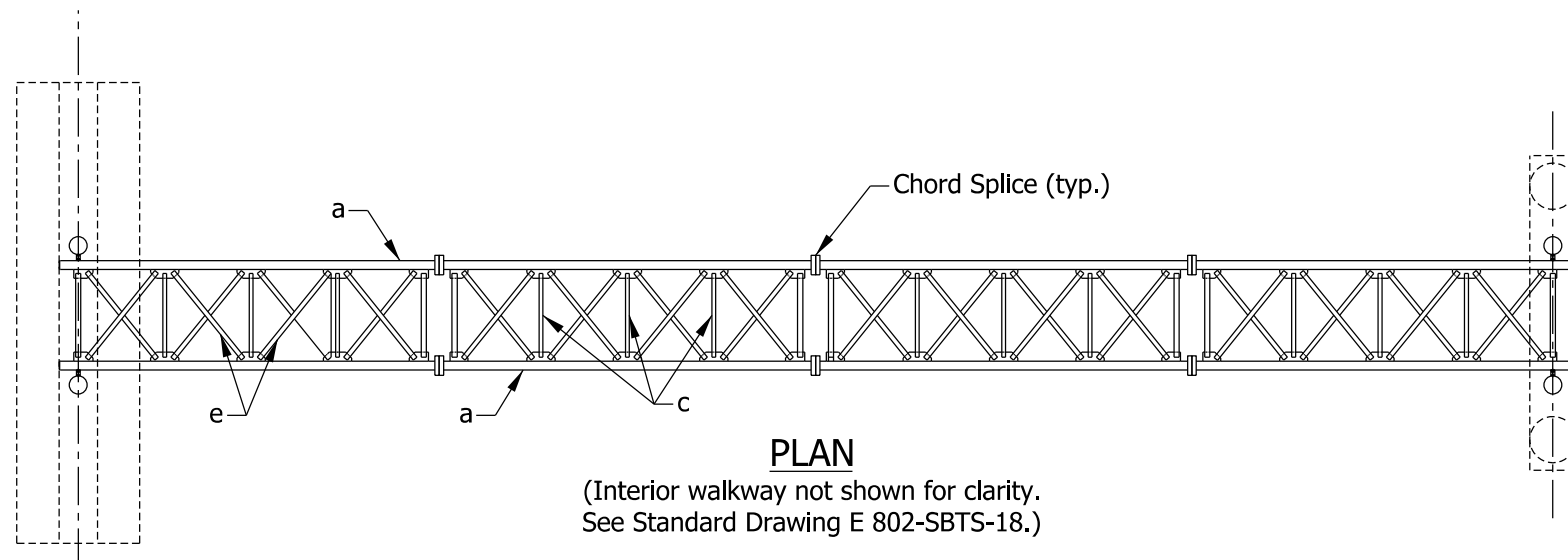


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3	A-E Truss Sections in isometric views, Table with Member Sizes
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35	F,G,H Spread Foundation at 45" Concrete Barrier Wall
36	F,G,H Spread Foundation for Median or Shoulder, 36" Height
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39	F,G,H Alternate Drilled Shaft Foundation at 45" Concrete Barrier Wall
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41	F,G,H Alternate Drilled Shaft Foundations Quantities

GENERAL NOTE:

References to "Standard Drawing 802-SBTS" shall be interpreted as "RPD 802-T-230d"

INDIANA DEPARTMENT OF TRANSPORTATION	
SIGN BOX TRUSS STRUCTURE DRAWING INDEX	
EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22	
RECURRING PLAN DETAIL NO.	802-T-230d
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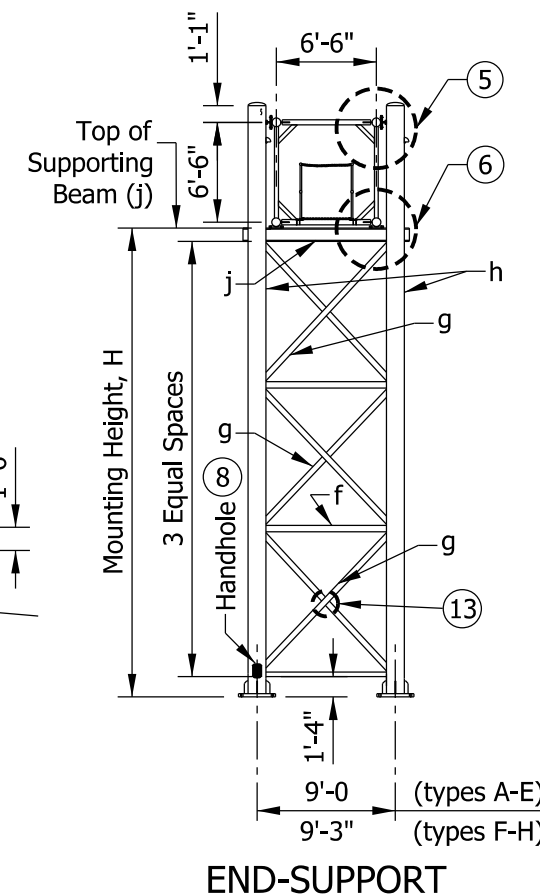
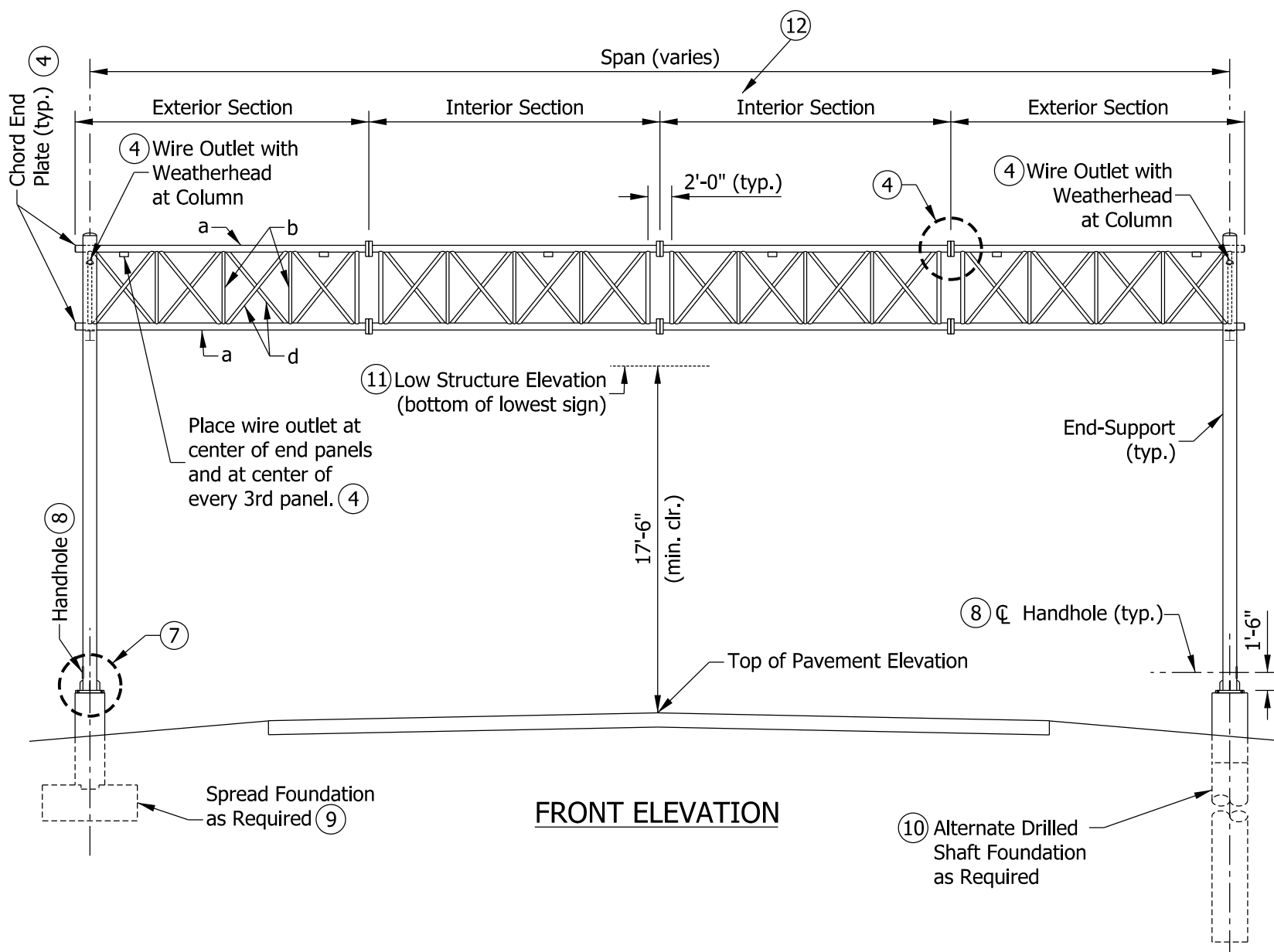


LEGEND

- TRUSS MEMBERS**
 a - Chords
 b - Verticals
 c - Horizontals
 d - Vertical Diagonals
 e - Horizontal Diagonals
- END-SUPPORT MEMBERS**
 f - Horizontals
 g - Diagonals
 h - Columns
 j - Supporting Beam

NOTES:

- See Standard Drawings E 802-SBTS-03 and 04 for structure types and member sizes.
- Maximum deviation of any chord from a straight line in any section shall be 1/8" for box truss to be a maximum of 3/8" out of a straight line over the entire length of the structure in the vertical plane.
- All truss members shall be aluminum. End-support members shall be steel. Walkways, bearing elements, and wire outlet shall be aluminum.
- See Standard Drawings E 802-SBTS-08 and 09 for chord connection, chord end plate, and wire outlet details.
- See Standard Drawing E 802-SBTS-10 for upper chord connection details and E 802-SBTS-15 for the top cap and J hook details.
- See Standard Drawing E 802-SBTS-11 for lower chord connection details. See Standard Drawing E 802-SBTS-12 for lower chord connection details with alternate HSS beam.
- See Standard Drawing E 802-SBTS-13 for base plate detail and Standard Drawing E-802-SBTS-16 for anchor bolts and skirt details.
- See Standard Drawing E 802-SBTS-15 for handhole details.
- See Standard Drawings E 802-SBTS-26 through 29 and 34 through 37 for spread foundation details.
- See Standard Drawings E 802-SBTS-30 through 33 and 38 through 41 for alternate drilled shaft foundation details.
- The 17'-6" minimum clearance shall be to the lighting walkway if provided.
- See E 802-SBST-05 thru 07 for the number of Interior Sections.
- See E 802-SBTS-13 for diagonal crossing detail.



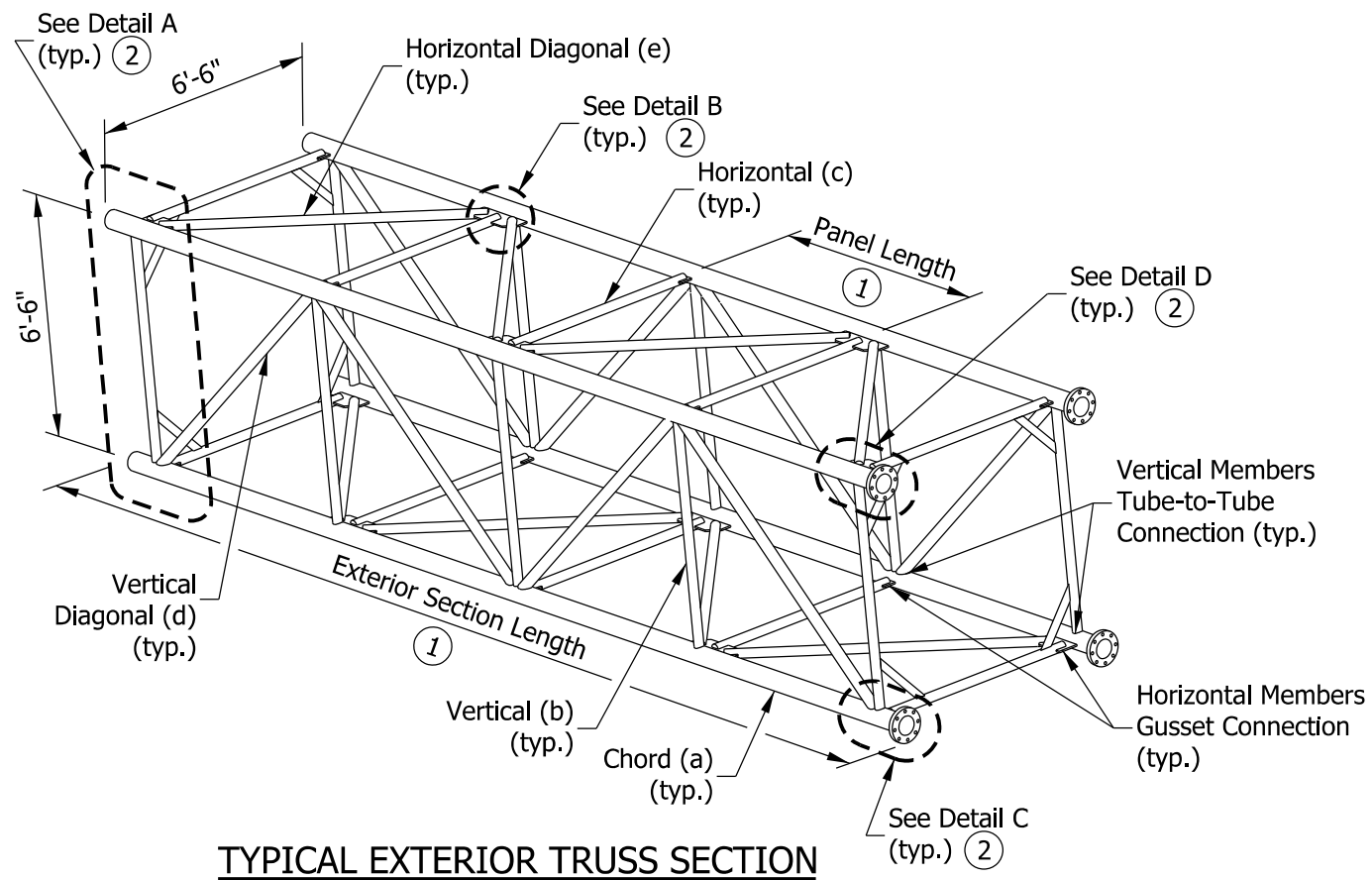
INDIANA DEPARTMENT OF TRANSPORTATION

SIGN BOX TRUSS STRUCTURE
PLAN, ELEVATION, & END SUPPORT

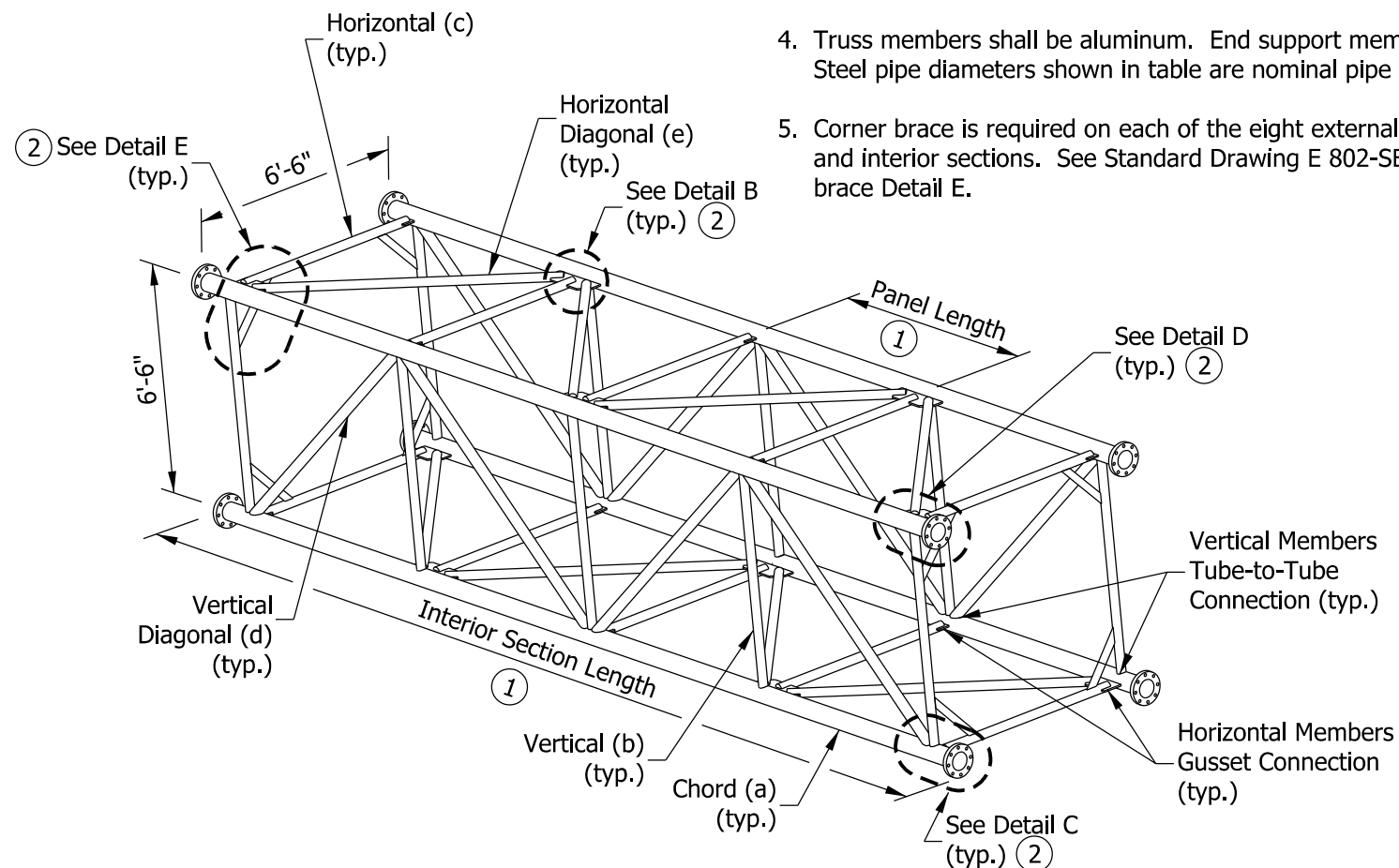
EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22

RECURRING PLAN DETAIL NO. 802-T-230d

Sheet 02 of 41



TYPICAL EXTERIOR TRUSS SECTION



TYPICAL INTERIOR TRUSS SECTION

NOTES:

- ① Number of panels and sections varies. See table on Standard Drawings E 802-SBTS - 05 and 06 for recommended dimensions.
- ② See Standard Drawing E 802-SBTS-08 for chord connection details.
3. See Standard Drawing E 802-SBTS-02 for Legend.
4. Truss members shall be aluminum. End support members shall be steel. Steel pipe diameters shown in table are nominal pipe size.
5. Corner brace is required on each of the eight external corners of exterior and interior sections. See Standard Drawing E 802-SBTS-08 for corner brace Detail E.

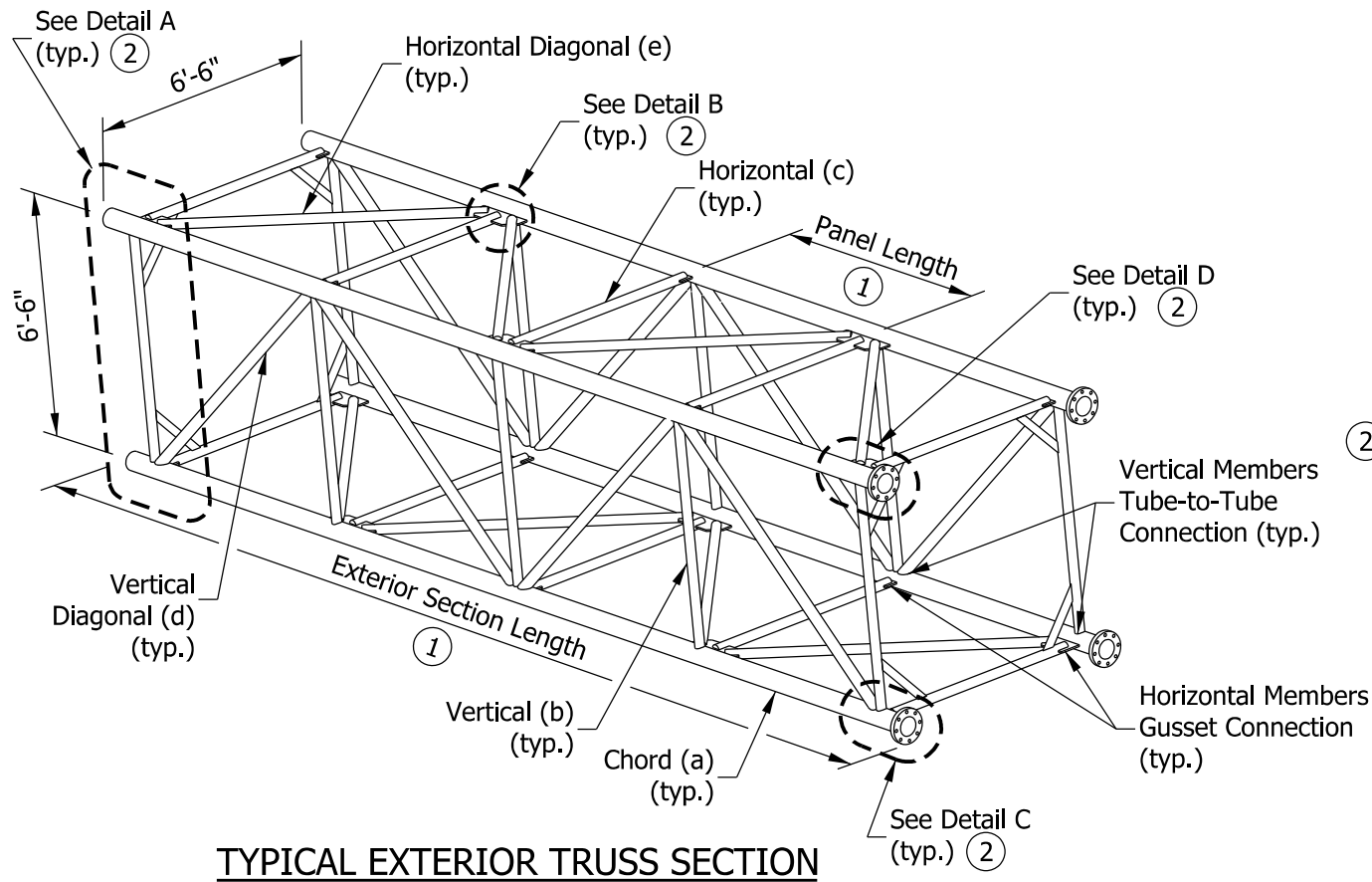
TRUSS TYPE	MAX. SIGN AREA	MAX. SPAN	MAX. MOUNTING HEIGHT	TRUSS MEMBERS, ALUMINUM								END-SUPPORT MEMBERS, STEEL								
				CHORD		VERTICAL		HORIZONTAL		VERTICAL DIAGONAL		HORIZONTAL DIAGONAL		HORIZONTAL		DIAGONAL		COLUMN		SUPPORTING BEAM
				a		b		c		d		e		f		g		h		j
				DIA.	THK	DIA.	THK	DIA.	THK	DIA.	THK	DIA.	THK	DIA.	THK	DIA.	THK	DIA.	THK	DIA.
SQ. FT.	FT.	FT.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	
A	500	130	28'-6"	6.50	0.375	3.00	0.375	4.00	0.188	3.00	0.500	4.00	0.375	5.00	0.375	8.00	0.500	14.00	0.500	W 8 x 58 or HSS 8" x 8" x 1/2"
B	700	100	28'-6"	6.50	0.375	3.00	0.375	4.00	0.188	3.00	0.500	4.00	0.375	5.00	0.375	8.00	0.322	14.00	0.500	
C	600	130	28'-6"	7.00	0.375	3.00	0.375	4.00	0.188	3.00	0.500	4.00	0.500	5.00	0.375	8.00	0.500	14.00	0.593	
D	900	100	28'-6"	7.00	0.375	3.00	0.375	4.00	0.188	3.00	0.500	4.00	0.500	5.00	0.375	8.00	0.593	18.00	0.500	
E	800	130	28'-6"	7.00	0.500	3.00	0.375	4.00	0.250	3.00	0.500	4.00	0.500	5.00	0.375	8.00	0.593	18.00	0.562	W 10 x 68 or HSS 10" x 10" x 1/2"

INDIANA DEPARTMENT OF TRANSPORTATION

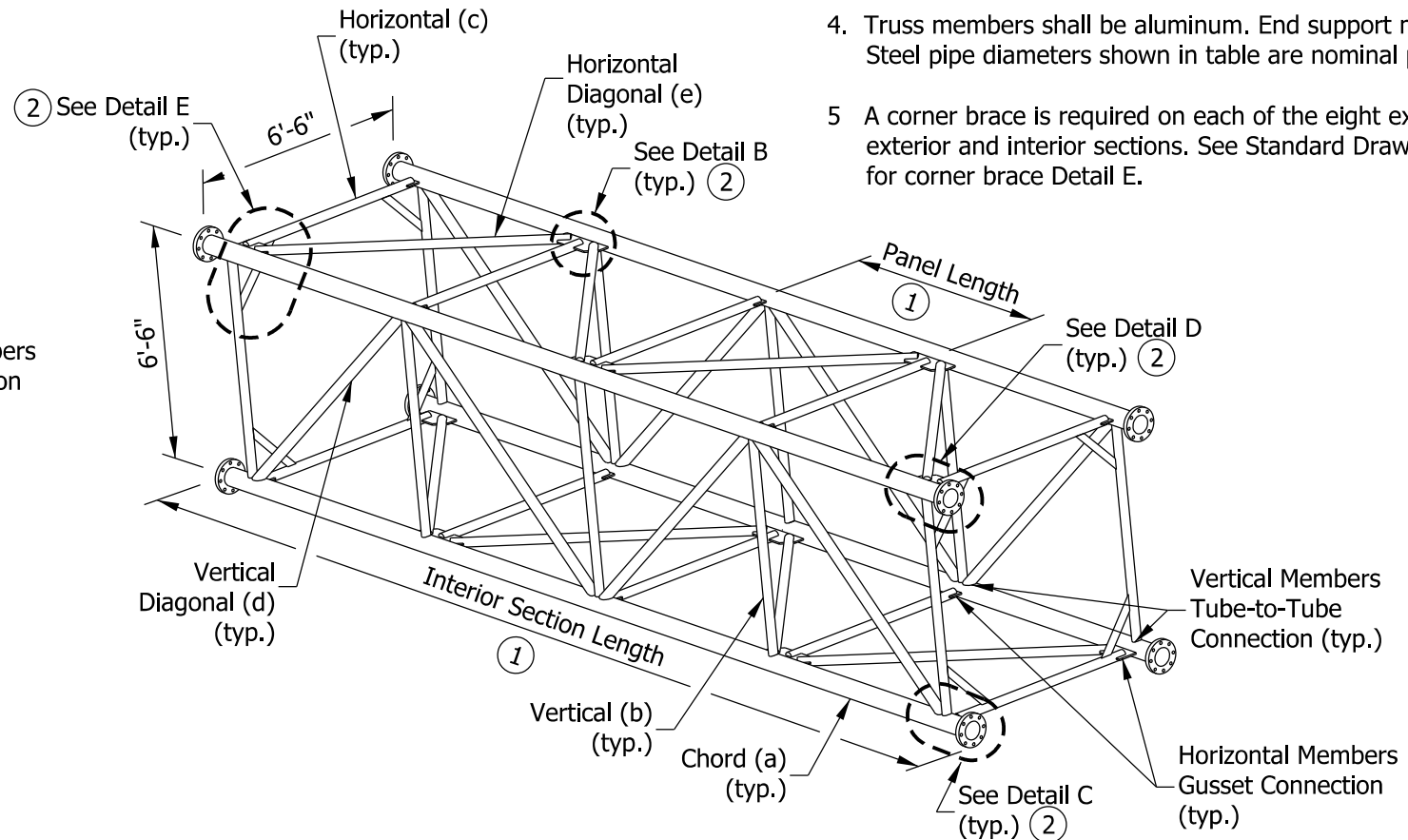
SIGN BOX TRUSS STRUCTURE A-E TRUSS SECTIONS IN ISOMETRIC VIEWS, TABLE WITH MEMBER SIZES

EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22

RECURRING PLAN DETAIL NO. 802-T-230d



TYPICAL EXTERIOR TRUSS SECTION



TYPICAL INTERIOR TRUSS SECTION

NOTES:

- ① Number of panels and sections varies. See table on Standard Drawings E 802-SBTS-05, 06, & 07 for recommended dimensions.
- ② See Standard Drawing E 802-SBTS-08 for chord connections and details.
3. See Standard Drawing E 802-SBTS-02 for Legend.
4. Truss members shall be aluminum. End support members to be steel. Steel pipe diameters shown in table are nominal pipe size.
5. A corner brace is required on each of the eight external corners of exterior and interior sections. See Standard Drawing E 802-SBTS-08 for corner brace Detail E.

TRUSS TYPE	MAX. SIGN AREA	MAX. SPAN	MAX. MOUNTING HEIGHT	TRUSS MEMBERS, ALUMINUM										END-SUPPORT MEMBERS, STEEL						
				CHORD		VERTICAL		HORIZONTAL		VERTICAL DIAGONAL		HORIZONTAL DIAGONAL		HORIZONTAL		DIAGONAL		COLUMN		SUPPORTING BEAM
				a		b		c		d		e		f		g		h		j
				DIA.	THK	DIA.	THK	DIA.	THK	DIA.	THK	DIA.	THK	DIA.	THK	DIA.	THK	DIA.	THK	DIA.
	SQ. FT.	FT.	FT.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	
F	1200	130	28'-6"	7.50	0.500	3.00	0.375	4.00	0.375	3.00	0.500	4.00	0.500	5.00	0.375	8.00	0.593	18.00	0.562	W 10 x 68 or HSS 10" x 10" x 1/2"
G	1200	142	28'-6"	9.00	0.500	4.00	0.375	4.00	0.375	4.00	0.500	4.00	0.500	5.00	0.375	8.00	0.593	18.00	0.562	
H	1200	154	28'-6"	10.00	0.500	4.00	0.500	4.00	0.375	4.00	0.500	4.00	0.500	8.00	0.322	8.00	0.593	18.00	0.562	

INDIANA DEPARTMENT OF TRANSPORTATION

SIGN BOX TRUSS STRUCTURE A-E
TRUSS SECTIONS IN ISOMETRIC VIEWS,
TABLE WITH MEMBER SIZES

EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22

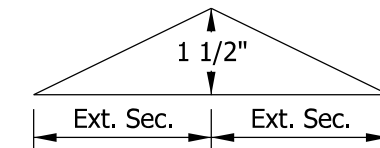
RECURRING PLAN DETAIL NO. 802-T-230d

DIMENSIONS FOR SIGN BOX TRUSSES (34' THRU 81')

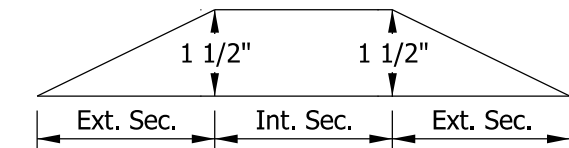
SPAN SPAN-TRUSS LENGTH, (FT)	EXTERIOR SECTIONS					INTERIOR SECTIONS			
	NO. OF EXT. SECTIONS	NO. OF PANELS PER SECTION	VARIABLE END DIMEN.	PANEL LENGTH	SECTION LENGTH	NO. OF INT. SECTIONS	NO. OF PANELS PER SECTION	PANEL LENGTH	SECTION LENGTH
34	1	6	6"	5'-6"	35'-6"	0			
35	1	6	6"	5'-8"	36'-6"	0			
36	2	3	6"	5'-6"	18'-9"	0			
37	2	3	6"	5'-8"	19'-3"	0			
38	2	3	6"	5'-10"	19'-9"	0			
39	2	3	6"	6'-0"	20'-3"	0			
40	2	3	6"	6'-2"	20'-9"	0			
41	2	3	6"	6'-4"	21'-3"	0			
42	2	3	6"	6'-6"	21'-9"	0			
43	2	4	6"	5'-0"	22'-3"	0			
44	2	4	6"	5'-1 1/2"	22'-9"	0			
45	2	4	6"	5'-3"	23'-3"	0			
46	2	4	6"	5'-4 1/2"	23'-9"	0			
47	2	4	6"	5'-6"	24'-3"	0			
48	2	4	6"	5'-7 1/2"	24'-9"	0			
49	2	4	6"	5'-9"	25'-3"	0			
50	2	4	6"	5'-10 1/2"	25'-9"	0			
51	2	4	6"	6'-0"	26'-3"	0			
52	2	4	6"	6'-1 1/2"	26'-9"	0			
53	2	4	6"	6'-3"	27'-3"	0			
54	2	4	6"	6'-4 1/2"	27'-9"	0			
55	2	4	6"	6'-6"	28'-3"	0			
56	2	5	5 1/4"	5'-3 3/4"	28'-9"	0			
57	2	5	6 1/4"	5'-4 3/4"	29'-3"	0			
58	2	5	6"	5'-6"	29'-9"	0			
59	2	5	5 3/4"	5'-7 1/4"	30'-3"	0			
60	2	5	5 1/2"	5'- 8 1/2"	30'-9"	0			
61	2	5	6 1/2"	5'-9 1/2"	31'-3"	0			
62	2	5	6 1/4"	5'-10 3/4"	31'-9"	0			
63	2	5	6"	6'-0"	32'-3"	0			
64	2	5	5 3/4"	6'-1 1/4"	32'-9"	0			
65	2	5	5 1/2"	6'-2 1/2"	33'-3"	0			
66	2	5	5 1/4"	6'-3 3/4"	33'-9"	0			
67	2	5	6 1/4"	6'-4 3/4"	34'-3"	0			
68	2	5	6"	6'-6"	34'-9"	0			
69	2	4	6"	5'-4"	23'-7"	1	4	5'-4"	23'-4"
70	2	4	6"	5'-5"	23'-11"	1	4	5'-5"	23'-8"
71	2	4	6"	5'-6"	24'-3"	1	4	5'-6"	24'-0"
72	2	4	6"	5'-7"	24'-7"	1	4	5'-7"	24'-4"
73	2	4	6"	5'-8"	24'-11"	1	4	5'-8"	24'-8"
74	2	4	6"	5''-9"	25'-3"	1	4	5''-9"	25'-0"
75	2	4	6"	5'-10"	25'-7"	1	4	5'-10"	25'-4"
76	2	4	6"	5'-11"	25'-11"	1	4	5'-11"	25'-8"
77	2	4	6"	6'-0"	26'-3"	1	4	6'-0"	26'-0"
78	2	4	6"	6'-1"	26'-7"	1	4	6'-1"	26'-4"
79	2	4	6"	6'-2"	26'-11"	1	4	6'-2"	26'-8"
80	2	4	6"	6'-3"	27'-3"	1	4	6'-3"	27'-0"
81	2	4	6"	6'-4"	27'-7"	1	4	6'-4"	27'-4"

NOTES:

1. All panels on a truss shall be the same length. The minimum panel length is 5'-0" and the maximum is 6'-6".
2. Camber diagrams are for fabrication only and are measured with trusses fully supported at no-load conditions. Allowable camber tolerance for truss is 25% of specific camber value.
3. Single interior section in a truss shall have an even number of panels to maintain the pattern of the vertical diagonals.
4. The minimum number of sections for each box truss structure shall be used, while maintaining the maximum section length at 36'-6".



CAMBER DIAGRAM (2-Section Truss)



CAMBER DIAGRAM (3-Section Truss)

INDIANA DEPARTMENT OF TRANSPORTATION

**SIGN BOX TRUSS STRUCTURE
TABLE OF DIMENSIONS
SPANS 34' THRU 81'**

EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22

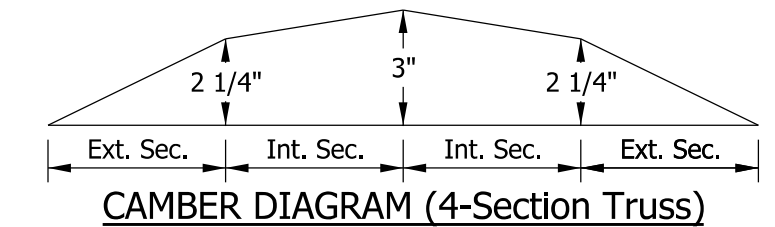
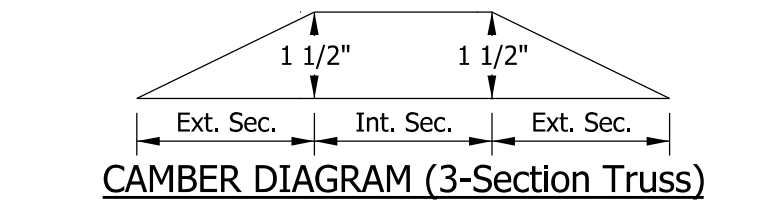
RECURRING PLAN DETAIL NO. 802-T-230d

DIMENSIONS FOR SIGN BOX TRUSSES (82' THRU 130')

SPAN SPAN-TRUSS LENGTH, (FT)	EXTERIOR SECTIONS					INTERIOR SECTIONS			
	NO. OF EXT. SECTIONS	NO. OF PANELS PER SECTION	VARIABLE END DIMEN.	PANEL LENGTH	SECTION LENGTH	NO. OF INT. SECTIONS	NO. OF PANELS PER SECTION	PANEL LENGTH	SECTION LENGTH
82	2	4	6"	6'-5"	27'-11"	1	4	6'-5"	27'-8"
83	2	4	6"	6'-6"	28'-3"	1	4	6'-6"	28'-0"
84	2	5	5 3/4"	5'-7 3/4"	30'-5 1/2"	1	4	5'-7 3/4"	24'-7"
85	2	5	6 1/2"	5'-8 1/2"	30'-10"	1	4	5'-8 1/2"	24'-10"
86	2	5	5 1/2"	5'-9 1/2"	31'-2"	1	4	5'-9 1/2"	25'-2"
87	2	5	6 1/4"	5'-10 1/4"	31'-6 1/2"	1	4	5'-10 1/4"	25'-5"
88	2	5	7"	5'-11"	31'-11"	1	4	5'-11"	25'-8"
89	2	5	6"	6'-0"	32'-3"	1	4	6'-0"	26'-0"
90	2	5	6 3/4"	6'-0 3/4"	32'-7 1/2"	1	4	6'-0 3/4"	26'-3"
91	2	5	5 3/4"	6'-1 3/4"	32'-11 1/2"	1	4	6'-1 3/4"	26'-7"
92	2	5	6 1/2"	6'-2 1/2"	33'-4"	1	4	6'-2 1/2"	26'-10"
93	2	5	5 1/2"	6'-3 1/2"	33'-8"	1	4	6'-3 1/2"	27'-2"
94	2	5	6 1/4"	6'-4 1/4"	34'-0 1/2"	1	4	6'-4 1/4"	27'-5"
95	2	5	5 1/4"	6'-5 1/4"	34'-4 1/2"	1	4	6'-5 1/4"	27'-9"
96	2	5	6"	6'-6"	34'-9"	1	4	6'-6"	28'-0"
97	2	4	6"	5'-7 1/2"	24'-9"	2	4	5'-7 1/2"	24'-6"
98	2	4	6"	5'-8 1/4"	25'-0"	2	4	5'-8 1/4"	24'-9"
99	2	4	6"	5'-9"	25'-3"	2	4	5'-9"	25'-0"
100	2	4	6"	5'-9 3/4"	25'-6"	2	4	5'-9 3/4"	25'-3"
101	2	4	6"	5'-10 1/2"	25'-9"	2	4	5'-10 1/2"	25'-6"
102	2	4	6"	5'-11 1/4"	26'-0"	2	4	5'-11 1/4"	25'-9"
103	2	4	6"	6'-0"	26'-3"	2	4	6'-0"	26'-0"
104	2	4	6"	6'-0 3/4"	26'-6"	2	4	6'-0 3/4"	26'-3"
105	2	4	6"	6'-1 1/2"	26'-9"	2	4	6'-1 1/2"	26'-6"
106	2	4	6"	6'-2 1/4"	27'-0"	2	4	6'-2 1/4"	26'-9"
107	2	4	6"	6'-3"	27'-3"	2	4	6'-3"	27'-0"
108	2	4	6"	6'-3 3/4"	27'-6"	2	4	6'-3 3/4"	27'-3"
109	2	4	6"	6'-4 1/2"	27'-9"	2	4	6'-4 1/2"	27'-6"
110	2	4	6"	6'-5 1/4"	28'-0"	2	4	6'-5 1/4"	27'-9"
111	2	4	6"	6'-6"	28'-3"	2	4	6'-6"	28'-0"
112	2	5	6"	5'-3"	28'-6"	2	5	5'-3"	28'-3"
113	2	5	7"	5'-3 1/2"	28'-9 1/2"	2	5	5'-3 1/2"	28'-5 1/2"
114	2	5	5 1/2"	5'-4 1/4"	28'-11 3/4"	2	5	5'-4 1/4"	28'-9 1/4"
115	2	5	6 1/2"	5'-4 3/4"	29'-3 1/4"	2	5	5'-4 3/4"	28'-11 3/4"
116	2	5	7 1/2"	5'-5 1/4"	29'-6 3/4"	2	5	5'-5 1/4"	29'-2 1/4"
117	2	5	6"	5'-6"	29'-9"	2	5	5'-6"	29'-6"
118	2	5	7"	5'-6 1/2"	30'-0 1/2"	2	5	5'-6 1/2"	29'-8 1/2"
119	2	5	5 1/2"	5'-7 1/4"	30'-2 3/4"	2	5	5'-7 1/4"	30'-1/4"
120	2	5	6 1/2"	5'-7 3/4"	30'-6 1/4"	2	5	5'-7 3/4"	30'-2 3/4"
121	2	5	7 1/2"	5'-8 1/4"	30'-9 3/4"	2	5	5'-8 1/4"	30'-5 1/4"
122	2	5	6"	5'-9"	31'-0"	2	5	5'-9"	30'-9"
123	2	5	7"	5'-9 1/2"	31'-3 1/2"	2	5	5'-9 1/2"	30'-11 1/2"
124	2	5	5 1/2"	5'-10 1/4"	31'-5 3/4"	2	5	5'-10 1/4"	31'-3 1/4"
125	2	5	6 1/2"	5'-10 3/4"	31'-9 1/4"	2	5	5'-10 3/4"	31'-5 3/4"
126	2	5	7 1/2"	5'-11 1/4"	32'-0 3/4"	2	5	5'-11 1/4"	31'-8 1/4"
127	2	5	6"	6'-0"	32'-3"	2	5	6'-0"	32'-0"
128	2	5	7"	6'-0 1/2"	32'-6 1/2"	2	5	6'-0 1/2"	32'-2 1/2"
129	2	5	5 1/2"	6'-1 1/4"	32'-8 3/4"	2	5	6'-1 1/4"	32'-6 1/4"
130	2	5	6 1/2"	6'-1 3/4"	33'-0 1/4"	2	5	6'-1 3/4"	32'-8 3/4"

NOTES:

1. All panels on a truss shall be the same length. The minimum panel length is 5'-0" and the maximum is 6'-6".
2. Camber diagrams are for fabrication only and are measured with trusses fully supported at no-load conditions. Allowable camber tolerance for truss is 25% of specific camber value.
3. Single interior section in a truss shall have an even number of panels to maintain the pattern of the vertical diagonals.
4. The minimum number of sections for each box truss structure shall be used, while maintaining the maximum section length at 36'-6".



INDIANA DEPARTMENT OF TRANSPORTATION

SIGN BOX TRUSS STRUCTURE
TABLE OF DIMENSIONS
SPANS 82' THRU 130' AND CAMBER

EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22

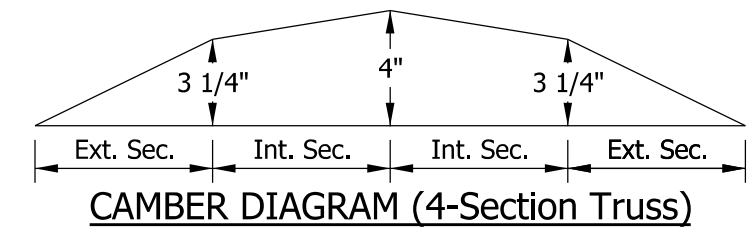
RECURRING PLAN DETAIL NO. 802-T-230d

Sheet 06 of 41

NOTES:

1. All panels on a truss shall be the same length. The minimum panel length is 5'-11 3/8" and the maximum is 6'-6".
2. Camber diagram is for fabrication only and is measured with trusses fully supported at no-load conditions. Allowable camber tolerance for truss is 25% of specific camber value.
- 3 The minimum number of sections for each box truss structure shall be used, while maintaining the maximum section length at 36'-6".

DIMENSIONS FOR SIGN BOX TRUSSES (131' THRU 154')									
SPAN SPAN-TRUSS LENGTH, (FT)	EXTERIOR SECTIONS					INTERIOR SECTIONS			
	NO. OF EXT. SECTIONS	NO. OF PANELS PER SECTION	VARIABLE END DIMEN.	PANEL LENGTH	SECTION LENGTH	NO. OF INT. SECTIONS	NO. OF PANELS PER SECTION	PANEL LENGTH	SECTION LENGTH
131	2	5	6 1/4"	6'-2 3/8"	33'-3 1/8"	2	5	6'-2 3/8"	32'-11 7/8"
132	2	5	6"	6'-3"	33'-6"	2	5	6'-3"	33'-3"
133	2	5	7"	6'-3 1/2"	33'-9 1/2"	2	5	6'-3 1/2"	33'-5 1/2"
134	2	5	6 3/4"	6'-4 1/8"	34'-0 3/8"	2	5	6'-4 1/8"	33'-8 5/8"
135	2	5	6 1/2"	6'-4 3/4"	34'-3 1/4"	2	5	6'-4 3/4"	33'-11 3/4"
136	2	5	6 1/4"	6'-5 3/8"	34'-6 1/8"	2	5	6'-5 3/8"	34'-2 7/8"
137	2	5	6"	6'-6"	34'-9"	2	5	6'-6"	34'-6"
138	2	6	6 7/8"	5'-11 3/8"	38'-0 1/8"	2	5	5'-11 3/8"	31'-8 7/8"
139	2	6	7 3/8"	5'-11 7/8"	38'-3 5/8"	2	5	5'-11 7/8"	31'-11 3/8"
140	2	6	6 1/2"	6'-0 1/2"	38'-6 1/2"	2	5	6'-0 1/2"	32'-2 1/2"
141	2	6	7"	6'-1"	38'-10"	2	5	6'-1"	32'-5"
142	2	6	6 1/8"	6'-1 5/8"	39'-0 7/8"	2	5	6'-1 5/8"	32'-8 1/8"
143	2	6	6 5/8"	6'-2 1/8"	39'-4 3/8"	2	5	6'-2 1/8"	32'-10 5/8"
144	2	6	7 1/8"	6'-2 5/8"	39'-7 7/8"	2	5	6'-2 5/8"	33'-1 1/8"
145	2	6	6 1/4"	6'-3 1/4"	39'-10 3/4"	2	5	6'-3 1/4"	33'-4 1/4"
146	2	6	6 3/4"	6'-3 3/4"	40'-2 1/4"	2	5	6'-3 3/4"	33'-6 3/4"
147	2	6	5 7/8"	6'-4 3/8"	40'-5 1/8"	2	5	6'-4 3/8"	33'-9 7/8"
148	2	6	6 3/8"	6'-4 7/8"	40'-8 5/8"	2	5	6'-4 7/8"	34'-0 3/8"
149	2	6	6 7/8"	6'-5 3/8"	41'-0 1/8"	2	5	6'-5 3/8"	34'-2 7/8"
150	2	6	7 1/2"	5'-11 3/8"	38'-0 3/4"	2	6	5'-11 3/8"	37'-8 1/4"
151	2	6	7 1/2"	5'-11 7/8"	38'-3 3/4"	2	6	5'-11 7/8"	37'-11 1/4"
152	2	6	6"	6'-0 1/2"	38'-6"	2	6	6'-0 1/2"	38'-3"
153	2	6	6"	6'-1"	38'-9"	2	6	6'-1"	38'-6"
154	2	6	6"	6'-1 1/2"	39'-0"	2	6	6'-1 1/2"	38'-9"



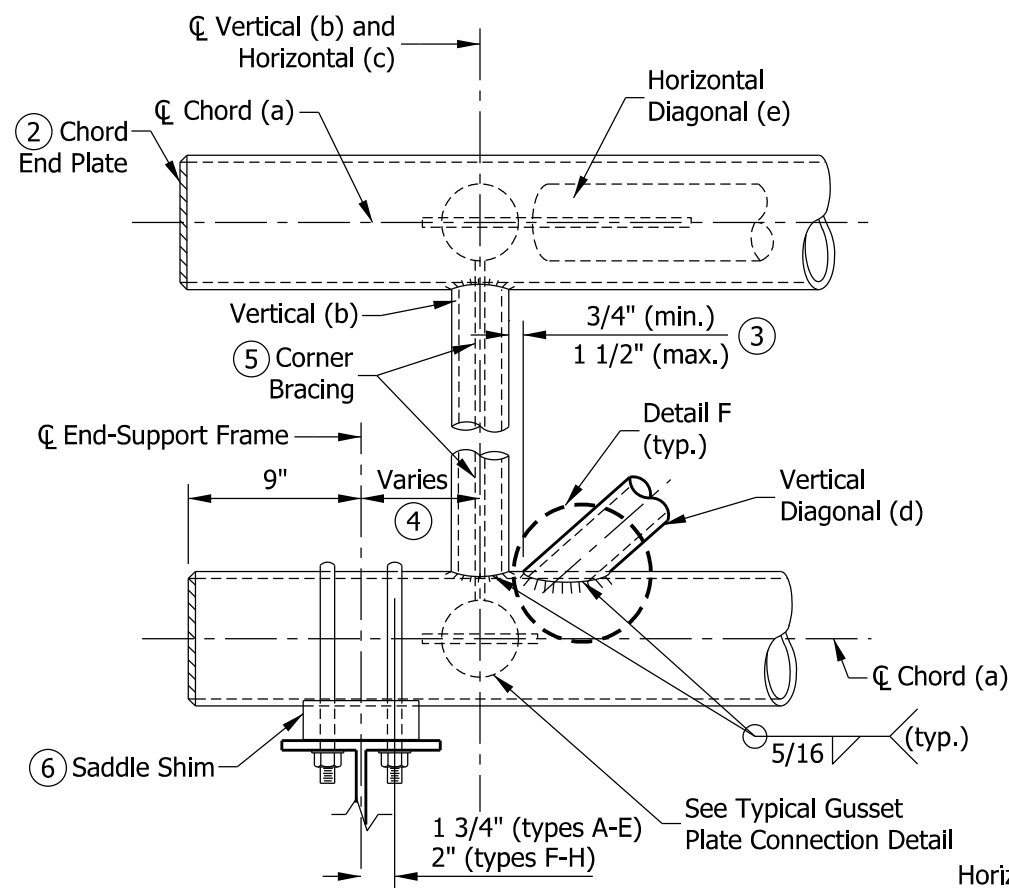
INDIANA DEPARTMENT OF TRANSPORTATION

SIGN BOX TRUSS STRUCTURE
TABLE OF DIMENSIONS
SPANS 131' THRU 154' AND CAMBER

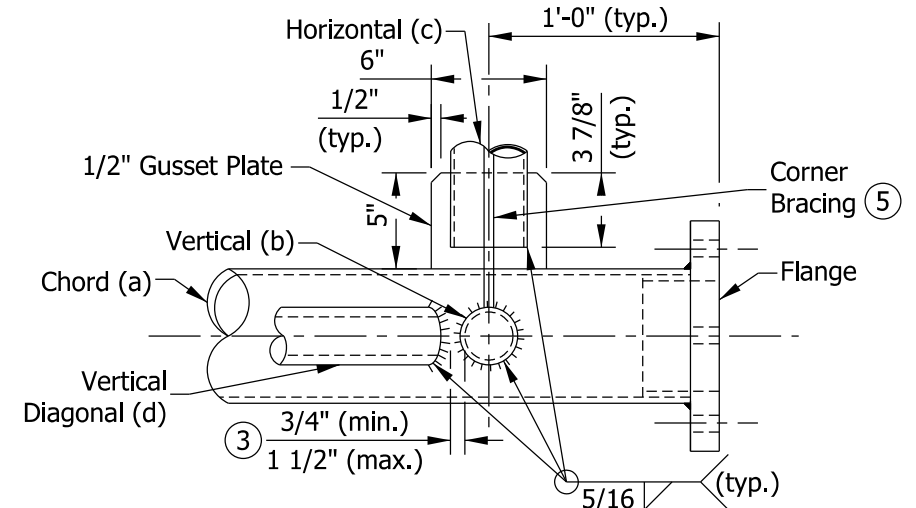
EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22

RECURRING PLAN DETAIL NO. 802-T-230d

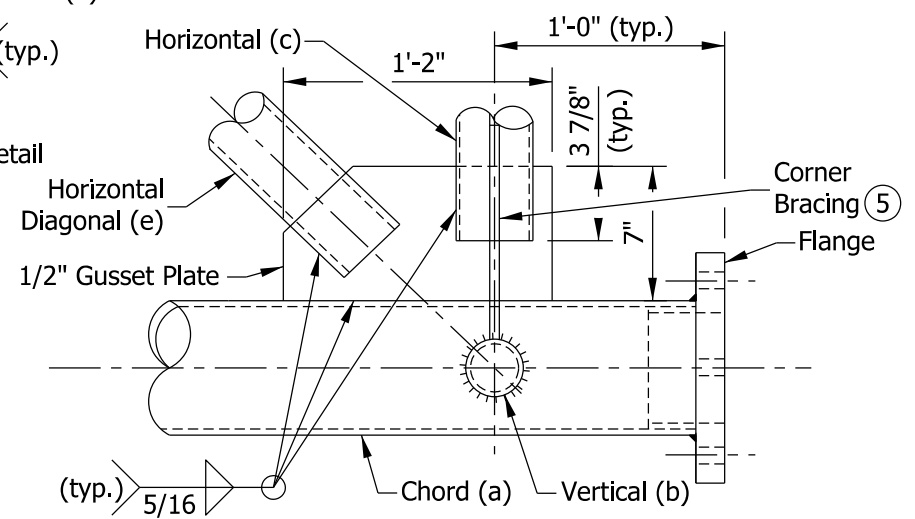
Sheet 07 of 41



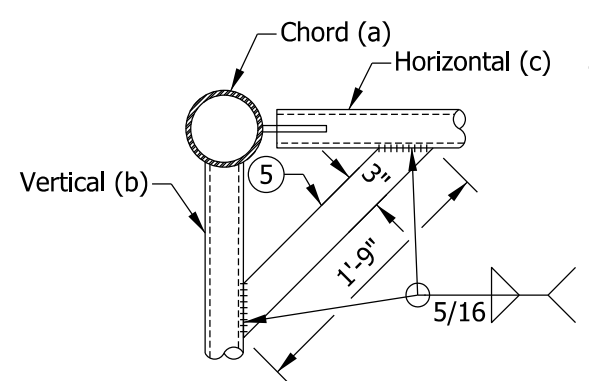
DETAIL A
EXTERIOR SECTION AT END SUPPORT



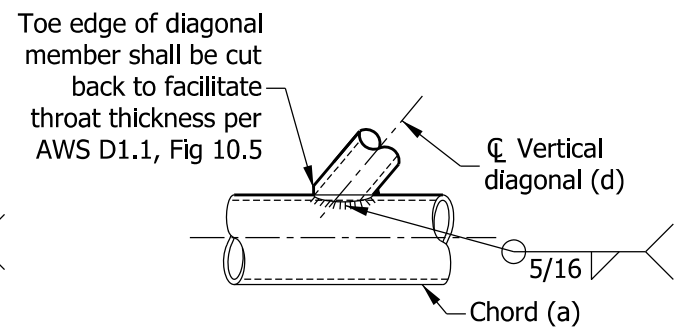
DETAIL C
CHORD AT FLANGE CONNECTION
PLAN VIEW



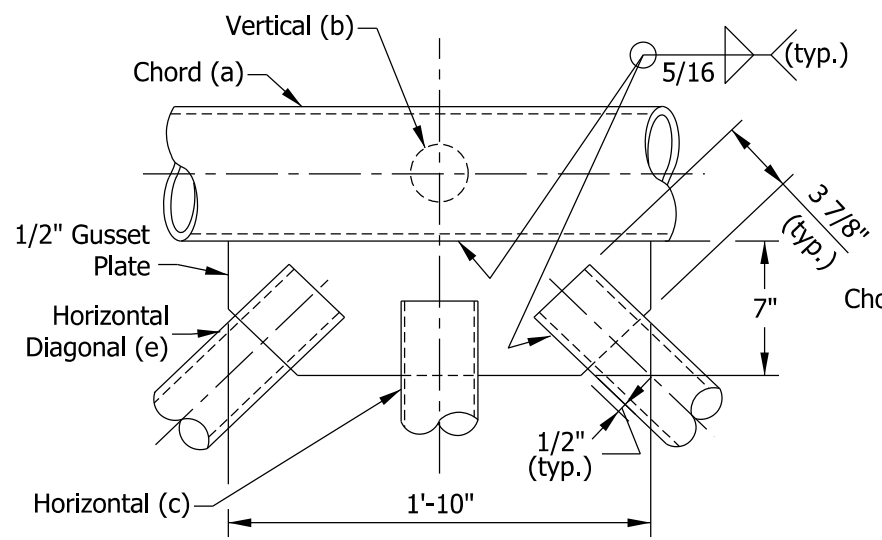
DETAIL D
CHORD AT FLANGE CONNECTION
PLAN VIEW



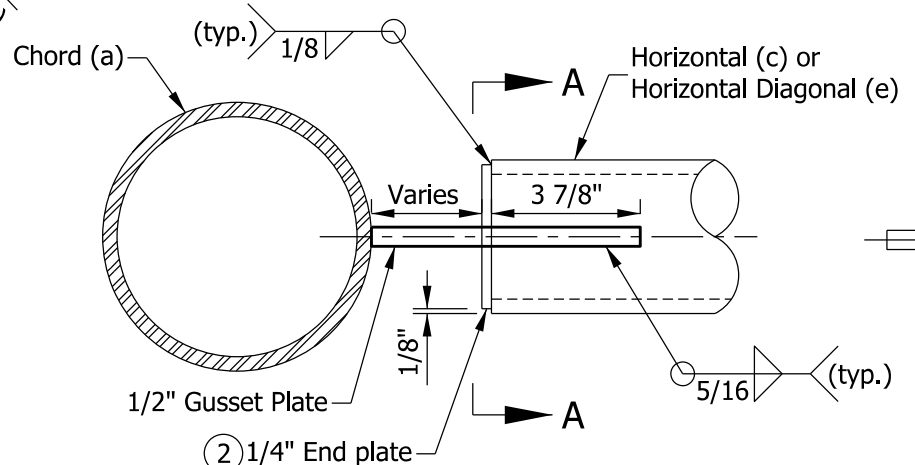
DETAIL E
TYPICAL CORNER BRACING



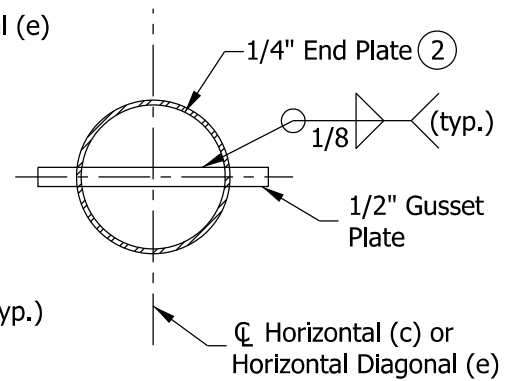
DETAIL F



DETAIL B
TYPICAL PANEL CONNECTION
PLAN VIEW



TYPICAL GUSSET PLATE CONNECTION DETAIL
ELEVATION VIEW



SECTION A-A

NOTES:

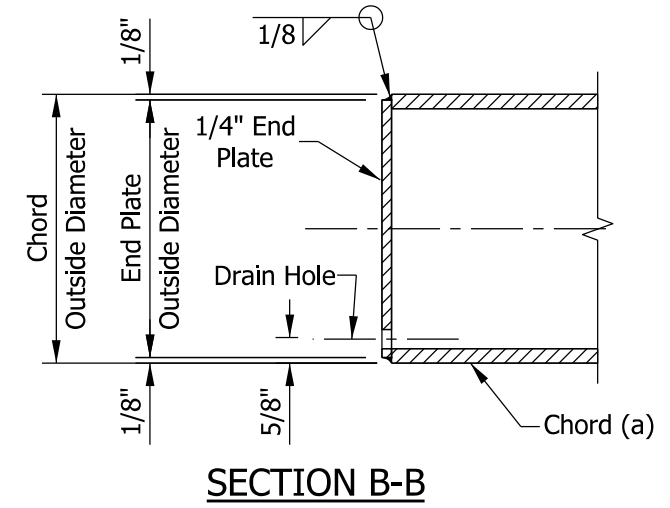
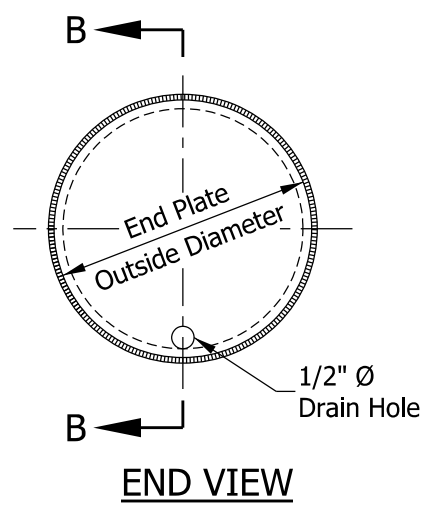
1. All bracing members shall be machined to provide a snug fit to the chord along the entire edge of bracing member before welding. See Standard Drawing E 802-SBTS-02, 03 and 04 for member locations.
2. End plate at horizontal (c) and horizontal diagonal (e) may be welded as one piece and slotted or welded as two pieces after slotting the member. See Standard Drawing E 802-SBTS-09 for chord end plate details.
3. Vertical and horizontal diagonals shall be fabricated for minimum offset from the panel point offset to provide a 3/4" minimum to 1 1/2" maximum clearance between any diagonal and any horizontal or vertical member.
4. For variable end dimension, see Standard Drawings E 802-SBTS-05, 06 and 07.
5. See Standard Drawings E 802-SBTS-03 and 04 for corner brace locations. Each brace member shall be 3" x 1'-9" x 1/2" and placed at 45° to vertical.
6. See Standard Drawings E 802-SBTS-11 or 12 for saddle shim detail.

INDIANA DEPARTMENT OF TRANSPORTATION

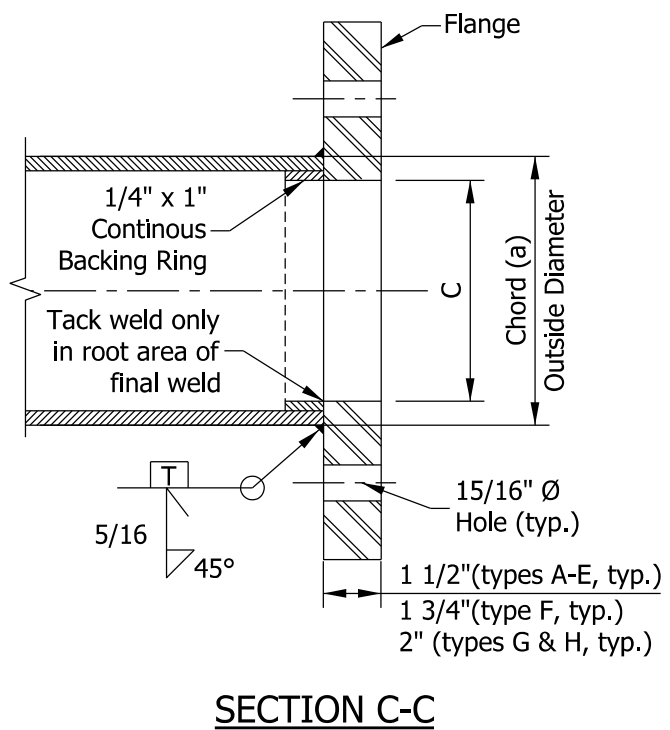
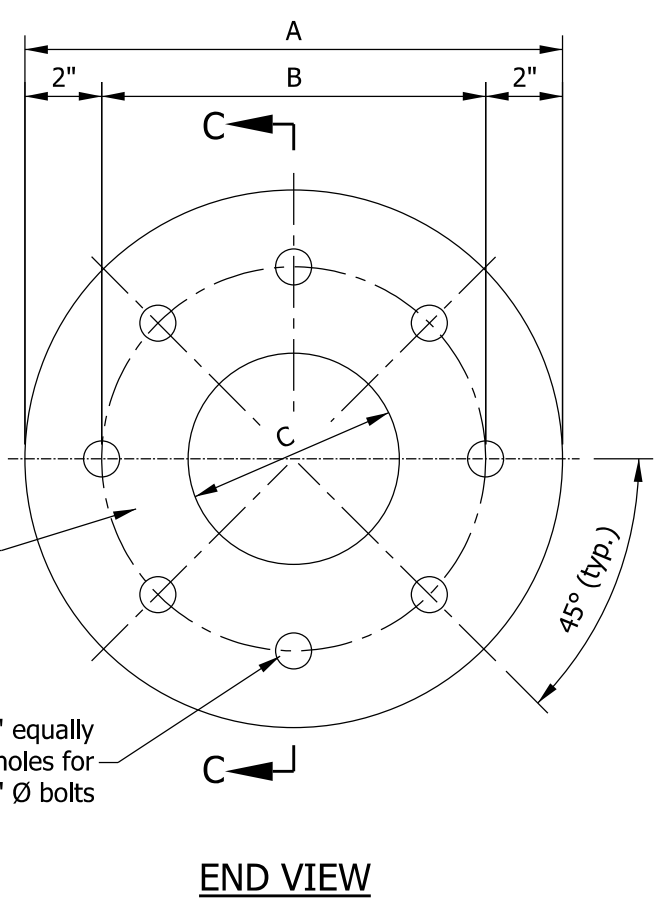
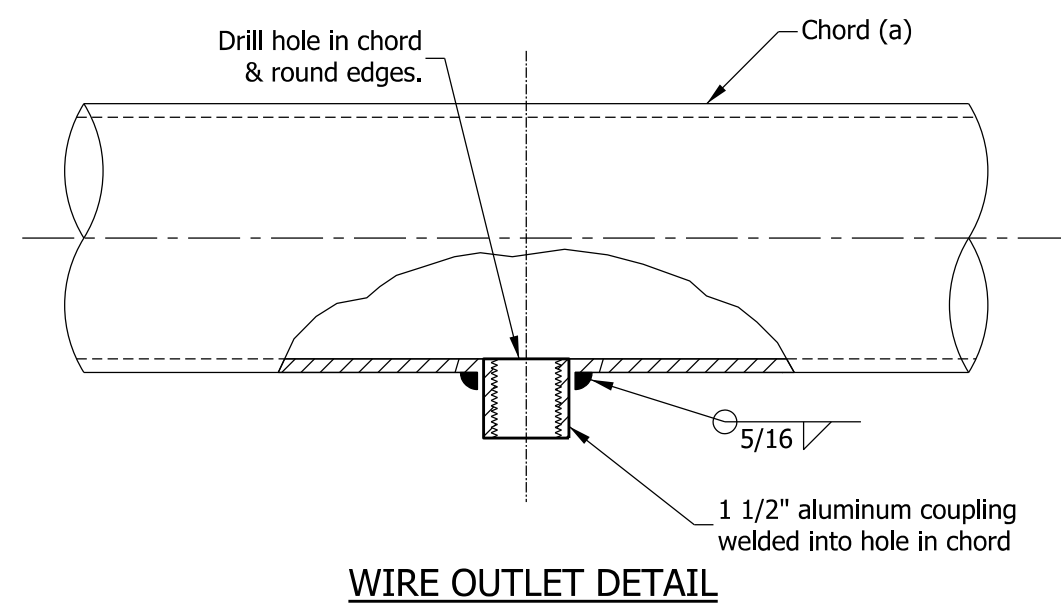
SIGN BOX TRUSS STRUCTURE
CHORD CONNECTIONS
AND WELD DETAILS

EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22

RECURRING PLAN DETAIL NO. 802-T-230d



CHORD END PLATE DETAIL



FLANGE DETAIL

TABLE OF FLANGE DIMENSIONS					
TRUSS TYPE	TRUSS CHORD O.D. x THK.	BOLT SIZE	DIMENSION		
			A	B	C
A & B	6 1/2" x 3/8"	7/8"	14"	10"	5 1/4"
C & D	7" x 3/8"	7/8"	14"	10"	5 3/4"
E	7" x 1/2"	7/8"	14"	10"	5 1/2"
F	7 1/2" x 1/2"	7/8"	14 1/2"	10 1/2"	6"
G	9" x 1/2"	7/8"	16"	12"	7 1/2"
H	10" x 1/2"	7/8"	17"	13"	8 1/2"

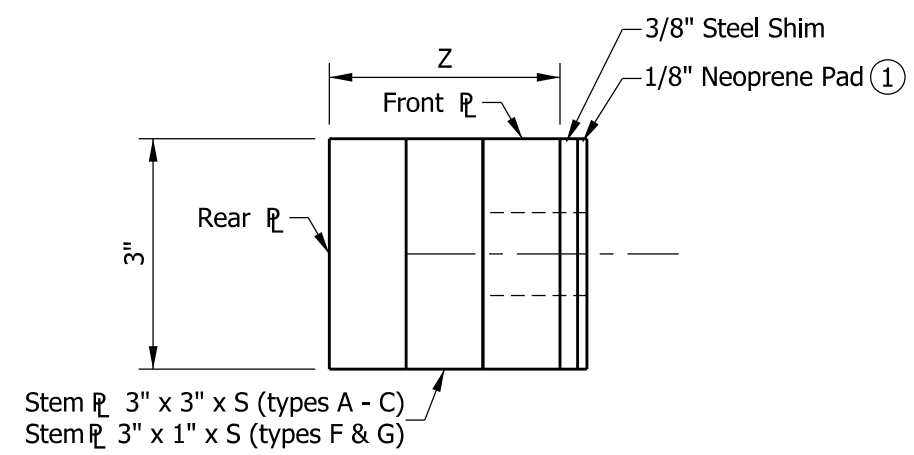
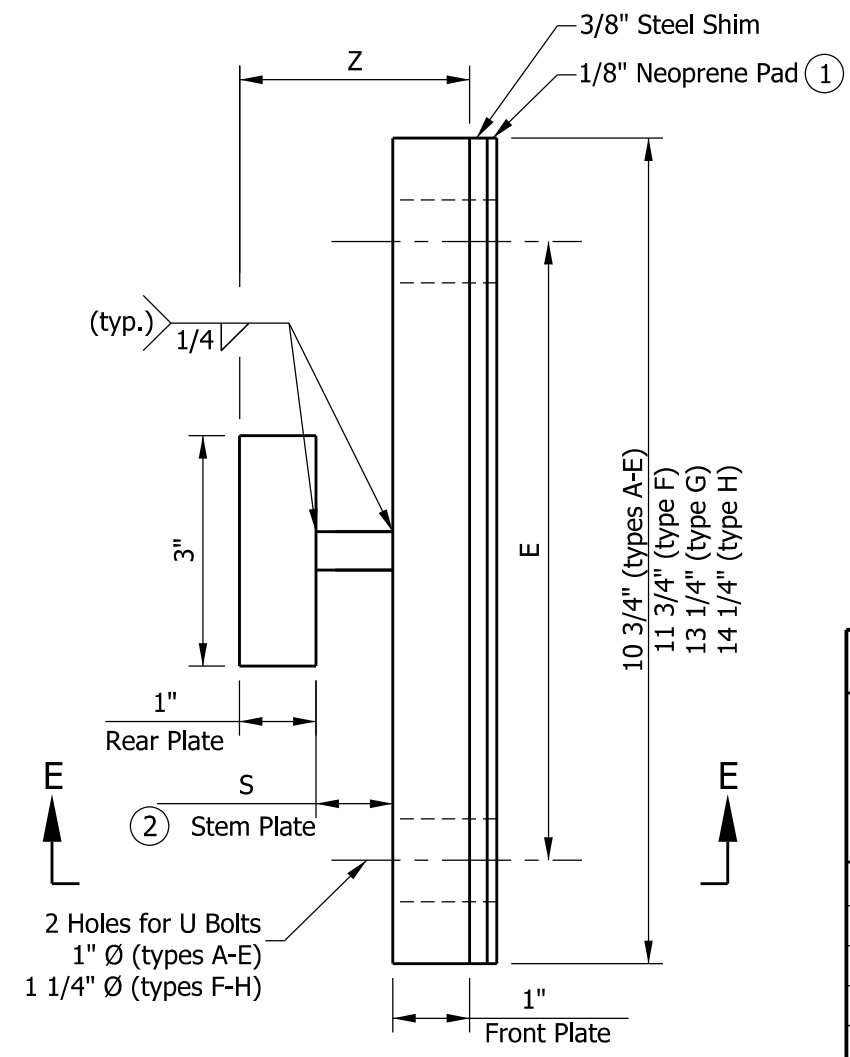
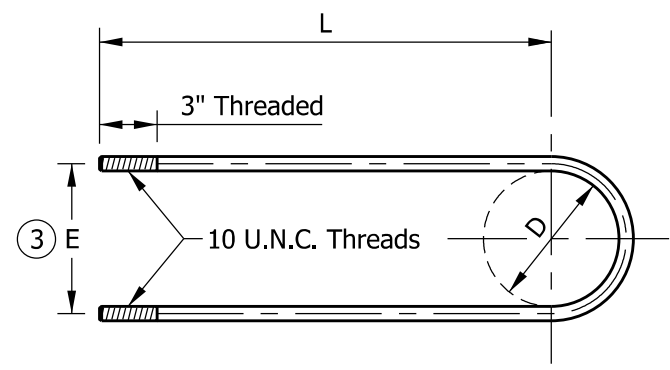
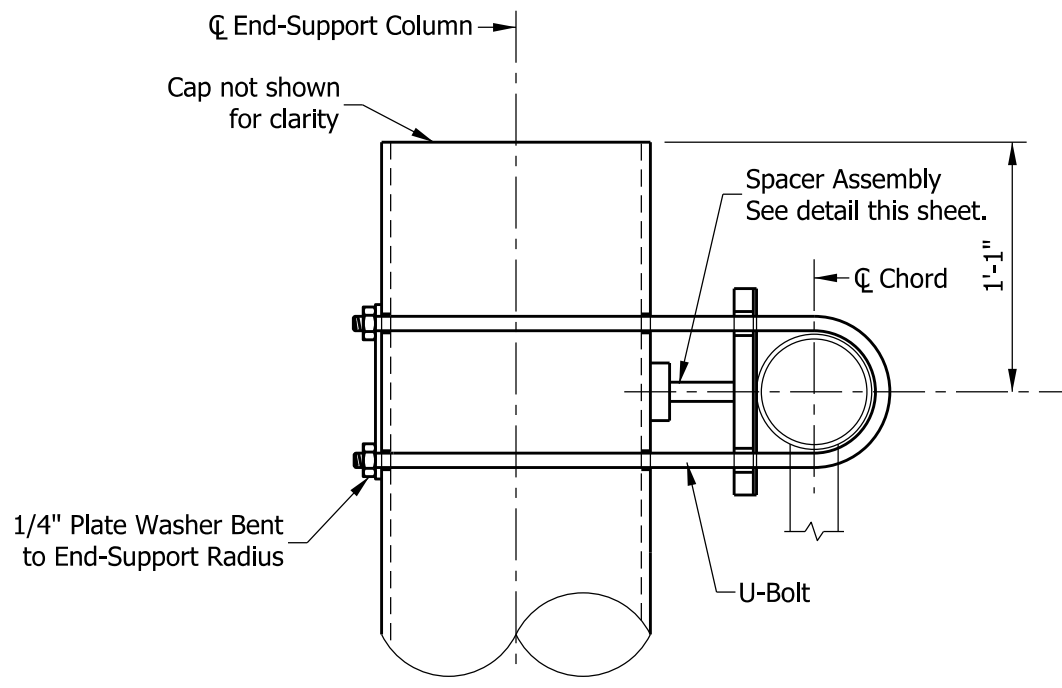
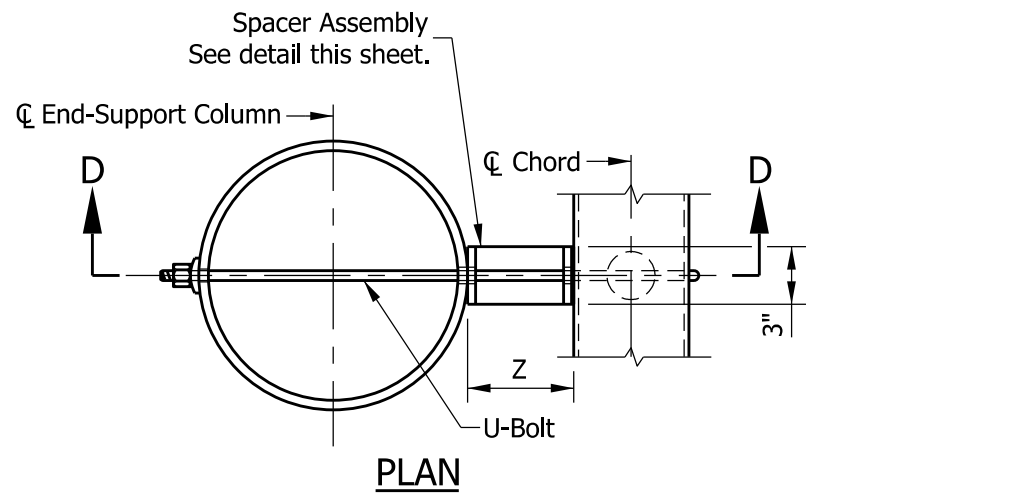
INDIANA DEPARTMENT OF TRANSPORTATION

**SIGN BOX TRUSS STRUCTURE
FLANGE, CHORD END PLATE, AND WIRE
OUTLET DETAILS**

EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22

RECURRING PLAN DETAIL NO. 802-T-230d

Sheet 09 of 41



NOTES:

- ① Provide isolation from steel-dissimilar metal.
- ② For truss types D, E, and H Stem plate is not required. Fillet weld front and rear plates together.
- ③ Dimension E is equal to the diameter of chord (a) plus 1 1/4".

SPACER ASSEMBLY DIMENSIONS							
TRUSS TYPE	END-SUPPORT COLUMN SIZE (h)	CHORD (a)	Ø OF U-BOLT BEND	E	Z	L	S
	O.D. IN.	O.D. IN.	(D) IN.	IN.	IN.	IN.	IN.
A	14	6 1/2	6 9/16	7 1/2	4 1/4	24	2 1/4"
B	14	6 1/2	6 9/16	7 1/2	4 1/4	24	2 1/4"
C	14	7	7 1/16	8	4	24	2"
D	18	7	7 1/16	8	2	26	-
E	18	7	7 1/16	8	2	26	-
F	18	7 1/2	7 9/16	8 3/4	3 1/4	27 1/2	1 1/4
G	18	9	9 1/16	10 1/4	2 1/2	27 1/2	1/2
H	18	10	10 1/16	11 1/4	2	27 1/2	-

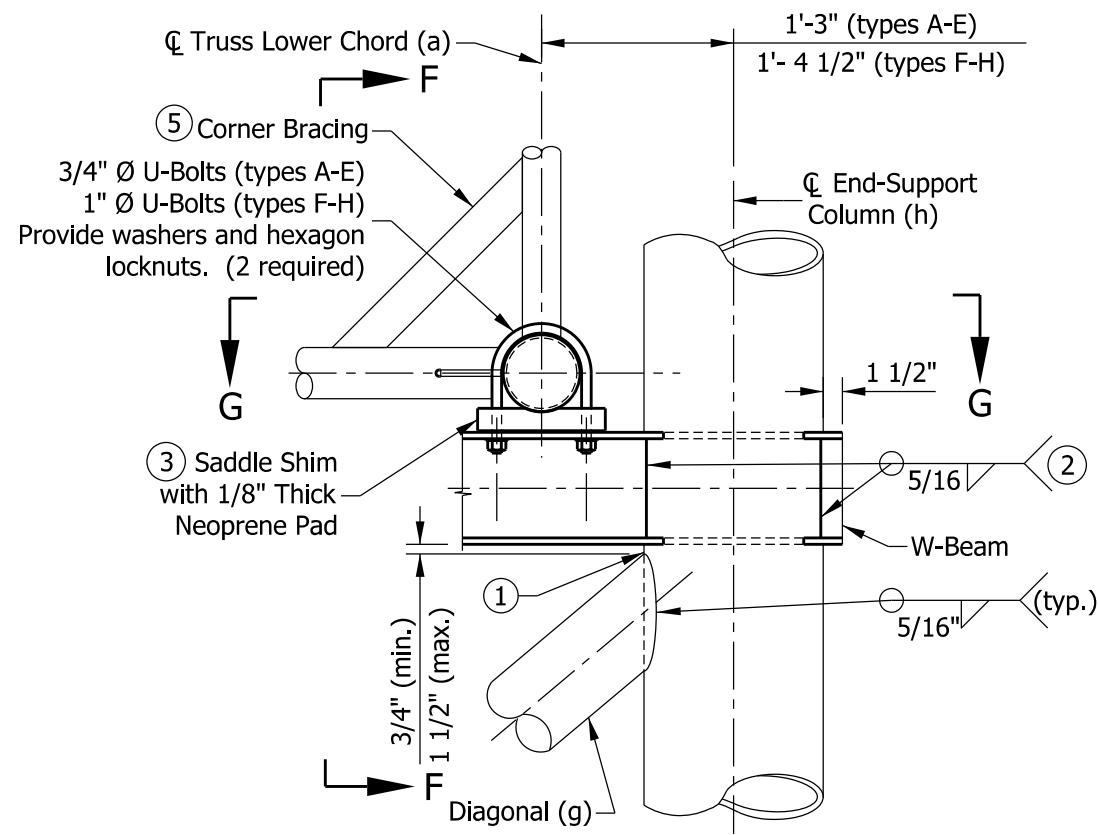
INDIANA DEPARTMENT OF TRANSPORTATION

**SIGN BOX TRUSS STRUCTURE
END-SUPPORT UPPER CHORD
CONNECTION DETAILS**

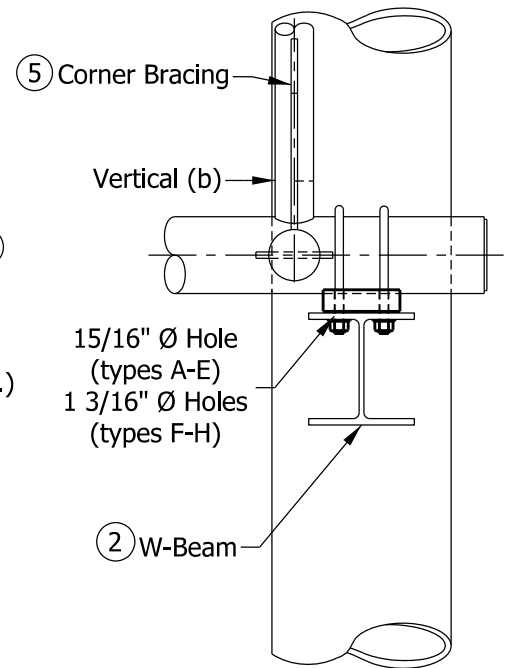
EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22

RECURRING PLAN DETAIL NO. 802-T-230d

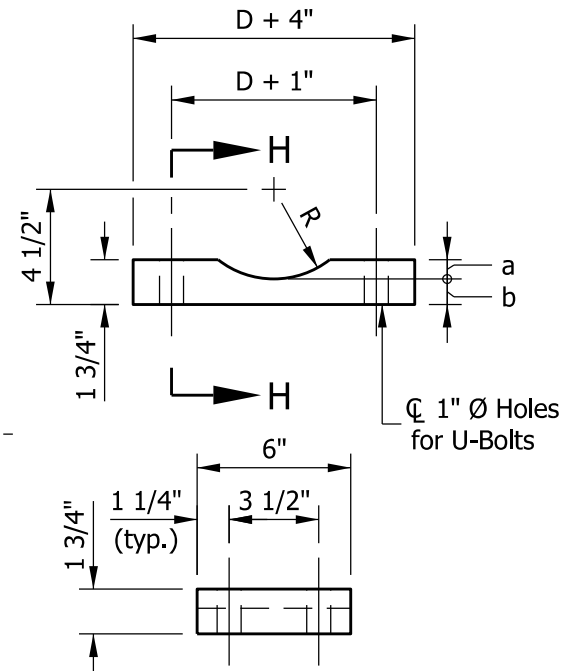
Sheet 10 of 41



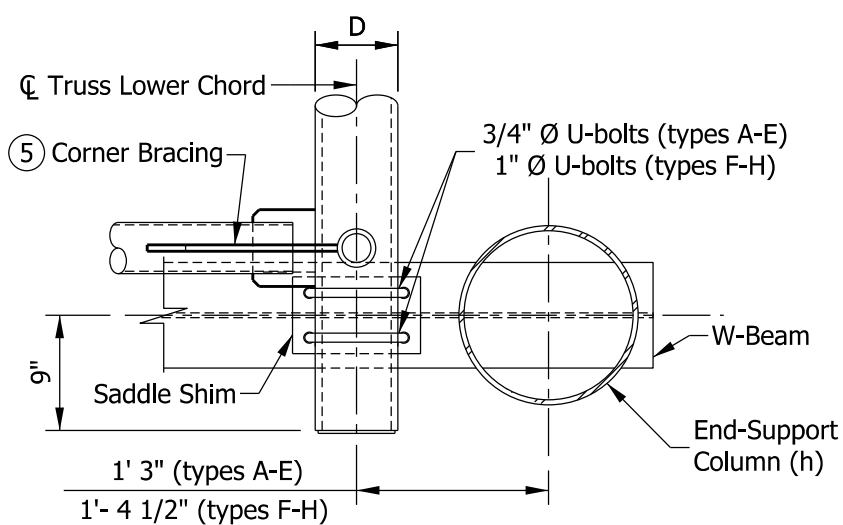
LOWER CHORD CONNECTION DETAIL



SECTION F-F

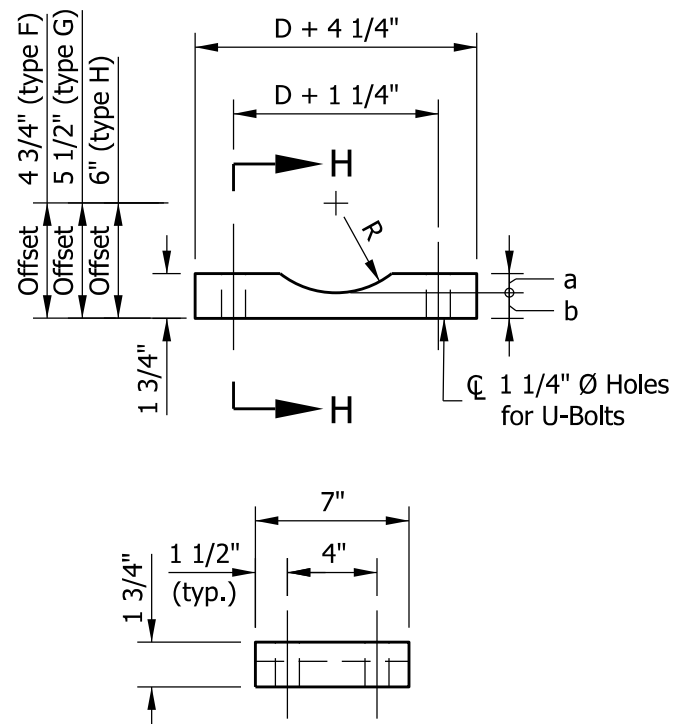
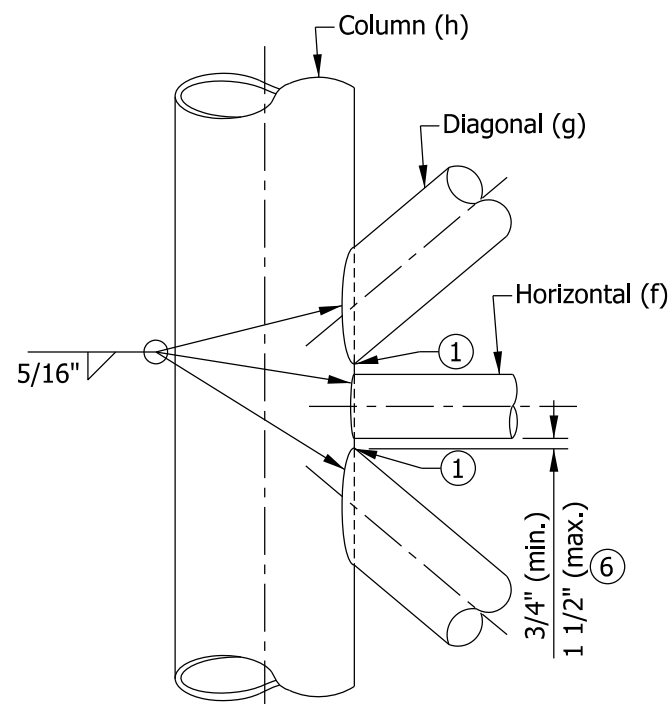


**SECTION H-H (TYPES A-E)
SADDLE SHIM DETAIL**



SECTION G-G

**ELEVATION (END-SUPPORT)
TYPICAL BRACING MEMBERS CONNECTION**



**SECTION H-H (TYPES F-H)
SADDLE SHIM DETAIL**

NOTES:

- ① Toe edge of diagonal member shall be cut back to facilitate throat thickness. See Standard Drawing E 802-SBTS-08 Detail F for toe edge detail.
- ② Holes shall be cut in end support columns for W-beams to pass through. Holes shall have a 1/8" maximum clearance to W-beam. Holes in opposite sides of column shall be checked for proper alignment prior to cutting.
- ③ Neoprene pads shall be provided at all chord-to-W-beam bearing surfaces.
4. See Standard Drawings E 802-SBTS-03 and 04 for end support member sizes.
- ⑤ A corner brace shall be required on each of the eight external corners of exterior and interior sections. Each brace shall be 1'-9" x 3" x 1/2". See Standard Drawing E 802-SBTS-08 for corner bracing Detail E.
- ⑥ For truss type H, Horizontal (f) will overlap Diagonals (g). Trim Horizontal (f) shall be trimmed for welding to Diagonals (g)
- 7 See Standard Drawing E 802-SBTS-12 for HSS square-beam as an alternate to truss supporting W-beam (g).

TRUSS TYPE	D	a	b
A & B	6 1/2"	17/32"	1 7/32"
C - E	7"	25/32"	31/32"
F	7 1/2"	25/32"	31/32"
G	9"	25/32"	31/32"
H	10"	25/32"	31/32"

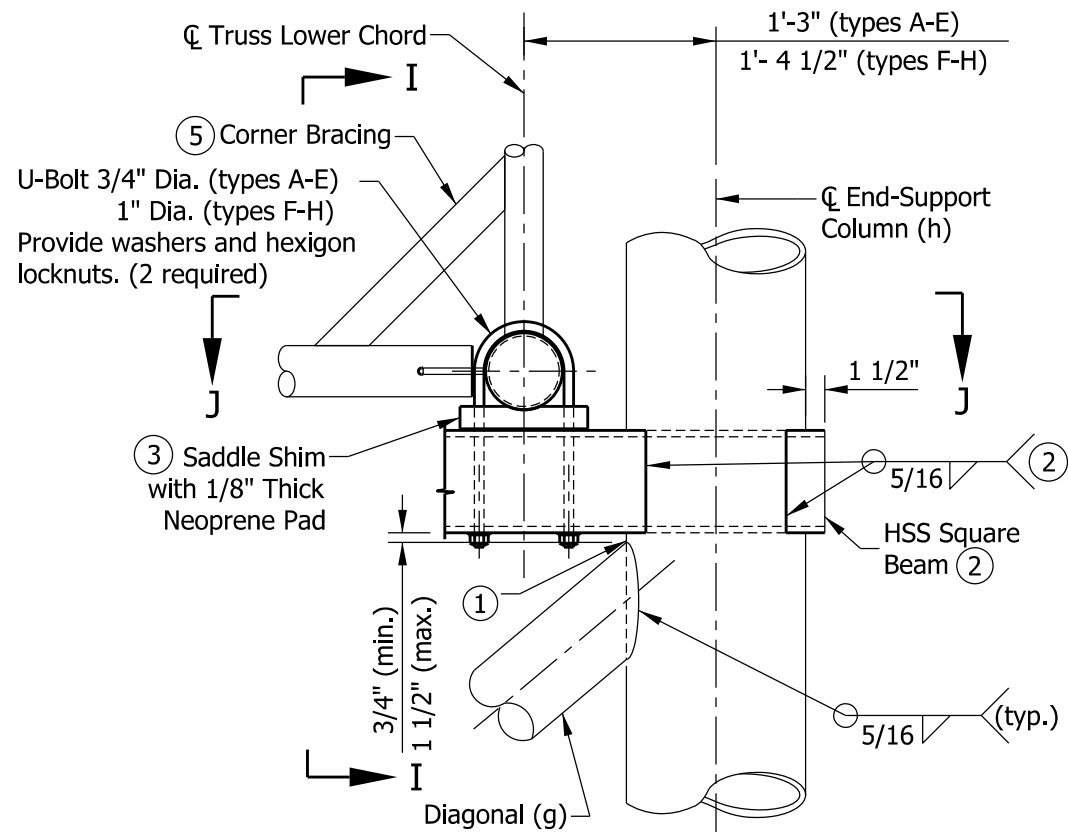
$R = D/2 + 1/32"$ $R + b = 4 1/2"$ (types A-E)
 $D = \text{Outside Diameter of Chord(a)}$ $R + b = \text{Offset}$ (types F-H)

INDIANA DEPARTMENT OF TRANSPORTATION

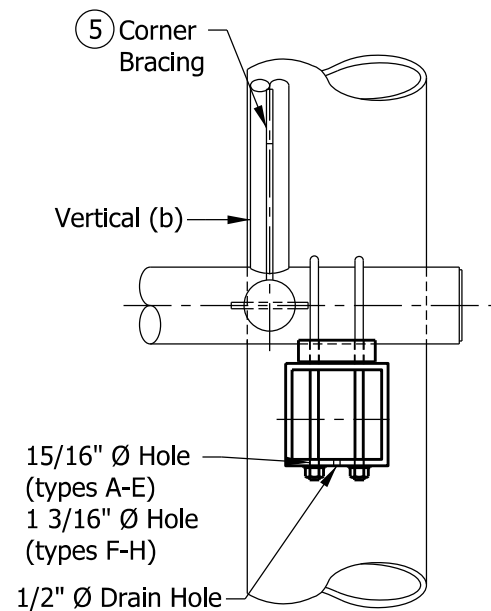
**SIGN BOX TRUSS STRUCTURE
END-SUPPORT LOWER CHORD
CONNECTION DETAILS**

EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22

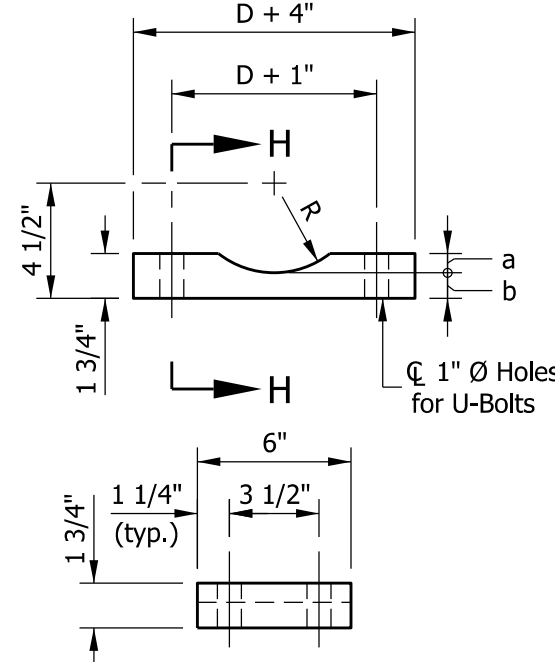
RECURRING PLAN DETAIL NO. 802-T-230d



LOWER CHORD CONNECTION DETAIL



SECTION I-I

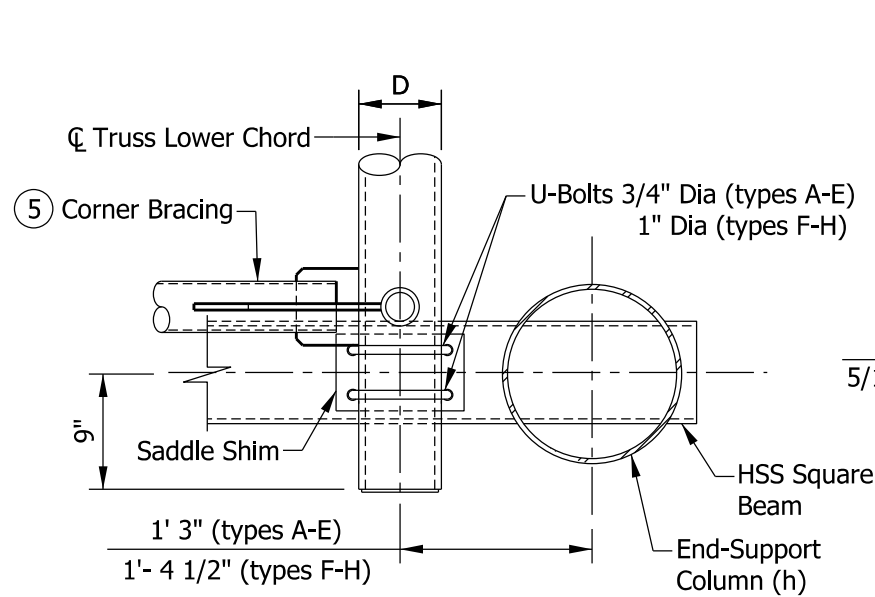


**SECTION H-H (TYPES A-E)
SADDLE SHIM DETAIL**

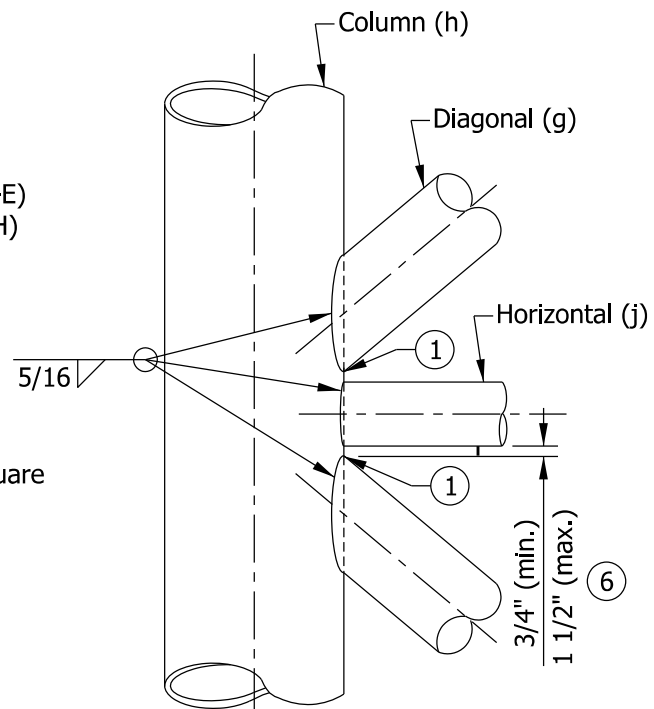
- NOTES:**
- ① Toe edge of diagonal member shall be cut back to facilitate throat thickness. See Standard Drawing E 802-SBTS-08 Detail F for toe edge detail.
 - ② Holes shall be cut in end support columns for square beams to pass through. Holes shall have a 1/8" maximum clearance to square beam. Holes in opposite sides of column shall be checked for proper alignment prior to cutting.
 - ③ Neoprene pads shall be at all chord-to-square-beam bearing surfaces.
 - ④ See Standard Drawings E 802-SBTS-03 and 04 for end support member sizes.
 - ⑤ A corner brace is required on each of the eight external corners of exterior and interior sections. Each brace shall be 1'-9" x 3" x 1/2". See Standard Drawing E 802-SBTS-08 for corner bracing Detail E.
 - ⑥ For Truss type H, Horizontal (f) will overlap Diagonals (g). Trim Horizontal (f) shall be trimmed for welding to Diagonals (g).

TRUSS TYPE	D	a	b
A & B	6 1/2"	17/32"	1 7/32"
C - E	7"	25/32"	31/32"
F	7 1/2"	25/32"	31/32"
G	9"	25/32"	31/32"
H	10"	25/32"	31/32"

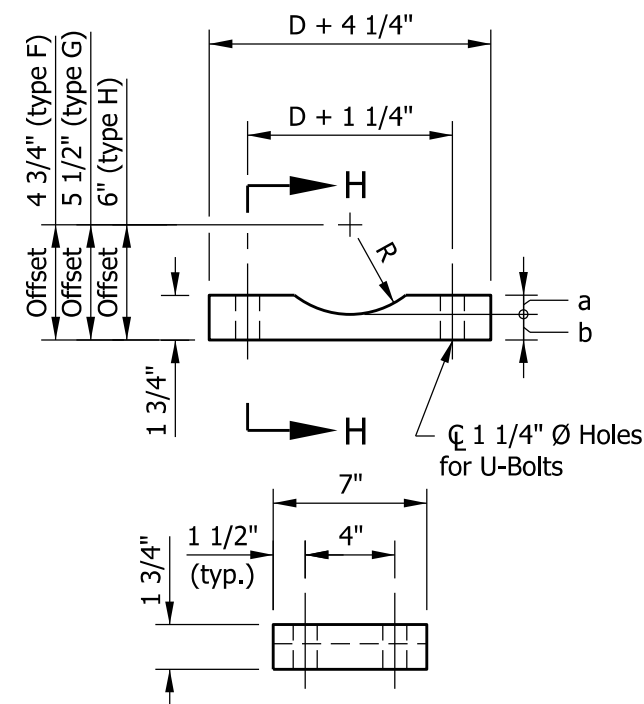
$R = D/2 + 1/32"$ $R + b = 4 1/2"$ (types A-E)
 $D = \text{Outside Diameter of Chord(a)}$ $R + b = \text{Offset}$ (types F-H)



SECTION J-J



**ELEVATION (END-SUPPORT)
TYPICAL BRACING MEMBERS CONNECTION**



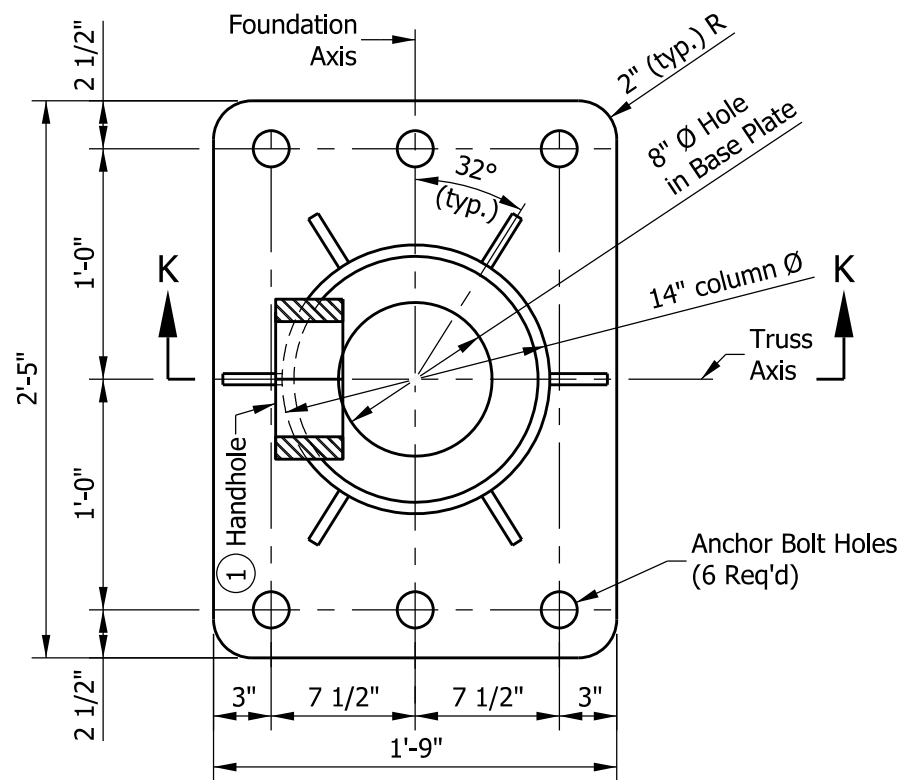
**SECTION H-H (TYPES F-H)
SADDLE SHIM DETAIL**

INDIANA DEPARTMENT OF TRANSPORTATION

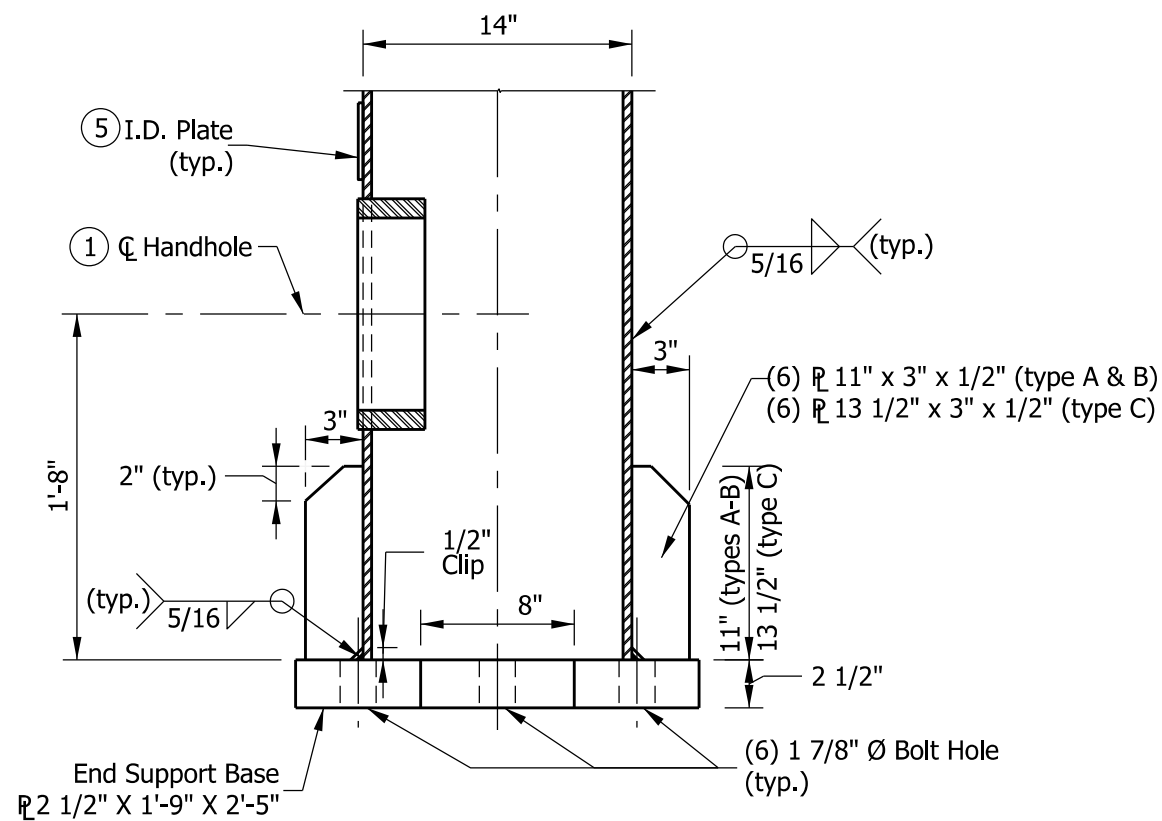
**SIGN BOX TRUSS STRUCTURE
END SUPPORT LOWER CHORD CONNECTION
DETAILS, ALTERNATE HSS BEAM**

EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22

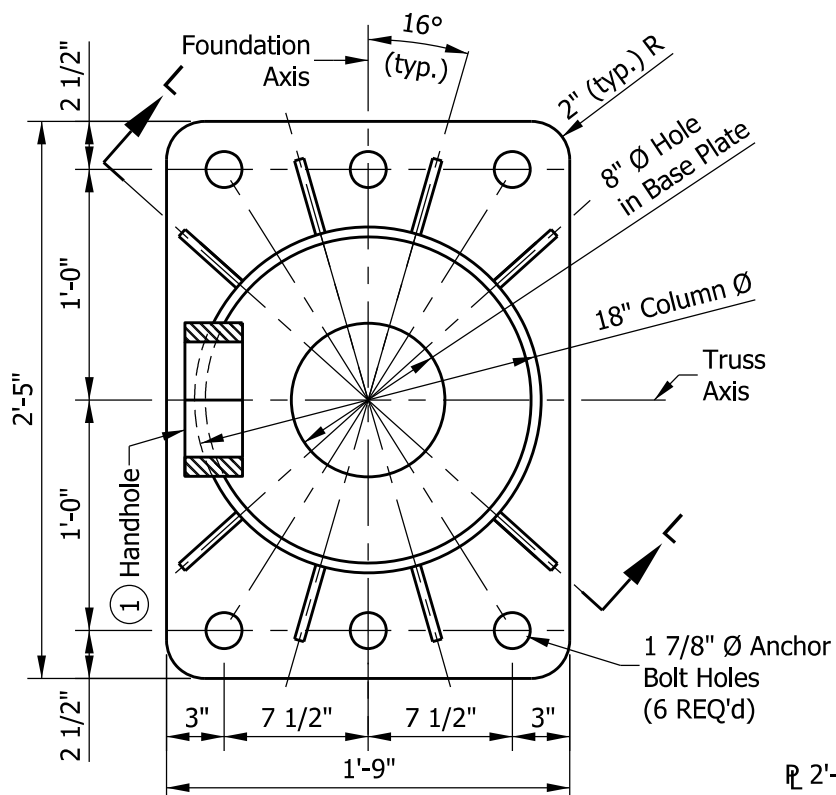
RECURRING PLAN DETAIL NO. 802-T-230d



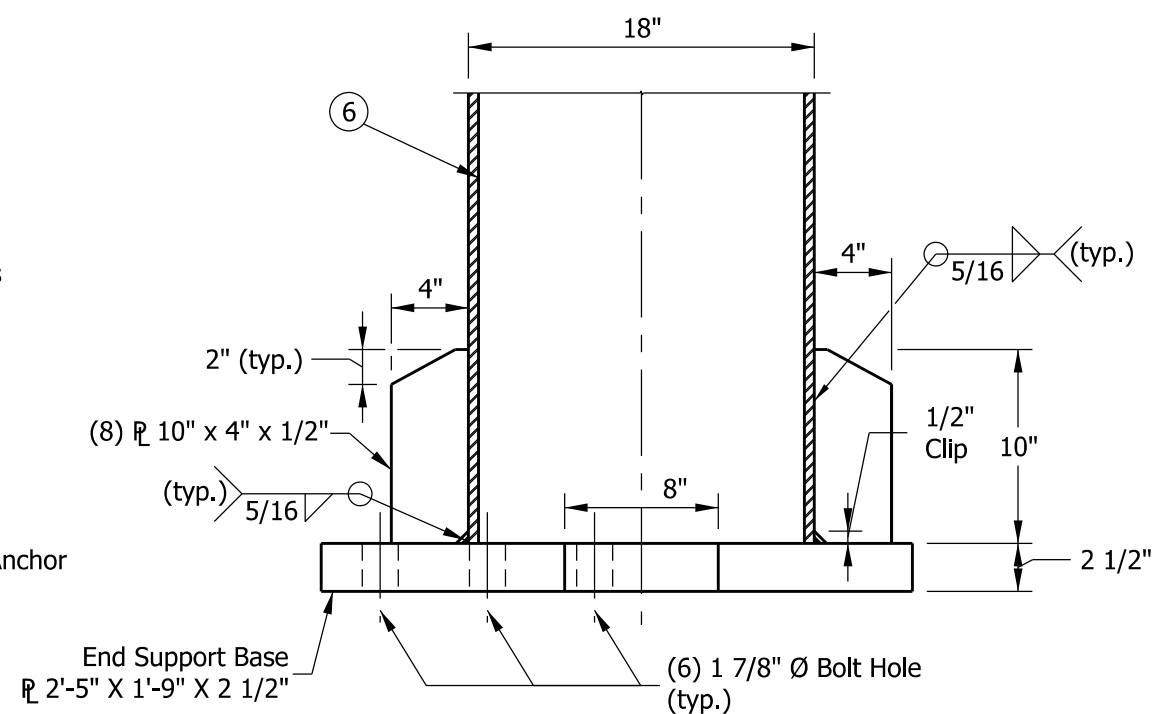
TYPE B-14 BASE PLATE DETAIL



SECTION K-K



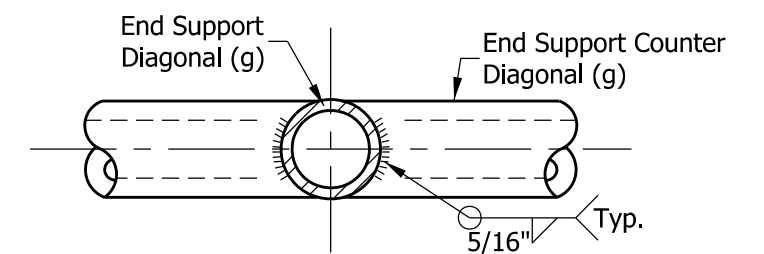
TYPE B-18 BASE PLATE DETAIL



SECTION L-L

NOTES:

- ① See Standard Drawing E 802-SBTS-15 for handhole details.
2. Type B-14 base plate shall be used for end-support column with a 14" diameter. Type B-18 base plate shall be used for end-support column with a 18 diameter.
3. See Standard Drawing E 802-SBTS-16 for anchor bolt and metal skirt details.
4. Each end support shall have one handhole at the column base (h). Handhole shall be placed on the column nearest to the sign.
- ⑤ See Standard Drawing E 802-SBTS-14 for I.D. Plate Details.
- ⑥ The centerline of the handhole shall be 2'-0" from the top of the base plate.



END SUPPORT DIAGONAL CROSSING DETAIL

INDIANA DEPARTMENT OF TRANSPORTATION

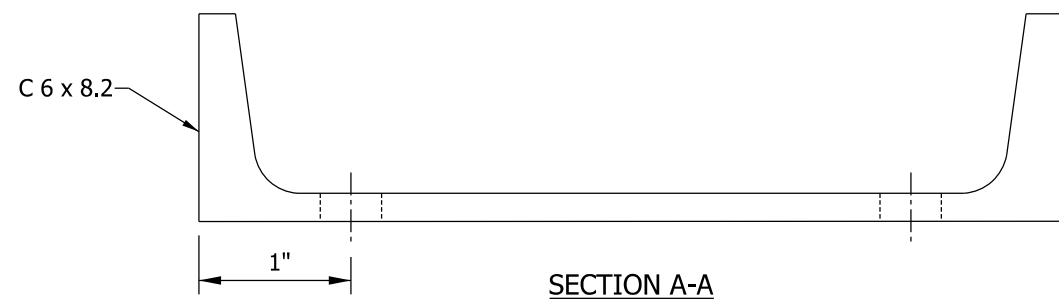
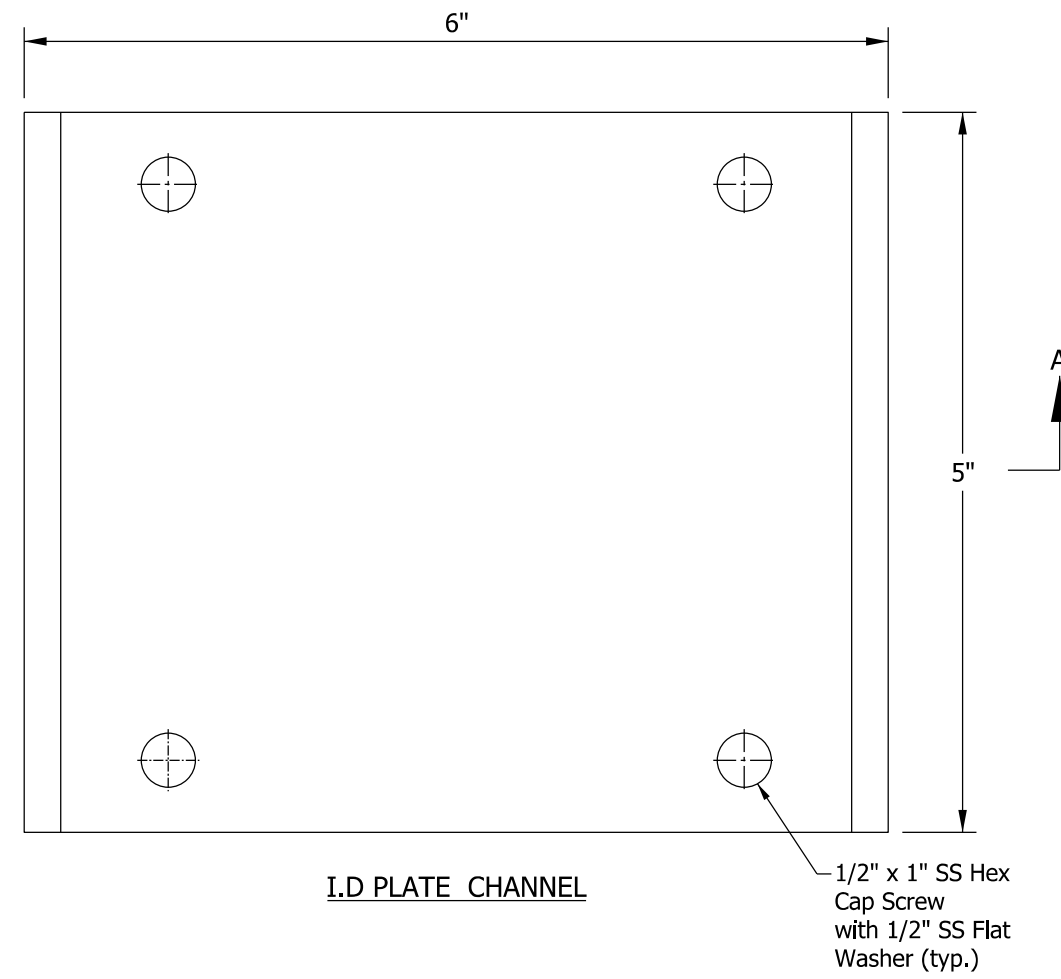
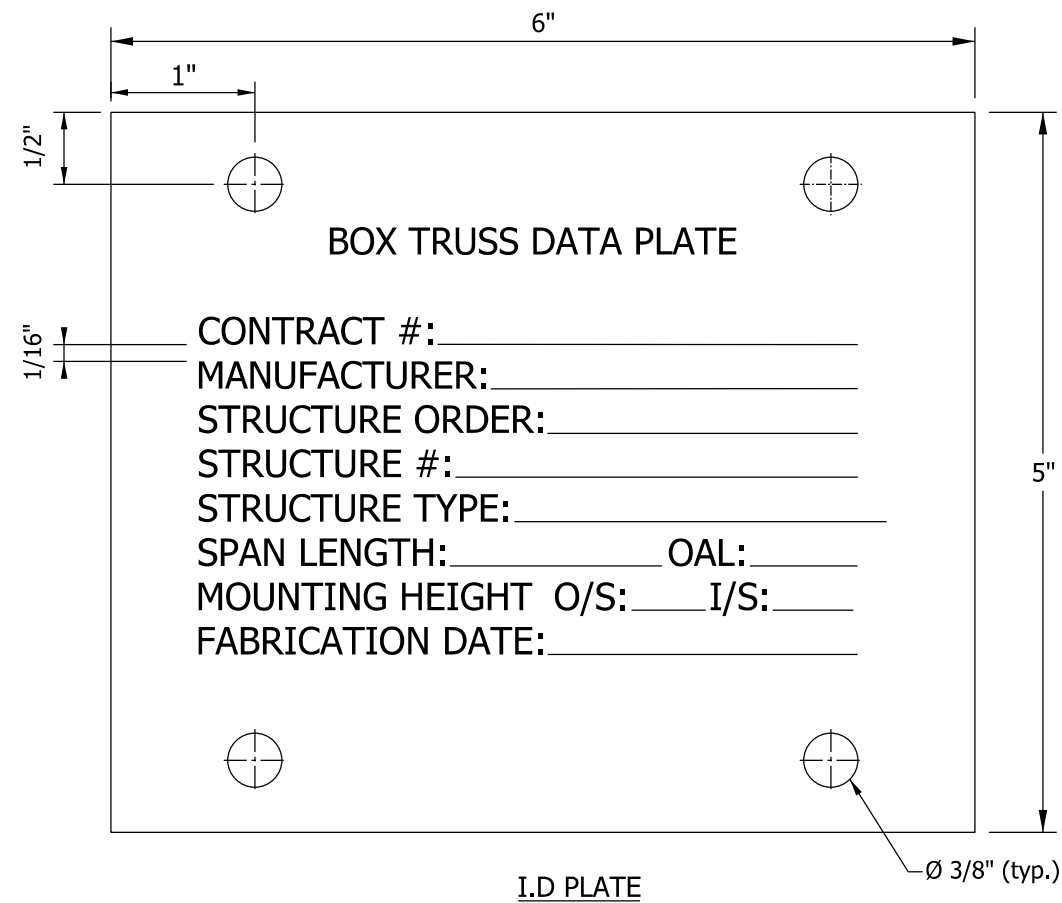
SIGN BOX TRUSS STRUCTURE
END SUPPORT AND
BASE PLATE

EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22

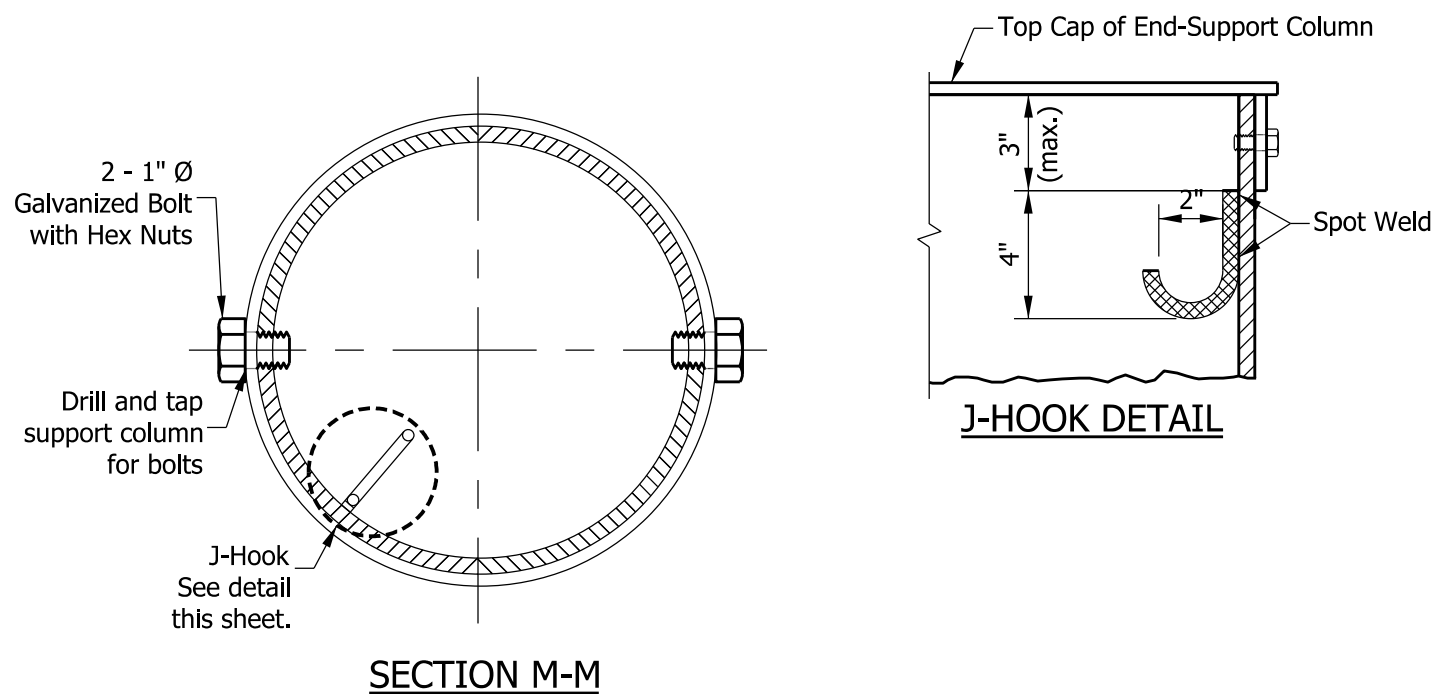
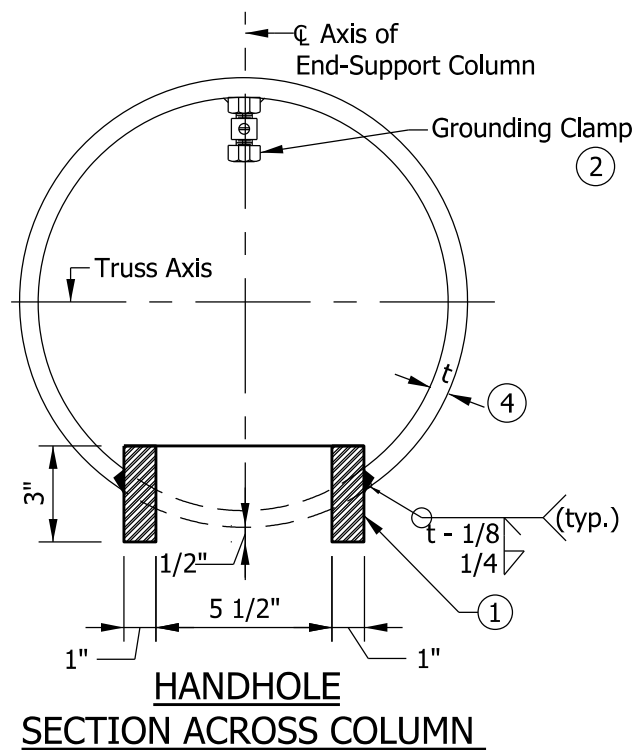
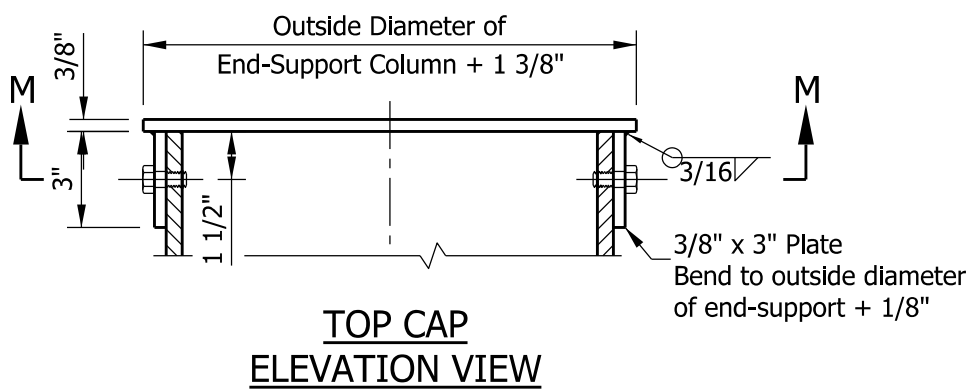
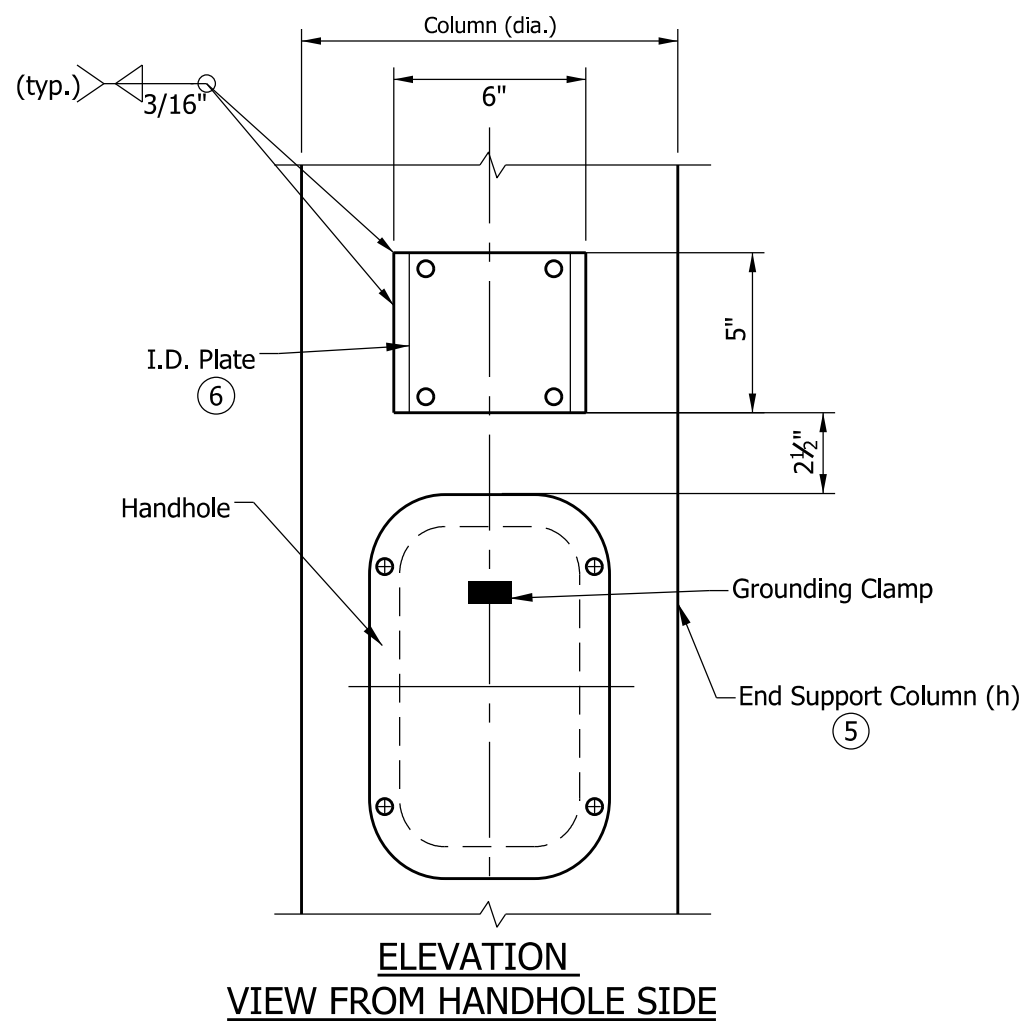
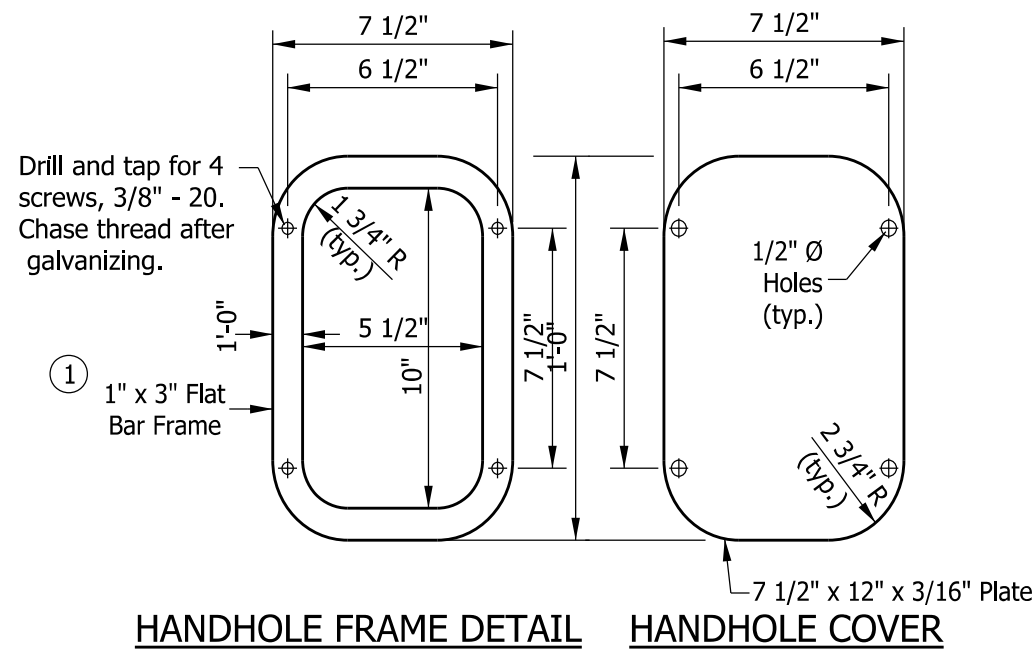
RECURRING PLAN DETAIL NO. 802-T-230d

NOTE:

1. I.D. plate shall be provided on each end-support column.
2. I.D. plate shall be 1/8" stainless steel plate with the information stamped in 3/16" black letters.



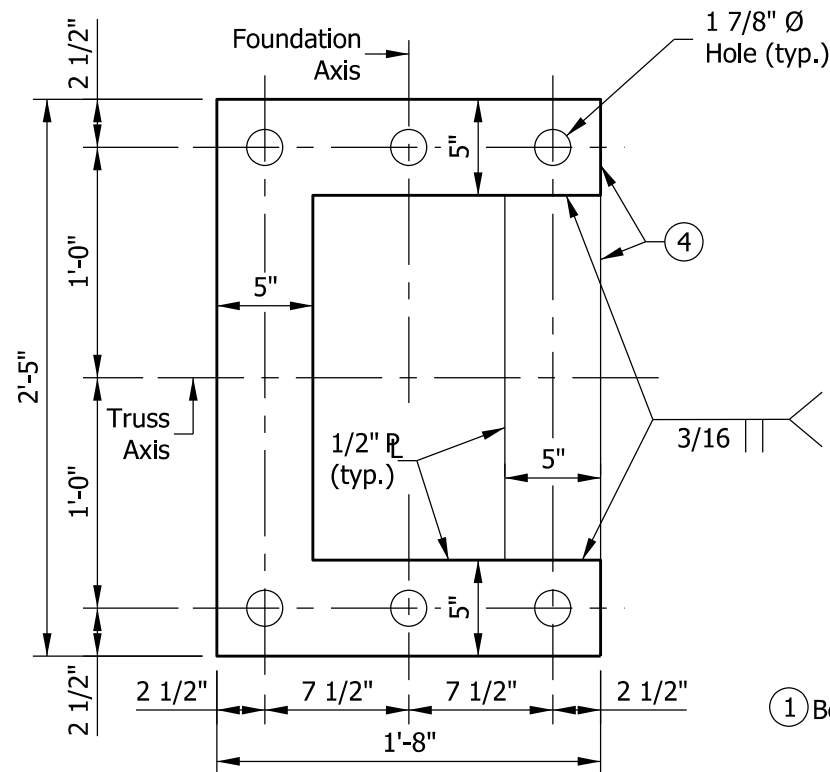
INDIANA DEPARTMENT OF TRANSPORTATION	
SIGN BOX TRUSS STRUCTURE I.D. PLATE DETAILS	
EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22	
RECURRING PLAN DETAIL NO.	802-T-230d
Sheet 14 of 41	



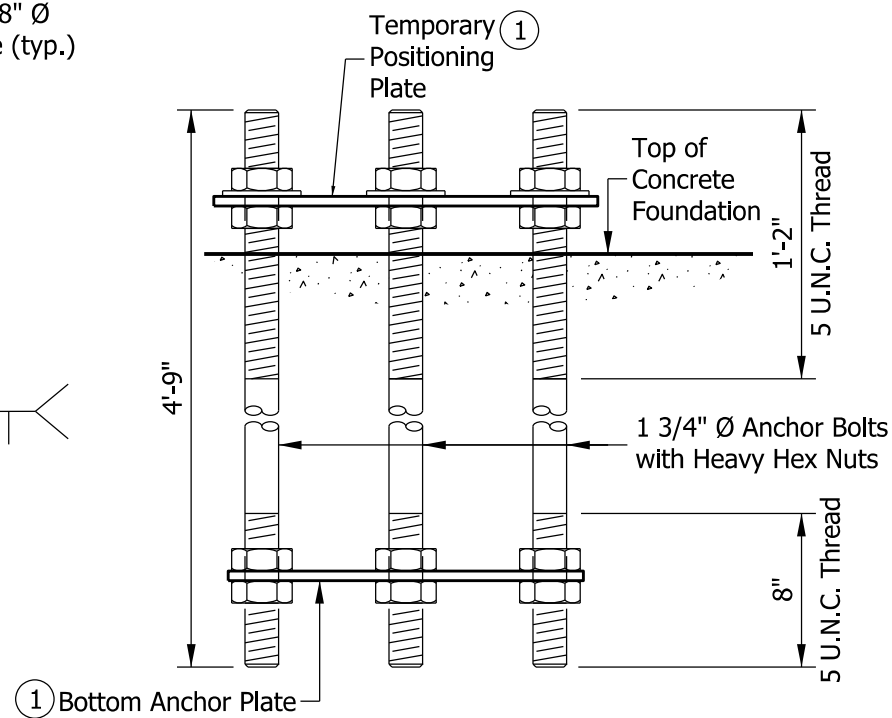
NOTES:

- ① In lieu of fabricated handhole frame as shown, frame may be cut from 3" plate (rolling direction vertical).
- ② See Standard Drawing E 802-SNWR Series for grounding details. Grounding post shall be placed on far side of support directly opposite center of handhole.
3. See Standard Drawings E 802-SBTS-02 and 13 for handhole locations.
- ④ See Standard Drawings E 802-SBTS-03 and 04 for thicknesses of end-support columns (h).
- ⑤ Each end support shall have one hand hole placed at the column (h) base and shall be placed nearest to the sign.
- ⑥ See Standard Drawing E 802-SBTS-14 for I.D. plate details.

INDIANA DEPARTMENT OF TRANSPORTATION	
SIGN BOX TRUSS STRUCTURE END-SUPPORT TOP-CAP, HANDHOLE, AND J-HOOK DETAILS	
EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22	
RECURRING PLAN DETAIL NO.	802-T-230d
Sheet 15 of 41	



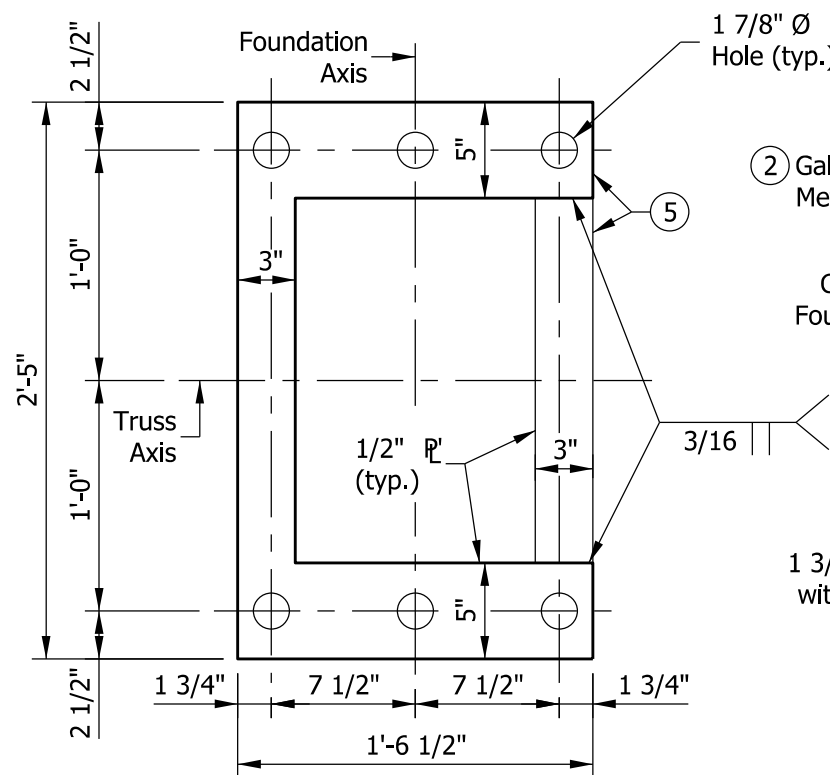
TEMPORARY POSITIONING PLATE



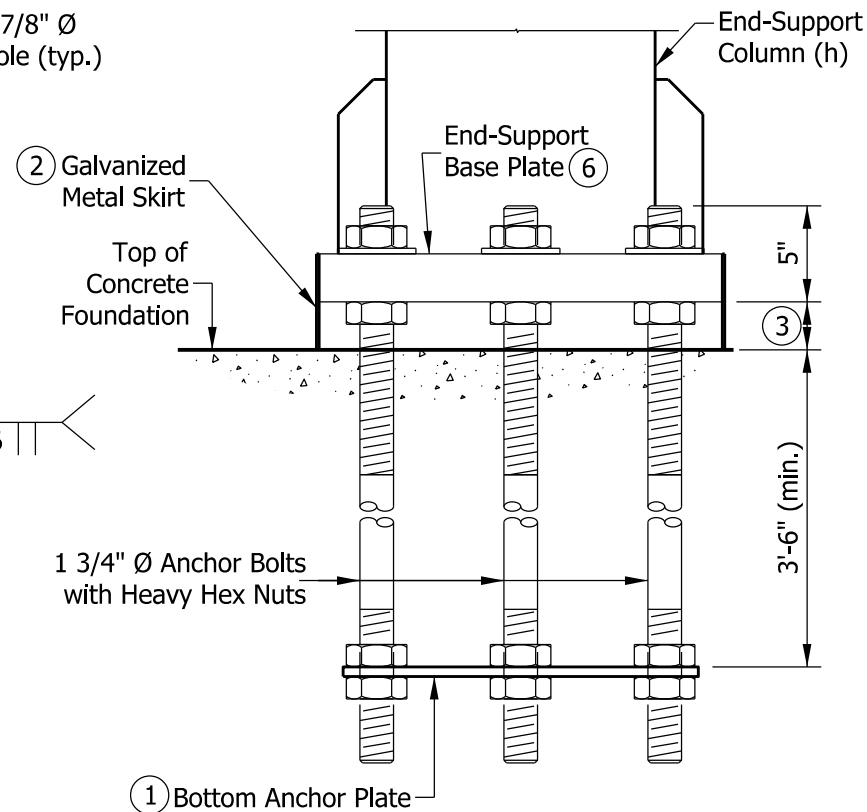
ANCHOR BOLT DETAILS BEFORE CONCRETE PLACEMENT

NOTES:

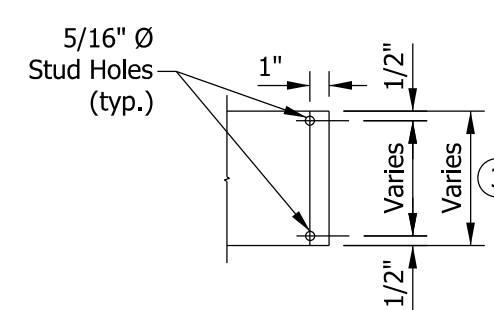
- ① Temporary positioning plate and bottom anchor plate shall be used for all foundations. Temporary positioning plate shall be removed after placing concrete.
- ② Secure galvanized metal skirt shall be secured to base plate after erection as shown in skirt detail.
- ③ Minimum base plate gap shall be 2 1/2" and can be increased up to 5 1/2". Metal skirt width shall be at least 1 1/2" more than the actual gap.
- ④ May use four separate 5" plates welded together to maintain angles and shape as shown.
- ⑤ May use two separate 3" and two separate 5" plates welded together to maintain angles and shape as shown.
- ⑥ See Standard Drawings E 802-SBTS-13 for end support base plate details.
7. See Standard Drawing E 802-SBTS-17 for anchor bolt hardware tightening requirements.



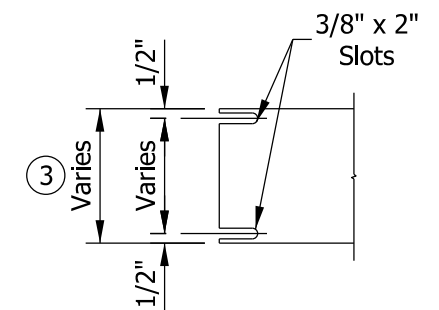
BOTTOM ANCHOR PLATE



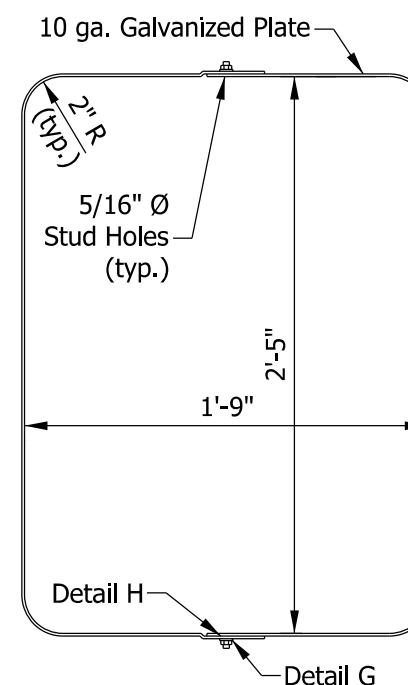
ANCHOR BOLT DETAILS AFTER CONCRETE PLACEMENT



DETAIL G



DETAIL H



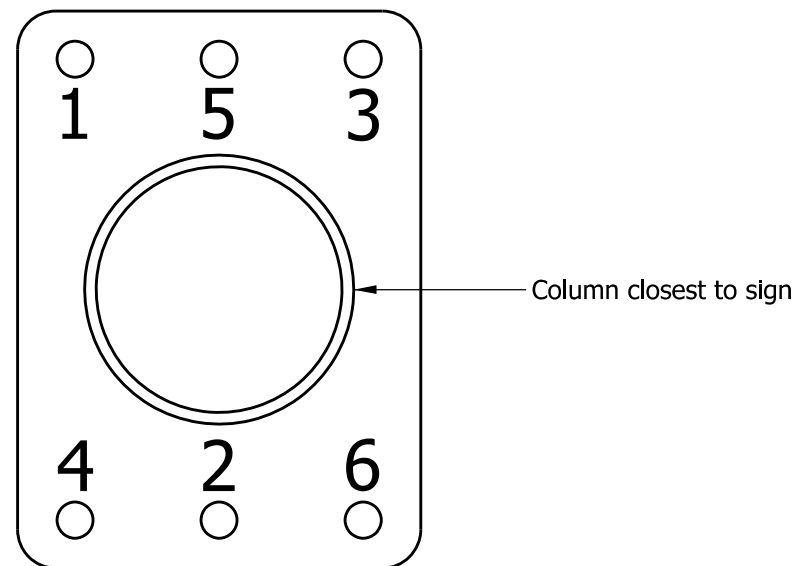
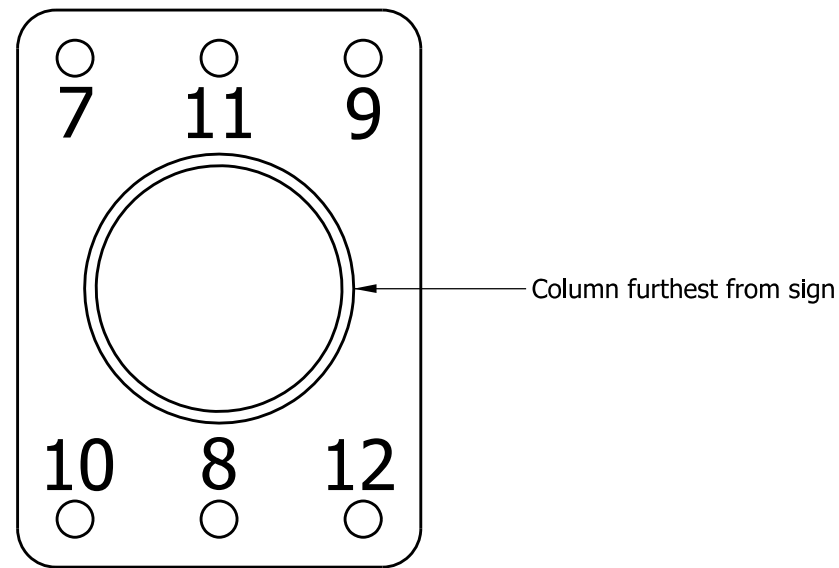
METAL SKIRT DETAIL

INDIANA DEPARTMENT OF TRANSPORTATION

SIGN BOX TRUSS STRUCTURE
END-SUPPORT
ANCHOR BOLT AND METAL SKIRT DETAILS

EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22

RECURRING PLAN DETAIL NO. 802-T-230d



STAR PATTERN
TIGHTENING SEQUENCE

NOTES:

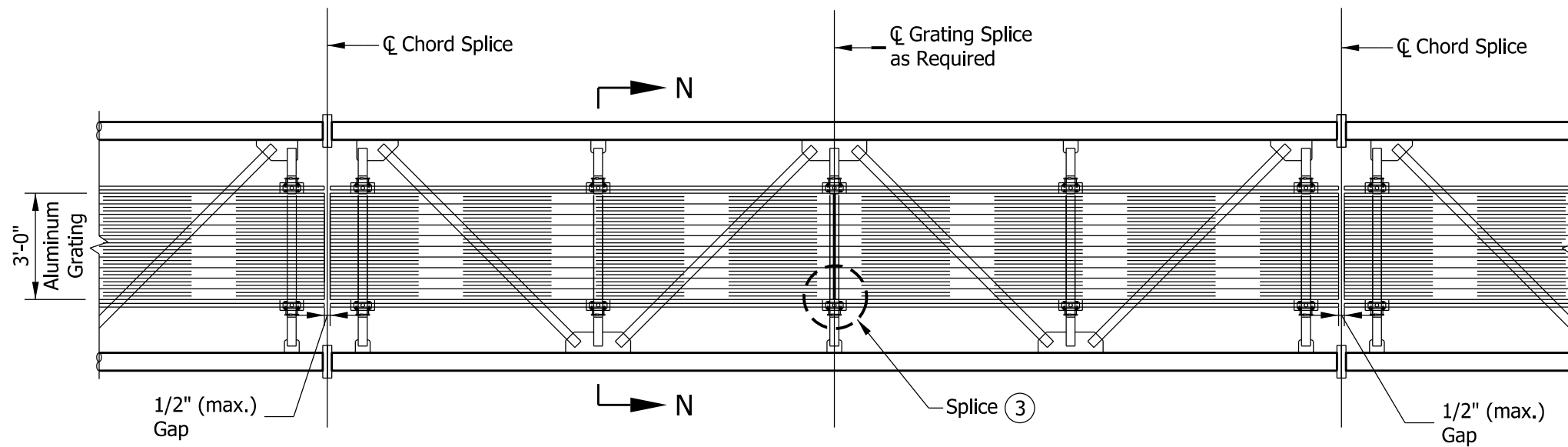
1. Anchor bolts shall be clean and not damaged or out of plumb.
2. Threaded portion of anchor bolts shall be lubricated within 24 hours of tightening; approved lubricant shall be used and shall be applied in accordance with lubricant manufacturers recommendations.
3. The bottom of leveling nuts shall be less than 1 3/4" from the foundation (unless stated otherwise on the plans).
4. While holding the leveling nuts with a wrench, the top nuts shall be snug tightened (brought into full contact with the base plate). Then the leveling nuts shall be snug-tightened. Then the top nuts and base plate shall be marked and the nuts further tightened (pre-tensioned) by a minimum 1/6 turn.
5. No sooner than 10 minutes after the installation of the truss on the end bents, top and leveling nuts shall be retightened as needed.
6. All tightening shall be done in the order shown.

INDIANA DEPARTMENT OF TRANSPORTATION

SIGN BOX TRUSS STRUCTURE
END SUPPORT ANCHOR BOLT
HARDWARE TIGHTENING

EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22

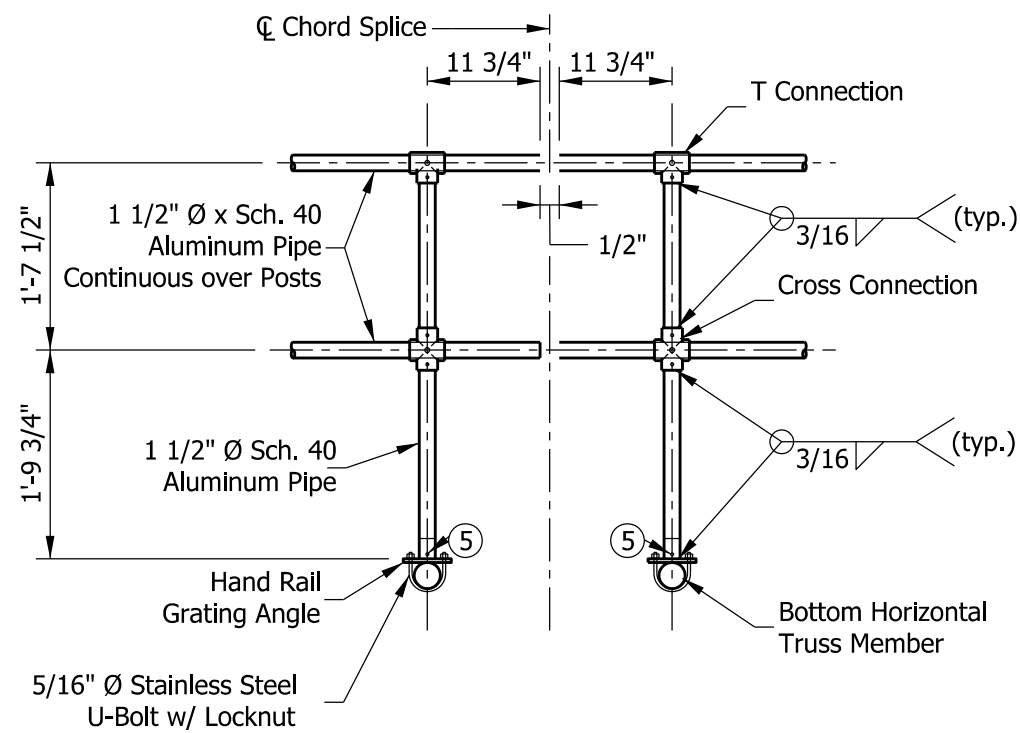
RECURRING PLAN DETAIL NO. 802-T-230d



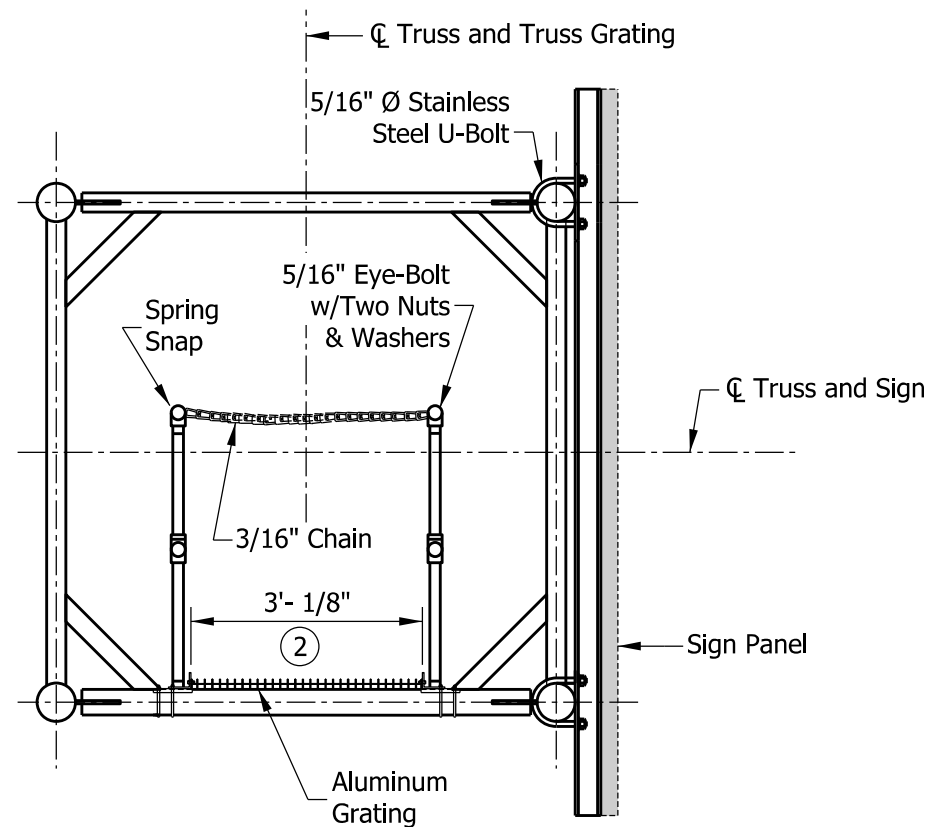
INTERIOR WALKWAY GRATING PLAN

NOTES:

1. Interior walkway gratings shall be extruded I-bars 2" x 1/4" x 1 3/16" center-to-center. Cross bars shall have a maximum gap of 4". Moment of Inertia, $I_x = 1.382 \text{ in}^4$. A different grating of equal strength may be used upon approval by engineer.
2. Walkway grating width is nominal and may vary $\pm 1/2"$ based on available standard widths.
3. Interior walkway gratings can be spliced on center of any horizontal truss member as needed. See Standard Drawing E 802-SBTS-19 for typical interior walkway grating splice detail.
4. Interior walkway grating shall run the full length, center-to-center, of end-support truss members plus 9" at each end.
5. Drain holes shall be as detailed on Standard Drawing E 802-SBTS-23, including placement on the horizontal handrail pipes.



TYPICAL HANDRAIL DETAIL



SECTION N-N

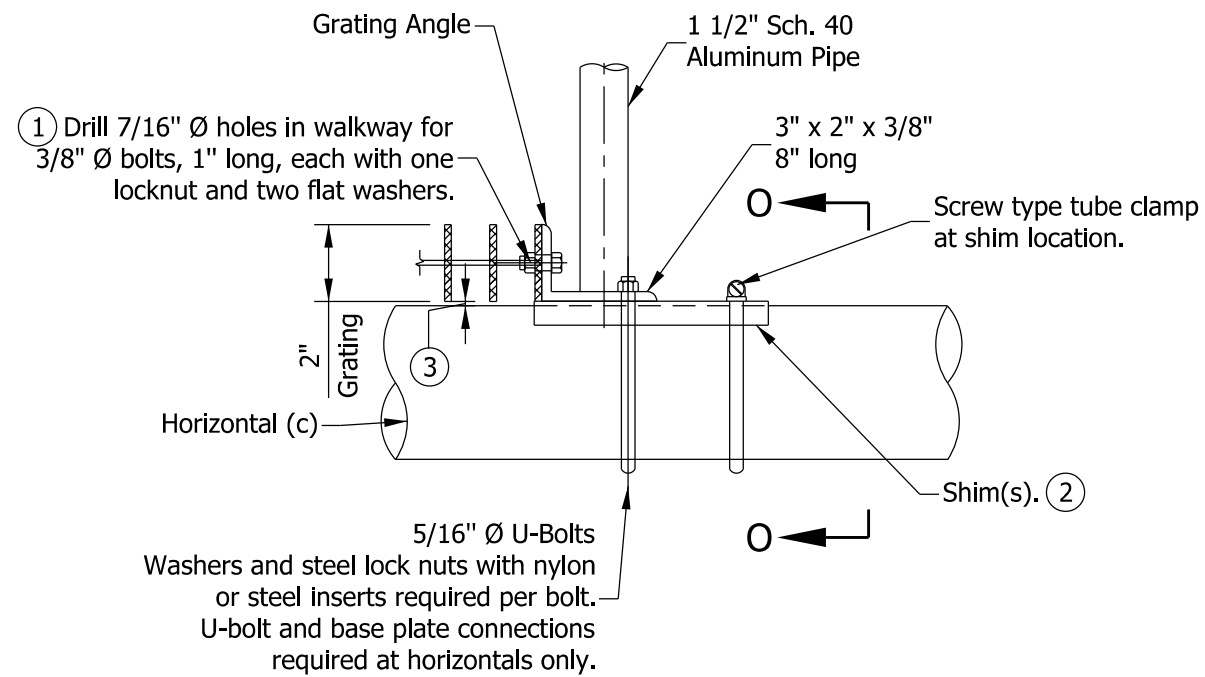
INDIANA DEPARTMENT OF TRANSPORTATION

SIGN BOX TRUSS STRUCTURE
INTERIOR WALKWAY GRATING & HANDRAIL
DETAILS

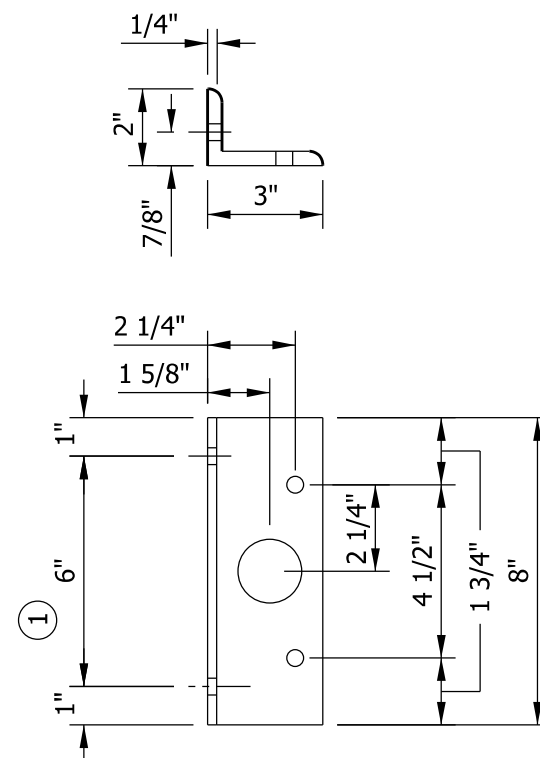
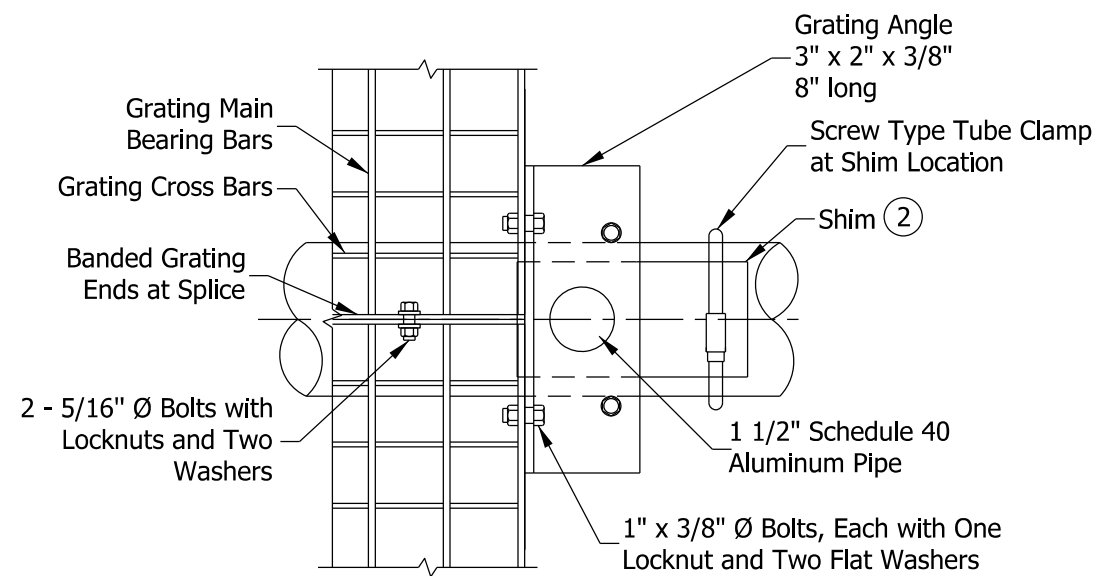
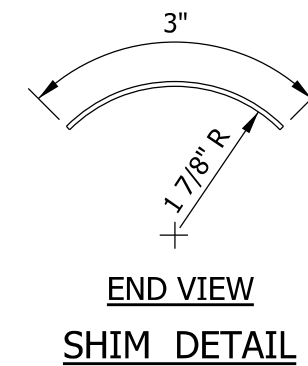
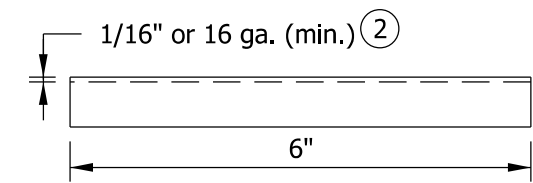
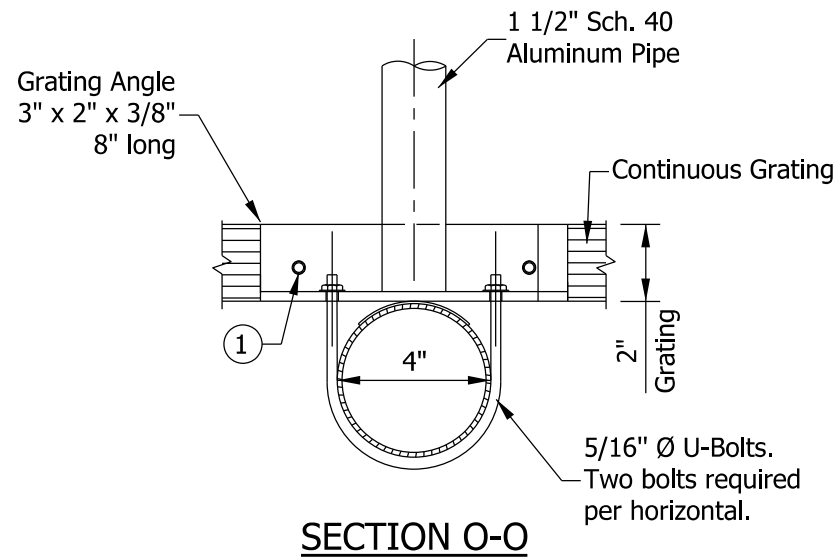
EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22

RECURRING PLAN DETAIL NO. 802-T-230d

Sheet 18 of 41



GRATING SUPPORT DETAIL



NOTES:

- ① Drilling of holes in grating may be done in shop or field, based on Contractor's preference and subject to and shall provide accurate alignment.
- ② Shims may be placed as shown, if needed to compensate for alignment variations between horizontal and diagonal pipes beyond adjustment provided by angles. Thicker shims may be used subject to shims performing properly.
- ③ Tube-to-grating gap may vary from 0 to 1/2" max. to align walkway, allow for camber.

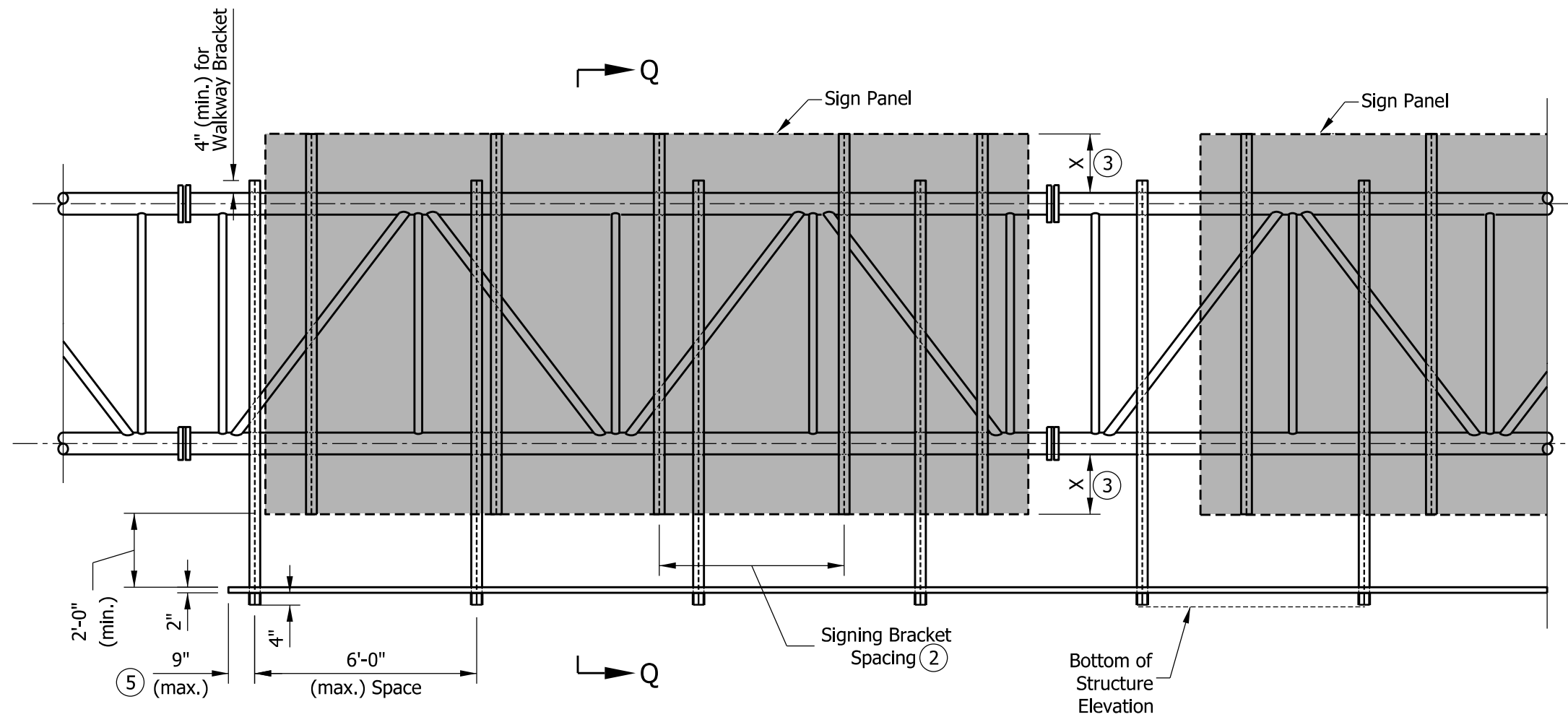
INDIANA DEPARTMENT OF TRANSPORTATION

SIGN BOX TRUSS STRUCTURE
INTERIOR WALKWAY GRATING DETAILS

EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22

RECURRING PLAN DETAIL NO. 802-T-230d

Sheet 19 of 41



TYPICAL LIGHTING WALKWAY FRONT ELEVATION

(Lighting walkway and handrail provided only when specified in the plans)

NOTES:

- 1. For location and data for sign panels, see plan details cross section.
- ② Sign bracket spacing 5' max.
- ③ Dimension X depends on the height of the sign. Sign shall be centered vertically on truss.
- 4. See Standard Drawing E 802-SBTS-21 for Plan, and E 802-SBTS-22 for Section Q-Q.

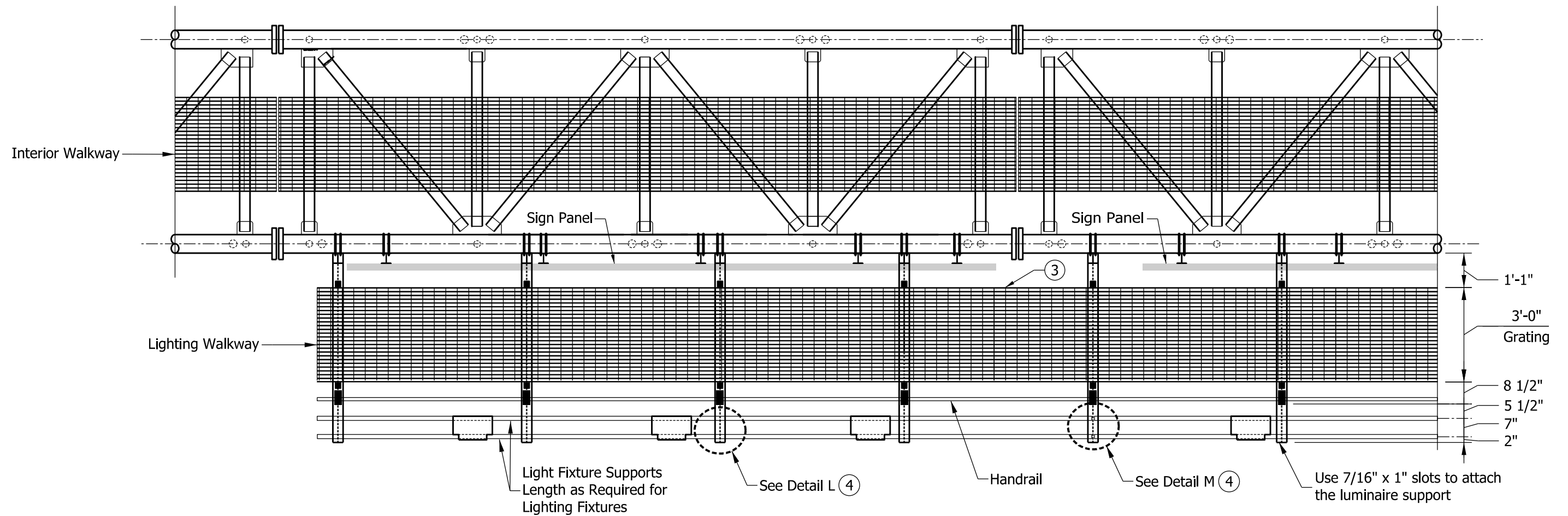
⑤ Sign shall be installed on truss with independent brackets WF (A-N) 4 x 3.06 for signs ≤ 18' in height. For signs > 18' and ≤ 25' use WF (A-N) 5 x 5.36. Lighting walkway may be extended to comply with the 9" maximum unsupported grating.

INDIANA DEPARTMENT OF TRANSPORTATION

SIGN BOX TRUSS STRUCTURE
LIGHTING WALKWAY ELEVATION

EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22

RECURRING PLAN DETAIL NO. 802-T-230d



PLAN VIEW

(Lighting walkway and handrail provided only when specified in the plans)

NOTES:

1. Handrail and grating shall span a minimum of 3 brackets.
2. Grating splice shall be located on center of L-bracket only. See Standard Drawing E 802-SBTS-25, Detail M.
- ③ Lighting walkway gratings are extruded I-bars 2" x 1/4" spaced at 1 3/16" center-to-center. Cross bars shall have a maximum gap of 4". Moment of Inertia, $I_x = 1.382 \text{ in}^4$. A different grating of equal strength may be used upon approval.
- ④ See Standard Drawing E 802-SBTS-25, Details L & M.

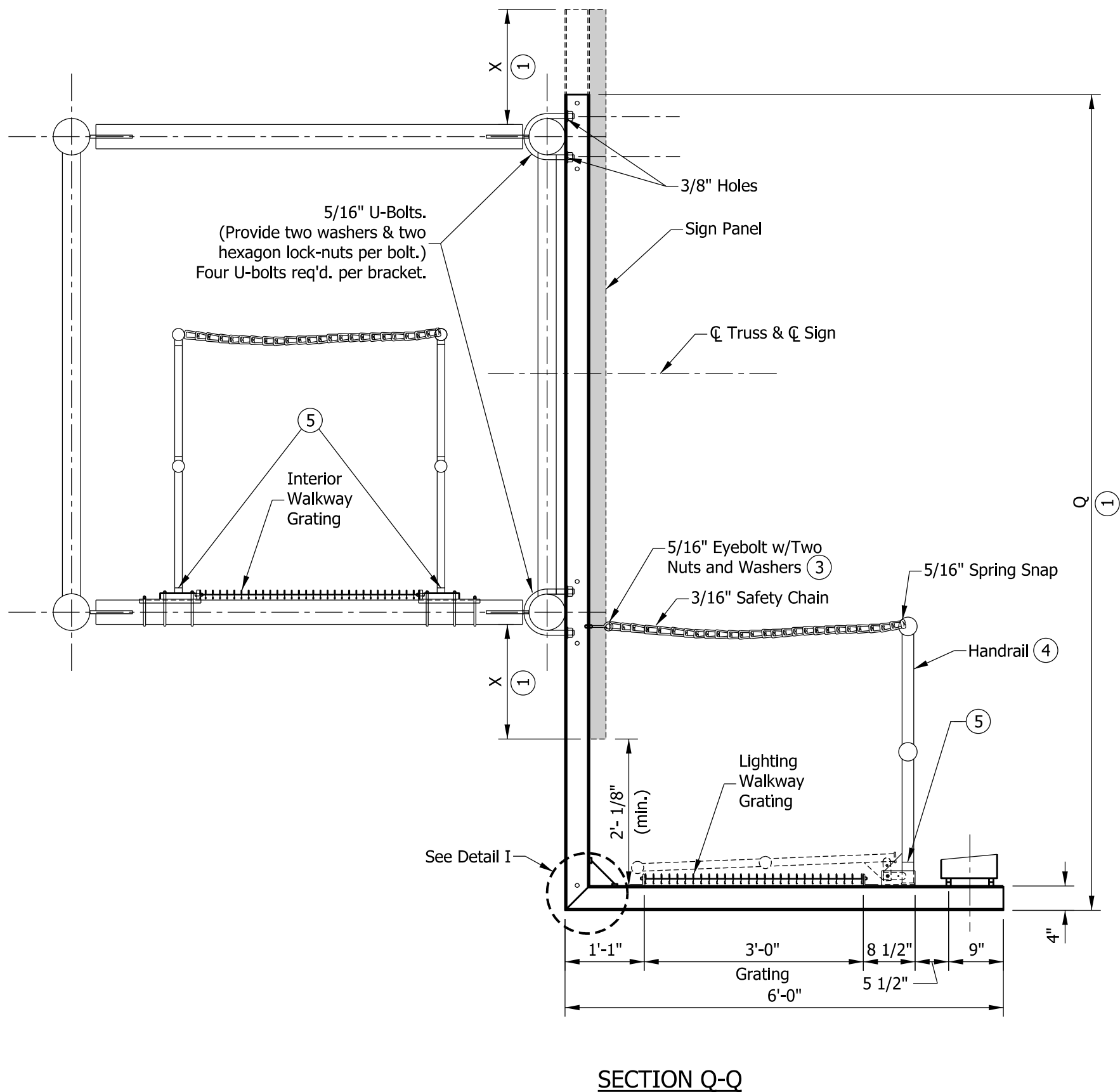
INDIANA DEPARTMENT OF TRANSPORTATION

SIGN BOX TRUSS STRUCTURE
LIGHTING WALKWAY PLAN

EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22

RECURRING PLAN DETAIL NO. 802-T-230d

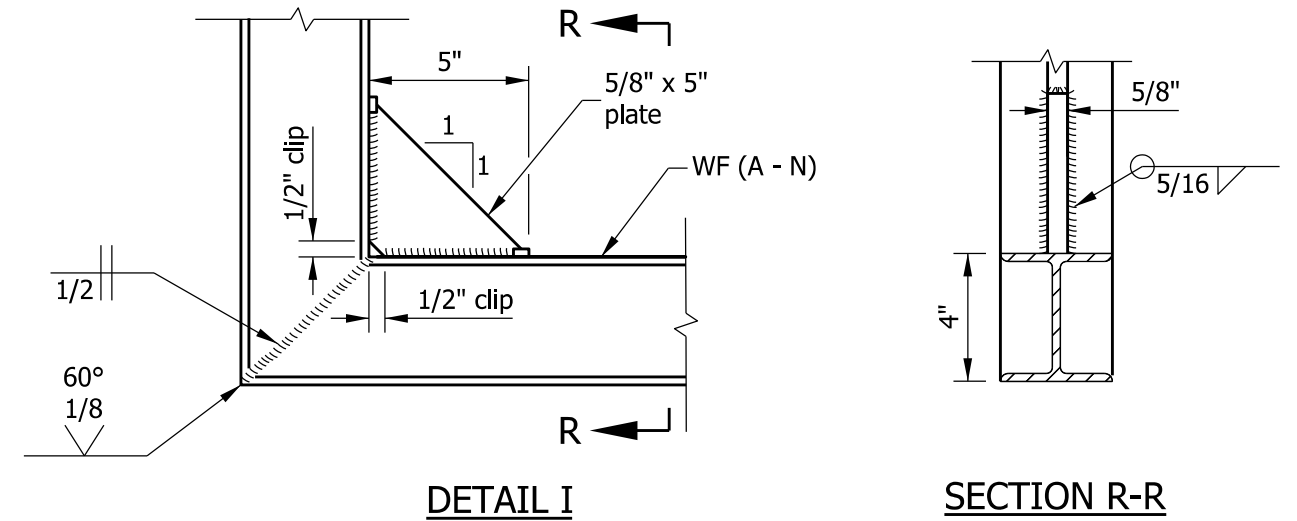
Sheet 21 of 41



(Lighting walkway provided only when specified on plan)

NOTES:

- ① Dimensions X and Q shall be determined by Contractor to fit signs.
- 2. Sign panel shall be placed symmetrically about centerline of truss.
- ③ Eyebolt shall be attached to web of bracket at approximate elevation of upper handrail pipe.
- ④ See Standard Drawing E 802-SBTS-23 for handrail interior walkway.
- ⑤ Drain hole, See Standard Drawing E 802-SBTS-23



DETAIL I

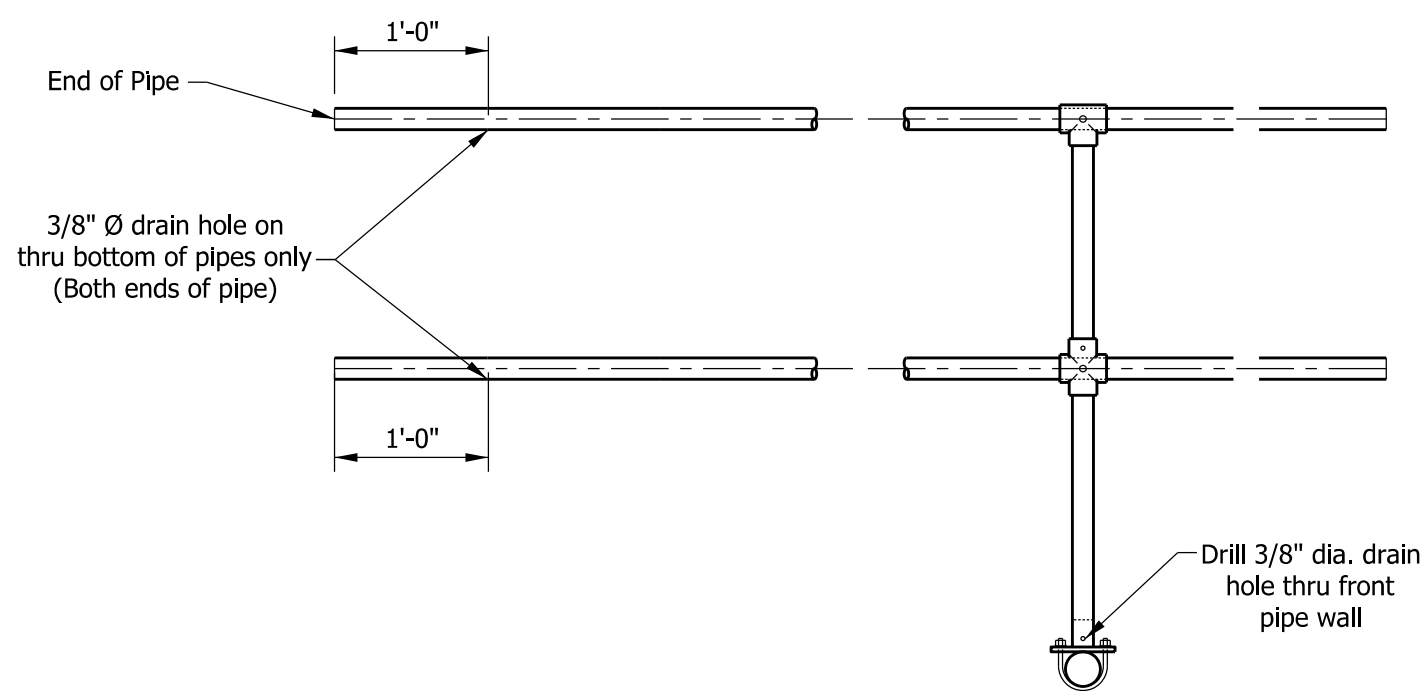
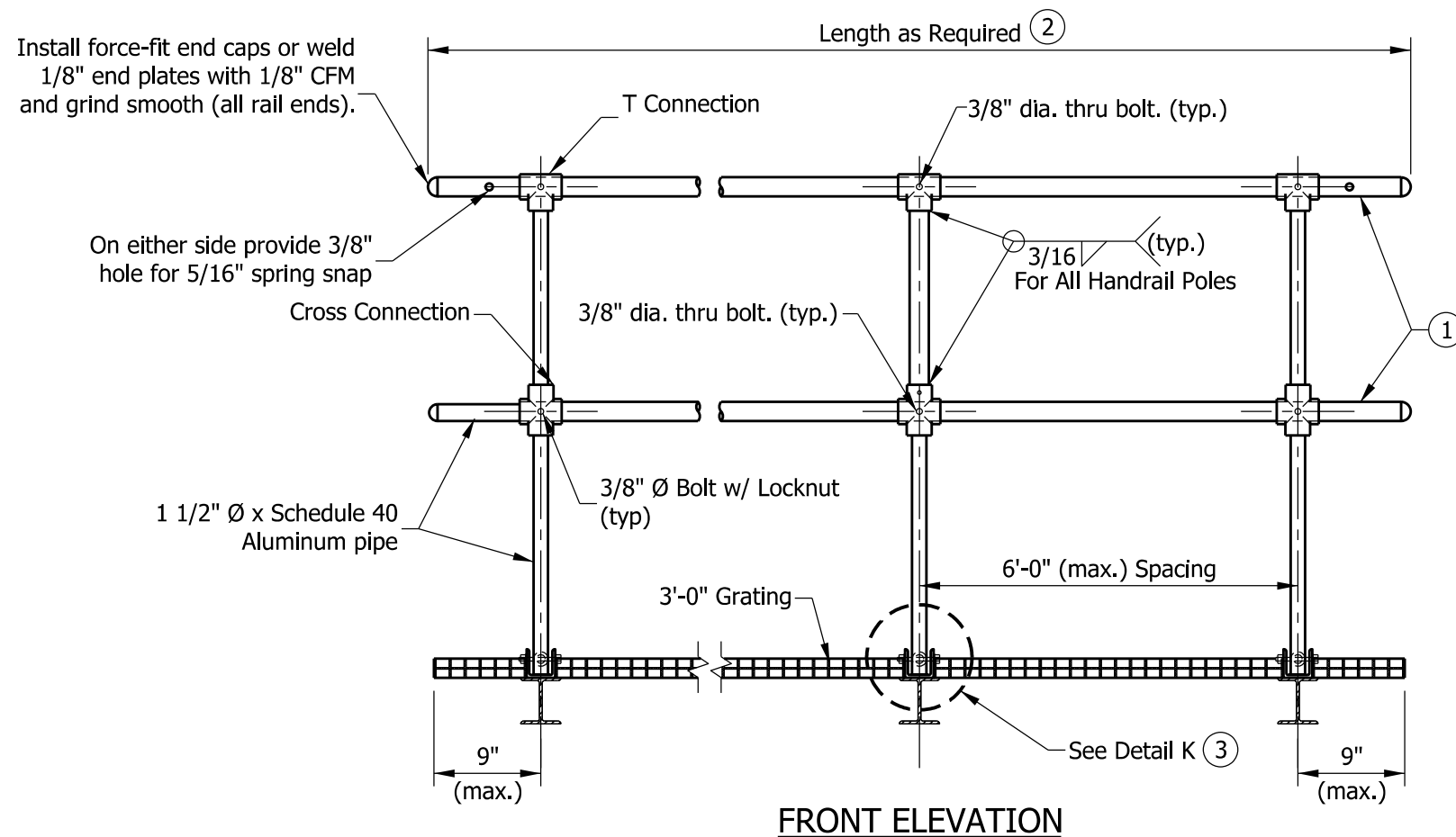
SECTION R-R

INDIANA DEPARTMENT OF TRANSPORTATION

SIGN BOX TRUSS STRUCTURE
LIGHTING WALKWAY PROFILE

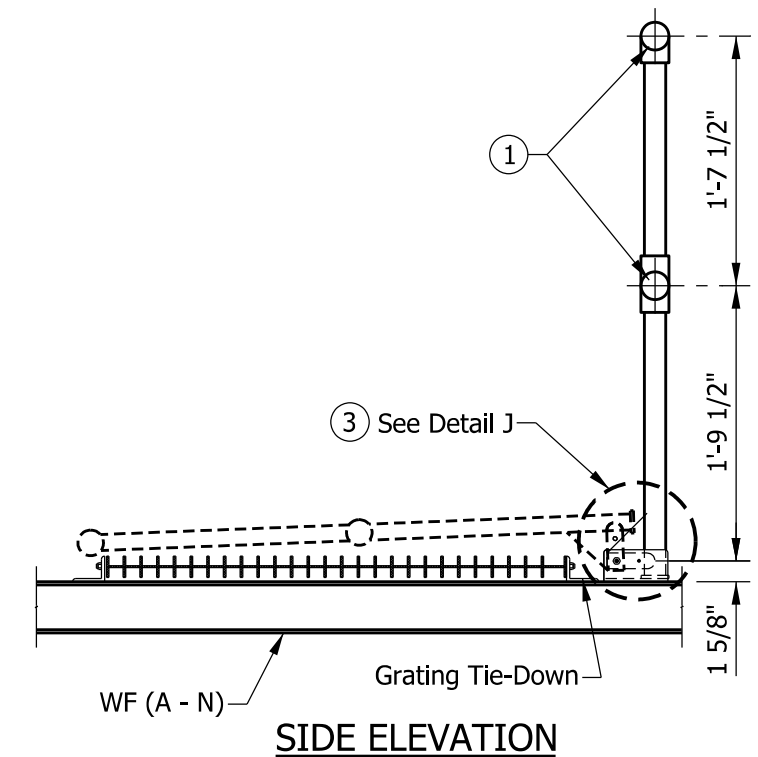
EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22

RECURRING PLAN DETAIL NO. 802-T-230d



NOTES:

- ① Horizontal rail member shall be continuous through fitting. Manufacturer shall provide 7/16" holes for fitting 3/8" bolt. Field drill 7/16" hole in horizontal rail member. Attach handrail with 3/8" bolt, washer, and locknut.
- ② Rail and grating shall span a minimum of three brackets.
- ③ See Standard Drawing E 802-SBTS-24 for Detail J & K.
4. Lighting walkway and handrail provided only when specified on plans.



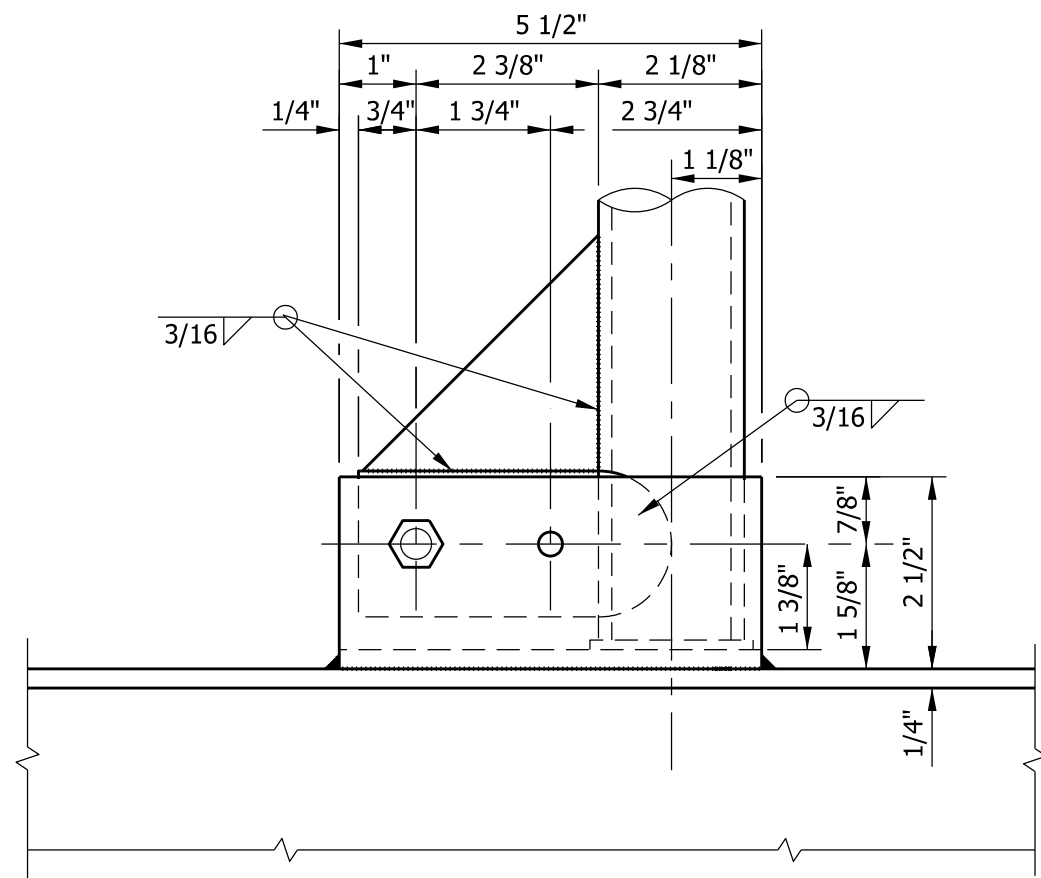
INDIANA DEPARTMENT OF TRANSPORTATION

SIGN BOX TRUSS STRUCTURE
LIGHTING WALKWAY AND
HANDRAIL ASSEMBLY

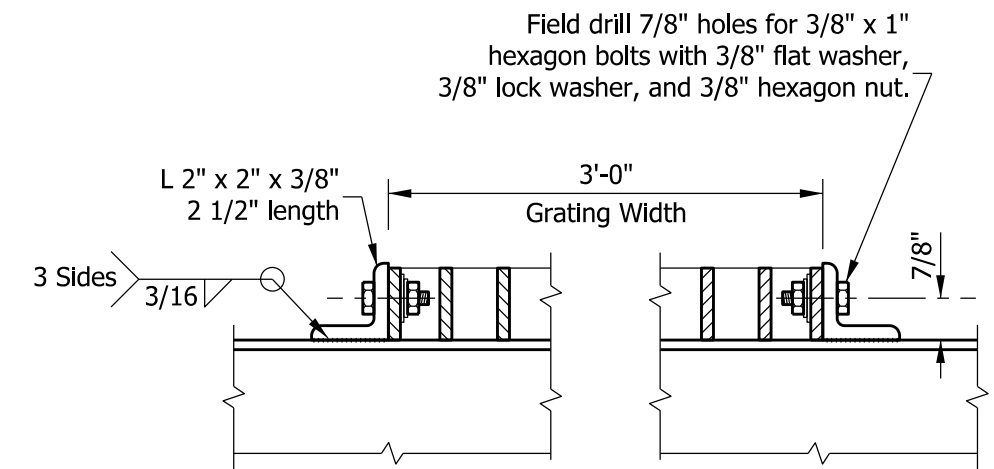
EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22

RECURRING PLAN DETAIL NO. 802-T-230d

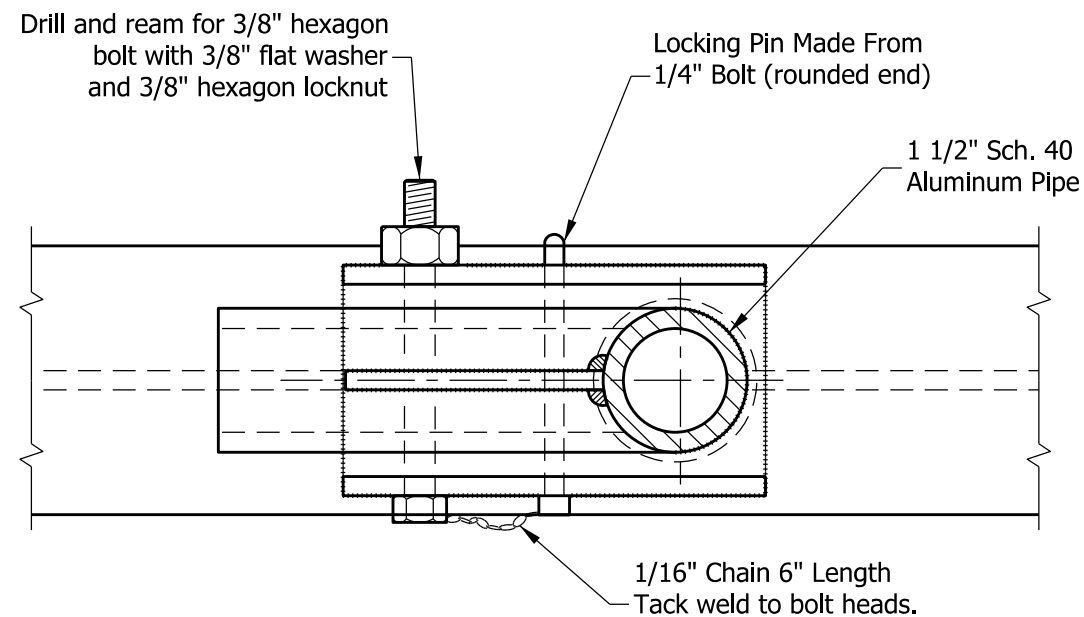
Sheet 23 of 41



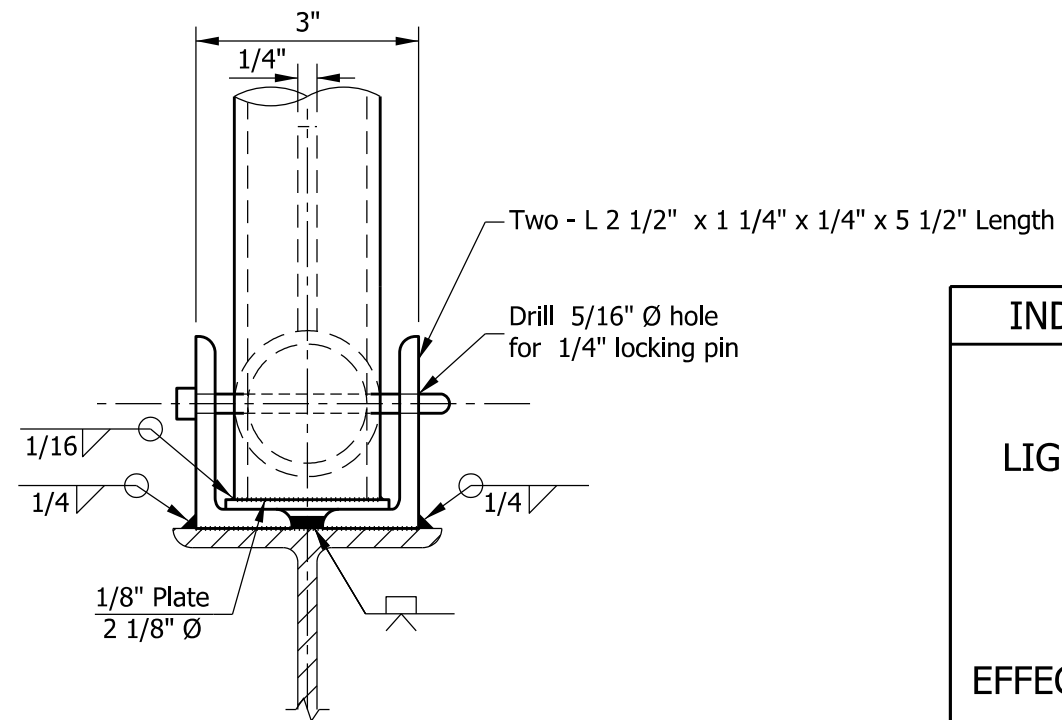
DETAIL J
SIDE ELEVATION



GRATING TIE DOWN
(Two req'd per walkway bracket)



PLAN
DETAILS OF HANDRAIL HINGE



DETAIL K
FRONT ELEVATION

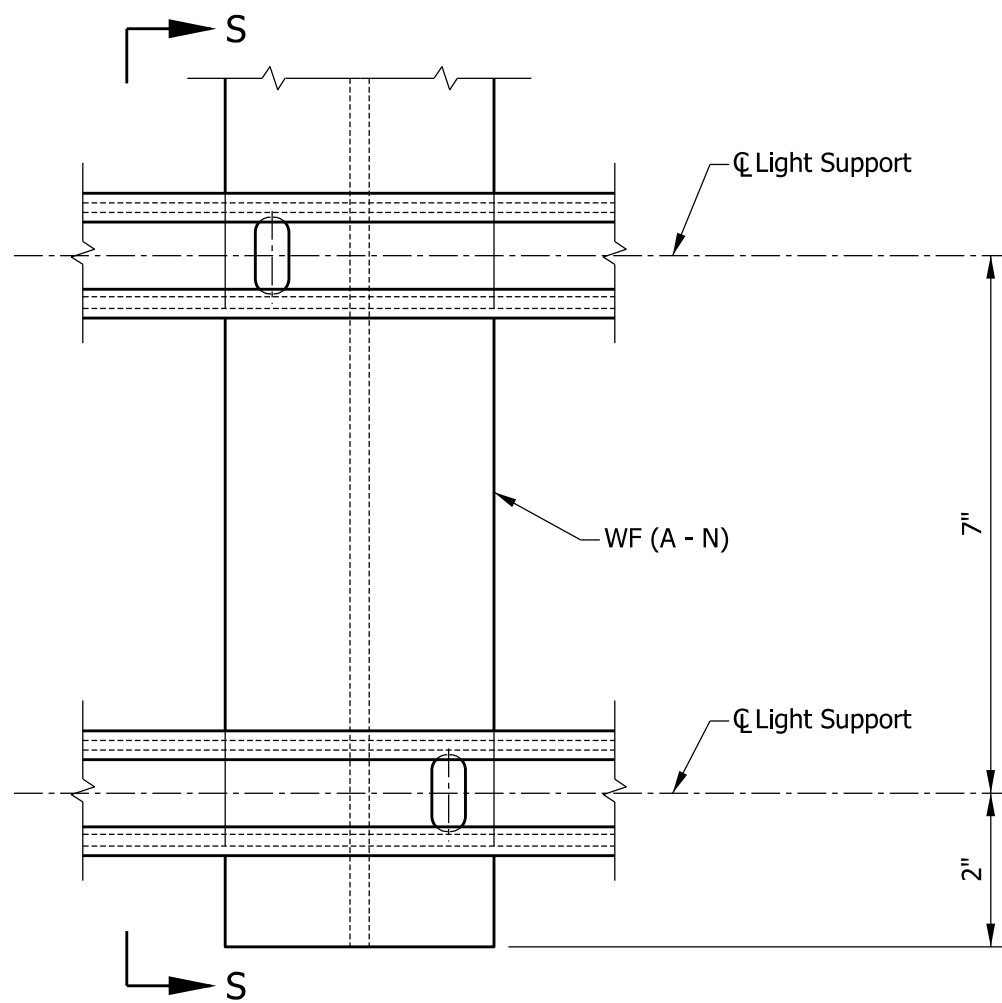
INDIANA DEPARTMENT OF TRANSPORTATION

SIGN BOX TRUSS STRUCTURE
LIGHTING WALKWAY, HANDRAIL HINGE, AND
GRATING DETAILS

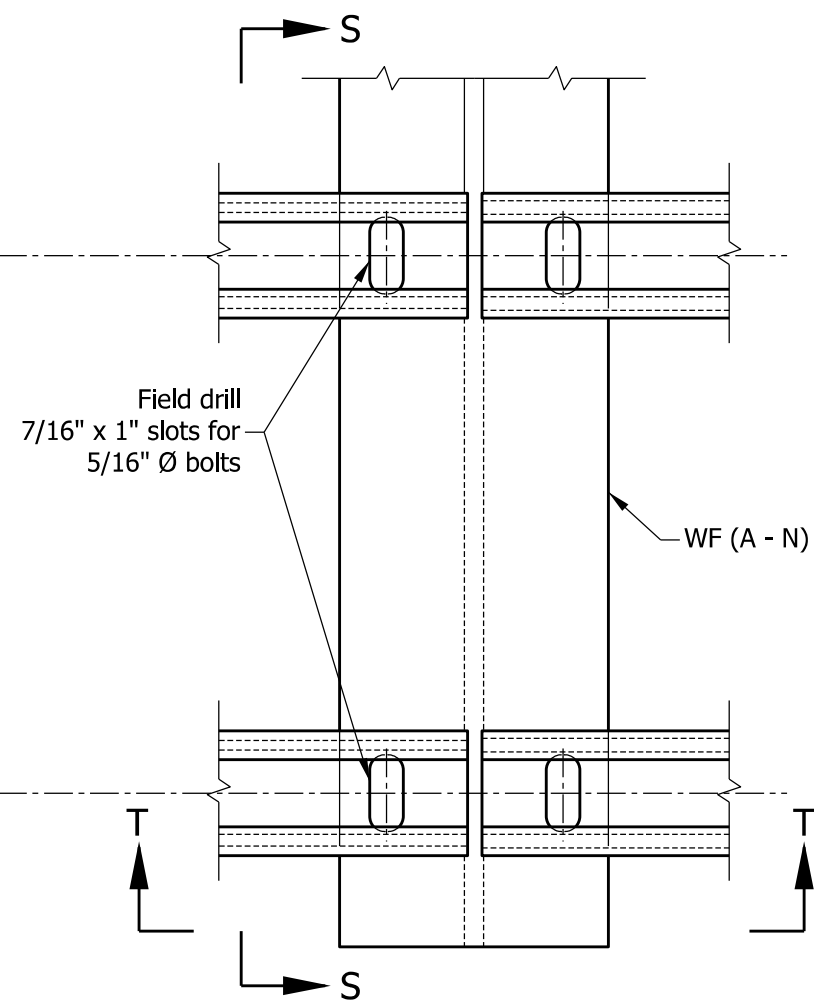
EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22

RECURRING PLAN DETAIL NO. 802-T-230d

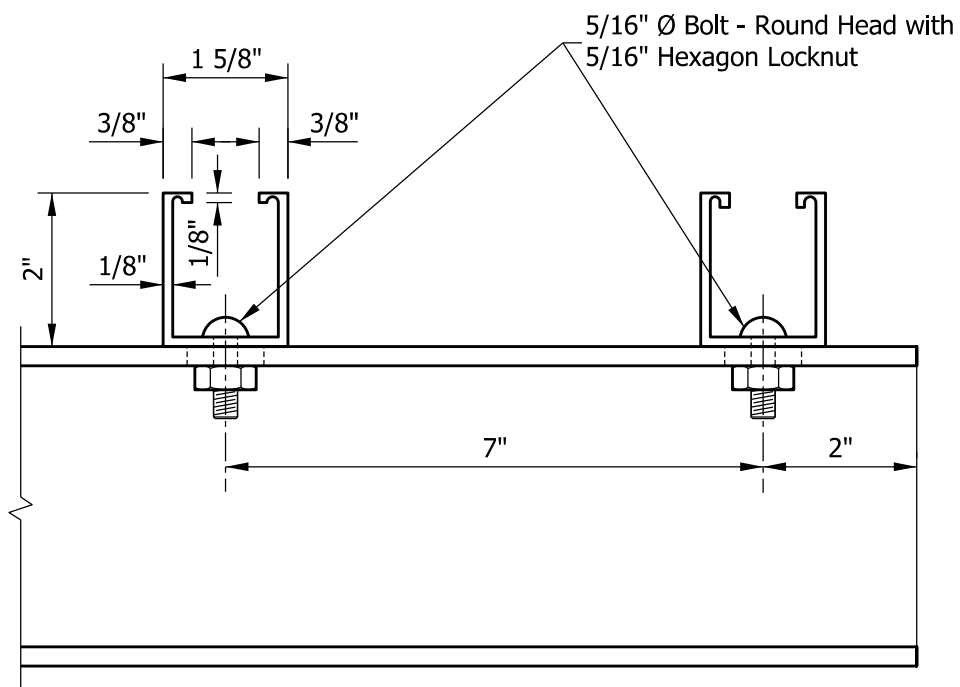
Sheet 24 of 41



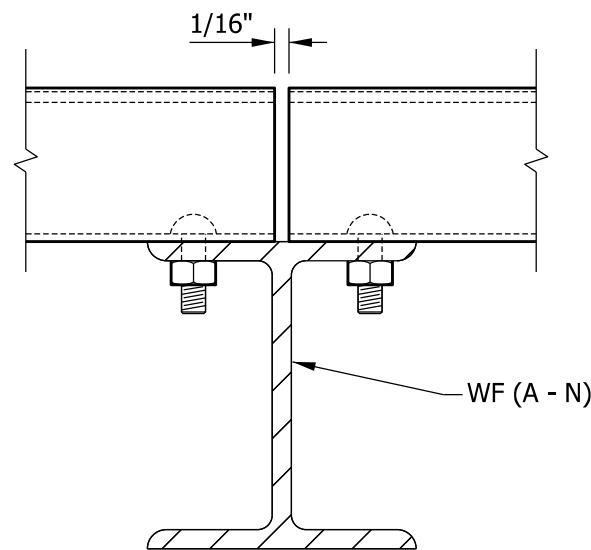
DETAIL L



DETAIL M



SECTION S-S



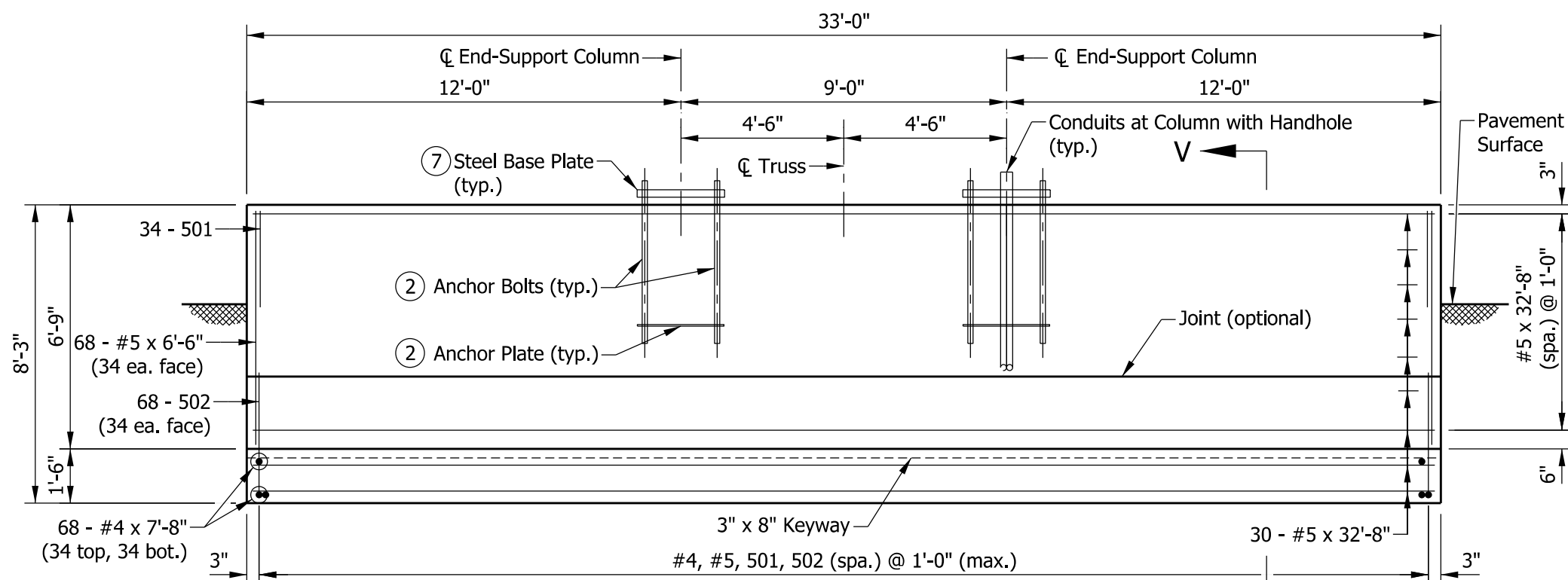
SECTION T-T

INDIANA DEPARTMENT OF TRANSPORTATION

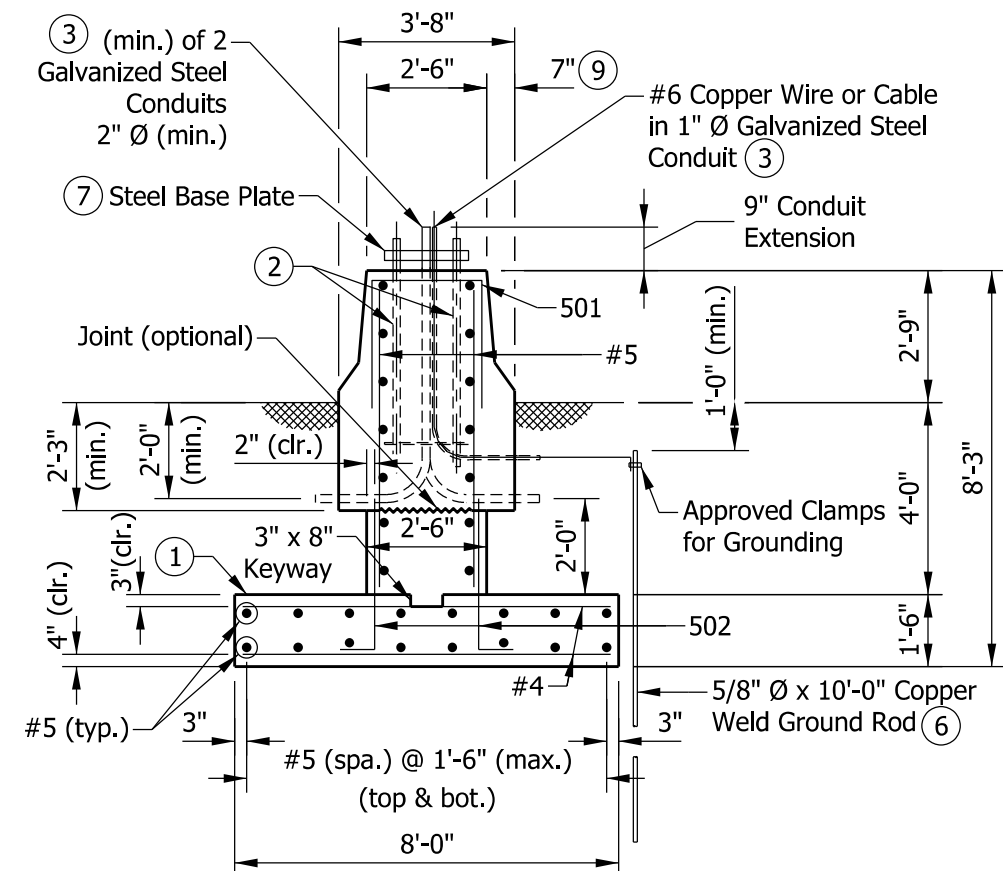
SIGN BOX TRUSS STRUCTURE
LIGHTING WALKWAY
FIXTURE MOUNT DETAILS

EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22

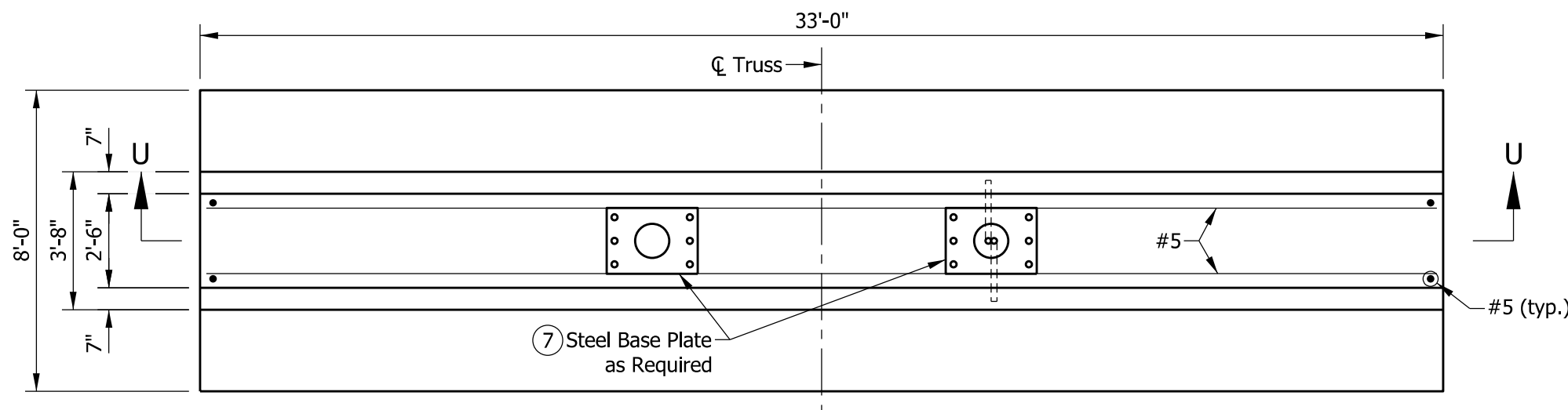
RECURRING PLAN DETAIL NO. 802-T-230d



SECTION U-U



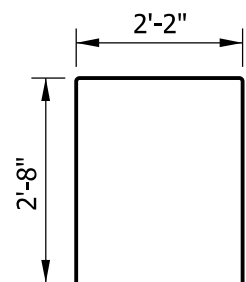
SECTION V-V



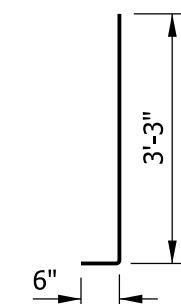
PLAN

NOTES:

- ① Top of the footing shall be a minimum of 4'-0" below the pavement or ground surface.
- ② See Standard Drawing E 802-SBTS-16 for anchor bolt and anchor plate details.
- ③ Both ends of steel conduit shall be capped.
- 4. See Standard Drawing E 802-SBTS-29 for quantities.
- 5. See Standard Drawing E 703-BRST series for reinforcing-bar bending details and notes.
- ⑥ Only one ground rod per structure is required.
- ⑦ See Standard Drawing E 802-SBTS-13 for base plate detail.
- 8. Minimum concrete strength $f'_c = 3500$ psi
- ⑨ See Standard Drawing E 602-CCMB series for barrier wall width transition.



501 x 7'-6"



502 x 3'-9"

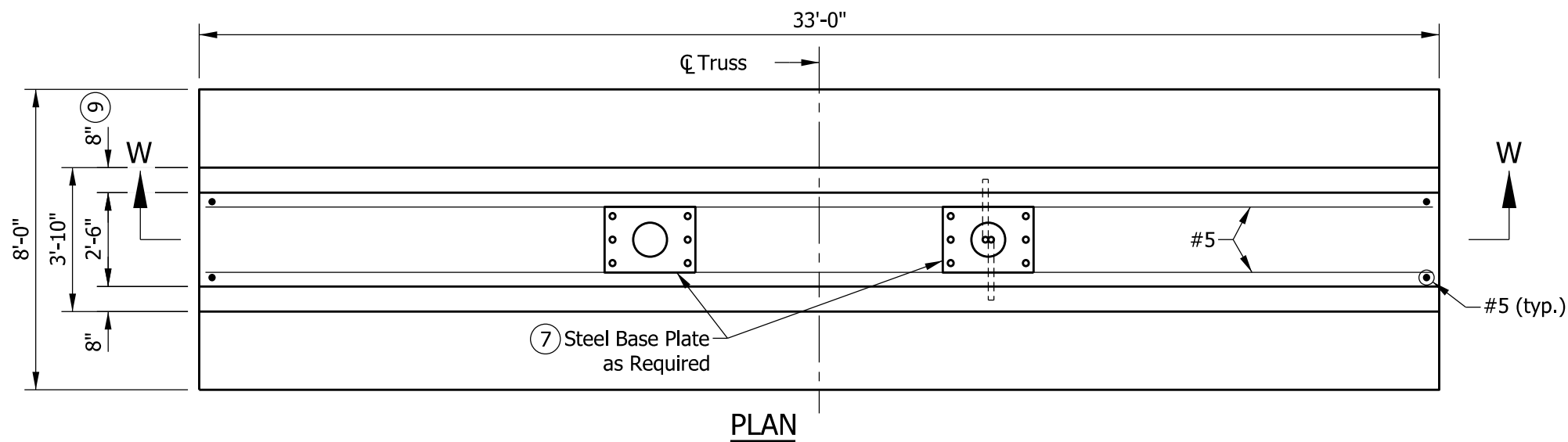
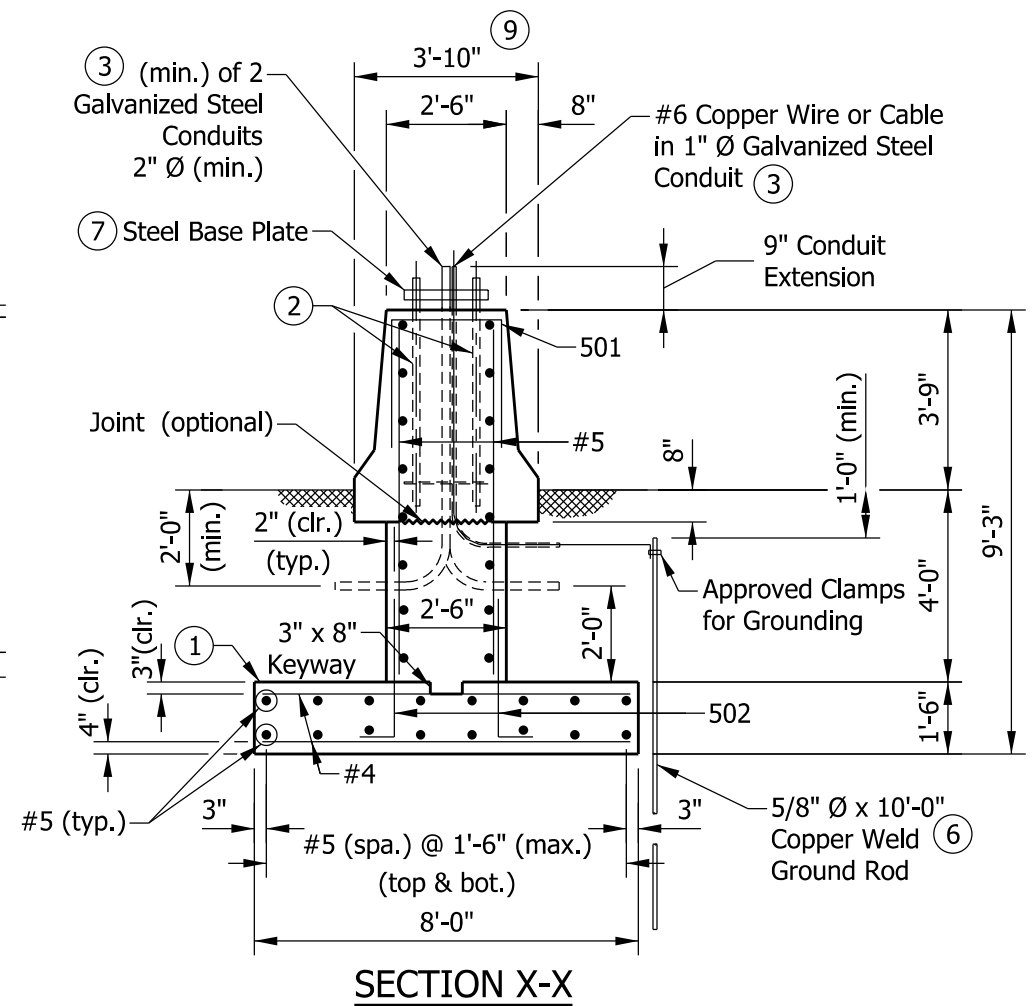
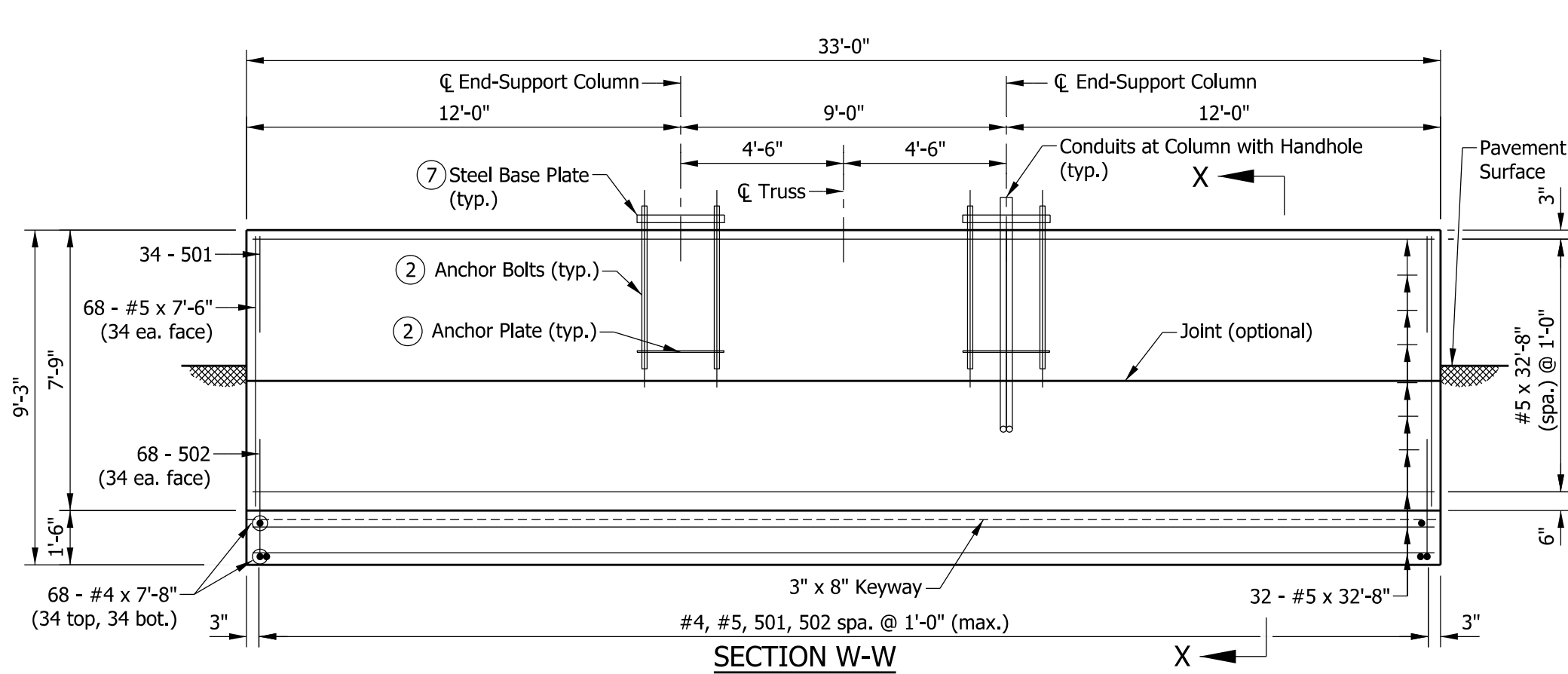
INDIANA DEPARTMENT OF TRANSPORTATION

SIGN BOX TRUSS STRUCTURE A-E
SPREAD FOUNDATION
AT 33" CONCRETE BARRIER WALL

EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22

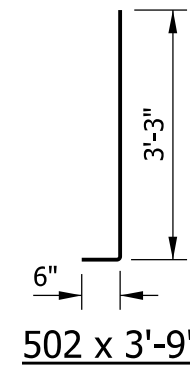
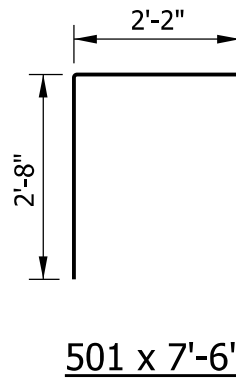
RECURRING PLAN DETAIL NO. 802-T-230d

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NOTES:

- ① Top of the footing shall be a minimum of 4'-0" below the pavement or ground surface.
- ② See Standard Drawing E 802-SBTS-16 for anchor bolt and anchor plate details.
- ③ Both ends of steel conduit shall be capped.
- 4. See Standard Drawing E 802-SBTS-29 for quantities.
- 5. See Standard Drawing E 703-BRST series for reinforcing-bar bending details and notes.
- ⑥ Only one ground rod per structure is required.
- ⑦ See Standard Drawing E 802-SBTS-13 for base plate details.
- 8. Minimum concrete strength $f'_c = 3500$ psi.
- ⑨ See Standard Drawing E 602-CCMB series for barrier wall width transition.



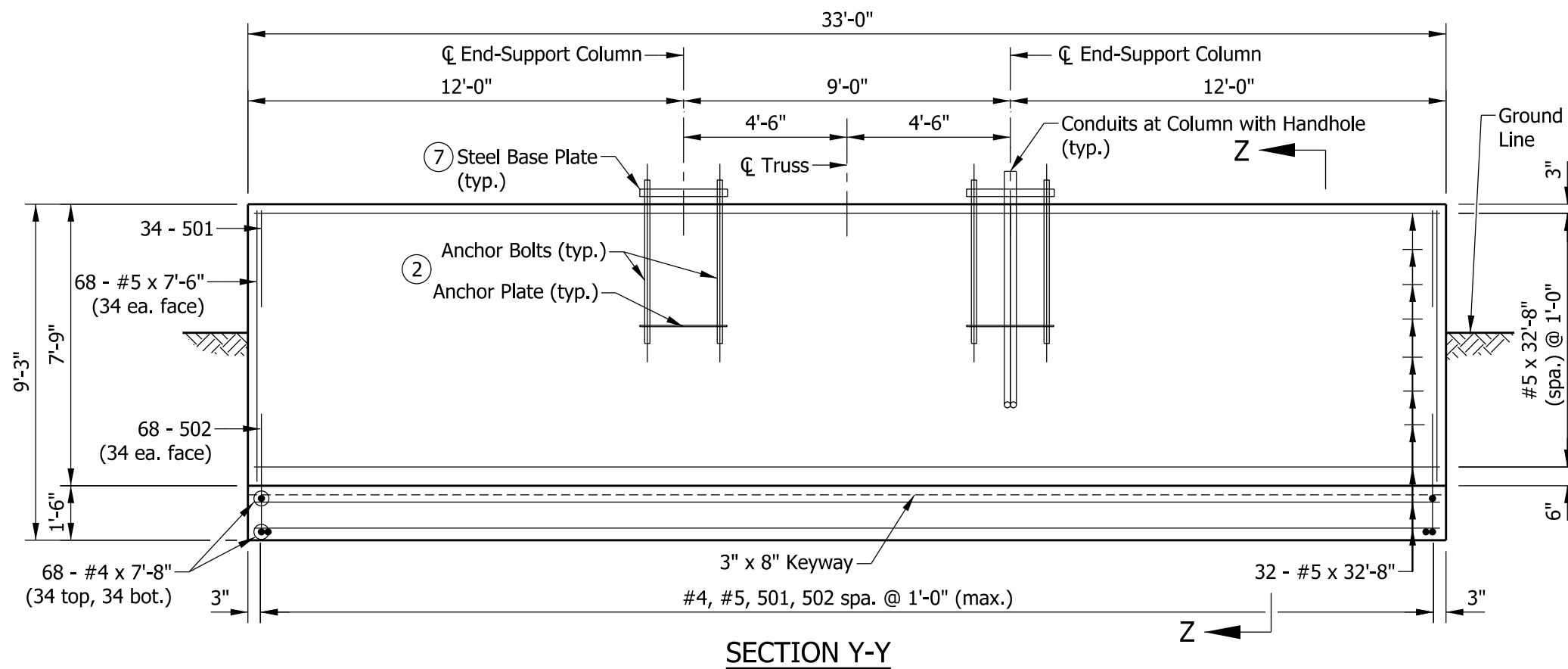
INDIANA DEPARTMENT OF TRANSPORTATION

SIGN BOX TRUSS STRUCTURE A-E
SPREAD FOUNDATION
AT 45" CONCRETE BARRIER WALL

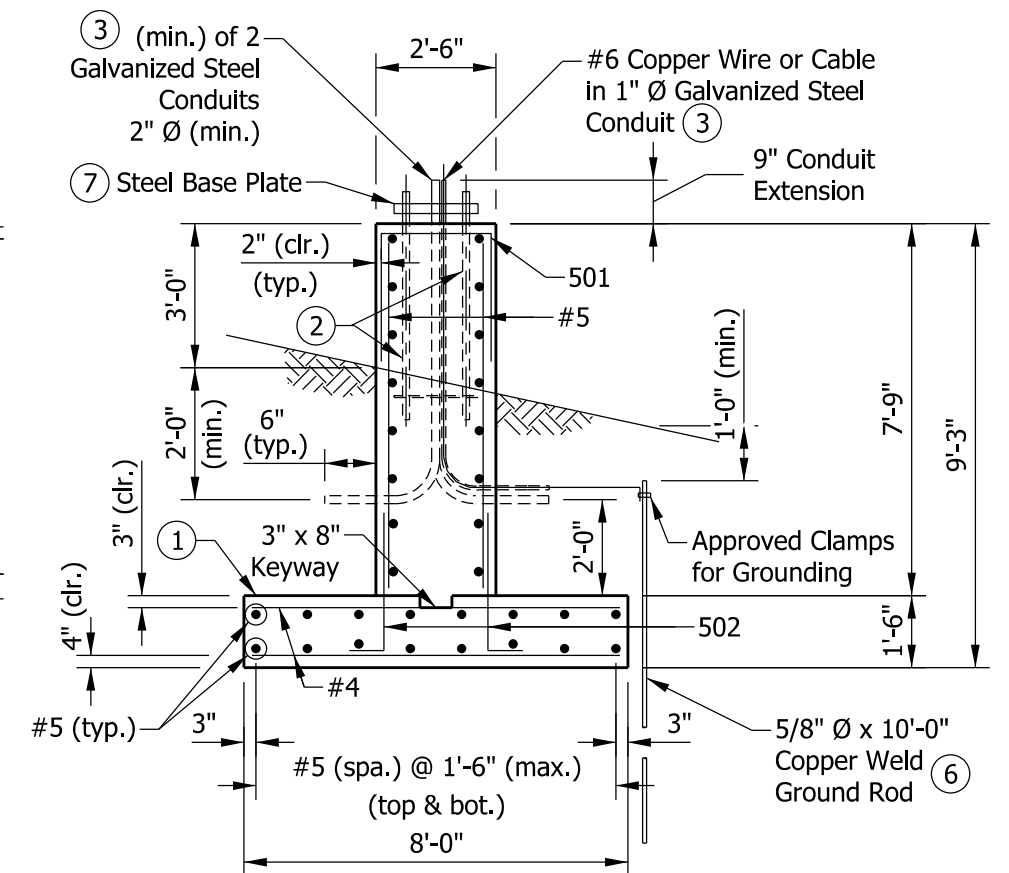
EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22

RECURRING PLAN DETAIL NO. 802-T-230d

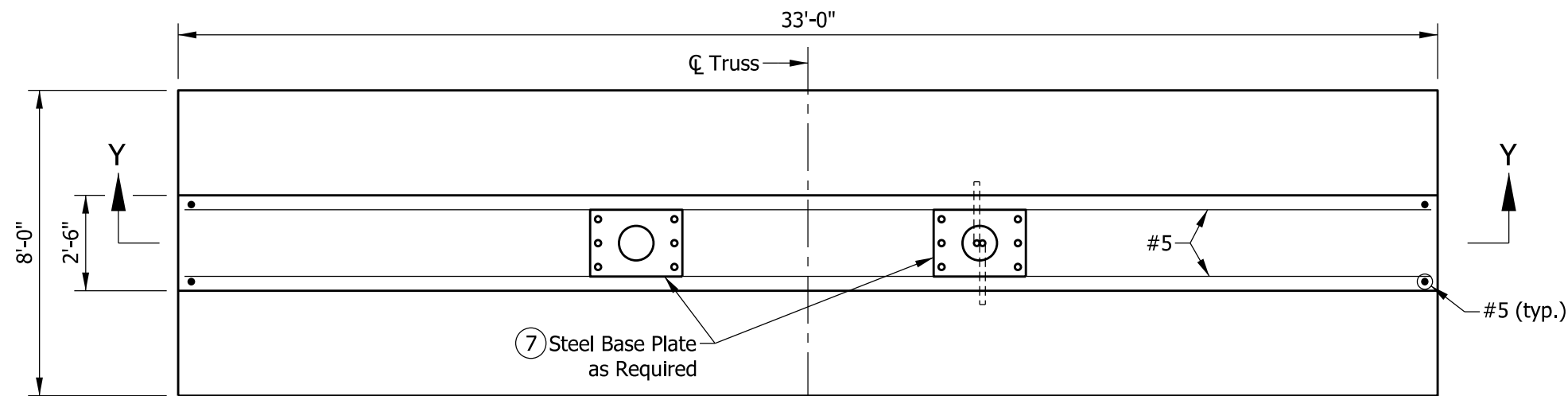
Sheet 27 of 41



SECTION Y-Y



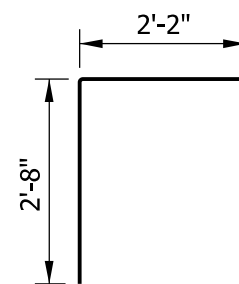
SECTION Z-Z



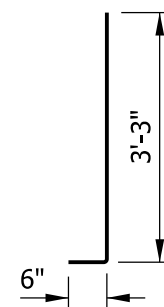
PLAN

NOTES:

- ① Top of the footing shall be a minimum of 4'-0" below the pavement for ground surface.
- ② See Standard Drawing E 802-SBTS-16 for anchor bolt and anchor plate details.
- ③ Both ends of steel conduit shall be capped.
- 4. See Standard Drawing E 802-SBTS-29 for quantities.
- 5. See Standard Drawing E 703-BRST series for reinforcing-bar bending details and notes.
- ⑥ Only one ground rod per structure is required.
- ⑦ See Standard Drawing E 802-SBTS-13 for base plate details.
- 8. Minimum concrete strength $f'_c = 3500$ psi.
- 9. For slopes steeper than 3:1 the Alternate Drilled Shaft Foundation shall be used.



501 x 7'-6"



502 x 3'-9"

INDIANA DEPARTMENT OF TRANSPORTATION

SIGN BOX TRUSS STRUCTURE A-E
SPREAD FOUNDATION
FOR MEDIAN OR SHOULDER, 36" HEIGHT

EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22

RECURRING PLAN DETAIL NO. 802-T-230d

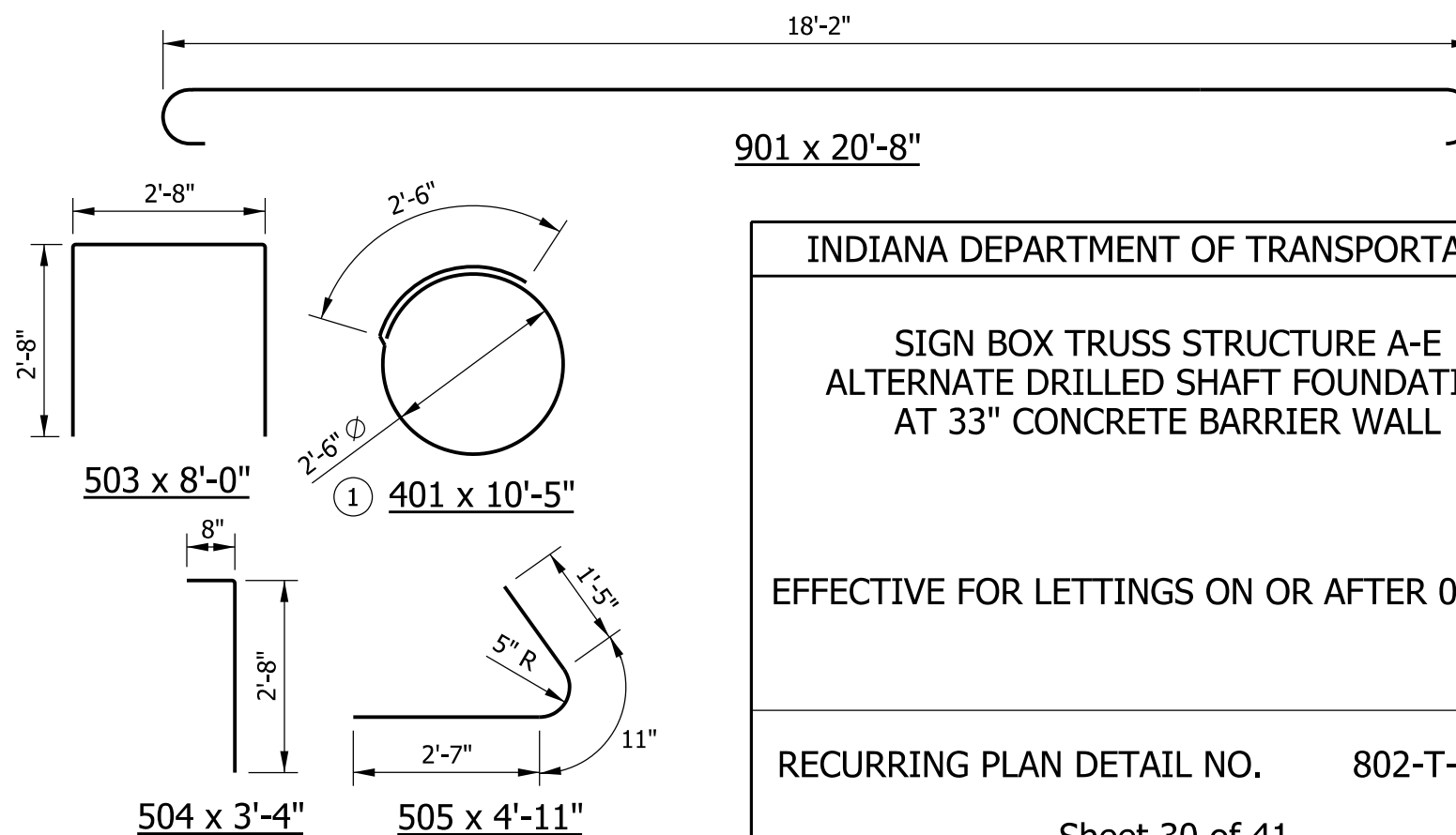
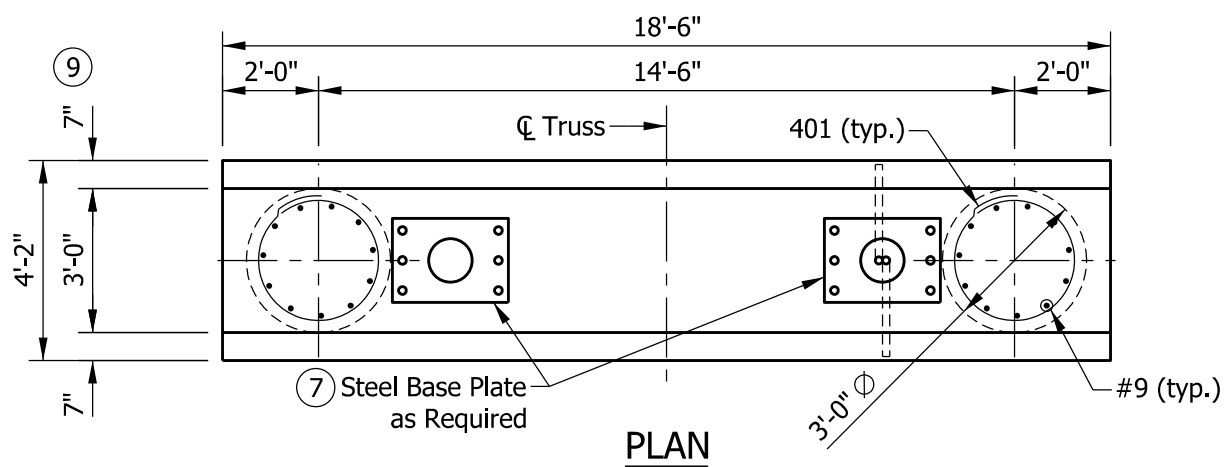
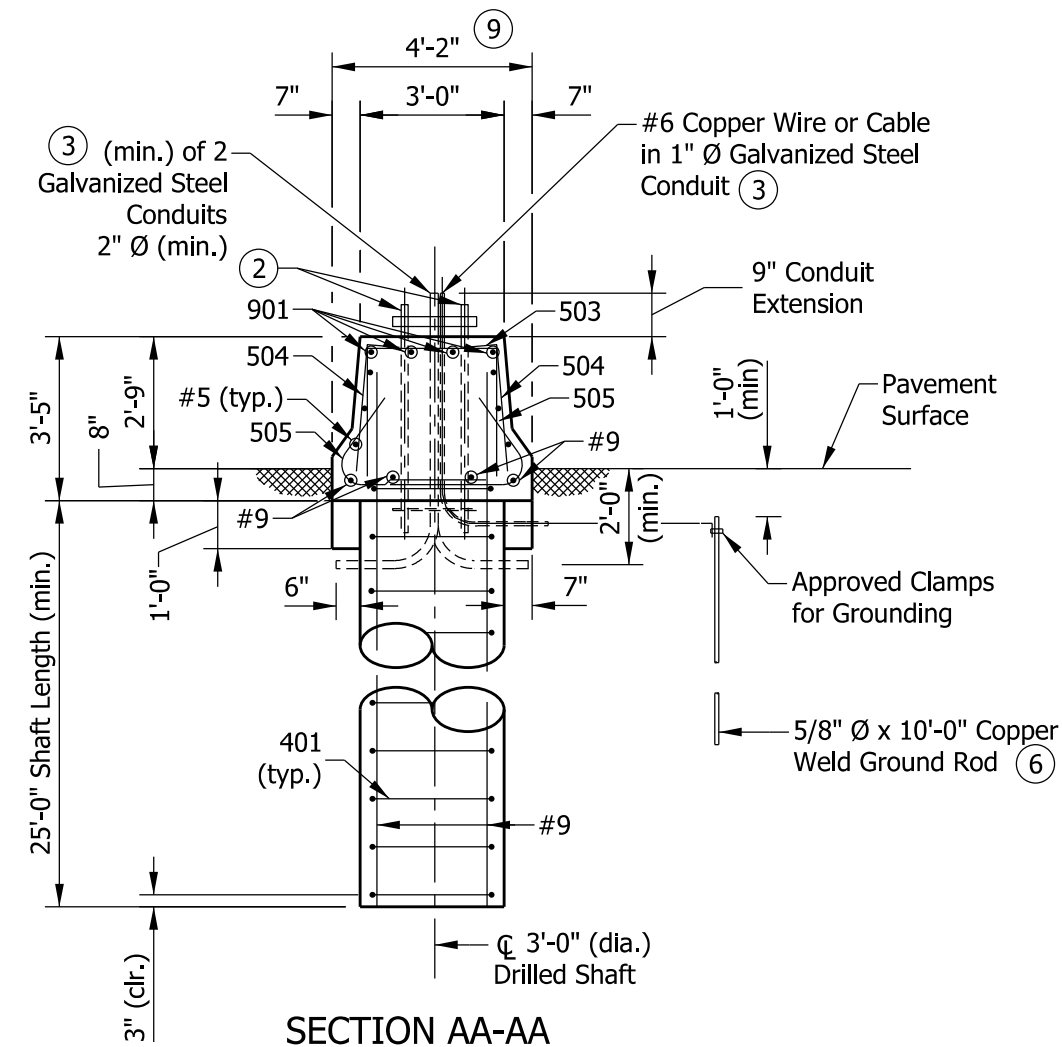
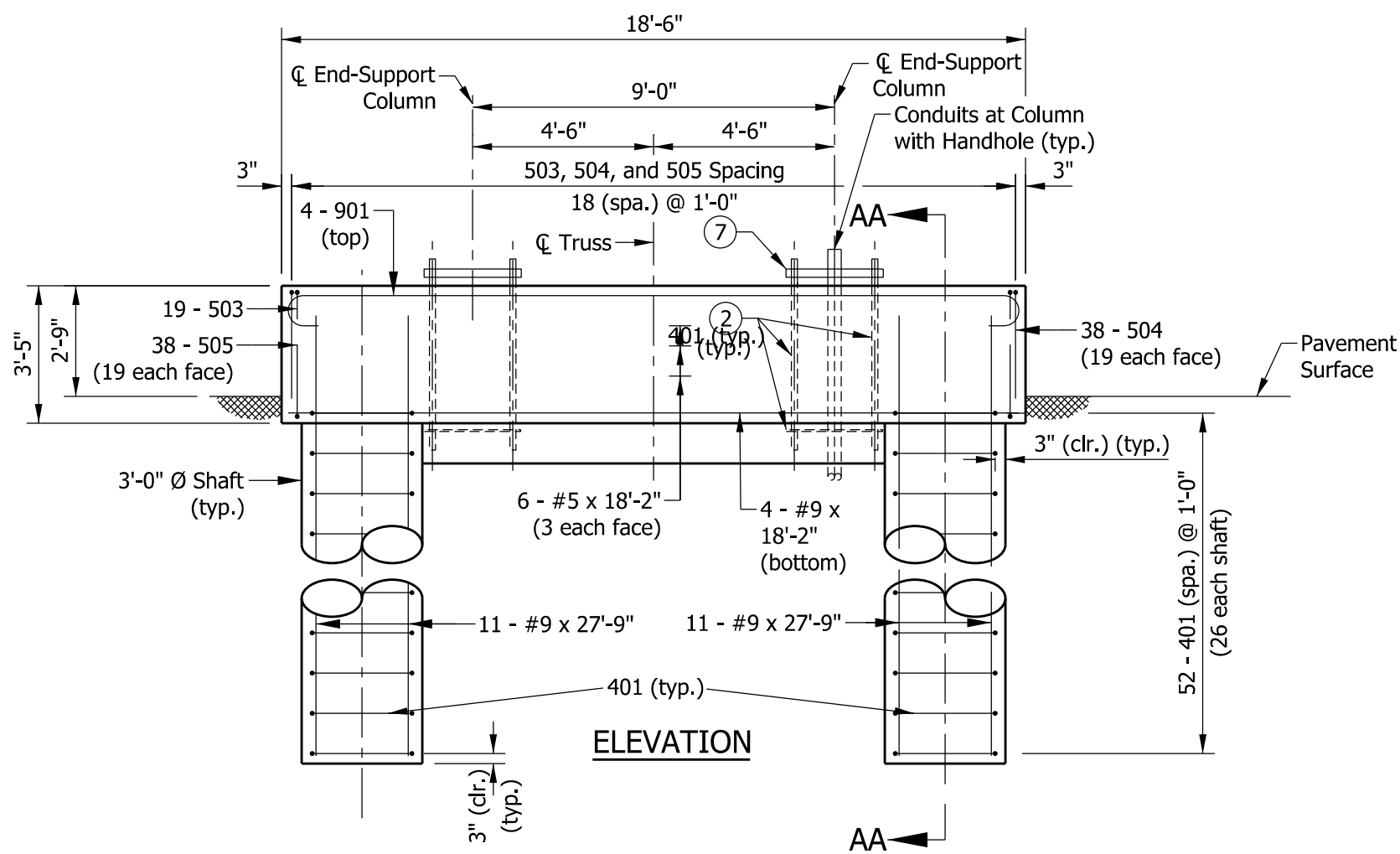
Sheet 28 of 41

SPREAD FOUNDATION AT 33" CONCRETE BARRIER WALL			
EPOXY-COATED REINFORCING BARS			
MARK OR SIZE	NO. OF BARS	LENGTH	WEIGHT
501	34	7'-6"	
502	68	3'-9"	
#5	68	6'-6"	
#5	30	32'-8"	
Total #5			2015 LBS
#4	68	7'-8"	
Total #4			348 LBS
Total Epoxy-Coated Reinforcing Bars			2363 LBS
CONCRETE, CLASS A			
Total Concrete, Class A			39.8 CYS
MISCELLANEOUS			
Surface Seal			30.4 SYS

SPREAD FOUNDATION AT 45" CONCRETE BARRIER WALL			
EPOXY-COATED REINFORCING BARS			
MARK OR SIZE	NO. OF BARS	LENGTH	WEIGHT
501	34	7'-6"	
502	68	3'-9"	
#5	68	7'-6"	
#5	32	32'-8"	
Total #5			2154 LBS
#4	68	7'-8"	
Total #4			348 LBS
Total Epoxy-Coated Reinforcing Bars			2502 LBS
CONCRETE, CLASS A			
Total Concrete, Class A			41.4 CYS
MISCELLANEOUS			
Surface Seal			37.8 SYS

SPREAD FOUNDATION FOR MEDIAN OR SHOULDER, 36" HEIGHT			
EPOXY-COATED REINFORCING BARS			
MARK OR SIZE	NO. OF BARS	LENGTH	WEIGHT
501	34	7'-6"	
502	68	3'-9"	
#5	68	7'-6"	
#5	32	32'-8"	
Total #5			2154 LBS
#4	68	7'-8"	
Total #4			348 LBS
Total Epoxy-Coated Reinforcing Bars			2502 LBS
CONCRETE, CLASS A			
Total Concrete, Class A			38.4 CYS
MISCELLANEOUS			
Surface Seal			35.8 SYS

INDIANA DEPARTMENT OF TRANSPORTATION	
SIGN BOX TRUSS STRUCTURE A-E SPREAD FOUNDATIONS QUANTITIES	
EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22	
RECURRING PLAN DETAIL NO.	802-T-230d
Sheet 29 of 41	



NOTES:

- ① Each tie shall be rotated 90 degrees from the previous tie to stagger lap locations.
- ② See Standard Drawing E 802-SBTS-16 for anchor bolt and anchor plate details.
- ③ Both ends of steel conduit shall be capped.
- 4. See Standard Drawing E 802-SBTS-33 for quantities.
- 5. See Standard Drawing E 703-BRST series for reinforcing-bar bending details and notes.
- ⑥ Only one ground rod per structure is required.
- ⑦ See Standard Drawing E 802-SBTS-13 for base plate details.
- 8. Minimum concrete strength $f'c = 3500$ psi.
- ⑨ See Standard Drawing E 602-CCMB series for barrier wall width transition.

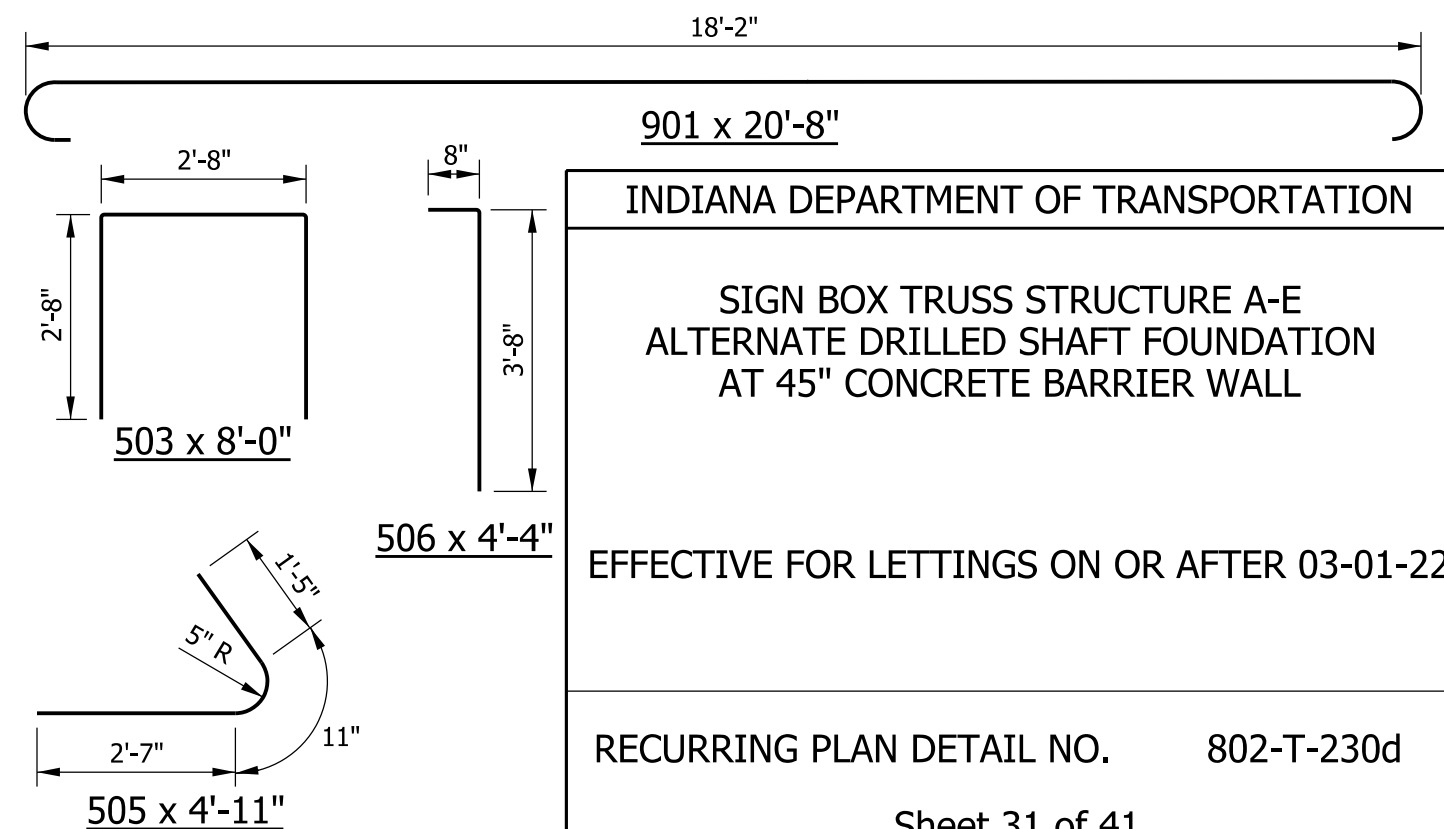
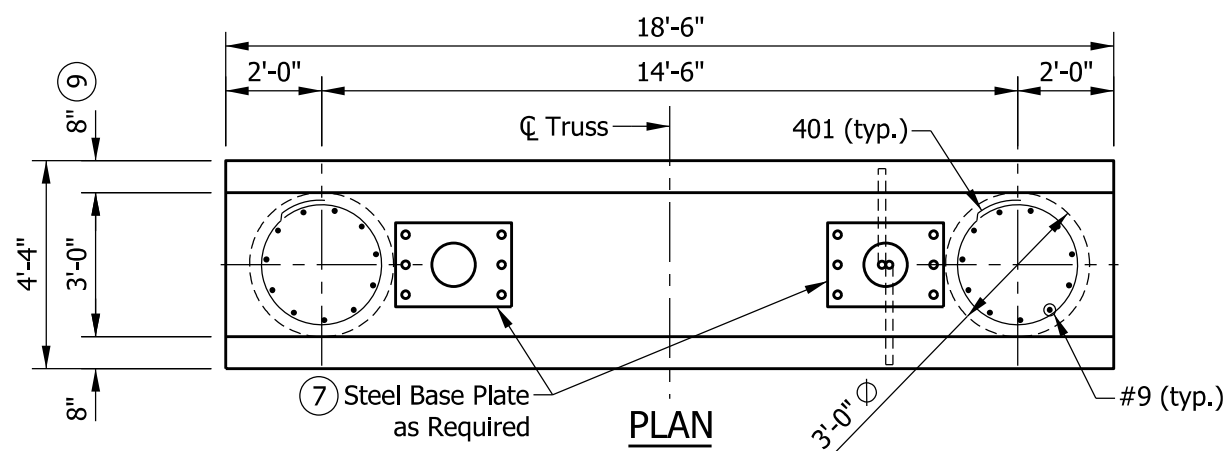
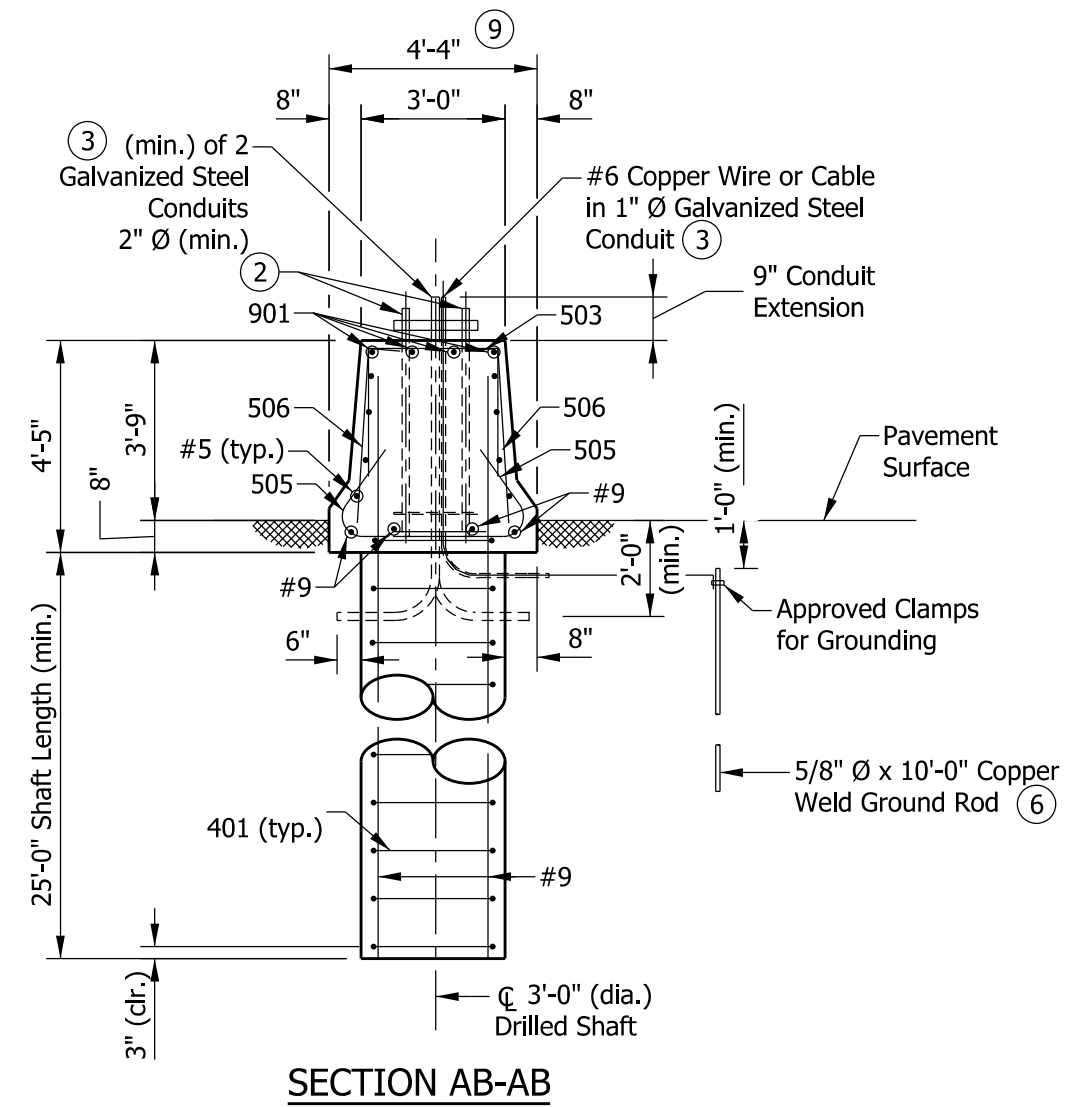
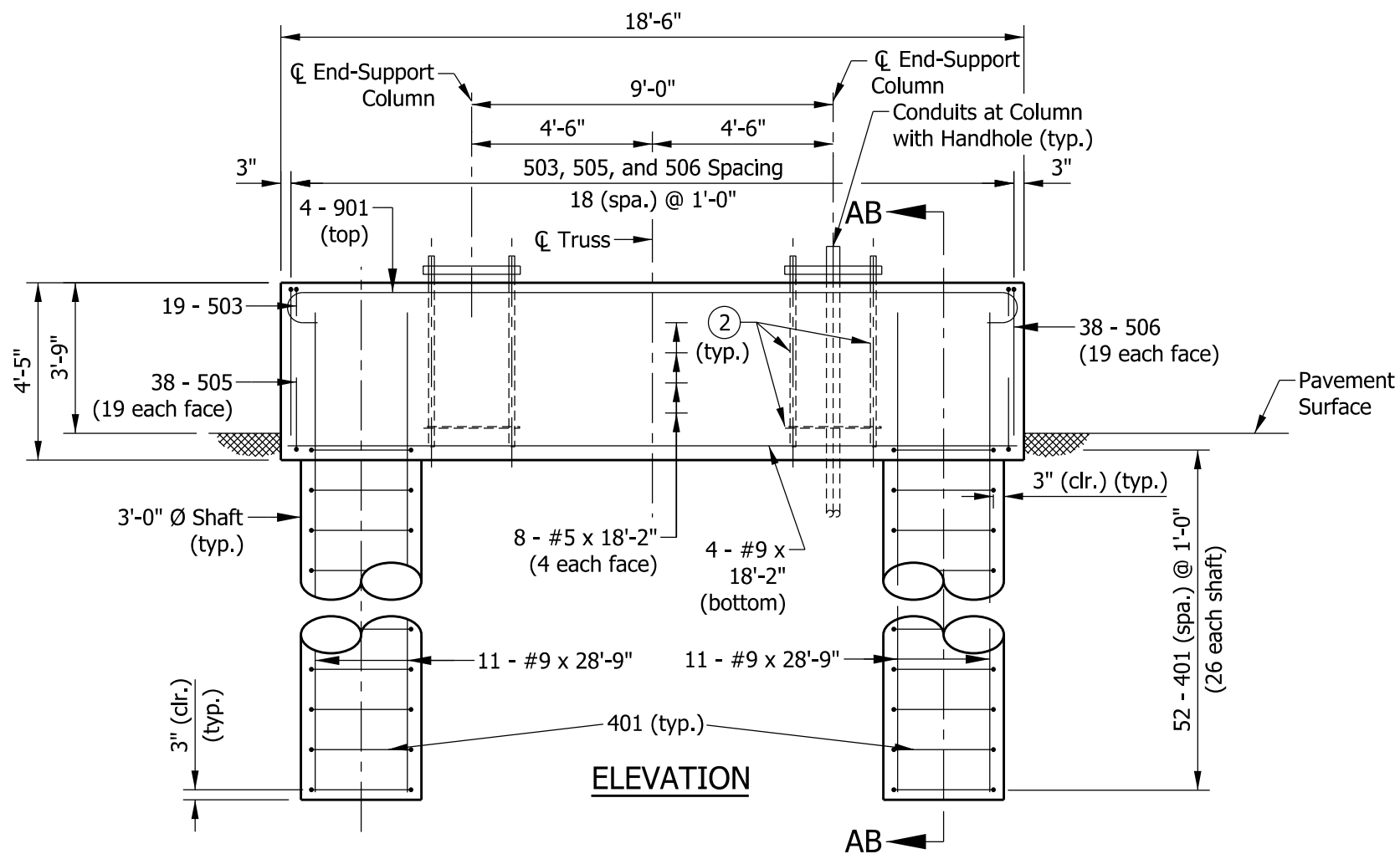
INDIANA DEPARTMENT OF TRANSPORTATION

**SIGN BOX TRUSS STRUCTURE A-E
ALTERNATE DRILLED SHAFT FOUNDATION
AT 33" CONCRETE BARRIER WALL**

EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22

RECURRING PLAN DETAIL NO. 802-T-230d

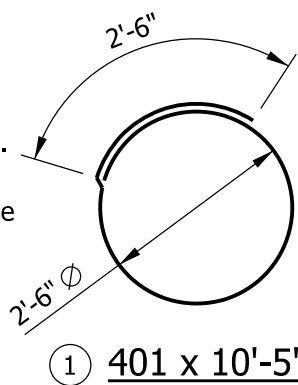
Sheet 30 of 41



NOTES:

- ① Each tie shall be rotated 90 degrees from the previous tie to stagger lap locations.
- ② See Standard Drawing E 802-SBTS-16 for anchor bolt and anchor plate details.
- ③ Both ends of steel conduit shall be capped.
4. See Standard Drawing E 802-SBTS-33 for quantities.
5. See Standard Drawing E 703-BRST series for reinforcing-bar bending details and notes.

- ⑥ Only one ground rod per structure is required.
- ⑦ See Standard Drawing E 802-SBTS-13 for base plate details.
- 8 Minimum concrete strength $f'_c = 3500$ psi.
- ⑨ See Standard Drawing E 602-CCMB series for barrier wall width transition.



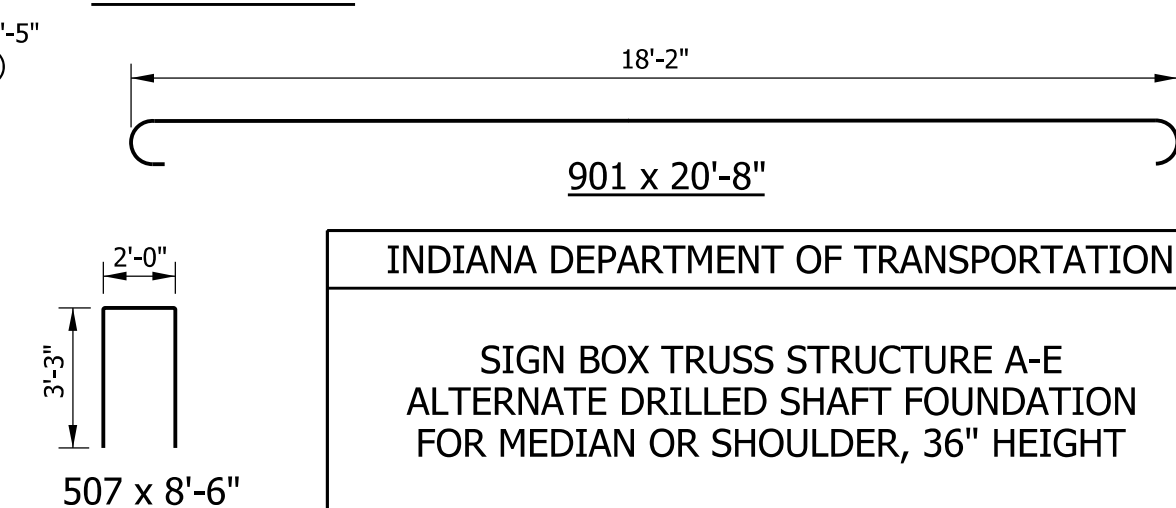
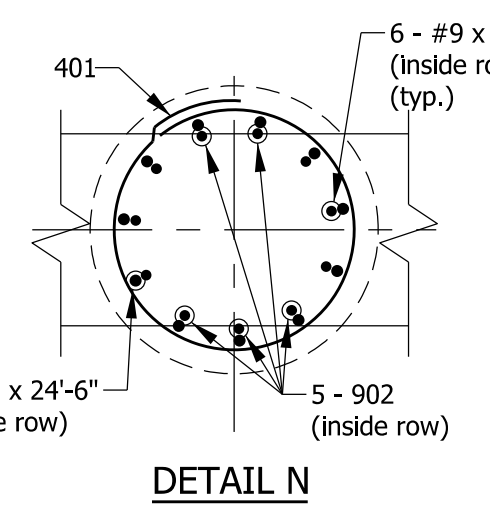
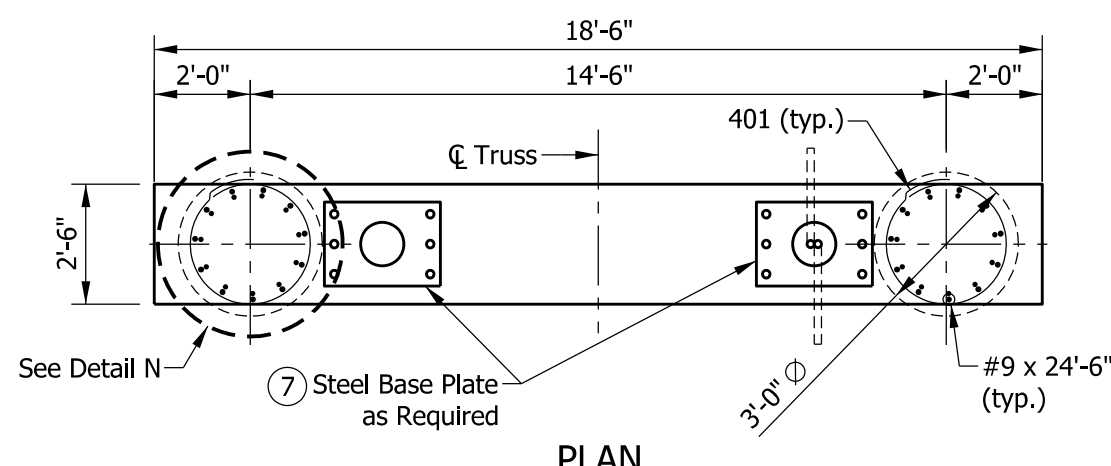
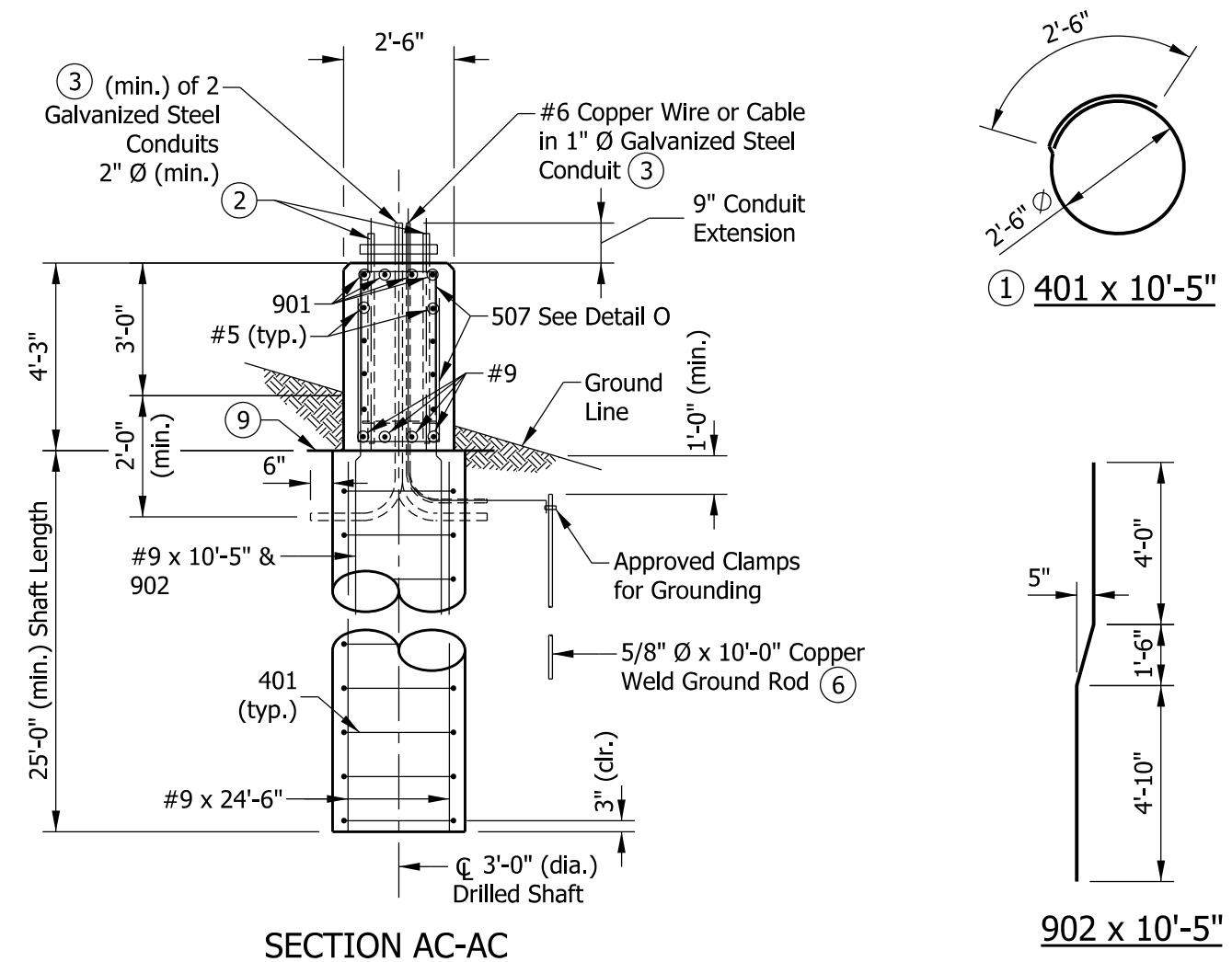
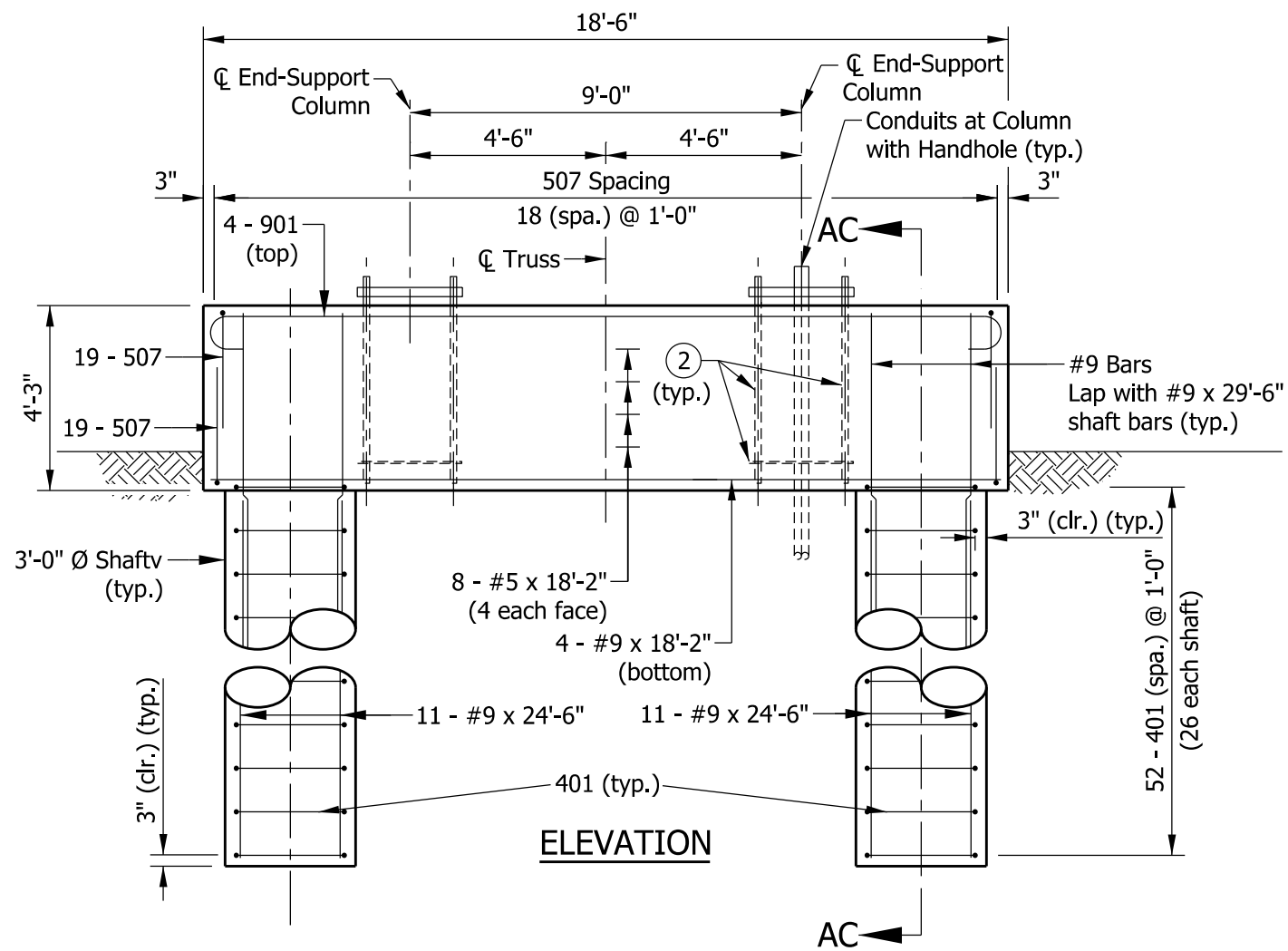
INDIANA DEPARTMENT OF TRANSPORTATION

**SIGN BOX TRUSS STRUCTURE A-E
ALTERNATE DRILLED SHAFT FOUNDATION
AT 45" CONCRETE BARRIER WALL**

EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22

RECURRING PLAN DETAIL NO. 802-T-230d

Sheet 31 of 41



NOTES:

- ① Each tie shall be rotated 90 degrees from previous tie to stagger lap locations.
- ② See Standard Drawing E 802-SBTS-16 for anchor bolt and anchor plate details.
- ③ Both ends of steel conduit shall be capped.
- 4. See Standard Drawing E 802-SBTS-33 for quantities.
- 5. See Standard Drawing E 703-BRST series for reinforcing-bar bending details and notes.
- ⑥ Only one ground rod per structure is required.
- ⑦ See Standard Drawing E 802-SBTS-13 for base plate details.
- 8. Minimum concrete strength $f'c = 3500$ psi.
- ⑨ Top of foundation shall be level.
- 10. For slopes steeper than 3:1 the Alternate Drilled Shaft Foundation shall be used.

INDIANA DEPARTMENT OF TRANSPORTATION

**SIGN BOX TRUSS STRUCTURE A-E
 ALTERNATE DRILLED SHAFT FOUNDATION
 FOR MEDIAN OR SHOULDER, 36" HEIGHT**

EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22

RECURRING PLAN DETAIL NO. 802-T-230d

Sheet 32 of 41

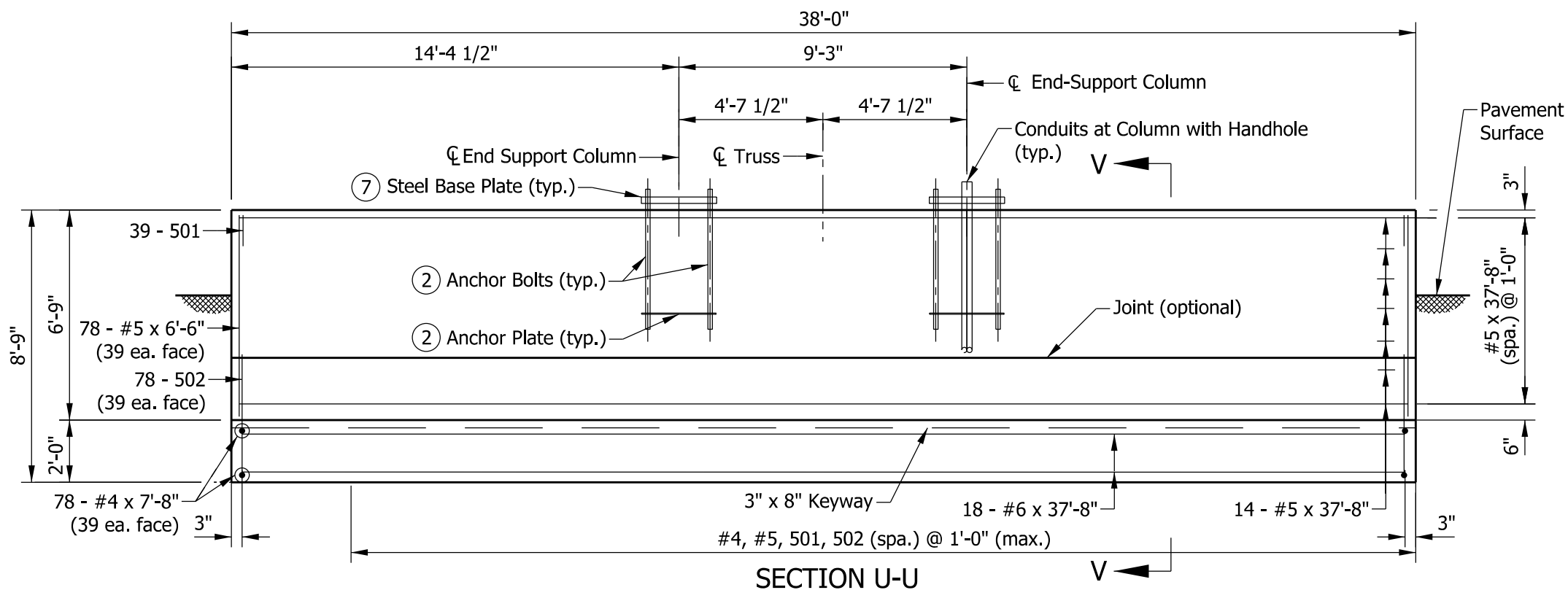
ALTERNATE DRILLED SHAFT FOUNDATION AT 33" CONCRETE BARRIER WALL			
EPOXY-COATED REINFORCING BARS			
MARK OR SIZE	NO. OF BARS	LENGTH	WEIGHT
901	4	20'-8"	
#9	4	18'-2"	
#9	22	27'-9"	
Total #9			2604 LBS
503	19	8'-0"	
504	38	3'-4"	
505	38	4'-11"	
#5	6	18'-2"	
Total #5			599 LBS
401	52	10'-5"	
Total #4			362 LBS
Total Epoxy-Coated Reinforcing Bars			3565
CONCRETE, CLASS A			
Total Concrete, Class A			23.1 CYS
MISCELLANEOUS			
Surface Seal			18.1 SYS

ALTERNATE DRILLED SHAFT FOUNDATION AT 45" CONCRETE BARRIER WALL			
EPOXY-COATED REINFORCING BARS			
MARK OR SIZE	NO. OF BARS	LENGTH	WEIGHT
901	4	20'-8"	
#9	4	18'-2"	
#9	22	28'-9"	
Total #9			2679 LBS
503	19	8'-0"	
505	38	4'-11"	
506	38	4'-4"	
#5	8	18'-2"	
Total #5			677 LBS
401	52	10'-5"	
Total #4			362 LBS
Total Epoxy-Coated Reinforcing Bars			3718 LBS
CONCRETE, CLASS A			
Total Concrete, Class A			23.9 CYS
MISCELLANEOUS			
Surface Seal			22.2 SYS

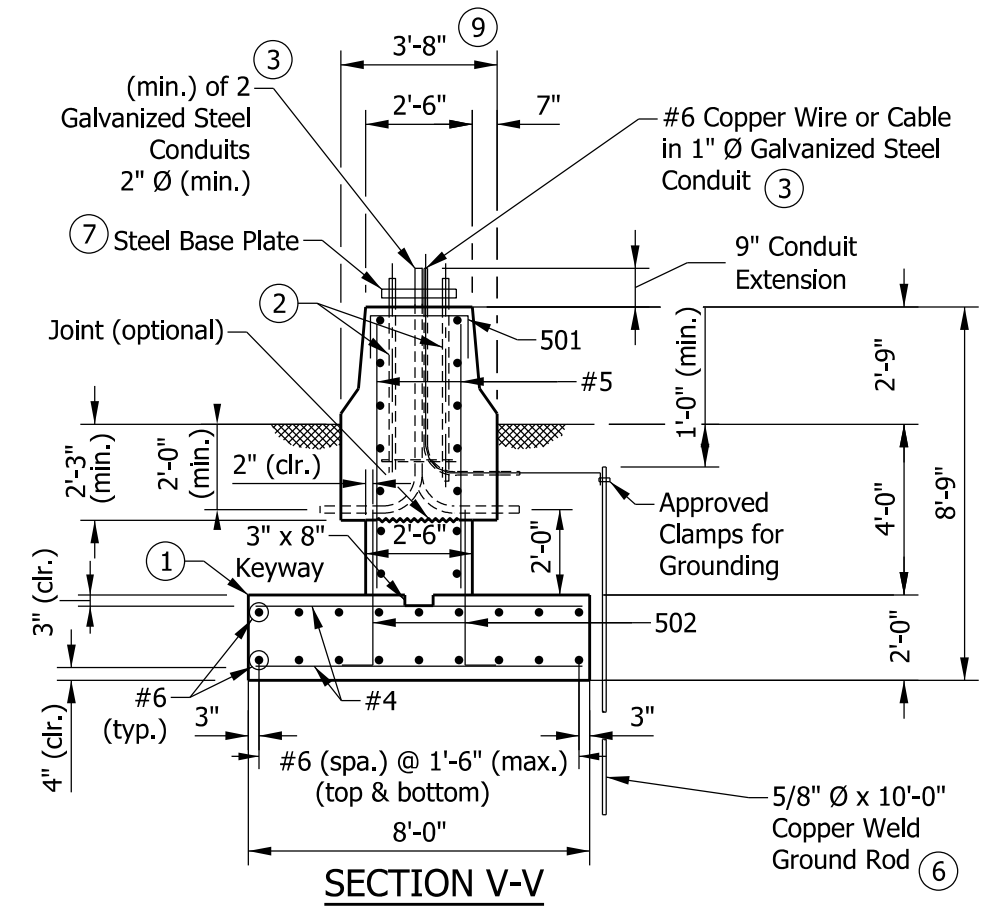
ALTERNATE DRILLED SHAFT FOUNDATION FOR MEDIAN OR SHOULDER, 36" HEIGHT			
EPOXY-COATED REINFORCING BARS			
MARK OR SIZE	NO. OF BARS	LENGTH	WEIGHT
901	4	20'-8"	
902	10	10'-5"	
#9	4	18'-2"	
#9	12	10'-5"	
#9	22	24'-6"	
Total #9			3140 LBS
507	38	8'-6"	
#5	8	18'-2"	
Total #5			488 LBS
401	52	10'-5"	
Total #4			362 LBS
Total Epoxy-Coated Reinforcing Bars			3990 LBS
CONCRETE, CLASS A			
Total Concrete, Class A			18.9 CYS
MISCELLANEOUS			
Surface Seal			21.6 SYS

Quantities are only for the depth of footing for slope 3:1 or less.

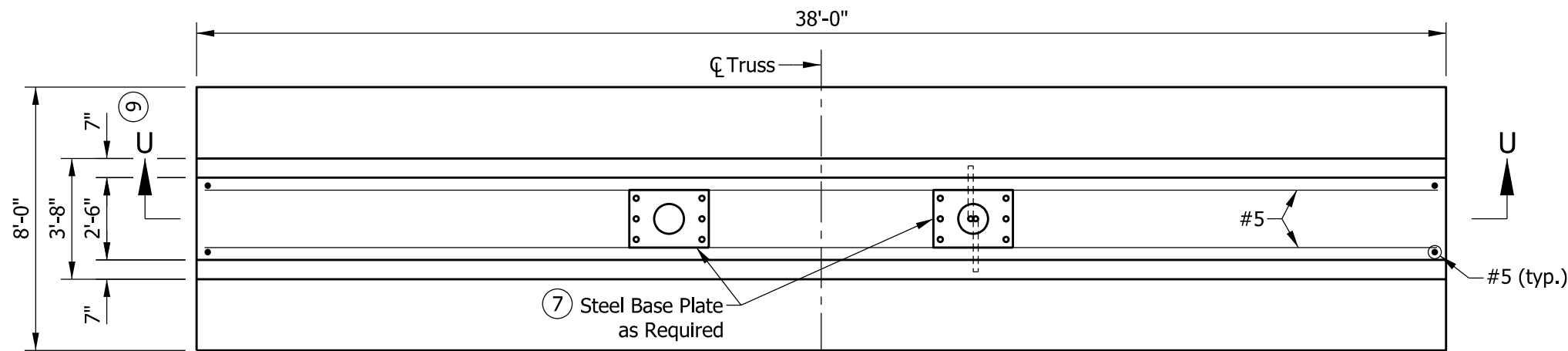
INDIANA DEPARTMENT OF TRANSPORTATION	
SIGN BOX TRUSS STRUCTURE TYPE A-E ALTERNATE DRILLED SHAFT FOUNDATIONS QUANTITIES	
EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22	
RECURRING PLAN DETAIL NO.	802-T-230d
Sheet 33 of 41	



SECTION U-U



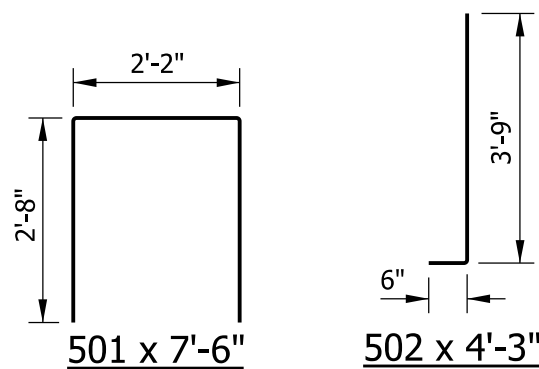
SECTION V-V



PLAN

NOTES:

- ① Top of the footing shall be a minimum of 4'-0" below the pavement of ground surface.
- ② See Standard Drawing E 802-SBTS-16 for anchor bolt and anchor plate details.
- ③ Both ends of steel conduit shall be capped.
- 4. See Standard Drawing E 802-SBTS-37 for quantities.
- ⑤ See Standard Drawing Series E 703-BRST series for reinforcing-bar bending details and notes.
- ⑥ Only one ground rod per structure is required.
- ⑦ See Standard Drawing E 802-SBTS-13 for base plate details.
- 8. Minimum concrete strength $f_c=3500$ psi.
- ⑨ See Standard Drawing E 602-CCMB series for barrier wall width transition.

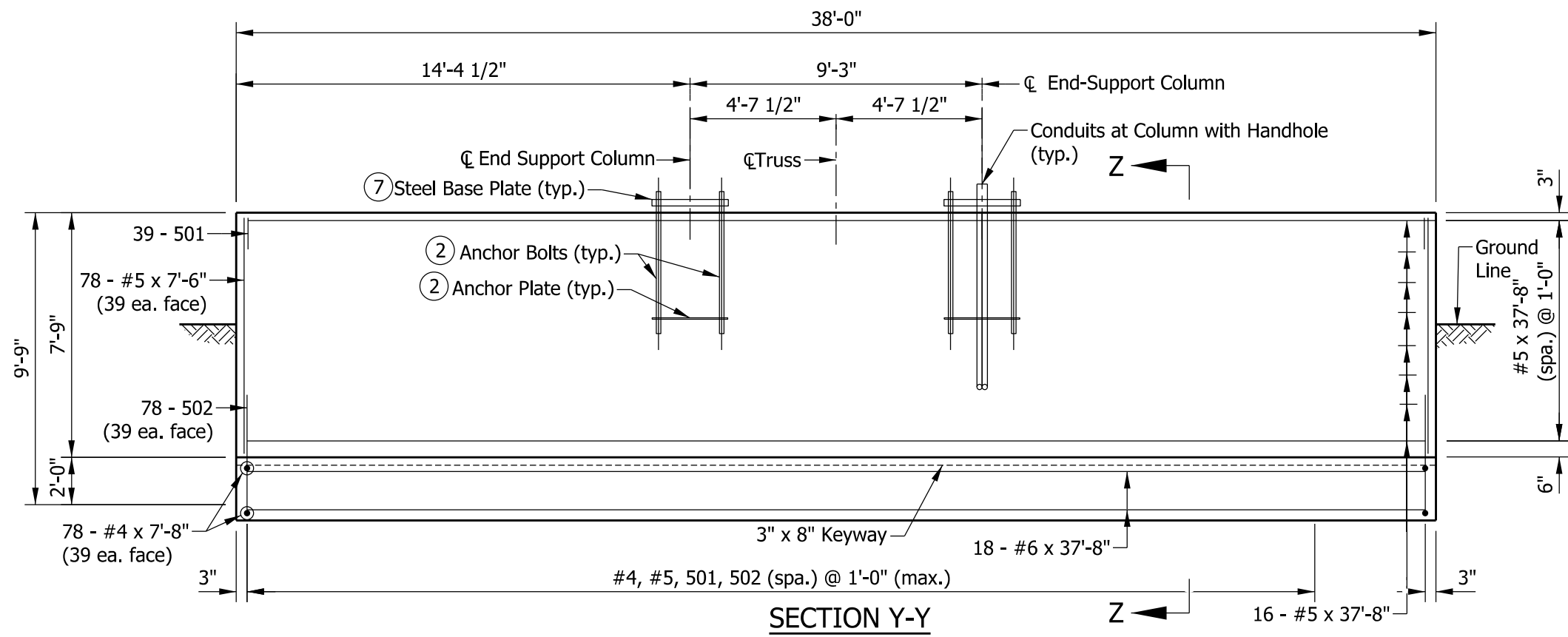


INDIANA DEPARTMENT OF TRANSPORTATION

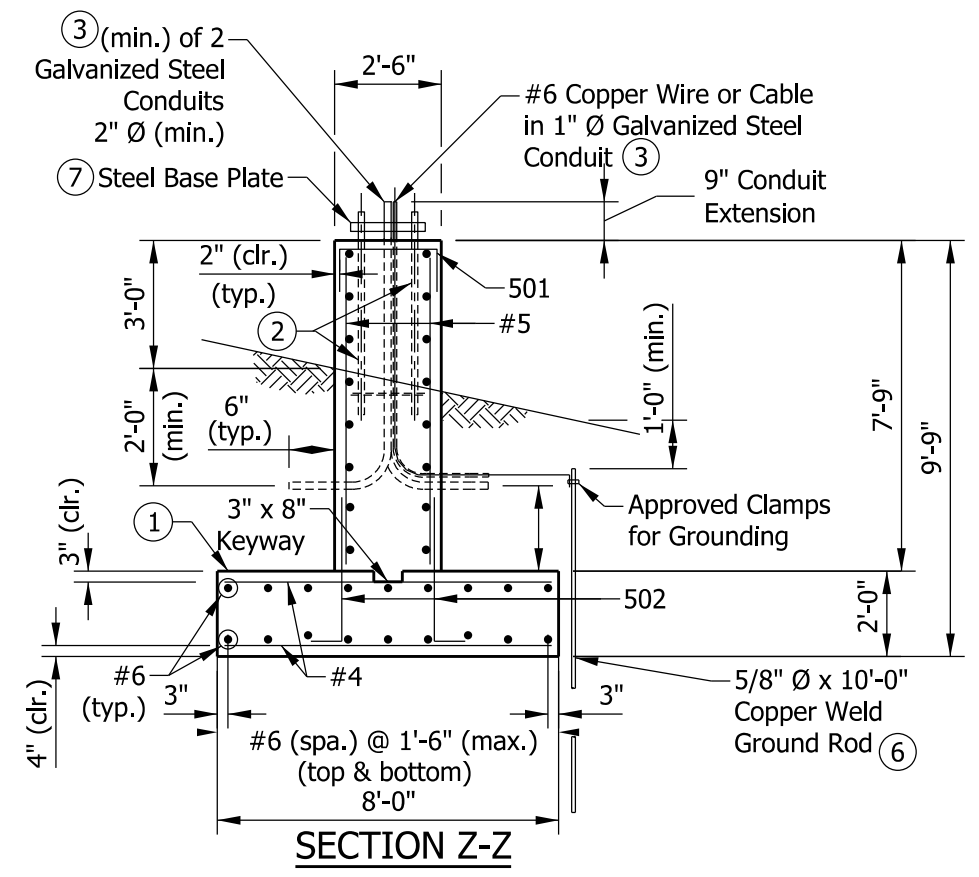
SIGN BOX TRUSS STRUCTURE TYPE F, G, H
SPREAD FOUNDATION
AT 33" CONCRETE BARRIER WALL

EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22

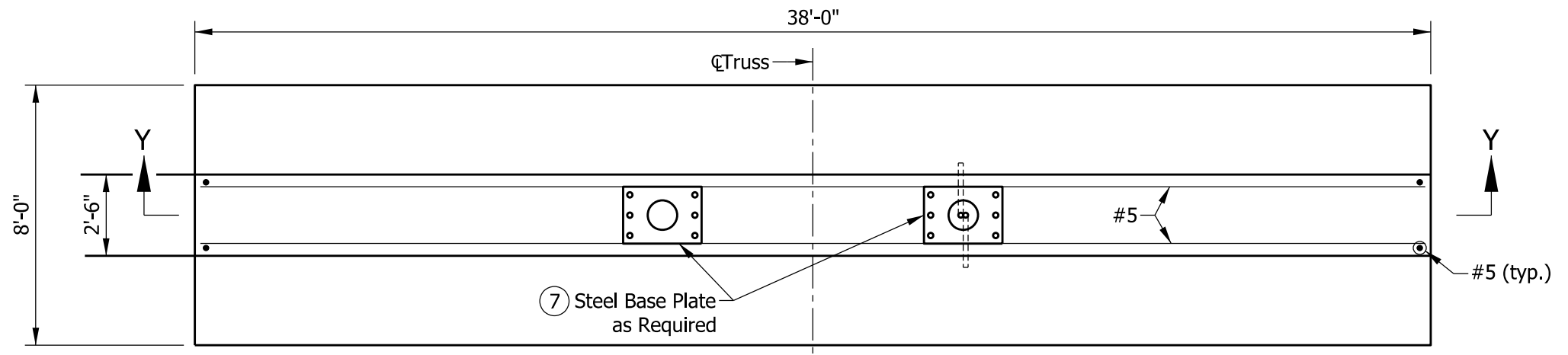
RECURRING PLAN DETAIL NO. 802-T-230d



SECTION Y-Y



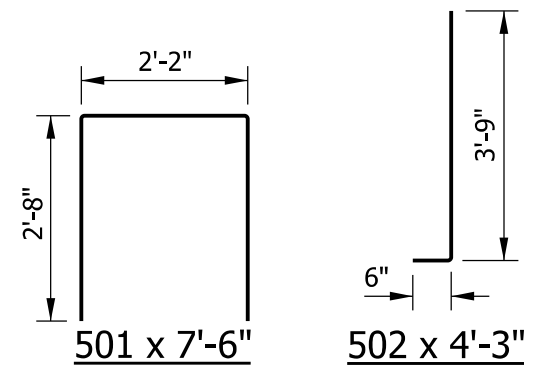
SECTION Z-Z



PLAN

NOTES:

- ① Top of the footing shall be a minimum of 4'-0" below the pavement or ground surface.
- ② See Standard Drawing E 802-SBTS-16 for anchor bolt and anchor plate details.
- ③ Both ends of steel conduit shall be capped.
- 4. See Standard Drawing E 802-SBTS-37 for quantities.
- 5. See Standard Drawing E 703-BRST series for reinforcing-bar bending details and notes.
- ⑥ Only one ground rod per structure is required.
- ⑦ See Standard Drawing E 802-SBTS-13 for base plate details.
- ⑧ Minimum concrete strength $f'_c = 3500$ psi.
- 9. For slopes steeper than 3:1 the Alternate Drilled Shaft Foundation shall be used.



INDIANA DEPARTMENT OF TRANSPORTATION

**SIGN BOX TRUSS STRUCTURE TYPE F, G, H
SPREAD FOUNDATION
FOR MEDIAN OR SHOULDER, 36" HEIGHT**

EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22

RECURRING PLAN DETAIL NO. 802-T-230d

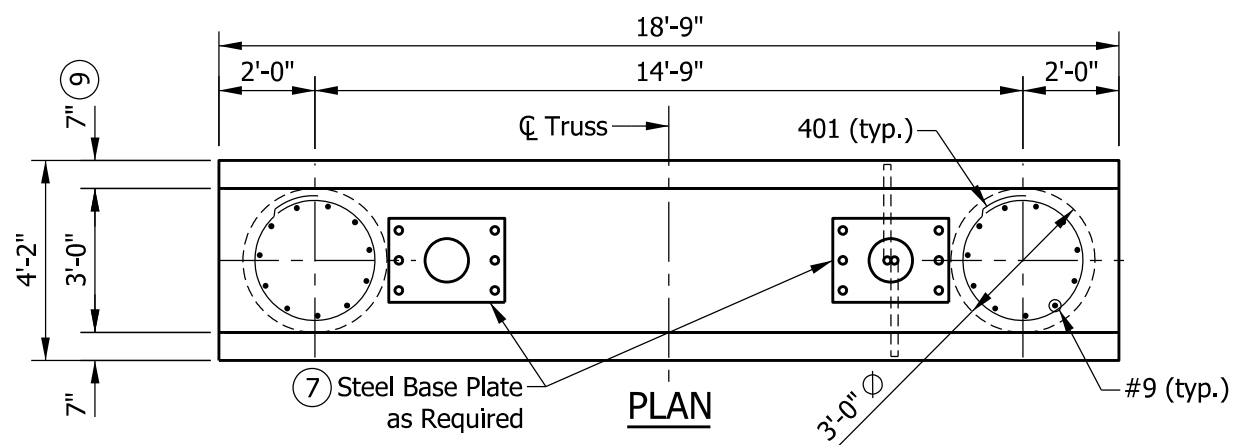
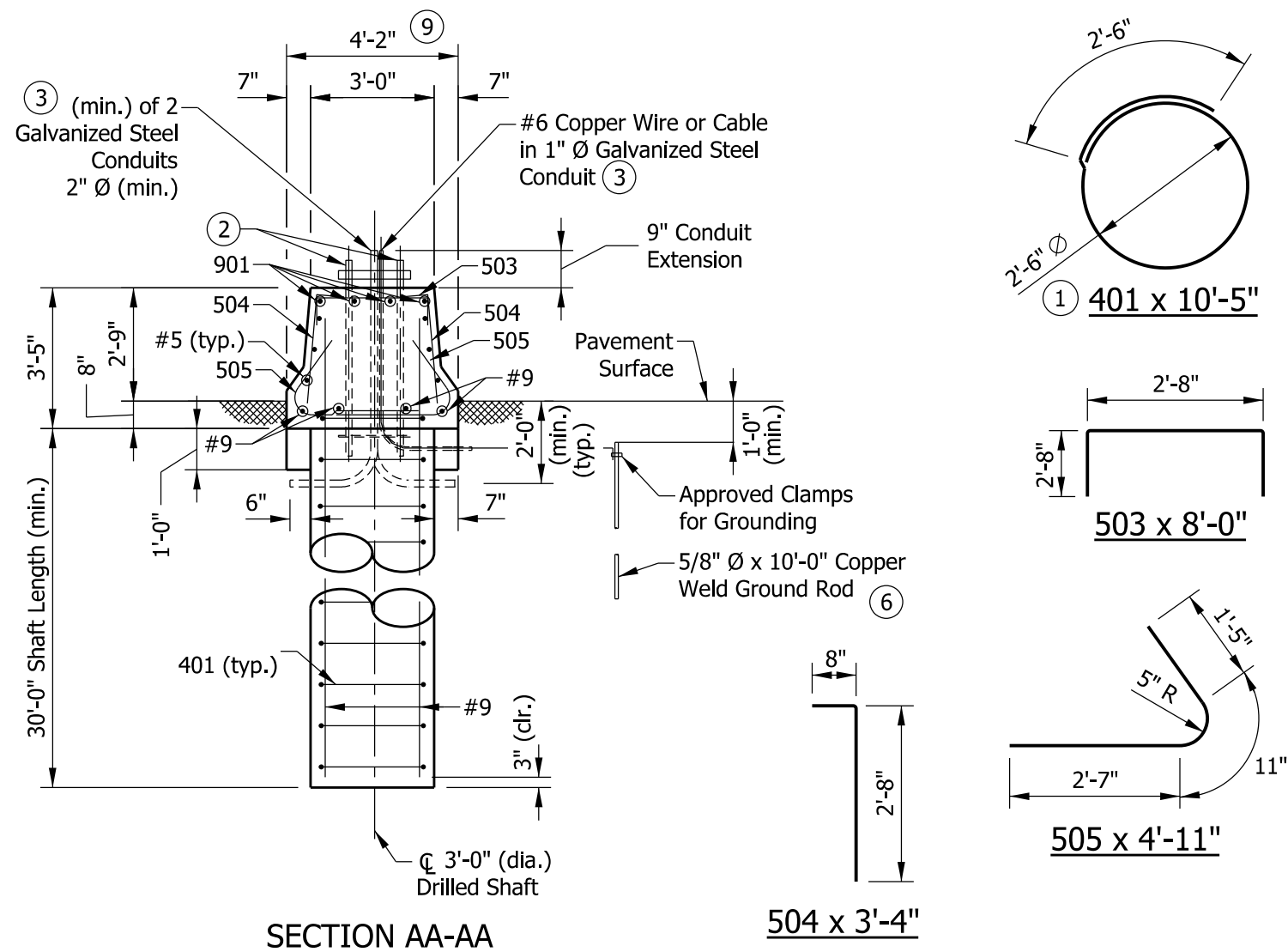
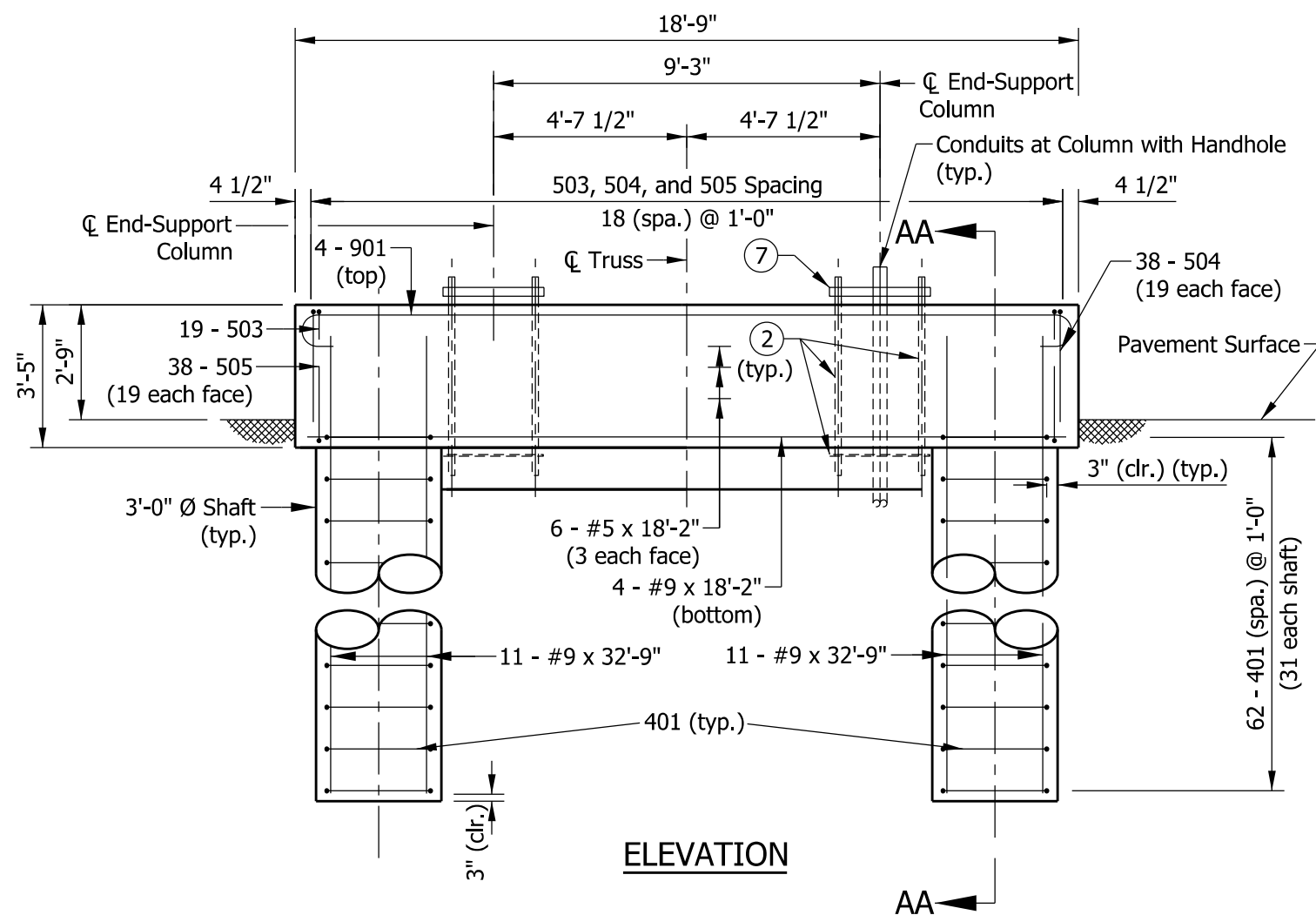
Sheet 36 of 41

SPREAD FOUNDATION AT 33" CONCRETE BARRIER WALL			
EPOXY-COATED REINFORCING BARS			
MARK OR SIZE	NO. OF BARS	LENGTH	WEIGHT
#6	18	37'-8"	
Total #6			1018 LBS
501	39	7'-6"	
502	78	4'-3"	
#5	78	6'-6"	
#5	14	37'-8"	
Total #5			1730 LBS
#4	78	7'-8"	
Total #4			399 LBS
Total Epoxy-Coated Reinforcing Bars			3147 LBS
CONCRETE, CLASS A			
Total Concrete, Class A			51.4 CYS
MISCELLANEOUS			
Surface Seal			35.0 SYS

SPREAD FOUNDATION AT 45" CONCRETE BARRIER WALL			
EPOXY-COATED REINFORCING BARS			
MARK OR SIZE	NO. OF BARS	LENGTH	WEIGHT
#6	18	37'-8"	
Total #6			1018 LBS
501	39	7'-6"	
502	78	4'-3"	
#5	78	7'-6"	
#5	16	37'-8"	
Total #5			1890 LBS
#4	78	7'-8"	
Total #4			399 LBS
Total Epoxy-Coated Reinforcing Bars			3307 LBS
CONCRETE, CLASS A			
Total Concrete, Class A			53.3 CYS
MISCELLANEOUS			
Surface Seal			43.4 SYS

SPREAD FOUNDATION FOR MEDIAN OR SHOULDER, 36" HEIGHT			
EPOXY-COATED REINFORCING BARS			
MARK OR SIZE	NO. OF BARS	LENGTH	WEIGHT
#6	18	37'-8"	
Total #6			1018 LBS
501	39	7'-6"	
502	78	4'-3"	
#5	78	7'-6"	
#5	16	37'-8"	
Total #5			1890 LBS
#4	78	7'-8"	
Total #4			399 LBS
Total Epoxy-Coated Reinforcing Bars			3307 LBS
CONCRETE, CLASS A			
Total Concrete, Class A			49.8 CYS
MISCELLANEOUS			
Surface Seal			41.2 SYS

INDIANA DEPARTMENT OF TRANSPORTATION	
SIGN BOX TRUSS STRUCTURE TYPE F, G, H SPREAD FOUNDATIONS QUANTITIES	
EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22	
RECURRING PLAN DETAIL NO.	802-T-230d
Sheet 37 of 41	



NOTES:

- ① Each tie shall be rotated 90 degrees from the previous tie to stagger lap locations.
- ② See Standard Drawing E 802-SBTS-16 for anchor bolt and anchor plate details.
- ③ Both ends of steel conduit shall be capped.
- 4. See Standard Drawing E 802-SBTS-41 for quantities.
- 5. See Standard Drawing E 703-BRST series for reinforcing-bar bending details and notes.
- ⑥ Only one ground rod per structure is required.
- ⑦ See Standard Drawing E 802-SBTS-13 for base plate details.
- 8. Minimum concrete strength $f'_c = 3500$.
- ⑨ See Standard Drawing E 602-CCMB series for barrier wall width transition.

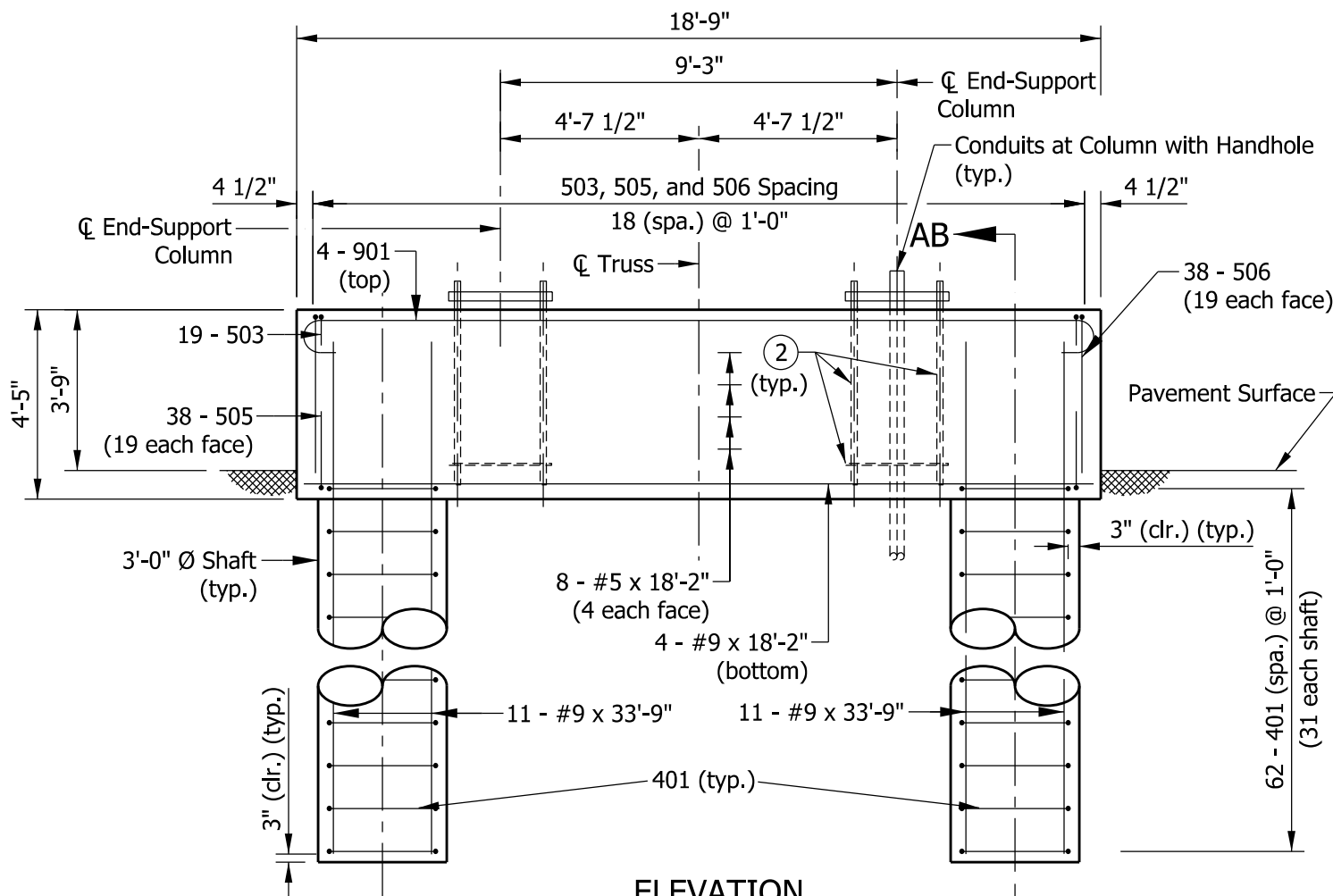
INDIANA DEPARTMENT OF TRANSPORTATION

**SIGN BOX TRUSS STRUCTURE TYPE F, G, H
ALTERNATE DRILLED SHAFT FOUNDATION
AT 33" CONCRETE BARRIER WALL**

EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22

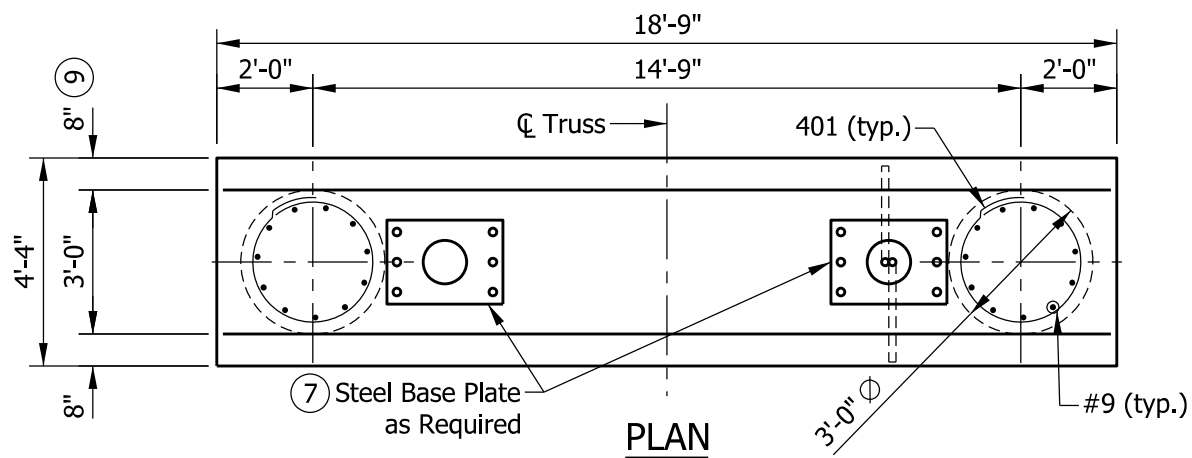
RECURRING PLAN DETAIL NO. 802-T-230d

Sheet 38 of 41

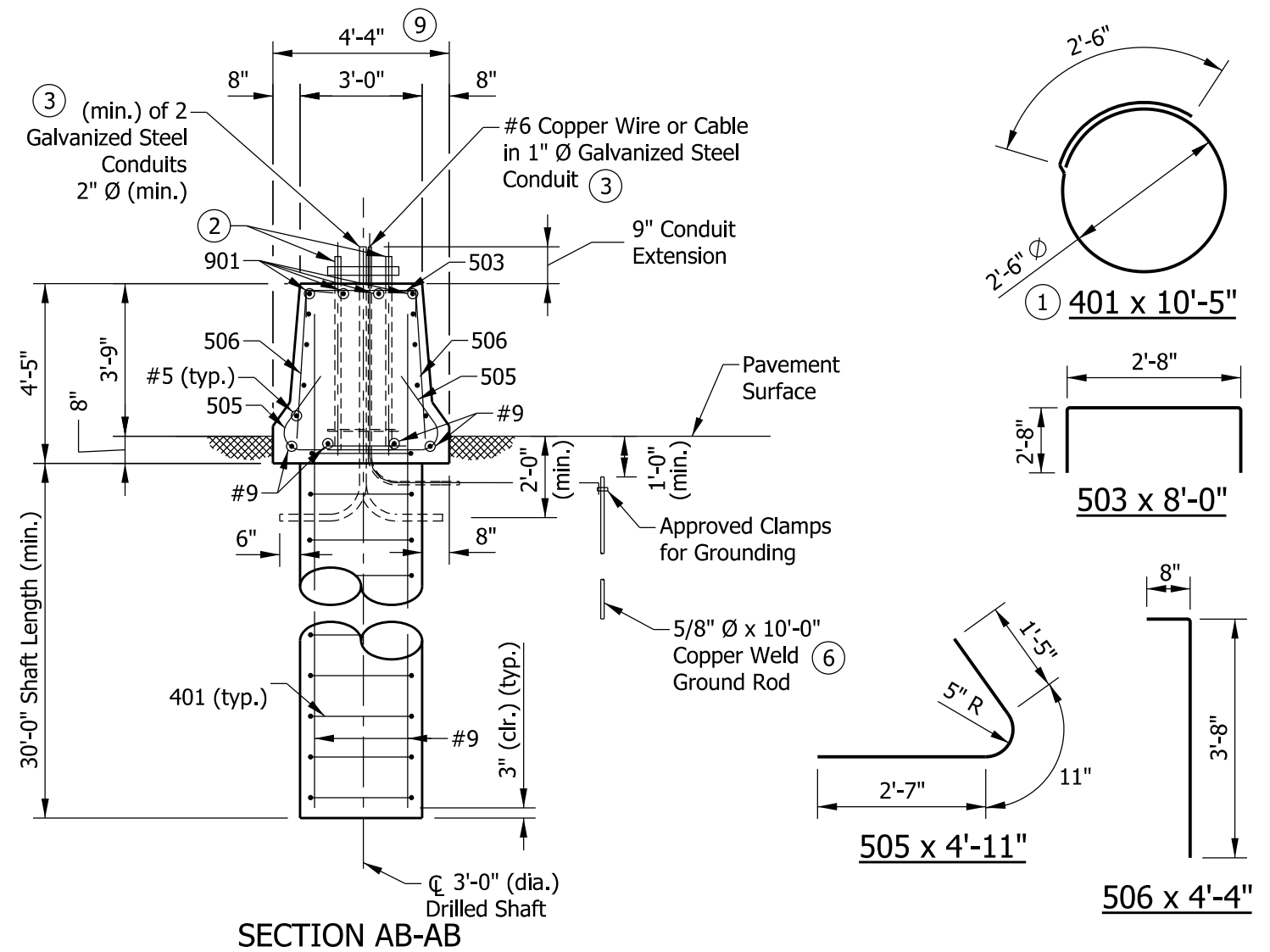


ELEVATION

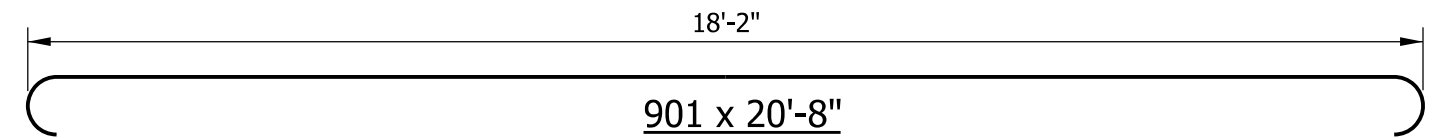
AB



PLAN



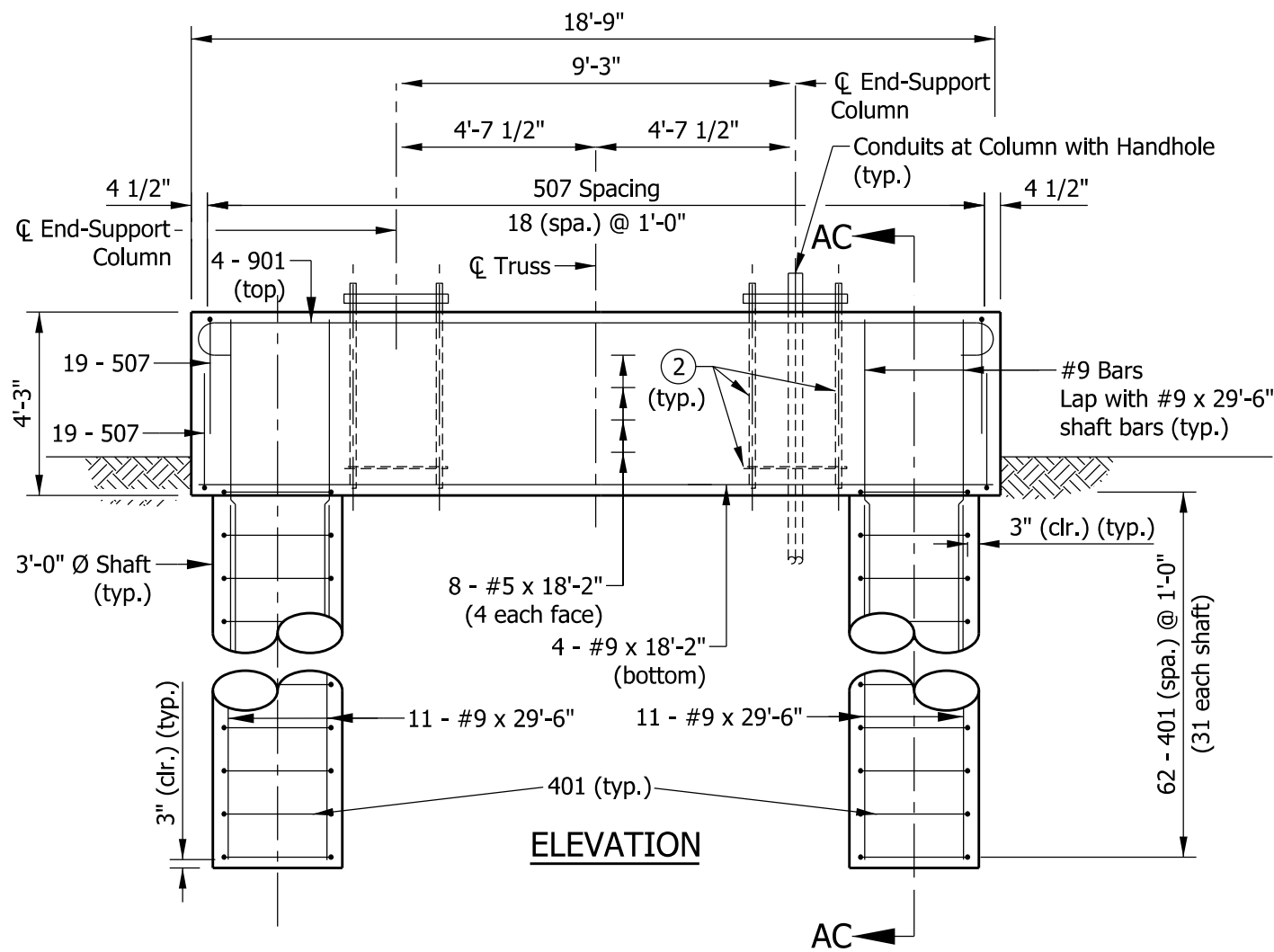
SECTION AB-AB



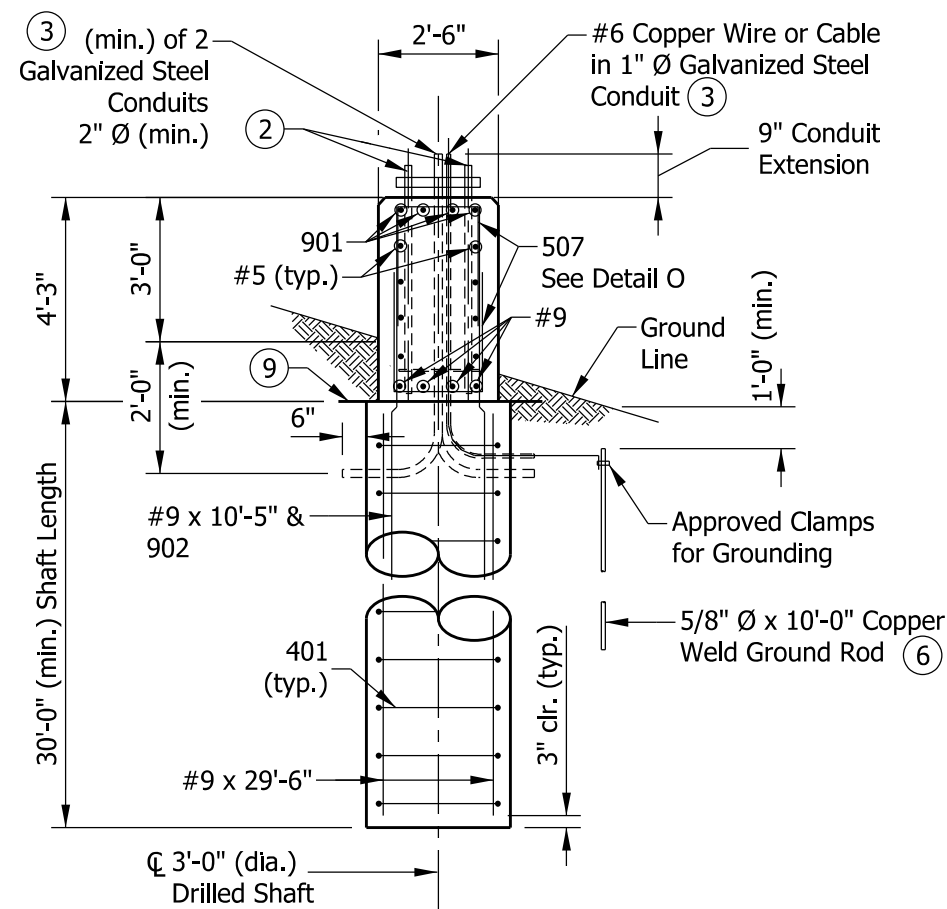
NOTES:

- ① Each tie shall be rotated 90 degrees from the previous tie to stagger lap locations.
- ② See Standard Drawing E 802-SBTS-16 for anchor bolt and anchor plate details.
- ③ Both ends of steel conduit shall be capped.
- 4. See Standard Drawing E 802-SBTS-41 for quantities.
- 5. See Standard Drawing E 703-BRST series for reinforcing-bar bending details and notes.
- ⑥ Only one ground rod per structure is required.
- ⑦ See Standard Drawing E 802-SBTS-13 for base plate details.
- 8. Minimum concrete strength $f'_c = 3500$.
- ⑨ See Standard Drawing E 602-CCMB series for barrier wall width transition.

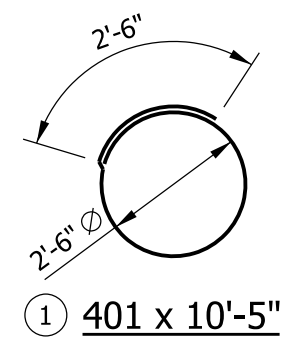
INDIANA DEPARTMENT OF TRANSPORTATION	
SIGN BOX TRUSS STRUCTURE TYPE F, G, H ALTERNATE DRILLED SHAFT FOUNDATION AT 45" CONCRETE BARRIER WALL	
EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22	
RECURRING PLAN DETAIL NO.	802-T-230d
Sheet 39 of 41	



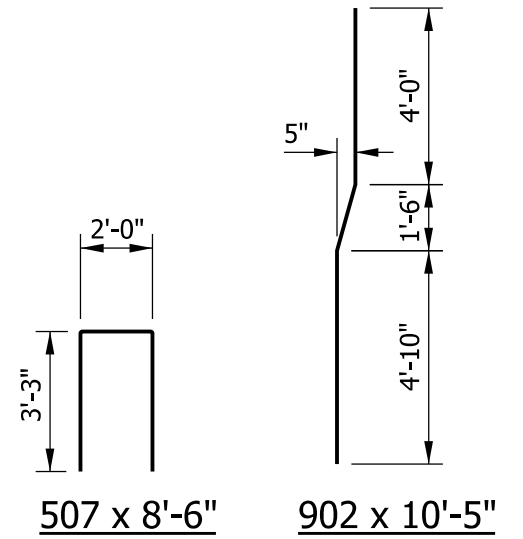
ELEVATION



SECTION AC-AC

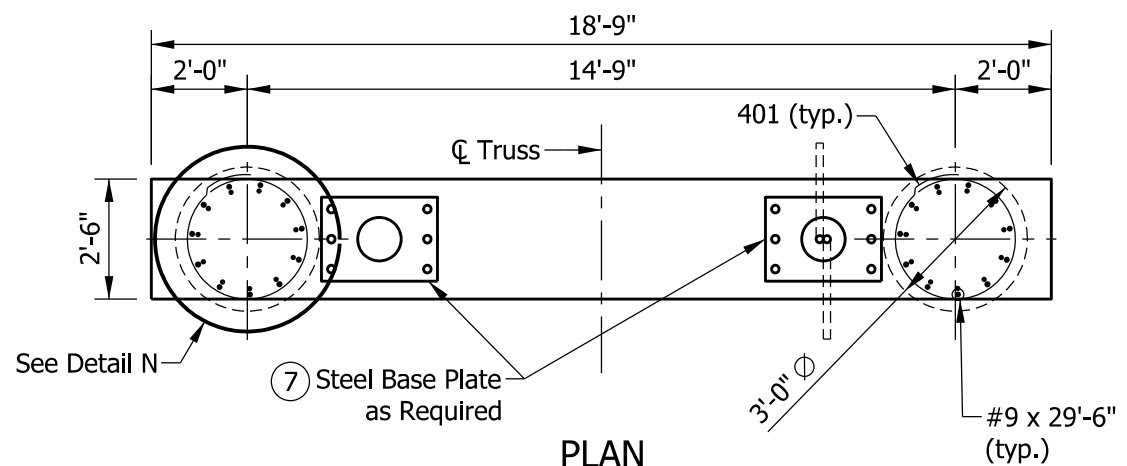


① 401 x 10'-5"

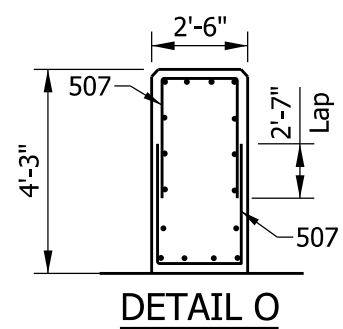


507 x 8'-6"

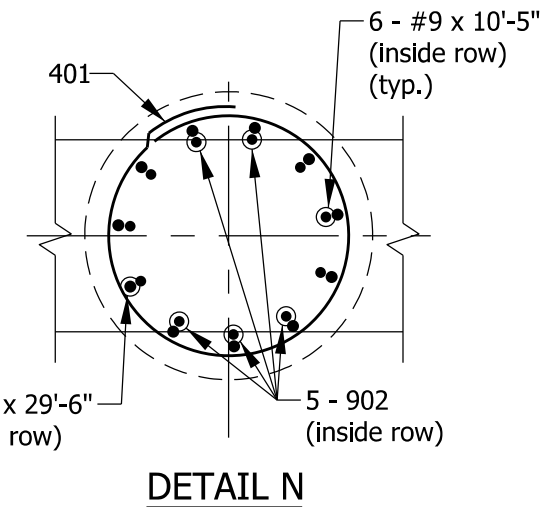
902 x 10'-5"



PLAN



DETAIL O



DETAIL N

NOTES:

- ① Each tie shall be rotated 90 degrees from the previous tie to stagger lap locations.
- ② See Standard Drawing E 802-SBTS-16 for anchor bolt and anchor plate details.
- ③ Both ends of steel conduit shall be capped.
- 4. See Standard Drawing E 802-SBTS-41 for quantities.
- 5. See Standard Drawing E 703-BRST series for reinforcing-bar bending details and notes.
- ⑥ Only one ground rod per structure is required.
- ⑦ See Standard Drawing E 802-SBTS-13 for base plate details.
- 8. Minimum concrete strength $f'_c = 3500$ psi.
- ⑨ Top of foundation shall be level.
- 10. For slopes steeper than 3:1 the Alternate Drilled Shaft Foundation shall be used.

INDIANA DEPARTMENT OF TRANSPORTATION

**SIGN BOX TRUSS STRUCTURE TYPE F, G, H
ALTERNATE DRILLED SHAFT FOUNDATION
FOR MEDIAN OR SHOULDER, 36" HEIGHT**

EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22

RECURRING PLAN DETAIL NO. 802-T-230d

Sheet 40 of 41

ALTERNATE DRILLED SHAFT FOUNDATION AT 33" CONCRETE BARRIER WALL			
EPOXY-COATED REINFORCING BARS			
MARK OR SIZE	NO. OF BARS	LENGTH	WEIGHT
901	4	20'-8"	
#9	4	18'-2"	
#9	22	32'-9"	
Total #9			2978 LBS
503	19	8'-0"	
504	38	3'-4"	
505	38	4'-11"	
#5	6	18'-2"	
Total #5			599 LBS
401	62	10'-5"	
Total #4			431 LBS
Total Epoxy-Coated Reinforcing Bars			4008 LBS
CONCRETE, CLASS A			
Total Concrete, Class A			25.8 CYS
MISCELLANEOUS			
Surface Seal			18.0 SYS

ALTERNATE DRILLED SHAFT FOUNDATION AT 45" CONCRETE BARRIER WALL			
EPOXY-COATED REINFORCING BARS			
MARK OR SIZE	NO. OF BARS	LENGTH	WEIGHT
901	4	20'-8"	
#9	4	18'-2"	
#9	22	33'-9"	
Total #9			3053 LBS
503	19	8'-0"	
505	38	4'-11"	
506	38	4'-4"	
#5	8	18'-2"	
Total #5			677 LBS
401	62	10'-5"	
Total #4			431 LBS
Total Epoxy-Coated Reinforcing Bars			4161 LBS
CONCRETE, CLASS A			
Total Concrete, Class A			26.5 CYS
MISCELLANEOUS			
Surface Seal			22.2 SYS

ALTERNATE DRILLED SHAFT FOUNDATION FOR MEDIAN OR SHOULDER, 36" HEIGHT			
EPOXY-COATED REINFORCING BARS			
MARK OR SIZE	NO. OF BARS	LENGTH	WEIGHT
901	4	20'-8"	
902	10	10'-5"	
#9	4	18'-2"	
#9	12	10'-5"	
#9	22	29'-6"	
Total #9			3514 LBS
507	38	8'-6"	
#5	8	18'-2"	
Total #5			488 LBS
401	62	10'-5"	
Total #4			431 LBS
Total Epoxy-Coated Reinforcing Bars			4433 LBS
CONCRETE, CLASS A			
Total Concrete, Class A			23.1 CYS
MISCELLANEOUS			
Surface Seal			21.6 SYS

Quantities are only for the depth of footing for slope 3:1 or less.

INDIANA DEPARTMENT OF TRANSPORTATION	
SIGN BOX TRUSS STRUCTURE TYPE F, G, H ALTERNATE DRILLED SHAFT FOUNDATIONS QUANTITIES	
EFFECTIVE FOR LETTINGS ON OR AFTER 03-01-22	
RECURRING PLAN DETAIL NO.	802-T-230d
Sheet 41 of 41	