EB	38'	Cantilever and Foundation	SCST	-	88.5	-	-	202.0	6351.0	-	33.8	-	1	2063.0		
I-80	SCST 38'	1188+00.00	EB	38'	Cantilever and Foundation	SCST	-	85.5	-	-	314.6	6351.0	-	33.8	-	1	2063.0		

FILE NO.

ENGLISH

DESIGN TEAM Iowa DOT \ HDR

POLK COUNTY

PROJECT NUMBER IM-035-3(086)87--13-77

SHEET NUMBER C.7

10/1/2025 3:15:05 PM ATEUBEL c:\pwworking\central01\d4597170\new_NEMMc02.xlsm

190-51
10-15-13

MATERIALS FOR TYPE 'A' SIGNS																											
TYPE A SIGNING TYPICALS	SIGN NUMBER	DIR OF TRAVEL	SIGN LOCATION	WOOD POSTS		PERFORATED SQUARE STEEL TUBE							MASSH-400 Post			TYPE A SIGN MOUNTING BRACKETS						INSTALLATION			REMARKS		
				NO. OF POSTS	4 x 6		LEG 1 FT	LEG 2 FT	LEG 1 FT	LEG 2 FT	LEG 3 FT	ANCHOR		NO. OF POSTS	POST LENGTH FT	ANCHORS EACH	ONE POST BRACKET	TWO POST	AUXILIARY	H	F	F1	TYPE	DIM 'X' FT		SEE SIGNING NOTES	
			STATION		LEG 1 FT	LEG 2 FT						CONC	SOIL														SLIPBASE
					Stage 2																						
	M3-2	EB	1134+14.41				12			14			2									1	30	IA, PP			
	M1-1	EB	1134+14.41																								
	R2-1	EB	1147+39.06										1	13	1							1	30	IA, PP			
	R2-4	EB	1147+39.06																								
	Stage 4																										
	W4-2	EB	33551+50				12			14			2									1	30	IA, PP			

190-50 10-15-13																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
MATERIALS FOR TYPE 'B' SIGNS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
NUMBER	SIGN NUMBER					DIR OF TRAVEL	SIGN LOCATION	FAB INFO	SIGN WIDTH	SIGN HEIGHT	NEW AREA	WOOD POSTS			PERFORATED SQUARE STEEL TUBE						STEEL BREAKAWAY POSTS										INSTALLATION			SEE SIGNING NOTES	REMARKS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	ROUTE	COUNTY	EXIT NUMBER	Road ID M,R,S	SEQ. NO.							4 x 6			PERFORATED SQUARE STEEL TUBE						W8x21			FOOTING 2'8" x 7'6"	W12x26				FOOTING 2'8" x 9'	TYPE	DIM 'X' FT	DIM 'Y' FT																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
												L	M	R	L	M	R	ANCHOR			L	M	R		L	M1	M2	R					EACH																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
							FT											FT	FT	FT																FT	FT	CONC	SOIL	SLIP	FT	FT	FT	EACH	FT	FT	FT	FT	EACH																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Stage 1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									

SIGN OVERLAYS AND COVERS							
SIGN NUMBER OR DESCRIPTION	LOCATION STATION	DIRECTION OF TRAVEL	STAGE OF TRAFFIC _____	MODIFICATION		OVERLAY (SF)	REMARKS
				REMOVE EACH	INSTALL EACH		
80-77-137A-R05	33548+98.37	NB	Stage 2		1.0	4.0	OVERLAY
Kansas City / CB	2009+44.28	NB	Stage 3		1.0	30.0	EXIT CLOSED
Kansas City / CB	2040+50.68	NB	Stage 3		1.0	30.0	EXIT CLOSED
80-77-137A-R06	33545+40.41	NB	Stage 3		1.0	5.4	OVERLAY
80-77-137A-R06	33545+40.41	NB	Stage 3		1.0	5.0	EAST
80-77-137A-R04	33548+98.37	NB	Stage 3		1.0		Cover Sign
South 35 Left	33554+23.86	NB	Stage 3		1.0		Cover Sign
80-77-141-M03	1171+75.00	EB	Stage 3		1.0	43.5	OVERLAY
80-77-141-M05	1188+00.00	EB	Stage 3		1.0	43.5	1/2 MILE
80-77-137A-R05	33548+98.37	NB	Stage 4		1.0	33.0	LANE ENDS
80-77-137A-R05	33548+98.37	NB	Stage 4	1.0			OVERLAY
Kansas City / CB	2040+50.68	NB	Stage 4	1.0			EXIT CLOSED
Kansas City / CB	2040+50.68	NB	Stage 4	1.0			EXIT CLOSED
80-77-137A-R06	2045+58.77	NB	Stage 4	1.0			OVERLAY
80-77-137A-R06	2045+58.77	NB	Stage 4	1.0			EAST
80-77-137A-R04	33548+98.37	NB	Stage 4	1.0			Remove Cover
South 35 Left	33554+23.86	NB	Stage 4	1.0			Remove Cover

190-66 10-21-14			
SUMMARY OF TYPE 'A' SIGNS			
Sign Number	Quantity	Size	Total Sign Area
	EACH	IN	SF
M1-1i	1	36 X 36	9.0
M3-2i	1	36 X 18	4.5
R2-1	1	48 X 60	20.0
R2-4A	1	48 X 48	16.0
W4-2	1	48 X 48	16.0
		TOTAL:	65.5

<div>259-1 09-28-22</div> <div>SIGNING NOTES</div> <div>The following tolerances will be allowed on all signs: Accumulation error of not greater than +/-0.50" per line of copy, not greater than +/-0.50" for spacing between lines of copy, and the margin between lines of copy and the inside edge of the sign border. The following tolerances will be allowed on each letter or numeral: nominal height variation in height variation in width 4" thru 12" -1/8" to +3/8" -1/4" to +1/4" over 12" -1/8" to +3/8" -3/8" to +3/8" ----- Type B signs can be separated into two categories: - Major Guide Signs. - Minor Guide Signs. Major Guide Signs include the advance and exit direction guide signs for an interchange or intersection. Minor Guide Signs include all other guide signs such as NEXT EXIT signs, supplemental guide signs, logo signs, exit gore signs, post-interchange mileage signs, ramp destination signs, and ramp logo signs for an interchange, as well as destination signs along sideroads. Type A signs are not separated into categories, but special consideration should be given to regulatory signs. Do not remove Type B signs until replacement signs have been installed. If construction activities require the removal of a sign, the existing sign may be relocated to temporary posts, or a temporary plywood sign may be installed to replace the existing sign. Existing non-regulatory Type A signs are NOT required to remain in place until installation of replacement signs. Existing regulatory Type A signs, particularly Stop signs, should not be removed until replacement signs are installed. Where a staged traffic control plan is contrary to this guidance, follow the direction of the traffic control plan. Apply the following during the replacement or modification of signs: - No more than one of the major guide signs for each direction of travel at an interchange out of service at any one time. - No major guide sign out of service for more than 8 hours. - No minor guide out of service for more than 24 hours. Remove existing signs and posts within 24 hours following the installation of a new replacement sign. In any case where the plans call for a new sign and posts to be installed at the same station location and offset as an existing sign, install the new posts at a minimum of either 5 ft ahead or behind the existing sign installation. Signs shall not be installed more than 25 ft ahead or behind the existing sign installation. Whenever posts for a replacement sign are erected directly in front of an existing sign, install the new replacement sign and remove the existing sign installation within 24 hours of the time that the new posts are erected. Where signs are located behind guardrail, locate the near edge of the sign a minimum of 3 ft behind the guardrail posts. Unless noted otherwise, leave auxiliary panels, such as exit number panels, in place or reattach to the sign using the existing mounting hardware. Also, when replacing an existing logo sign with a new logo sign, remove the business logo panel(s) from the existing sign and attach to the new sign as directed by the Engineer. Do not damage the auxiliary or logo panels when removing and reattaching them. This work is incidental to other work and no separate payment will be made.</div>			<div>259-1 09-28-22</div> <div>SIGNING NOTES</div> <div>The following notes apply to the corresponding sign installations shown on the plan sheets and listed in the tabulations. IB INSTALL NEW TYPE B SIGN IA INSTALL NEW TYPE A SIGN Install new signs at the location identified in the plans. For installation of new signs on an existing sign support structure, refer to note (L). For installation of new signs on existing posts: -if the new sign is taller than the existing sign, furnish the necessary hardware to extend the sign above the posts. Refer to Standard Road Plan SI-132. -if the new sign is shorter than the existing sign: -for wood posts and perforated square tube posts, install the sign at the proper height and cut off the excess post length. -for MASSH-400 and steel breakaway posts, install the sign at the top of the posts. For plywood signs, no vertical splices are allowed in signs less than or equal to 10 ft wide. No horizontal splices are allowed in signs less than or equal to 4 ft tall. Each new sign installed shall have a sticker applied to the back of the sign that shows the date the sign was installed. The Contractor shall supply the sticker for all contractor supplied signs. The DOT will supply date stickers on any signs supplied by the department. Payment for installing Type A signs or Type B signs includes furnishing hardware for mounting, extending signs above existing posts, and cutting posts for length. MS MODIFICATION OF EXISTING SIGNS For removal and/or installation of logo panels, and other sign modifications. Refer to the project plans and typical details for additional information. SC SIGN COVER For installation or removal of temporary sign covers for the purposes of temporary traffic control. Sign covers shall completely cover the existing Sign. Care should be taken so that covers, fasteners, and installation practices do not damage the existing sign. Tape of any type shall not be applied to the sheeted face of the existing sign under any circumstances. Repair of damage to the existing sign caused by sign covers will be the responsibility of the Contractor. SO OVERLAY OF TYPE B GUIDE SIGNS MB INSTALL SPECIAL MOUNTING BRACKET Install special mounting bracket at the locations identified in the plans. Refer to Tabulations 190-51 and/or 190-65. PB INSTALL NEW BREAKAWAY STEEL POSTS AND FOOTING PB INSTALL NEW PERFORATED SQUARE TUBE POSTS AND ANCHORS PB INSTALL NEW MASSH-400 POSTS AND ANCHORS Install new breakaway steel posts and footings, perforated square tube posts and anchors, or MASSH-400 posts and anchors at the locations identified in the plans. Refer to the Standard Road Plans, Typicals, and Tabulations 190-51 and 190-50 for post size and footing information.</div>			<div>259-1 09-28-22</div> <div>SIGNING NOTES</div> <div>New posts shall be installed in undisturbed soil. The new posts shall not be placed in the hole of removed posts. Remove excess soil from footing hole. Do not spread soil on adjacent seeded or vegetated areas. If note (RR) accompanies (PB), (PP), or (PM), install an existing sign on the new posts. RR REMOVE AND REINSTALL SIGN AS PER PLAN Do not remove existing major Type B guide signs on posts until the new posts are installed. Promptly remove sign and install at the new location. Existing major Type B guide signs on the overhead support structures, minor Type B guide signs, plywood signs, and Type A signs may be removed and stored. Transport the signs to a DOT storage area as designated by the Engineer. Transport the signs back to the job site when ready for installation at the new location. Signs to be reinstalled shall not be stored for any length of time with the sheeted face in contact with the ground. Replace signs damaged by the Contractor's activities at no additional cost to the Contracting Authority. Payment for Remove and Reinstall Sign includes sign removal, delivery to and from the DOT storage area (if applicable), and reinstallation, including any hardware required for reinstallation. When noted in the plans, payment for delivery and stockpile of existing signs will be separated from the payment for Remove and Reinstall Sign. RA REMOVAL OF TYPE A SIGN ASSEMBLY RB REMOVAL OF TYPE B SIGN ASSEMBLY Type A Sign Assembly consists of one or more signs installed on one or more posts, either directly mounted to the post or mounted to the post with special sign mounting brackets. Type B Sign Assembly consists of the main sign, all auxiliary signs and brackets, and posts. Unless stated otherwise in the plans, remove all posts with the signs and brackets. Remove each sign assembly identified in the plans. Sign posts removed become the property of the Contractor. All other materials removed remain the property of the DOT. For each sign assembly removed, disassemble each assembly before delivering to the DOT. * For Type A sign assemblies, unbolt all signs, special mounting brackets, and posts from each other. * For Type B assemblies, unbolt all extruded aluminum panels, brackets, and posts from each other. Do not damage the disassembled materials. When the plans call for the removal of posts, the entire existing post shall be removed. The post shall not be broken off or cut off at the ground line. Place backfill in holes remaining from the removal of posts and restore the surrounding conditions. Deliver the removed signs, special sign mounting brackets, and extruded aluminum panels to a DOT storage area, as designated by the Engineer.</div>		
FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT \ HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(086)87--13-77	SHEET NUMBER	C.9

<div>259-1 09-28-22</div> <div>SIGNING NOTES</div> <div><p>The concrete footings for steel posts are not considered part of the sign assembly. Refer to note RF for concrete footing removal.</p><p>Payment for Removal of Type A Sign Assembly or Removal of Type B Sign Assembly includes sign assembly removal and disassembly, post removal (if applicable), delivery to the DOT storage area, placing backfill in holes, and restoration of the surrounding conditions.</p><p>RF REMOVE EXISTING CONCRETE FOOTING FOR STEEL POST</p><p>Remove existing concrete footings to a depth of at least 1 ft below the natural groundline. Place backfill in holes remaining from removal and restore to the normal surrounding conditions. This work is incidental to other work and no separate payment will be made.</p><p>RS REMOVE EXISTING TYPE B SIGN SUPPORT STRUCTURE</p><p>The following are considered Type B Sign Support Structures:</p><ul style="list-style-type: none">- Overhead sign trusses and foundations- Cantilever sign trusses and foundations- Bridge-mounted brackets<p>Unless stated otherwise in the plans, existing overhead trusses, cantilever trusses, and bridge brackets which are removed become the property of the Contractor. If stated in the plans, deliver overhead trusses, cantilever trusses, and bridge brackets to a DOT storage area, as designated by the Engineer.</p><p>Payment for Removal of Sign Support Structures and Foundation includes sign support structure removal, delivery to the DOT storage area (if applicable), and restoration of the surrounding conditions. Removal of the foundation includes removal of the stem to a minimum of 1 ft below the natural groundline.</p><p>L MODIFY SIGN SUPPORT ANGLES NEEDED TO INSTALL SIGNS ON EXISTING SIGN SUPPORT STRUCTURES.</p><p>Refer to the sign support structure details for information on the required angle brackets.</p><p>Provided all specification are met, the existing sign support angles may be reused. Install existing sign support angles to be reused only on the sign support structure from which they were removed.</p><p>Sign support angles removed and not reused become the property of the Contractor.</p><p>When reusing the existing sign support angles with a shorter replacement sign, the sign support angles may need to be trimmed. Refer to the sign support details to determine if and where to trim the sign support angles.</p><p>Do not use existing fasteners. Use new U-Bolts, stainless steel bolts and nuts to install the existing or new sign support angles to the sign support structure.</p><p>Removal of existing sign support angles is incidental to removal of the sign.</p><p>Reinstalling and/or modifying existing sign support angles; furnishing and installing new sign support anlges (if required); and furnishing and installing new fasteners is incidental to work associated with Type B signs.</p></div>				<div>259-1 09-28-22</div> <div>SIGNING NOTES</div> <div><p>SIGN INSTALLATION QUALITY CONTROL NOTES</p><p>Post lengths have been derived from the proposed grading cross sections. Verify post lengths in the field prior to ordering or fabrication.</p><p>Slight differences between the design template and the actual conditions should be expected. These variations should be resolved by doing some localized shaping and grading. Obtain material needed to meet the site requirements of SI-112 from the excavation and/or the area immediately adjacent to the work. Ensure reshaping work does not substantially change foreslopes or the drainage in the vicinity of the sign.</p><p>Significant differences between the plan design and the actual field conditions shall be resolved in this manner:</p><p>Survey the location and draw the actual template on the cross section. Recalculate each post length and compare to the maximum allowable leg length. If all of the maximum leg lengths are less than or equal to the maximum allowable leg length, then the proposed post design will be sufficient. If any leg is greater than the maximum allowable leg length, then submit the cross section with the actual template drawn (including offsets and elevation from the survey shown) to the Engineer. The Engineer may forward this information to the Engineer of Record in order to complete a new post design.</p><p>Install the footings, stub posts, and posts according to the tolerances shown on the applicable SI Series Standard Road Plans.</p><p>Footing construction is the controlling activity that substantially affects the quality of the site installation. Verify the elevation difference between the stubs is exactly the same as the elevation difference between the post lengths. If the Engineer request, submit documentation detailing the site cross section in order to verify site installation.</p></div>					
FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT \ HDR	POLK	COUNTY	PROJECT NUMBER	IM-035-3(086)87--13-77	SHEET NUMBER	C.10

9/25/20252:13:01 PMATEUBELc:\pwworking\central01\d4597170\new_NEMMc02.xlsm

SEE GRADING AND PAVING PROJECT IM-NHS-080-4(085)138--03-77 FOR STAGING INFORMATION



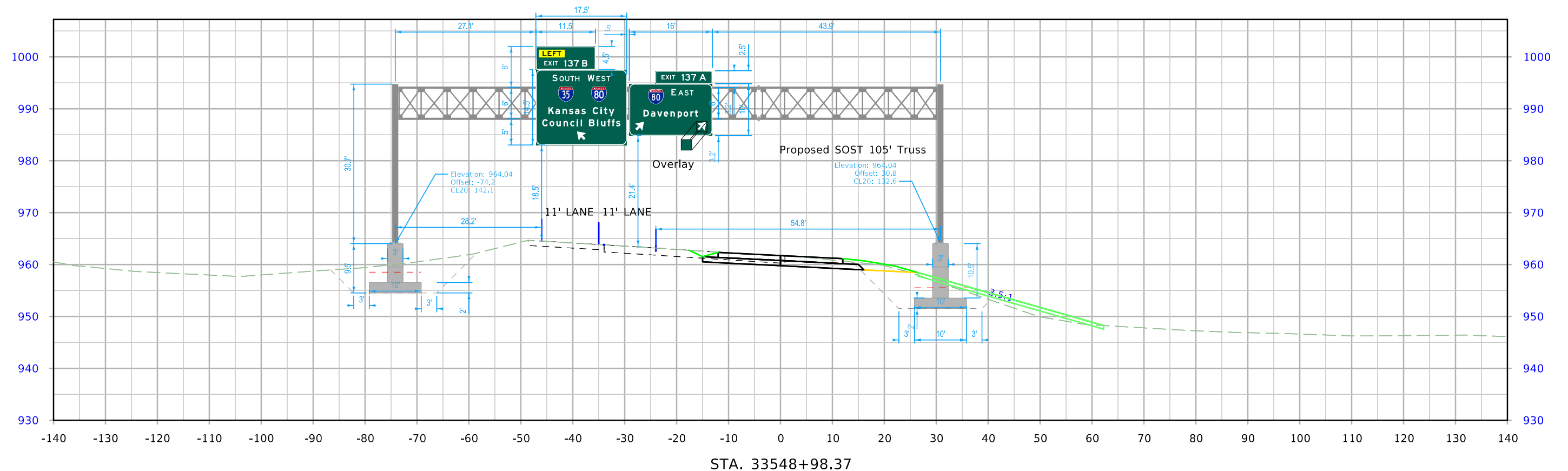
SIGNING LAYOUT – NEMM Stage 1
NE-35/235 Interchange to W US 65 Interchange (EB)
IM-080-4(086) 138—13—77



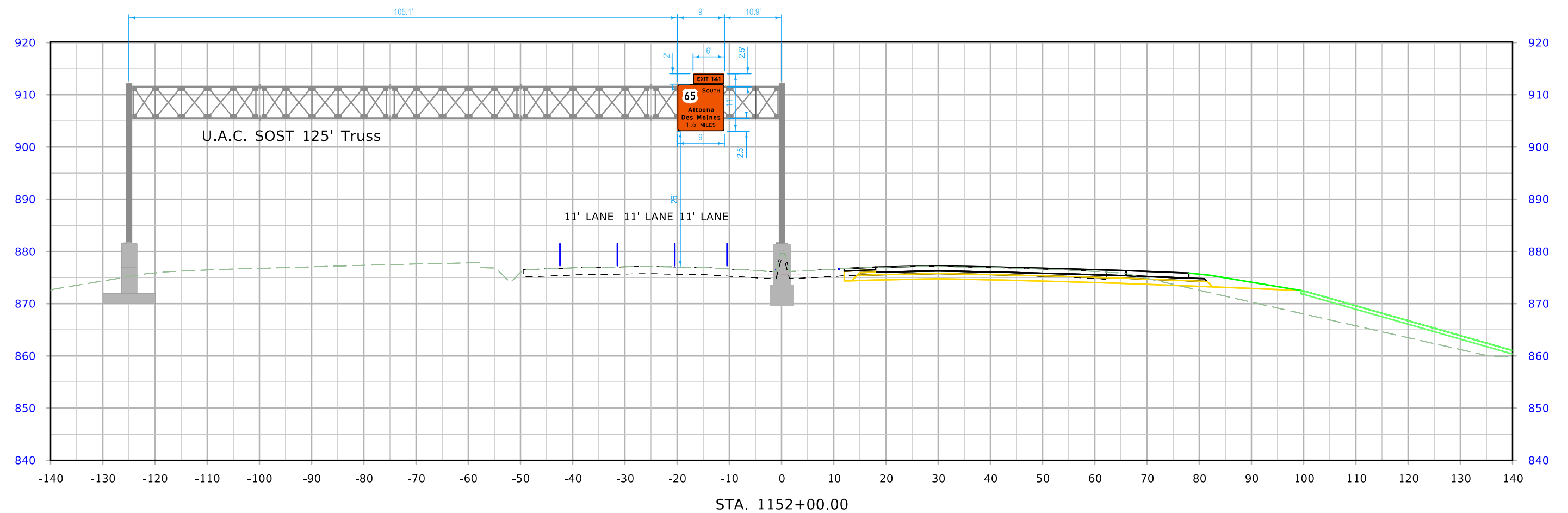
Date
Oct. 2025
Sheet
N.1

Stage 2 - I-80 EB Ramp

THIS SPECIAL SIGN CONFIGURATION DOES NOT CONFORM TO THE SIGN SUPPORT ANGLE MAXIMUM CANTILEVER LENGTH RESTRICTION OF 6'-7" SHOWN ON STANDARD SHEET SOST-11-11. SIGN SUPPORT ANGLES WITH CANTILEVER LENGTHS OF 8'-1" USED TO SUPPORT BOTH A MAIN SIGN AND AN AUXILIARY SIGN SHALL HAVE THE MAXIMUM HORIZONTAL SPACING REDUCED FROM 5'-0" TO 4'-0". THE CONTRACTOR SHALL MAKE SURE SHOP DRAWINGS PROPERLY REFLECT THIS SIGN SUPPORT ANGLE SPACING RESTRICTION.

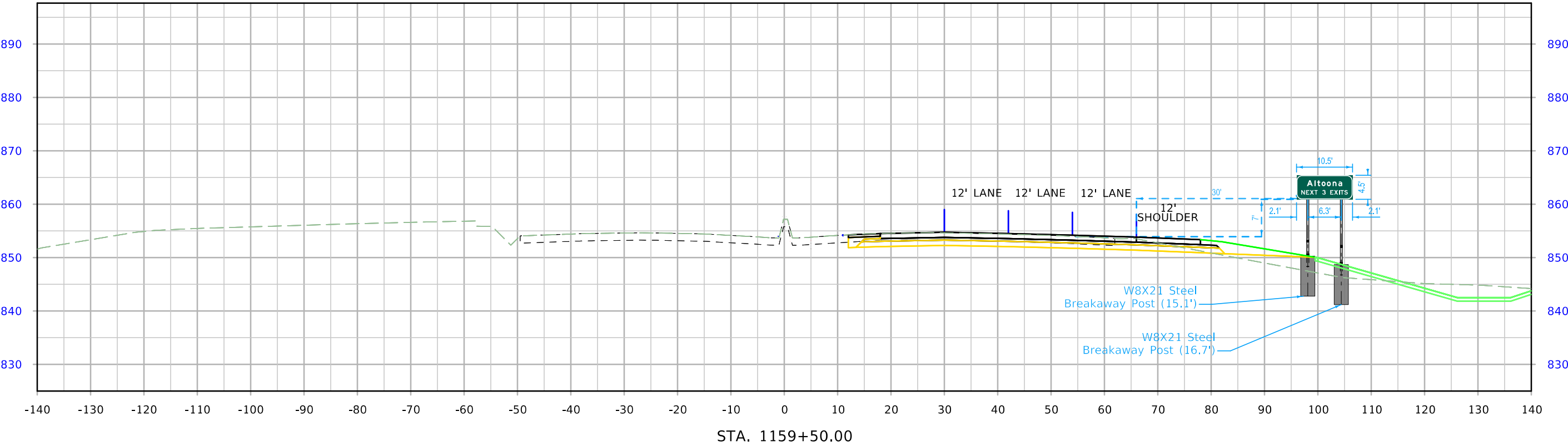


Stage 2 - I-80 EB

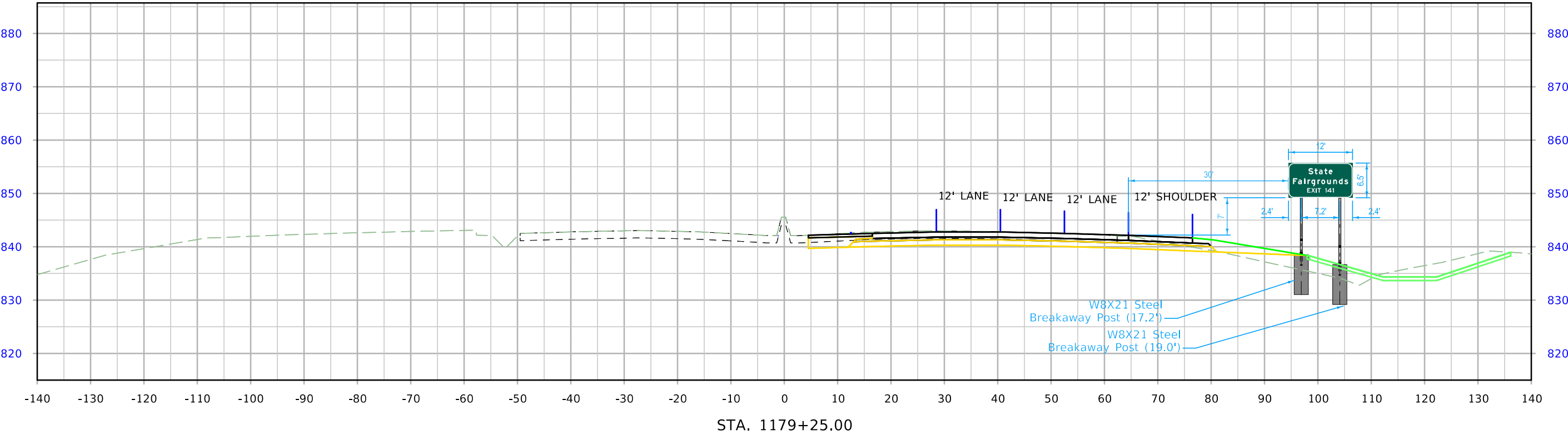


FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT / HDR	POLK COUNTY	PROJECT NUMBER	IM-080-4(086)138--13-77	SHEET NUMBER	N.6
3:05:23 PM	10/1/2025	ATEUBEL	pw:\pwhdrscen01:HDR_US_Central_01\Documents\IADOT\IDOT-NEMM_Stage_5_Final_Rdwj\6.0_CAD_BIM\6.2_WIP\Workset\Dgn\Design\CADD_Files\86_Signing\86_Cross_Sections.dgn					

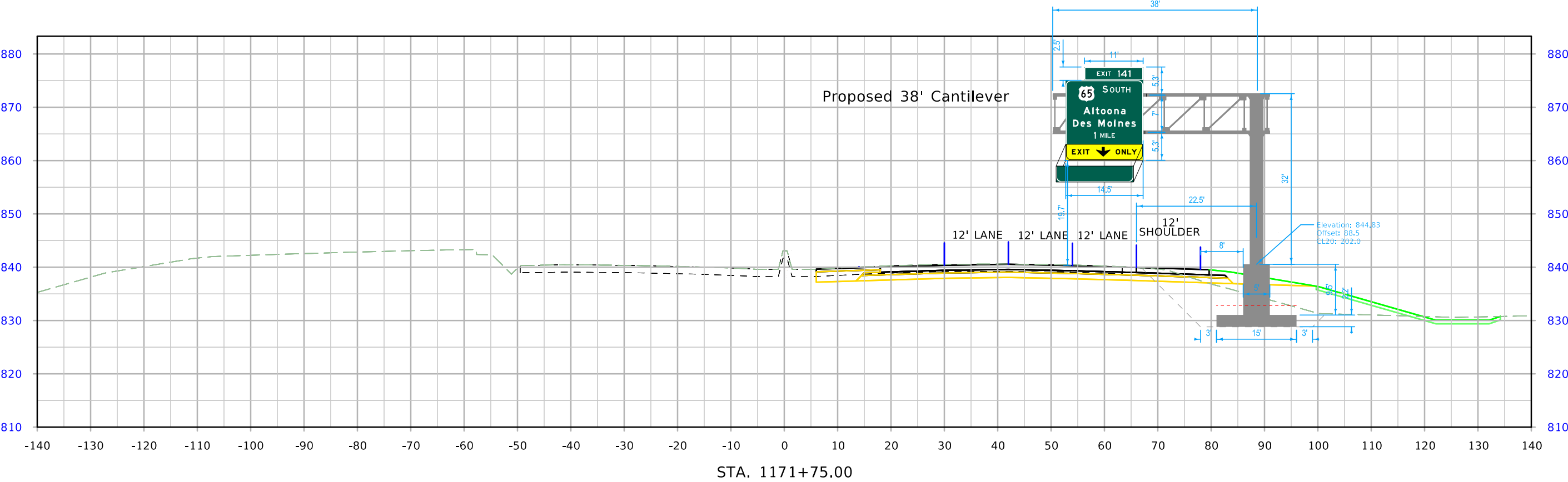
Stage 2 - I-80 EB



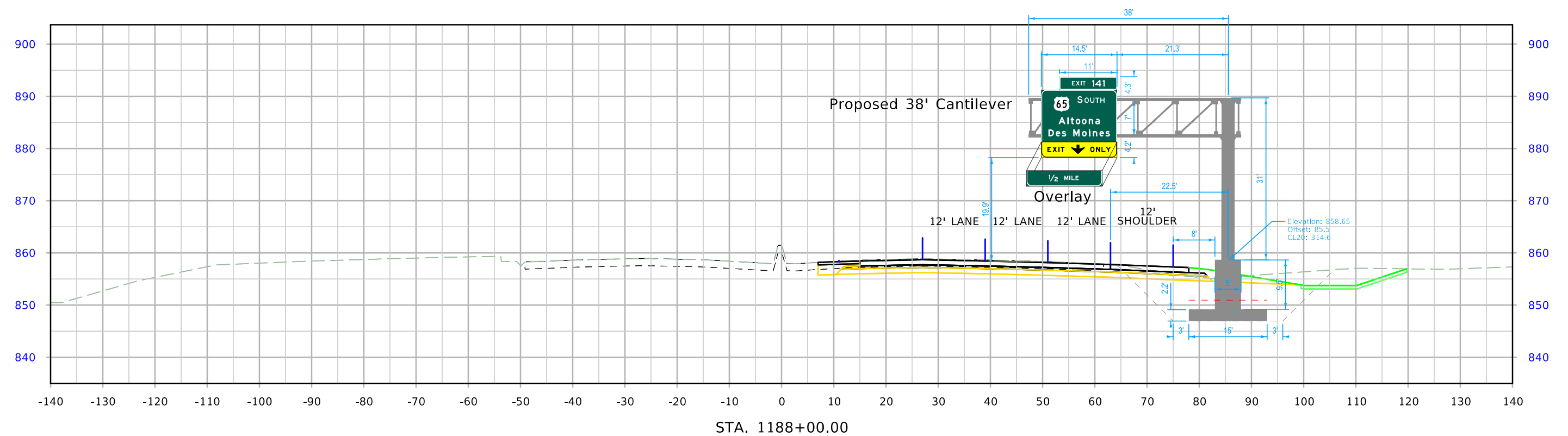
Stage 2 - I-80 EB



Stage 2 - I-80 EB

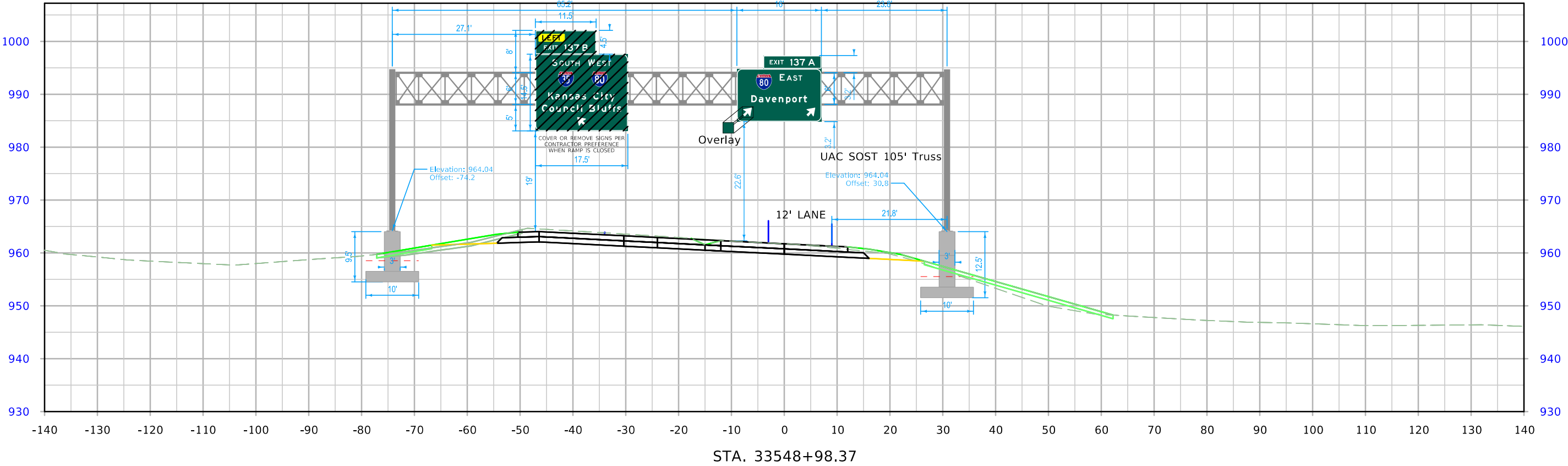


Stage 2 - I-80 EB

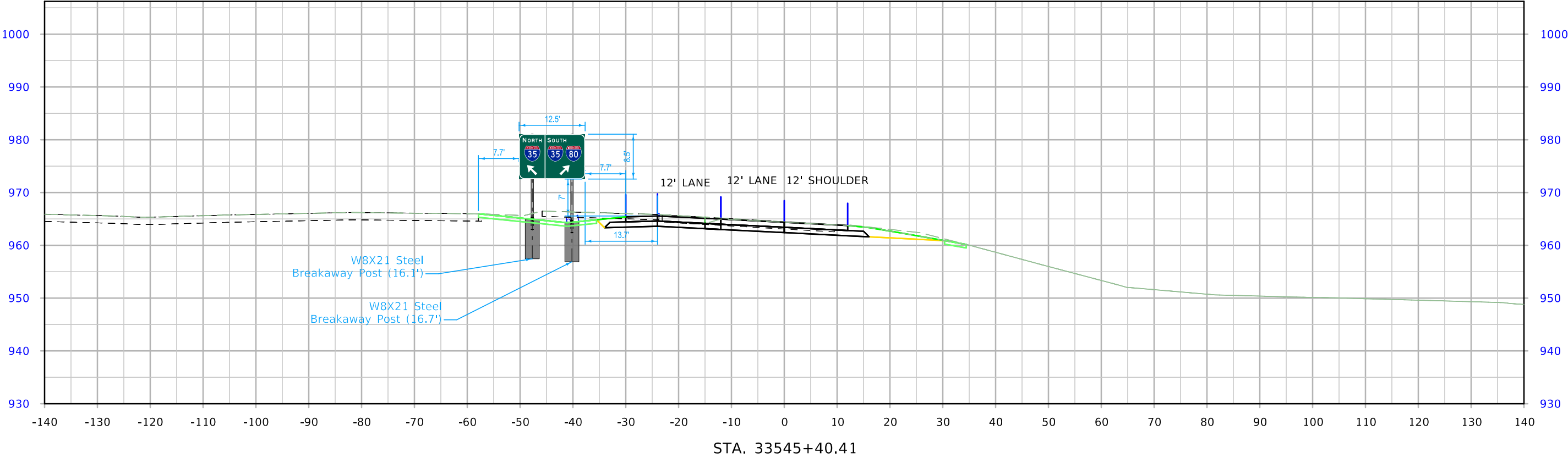


FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT / HDR	POLK COUNTY	PROJECT NUMBER IM-080-4(086)138--13-77	SHEET NUMBER N.10
3:05:32 PM	10/1/2025	ATEUBEL pw:\pwhdruscen01:HDR_US_Central_01\Documents\IADOT\IDOT-NEMM_Stage_5_Final_Rdwj\6.0_CAD_BIM\6.2_WIP\Workset\Dgn\Design\CADD_Files\86_Signing\86_Cross_Sections.dgn			

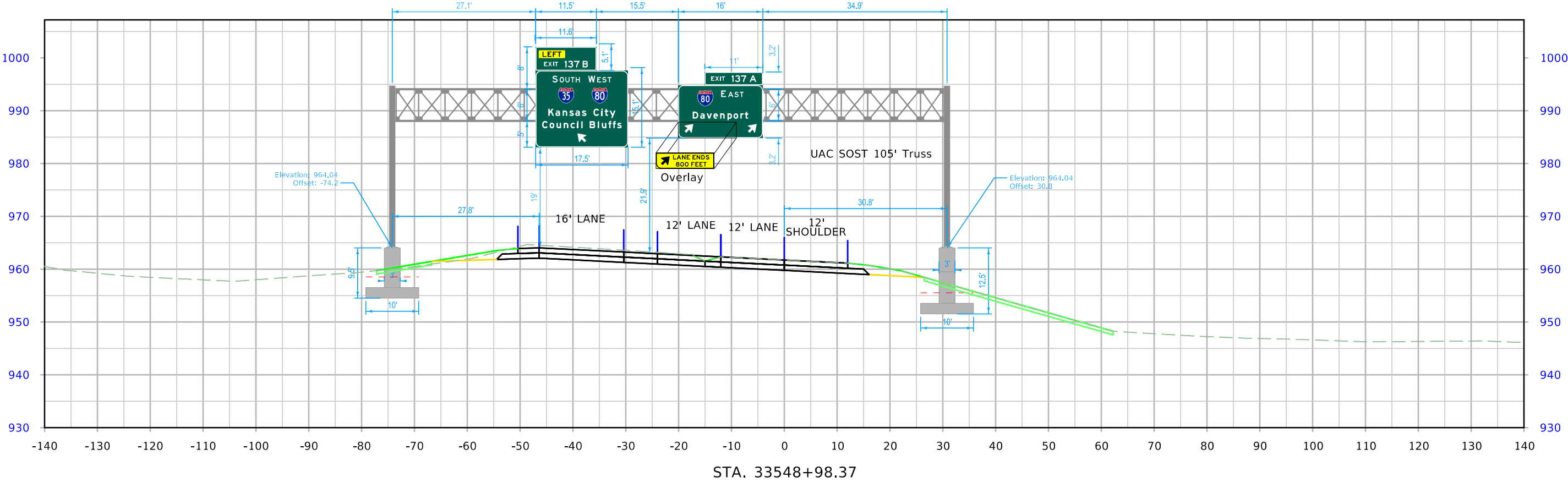
Stage 3 - I-80 EB Ramp



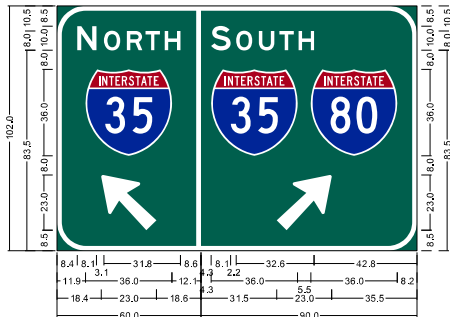
Stage 4 - I-80 EB Ramp



Stage 4 - I-80 EB Ramp

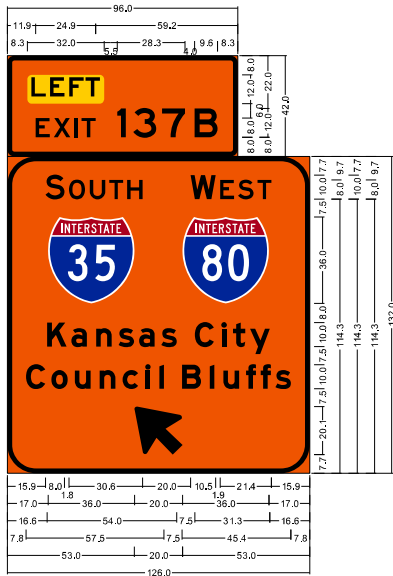


80-77-137A-R01



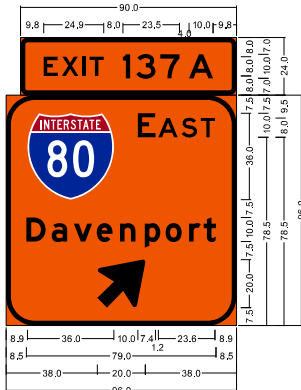
top:
12.0" Radius, 2.0" Border, White on Green;
"NORTH", E 2K 150% spacing; Arrow Custom - 29.3" 135°;
top:
12.0" Radius, 2.0" Border, White on Green;
"SOUTH", E 2K 150% spacing; Arrow Custom - 29.3" 45°;

80-77-137A-R02
80-77-137A-R02A



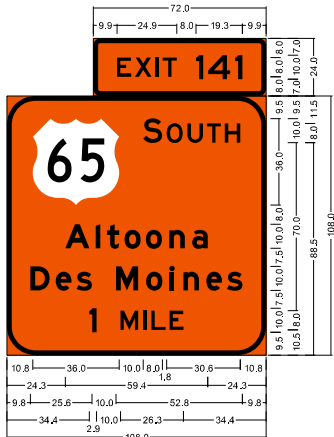
3.0" Radius, 2.0" Border, Black on Orange;
Rounded Rectangle 1.9" Radius Yellow;
"EXIT", E: "137 B", E;
12.0" Radius, 2.0" Border, Black on Orange;
"SOUTH", E: "WEST", E: "Kansas City", E Mod;
"Council Bluffs", E Mod; Arrow I-E - 25.0" 45°;

80-77-137A-R03



3.0" Radius, 2.0" Border, Black on Orange;
"EXIT 137 A", E;
12.0" Radius, 2.0" Border, Black on Orange;
"EAST", E: "Davenport", E Mod;
Arrow I-E - 25.0" 45°;

80-77-141-M01
80-77-141-M01A



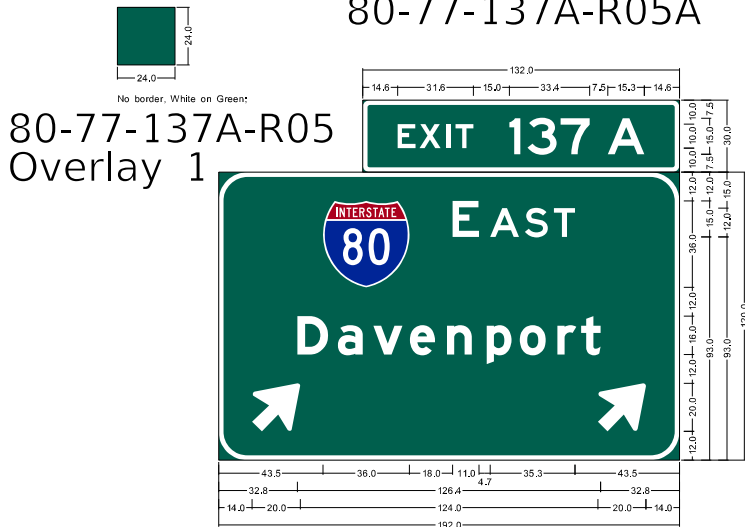
3.0" Radius, 2.0" Border, Black on Orange;
"EXIT 141", E;
12.0" Radius, 2.0" Border, Black on Orange;
"SOUTH", E: "Altoona", E Mod;
"Des Moines", E Mod; "1 MILE", E;

80-77-137A-R04
80-77-137A-R04A



E1-5bP(3), 138x54;
3.0" Radius, 2.0" Border, White on Green;
Rounded Rectangle 1.9" Radius Yellow;
"EXIT", E 2K 120% spacing; "137", E 2K; "B", E 2K;
12.0" Radius, 2.0" Border, White on Green;
"SOUTH", E: "WEST", E: Interstate 35 18.0" B; Interstate 80 18.0" C; "Kansas City", E Mod;
"Council Bluffs", E Mod; Arrow I-E - 25.0" 135°;

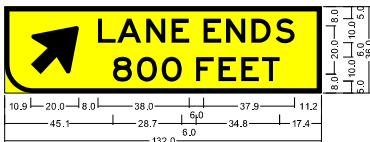
80-77-137A-R05
80-77-137A-R05A



80-77-137A-R05
Overlay 1

2.0" Border, White on Green;
"EXIT", E 2K 120% spacing; "137", E 2K; "A", E 2K;
12.0" Radius, 2.0" Border, White on Green;
"EAST", E: "Davenport", E Mod; Arrow I-E - 25.0" 45°; Arrow I-E - 25.0" 45°;

80-77-137A-R05
Overlay 2



12.0" Radius, 2.0" Border, Black on Yellow;
Arrow I-E - 25.0" 45°; "LANE ENDS", E: "800 FEET", E;

80-77-141-M03
80-77-141-M03A



2.0" Border, White on Green;
"EXIT", E 2K 120% spacing; "141", E 2K;
12.0" Radius, 2.0" Border, White on Green;
"SOUTH", E: "Altoona", E Mod; "Des Moines", E Mod; "1 MILE", E;
12.0" Radius, 1.5" Border, 0.5" Indent, Black on Yellow;
"EXIT", E Mod specified length; Down Arrow I-E - 22.0" 270°;
"ONLY", E Mod specified length;



12.0" Radius, 2.0" Border, White on Green;

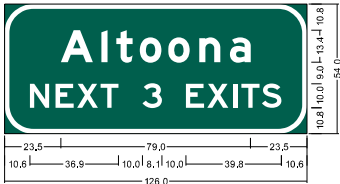
80-77-141-M03
Overlay 1

80-77-141-M05
80-77-141-M05A



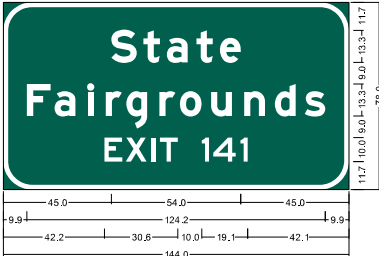
2.0" Border, White on Green;
"EXIT", E 2K 120% spacing; "141", E 2K;
12.0" Radius, 2.0" Border, White on Green;
"SOUTH", E: "Altoona", E Mod; "Des Moines", E Mod;
12.0" Radius, 1.5" Border, 0.5" Indent, Black on Yellow;
"EXIT", E Mod specified length; Down Arrow I-E - 22.0" 270°;
"ONLY", E Mod specified length;

80-77-141-M02



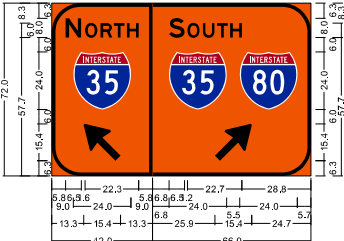
12.0" Radius, 2.0" Border, White on Green;
"Altoona", E Mod; "NEXT 3 EXITS", E 2K;

80-77-141-M04



12.0" Radius, 2.0" Border, White on Green;
"State", E Mod; "Fairgrounds", E Mod; "EXIT 141", E 2K;

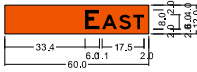
80-77-137A-R06



top:
12.0" Radius, 1.5" Border, Black on Orange;
"NORTH", E 2K; Arrow Custom - 20.0" 135°;

top:
12.0" Radius, 1.5" Border, Black on Orange;
"SOUTH", E 2K; Arrow Custom - 20.0" 45°;

80-77-137A-R06
Overlay 1



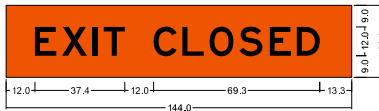
No border, White on Orange;
"EAST" Black, E 2K 150% spacing;

80-77-137A-R06
Overlay 2



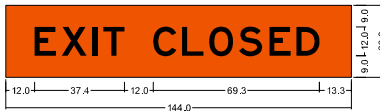
No border, White on Orange;

STA. 2009+44.28
Overlay 1



No border, White on Orange;
"EXIT CLOSED" Black, E;

STA. 2040+50.68
Overlay 1



No border, White on Orange;
"EXIT CLOSED" Black, E;