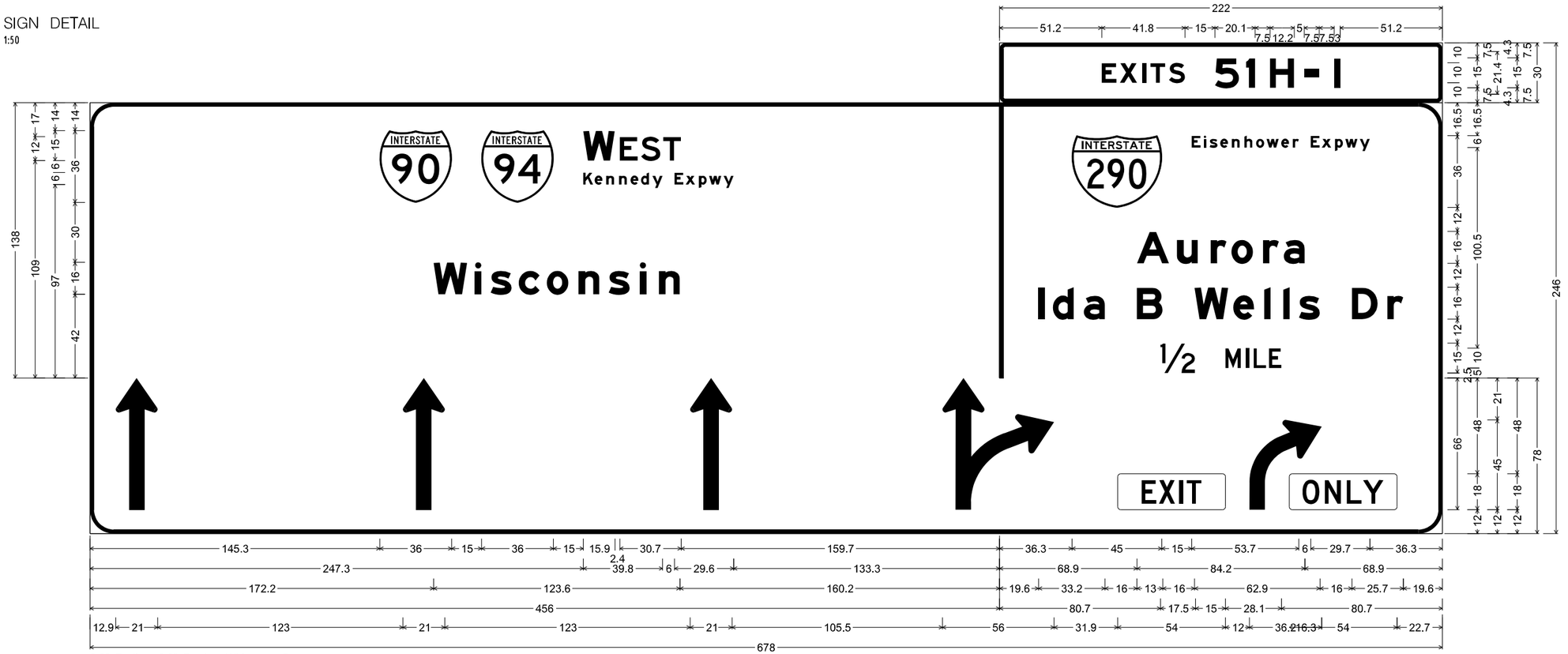
SIGN DETAIL
1:50



3.0" Radius, 2.0" Border, White on, Green;
"EXITS", E Mod 2K specified length; "51", E Mod 2K; "H", E Mod 2K; "-", E Mod 2K; "I", E Mod 2K;

12.0" Radius, 2.0" Border, White on, Green;
"W" E Mod 2K "EST", E 2K; "Kennedy Expwy", E Mod 2K; "Wisconsin", E Mod 2K;

12.0" Radius, 2.0" Border, White on, Green;
"Eisenhower Expwy", E Mod 2K; "Aurora", E Mod 2K; "Ida B Wells Dr", E Mod 2K; "1/2 MILE", D 2K;

12.0" Radius, 2.0" Border, White on, Green;
Standard Arrow Custom 66.0" X 21.0" 90'; Standard Arrow Custom 66.0" X 21.0" 90'; Standard Arrow Custom 66.0" X 21.0" 90'; thru-right arrow; Rounded Rectangle 1.5" Radius Yellow; right arrow; Rounded Rectangle 1.5" Radius Yellow;

Table of letter and object lefts

E 507.2	X 516.3	I 527.5	T 531.7	S 540.9	5 564.0	1 579.6	H 591.6	- 608.8	I 623.8	
90 145.3	90 196.3	W 247.3	E 265.6	S 276.3	T 287.3					
K 247.3	e 253.0	n 258.8	n 265.2	e 271.0	d 276.3	y 282.0	E 293.1	x 298.6	p 305.3	w 310.4	y 317.6
W 172.2	i 193.0	s 200.9	c 215.0	o 229.0	n 244.9	s 260.1	i 275.6	n 285.2			
94 492.3	E 552.3	i 558.4	s 561.3	e 566.6	n 572.4	h 578.8	o 584.6	w 589.9	e 597.2	r 603.0	E 612.0	x 617.5	p 624.2	w 629.4	y 636.6

A 524.9	u 544.9	r 561.9	o 572.3	r 588.1	a 598.5										
I 475.6	d 482.8	a 498.3	B 524.8	W 553.8	e 573.2	I 588.7	I 598.3	s 606.1	D 632.7	r 650.4					
1/2 536.7	M 569.2	I 579.4	L 583.4	E 591.1											
12.9	156.9	300.9	427.4	515.3	581.3	601.3									

Letter locations are panel edge to lower left corner

NOTE: ALL ARROWS (DOWN OR 45 DEGREE) USED ON OVERHEAD SIGNS SHALL BE DEMOUNTABLE AND INCLUDED IN THE COST OF THE SIGN PANEL.

SIGN NUMBER	NB-044-OH / NB-045-OH	
WIDTH x HEIGHT	56'-6" x 18'-0", 18'-6" x 2'-6"	
BORDER WIDTH	2"	
CORNER RADIUS	12", 3"	
MOUNTING	Overhead	
BACKGROUND	TYPE:	Reflective - ZZ
	COLOR:	Green / Yellow
LEGEND/BORDER	TYPE:	Reflective - ZZ
	COLOR:	White / Black

SYMBOL	ROT	X	Y	WID	HT
M1_1	0	-	-	36	36
M1_1	0	-	-	36	36
M1_1	0	-	-	45	36
AR_THRU	0	-	-	21	66
AR_THRU	0	-	-	21	66
AR_THRU	0	-	-	21	66
AR_THRU_RT	0	-	-	56	66
AR_RT_ONLY	0	-	-	36.2	45

FILE PATH = p:\\AECOM-NA-AWS1.aecomonline.local\AECOM_DS02_NA\Documents\01 Americas\Transportation\60269938 Circle\Phase II\000_CAD\006-Roadway\Sheets\62A76 Contract\D162A76-SHT-Sign-Panel-Detail-12.dgn

TranSystems

D162A76-SHT-Sign-Panel-Detail-12.dgn	DESIGNED - HJF	REVISED -
USER NAME = amkluver	DRAWN - MSW	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - MJL	REVISED -
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

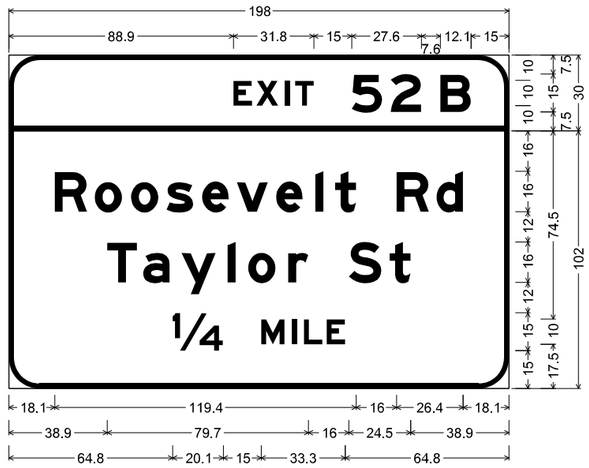
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN PANEL DETAIL

SCALE: NONE | SHEET 11 OF 36 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	901
		CONTRACT NO. 62A76		
	ILLINOIS FED. AID PROJECT			

SIGN DETAIL
1:50



12.0" Radius, 2.0" Border, White on Green;
[EXIT] E Mod 2K 120% spacing; [52 B] E Mod 2K;
12.0" Radius, 2.0" Border, White on Green;
[Roosevelt Rd] E Mod 2K; [Taylor St] E Mod 2K; [¼ MILE] E Mod 2K;
Table of letter and object lefts.

E 88.9	X 98.0	I 109.2	T 113.3	5 135.7	2 151.2	B 170.9

R 18.1	o 34.0	o 48.4	s 62.4	e 76.5	v 90.3	e 105.8	l 121.3	t 129.2	R 153.5	d 169.3	

T 38.9	a 53.2	y 68.4	l 86.6	o 94.8	r 110.6	S 134.6	t 150.8

¼ 64.8	M 99.9	I 112.0	L 116.8	E 125.8

Letter locations are panel edge to lower left corner

SIGN NUMBER	NB-046-OH
WIDTH x HEIGHT	16'-6" x 11'-0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective - ZZ
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective - ZZ
	COLOR: White

SYMBOL	ROT	X	Y	WID	HT

FILE PATH = p:\\AECOM-NA-AWS1.aecomonline.local\AECOM.DS02.NA\Documents\01 Americas\Transportation\60269938 Circle\Phase II\000 CAD\006 Roadway\Sheets\62A76 Contract\D162A76-SHT-Sign-Panel-Detail-13.dgn

TranSystems

D162A76-SHT-Sign-Panel-Detail-13.dgn	DESIGNED - HJF	REVISED -
USER NAME = amkluver	DRAWN - MSW	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - MJL	REVISED -
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

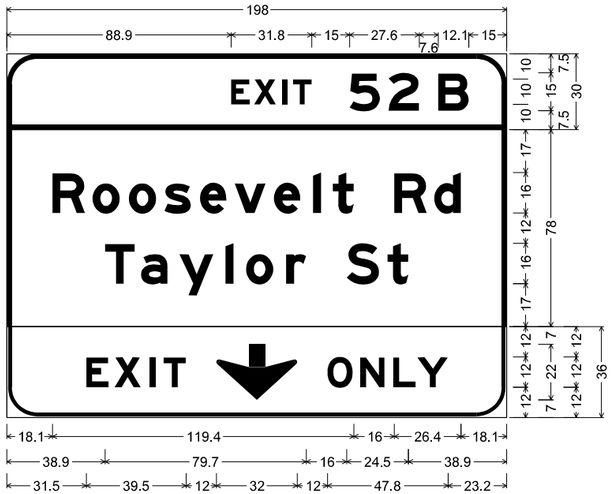
OVERHEAD SIGN STRUCTURES
SIGN PANEL DETAIL

SCALE: NONE | SHEET 12 OF 36 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	902
		CONTRACT NO. 62A76		
	ILLINOIS FED. AID PROJECT			

SIGN DETAIL

1:50



12.0" Radius, 2.0" Border, White on Green;
[EXIT] E Mod 2K 120% spacing; [52 B] E Mod 2K;
12.0" Radius, 2.0" Border, White on Green;
[Roosevelt Rd] E Mod 2K; [Taylor St] E Mod 2K;
12.0" Radius, 1.5" Border, 0.5" Indent, Black on Yellow;
[EXIT] E Mod 2K specified length; Down Arrow 22.0" 270°;
[ONLY] E Mod 2K specified length;
Table of letter and object lefts.

E 88.9	X 98.0	I 109.2	T 113.3	5 135.7	2 151.2	B 170.9

R 18.1	o 34.0	o 48.4	s 62.4	e 76.5	v 90.3	e 105.8	l 121.3	t 129.2	R 153.5	d 169.3

T 38.9	a 53.2	y 68.4	l 86.6	o 94.8	r 110.6	S 134.6	t 150.8

E 31.5	X 42.7	I 56.7	T 62.1	83.0	O 127.0	N 140.0	L 153.1	Y 162.7

Letter locations are panel edge to lower left corner

SIGN NUMBER	NB-054-OH
WIDTH x HEIGHT	16'-6" x 12'-0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective - ZZ
	COLOR: Green / Yellow
LEGEND/BORDER	TYPE: Reflective - ZZ
	COLOR: White / Black

SYMBOL	ROT	X	Y	WID	HT
AR_Down	0	-	-	32	22

NOTE: ALL ARROWS (DOWN OR 45 DEGREE) USED ON OVERHEAD SIGNS SHALL BE DEMOUNTABLE AND INCLUDED IN THE COST OF THE SIGN PANEL.

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TranSystems

D162A76-SHT-Sign-Panel-Detail-14.dgn	DESIGNED - HJF	REVISED -
USER NAME = amkluver	DRAWN - MSW	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - MJL	REVISED -
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

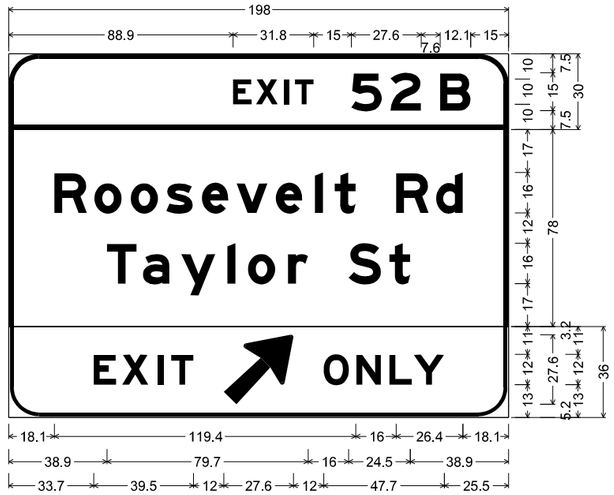
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN PANEL DETAIL

SCALE: NONE | SHEET 13 OF 36 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	903
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

SIGN DETAIL
1:50



12.0" Radius, 2.0" Border, White on Green;
[EXIT] E Mod 2K 120% spacing; [52 B] E Mod 2K;
12.0" Radius, 2.0" Border, White on Green;
[Roosevelt Rd] E Mod 2K; [Taylor St] E Mod 2K;
12.0" Radius, 1.5" Border, 0.5" Indent, Black on Yellow;
[EXIT] E Mod 2K specified length; Arrow 160 - 35.0" 45°;
[ONLY] E Mod 2K specified length;
Table of letter and object lefts.

E 88.9	X 98.0	I 109.2	T 113.3	5 135.7	2 151.2	B 170.9

R 18.1	o 34.0	o 48.4	s 62.4	e 76.5	v 90.3	e 105.8	l 121.3	t 129.2	R 153.5	d 169.3	

T 38.9	a 53.2	y 68.4	l 86.6	o 94.8	r 110.6	S 134.6	t 150.8	

E 33.7	X 45.0	I 58.9	T 64.4	↗ 85.2	O 124.8	N 137.7	L 150.8	Y 160.4

Letter locations are panel edge to lower left corner

SIGN NUMBER	NB-056-OH
WIDTH x HEIGHT	16'-6" x 12'-0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective - ZZ
	COLOR: Green / Yellow
LEGEND/BORDER	TYPE: Reflective - ZZ
	COLOR: White / Black

SYMBOL	ROT	X	Y	WID	HT
AR_Type A	315	-	-	22.3	35.6

NOTE: ALL ARROWS (DOWN OR 45 DEGREE) USED ON OVERHEAD SIGNS SHALL BE DEMOUNTABLE AND INCLUDED IN THE COST OF THE SIGN PANEL.

FILE PATH = per\\AECOM-NA-AWS1.aecomonline.local\AECOM_DS02_NA\Documents\01 Americas\Transportation\60269938 Circle\Phase I\000_CAD\006-Roadway\Sheets\62A76 Contract\D162A76-SHT-Sign-Panel-Detail-15.dgn

TranSystems

D162A76-SHT-Sign-Panel-Detail-15.dgn	DESIGNED - HJF	REVISED -	
USER NAME = amkluver	DRAWN - MSW	REVISED -	
PLOT SCALE = 10.0000 ' / in.	CHECKED - MJL	REVISED -	
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -	

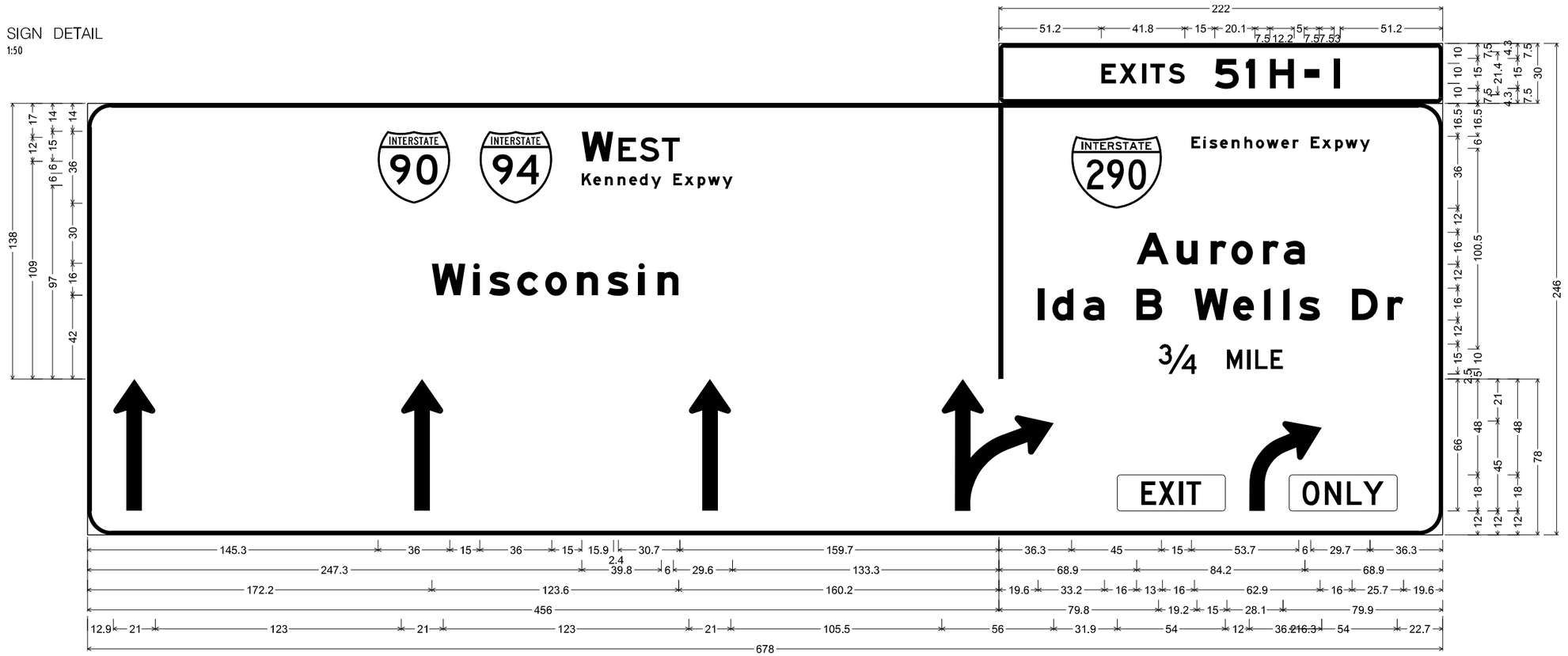
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN PANEL DETAIL

SCALE: NONE | SHEET 14 OF 36 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	904
		CONTRACT NO. 62A76		
	ILLINOIS FED. AID PROJECT			

SIGN DETAIL
1:50



3.0" Radius, 2.0" Border, White on, Green;
"EXITS", E Mod 2K specified length; "51", E Mod 2K; "H", E Mod 2K; "-", E Mod 2K; "I", E Mod 2K;

12.0" Radius, 2.0" Border, White on, Green;
"W" E Mod 2K "EST", E 2K; "Kennedy Expwy", E Mod 2K; "Wisconsin", E Mod 2K;

12.0" Radius, 2.0" Border, White on, Green;
"Eisenhower Expwy", E Mod 2K; "Aurora", E Mod 2K; "Ida B Wells Dr", E Mod 2K; "¾ MILE", D 2K;

12.0" Radius, 2.0" Border, White on, Green;
Standard Arrow Custom 66.0" X 21.0" 90'; Standard Arrow Custom 66.0" X 21.0" 90'; Standard Arrow Custom 66.0" X 21.0" 90'; thru-right arrow; Rounded Rectangle 1.5" Radius Yellow; right arrow; Rounded Rectangle 1.5" Radius Yellow;
Table of letter and object lefts

E 507.2	X 516.3	I 527.5	T 531.7	S 540.9	5 564.0	1 579.6	H 591.6	- 608.8	I 623.8
90 145.3	94 196.3	W 247.3	E 265.6	S 276.3	T 287.3				
K 247.3	e 253.0	n 258.8	n 265.2	e 271.0	d 276.3	y 282.0	E 293.1	x 298.6	p 305.3	w 310.4	y 317.6
W 172.2	i 193.0	s 200.9	c 215.0	o 229.0	n 244.9	s 260.1	i 275.6	n 285.2			
290 492.3	E 552.3	i 558.4	s 561.3	e 566.6	n 572.4	h 578.8	o 584.6	w 589.9	e 597.2	r 603.0	E 612.0	x 617.5	p 624.2	w 629.4	y 636.6

A 524.9	u 544.9	r 561.9	o 572.3	r 588.1	a 598.5									
I 475.6	d 482.8	a 498.3	B 524.8	W 553.8	e 573.2	I 588.7	I 598.3	s 606.1	D 632.7	r 650.4				
¾ 535.8	M 570.0	I 580.2	L 584.2	E 591.9										
12.9	156.9	300.9	427.4	515.3	581.3	601.3								

Letter locations are panel edge to lower left corner

NOTE: ALL ARROWS (DOWN OR 45 DEGREE) USED ON OVERHEAD SIGNS SHALL BE DEMOUNTABLE AND INCLUDED IN THE COST OF THE SIGN PANEL.

SIGN NUMBER	NB-031-OH / NB-032-OH	
WIDTH x HEIGHT	56'-6" x 18'-0", 18'-6" x 2'-6"	
BORDER WIDTH	2",	
CORNER RADIUS	12", 3",	
MOUNTING	Overhead	
BACKGROUND	TYPE:	Reflective - ZZ
	COLOR:	Green / Yellow
LEGEND/BORDER	TYPE:	Reflective - ZZ
	COLOR:	White / Black

SYMBOL	ROT	X	Y	WID	HT
M1_1	0	-	-	36	36
M1_1	0	-	-	36	36
M1_1	0	-	-	45	36
AR_THRU	0	-	-	21	66
AR_THRU	0	-	-	21	66
AR_THRU	0	-	-	21	66
AR_THRU_RT	0	-	-	56	66
AR_RT_ONLY	0	-	-	36.2	45

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TranSystems

D162A76-SHT-Sign-Panel-Detail-16.dgn	DESIGNED - HJF	REVISED -	
USER NAME = amkluver	DRAWN - MSW	REVISED -	
PLOT SCALE = 10.0000 ' / in.	CHECKED - MJL	REVISED -	
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

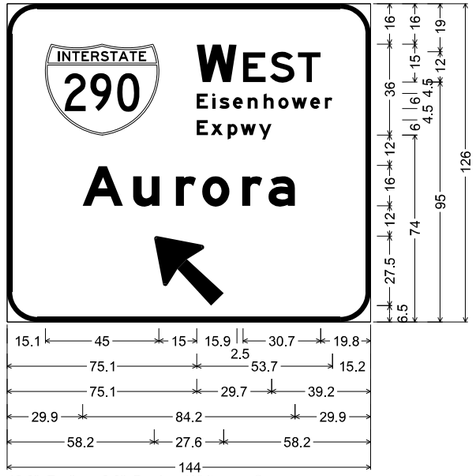
OVERHEAD SIGN STRUCTURES
SIGN PANEL DETAIL

SCALE: NONE | SHEET 15 OF 36 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	905
		CONTRACT NO. 62A76		
		ILLINOIS FED. AID PROJECT		

SIGN DETAIL

1:50



12.0" Radius, 2.0" Border, White on Green;
[W] E Mod 2K [EST] E 2K;
[Eisenhower] E Mod 2K; [Expwy] E Mod 2K;
[Aurora] E Mod 2K; Arrow 160 - 35.0" 135°;
Table of letter and object lefts.

15.1	**W** 75.1	**E** 93.5	**S** 104.2	**T** 115.2

E 75.1	**i** 81.2	**s** 84.1	**e** 89.4	**n** 95.2	**h** 101.6	**o** 107.4	**w** 112.7	**e** 120.0	**r** 125.8

E 75.1	**x** 80.7	**p** 87.3	**w** 92.5	**y** 99.7

A 29.9	**u** 49.9	**r** 66.9	**o** 77.3	**r** 93.1	**a** 103.5

↖ 58.2

Letter locations are panel edge to lower left corner

SIGN NUMBER	RER-083-OH
WIDTH x HEIGHT	12'-0" x 10'-6"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	**TYPE:** Reflective - ZZ
	COLOR: Green
LEGEND/BORDER	**TYPE:** Reflective - ZZ
	COLOR: White

SYMBOL	ROT	X	Y	WID	HT
M1_1	0	-	-	45	36
AR_Type A	225	-	-	22.3	35.6

NOTE: ALL ARROWS (DOWN OR 45 DEGREE) USED ON OVERHEAD SIGNS SHALL BE DEMOUNTABLE AND INCLUDED IN THE COST OF THE SIGN PANEL.

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TranSystems

D162A76-SHT-Sign-Panel-Detail-17.dgn	DESIGNED - HJF	REVISED -
USER NAME = amkluver	DRAWN - MSW	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - MJL	REVISED -
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

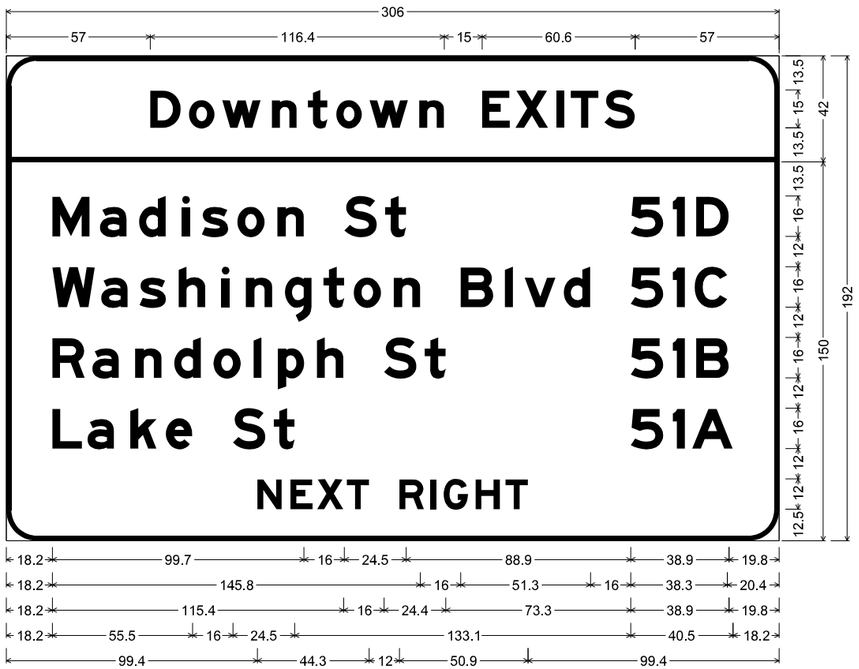
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN PANEL DETAIL

SCALE: NONE | SHEET 16 OF 36 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	906
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

SIGN DETAIL
1:50



SIGN NUMBER	NB-090-BM
WIDTH x HEIGHT	25'-6" x 16'-0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective - ZZ
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective - ZZ
	COLOR: White

SYMBOL	ROT	X	Y	WID	HT

Letter locations are panel edge to lower left corner

12.0" Radius, 2.0" Border, White on, Green;
"Downtown EXITS", E Mod 2K;

12.0" Radius, 2.0" Border, White on, Green;
"Madison St", E Mod 2K; "51D", E Mod 2K; "Washington Blvd", E Mod 2K; "51C", E Mod 2K;
"Randolph St", E Mod 2K; "51B", E Mod 2K; "Lake St", E Mod 2K; "51A", E Mod 2K;
"NEXT RIGHT", E Mod 2K;
Table of letter and object lefts

D	o	w	n	t	o	w	n	E	X	I	T	S	
57.0	72.3	85.5	105.2	119.4	130.6	143.9	163.5	188.4	201.6	217.8	223.5	236.9	
M	a	d	i	s	o	n	S	t	5	1	D		
18.2	37.1	52.6	69.6	77.4	91.5	107.3	133.9	150.0	247.3	264.0	273.2		
W	a	s	h	i	n	g	t	o	n	B	l	v	d	5	1	C
18.2	37.6	52.8	68.3	85.2	94.8	110.4	125.6	137.6	153.4	180.0	197.4	205.2	220.8	247.3	264.0	272.6
R	a	n	d	o	l	p	h	S	t	5	1	B				
18.2	34.0	51.0	66.5	82.0	97.9	107.5	123.0	149.6	165.7	247.3	264.0	273.2				
L	a	k	e	S	t	5	1	A								
18.2	32.1	49.1	63.2	89.7	105.9	247.3	264.0	271.6								
N	E	X	T	R	I	G	H	T								
99.4	112.5	123.1	134.8	155.7	167.9	173.2	185.8	197.7								

FILE PATH = pw:\\AECOM-NA-AWS1.aecomonline.local:AECOM_DS02-NA\Documents\01 Americas\Transportation\60269938 Circle\Phase II\000_CAD\006_Roadway\Sheets\62A76 Contract\D162A76-SHT-Sign-Panel-Detail-19.dgn

TranSystems

D162A76-SHT-Sign-Panel-Detail-19.dgn	DESIGNED - HJF	REVISED -
USER NAME = amkluver	DRAWN - MSW	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - MJL	REVISED -
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

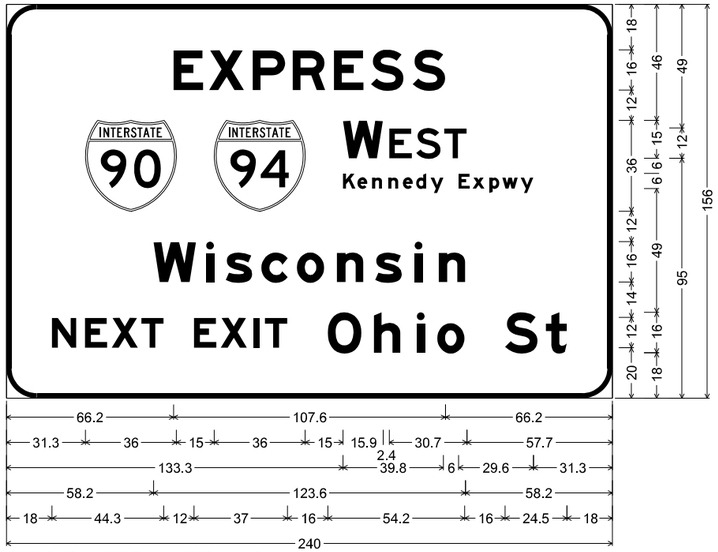
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN PANEL DETAIL

SCALE: NONE | SHEET 17 OF 36 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	907
		CONTRACT NO. 62A76		
	ILLINOIS FED. AID PROJECT			

SIGN DETAIL
1:50



12.0" Radius, 2.0" Border, White on Green;
[EXPRESS] E Mod 2K; [W] E Mod 2K [EST] E 2K; [Kennedy Expwy] E Mod 2K;
[Wisconsin] E Mod 2K; [NEXT EXIT Ohio St] E Mod 2K;
Table of letter and object lefts.

E 66.2	X 80.2	P 97.5	R 113.4	E 129.7	S 144.4	S 160.9

90 31.3	90 82.3	W 133.3	E 151.6	S 162.3	T 173.3

K 133.3	e 139.0	n 144.8	n 151.2	e 157.0	d 162.3	y 168.0	E 179.1	x 184.6	p 191.3	w 196.4	y 203.6

W 58.2	i 79.0	s 86.9	c 101.0	o 115.0	n 130.9	s 146.1	i 161.6	n 171.2

N 18.0	E 31.1	X 41.7	T 53.4	E 74.3	X 84.9	I 97.8	T 102.4	O 127.3	h 145.5	i 162.5	o 170.6	S 197.5	t 213.7

Letter locations are panel edge to lower left corner

SIGN NUMBER	NB-092-OH
WIDTH x HEIGHT	20'-0" x 13'-0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective - ZZ
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective - ZZ
	COLOR: White

SYMBOL	ROT	X	Y	WID	HT
M1_1	0	-	-	36	36
M1_1	0	-	-	36	36

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TranSystems

D162A76-SHT-Sign-Panel-Detail-20.dgn	DESIGNED - HJF	REVISED -
USER NAME = amkluver	DRAWN - MSW	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - MJL	REVISED -
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

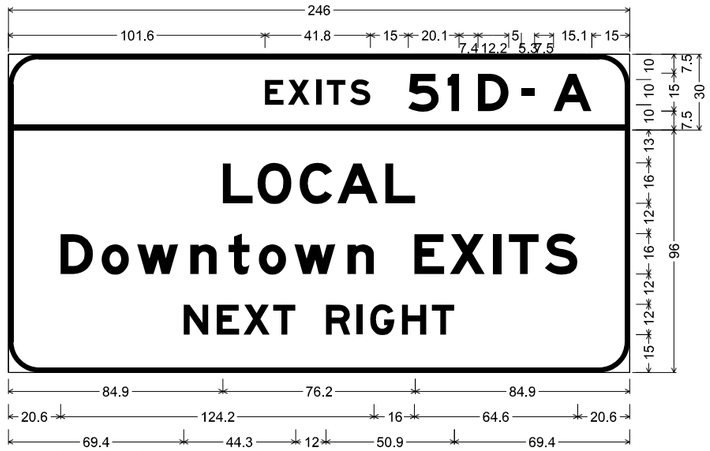
OVERHEAD SIGN STRUCTURES
SIGN PANEL DETAIL

SCALE: NONE | SHEET 18 OF 36 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	908
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

SIGN DETAIL

1:50



12.0" Radius, 2.0" Border, White on Green;
[EXITS] E Mod 2K 120% spacing; [51 D - A] E Mod 2K;
12.0" Radius, 2.0" Border, White on Green;
[LOCAL] E Mod 2K; [Downtown EXITS] E Mod 2K; [NEXT RIGHT] E Mod 2K;
Table of letter and object lefts.

E 101.6	X 110.7	I 121.9	T 126.1	S 135.3	5 158.4	I 173.9	D 185.9	- 203.1	A 215.9

L 84.9	O 98.7	C 115.3	A 130.2	L 149.2

D 20.6	o 36.9	w 51.0	n 72.0	t 87.2	o 99.2	w 113.2	n 134.2	E 160.8	X 174.8	I 192.1	T 198.2	S 212.4

N 69.4	E 82.5	X 93.1	T 104.8	R 125.7	I 137.9	G 143.2	H 155.8	T 167.7

SIGN NUMBER	NB-093-OH
WIDTH x HEIGHT	20'-6" x 10'-6"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective - ZZ
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective - ZZ
	COLOR: White

Letter locations are panel edge to lower left corner

SYMBOL	ROT	X	Y	WID	HT

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TranSystems

D162A76-SHT-Sign-Panel-Detail-21.dgn	DESIGNED - HJF	REVISED -
USER NAME = amkluver	DRAWN - MSW	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - MJL	REVISED -
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

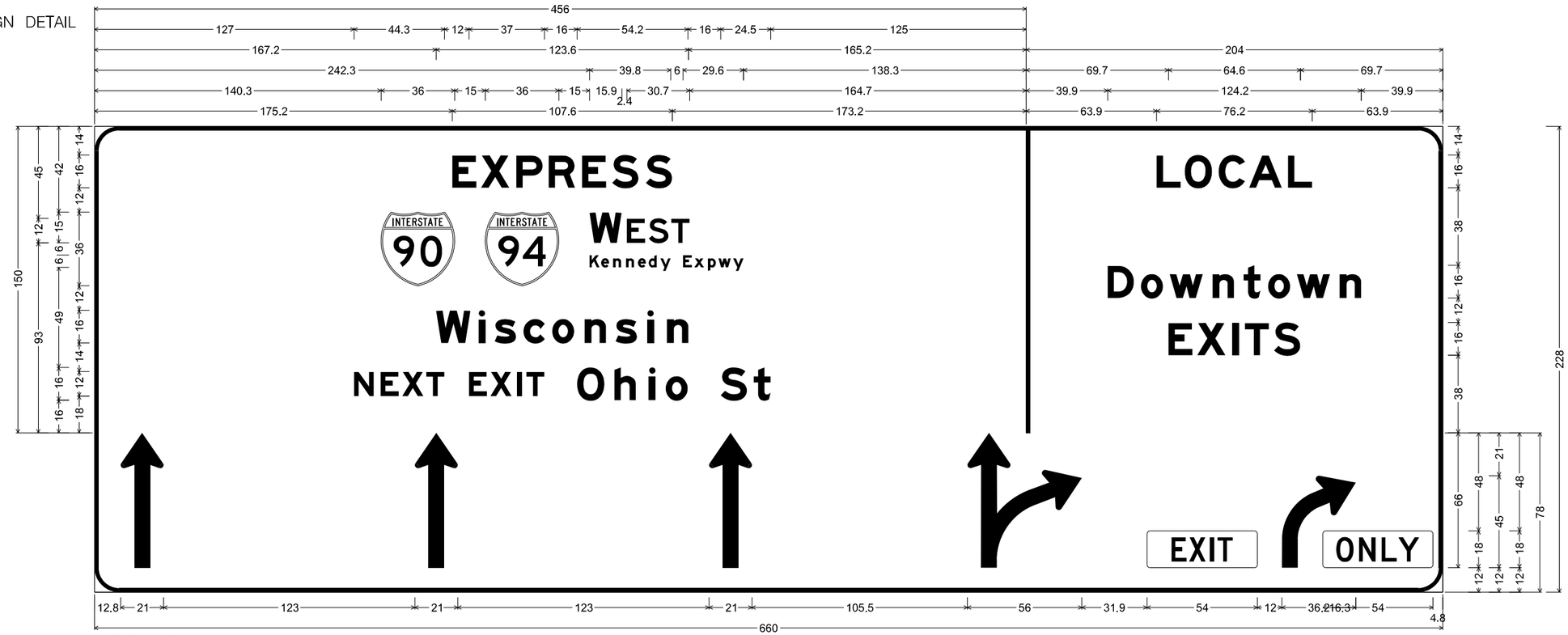
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN PANEL DETAIL

SCALE: NONE | SHEET 19 OF 36 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	909
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

SIGN DETAIL
1:50



12.0" Radius, 2.0" Border, White on Green;
[EXPRESS] E Mod 2K; [W] E Mod 2K [EST] E 2K; [Kennedy Expwy] E Mod 2K; [Wisconsin] E Mod 2K; [NEXT EXIT Ohio St] E Mod 2K;
12.0" Radius, 2.0" Border, White on Green;
[LOCAL] E Mod 2K; [Downtown] E Mod 2K; [EXITS] E Mod 2K;
12.0" Radius, 2.0" Border, White on Green;
Standard Arrow Custom 66.0" X 21.0" 90°; Standard Arrow Custom 66.0" X 21.0" 90°; Standard Arrow Custom 66.0" X 21.0" 90°; thru-right arrow; Rounded Rectangle 1.5" Radius Yellow;
right arrow; Rounded Rectangle 1.5" Radius Yellow;
Table of letter and object lefts.

E 175.2	X 189.2	P 206.5	R 222.4	E 238.7	S 253.4	S 269.9
90 140.3	94 191.3	W 242.3	E 260.6	S 271.3	T 282.3	

K 242.3	e 248.0	n 253.8	n 260.2	e 266.0	d 271.3	y 277.0	E 288.1	x 293.6	p 300.3	w 305.4	y 312.6
W 167.2	i 188.0	s 195.9	c 210.0	o 224.0	n 239.9	s 255.1	i 270.6	n 280.2			
N 127.0	E 140.1	X 150.7	T 162.4	E 183.3	X 193.9	I 206.8	T 211.4	O 236.3	h 254.5	i 271.5	o 279.6	S 306.5	t 322.7
L 519.9	O 533.7	C 550.3	A 565.2	L 584.2									
D 495.9	o 512.2	w 526.3	n 547.3	t 562.5	o 574.5	w 588.6	n 609.5						

E 525.7	X 539.8	I 557.0	T 563.1	S 577.4		
↑ 12.8	↑ 156.8	↑ 300.8	↱ 427.3	▬ 515.2	↱ 581.2	▬ 601.2

Letter locations are panel edge to lower left corner

NOTE: ALL ARROWS (DOWN OR 45 DEGREE) USED ON OVERHEAD SIGNS SHALL BE DEMOUNTABLE AND INCLUDED IN THE COST OF THE SIGN PANEL.

SIGN NUMBER	NB-110-OH	
WIDTH x HEIGHT	55'-0" x 19'-0"	
BORDER WIDTH	2"	
CORNER RADIUS	12"	
MOUNTING	Overhead	
BACKGROUND	TYPE:	Reflective - ZZ
	COLOR:	Green / Yellow
LEGEND/BORDER	TYPE:	Reflective - ZZ
	COLOR:	White / Black

SYMBOL	ROT	X	Y	WID	HT
M1_1	0	-	-	36	36
M1_1	0	-	-	36	36
AR_THRU	0	-	-	21	66
AR_THRU	0	-	-	21	66
AR_THRU	0	-	-	21	66
AR_THRU_RT	0	-	-	56	66
AR_RT_ONLY	0	-	-	36.2	45

FILE PATH = p:\\AECOM-NA-AWS1.aecomonline.local\AECOM_DS02_NA\Documents\01 Americas\Transportation\60269938 Circle\Phase II\000 CAD\086 Roadway\Sheets\62A76 Contract\D162A76-SHT-Sign-Panel-Detail-22.dgn

TranSystems

D162A76-SHT-Sign-Panel-Detail-22.dgn	DESIGNED - HJF	REVISED -	
USER NAME = amkluver	DRAWN - MSW	REVISED -	
PLOT SCALE = 10.0000 '/ in.	CHECKED - MJL	REVISED -	
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

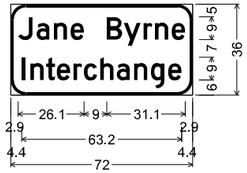
OVERHEAD SIGN STRUCTURES
SIGN PANEL DETAIL

SCALE: NONE | SHEET 20 OF 36 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	910
		CONTRACT NO. 62A76		
	ILLINOIS FED. AID PROJECT			

SIGN DETAIL

1:50



6.0" Radius, 1.3" Border, White on, Brown;
"Jane Byrne", D 2K;
"Interchange", D 2K;
Table of letter and object lefts

J	a	n	e										
2.9	10.2	17.1	23.7										
				B	y	r	n	e					
				38.0	44.8	52.6	57.1	63.8					
I	n	t	e	r	c	h	a	n	g	e			
4.4	7.8	14.0	18.2	24.8	28.9	35.4	42.0	48.8	55.5	62.3			

Letter locations are panel edge to lower left corner

SIGN NUMBER	NB-122-WP	
WIDTH x HEIGHT	6'-0" x 3'-0"	
BORDER WIDTH	1.3"	
CORNER RADIUS	6"	
MOUNTING	Wood Post	
BACKGROUND	TYPE:	Reflective - ZZ
	COLOR:	Brown
LEGEND/BORDER	TYPE:	Reflective - ZZ
	COLOR:	White

SYMBOL	ROT	X	Y	WID	HT

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TranSystems

D162A76-SHT-Sign-Panel-Detail-22A.dgn	DESIGNED - HJF	REVISED -
USER NAME = amkluver	DRAWN - MSW	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - MJL	REVISED -
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

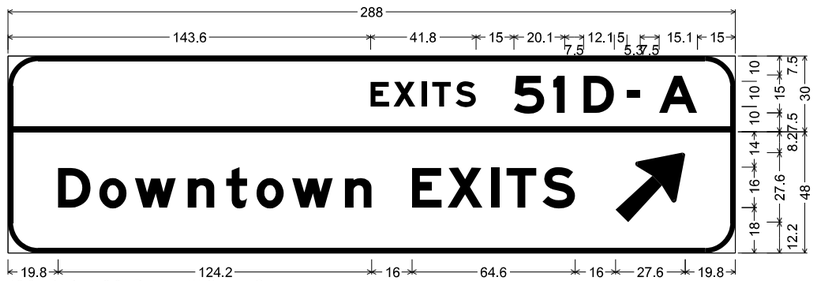
OVERHEAD SIGN STRUCTURES
SIGN PANEL DETAIL

SCALE: NONE | SHEET 21 OF 36 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	911
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

SIGN DETAIL

1:50



12.0" Radius, 2.0" Border, White on Green;
[EXITS] E Mod 2K 120% spacing; [51 D - A] E Mod 2K;
12.0" Radius, 2.0" Border, White on Green;
[Downtown EXITS] E Mod 2K; Arrow 160 - 35.0" 45°;
Table of letter and object lefts.

E 143.6	**X** 152.7	**I** 163.9	**T** 168.1	**S** 177.3	**5** 200.4	**1** 215.9	**D** 228.0	**-** 245.1	**A** 257.9	
D 19.8	**o** 36.2	**w** 50.2	**n** 71.2	**t** 86.4	**o** 98.4	**w** 112.5	**n** 133.4	**E** 160.0	**X** 174.1	**I** 191.4	**T** 197.4	**S** 211.7	**↗** 240.6

Letter locations are panel edge to lower left corner

SIGN NUMBER	EN-123-BM	
WIDTH x HEIGHT	24'-0" x 6'-6"	
BORDER WIDTH	2"	
CORNER RADIUS	12"	
MOUNTING	Overhead	
BACKGROUND	**TYPE:**	Reflective - ZZ
	COLOR:	Green
LEGEND/BORDER	**TYPE:**	Reflective - ZZ
	COLOR:	White

SYMBOL	ROT	X	Y	WID	HT
AR_Type A	315	-	-	22.3	35.6

NOTE: ALL ARROWS (DOWN OR 45 DEGREE) USED ON OVERHEAD SIGNS SHALL BE DEMOUNTABLE AND INCLUDED IN THE COST OF THE SIGN PANEL.

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TranSystems

D162A76-SHT-Sign-Panel-Detail-23.dgn	DESIGNED - HJF	REVISED -
USER NAME = amkluver	DRAWN - MSW	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - MJL	REVISED -
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

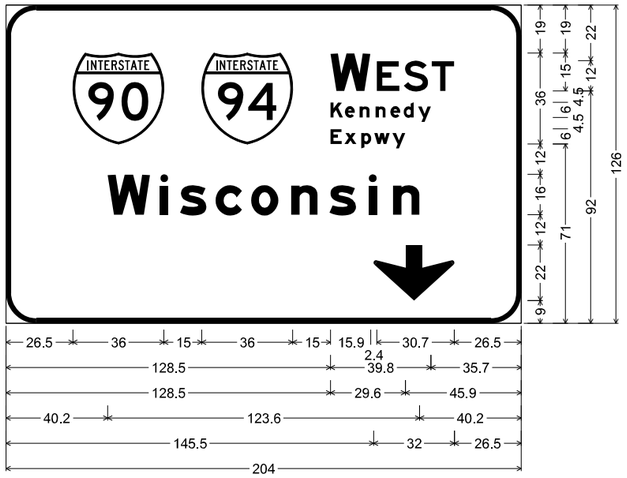
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN PANEL DETAIL

SCALE: NONE | SHEET 22 OF 36 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	912
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

SIGN DETAIL
1:50



12.0" Radius, 2.0" Border, White on, Green;
"W" E Mod 2K "EST", E 2K; "Kennedy", E Mod 2K;
"Expwy", E Mod 2K; "Wisconsin", E Mod 2K; Down Arrow 22.0" 270';
Table of letter and object lefts

90 26.5	94 77.5	W 128.5	E 146.8	S 157.5	T 168.5

K 128.5	e 134.2	n 140.0	n 146.4	e 152.2	d 157.5	y 163.2	

E 128.5	x 134.0	p 140.7	w 145.8	y 153.0

W 40.2	i 61.0	s 68.9	c 83.0	o 97.0	n 112.9	s 128.1	i 143.6	n 153.2

145.5

Letter locations are panel edge to lower left corner

SIGN NUMBER	NB-128A-BM
WIDTH x HEIGHT	17'-0" x 10'-6"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective - ZZ
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective - ZZ
	COLOR: White

SYMBOL	ROT	X	Y	WID	HT
M1_1	0	-	-	36	36
M1_1	0	-	-	36	36
AR_Down	0	-	-	32	22

NOTE: ALL ARROWS (DOWN OR 45 DEGREE) USED ON OVERHEAD SIGNS SHALL BE DEMOUNTABLE AND INCLUDED IN THE COST OF THE SIGN PANEL.

FILE PATH = pw:\\AECOM-NA-AWS1.aecomonline.local:AECOM_DS02_NA\Documents\01 Americas\Transportation\60269938 Circle\Phase II\000_CAD\006_Roadway\Sheets\62A76 Contract\D162A76-SHT-Sign-Panel-Detail-23A.dgn

TranSystems

D162A76-SHT-Sign-Panel-Detail-23A.dgn	DESIGNED - HJF	REVISED -
USER NAME = amkluver	DRAWN - MSW	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - MJL	REVISED -
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

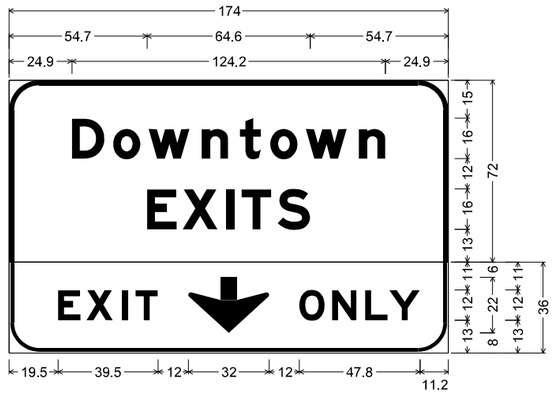
OVERHEAD SIGN STRUCTURES
SIGN PANEL DETAIL

SCALE: NONE | SHEET 23 OF 36 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	913
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

SIGN DETAIL

1:50



12.0" Radius, 2.0" Border, White on, Green;
"Downtown", E Mod 2K; "EXITS", E Mod 2K;

12.0" Radius, 1.5" Border, 0.5" Indent, Black on, Yellow;
"EXIT", E Mod 2K specified length; Down Arrow 22.0" 270';
"ONLY", E Mod 2K specified length;
Table of letter and object lefts

D 24.9	**o** 41.2	**w** 55.3	**n** 76.3	**t** 91.5	**o** 103.5	**w** 117.6	**n** 138.5

E 54.7	**X** 68.8	**I** 86.0	**T** 92.1	**S** 106.4

E 19.5	**X** 30.7	**I** 44.7	**T** 50.1	↓ 71.0	**O** 115.0	**N** 128.0	**L** 141.1	**Y** 150.7

SIGN NUMBER	NB-128B-BM
WIDTH x HEIGHT	14'-6" x 9'-0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	**TYPE:** Reflective - ZZ
	COLOR: Green / Yellow
LEGEND/BORDER	**TYPE:** Reflective - ZZ
	COLOR: White / Black

SYMBOL	ROT	X	Y	WID	HT
AR_Down	0	-	-	32	22

Letter locations are panel edge to lower left corner

FILE PATH = pw:\AECOM-NA-AWS.aecomonline.local:AECOM_DS02.NA\Documents\01 Americas\Transportation\60269938 Circle\Phase II\002.CAD\006.Roadway\Sheets\62A76 Contract\D162A76-SHT-Sign-Panel-Detail-23B.dgn

TranSystems

D162A76-SHT-Sign-Panel-Detail-23B.dgn	DESIGNED - HJF	REVISED -
USER NAME = amkluver	DRAWN - MSW	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - MJL	REVISED -
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

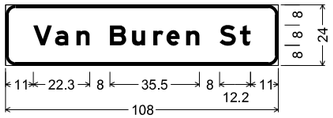
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN PANEL DETAIL

SCALE: NONE | SHEET 24 OF 36 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	914
		CONTRACT NO. 62A76		
	ILLINOIS FED. AID PROJECT			

SIGN DETAIL
1:50

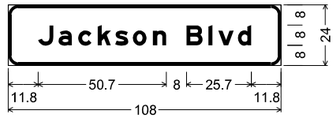


4.0" Radius, 1.3" Border, White on, Green;
"Van Buren St", E Mod 2K;
Table of letter and object lefts

V 11.0	**a** 19.6	**n** 28.0							
			B 41.3	**u** 50.0	**r** 58.5	**e** 63.7	**n** 71.5		
			S 84.8	**t** 92.8					

SIGN NUMBER	NCD-124A-PP
WIDTH x HEIGHT	9'-0" x 2'-0"
BORDER WIDTH	1.3"
CORNER RADIUS	4"
MOUNTING	Overhead
BACKGROUND	**TYPE:** Reflective - ZZ
	COLOR: Green
LEGEND/BORDER	**TYPE:** Reflective - ZZ
	COLOR: White

SYMBOL	ROT	X	Y	WID	HT



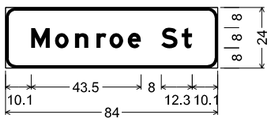
4.0" Radius, 1.25" Border, White on, Green;
"Jackson Blvd", E Mod 2K;
Table of letter and object lefts

J 11.8	**a** 19.9	**c** 27.6	**k** 35.4	**s** 42.3	**o** 49.3	**n** 57.2			
			B 70.5	**l** 79.2	**v** 83.2	**d** 90.9			

Letter locations are panel edge to lower left corner

SIGN NUMBER	NCD-130A-PP
WIDTH x HEIGHT	9'-0" x 2'-0"
BORDER WIDTH	1.25"
CORNER RADIUS	4"
MOUNTING	Overhead
BACKGROUND	**TYPE:** Reflective - ZZ
	COLOR: Green
LEGEND/BORDER	**TYPE:** Reflective - ZZ
	COLOR: White

SYMBOL	ROT	X	Y	WID	HT

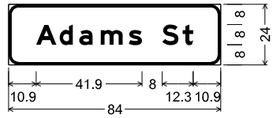


4.0" Radius, 1.3" Border, White on, Green;
"Monroe St", E Mod 2K;
Table of letter and object lefts

M 10.1	**o** 19.6	**n** 27.5	**r** 36.0	**o** 41.2	**e** 48.4				
			S 61.6	**t** 69.7					

SIGN NUMBER	NCD-157-PP
WIDTH x HEIGHT	7'-0" x 2'-0"
BORDER WIDTH	1.3"
CORNER RADIUS	4"
MOUNTING	Overhead
BACKGROUND	**TYPE:** Reflective - ZZ
	COLOR: Green
LEGEND/BORDER	**TYPE:** Reflective - ZZ
	COLOR: White

SYMBOL	ROT	X	Y	WID	HT



4.0" Radius, 1.25" Border, White on, Green;
"Adams St", E Mod 2K;
Table of letter and object lefts

A 10.9	**d** 20.2	**a** 28.0	**m** 36.4	**s** 47.6					
			S 60.8	**t** 68.9					

Letter locations are panel edge to lower left corner

SIGN NUMBER	NCD-132A-PP
WIDTH x HEIGHT	7'-0" x 2'-0"
BORDER WIDTH	1.25"
CORNER RADIUS	4"
MOUNTING	Overhead
BACKGROUND	**TYPE:** Reflective - ZZ
	COLOR: Green
LEGEND/BORDER	**TYPE:** Reflective - ZZ
	COLOR: White

SYMBOL	ROT	X	Y	WID	HT

FILE PATH = pw:\\AECOM-NA-AWS1.aecomonline.local#AECOM_DS02_NA\Documents\01 Americas\Transportation\60269938 Circle\Phase_II\000_CAD\006_Roadway\Sheets\62A76 Contract\D162A76-SHT-Sign-Panel-Detail-23C.dgn

TranSystems

D162A76-SHT-Sign-Panel-Detail-23C.dgn	DESIGNED - HJF	REVISED -
USER NAME = mlroe	DRAWN - MSW	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - MJL	REVISED -
PLOT DATE = 1/30/2020	DATE - 1/29/20	REVISED -

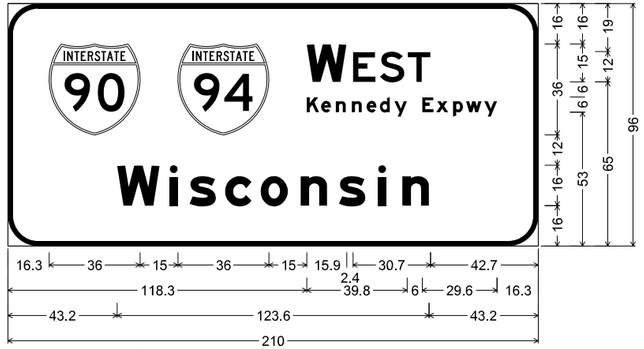
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN PANEL DETAIL

SCALE: NONE | SHEET 25 OF 36 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	915
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

SIGN DETAIL
1:50



12.0" Radius, 2.0" Border, White on Green;
[W] E Mod 2K [EST] E 2K; [Kennedy Expwy] E Mod 2K;
[Wisconsin] E Mod 2K;
Table of letter and object lefts.

90 16.3	94 67.3	W 118.3	E 136.6	S 147.3	T 158.3

K 118.3	e 124.0	n 129.8	n 136.2	e 142.0	d 147.3	y 153.0	E 164.1	x 169.6	p 176.3	w 181.4	y 188.6	

W 43.2	i 64.0	s 71.9	c 86.0	o 100.0	n 115.9	s 131.1	i 146.6	n 156.2

SIGN NUMBER	NB-134-BM
WIDTH x HEIGHT	17'-6" x 8'-0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective - ZZ
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective - ZZ
	COLOR: White

SYMBOL	ROT	X	Y	WID	HT
M1_1	0	-	-	36	36
M1_1	0	-	-	36	36

Letter locations are panel edge to lower left corner

FILE PATH = pw:\\AECOM-NA-AWS1.aecomonline.local#AECOM.DS02.NA\Documents\01 Americas\Transportation\60269938 Circle\Phase II\000 CAD\006 Roadway\Sheets\62A76 Contract\D162A76-SHT-Sign-Panel-Detail-24.dgn

TranSystems

D162A76-SHT-Sign-Panel-Detail-24.dgn	DESIGNED - HJF	REVISED -
USER NAME = amkluver	DRAWN - MSW	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - MJL	REVISED -
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

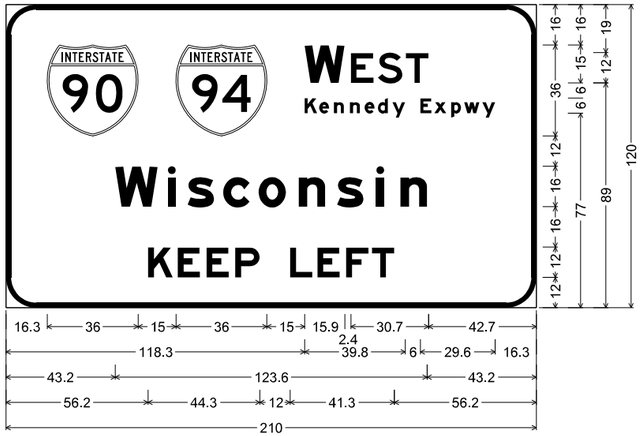
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN PANEL DETAIL

SCALE: NONE | SHEET 27 OF 36 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	916
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

SIGN DETAIL
1:50



12.0" Radius, 2.0" Border, White on Green;
[W] E Mod 2K [EST] E 2K; [Kennedy Expwy] E Mod 2K;
[Wisconsin] E Mod 2K; [KEEP LEFT] E Mod 2K;
Table of letter and object lefts.

90 16.3	94 67.3	W 118.3	E 136.6	S 147.3	T 158.3

K 118.3	e 124.0	n 129.8	n 136.2	e 142.0	d 147.3	y 153.0	E 164.1	x 169.6	p 176.3	w 181.4	y 188.6	

W 43.2	i 64.0	s 71.9	c 86.0	o 100.0	n 115.9	s 131.1	i 146.6	n 156.2

K 56.2	E 68.0	E 79.4	P 90.8	L 112.5	E 123.3	F 134.7	T 144.9

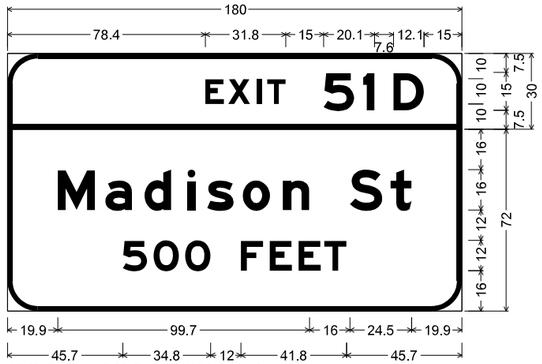
SIGN NUMBER	NCD-135-BM
WIDTH x HEIGHT	17'-6" X 10'-0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective - ZZ
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective - ZZ
	COLOR: White

SYMBOL	ROT	X	Y	WID	HT
M1_1	0	-	-	36	36
M1_1	0	-	-	36	36

Letter locations are panel edge to lower left corner

FILE PATH = pw:\\AECOM-NA-AWS1.aecomonline.local:AECOM_DS02_NA\Documents\01 Americas\Transportation\60269938 Circle\Phase II\000.CAD\006.Roadway\Sheets\62A76 Contract\D162A76-SHT-Sign-Panel-Detail-25.dgn

SIGN DETAIL
1:50



12.0" Radius, 2.0" Border, White on Green;
[EXIT] E Mod 2K 120% spacing; [51 D] E Mod 2K;
12.0" Radius, 2.0" Border, White on Green;
[Madison St] E Mod 2K; [500 FEET] E Mod 2K;
Table of letter and object lefts.

E 78.4	**X** 87.5	**I** 98.7	**T** 102.8	**5** 125.2	**1** 140.8	**D** 152.9	
M 19.9	**a** 38.8	**d** 54.3	**i** 71.3	**s** 79.1	**o** 93.2	**n** 109.0	**S** 135.6	**t** 151.8
5 45.7	**0** 57.9	**0** 70.4	**F** 92.5	**E** 103.9	**E** 115.3	**T** 125.5	

Letter locations are panel edge to lower left corner

SIGN NUMBER	NCD-136-BM	
WIDTH x HEIGHT	15'-0" X 8'-6"	
BORDER WIDTH	2"	
CORNER RADIUS	12"	
MOUNTING	Overhead	
BACKGROUND	**TYPE:**	Reflective - ZZ
	COLOR:	Green
LEGEND/BORDER	**TYPE:**	Reflective - ZZ
	COLOR:	White

SYMBOL	ROT	X	Y	WID	HT

FILE PATH = p:\\AECOM-NA-AWS1.aecomonline.local\AECOM_DS02_NA\Documents\01 Americas\Transportation\60269938 Circle\Phase II\000_CAD\006_Roadway\Sheets\62A76 Contract\D162A76-SHT-Sign-Panel-Detail-26.dgn

TranSystems

D162A76-SHT-Sign-Panel-Detail-26.dgn	DESIGNED - HJF	REVISED -
USER NAME = amkluver	DRAWN - MSW	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - MJL	REVISED -
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

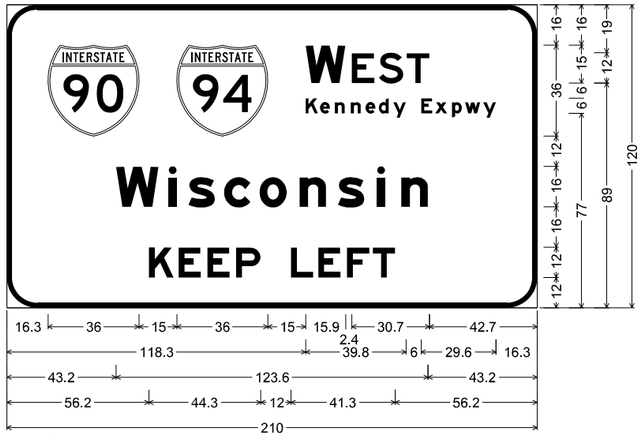
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN PANEL DETAIL

SCALE: NONE | SHEET 29 OF 36 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	918
		CONTRACT NO. 62A76		
	ILLINOIS FED. AID PROJECT			

SIGN DETAIL
1:50



12.0" Radius, 2.0" Border, White on Green;
[W] E Mod 2K [EST] E 2K; [Kennedy Expwy] E Mod 2K;
[Wisconsin] E Mod 2K; [KEEP LEFT] E Mod 2K;
Table of letter and object lefts.

90 16.3	94 67.3	W 118.3	E 136.6	S 147.3	T 158.3

K 118.3	e 124.0	n 129.8	n 136.2	e 142.0	d 147.3	y 153.0	E 164.1	x 169.6	p 176.3	w 181.4	y 188.6	

W 43.2	i 64.0	s 71.9	c 86.0	o 100.0	n 115.9	s 131.1	i 146.6	n 156.2	

K 56.2	E 68.0	E 79.4	P 90.8	L 112.5	E 123.3	F 134.7	T 144.9

Letter locations are panel edge to lower left corner

SIGN NUMBER	NCD-149-BM
WIDTH x HEIGHT	17'-6" x 10'-0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective - ZZ
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective - ZZ
	COLOR: White

SYMBOL	ROT	X	Y	WID	HT
M1_1	0	-	-	36	36
M1_1	0	-	-	36	36

FILE PATH = pw:\AECOM-NA-AWS\aecomonline.local\AECOM_DS02_NA\Documents\01 Americas\Transportation\60269938 Circle\Phase II\002.CAD\006.Roadway\Sheets\62A76 Contract\D162A76-SHT-Sign-Panel-Detail-27.dgn

TranSystems

D162A76-SHT-Sign-Panel-Detail-27.dgn	DESIGNED - HJF	REVISED -
USER NAME = amkluver	DRAWN - MSW	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - MJL	REVISED -
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

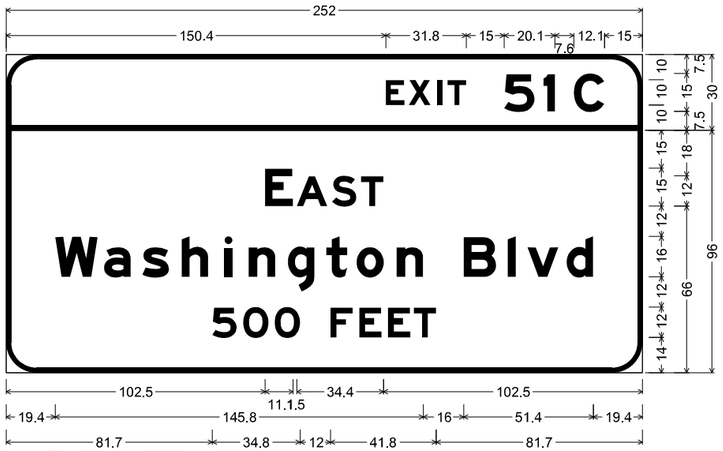
OVERHEAD SIGN STRUCTURES
SIGN PANEL DETAIL

SCALE: NONE | SHEET 30 OF 36 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	919
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

SIGN DETAIL

1:50



12.0" Radius, 2.0" Border, White on Green;
[EXIT] E Mod 2K 120% spacing; [51 C] E Mod 2K;
12.0" Radius, 2.0" Border, White on Green;
[EAST] E Mod 2K; [Washington Blvd] E Mod 2K; [500 FEET] E Mod 2K;
Table of letter and object lefts.

E 150.4	**X** 159.5	**I** 170.7	**T** 174.8	**5** 197.2	**I** 212.8	**C** 224.9

E 102.5	**A** 115.1	**S** 129.1	**T** 140.6

W 19.4	**a** 38.8	**s** 54.0	**h** 69.5	**i** 86.5	**n** 96.1	**g** 111.6	**t** 126.8	**o** 138.8	**n** 154.6	**B** 181.2	**l** 198.6	**v** 206.5	**d** 222.0

5 81.7	**O** 93.9	**O** 106.4	**F** 128.5	**E** 139.9	**E** 151.3	**T** 161.5

SIGN NUMBER	NCD-150-BM
WIDTH x HEIGHT	21'-0" x 10'-6"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	**TYPE:** Reflective - ZZ
	COLOR: Green
LEGEND/BORDER	**TYPE:** Reflective - ZZ
	COLOR: White

Letter locations are panel edge to lower left corner

SYMBOL	ROT	X	Y	WID	HT

FILE PATH = pw:\\AECOM-NA-AWS1.aecomonline.local\AECOM_DS02_NA\Documents\01 Americas\Transportation\60269938 Circle\Phase II\000_CAD\006_Roadway\Sheets\62A76 Contract\D162A76-SHT-Sign-Panel-Detail-28.dgn

TranSystems

D162A76-SHT-Sign-Panel-Detail-28.dgn	DESIGNED - HJF	REVISED -
USER NAME = amkluver	DRAWN - MSW	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - MJL	REVISED -
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

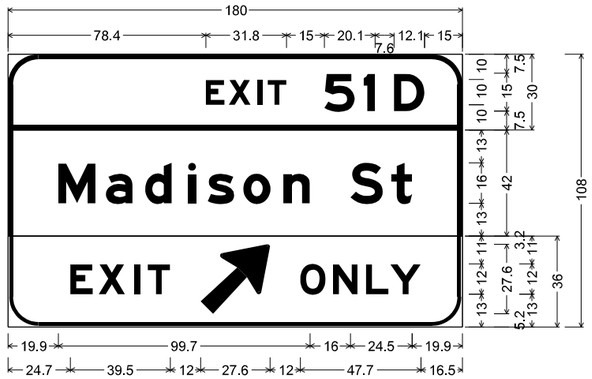
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN PANEL DETAIL

SCALE: NONE | SHEET 31 OF 36 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	920
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

SIGN DETAIL
1:50



12.0" Radius, 2.0" Border, White on, Green;
"EXIT", E Mod 2K 120% spacing; "51 D", E Mod 2K;

12.0" Radius, 2.0" Border, White on, Green;
"Madison St", E Mod 2K;

12.0" Radius, 1.5" Border, 0.5" Indent, Black on, Yellow;
"EXIT", E Mod 2K specified length; Arrow 160 - 35.0" 45';
"ONLY", E Mod 2K specified length;
Table of letter and object lefts

E 78.4	**X** 87.5	**I** 98.7	**T** 102.8	**5** 125.2	**1** 140.8	**D** 152.9

M 19.9	**a** 38.8	**d** 54.3	**i** 71.3	**s** 79.1	**o** 93.2	**n** 109.0	**S** 135.6	**t** 151.8

E 24.7	**X** 36.0	**I** 49.9	**T** 55.4	**↗** 76.2	**O** 115.8	**N** 128.7	**L** 141.8	**Y** 151.4

Letter locations are panel edge to lower left corner

SIGN NUMBER	NCD-151-BM
WIDTH x HEIGHT	15'-0" x 9'-0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	**TYPE:** Reflective - ZZ
	COLOR: Green / Yellow
LEGEND/BORDER	**TYPE:** Reflective - ZZ
	COLOR: White / Black

SYMBOL	ROT	X	Y	WID	HT
AR_Type A	315	-	-	22.3	35.6

NOTE: ALL ARROWS (DOWN OR 45 DEGREE) USED ON OVERHEAD SIGNS SHALL BE DEMOUNTABLE AND INCLUDED IN THE COST OF THE SIGN PANEL.

TranSystems

D162A76-SHT-Sign-Panel-Detail-29.dgn	DESIGNED - HJF	REVISED -
USER NAME = amkluver	DRAWN - MSW	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - MJL	REVISED -
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

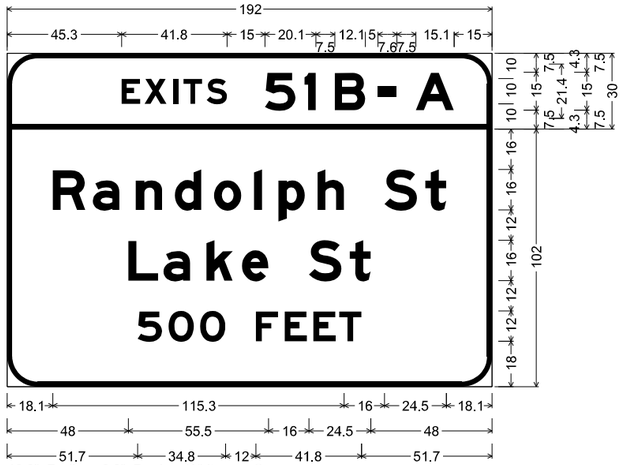
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN PANEL DETAIL

SCALE: NONE | SHEET 32 OF 36 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	921
		CONTRACT NO. 62A76		
	ILLINOIS FED. AID PROJECT			

SIGN DETAIL
1:50



12.0" Radius, 2.0" Border, White on Green;
[EXITS] E Mod 2K 120% spacing; [51 B - A] E Mod 2K;
12.0" Radius, 2.0" Border, White on Green;
[Randolph St] E Mod 2K; [Lake St] E Mod 2K;
[500 FEET] E Mod 2K;
Table of letter and object lefts.

E 45.3	**X** 54.4	**I** 65.6	**T** 69.8	**S** 79.0	**5** 102.1	**1** 117.7	**B** 129.7	**-** 146.8	**A** 161.9
R 18.1	**a** 33.9	**n** 50.9	**d** 66.4	**o** 81.9	**l** 97.8	**p** 107.4	**h** 122.9	**S** 149.4	**t** 165.6
L 48.0	**a** 61.9	**k** 78.9	**e** 93.0	**S** 119.5	**t** 135.7				
5 51.7	**0** 63.9	**0** 76.4	**F** 98.5	**E** 109.9	**E** 121.3	**T** 131.5			

SIGN NUMBER	NCD-167-OH
WIDTH x HEIGHT	16'-0" x 11'-0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	**TYPE:** Reflective - ZZ
	COLOR: Green
LEGEND/BORDER	**TYPE:** Reflective - ZZ
	COLOR: White

SYMBOL	ROT	X	Y	WID	HT

Letter locations are panel edge to lower left corner

FILE PATH = pw:\\AECOM-NA-AWS1.aecomonline.local#ECOM.DS02.NA\Documents\01 Americas\Transportation\60269938 Circle\Phase II\000 CAD\006 Roadway\Sheets\62A76 Contract\D162A76-SHT-Sign-Panel-Detail-31.dgn

TranSystems

D162A76-SHT-Sign-Panel-Detail-31.dgn	DESIGNED - HJF	REVISED -
USER NAME = amkluver	DRAWN - MSW	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - MJL	REVISED -
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

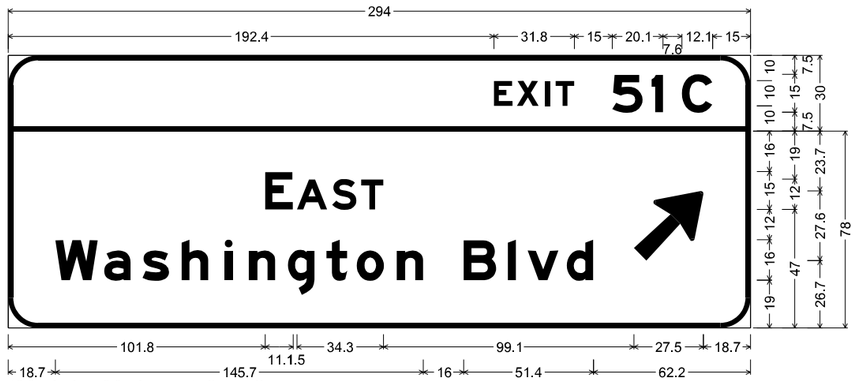
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN PANEL DETAIL

SCALE: NONE | SHEET 33 OF 36 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	922
		CONTRACT NO. 62A76		
	ILLINOIS FED. AID PROJECT			

SIGN DETAIL
1:50



12.0" Radius, 2.0" Border, White on Green;
[EXIT] E Mod 2K 120% spacing; [51 C] E Mod 2K;
12.0" Radius, 2.0" Border, White on Green;
[EAST] E Mod 2K; [Washington Blvd] E Mod 2K; Arrow 160 - 35.0" 45°;
Table of letter and object lefts.

E 192.4	**X** 201.5	**I** 212.7	**T** 216.8	**5** 239.2	**1** 254.8	**C** 266.9

E 101.8	**A** 114.4	**S** 128.3	**T** 139.8	↗ 247.8

W 18.7	**a** 38.0	**s** 53.2	**h** 68.8	**i** 85.7	**n** 95.3	**g** 110.8	**t** 126.0	**o** 138.0	**n** 153.9	**B** 180.4	**l** 197.9	**v** 205.7	**d** 221.2

Letter locations are panel edge to lower left corner

SIGN NUMBER	NCD-168-OH		
WIDTH x HEIGHT	24'-6" x 9'-0"		
BORDER WIDTH	2"		
CORNER RADIUS	12"		
MOUNTING	Overhead		
BACKGROUND	TYPE:	Reflective - ZZ	
	COLOR:	Green	
LEGEND/BORDER	TYPE:	Reflective - ZZ	
	COLOR:	White	

SYMBOL	ROT	X	Y	WID	HT
AR_Type A	315	-	-	22.3	35.6

NOTE: ALL ARROWS (DOWN OR 45 DEGREE) USED ON OVERHEAD SIGNS SHALL BE DEMOUNTABLE AND INCLUDED IN THE COST OF THE SIGN PANEL.

FILE PATH = pw:\\AECOM-NA-AWSI.aecomonline.local#ECOM.DS02.NA\Documents\01 Americas\Transportation\60269938 Circle\Phase II\000 CAD\006 Roadway\Sheets\62A76 Contract\D162A76-SHT-Sign-Panel-Detail-32.dgn

TranSystems

D162A76-SHT-Sign-Panel-Detail-32.dgn	DESIGNED - HJF	REVISED -
USER NAME = amkluver	DRAWN - MSW	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - MJL	REVISED -
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

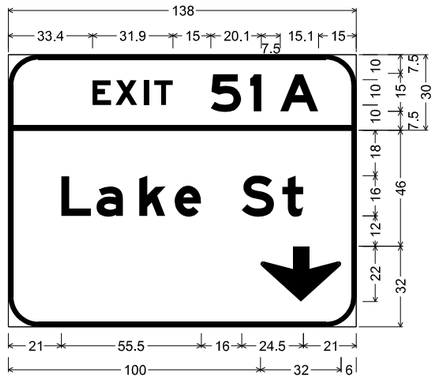
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN PANEL DETAIL

SCALE: NONE | SHEET 34 OF 36 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	923
		CONTRACT NO. 62A76		
	ILLINOIS FED. AID PROJECT			

SIGN DETAIL
1:50



12.0" Radius, 2.0" Border, White on, Green;
"EXIT", E Mod 2K specified length;
"51 A", E Mod 2K;

12.0" Radius, 2.0" Border, White on, Green;
"Lake St", E Mod 2K;

12.0" Radius, 2.0" Border, White on, Green;
Down Arrow 22.0" 270';
Table of letter and object lefts

E 33.4	**X** 42.5	**I** 53.7	**T** 57.9	**5** 80.3	**I** 95.9	**A** 107.8

L 21.0	**a** 34.9	**k** 51.9	**e** 66.0	**S** 92.5	**t** 108.7

100.0

Letter locations are panel edge to lower left corner

SIGN NUMBER	LXR-174-BM		
WIDTH x HEIGHT	11'-6" x 9'-0"		
BORDER WIDTH	2"		
CORNER RADIUS	12"		
MOUNTING	Overhead		
BACKGROUND	TYPE:	Reflective - ZZ	
	COLOR:	Green	
LEGEND/BORDER	TYPE:	Reflective - ZZ	
	COLOR:	White	

SYMBOL	ROT	X	Y	WID	HT
AR_Down	0	-	-	32	22

NOTE: ALL ARROWS (DOWN OR 45 DEGREE) USED ON OVERHEAD SIGNS SHALL BE DEMOUNTABLE AND INCLUDED IN THE COST OF THE SIGN PANEL.

FILE PATH = pw:\AECOM-NA-AWS.aecomonline.local:AECOM_DS02_NA\Documents\01 Americas\Transportation\60269938 Circle\Phase II\000_CAD\006-Roadway\Sheets\62A76 Contract\D162A76-SHT-Sign-Panel-Detail-33.dgn

TranSystems

D162A76-SHT-Sign-Panel-Detail-33.dgn	DESIGNED - HJF	REVISED -
USER NAME = amkluver	DRAWN - MSW	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - MJL	REVISED -
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

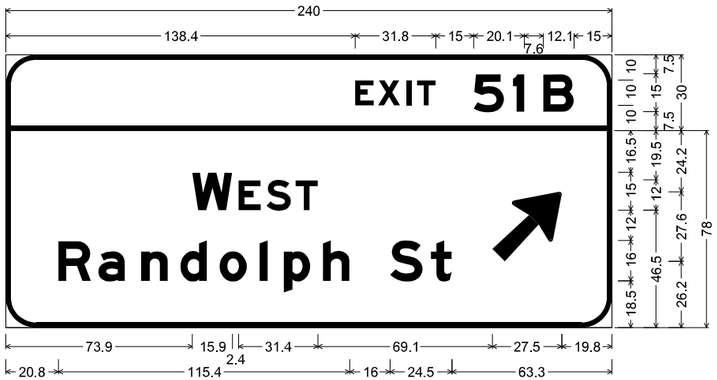
OVERHEAD SIGN STRUCTURES
SIGN PANEL DETAIL

SCALE: NONE | SHEET 35 OF 36 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	924
		CONTRACT NO. 62A76		
	ILLINOIS FED. AID PROJECT			

SIGN DETAIL

1:50



12.0" Radius, 2.0" Border, White on Green;
[EXIT] E Mod 2K 120% spacing; [51 B] E Mod 2K;
12.0" Radius, 2.0" Border, White on Green;
[WEST] E Mod 2K; [Randolph St] E Mod 2K; Arrow 160 - 35.0" 45°;
Table of letter and object lefts.

E 138.4	**X** 147.5	**I** 158.7	**T** 162.8	**5** 185.2	**1** 200.8	**B** 212.9

W 73.9	**E** 92.2	**S** 103.2	**T** 114.7	↗ 192.7

R 20.8	**a** 36.7	**n** 53.6	**d** 69.1	**o** 84.7	**l** 100.5	**p** 110.1	**h** 125.6	**S** 152.2	**t** 168.3

Letter locations are panel edge to lower left corner

SIGN NUMBER	LXR-175-BM
WIDTH x HEIGHT	20'-0" x 9'-0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	**TYPE:** Reflective - ZZ
	COLOR: Green
LEGEND/BORDER	**TYPE:** Reflective - ZZ
	COLOR: White

SYMBOL	ROT	X	Y	WID	HT
AR_Type A	315	-	-	22.3	35.6

NOTE: ALL ARROWS (DOWN OR 45 DEGREE) USED ON OVERHEAD SIGNS SHALL BE DEMOUNTABLE AND INCLUDED IN THE COST OF THE SIGN PANEL.

TranSystems

D162A76-SHT-Sign-Panel-Detail-34.dgn	DESIGNED - HJF	REVISED -
USER NAME = amkluver	DRAWN - MSW	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - MJL	REVISED -
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

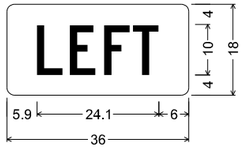
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN PANEL DETAIL

SCALE: NONE | SHEET 36 OF 36 SHEETS | STA. | TO STA.

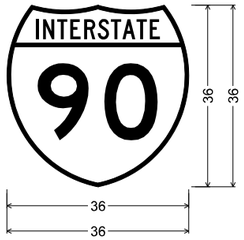
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	925
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

SIGN DETAIL
1:25



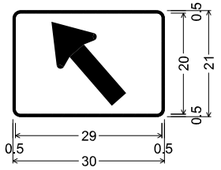
1.5" Radius, No border, Yellow;
"LEFT" Black, C 2K;
Table of distances between letter and object lefts

	L	E	F	T	
5.9	6.5	6.8	5.7	5.2	5.9



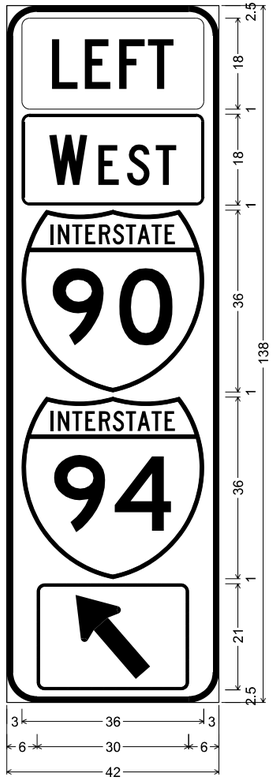
M1-1
Table of distances between letter and object lefts

-0.0	36.0	0.0



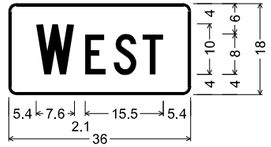
M6-2L
1.5" Radius, No border, White on, White;
Rounded Rectangle 1.0" Radius Blue;
Type D Arrow, Custom
Table of distances between letter and object lefts

0.5	29.0	0.5



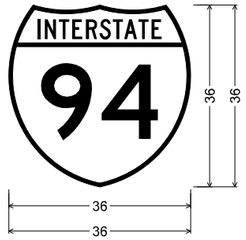
6.0" Radius, 1.3" Border, White on, Green;
Rounded Rectangle 1.5" Radius Yellow;
Rounded Rectangle 1.5" Radius;
Rounded Rectangle 1.5" Radius;
Table of distances between letter and object lefts

3.0	36.0	3.0
3.0	36.0	3.0
3.0	36.0	3.0
3.0	36.0	3.0
6.0	30.0	6.0



M3-4_36x18;
1.5" Radius, 0.5" Border, White on, Blue;
"WEST", C 2K specified length;
Table of distances between letter and object lefts

	W	E	S	T	
5.4	9.7	5.7	5.7	4.1	5.4



M1-1
Table of distances between letter and object lefts

0.0	36.0	0.0

SIGN NUMBER	NCD-186-BW NCD-187-BW
WIDTH x HEIGHT	3'-6" x 11'-6"
BORDER WIDTH	1.3"
CORNER RADIUS	6.0"
MOUNTING	Barrier Wall
BACKGROUND	TYPE: Reflective - ZZ
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective - ZZ
	COLOR: White

SYMBOL	ROT	X	Y	WID	HT
M1_1	0	-	-	36	36
M1_1	0	-	-	36	36
AR_Type D	225	-	-	19.3	40.7

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TranSystems

D162A76-SHT-Sign-Panel-Detail-35.dgn	DESIGNED - HJF	REVISED -
USER NAME = amkluver	DRAWN - MSW	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - MJL	REVISED -
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

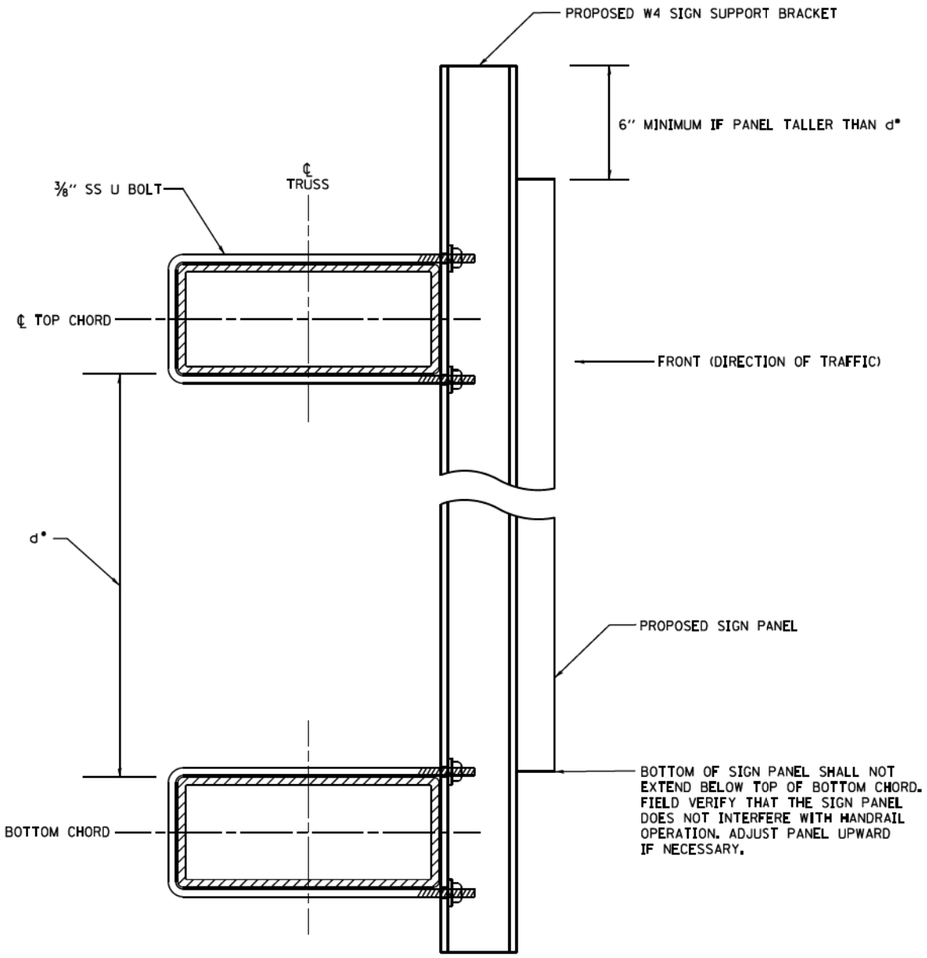
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN PANEL DETAIL

SCALE: NONE | SHEET 26 OF 36 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	926
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

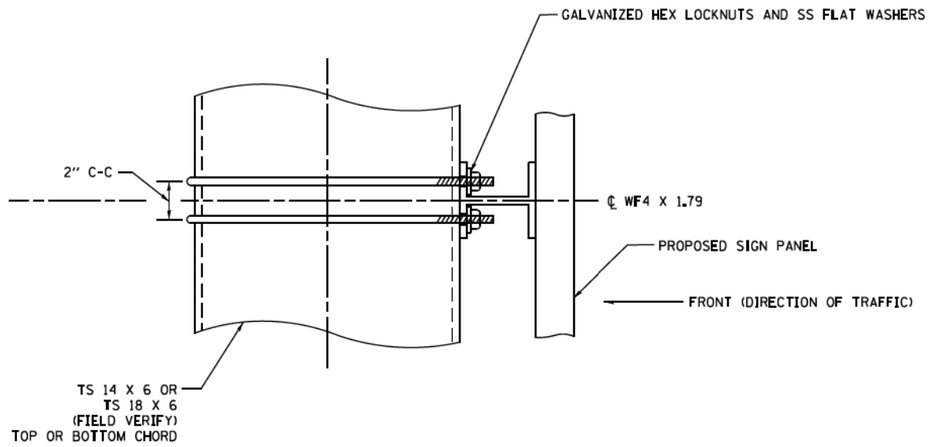
SIDE VIEW



d* - CLEAR SPAN BETWEEN TOP AND BOTTOM CHORDS

NOT TO SCALE

TOP VIEW



BRACKET TABLE

WF(A-N)4x1.79 ASTM B308, ALLOY 6061-T6		
SIGN WIDTH		NUMBER BRACKETS REQUIRED
GREATER THAN	LESS THAN OR EQUAL TO	
	8'-0"	2
8'-0"	14'-0"	3
14'-0"	20'-0"	4
20'-0"	26'-0"	5
26'-0"	32'-0"	6

NOTES:

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION.
2. THE ENTIRE HEIGHT OF ANY SIGN PANEL SEGMENT SHALL BE FULLY SUPPORTED.
3. SPACING OF PROPOSED SIGN SUPPORT BRACKETS SHALL BE PER BRACKET TABLE WITH A MAXIMUM C-C DISTANCE OF 6'-0"
4. SIGN PANELS OF VARYING SEGMENT HEIGHTS SHALL HAVE A MINIMUM OF TWO (2) SUPPORT BRACKETS PER SEGMENT.
5. THE COST OF INSTALLING BRACKETS AS NECESSARY TO INSTALL TEMPORARY, PERMANENT, OR RELOCATED SIGNS SHALL BE CONSIDERED INCLUDED IN THE COST OF SIGN PANEL-TYPE 3; RELOCATE SIGN PANEL-TYPE 3; AND TEMPORARY INFORMATION SIGNING.

FILE NAME =	USER NAME = mullermd	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 112.1442 ' / in.	CHECKED -	REVISED -
Default	PLOT DATE = 12/7/2015	DATE -	REVISED -

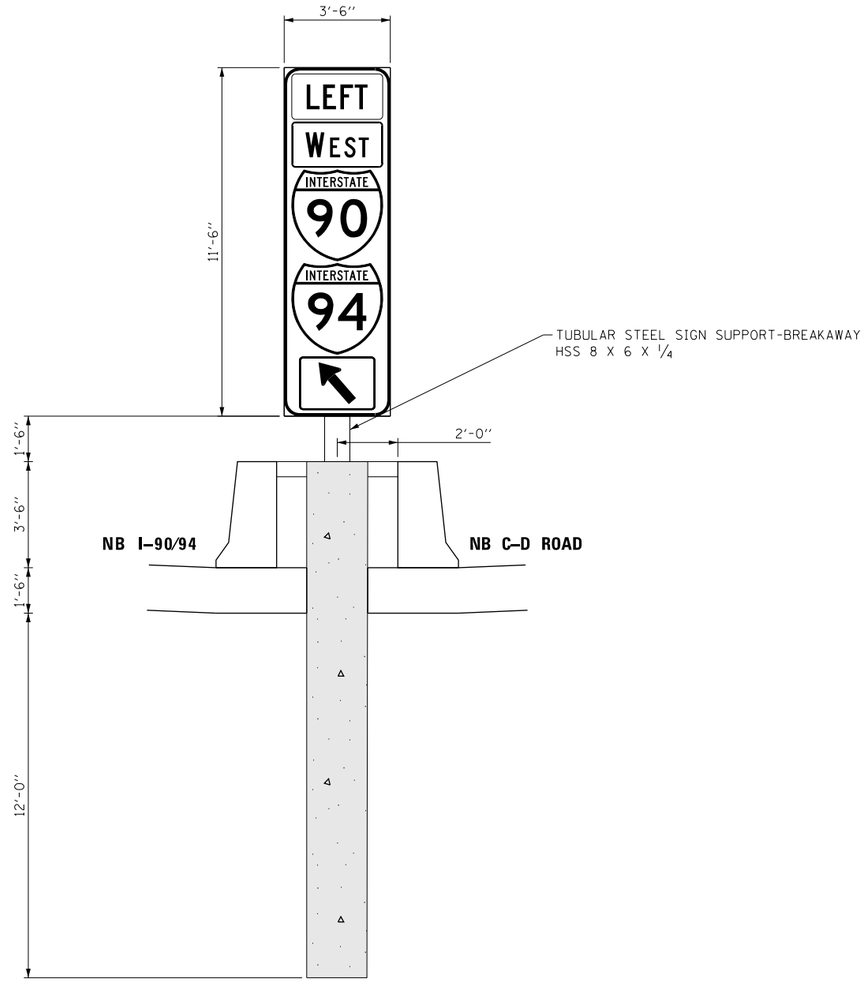
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
OVERHEAD SIGN STRUCTURE HANGER DETAIL FOR VIERENDEEL TRUSS

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	2015-019R	COOK	2155	927
*90/94/290		CONTRACT NO. 62A76		
	ILLINOIS FED. AID PROJECT			

S:\Structural Operations\Vierendeels\Vierendeel hanger connection.dgn



NOTE:

1. SEE SHEETS 927B- 927CFOR ADDITIONAL DETAILS.

GROUND MOUNTED SIGN DETAIL

NCD-186-BS STA 6351+16.30

NCD-187-BS STA 6531+31.00

LOOKING NORTH

FILE PATH = pw:\\AECOM-NA-AWS1.aecomonline.local:AECOM_DS02_NA\Documents\01 Americas\Transportation\60269938 Circle\Phase II\000.CAD\006.Roadway\Sheets\62A76 Contract\D162A76-sht-Sign-GroundMountedDetail.dgn

TranSystems

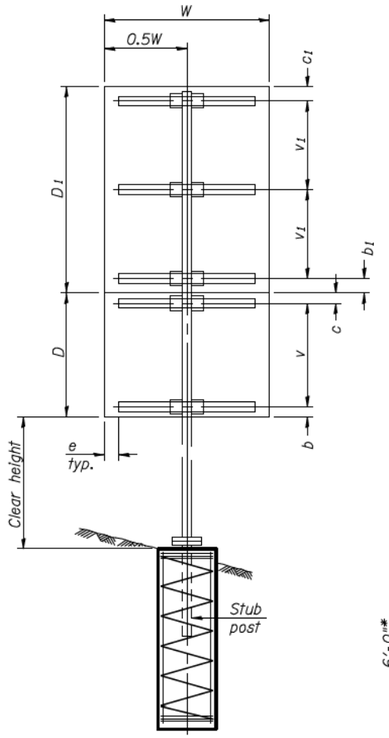
D162A76-sht-Sign-GroundMountedDetail.dgn	DESIGNED - HJF	REVISED -
USER NAME = amkluver	DRAWN - JRD	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - MJL	REVISED -
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

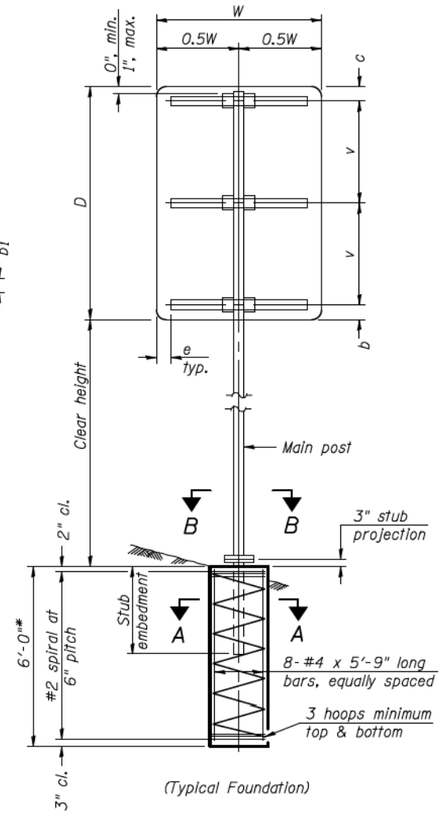
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GROUND MOUNTED SIGN DETAIL

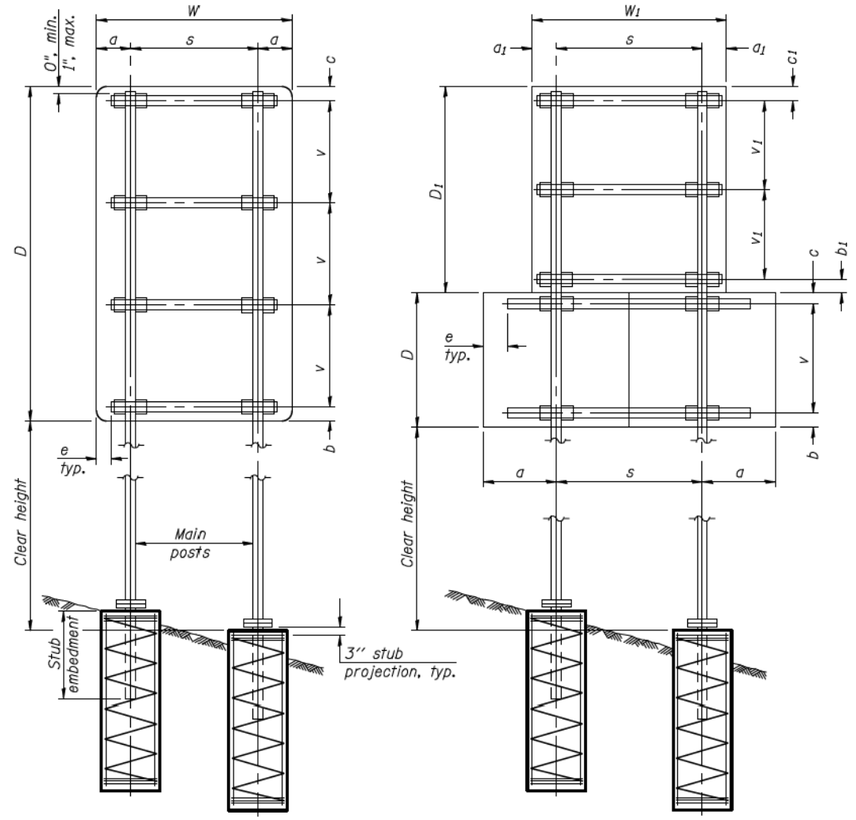
SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	927A
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		





(Typical Foundation)



GENERAL NOTES

Posts shall be plumbed by using shims with post-to-stub post connection bolts snug tight only. Final tightening of all High Strength Bolts shall be in accordance with Article 727.05 and threads at the junction of the bolt and nut shall be burred or center punched to prevent the nut from loosening.

One foundation requires 0.7 cubic yards of concrete and 46 pounds of reinforcement bars and spiral hoops.

LOADING: 80 mph wind with 30% gust factor, normal to sign.

DESIGN STRESSES:
Structural steel - 20,000 psi
Reinforcing steel - 20,000 psi
Concrete - 1,400 psi
Footing soil pressure - 2,000 psf

After fabrication, the post, fuse plate, base plate and upper 6", min. of the stub post shall be hot-dip galvanized in accordance with AASHTO M111. All bolts, nuts and washers shall be hot-dip galvanized in accordance with AASHTO M232.

For Sections A-A and B-B, see Base Sheet BAT-A-2.

FOUNDATIONS:
All necessary excavation or drilling (except in rock); backfilling with excavated material; disposal of unsuitable or surplus material; formwork; and furnishing and placing the Class SI Concrete and reinforcement bars, shall be included in the pay item used for foundations.

The measurement of the tubular steel shall be computed on the basis of the weight per foot of the support, multiplied by the combined length of the main posts and stub posts.

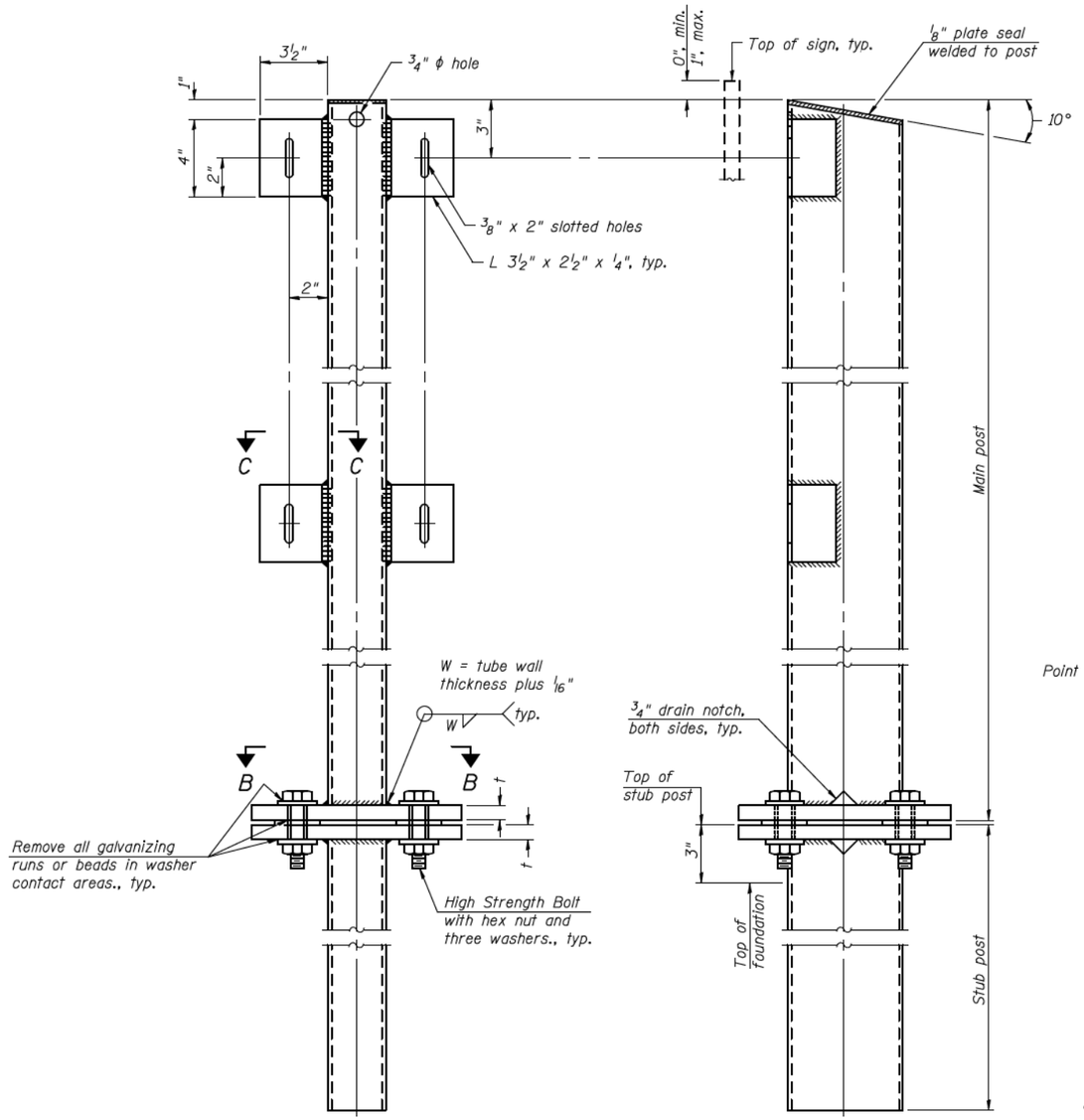
SINGLE POST ASSEMBLY EXAMPLES

* Dimensional changes required for varying site conditions shall be approved by the Engineer.

a or a_1 = 6" min. to 2'-0" max. (Approximately 0.2W or 0.2W_1)
b or b_1 = 3" min. to 4" max
c or c_1 = 3" min. to 4" max
e = 0" min. to 6" max
s = 3'-0" min. to 6'-0" max. (Approximately 0.6W or 0.6W_1)
v or v_1 = 2'-0" min. to 2'-11" max.

DUAL POST ASSEMBLY EXAMPLES

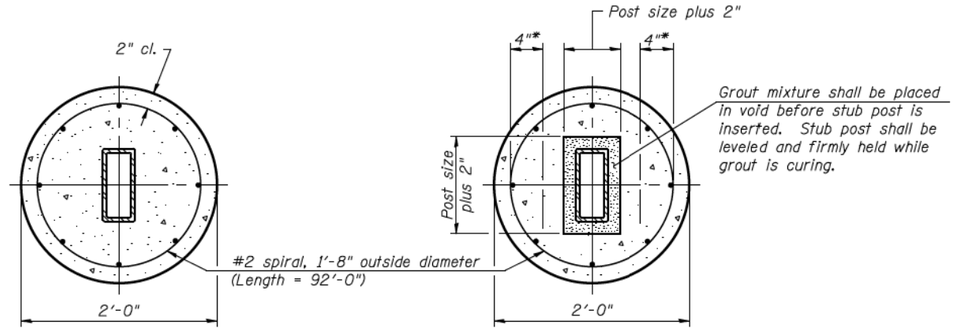
MAIN POST STEEL TUBING	WEIGHT PER FOOT (POUND)	STUB POST TABLE		MAIN POST TABLE				
		Stub Embedment	Stub Post Length	Bolt Size	A	t	R	Bolt Circle
3" x 2" x 1/4"	7.11	2'-0"	2'-3"	1/2" x 2 3/4"	8 1/4"	5/8"	9/32"	6 1/2"
4" x 2" x 1/4"	8.81	2'-0"	2'-3"	1/2" x 2 3/4"	8 1/4"	5/8"	9/32"	6 1/2"
4" x 3" x 1/4"	10.51	2'-3"	2'-6"	5/8" x 3 1/4"	10"	3/4"	11/32"	8"
5" x 3" x 1/4"	12.21	2'-3"	2'-6"	5/8" x 3 1/4"	10"	3/4"	11/32"	8"
6" x 3" x 1/4"	13.91	2'-3"	2'-6"	5/8" x 3 1/4"	11 1/2"	3/4"	11/32"	9 1/2"
6" x 4" x 1/4"	15.62	2'-3"	2'-6"	3/4" x 3 1/2"	11 1/2"	3/4"	13/32"	9 1/2"
6" x 4" x 5/16"	19.08	2'-3"	2'-6"	3/4" x 3 1/2"	11 1/2"	3/4"	13/32"	9 1/2"
7" x 5" x 1/4"	19.02	2'-6"	2'-9"	3/4" x 3 1/2"	1'-2"	3/4"	13/32"	1'-0"
8" x 4" x 1/4"	19.02	2'-6"	2'-9"	3/4" x 3 1/2"	1'-2"	3/4"	13/32"	1'-0"
8" x 6" x 1/4"	22.42	2'-6"	2'-9"	7/8" x 3 1/2"	1'-2"	3/4"	15/32"	1'-0"



FRONT ELEVATION

SIDE ELEVATION

MAIN POST & STUB POST

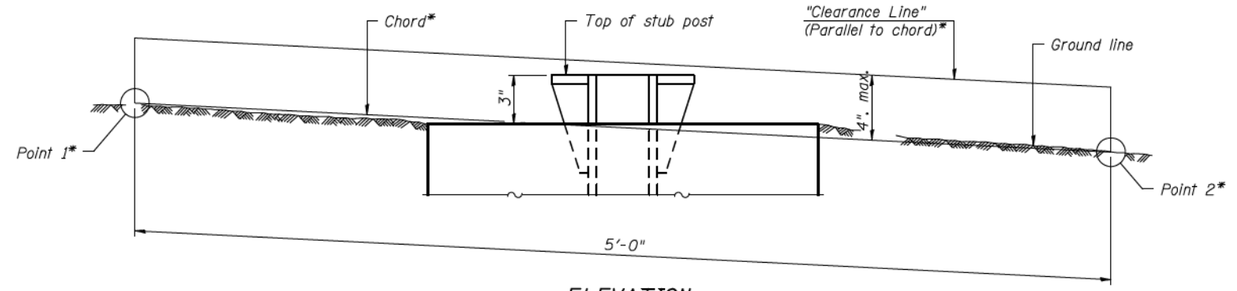


SECTION A-A
(CAST-IN-PLACE)

OR

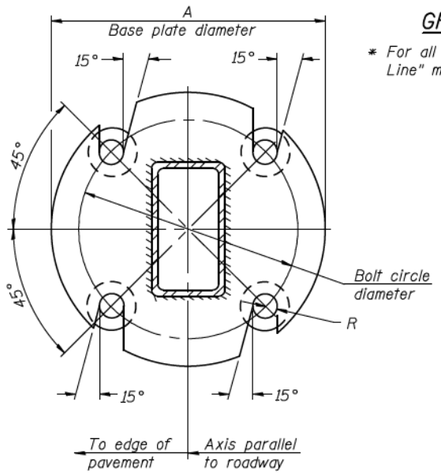
SECTION A-A
(PRECAST)

* Hot dip galvanized lifting loops or inserts may be placed in precast foundation inside the spiral reinforcement but not within 6" of the long axis of the post. Inserts must be adequate for safely lifting a total of 3,000 pounds and must not interfere with installation of the stub post or proper functioning of the slip base.

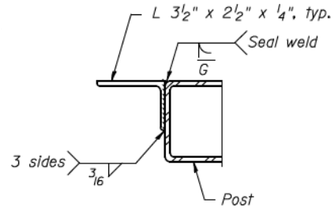


ELEVATION
GROUND LINE & STUB POST

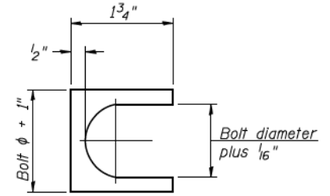
* For all "Point 1" and "Point 2" locations, "Clearance Line" must be at or above top of stub post.



SECTION B-B



SECTION C-C
Weld continuously around corners.



SHIM DETAIL
Furnish two 0.01" thick and two 0.03" thick stainless steel or brass (ASTM B36) shims per post.

BAT-A-2 6-1-12

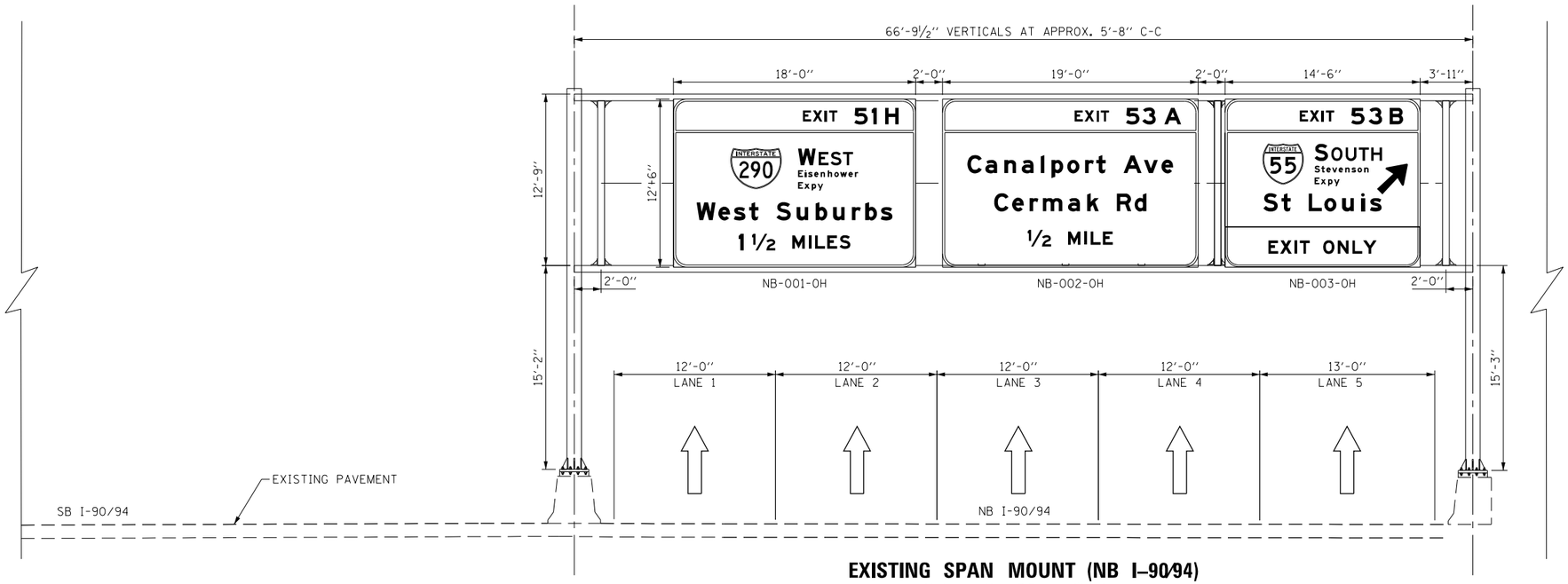
(Sheet 2 of 2)

FILE NAME =	USER NAME =	DESIGNED -	REVISED
		CHECKED -	REVISED
	PLOT SCALE =	DRAWN -	REVISED
	PLOT DATE =	CHECKED -	REVISED

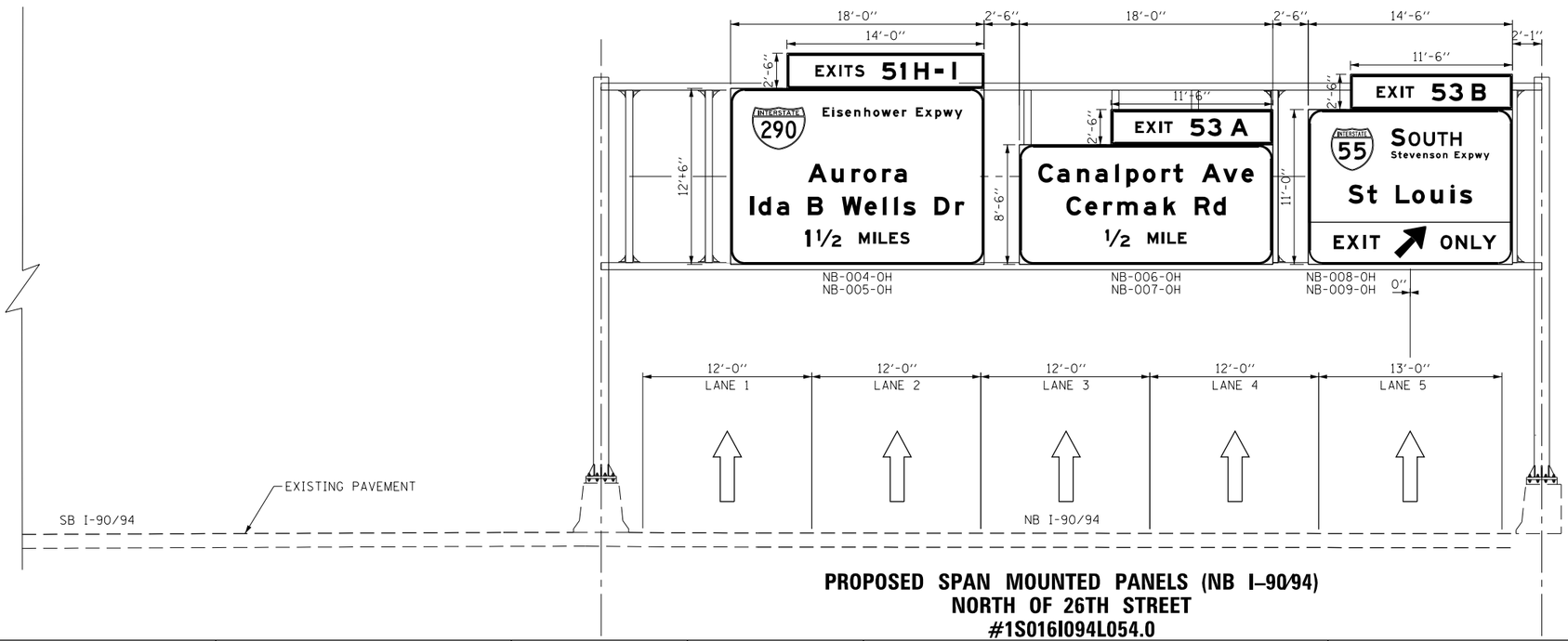
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BREAK-AWAY TUBULAR STEEL SIGN POSTS AND DETAILS
SHEET NO. 2 OF 2 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	2015-019R	COOK	2155	927C
•90/94/290		CONTRACT NO. 62A76		
ILLINOIS FED. AID PROJECT				



EXISTING SPAN MOUNT (NB I–90/94)
NORTH OF 26TH STREET
#1S016I094L054.0



PROPOSED SPAN MOUNTED PANELS (NB I–90/94)
NORTH OF 26TH STREET
#1S016I094L054.0

SIGN NUMBERING CODE EXAMPLE

DP-01-LP

DIRECTION OF TRAFFIC
- NB - NB I-90/94
- EN - RAMP EN
- NW - RAMP NW
- NCD - NORTHBOUND C-D ROAD
- AER - ADAMS ENTRANCE RAMP
- JER - JACKSON ENTRANCE RAMP
- LXR - LAKE EXIT RAMP
- MXR - MADISON EXIT RAMP
- RER - ROOSEVELT ENTRANCE RAMP
- RXR - RANDOLPH EXIT RAMP
- TER - TAYLOR ENTRANCE RAMP
- WXR - WASHINGTON EXIT RAMP

SIGN PANEL NUMBER

MOUNTING TYPE
- ST - STEEL POST
- TS - TELESCOPING STEEL
- LP - LIGHT POLE BANDING
- SP - SIGNAL POLE BANDING
- SA - SIGNAL POLE MAST ARM
- BM - BRIDGE MOUNTED
- BS - BREAKAWAY STEEL
- WP - WOOD POST
- OH - OVERHEAD
- TM - TRUSS SUPPORT MOUNTED
- FM - FENCE MOUNTED
- MP - METAL POST
- BW - BARRIER WALL MOUNTED
- PP - PARAPET OR PIER MOUNTED

NB-01

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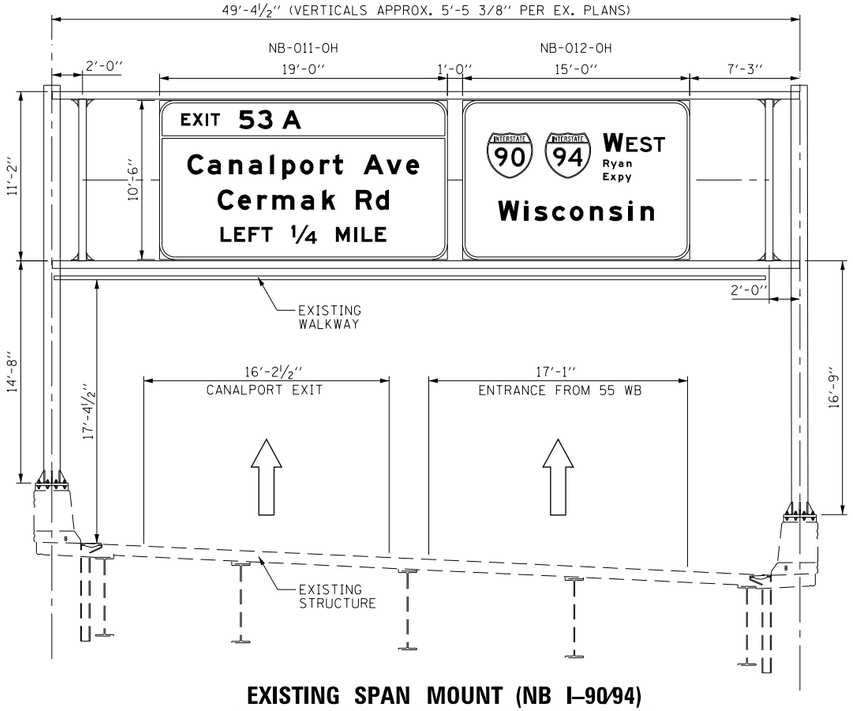
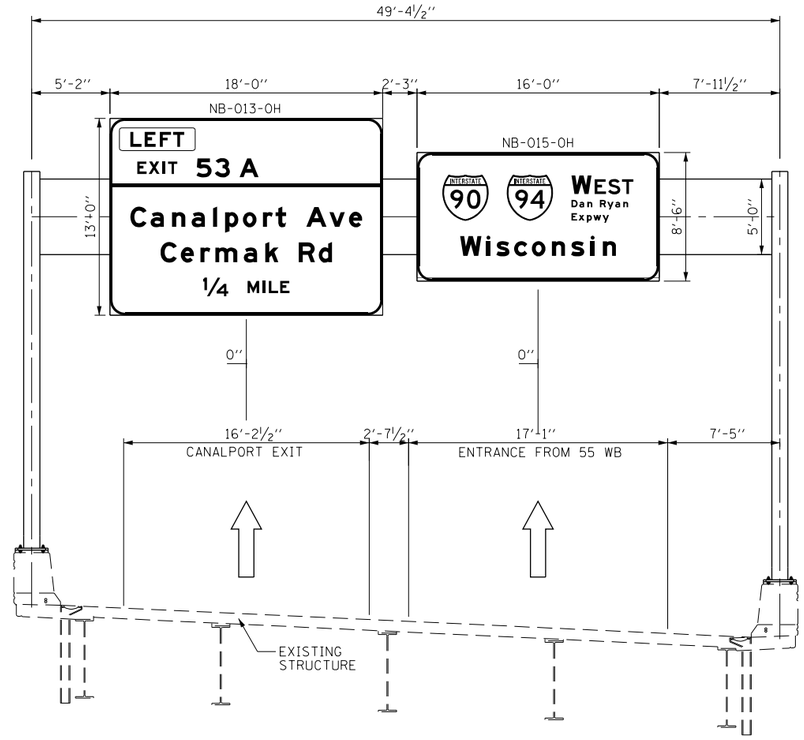
D162A76-SHT-Sign-OSS-01.dgn	DESIGNED - HJF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
USER NAME = amkluver	DRAWN - MSW	REVISED -	OVERHEAD SIGN STRUCTURES SIGN PANEL PLACEMENT
PLOT SCALE = 10.0000 ' / in.	CHECKED - MJL	REVISED -	SCALE: 1'' = 5' SHEET 1 OF 23 SHEETS STA. TO STA.
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -	

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	928
		CONTRACT NO. 62A76		
		ILLINOIS FED. AID PROJECT		



EXISTING SPAN MOUNT (NB I–90/94)
NEAR ARCHER AVENUE STA 120+18.82
#1S016I094L053.6



PROPOSED TRI–CHORD MOUNT (NB I–90/94)
NEAR ARCHER AVENUE STA 120+18.82
#1S016I094L053.6

SIGN NUMBERING CODE EXAMPLE

DP-01-LP

DIRECTION OF TRAFFIC
- NB - NB I-90/94
- EN - RAMP EN
- NW - RAMP NW
- NCD - NORTHBOUND C-D ROAD
- AER - ADAMS ENTRANCE RAMP
- JER - JACKSON ENTRANCE RAMP
- LXR - LAKE EXIT RAMP
- MXR - MADISON EXIT RAMP
- RER - ROOSEVELT ENTRANCE RAMP
- RXR - RANDOLPH EXIT RAMP
- TER - TAYLOR ENTRANCE RAMP
- WXR - WASHINGTON EXIT RAMP

SIGN PANEL NUMBER

MOUNTING TYPE
- ST - STEEL POST
- TS - TELESCOPING STEEL
- LP - LIGHT POLE BANDING
- SP - SIGNAL POLE BANDING
- SA - SIGNAL POLE MAST ARM
- BM - BRIDGE MOUNTED
- BS - BREAKAWAY STEEL
- WP - WOOD POST
- OH - OVERHEAD
- TM - TRUSS SUPPORT MOUNTED
- FM - FENCE MOUNTED
- MP - METAL POST
- BW - BARRIER WALL MOUNTED
- PP - PARAPET OR PIER MOUNTED

NB-02

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D162A76-SHT-Sign-OSS-02.dgn	DESIGNED - HJF	REVISED -	
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PLOT SCALE = 10.0000 ' / in.	CHECKED - MJL	REVISED -	
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -	

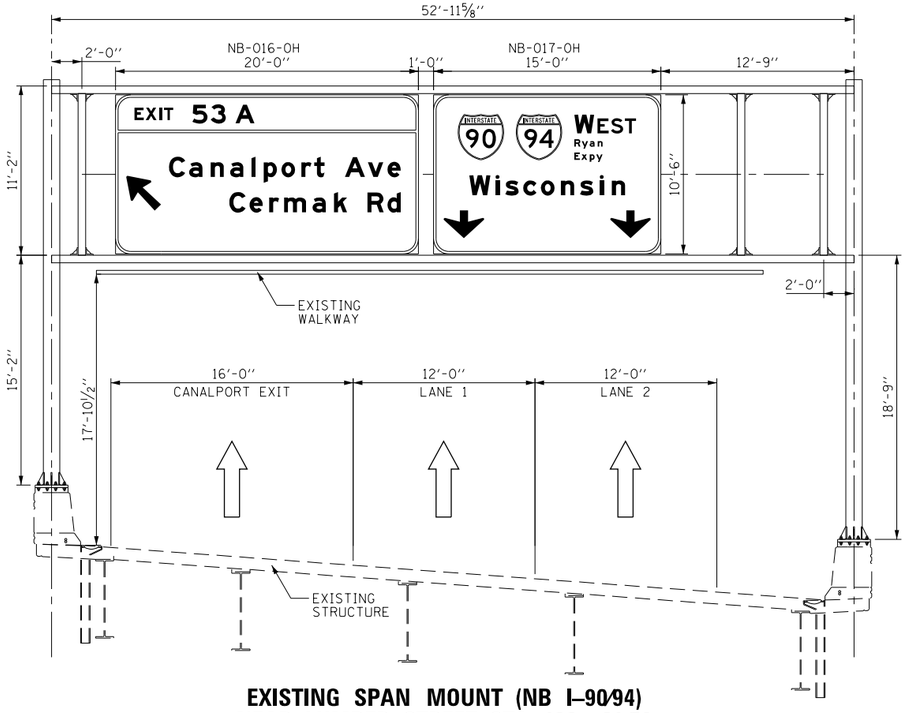
TranSystems

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

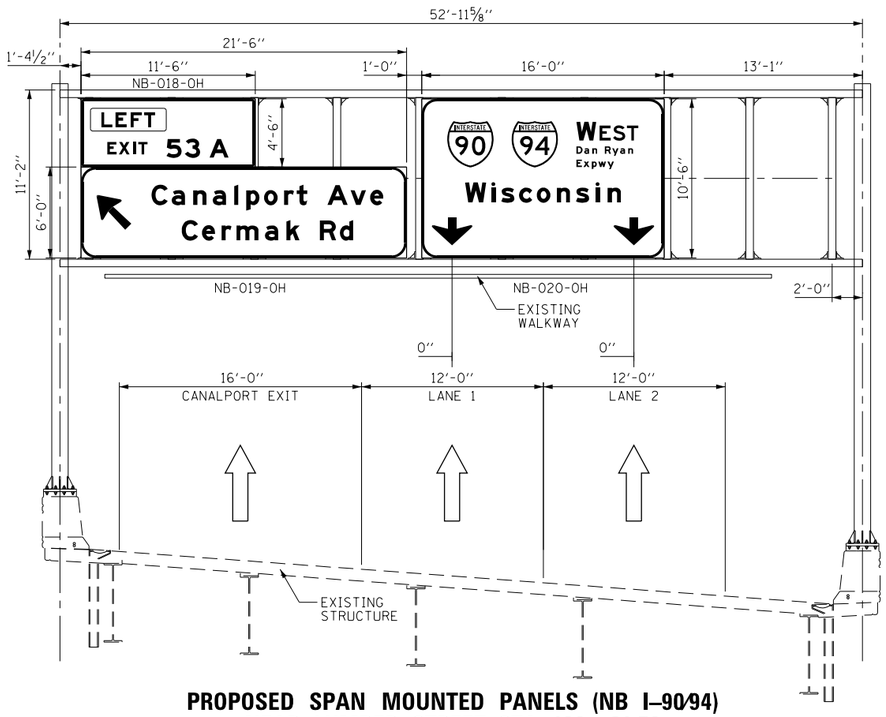
OVERHEAD SIGN STRUCTURES
SIGN PANEL PLACEMENT

SCALE: 1" = 5' | SHEET 2 OF 23 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	929
		CONTRACT NO. 62A76		
	ILLINOIS FED. AID PROJECT			



EXISTING SPAN MOUNT (NB I–90/94)
NEAR LUMBER STREET STA 130 + 31.78
#1S016I094L053.3



PROPOSED SPAN MOUNTED PANELS (NB I–90/94)
NEAR LUMBER STREET STA 130 + 31.78
#1S016I094L053.3

SIGN NUMBERING CODE
EXAMPLE

DP-01-LP

DIRECTION OF TRAFFIC
- NB - NB I-90/94
- EN - RAMP EN
- NW - RAMP NW
- NCD - NORTHBOUND C-D ROAD
- AER - ADAMS ENTRANCE RAMP
- JER - JACKSON ENTRANCE RAMP
- LXR - LAKE EXIT RAMP
- MXR - MADISON EXIT RAMP
- RER - ROOSEVELT ENTRANCE RAMP
- RXR - RANDOLPH EXIT RAMP
- TER - TAYLOR ENTRANCE RAMP
- WXR - WASHINGTON EXIT RAMP

SIGN PANEL NUMBER

MOUNTING TYPE
- ST - STEEL POST
- TS - TELESCOPING STEEL
- LP - LIGHT POLE BANDING
- SP - SIGNAL POLE BANDING
- SA - SIGNAL POLE MAST ARM
- BM - BRIDGE MOUNTED
- BS - BREAKAWAY STEEL
- WP - WOOD POST
- OH - OVERHEAD
- TM - TRUSS SUPPORT MOUNTED
- FM - FENCE MOUNTED
- MP - METAL POST
- BW - BARRIER WALL MOUNTED
- PP - PARAPET OR PIER MOUNTED

NB-03

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TranSystems

DI62A76-SHT-Sign-OSS-03.dgn	DESIGNED - HJF	REVISED -
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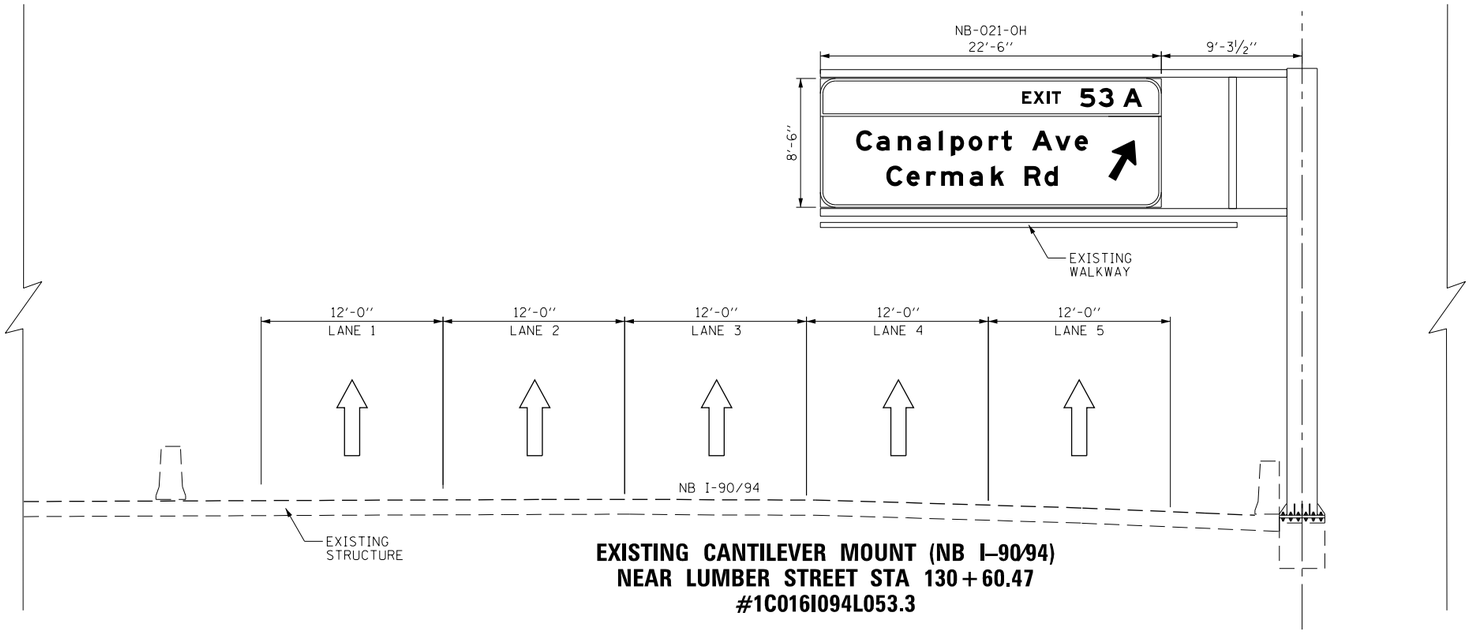
PLOT SCALE = 10.0000 ' / in.	CHECKED - MJL	REVISED -
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

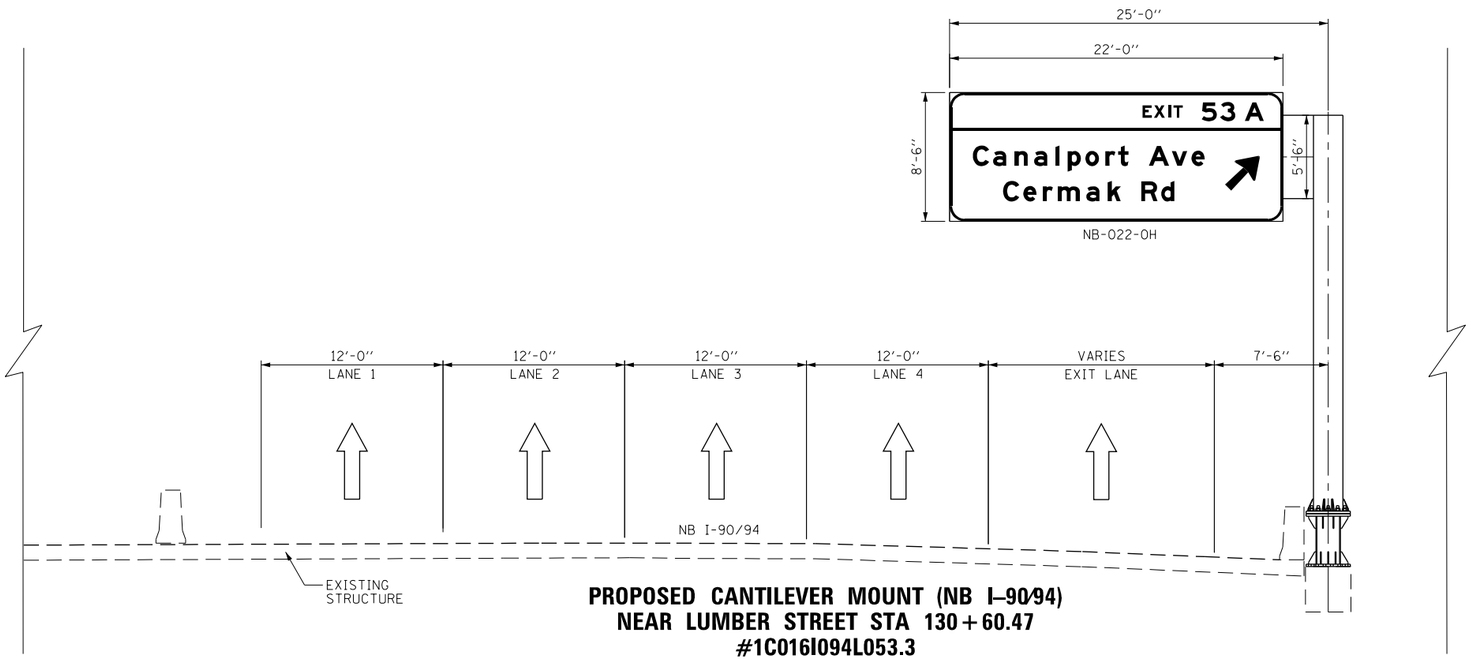
OVERHEAD SIGN STRUCTURES
SIGN PANEL PLACEMENT

SCALE: 1″ = 5′ | SHEET 3 OF 23 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	930
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		



EXISTING CANTILEVER MOUNT (NB I–90/94)
NEAR LUMBER STREET STA 130 + 60.47
#1C016I094L053.3



PROPOSED CANTILEVER MOUNT (NB I–90/94)
NEAR LUMBER STREET STA 130 + 60.47
#1C016I094L053.3

SIGN NUMBERING CODE EXAMPLE

DP-01-LP

DIRECTION OF TRAFFIC	MOUNTING TYPE
NB - NB I-90/94	ST - STEEL POST
EN - RAMP EN	TS - TELESCOPING STEEL
NW - RAMP NW	LP - LIGHT POLE BANDING
NCD - NORTHBOUND C-D ROAD	SP - SIGNAL POLE BANDING
AER - ADAMS ENTRANCE RAMP	SA - SIGNAL POLE MAST ARM
JER - JACKSON ENTRANCE RAMP	BM - BRIDGE MOUNTED
LXR - LAKE EXIT RAMP	BS - BREAKAWAY STEEL
MXR - MADISON EXIT RAMP	WP - WOOD POST
RER - ROOSEVELT ENTRANCE RAMP	OH - OVERHEAD
RXR - RANDOLPH EXIT RAMP	TM - TRUSS SUPPORT MOUNTED
TER - TAYLOR ENTRANCE RAMP	FM - FENCE MOUNTED
WXR - WASHINGTON EXIT RAMP	MP - METAL POST
	BW - BARRIER WALL MOUNTED
SIGN PANEL NUMBER	PP - PARAPET OR PIER MOUNTED

NB-04

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TranSystems

D162A76-SHT-Sign-OSS-04.dgn	DESIGNED - HJF	REVISED -
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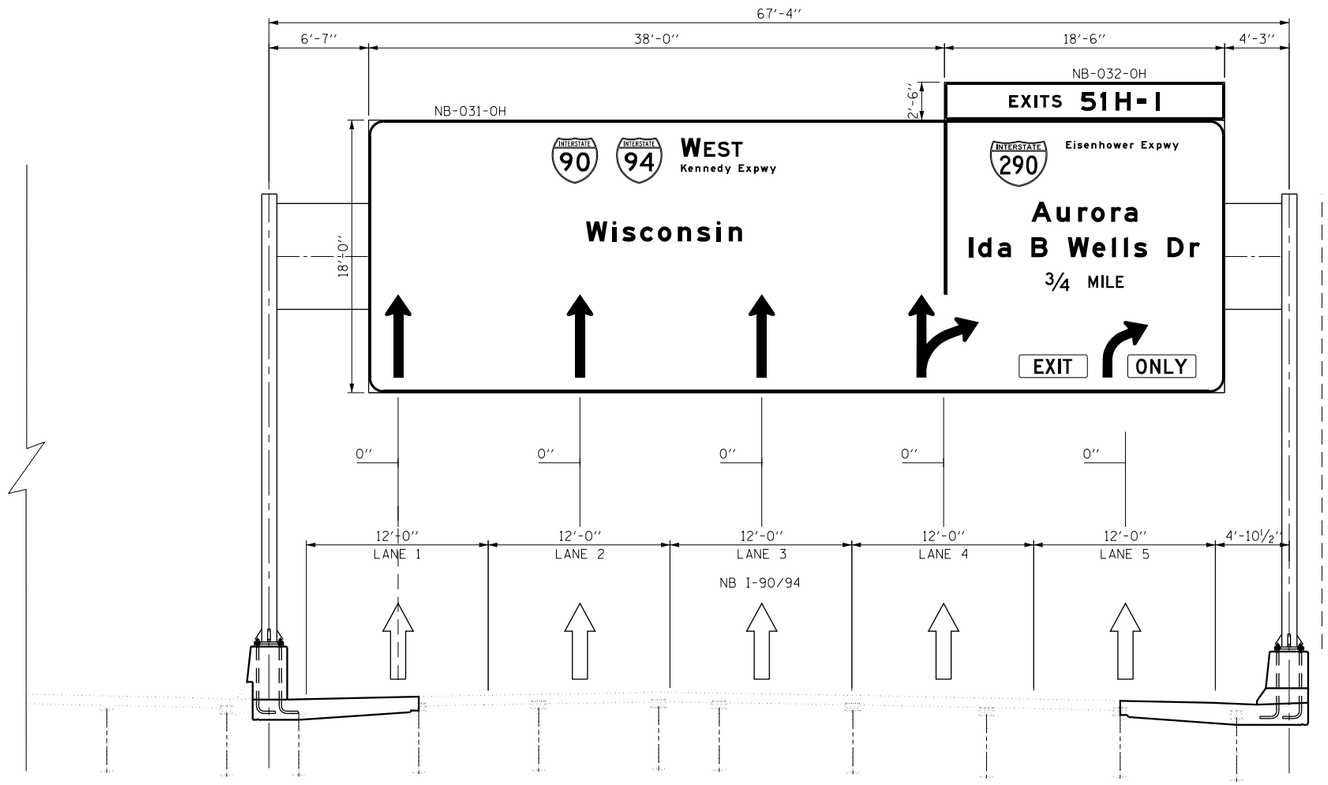
PLOT SCALE = 10.0000 ' / in.	CHECKED - MJL	REVISED -
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN PANEL PLACEMENT

SCALE: 1" = 5' | SHEET 4 OF 23 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	931
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		



PROPOSED SPAN MOUNT (NB I-90/94)
SOUTH OF 18TH ST STA 157+44.47
#1S016I094L052.9

SIGN NUMBERING CODE EXAMPLE

DP-01-LP

DIRECTION OF TRAFFIC
- NB - NB I-90/94
- EN - RAMP EN
- NW - RAMP NW
- NCD - NORTHBOUND C-D ROAD
- AER - ADAMS ENTRANCE RAMP
- JER - JACKSON ENTRANCE RAMP
- LXR - LAKE EXIT RAMP
- MXR - MADISON EXIT RAMP
- RER - ROOSEVELT ENTRANCE RAMP
- RXR - RANDOLPH EXIT RAMP
- TER - TAYLOR ENTRANCE RAMP
- WXR - WASHINGTON EXIT RAMP

SIGN PANEL NUMBER

MOUNTING TYPE
- ST - STEEL POST
- TS - TELESCOPING STEEL
- LP - LIGHT POLE BANDING
- SP - SIGNAL POLE BANDING
- SA - SIGNAL POLE MAST ARM
- BM - BRIDGE MOUNTED
- BS - BREAKAWAY STEEL
- WP - WOOD POST
- OH - OVERHEAD
- TM - TRUSS SUPPORT MOUNTED
- FM - FENCE MOUNTED
- MP - METAL POST
- BW - BARRIER WALL MOUNTED
- PP - PARAPET OR PIER MOUNTED

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TranSystems

D162A76-SHT-Sign-OSS-05.dgn	DESIGNED - HJF	REVISED -
USER NAME = amkluver	DRAWN - MSW	REVISED -
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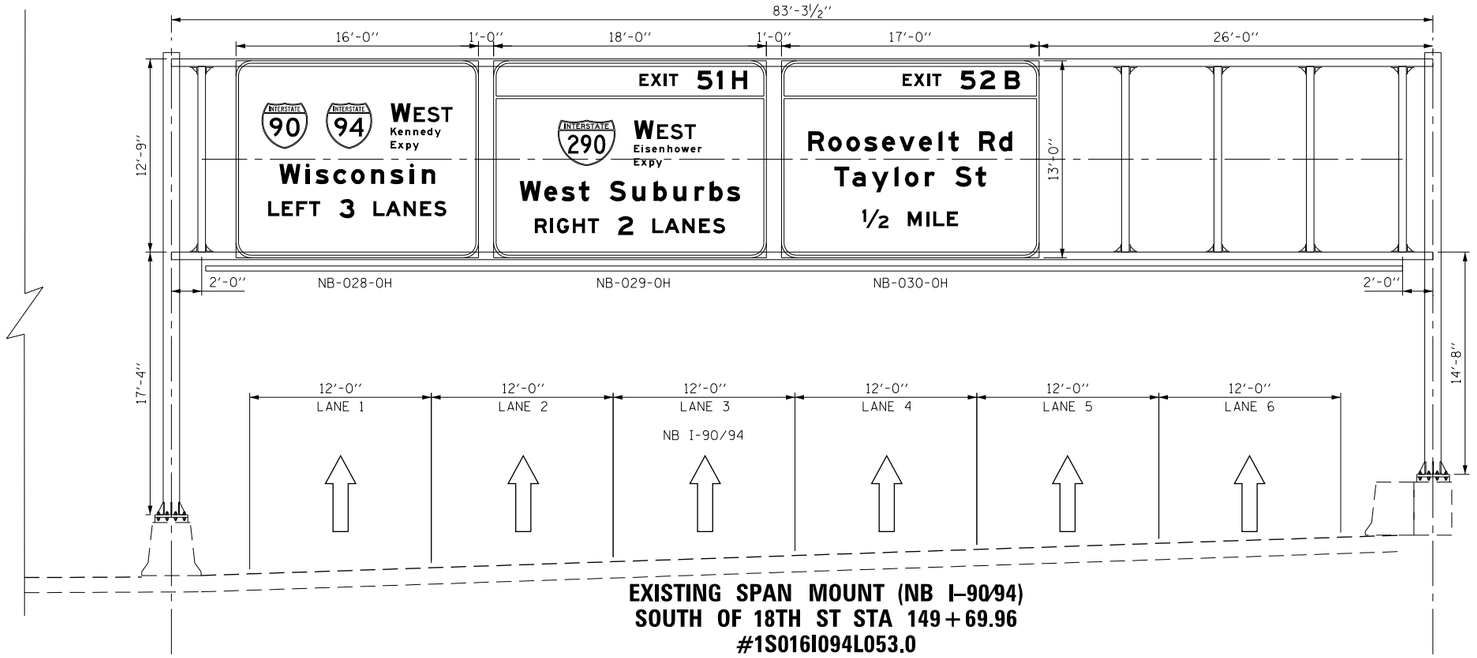
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

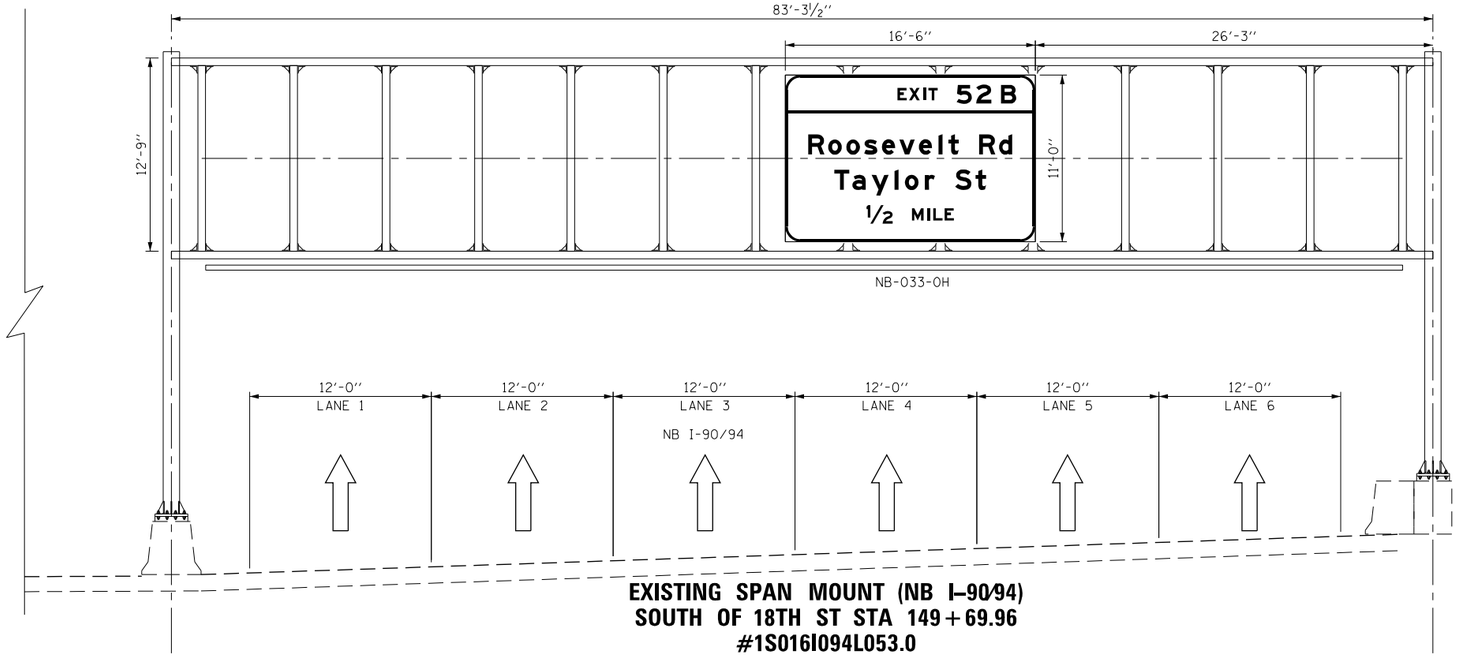
OVERHEAD SIGN STRUCTURES
SIGN PANEL PLACEMENT

SCALE: 1" = 5' | SHEET 5 OF 23 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	932
		CONTRACT NO. 62A76		
		ILLINOIS FED. AID PROJECT		



EXISTING SPAN MOUNT (NB I-90/94)
SOUTH OF 18TH ST STA 149+69.96
#1S016I094L053.0



EXISTING SPAN MOUNT (NB I-90/94)
SOUTH OF 18TH ST STA 149+69.96
#1S016I094L053.0

SIGN NUMBERING CODE EXAMPLE

DP-01-LP

DIRECTION OF TRAFFIC
- NB - NB I-90/94
- EN - RAMP EN
- NW - RAMP NW
- NCD - NORTHBOUND C-D ROAD
- AER - ADAMS ENTRANCE RAMP
- JER - JACKSON ENTRANCE RAMP
- LXR - LAKE EXIT RAMP
- MXR - MADISON EXIT RAMP
- RER - ROOSEVELT ENTRANCE RAMP
- RXR - RANDOLPH EXIT RAMP
- TER - TAYLOR ENTRANCE RAMP
- WXR - WASHINGTON EXIT RAMP

SIGN PANEL NUMBER

MOUNTING TYPE
- ST - STEEL POST
- TS - TELESCOPING STEEL
- LP - LIGHT POLE BANDING
- SP - SIGNAL POLE BANDING
- SA - SIGNAL POLE MAST ARM
- BM - BRIDGE MOUNTED
- BS - BREAKAWAY STEEL
- WP - WOOD POST
- OH - OVERHEAD
- TM - TRUSS SUPPORT MOUNTED
- FM - FENCE MOUNTED
- MP - METAL POST
- BW - BARRIER WALL MOUNTED
- PP - PARAPET OR PIER MOUNTED

NB-05A

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TranSystems

D162A76-SHT-Sign-OSS-05A.dgn	DESIGNED - HJF	REVISED -
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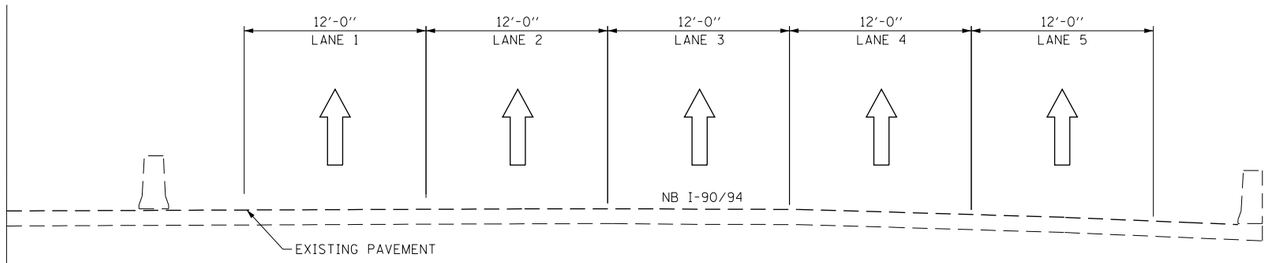
PLOT SCALE = 10.0000 ' / in.	CHECKED - MJL	REVISED -
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

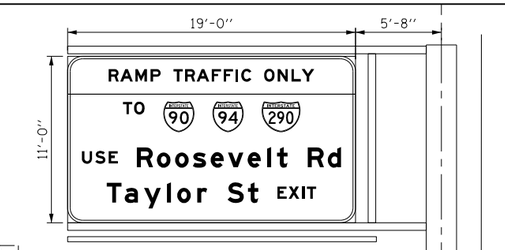
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN PANEL PLACEMENT

SCALE: 1" = 5' | SHEET 6 OF 23 SHEETS | STA. | TO STA.

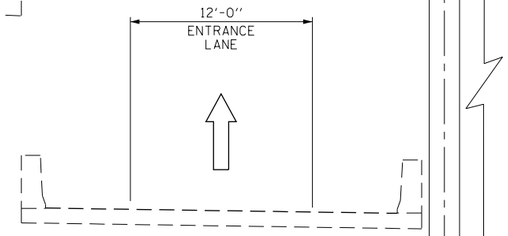
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	933
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		





NB-039-0H

EXISTING SIGN AND CANTILEVER MOUNT TO BE REMOVED



EXISTING CANTILEVER MOUNT (NB I-90/94)
18TH STREET ENTRANCE RAMP 160+80.38
#1C016I094L052.9

SIGN NUMBERING CODE
EXAMPLE

DP-01-LP

DIRECTION OF TRAFFIC
- NB - NB I-90/94
- EN - RAMP EN
- NW - RAMP NW
- NCD - NORTHBOUND C-D ROAD
- AER - ADAMS ENTRANCE RAMP
- JER - JACKSON ENTRANCE RAMP
- LXR - LAKE EXIT RAMP
- MXR - MADISON EXIT RAMP
- RER - ROOSEVELT ENTRANCE RAMP
- RXR - RANDOLPH EXIT RAMP
- TER - TAYLOR ENTRANCE RAMP
- WXR - WASHINGTON EXIT RAMP

SIGN PANEL NUMBER

MOUNTING TYPE
- ST - STEEL POST
- TS - TELESCOPING STEEL
- LP - LIGHT POLE BANDING
- SP - SIGNAL POLE BANDING
- SA - SIGNAL POLE MAST ARM
- BM - BRIDGE MOUNTED
- BS - BREAKAWAY STEEL
- WP - WOOD POST
- OH - OVERHEAD
- TM - TRUSS SUPPORT MOUNTED
- FM - FENCE MOUNTED
- MP - METAL POST
- BW - BARRIER WALL MOUNTED
- PP - PARAPET OR PIER MOUNTED

NB-06

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TranSystems	D162A76-SHT-Sign-OSS-06.dgn	DESIGNED - HJF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
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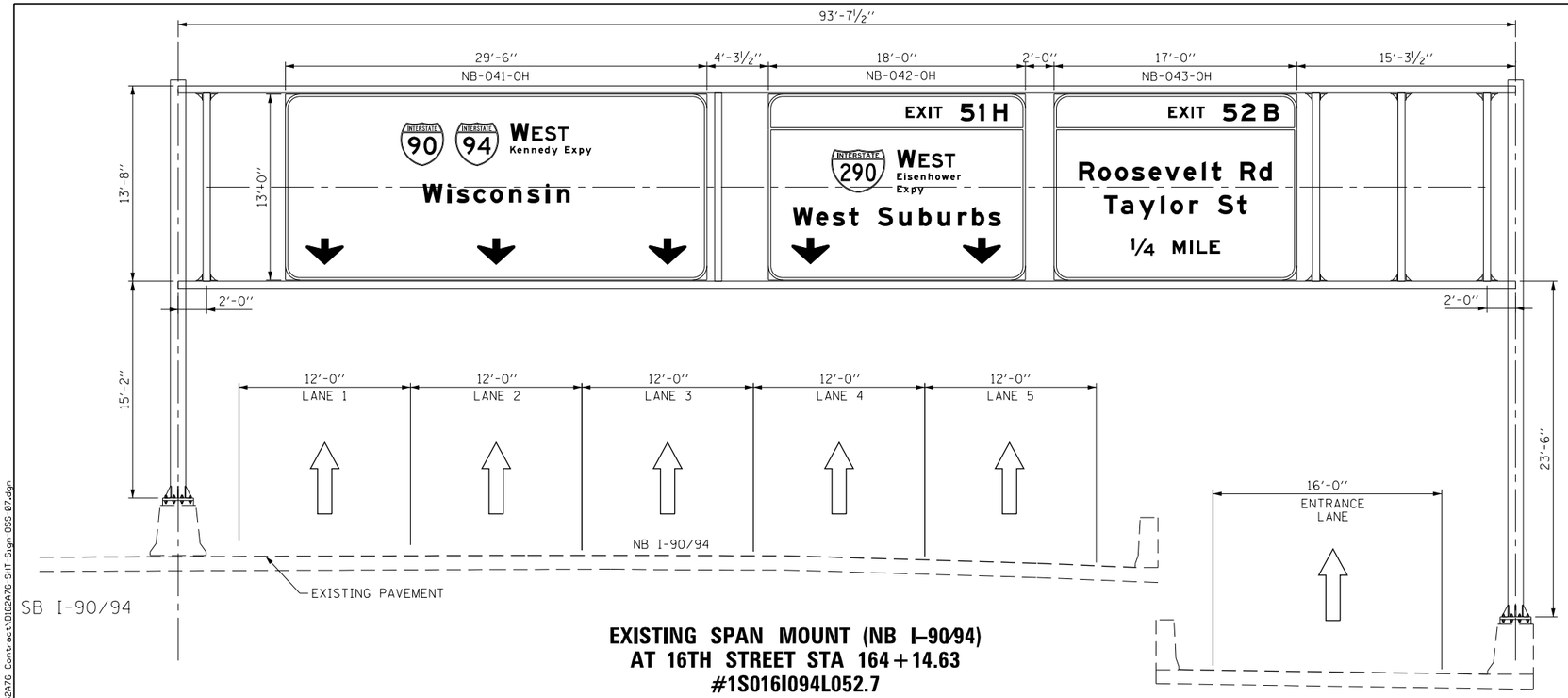
	PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -	

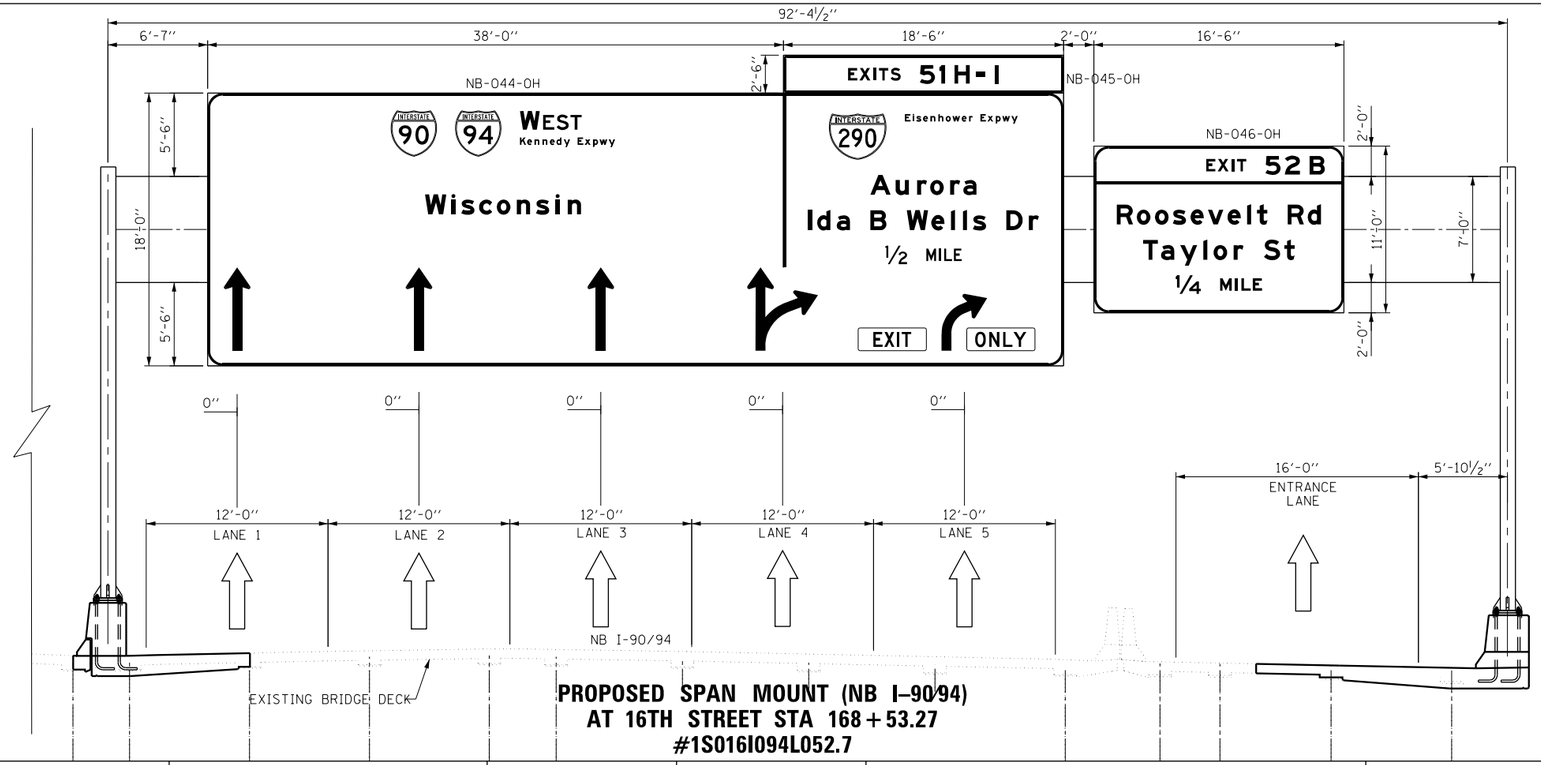
OVERHEAD SIGN STRUCTURES
SIGN PANEL PLACEMENT

SCALE: 1" = 5' | SHEET 7 OF 23 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	934
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		



EXISTING SPAN MOUNT (NB I-90/94)
AT 16TH STREET STA 164+14.63
#1S016I094L052.7



PROPOSED SPAN MOUNT (NB I-90/94)
AT 16TH STREET STA 168+53.27
#1S016I094L052.7

SIGN NUMBERING CODE EXAMPLE

DP-01-LP

DIRECTION OF TRAFFIC
- NB - NB I-90/94
- EN - RAMP EN
- NW - RAMP NW
- NCD - NORTHBOUND C-D ROAD
- AER - ADAMS ENTRANCE RAMP
- JER - JACKSON ENTRANCE RAMP
- LXR - LAKE EXIT RAMP
- MXR - MADISON EXIT RAMP
- RER - ROOSEVELT ENTRANCE RAMP
- RXR - RANDOLPH EXIT RAMP
- TER - TAYLOR ENTRANCE RAMP
- WXR - WASHINGTON EXIT RAMP

SIGN PANEL NUMBER

MOUNTING TYPE
- ST - STEEL POST
- TS - TELESCOPING STEEL
- LP - LIGHT POLE BANDING
- SP - SIGNAL POLE BANDING
- SA - SIGNAL POLE MAST ARM
- BM - BRIDGE MOUNTED
- BS - BREAKAWAY STEEL
- WP - WOOD POST
- OH - OVERHEAD
- TM - TRUSS SUPPORT MOUNTED
- FM - FENCE MOUNTED
- MP - METAL POST
- BW - BARRIER WALL MOUNTED
- PP - PARAPET OR PIER MOUNTED

NB-07

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TranSystems

DI62A76-SHT-Sign-OSS-07.dgn	DESIGNED - HJF	REVISED -
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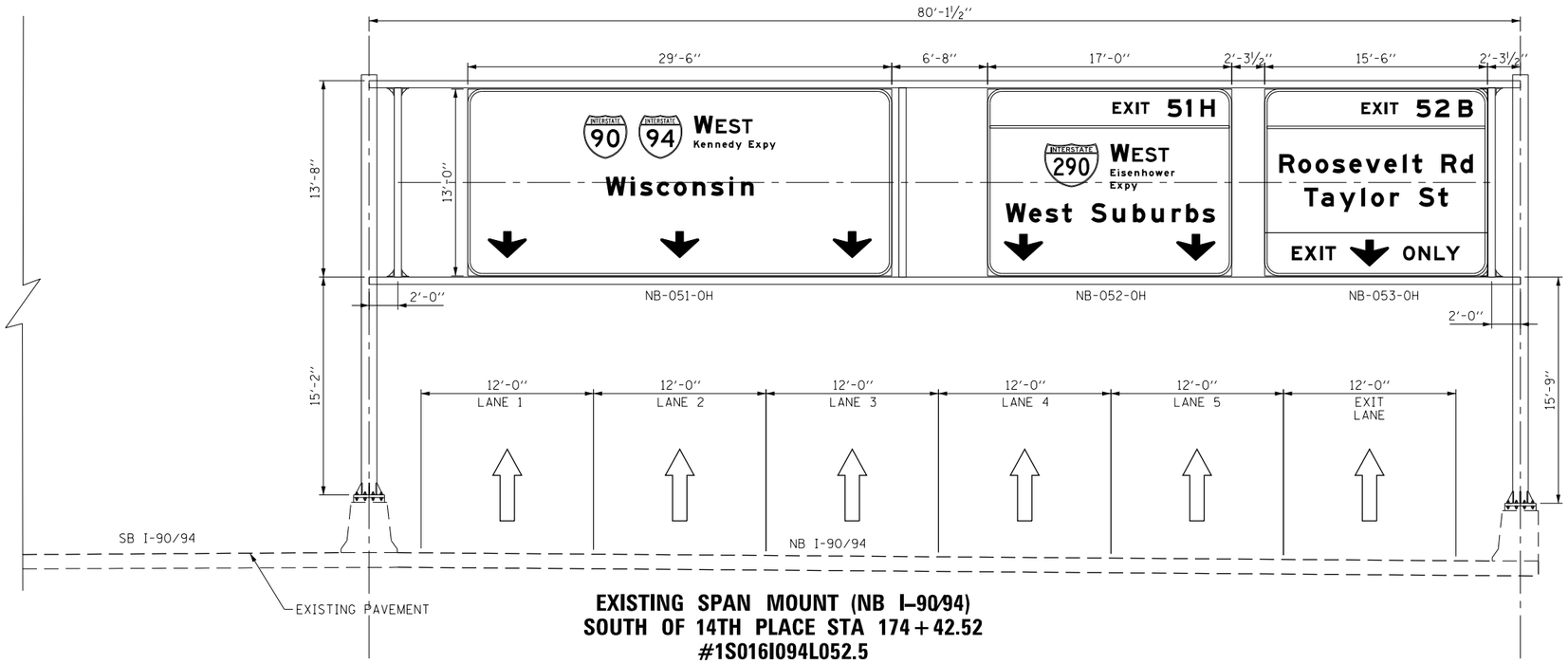
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

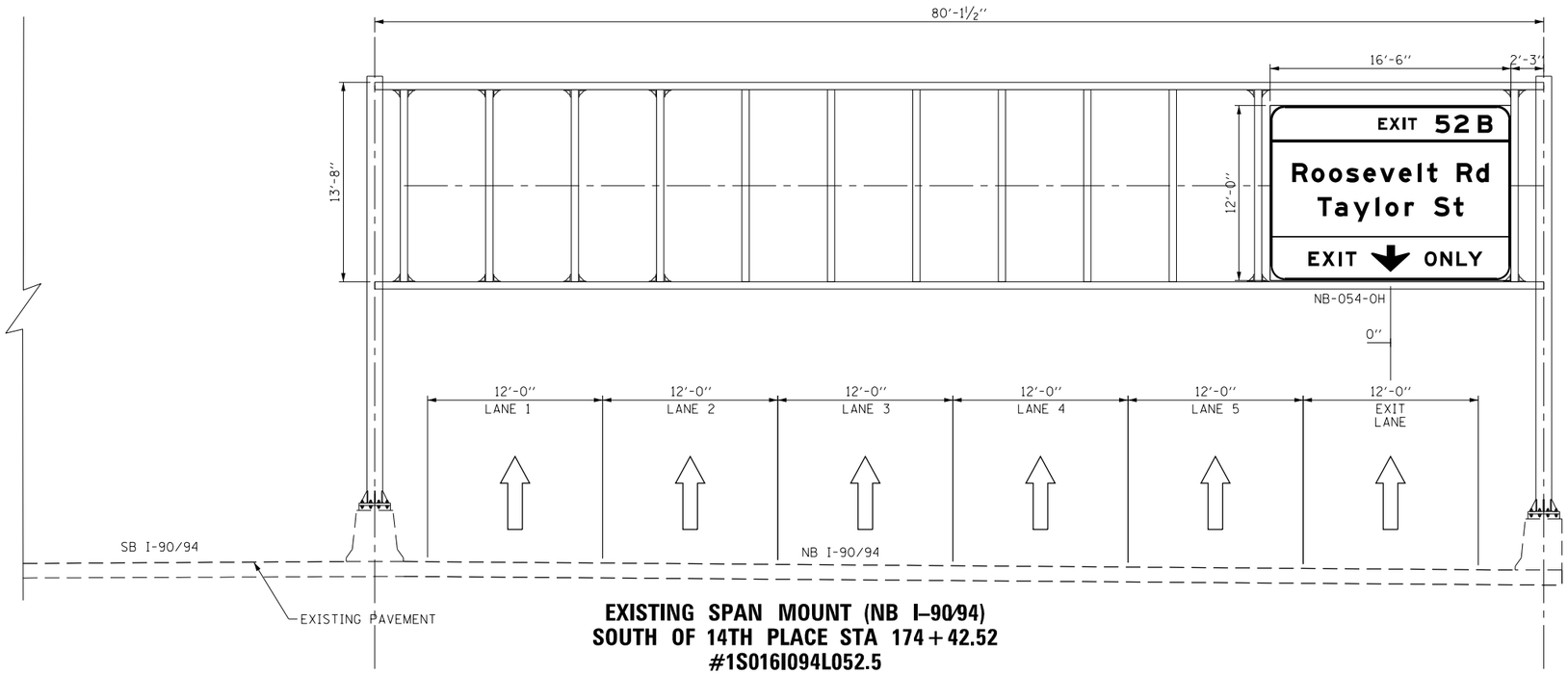
OVERHEAD SIGN STRUCTURES
SIGN PANEL PLACEMENT

SCALE: 1" = 5' | SHEET 8 OF 23 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	935
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		



EXISTING SPAN MOUNT (NB I-90/94)
SOUTH OF 14TH PLACE STA 174+42.52
#1S016I094L052.5



EXISTING SPAN MOUNT (NB I-90/94)
SOUTH OF 14TH PLACE STA 174+42.52
#1S016I094L052.5

SIGN NUMBERING CODE EXAMPLE

DP-01-LP

DIRECTION OF TRAFFIC
- NB - NB I-90/94
- EN - RAMP EN
- NW - RAMP NW
- NCD - NORTHBOUND C-D ROAD
- AER - ADAMS ENTRANCE RAMP
- JER - JACKSON ENTRANCE RAMP
- LXR - LAKE EXIT RAMP
- MXR - MADISON EXIT RAMP
- RER - ROOSEVELT ENTRANCE RAMP
- RXR - RANDOLPH EXIT RAMP
- TER - TAYLOR ENTRANCE RAMP
- WXR - WASHINGTON EXIT RAMP

SIGN PANEL NUMBER

MOUNTING TYPE
- ST - STEEL POST
- TS - TELESCOPING STEEL
- LP - LIGHT POLE BANDING
- SP - SIGNAL POLE BANDING
- SA - SIGNAL POLE MAST ARM
- BM - BRIDGE MOUNTED
- BS - BREAKAWAY STEEL
- WP - WOOD POST
- OH - OVERHEAD
- TM - TRUSS SUPPORT MOUNTED
- FM - FENCE MOUNTED
- MP - METAL POST
- BW - BARRIER WALL MOUNTED
- PP - PARAPET OR PIER MOUNTED

NB-08

FILE PATH = pw:\AECOM-NA-AWS1.aecomonline.local:AECOM_DS02_NA\Documents\01 Americas\Transportation\60269938 Circle\Phase 1\000_CAD\006 Roadway\Sheets\62A76 Contract\D162A76-SHT-Sign-OSS-08.dgn

TranSystems

D162A76-SHT-Sign-OSS-08.dgn	DESIGNED - HJF	REVISED -
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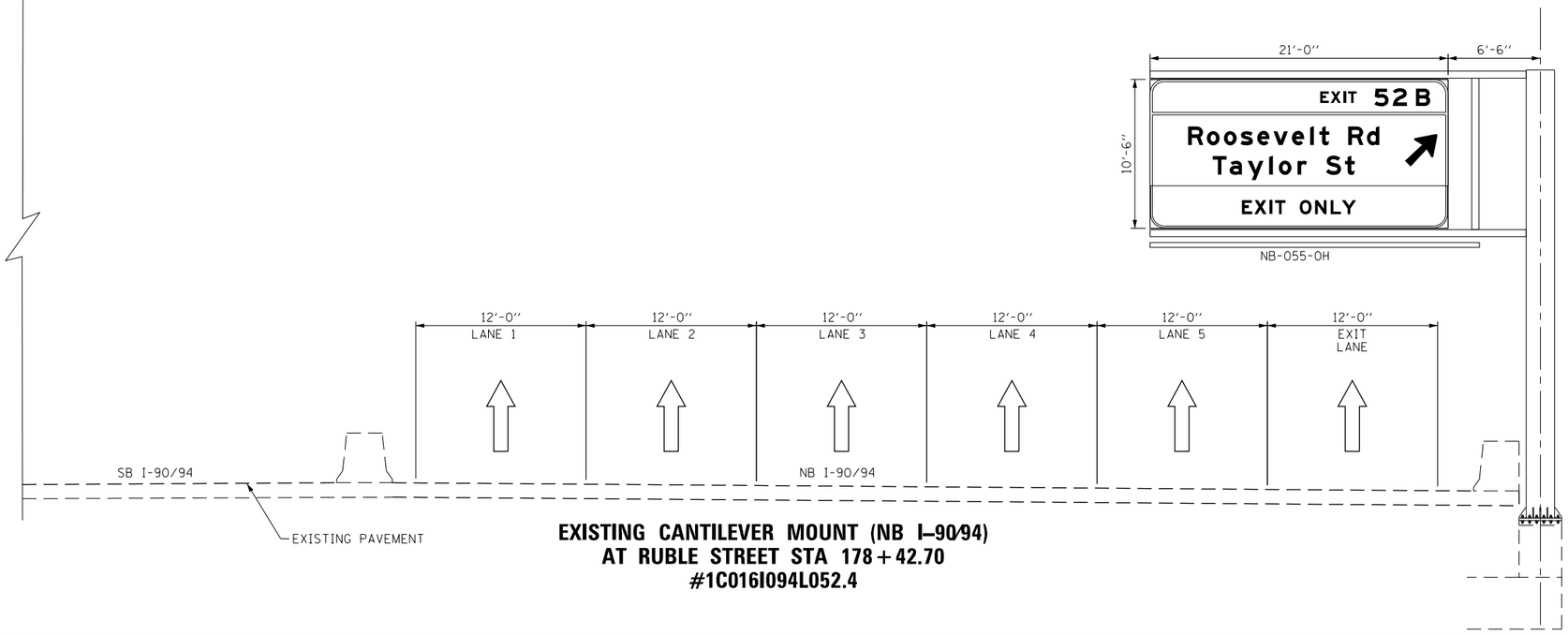
PLOT SCALE = 10.0000 ' / in.	CHECKED - MJL	REVISED -
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

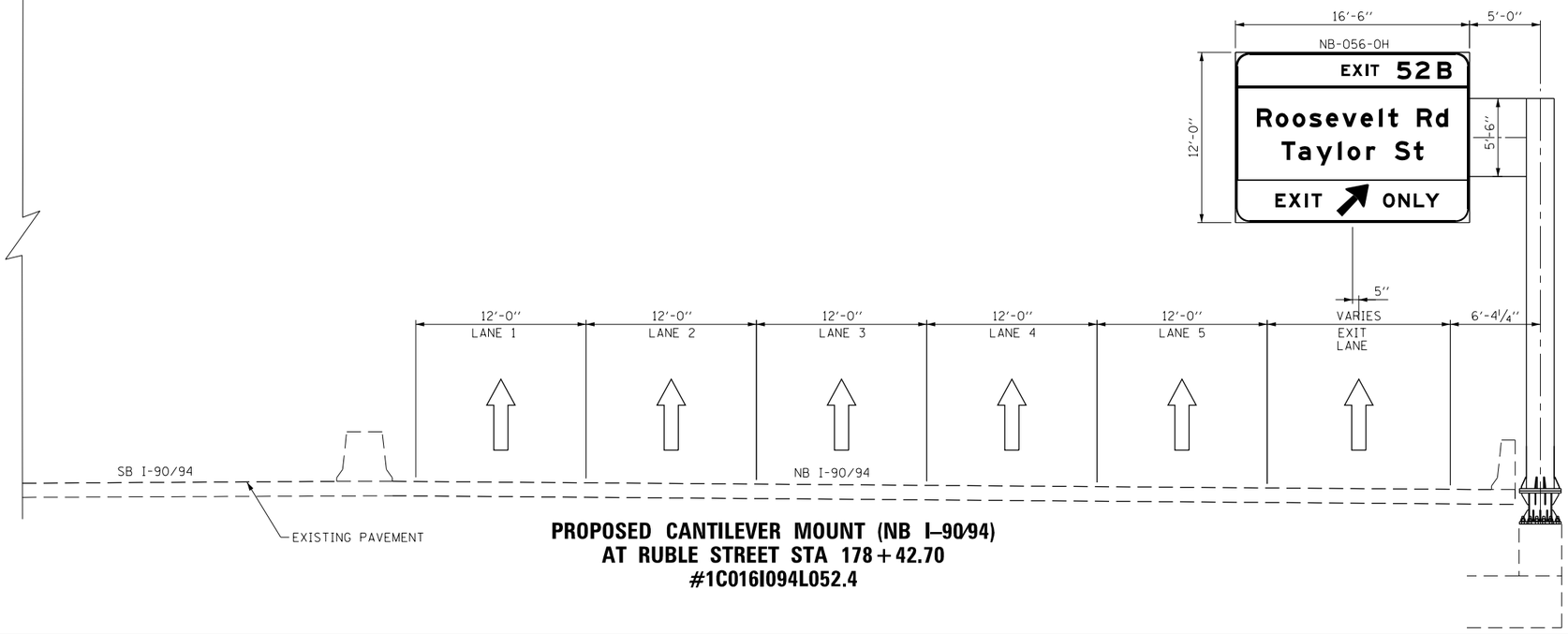
OVERHEAD SIGN STRUCTURES
SIGN PANEL PLACEMENT

SCALE: 1″ = 5′ | SHEET 9 OF 23 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	936
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		



EXISTING CANTILEVER MOUNT (NB I–90/94)
AT RUBLE STREET STA 178 + 42.70
#1C016I094L052.4



PROPOSED CANTILEVER MOUNT (NB I–90/94)
AT RUBLE STREET STA 178 + 42.70
#1C016I094L052.4

SIGN NUMBERING CODE EXAMPLE

DP-01-LP

DIRECTION OF TRAFFIC
- NB - NB I-90/94
- EN - RAMP EN
- NW - RAMP NW
- NCD - NORTHBOUND C-D ROAD
- AER - ADAMS ENTRANCE RAMP
- JER - JACKSON ENTRANCE RAMP
- LXR - LAKE EXIT RAMP
- MXR - MADISON EXIT RAMP
- RER - ROOSEVELT ENTRANCE RAMP
- RXR - RANDOLPH EXIT RAMP
- TER - TAYLOR ENTRANCE RAMP
- WXR - WASHINGTON EXIT RAMP

SIGN PANEL NUMBER

MOUNTING TYPE
- ST - STEEL POST
- TS - TELESCOPING STEEL
- LP - LIGHT POLE BANDING
- SP - SIGNAL POLE BANDING
- SA - SIGNAL POLE MAST ARM
- BM - BRIDGE MOUNTED
- BS - BREAKAWAY STEEL
- WP - WOOD POST
- OH - OVERHEAD
- TM - TRUSS SUPPORT MOUNTED
- FM - FENCE MOUNTED
- MP - METAL POST
- BW - BARRIER WALL MOUNTED
- PP - PARAPET OR PIER MOUNTED

NB-09

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TranSystems

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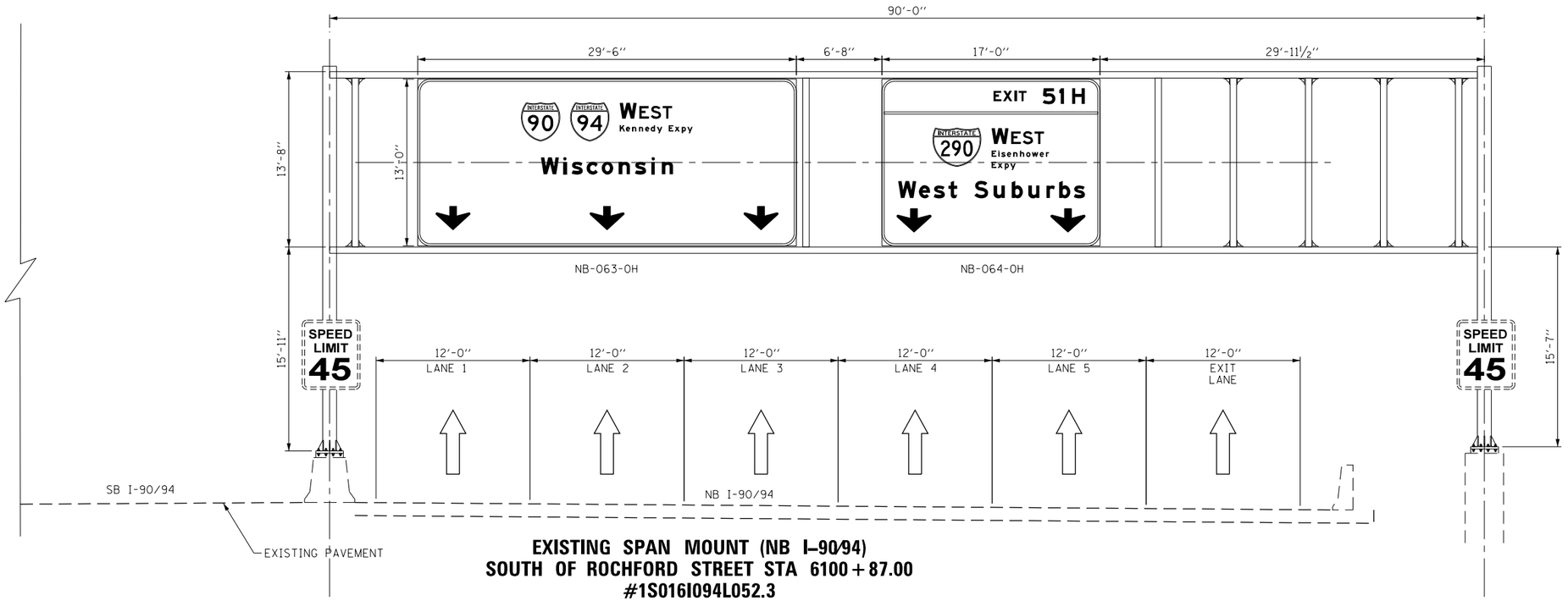
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

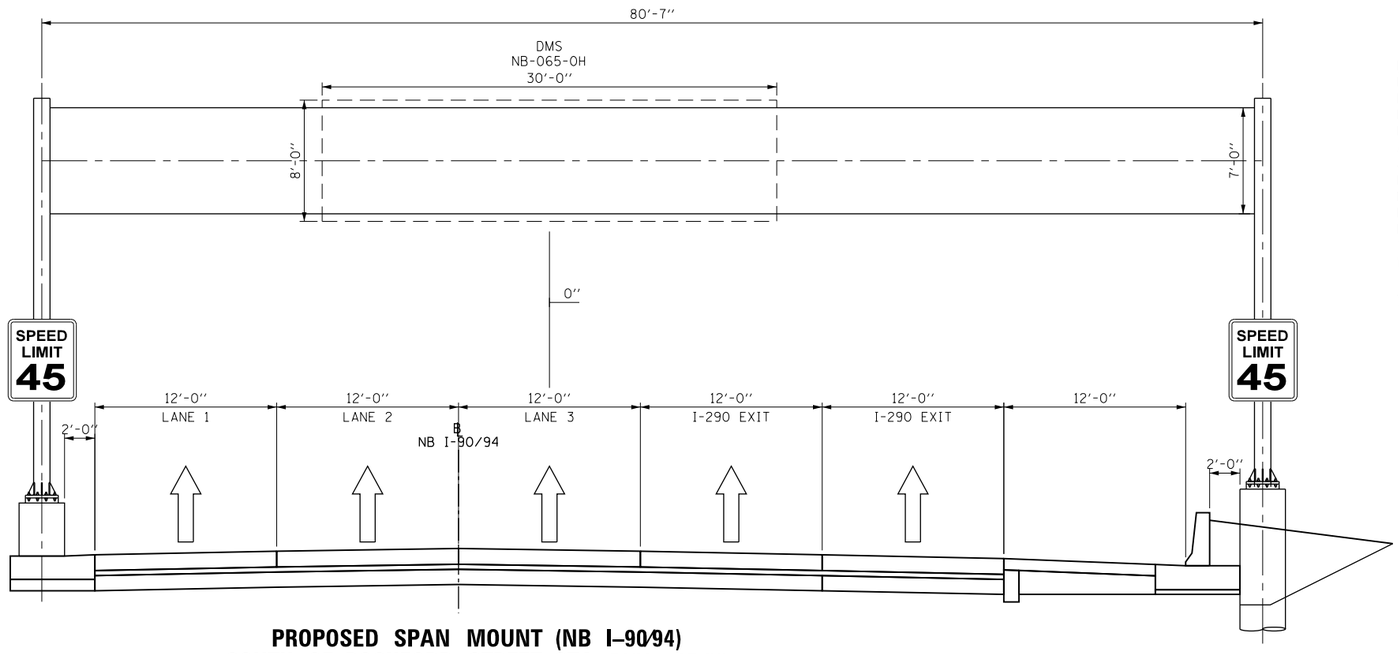
OVERHEAD SIGN STRUCTURES
SIGN PANEL PLACEMENT

SCALE: 1" = 5' | SHEET 10 OF 23 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	937
		CONTRACT NO. 62A76		
	ILLINOIS FED. AID PROJECT			



EXISTING SPAN MOUNT (NB I-90/94)
SOUTH OF ROCHFORD STREET STA 6100+87.00
#1S016I094L052.3



PROPOSED SPAN MOUNT (NB I-90/94)
SOUTH OF ROCHFORD STREET STA 6101+17.00
#1S016I094L052.3

SIGN NUMBERING CODE EXAMPLE

DP-01-LP

DIRECTION OF TRAFFIC
- NB - NB I-90/94
- EN - RAMP EN
- NW - RAMP NW
- NCD - NORTHBOUND C-D ROAD
- AER - ADAMS ENTRANCE RAMP
- JER - JACKSON ENTRANCE RAMP
- LXR - LAKE EXIT RAMP
- MXR - MADISON EXIT RAMP
- RER - ROOSEVELT ENTRANCE RAMP
- RXR - RANDOLPH EXIT RAMP
- TER - TAYLOR ENTRANCE RAMP
- WXR - WASHINGTON EXIT RAMP

SIGN PANEL NUMBER

MOUNTING TYPE
- ST - STEEL POST
- TS - TELESCOPING STEEL
- LP - LIGHT POLE BANDING
- SP - SIGNAL POLE BANDING
- SA - SIGNAL POLE MAST ARM
- BM - BRIDGE MOUNTED
- BS - BREAKAWAY STEEL
- WP - WOOD POST
- OH - OVERHEAD
- TM - TRUSS SUPPORT MOUNTED
- FM - FENCE MOUNTED
- MP - METAL POST
- BW - BARRIER WALL MOUNTED
- PP - PARAPET OR PIER MOUNTED

NB-XX

TranSystems

D162A76-SHT-Sign-OSS-09xx.dgn	DESIGNED - HJF	REVISED -
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PLOT SCALE = 10.0000 ' / in.	CHECKED - MJL	REVISED -
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN PANEL PLACEMENT

SCALE: 1" = 5' | SHEET 11 OF 23 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	938
		CONTRACT NO. 62A76		
	ILLINOIS FED. AID PROJECT			

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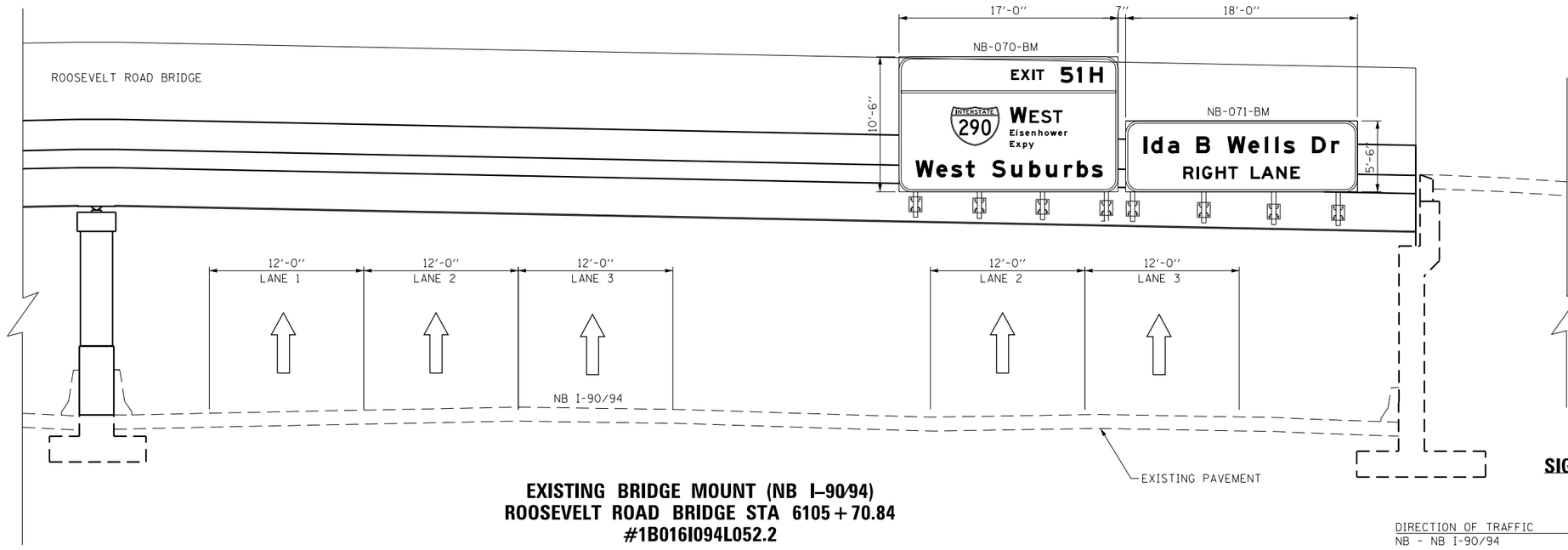
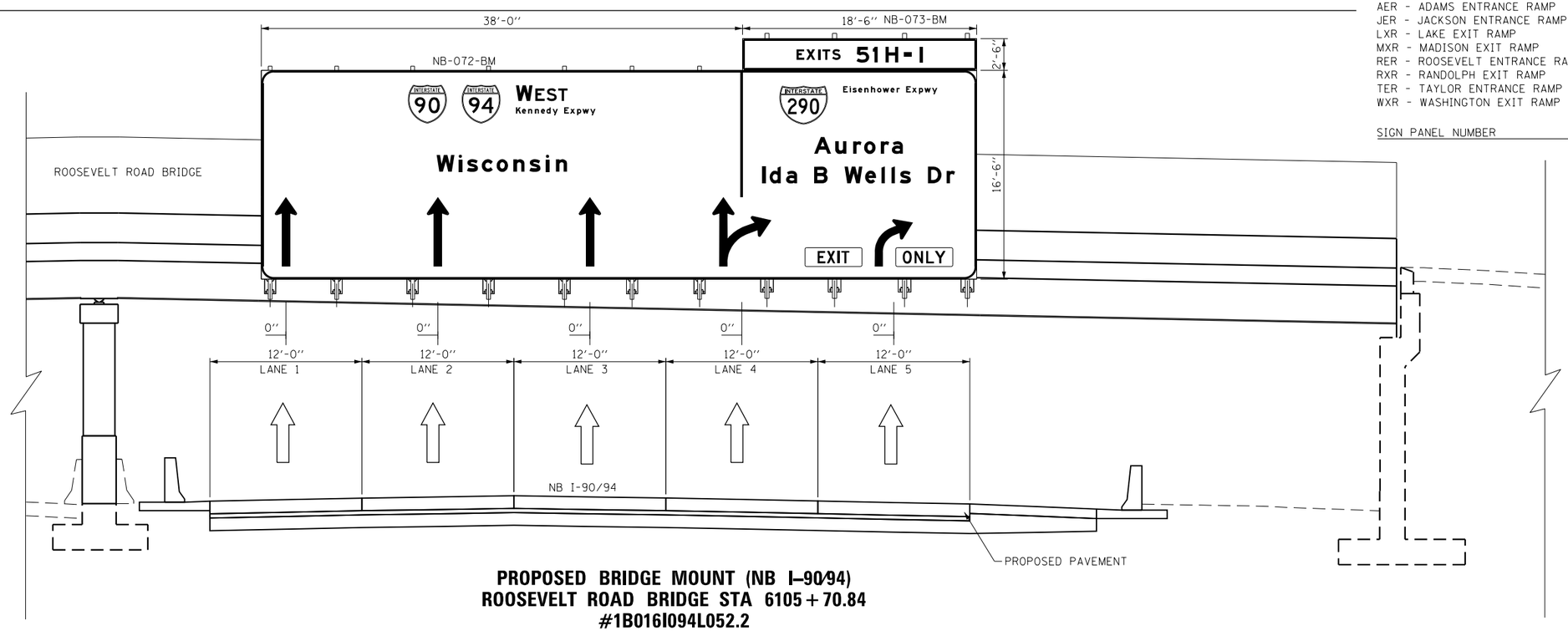


EXISTING BRIDGE MOUNT (NB I-90/94)
ROOSEVELT ROAD BRIDGE STA 6105+70.84
#1B016I094L052.2

NOTES:

1. SEE BRIDGE MOUNT SIGN STRUCTURES DETAILS FOR LAYOUT OF SUPPORTS.



PROPOSED BRIDGE MOUNT (NB I-90/94)
ROOSEVELT ROAD BRIDGE STA 6105+70.84
#1B016I094L052.2

SIGN NUMBERING CODE EXAMPLE

DP-01-LP

DIRECTION OF TRAFFIC	MOUNTING TYPE
NB - NB I-90/94	ST - STEEL POST
EN - RAMP EN	TS - TELESCOPING STEEL
NW - RAMP NW	LP - LIGHT POLE BANDING
NCD - NORTHBOUND C-D ROAD	SP - SIGNAL POLE BANDING
AER - ADAMS ENTRANCE RAMP	SA - SIGNAL POLE MAST ARM
JER - JACKSON ENTRANCE RAMP	BM - BRIDGE MOUNTED
LXR - LAKE EXIT RAMP	BS - BREAKAWAY STEEL
MXR - MADISON EXIT RAMP	WP - WOOD POST
RER - ROOSEVELT ENTRANCE RAMP	OH - OVERHEAD
RXR - RANDOLPH EXIT RAMP	TM - TRUSS SUPPORT MOUNTED
TER - TAYLOR ENTRANCE RAMP	FM - FENCE MOUNTED
WXR - WASHINGTON EXIT RAMP	MP - METAL POST
	BW - BARRIER WALL MOUNTED
SIGN PANEL NUMBER	PP - PARAPET OR PIER MOUNTED

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TranSystems

D162A76-SHT-Sign-OSS-10.dgn	DESIGNED - HJF	REVISED -
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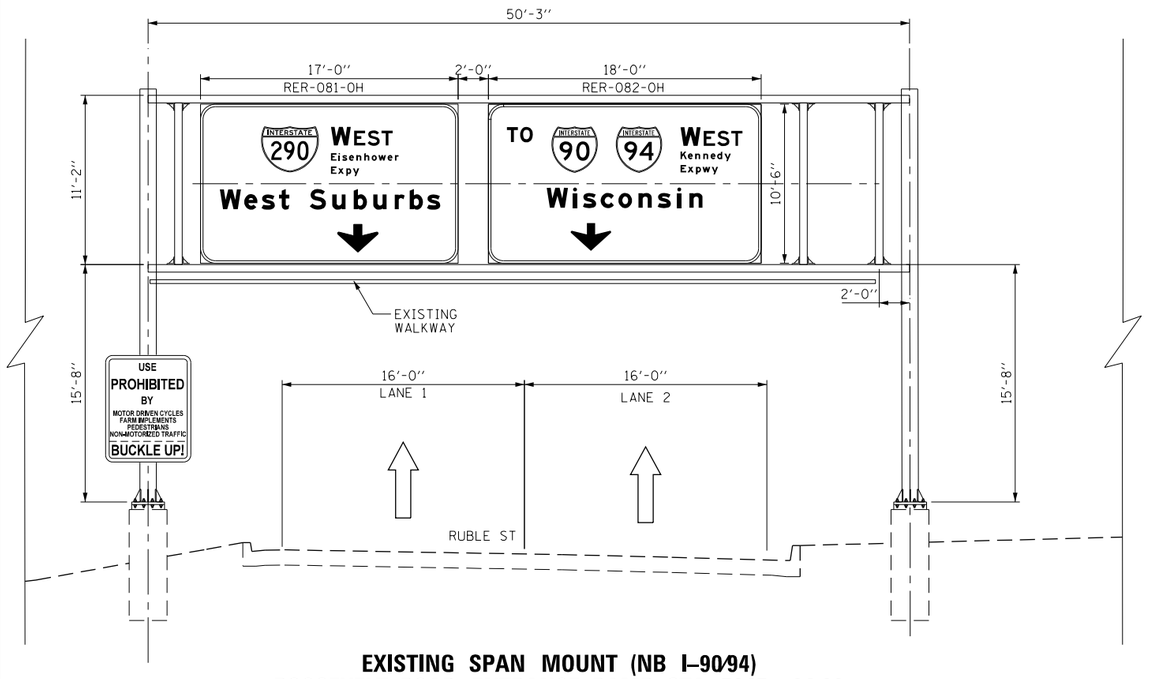
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN PANEL PLACEMENT

SCALE: 1" = 5' | SHEET 12 OF 23 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	939
		CONTRACT NO. 62A76		
		ILLINOIS FED. AID PROJECT		



EXISTING SPAN MOUNT (NB I-90/94)
ROOSEVELT ROAD ENTRANCE RAMP STA 7247+64.90
#1S016I094L52.2

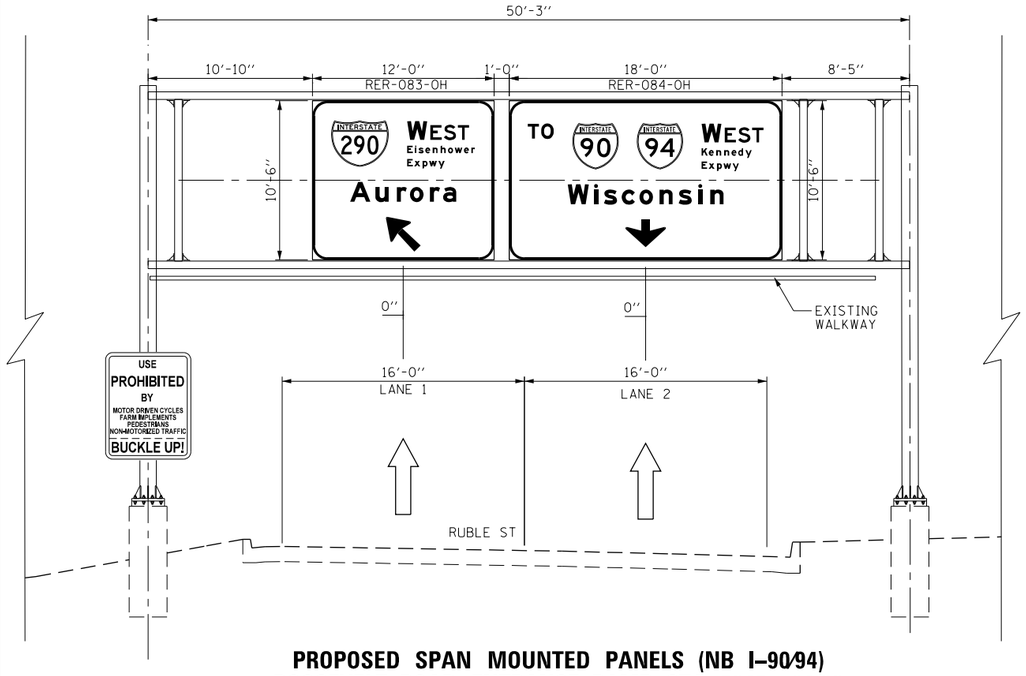
SIGN NUMBERING CODE EXAMPLE

DP-01-LP

DIRECTION OF TRAFFIC
- NB - NB I-90/94
- EN - RAMP EN
- NW - RAMP NW
- NCD - NORTHBOUND C-D ROAD
- AER - ADAMS ENTRANCE RAMP
- JER - JACKSON ENTRANCE RAMP
- LXR - LAKE EXIT RAMP
- MXR - MADISON EXIT RAMP
- RER - ROOSEVELT ENTRANCE RAMP
- RXR - RANDOLPH EXIT RAMP
- TER - TAYLOR ENTRANCE RAMP
- WXR - WASHINGTON EXIT RAMP

SIGN PANEL NUMBER

MOUNTING TYPE
- ST - STEEL POST
- TS - TELESCOPING STEEL
- LP - LIGHT POLE BANDING
- SP - SIGNAL POLE BANDING
- SA - SIGNAL POLE MAST ARM
- BM - BRIDGE MOUNTED
- BS - BREAKAWAY STEEL
- WP - WOOD POST
- OH - OVERHEAD
- TM - TRUSS SUPPORT MOUNTED
- FM - FENCE MOUNTED
- MP - METAL POST
- BW - BARRIER WALL MOUNTED
- PP - PARAPET OR PIER MOUNTED



PROPOSED SPAN MOUNTED PANELS (NB I-90/94)
ROOSEVELT ROAD ENTRANCE RAMP STA 7247+64.90
#1S016I094L52.2

NB-11

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TranSystems

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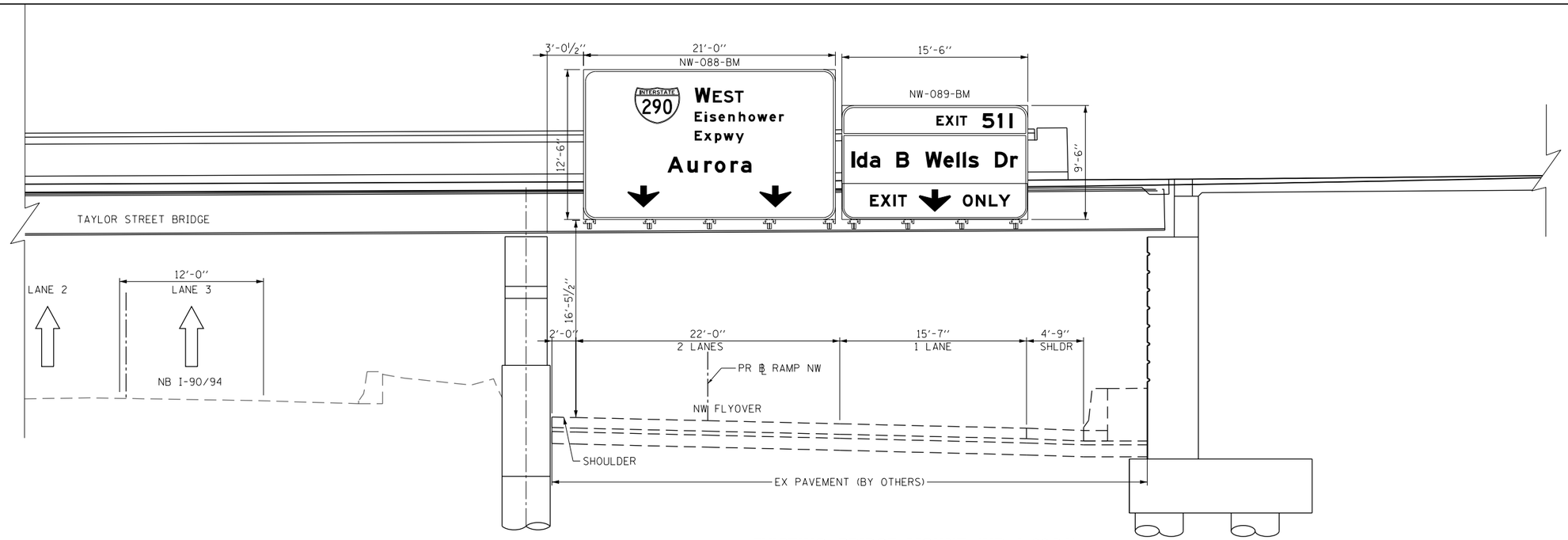
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN PANEL PLACEMENT

SCALE: 1" = 5' | SHEET 13 OF 23 SHEETS | STA. | TO STA.

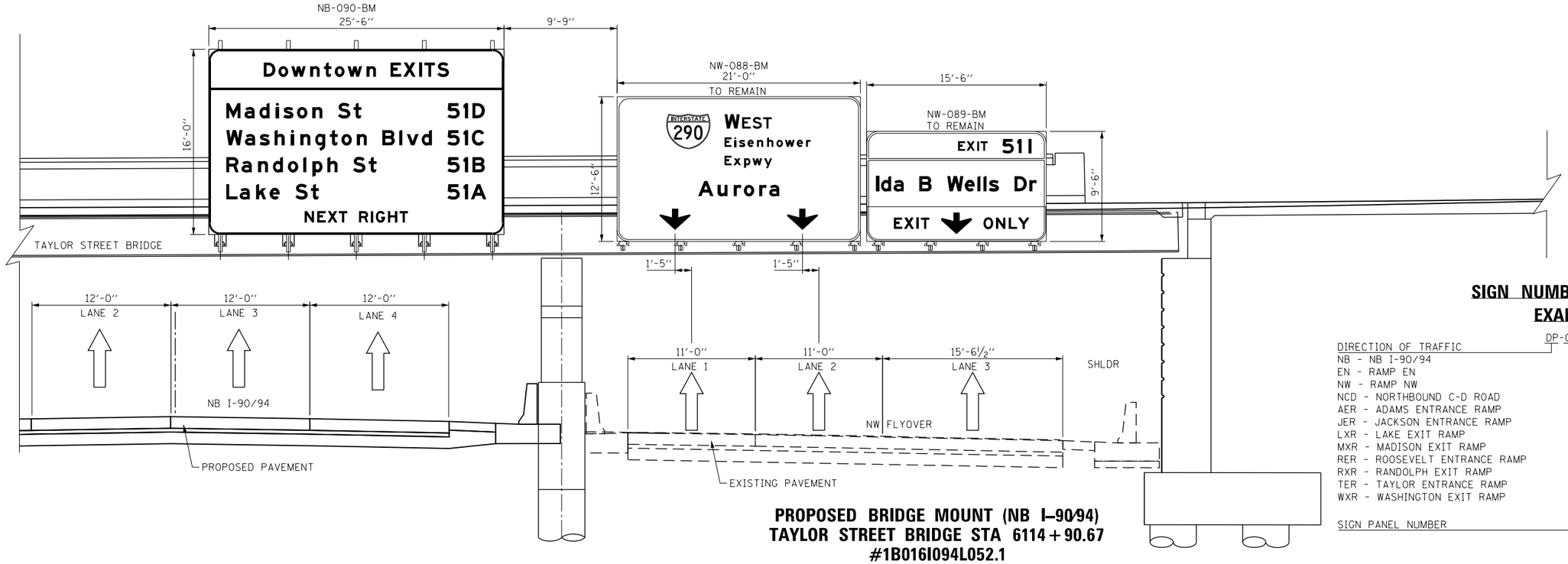
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	940
		CONTRACT NO. 62A76		
	ILLINOIS FED. AID PROJECT			



NOTES:

1. SEE BRIDGE MOUNT SIGN STRUCTURES DETAILS FOR LAYOUT OF SUPPORTS.

EXISTING BRIDGE MOUNT (NB I-90/94)
TAYLOR STREET BRIDGE STA 6114+90.67
#1B016I094L052.1



PROPOSED BRIDGE MOUNT (NB I-90/94)
TAYLOR STREET BRIDGE STA 6114+90.67
#1B016I094L052.1

SIGN NUMBERING CODE EXAMPLE

DP-01-LP

DIRECTION OF TRAFFIC
- NB - NB I-90/94
- EN - RAMP EN
- NW - RAMP NW
- NCD - NORTHBOUND C-D ROAD
- AER - ADAMS ENTRANCE RAMP
- JER - JACKSON ENTRANCE RAMP
- LXR - LAKE EXIT RAMP
- MXR - MADISON EXIT RAMP
- RER - ROOSEVELT ENTRANCE RAMP
- RXR - RANDOLPH EXIT RAMP
- TER - TAYLOR ENTRANCE RAMP
- WXR - WASHINGTON EXIT RAMP

SIGN PANEL NUMBER

MOUNTING TYPE
- ST - STEEL POST
- TS - TELESCOPING STEEL
- LP - LIGHT POLE BANDING
- SP - SIGNAL POLE BANDING
- SA - SIGNAL POLE MAST ARM
- BM - BRIDGE MOUNTED
- BS - BREAKAWAY STEEL
- WP - WOOD POST
- OH - OVERHEAD
- TM - TRUSS SUPPORT MOUNTED
- FM - FENCE MOUNTED
- MP - METAL POST
- BW - BARRIER WALL MOUNTED
- PP - PARAPET OR PIER MOUNTED

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TranSystems

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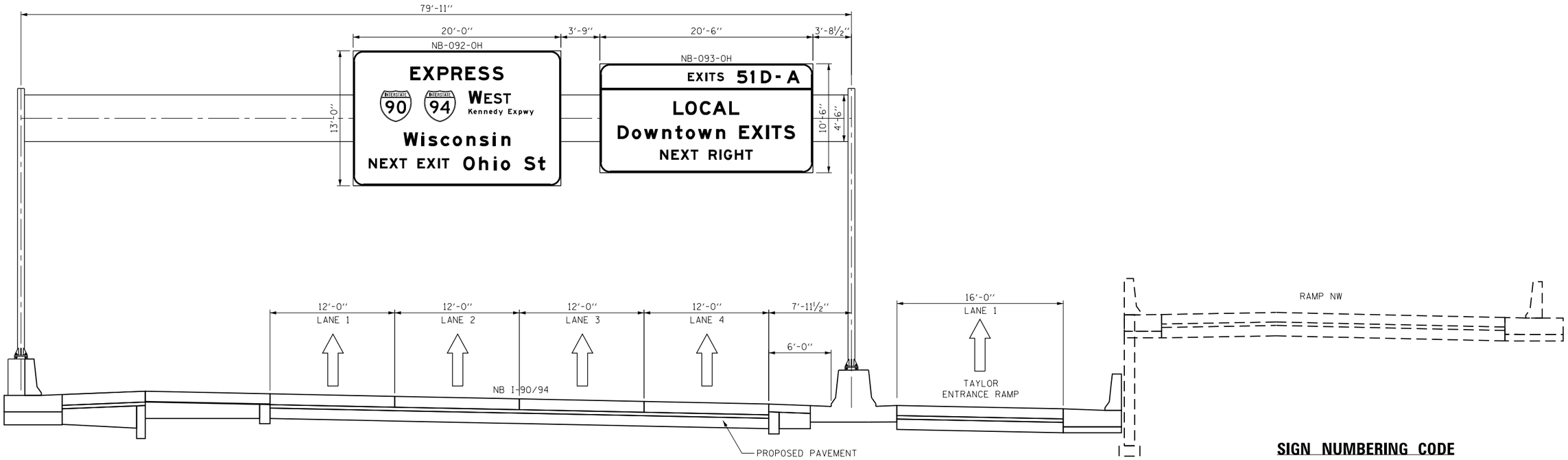
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN PANEL PLACEMENT

SCALE: 1" = 5' | SHEET 14 OF 23 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	941
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		



PROPOSED SPAN MOUNT (NB I-90/94)
NORTH OF TAYLOR STREET STA 6121+69.00
#1S016I094L052.0

SIGN NUMBERING CODE EXAMPLE

DP-01-LP

DIRECTION OF TRAFFIC
- NB - NB I-90/94
- EN - RAMP EN
- NW - RAMP NW
- NCD - NORTHBOUND C-D ROAD
- AER - ADAMS ENTRANCE RAMP
- JER - JACKSON ENTRANCE RAMP
- LXR - LAKE EXIT RAMP
- MXR - MADISON EXIT RAMP
- RER - ROOSEVELT ENTRANCE RAMP
- RXR - RANDOLPH EXIT RAMP
- TER - TAYLOR ENTRANCE RAMP
- WXR - WASHINGTON EXIT RAMP

SIGN PANEL NUMBER

MOUNTING TYPE
- ST - STEEL POST
- TS - TELESCOPING STEEL
- LP - LIGHT POLE BANDING
- SP - SIGNAL POLE BANDING
- SA - SIGNAL POLE MAST ARM
- BM - BRIDGE MOUNTED
- BS - BREAKAWAY STEEL
- WP - WOOD POST
- OH - OVERHEAD
- TM - TRUSS SUPPORT MOUNTED
- FM - FENCE MOUNTED
- MP - METAL POST
- BW - BARRIER WALL MOUNTED
- PP - PARAPET OR PIER MOUNTED

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TranSystems

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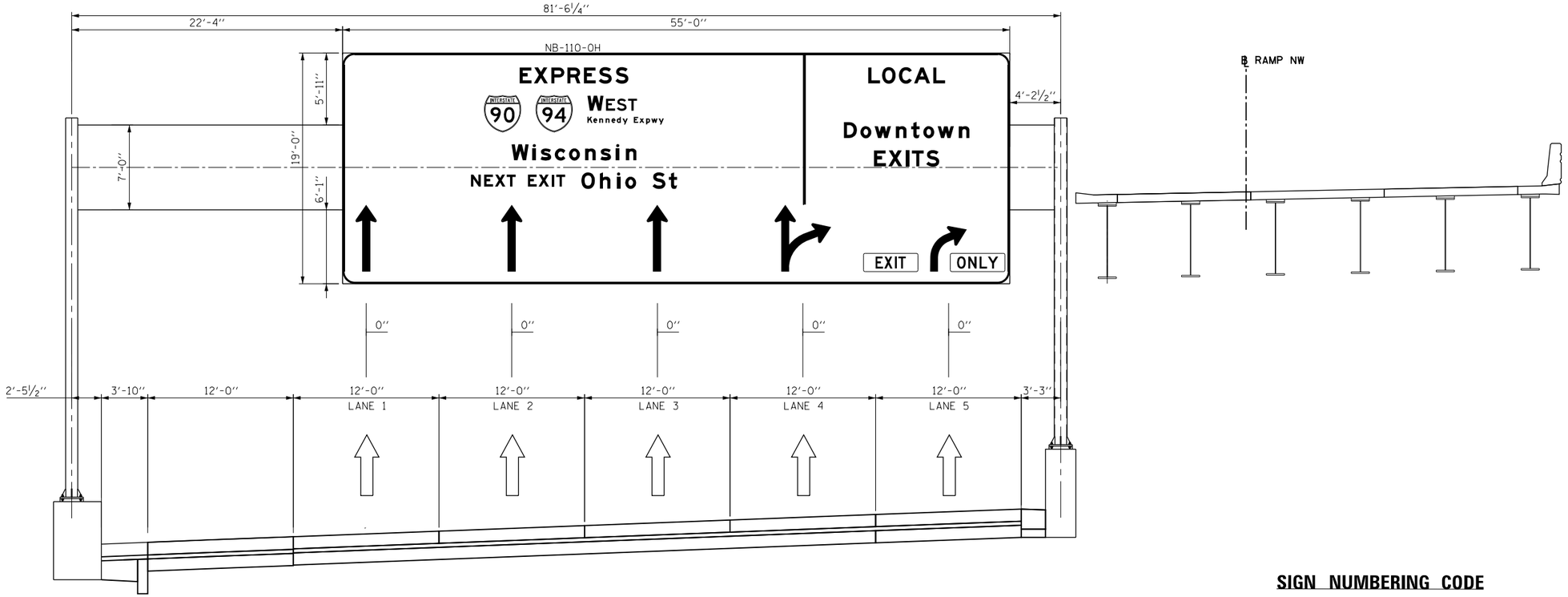
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN PANEL PLACEMENT

SCALE: 1" = 5' | SHEET 15 OF 23 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	942
		CONTRACT NO. 62A76		
	ILLINOIS FED. AID PROJECT			



PROPOSED SPAN MOUNT (NB I-90/94)
C-D DIVERGENCE SOUTH OF HARRISON STREET STA 6127 + 75.00
#1S016I094L051.9

SIGN NUMBERING CODE EXAMPLE

DP-01-LP

DIRECTION OF TRAFFIC	MOUNTING TYPE
NB - NB I-90/94	ST - STEEL POST
EN - RAMP EN	TS - TELESCOPING STEEL
NW - RAMP NW	LP - LIGHT POLE BANDING
NCD - NORTHBOUND C-D ROAD	SP - SIGNAL POLE BANDING
AER - ADAMS ENTRANCE RAMP	SA - SIGNAL POLE MAST ARM
JER - JACKSON ENTRANCE RAMP	BM - BRIDGE MOUNTED
LXR - LAKE EXIT RAMP	BS - BREAKAWAY STEEL
MXR - MADISON EXIT RAMP	WP - WOOD POST
RER - ROOSEVELT ENTRANCE RAMP	OH - OVERHEAD
RXR - RANDOLPH EXIT RAMP	TM - TRUSS SUPPORT MOUNTED
TER - TAYLOR ENTRANCE RAMP	FM - FENCE MOUNTED
WXR - WASHINGTON EXIT RAMP	MP - METAL POST
	BW - BARRIER WALL MOUNTED
SIGN PANEL NUMBER	PP - PARAPET OR PIER MOUNTED

NB-15

TranSystems

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN PANEL PLACEMENT

SCALE: 1″ = 5′ | SHEET 16 OF 23 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	943
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

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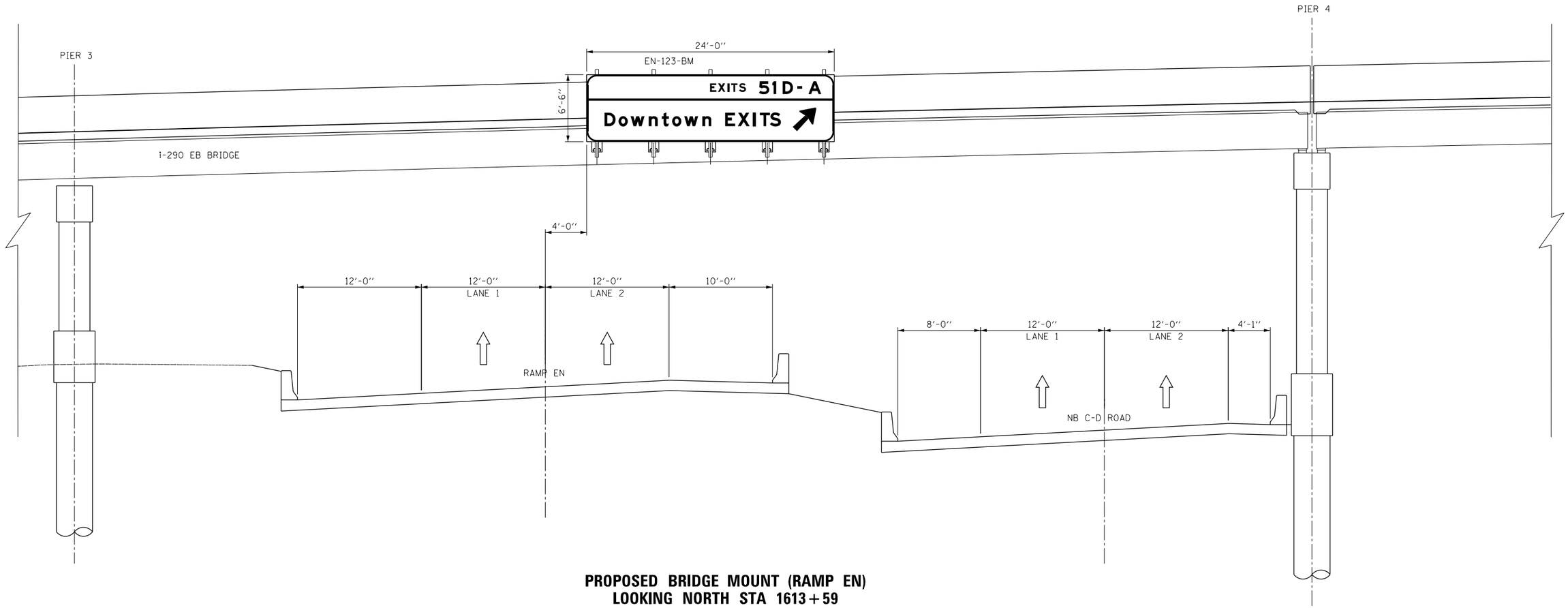

PROPOSED BRIDGE MOUNT (RAMP EN)
LOOKING NORTH STA 1613+59
#1B016I094L051.8

NOTES:

1. SEE BRDIGE MOUNT SIGN STRUCTURES DETAILS FOR LAYOUT OF SUPPORTS.

SIGN NUMBERING CODE EXAMPLE

DP-01-LP

DIRECTION OF TRAFFIC
- NB - NB I-90/94
- EN - RAMP EN
- NW - RAMP NW
- NCD - NORTHBOUND C-D ROAD
- AER - ADAMS ENTRANCE RAMP
- JER - JACKSON ENTRANCE RAMP
- LXR - LAKE EXIT RAMP
- MXR - MADISON EXIT RAMP
- RER - ROOSEVELT ENTRANCE RAMP
- RXR - RANDOLPH EXIT RAMP
- TER - TAYLOR ENTRANCE RAMP
- WXR - WASHINGTON EXIT RAMP

SIGN PANEL NUMBER

MOUNTING TYPE
- ST - STEEL POST
- TS - TELESCOPING STEEL
- LP - LIGHT POLE BANDING
- SP - SIGNAL POLE BANDING
- SA - SIGNAL POLE MAST ARM
- BM - BRIDGE MOUNTED
- BS - BREAKAWAY STEEL
- WP - WOOD POST
- OH - OVERHEAD
- TM - TRUSS SUPPORT MOUNTED
- FM - FENCE MOUNTED
- MP - METAL POST
- BW - BARRIER WALL MOUNTED
- PP - PARAPET OR PIER MOUNTED

NB-18

TranSystems

D162A76-SHT-Sign-OSS-18.dgn	DESIGNED - HJF	REVISED -
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PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN PANEL PLACEMENT

SCALE: 1" = 5' | SHEET 17 OF 23 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	944
		CONTRACT NO. 62A76		
		ILLINOIS FED. AID PROJECT		

NO EXISTING BRIDGE MOUNTED SIGNS

NOTES:

1. SEE BRIDGE MOUNT SIGN STRUCTURES DETAILS FOR LAYOUT OF SUPPORTS.

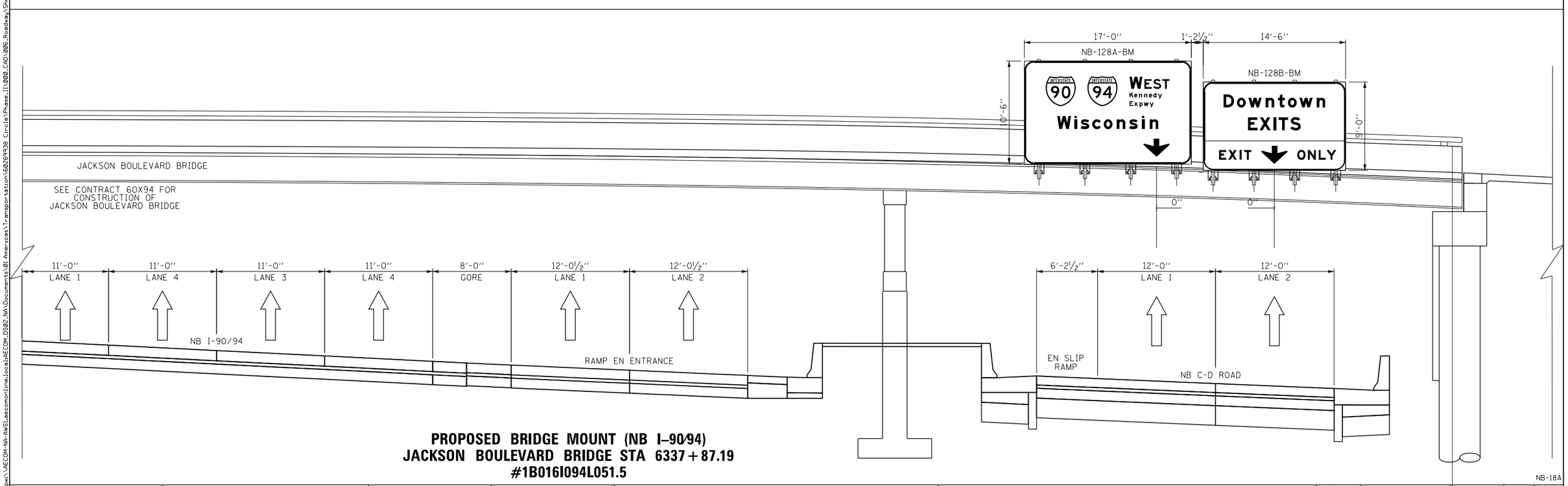
SIGN NUMBERING CODE EXAMPLE

DP-01-LP

DIRECTION OF TRAFFIC
- NB - NB I-90/94
- EN - RAMP EN
- NW - RAMP NW
- NCD - NORTHBOUND C-D ROAD
- AER - ADAMS ENTRANCE RAMP
- JER - JACKSON ENTRANCE RAMP
- LXR - LAKE EXIT RAMP
- MXR - MADISON EXIT RAMP
- RER - ROOSEVELT ENTRANCE RAMP
- RXR - RANDOLPH EXIT RAMP
- TER - TAYLOR ENTRANCE RAMP
- WXR - WASHINGTON EXIT RAMP

SIGN PANEL NUMBER

MOUNTING TYPE
- ST - STEEL POST
- TS - TELESCOPING STEEL
- LP - LIGHT POLE BANDING
- SP - SIGNAL POLE BANDING
- SA - SIGNAL POLE MAST ARM
- BM - BRIDGE MOUNTED
- BS - BREAKAWAY STEEL
- WP - WOOD POST
- OH - OVERHEAD
- TM - TRUSS SUPPORT MOUNTED
- FM - FENCE MOUNTED
- MP - METAL POST
- BW - BARRIER WALL MOUNTED
- PP - PARAPET OR PIER MOUNTED



PROPOSED BRIDGE MOUNT (NB I-90/94)
JACKSON BOULEVARD BRIDGE STA 6337+87.19
#1B016I094L051.5

NB-18A

TranSystems	D162A76-SHT-Sign-OSS-18A.dgn	DESIGNED - HJF	REVISED -
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	PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN PANEL PLACEMENT

SCALE: 1" = 5' | SHEET 18 OF 23 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	945
		CONTRACT NO. 62A76		
		ILLINOIS FED. AID PROJECT		

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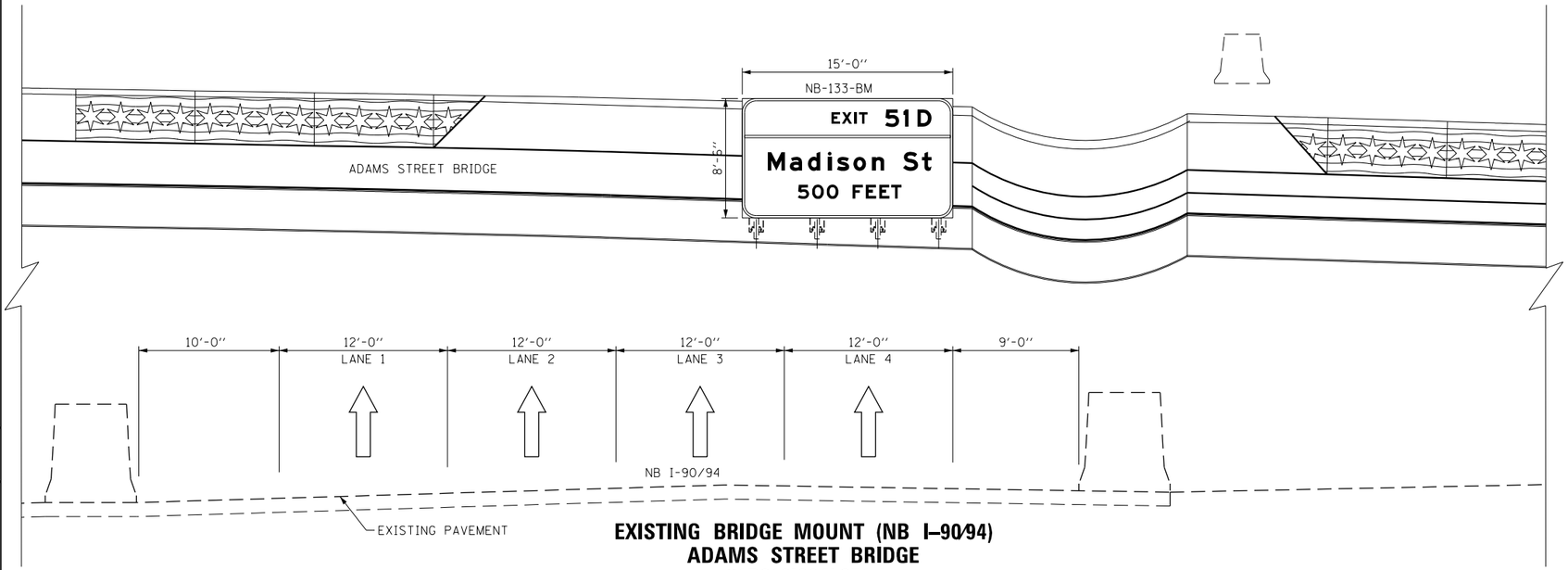
(NB I-90/94 STA 6105+65.00)



EXISTING BRIDGE MOUNT (NB I-90/94)
ADAMS STREET BRIDGE
#1B016I094L051.4

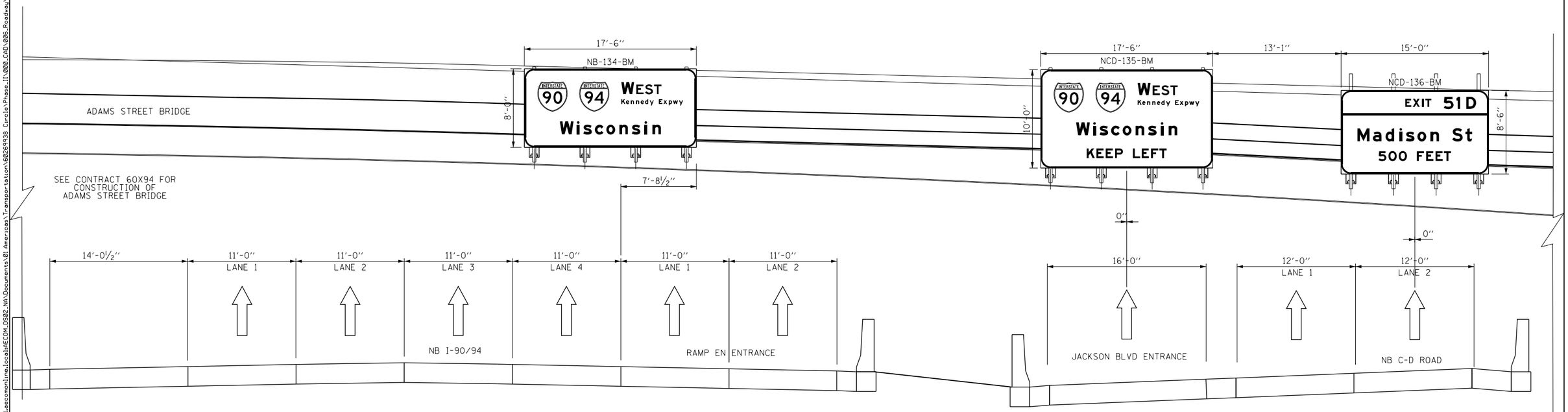
NOTES:

1. ALL DIMENSIONS SHOWN FOR THE EXISTING BRACKETS ARE APPROXIMATED. CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO ORDERING SIGNS.
2. SEE BRIDGE MOUNT SIGN STRUCTURES DETAILS FOR LAYOUT OF SUPPORTS.

SIGN NUMBERING CODE EXAMPLE

DP-01-LP

DIRECTION OF TRAFFIC	MOUNTING TYPE
NB - NB I-90/94	ST - STEEL POST
EN - RAMP EN	TS - TELESCOPING STEEL
NW - RAMP NW	LP - LIGHT POLE BANDING
NCD - NORTHBOUND C-D ROAD	SP - SIGNAL POLE BANDING
AER - ADAMS ENTRANCE RAMP	SA - SIGNAL POLE MAST ARM
JER - JACKSON ENTRANCE RAMP	BM - BRIDGE MOUNTED
LXR - LAKE EXIT RAMP	BS - BREAKAWAY STEEL
MXR - MADISON EXIT RAMP	WP - WOOD POST
RER - ROOSEVELT ENTRANCE RAMP	OH - OVERHEAD
RXR - RANDOLPH EXIT RAMP	TM - TRUSS SUPPORT MOUNTED
TER - TAYLOR ENTRANCE RAMP	FM - FENCE MOUNTED
WXR - WASHINGTON EXIT RAMP	MP - METAL POST
	BW - BARRIER WALL MOUNTED
SIGN PANEL NUMBER	PP - PARAPET OR PIER MOUNTED



PROPOSED BRIDGE MOUNT (NB I-90/94)
ADAMS STREET BRIDGE STA 6149+96.00
#1B016I094L051.4

NB-19

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	PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN PANEL PLACEMENT

SCALE: 1" = 5' | SHEET 19 OF 23 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	946
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

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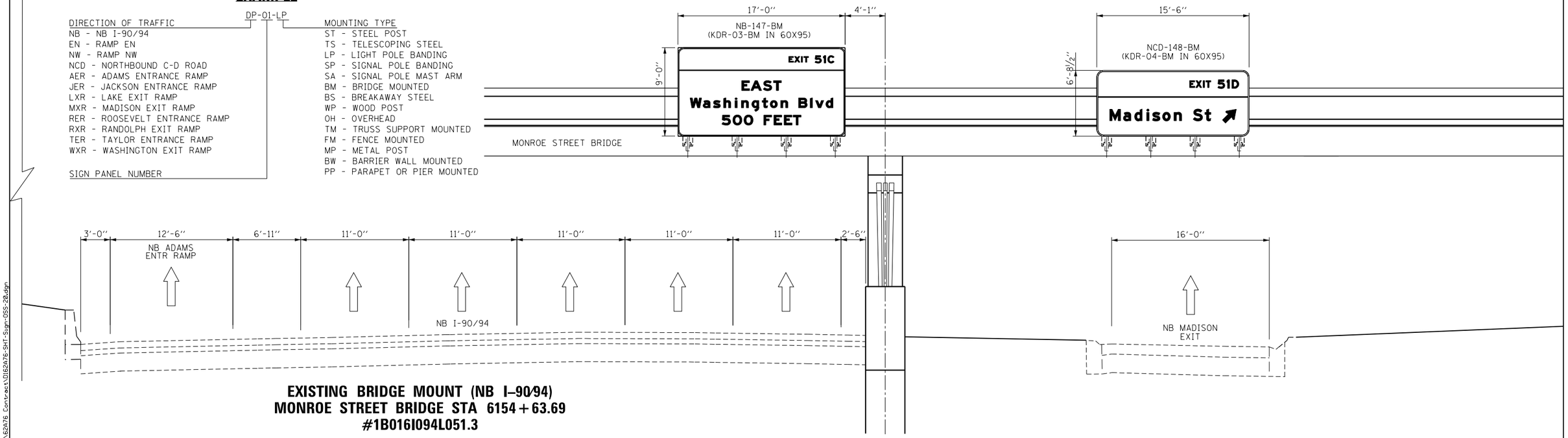
SIGN NUMBERING CODE EXAMPLE

DP-01-LP

DIRECTION OF TRAFFIC
- NB - NB I-90/94
- EN - RAMP EN
- NW - RAMP NW
- NCD - NORTHBOUND C-D ROAD
- AER - ADAMS ENTRANCE RAMP
- JER - JACKSON ENTRANCE RAMP
- LXR - LAKE EXIT RAMP
- MXR - MADISON EXIT RAMP
- RER - ROOSEVELT ENTRANCE RAMP
- RXR - RANDOLPH EXIT RAMP
- TER - TAYLOR ENTRANCE RAMP
- WXR - WASHINGTON EXIT RAMP

SIGN PANEL NUMBER

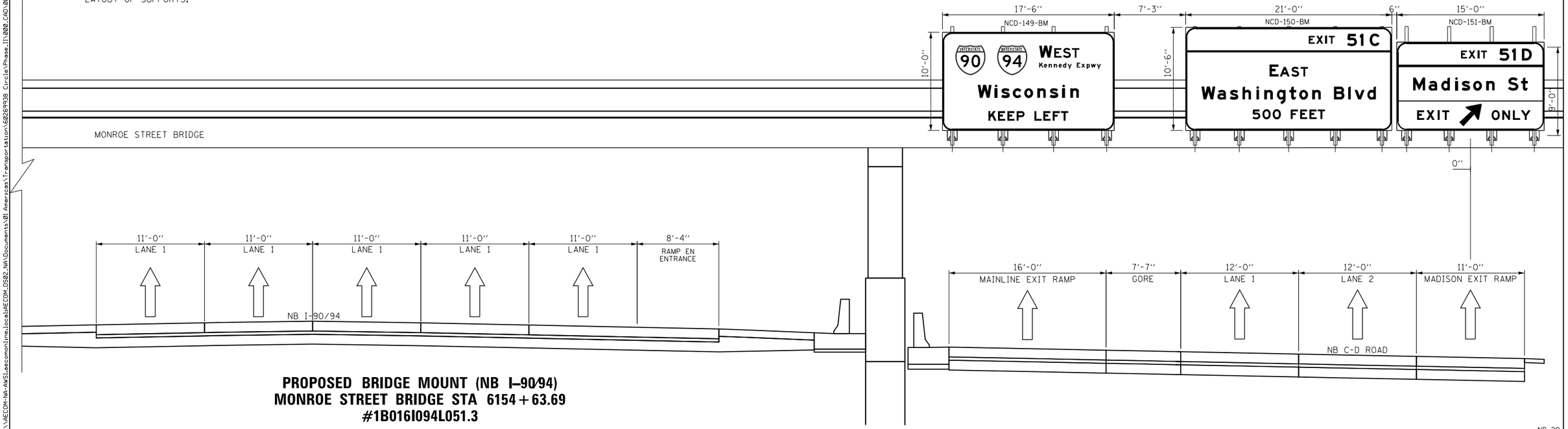
MOUNTING TYPE
- ST - STEEL POST
- TS - TELESCOPING STEEL
- LP - LIGHT POLE BANDING
- SP - SIGNAL POLE BANDING
- SA - SIGNAL POLE MAST ARM
- BM - BRIDGE MOUNTED
- BS - BREAKAWAY STEEL
- WP - WOOD POST
- OH - OVERHEAD
- TM - TRUSS SUPPORT MOUNTED
- FM - FENCE MOUNTED
- MP - METAL POST
- BW - BARRIER WALL MOUNTED
- PP - PARAPET OR PIER MOUNTED



EXISTING BRIDGE MOUNT (NB I-90/94)
MONROE STREET BRIDGE STA 6154 + 63.69
#1B016I094L051.3

NOTES:

1. SEE BRIDGE MOUNT SIGN STRUCTURES DETAILS FOR LAYOUT OF SUPPORTS.



PROPOSED BRIDGE MOUNT (NB I-90/94)
MONROE STREET BRIDGE STA 6154 + 63.69
#1B016I094L051.3

NB-20

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PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -	

TranSystems

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN PANEL PLACEMENT

SCALE: 1" = 5' | SHEET 20 OF 23 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	947
		CONTRACT NO. 62A76		
	ILLINOIS FED. AID PROJECT			

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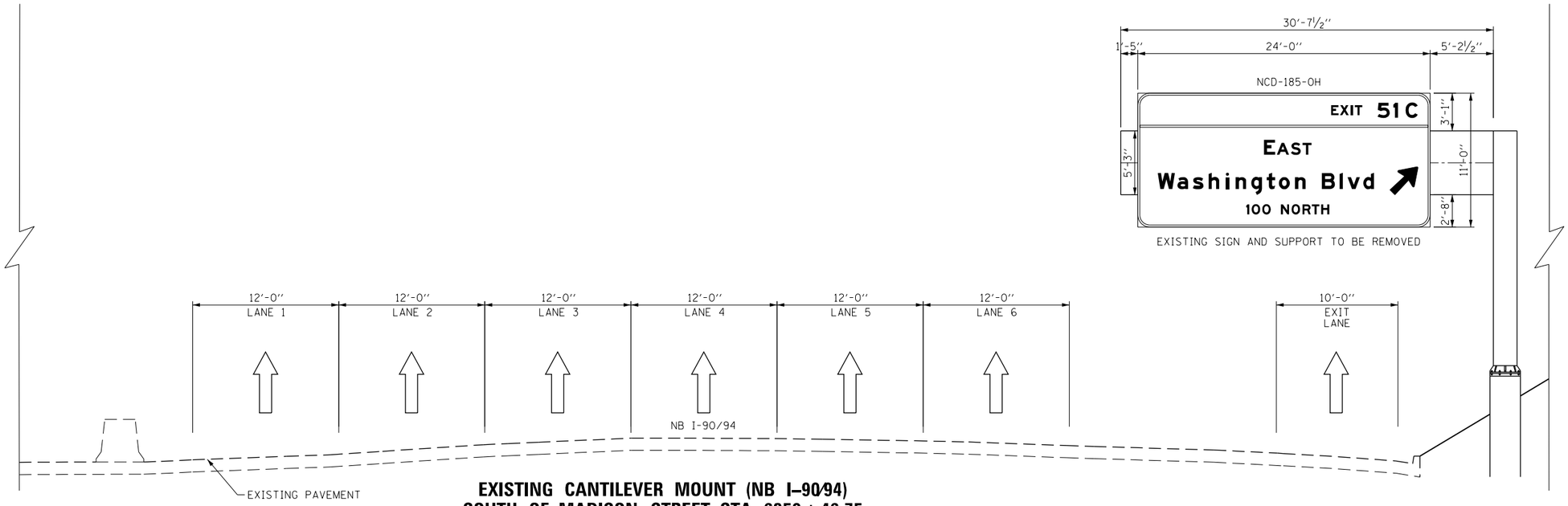

EXISTING CANTILEVER MOUNT (NB I–90/94)
SOUTH OF MADISON STREET STA 6350 + 46.75
#1C016I094L051.3

SIGN NUMBERING CODE
EXAMPLE

DP-01-LP

DIRECTION OF TRAFFIC
- NB - NB I-90/94
- EN - RAMP EN
- NW - RAMP NW
- NCD - NORTHBOUND C-D ROAD
- AER - ADAMS ENTRANCE RAMP
- JER - JACKSON ENTRANCE RAMP
- LXR - LAKE EXIT RAMP
- MXR - MADISON EXIT RAMP
- RER - ROOSEVELT ENTRANCE RAMP
- RXR - RANDOLPH EXIT RAMP
- TER - TAYLOR ENTRANCE RAMP
- WXR - WASHINGTON EXIT RAMP

SIGN PANEL NUMBER

MOUNTING TYPE
- ST - STEEL POST
- TS - TELESCOPING STEEL
- LP - LIGHT POLE BANDING
- SP - SIGNAL POLE BANDING
- SA - SIGNAL POLE MAST ARM
- BM - BRIDGE MOUNTED
- BS - BREAKAWAY STEEL
- WP - WOOD POST
- OH - OVERHEAD
- TM - TRUSS SUPPORT MOUNTED
- FM - FENCE MOUNTED
- MP - METAL POST
- BW - BARRIER WALL MOUNTED
- PP - PARAPET OR PIER MOUNTED

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TranSystems

D162A76-SHT-Sign-OSS-21.dgn	DESIGNED - HJF	REVISED -
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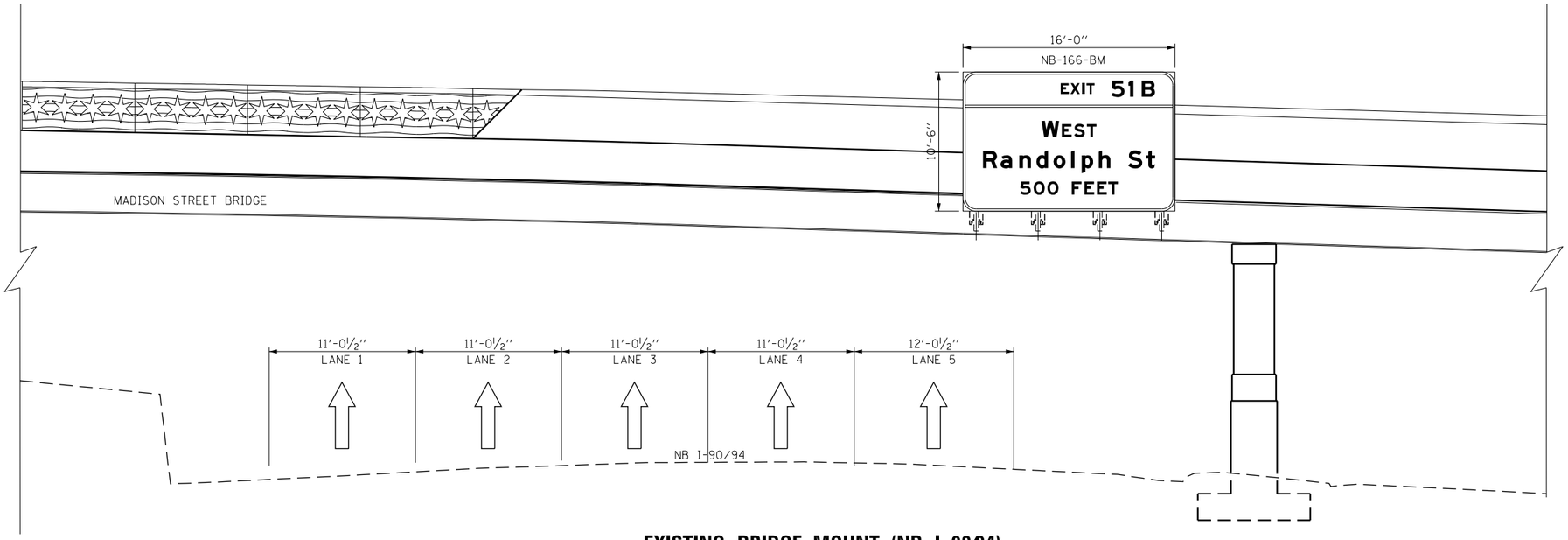
PLOT SCALE = 10.0000 ' / in.	CHECKED - MJL	REVISED -
PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN PANEL PLACEMENT

SCALE: 1″ = 5′ | SHEET 21 OF 23 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	948
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		



EXISTING BRIDGE MOUNT (NB I–90/94)
MADISON STREET BRIDGE STA 6159+30.34
#1B016I094L051.3

NOTES:

1. SEE BRIDGE MOUNT SIGN STRUCTURES DETAILS FOR LAYOUT OF SUPPORTS.

SIGN NUMBERING CODE

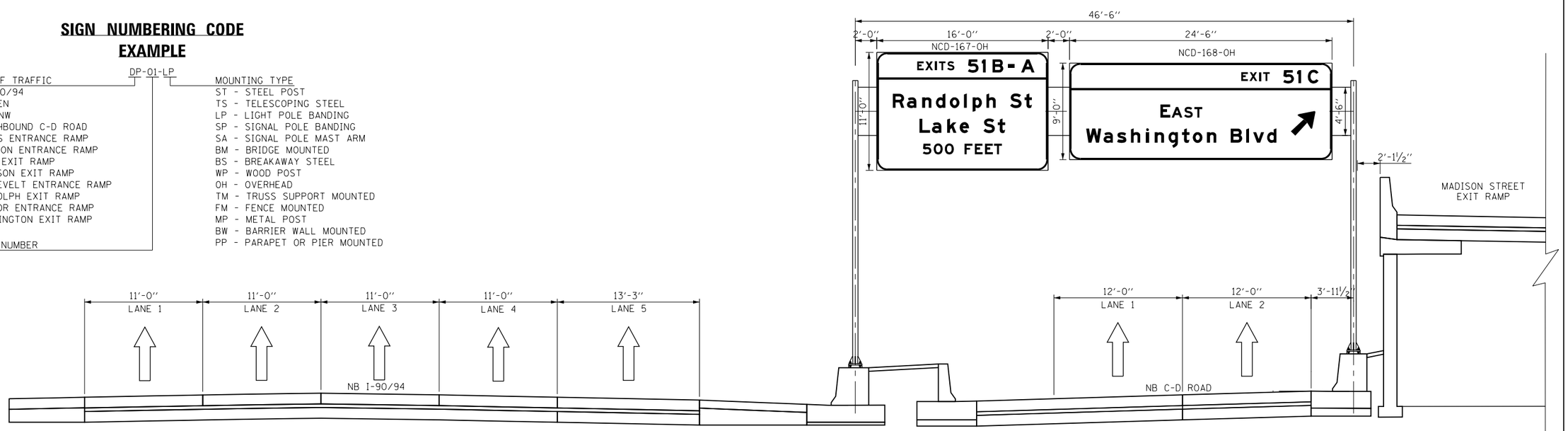
EXAMPLE

DP-01-LP

DIRECTION OF TRAFFIC
- NB - NB I-90/94
- EN - RAMP EN
- NW - RAMP NW
- NCD - NORTHBOUND C-D ROAD
- AER - ADAMS ENTRANCE RAMP
- JER - JACKSON ENTRANCE RAMP
- LXR - LAKE EXIT RAMP
- MXR - MADISON EXIT RAMP
- RER - ROOSEVELT ENTRANCE RAMP
- RXR - RANDOLPH EXIT RAMP
- TER - TAYLOR ENTRANCE RAMP
- WXR - WASHINGTON EXIT RAMP

SIGN PANEL NUMBER

MOUNTING TYPE
- ST - STEEL POST
- TS - TELESCOPING STEEL
- LP - LIGHT POLE BANDING
- SP - SIGNAL POLE BANDING
- SA - SIGNAL POLE MAST ARM
- BM - BRIDGE MOUNTED
- BS - BREAKAWAY STEEL
- WP - WOOD POST
- OH - OVERHEAD
- TM - TRUSS SUPPORT MOUNTED
- FM - FENCE MOUNTED
- MP - METAL POST
- BW - BARRIER WALL MOUNTED
- PP - PARAPET OR PIER MOUNTED



PROPOSED SPAN MOUNT (NB C–D ROAD)
SOUTH OF MADISON STREET STA 6351+55.00
#1S016I094L051.3

NB-22

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	PLOT SCALE = 10.0000 ' / in.	CHECKED - MJL	REVISED -
	PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN PANEL PLACEMENT

SCALE: 1" = 5' | SHEET 22 OF 23 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	949
		CONTRACT NO. 62A76		
	ILLINOIS FED. AID PROJECT			

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SIGN NUMBERING CODE EXAMPLE

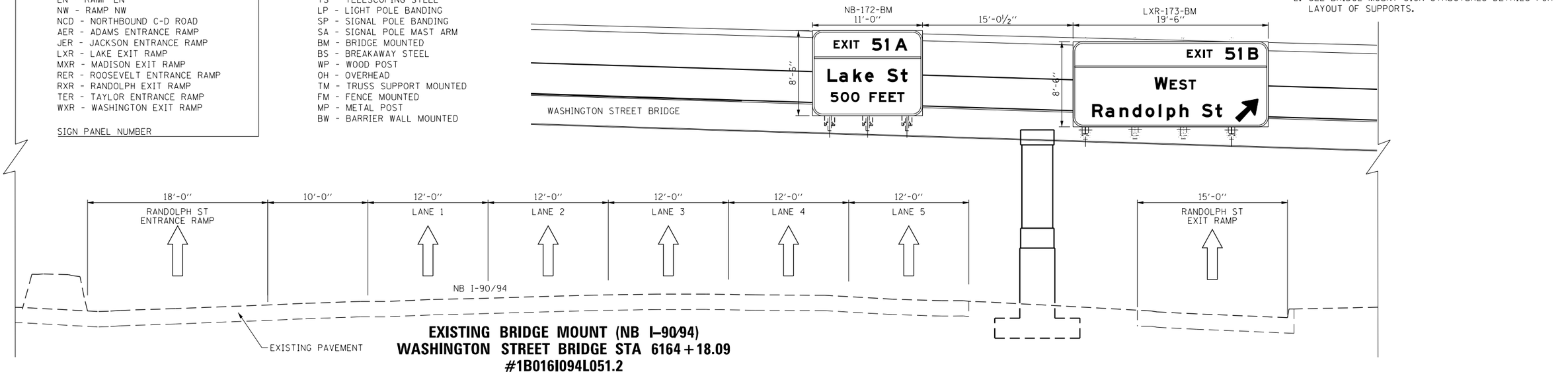
DP-01-LP

DIRECTION OF TRAFFIC	MOUNTING TYPE
NB - NB I-90/94	ST - STEEL POST
EN - RAMP EN	TS - TELESCOPING STEEL
NW - RAMP NW	LP - LIGHT POLE BANDING
NCD - NORTHBOUND C-D ROAD	SP - SIGNAL POLE BANDING
AER - ADAMS ENTRANCE RAMP	SA - SIGNAL POLE MAST ARM
JER - JACKSON ENTRANCE RAMP	BM - BRIDGE MOUNTED
LXR - LAKE EXIT RAMP	BS - BREAKAWAY STEEL
MXR - MADISON EXIT RAMP	WP - WOOD POST
RER - ROOSEVELT ENTRANCE RAMP	OH - OVERHEAD
RXR - RANDOLPH EXIT RAMP	TM - TRUSS SUPPORT MOUNTED
TER - TAYLOR ENTRANCE RAMP	FM - FENCE MOUNTED
WXR - WASHINGTON EXIT RAMP	MP - METAL POST
	BW - BARRIER WALL MOUNTED

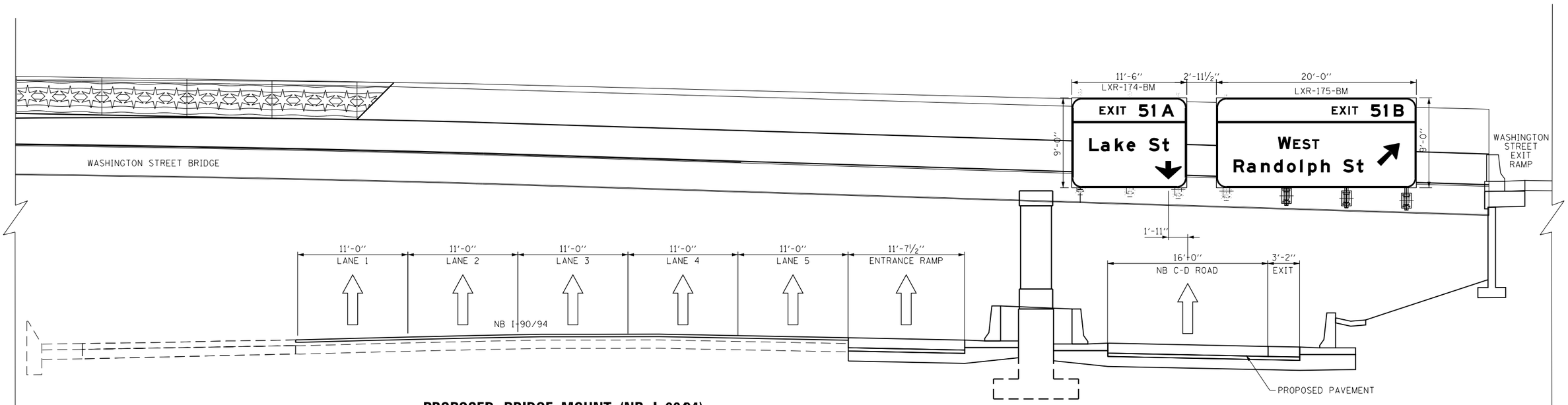
SIGN PANEL NUMBER

NOTES:

1. ALL DIMENSIONS SHOWN FOR THE EXISTING BRACKETS ON THE BRIDGE MOUNT ARE APPROXIMATED. CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO ORDERING SIGNS.
2. SEE BRIDGE MOUNT SIGN STRUCTURES DETAILS FOR LAYOUT OF SUPPORTS.



EXISTING BRIDGE MOUNT (NB I-90/94)
WASHINGTON STREET BRIDGE STA 6164+18.09
#1B016I094L051.2



PROPOSED BRIDGE MOUNT (NB I-90/94)
WASHINGTON STREET BRIDGE STA 6164+18.09
#1B016I094L051.2

NB-23

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	PLOT DATE = 1/29/2020	DATE - 1/29/20	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN PANEL PLACEMENT

SCALE: 1" = 5' | SHEET 23 OF 23 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-D19R	COOK	2155	950
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

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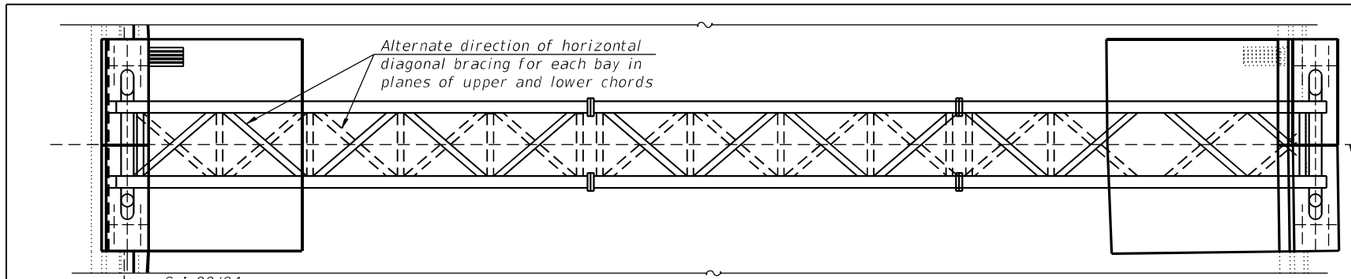
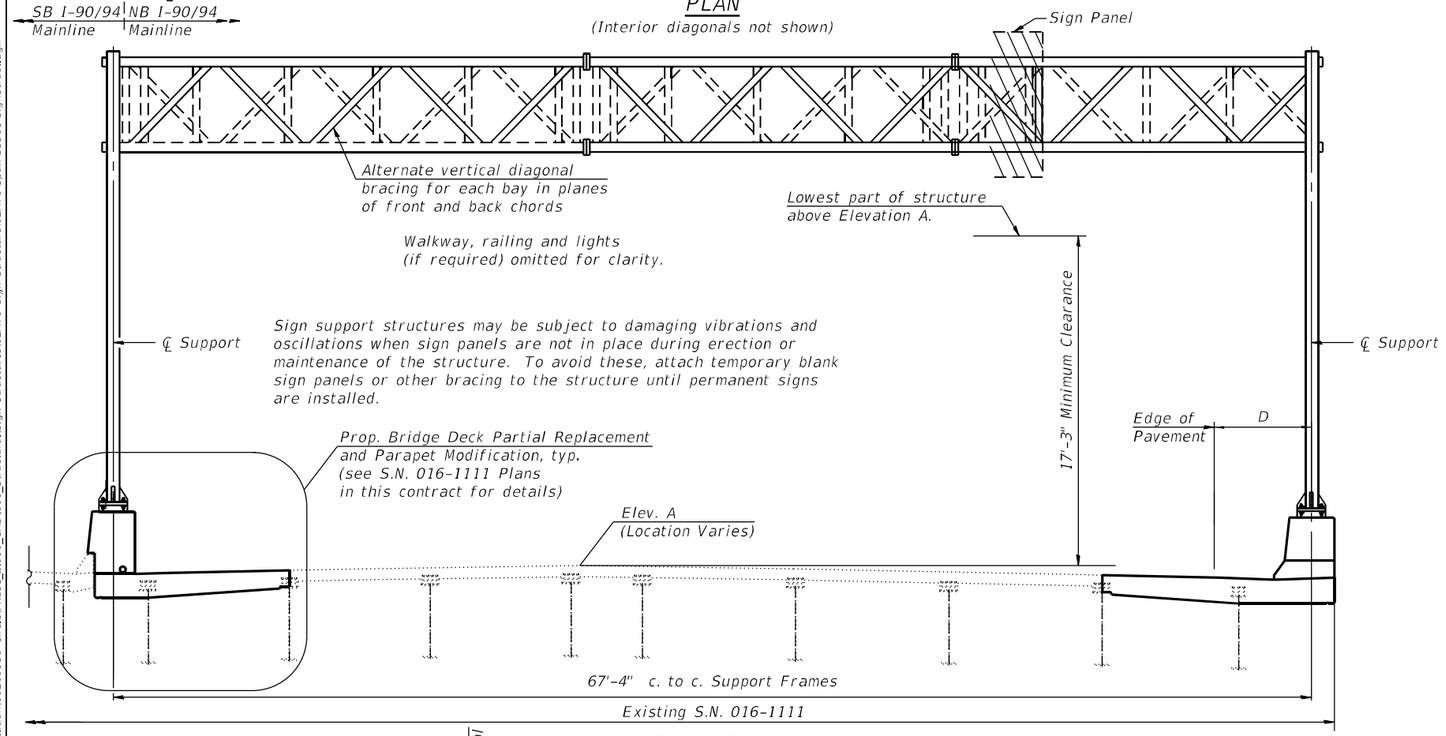


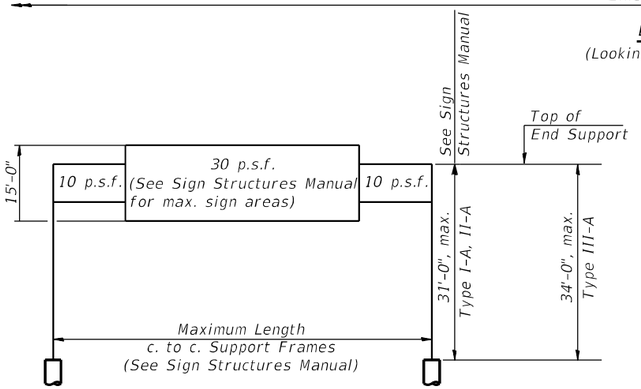
PLAN

(Interior diagonals not shown)



ELEVATION

(Looking at Face of Signs**)



DESIGN WIND LOADING DIAGRAM

Parameters shown are basis for I.D.O.T. Standards and Sign Manual Tables. Installations not within dimensional limits shown require special analysis for all components.

Elev. A = Elevation at point of minimum clearance to sign, walkway support or truss.

Structure Number	***Station	Design Truss Type	c. to c. Supports	tElev. A	Dim. D	ttHeight of Tallest Sign	Total Sign Area
1S016I094L052.9	157+44.47	III-A	67'-4"	627.44	4'-10½"	20'-6"	1063.25 Sq. Ft.

*If M270 Gr. 50W (M222) steel is proposed, chemistry for plate to be used shall first be approved by the Engineer as suitable for galvanizing and welding.

**Looking upstation for structures with signs both sides.

***Measured along Exist. ℄ NB I-90/94

tVerify in Field

ttIncludes height of Exit Hat

STATE OF ILLINOIS
MOUSSA A ISSA
081-005738
CHICAGO, ILLINOIS
LICENSED STRUCTURAL ENGINEER

SIGNED Moussa A. Issa

DR. MOUSSA A. ISSA. S.E., IL. LIC. NO. 081-005738 EXPIRES 11-30-2020

DATE 01/29/2020 FOR SHEETS SS01 THRU SS08 (TOTAL OF 8 SHEETS)

GENERAL NOTES

DESIGN: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications")

CONSTRUCTION: Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Special Provisions. ("Standard Specifications")

LOADING: 90 M.P.H. WIND VELOCITY

WALKWAY LOADING: Dead load plus 500 lbs. concentrated live load.

DESIGN STRESSES:
Field Units
f'c = 4,000 p.s.i. (Concrete Superstructure)
fy = 60,000 p.s.i. (Reinforcement)

WELDING: All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 and D1.2 Structural Welding Codes (Steel and Aluminum) and the Standard Specifications.

MATERIALS: Aluminum Alloys as shown throughout plans. All Structural Steel Pipe shall be ASTM A53 Grade B or A500 Grade B or C. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53. All Structural Steel Plates and Shapes shall conform to AASHTO M270 Gr. 36, Gr. 50 or Gr. 50W. Stainless steel for shims, sleeves and handhole covers shall be ASTM A240, Type 302 or 304, or another alloy suitable for exterior exposure and acceptable to the Engineer. The steel pipe and stiffening ribs at the base plate for the column shall have a minimum longitudinal Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F. (Zone 2) before galvanizing.*

FASTENERS FOR ALUMINUM TRUSSES: All bolts noted as "high strength" must satisfy the requirements of AASHTO M164 (ASTM A325), or approved alternate, and must have matching lock nuts. Threaded studs for splices (if Members interfere) must satisfy the requirements of ASTM A449, ASTM A193, Grade B7, or approved alternate, and must have matching lock nuts. Bolts and lock nuts not required to be high strength must satisfy the requirements of ASTM A307. All bolts and lock nuts must be hot dip galvanized per AASHTO M232. The lock nuts must have nylon or steel inserts. A stainless steel flat washer conforming to ASTM A240 Type 302 or 304, is required under both head and nut or under both nuts where threaded studs are used. High strength bolt installation shall conform to Article 505.04 (f) (2)d of the IDOT Standard Specifications for Road and Bridge Construction. Rotational capacity ("ROCAP") testing of bolts will not be required.

U-BOLTS AND EYEBOLTS: U-Bolts and Eyebolts must be produced from ASTM A276 Type 304, 304L, 316 or 316L, Condition A, cold finished stainless steel, or an equivalent material acceptable to the Engineer. All nuts for U-Bolts and Eyebolts must be lock nuts equivalent to ASTM A307 with nylon or steel inserts and hot dip galvanized per AASHTO M232. A stainless steel flat washer conforming to ASTM A240, Type 302 or 304, is required under each U-Bolt and Eyebolt lock nut.

GALVANIZING: All Steel Grating, Plates, Shapes and Pipe shall be Hot Dip Galvanized after fabrication in accordance with AASHTO M111. Painting is not permitted.

ANCHOR RODS: Shall conform to ASTM F1554 Gr. 105.

REINFORCEMENT BARS: Reinforcement Bars designated (E) shall be epoxy coated in accordance with the Standard Specifications.

WALKWAY: Walkway grating, walkway brackets, handrails, lighting, and associated components shown in these plans on the traffic side of the sign structure/sign panel will not be installed with Contract 62A76. The truss grating and maintenance walkway behind the sign panel will be included with Overhead Sign Structure Span - Type III-A.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
OVERHEAD SIGN STRUCTURE SPAN - TYPE III-A	Foot	68

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4:06:27 PM

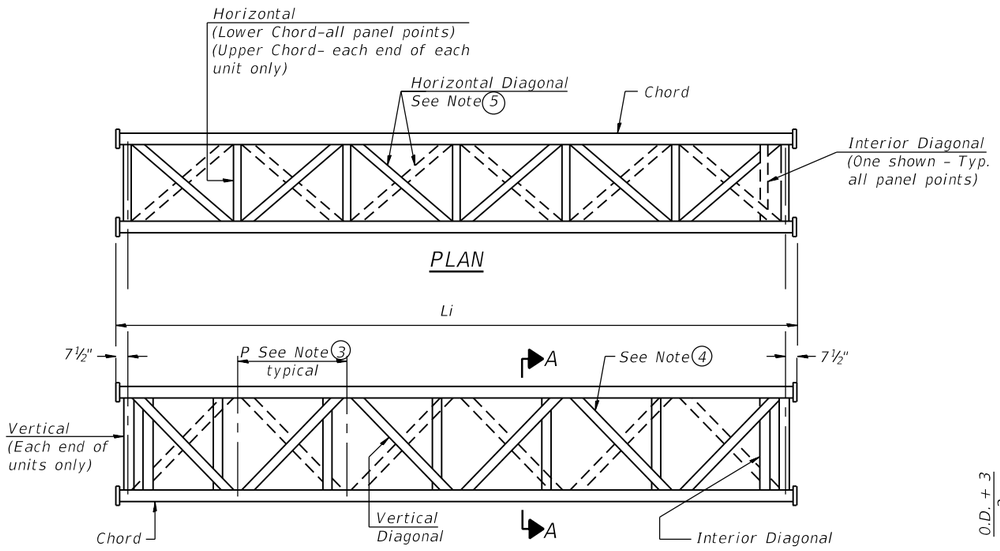
HBM ENGINEERING GROUP, LLC	USER NAME = marina.stoica	DESIGNED - AMS, EBK	REVISED -	
		CHECKED - MAI, JJS	REVISED -	
	PLOT SCALE = N.T.S	DRAWN - AMS, EBK	REVISED -	
	PLOT DATE = 1/29/2020	CHECKED - MAI, JJS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES - GENERAL PLAN & ELEVATION - ALUMINUM TRUSS & STEEL SUPPORTS

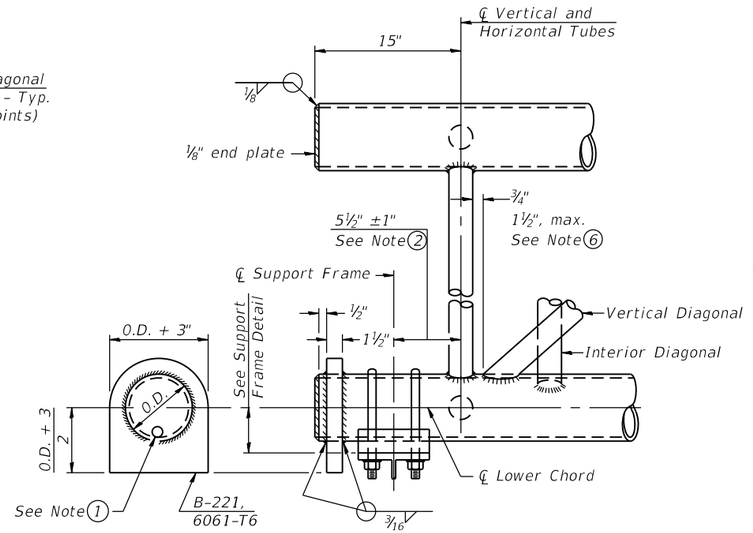
SHEET NO. SS01 OF SS129 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	951
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

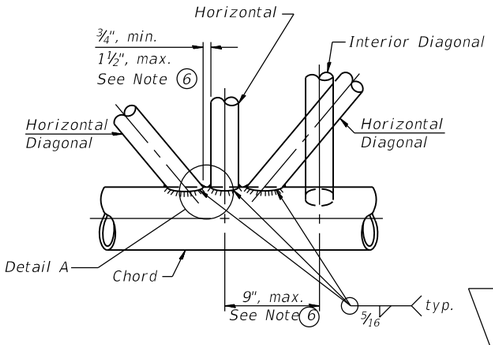


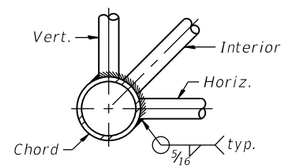
ELEVATION
TYPICAL INTERIOR UNIT

Even number of panels/interior unit required.

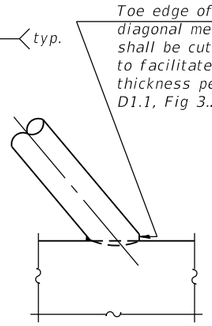


SUPPORT END DETAIL FOR EXTERIOR UNIT

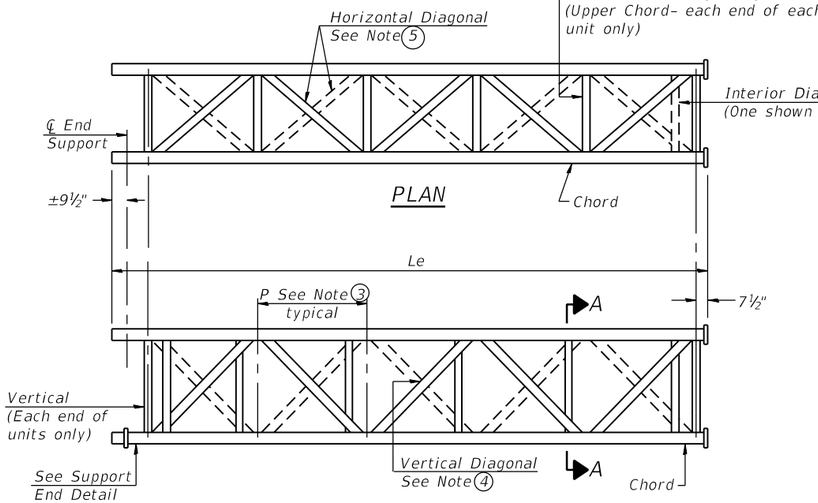




TYPICAL JOINT DETAILS

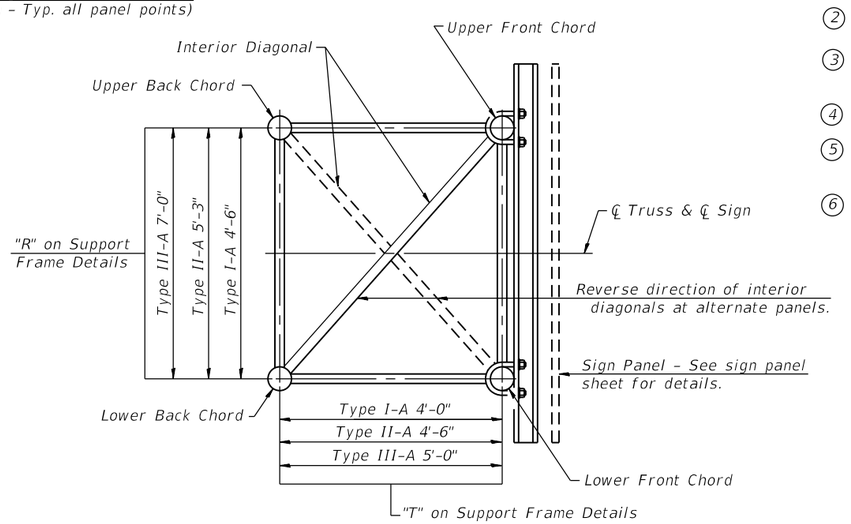


DETAIL A



ELEVATION
TYPICAL EXTERIOR UNIT

Even or odd number of panels/exterior units allowed.



SECTION A-A

1. Contractor may alternatively use standard aluminum drive-fit cap to close end. ½" Ø drain hole in end plate/drive-fit cap. (Typ. at ends of all chords)
2. 5½" end dimension may vary by ±1" to provide uniform panel spacing (P).
3. Panel spacing (P) shall be uniform for entire truss and between 4'-0" and 5'-0" for Type I-A or 4'-0" and 5'-6" for Types II-A and III-A.
4. Vertical Diagonals in front and back face shall alternate.
5. Hidden lines show wind bracing alternates direction between planes of top and bottom chords.
6. All diagonals shall be detailed for minimum offset from the panel point based on the following: Offset shall be such as to provide a ¾" minimum to 1½" maximum clearance between any diagonal and any horizontal or vertical member, and to provide clearance for U-bolt connections of signs or walkway brackets.

OS-A-2 2-17-2017

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PLOT SCALE = N.T.S		DRAWN - AMS, EBK		REVISED -	
PLOT DATE = 1/24/2020		CHECKED - MAI, JJS		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES – ALUMINUM TRUSS
DETAILS FOR TRUSS TYPES I-A, II-A AND III-A

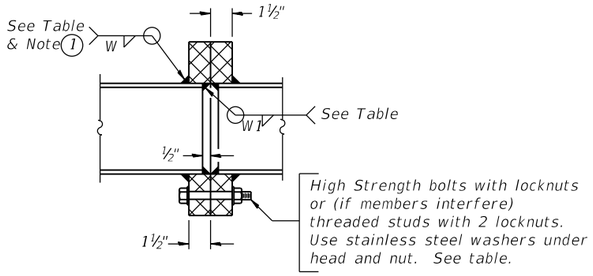
SHEET NO. SS02 OF SS129 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	952
		CONTRACT NO. 62A76		
	ILLINOIS FED. AID PROJECT			

TRUSS UNIT TABLE

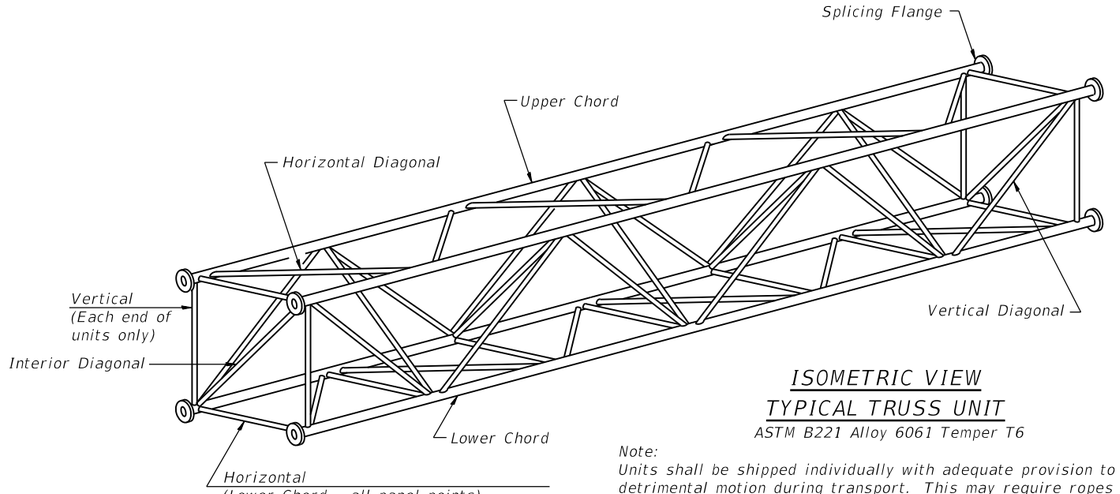
Structure Number	**Station	Design Truss Type	Exterior Units (2)			Interior Unit				Upper & Lower Chord		Verticals; Horizontals; Vertical,Horizontal, and Interior Diagonals		Camber at Midspan	Splicing Flange					
			No. Panels per Unit	Unit Lgth.(Le)	Panel Lgth.(P)	No. Req'd.	No. Panels per Unit	Unit Lgth.(Li)	Panel Lgth.(P)	O.D.	Wall	O.D.	Wall		Bolts		Weld Sizes		A	B
															No./Splice	Dia.	W	W1		
1S016I094L052.9	157+44.47	III-A	7	34'-6½"	4'-8"	-	-	-	-	9"	½"	3½"	5/16"	1"	8	1¼"	3/16"	7/16"	13½"	17"

** Measured along Exist. ℄ NB I-90/94.



SECTION B-B

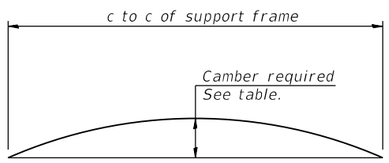
1. Splicing Flanges shall be attached to each truss unit with the truss shop assembled to camber shown. Truss units shall be in proper alignment and flange surfaces shall be shop bolted into full contact before welding. Sufficient external welds or tacks shall be made to secure flanges until remaining welds are made after disassembly. Adjacent flanges shall be "match marked" to ensure proper field assembly.



ISOMETRIC VIEW
TYPICAL TRUSS UNIT

ASTM B221 Alloy 6061 Temper T6

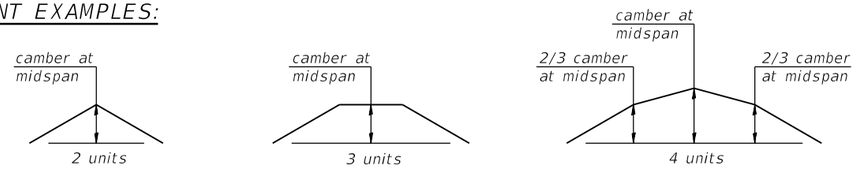
Note:
Units shall be shipped individually with adequate provision to prevent detrimental motion during transport. This may require ropes between horizontals and diagonals or energy dissipating (elastic) ties to the vehicle. The Contractor is responsible for maintaining the configuration and protection of the units.



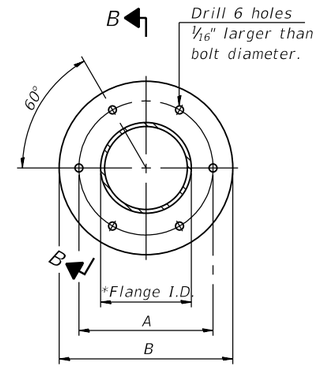
CAMBER DIAGRAM

Camber curve shown is theoretical. Actual camber attained by slope changes at splices between units.

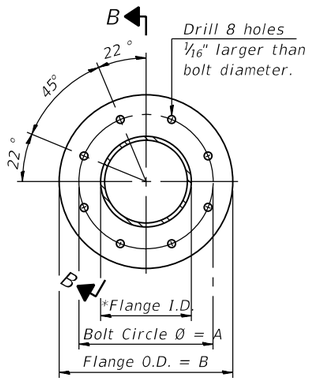
CAMBER ATTAINMENT EXAMPLES:



Camber shown is for fabrication only, measured with truss fully supported. (No-load condition)



TRUSS TYPES I-A, II-A, & III-A



TRUSS TYPES II-A & III-A

SPLICING FLANGES

ASTM B221, Alloy 6061-T6
or ASTM B209, Alloy 6061-T651
*To fit O.D. of Chord with maximum gap of 1/16".

OS4-A-2 2-17-2017

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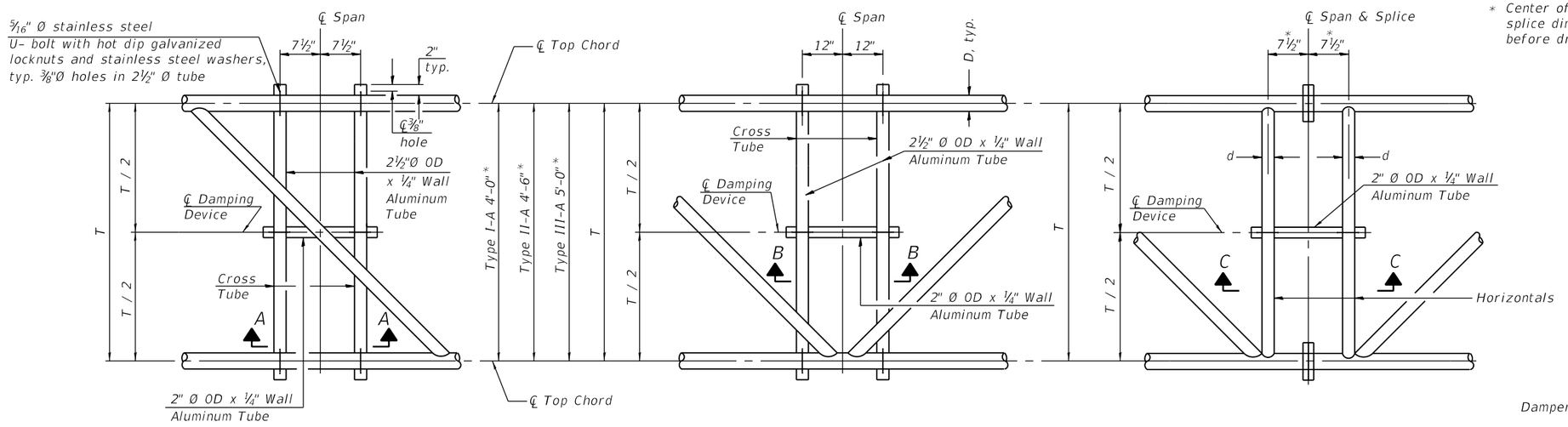
	PLOT SCALE = N.T.S	DRAWN - AMS, EBK	REVISED -	
	PLOT DATE = 1/24/2020	CHECKED - MAI, JJS	REVISED -	

OVERHEAD SIGN STRUCTURES - ALUMINUM TRUSS DETAILS FOR TRUSS TYPES I-A, II-A, AND III-A

SHEET NO. SS03 OF SS129 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	953
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		



PLAN DETAIL "A"
℄ Span between Panel Points

PLAN DETAIL "B"
℄ Span at Panel Point

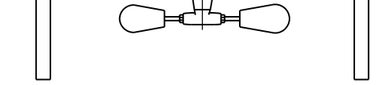
PLAN DETAIL "C"
℄ Span at ℄ Chord Splice

* Center of horizontal to center of splice dimension may vary. Verify before drilling holes in mounting tube.

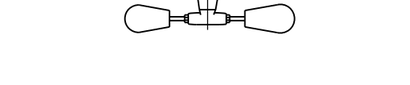
NOTES

Damper: One damper per truss. (31 lbs. minimum Stockbridge-Type Aluminum – 29" minimum between ends of weights) Cost included in Overhead Sign Structure...

Materials: Materials: Aluminum tubes shall be ASTM B221 alloy 6061 temper T6. Cost included in Overhead Sign Structure...

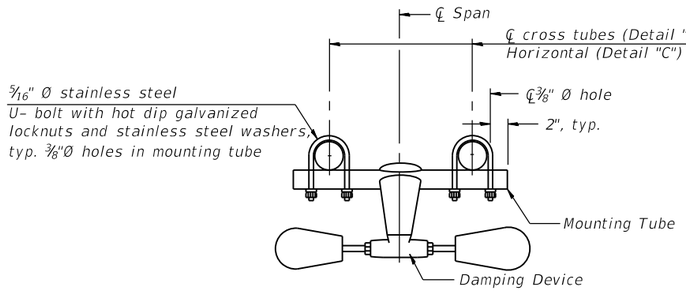


SECTION A-A

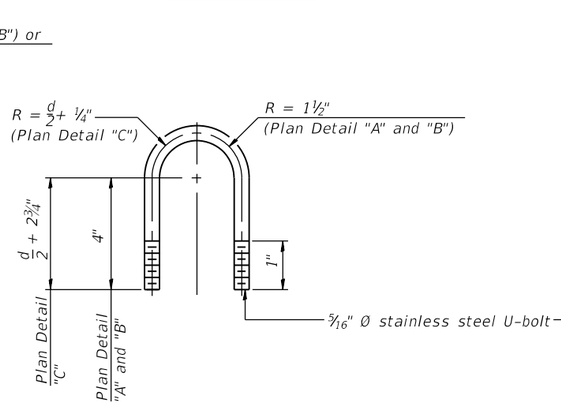


SECTION B-B

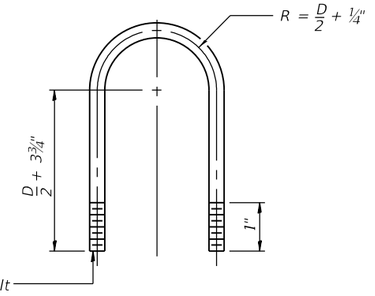
SECTION C-C



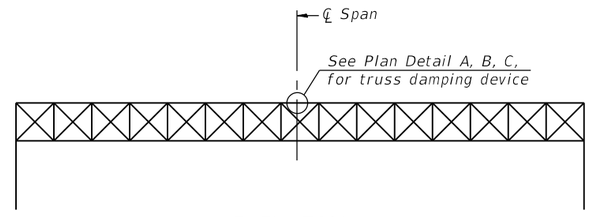
TRUSS DAMPING DEVICE CONNECTION DETAIL
(Typical)



DAMPING DEVICE MOUNTING TUBE U-BOLT DETAIL
(Typical)



TOP CHORD TO CROSS TUBE U-BOLT DETAIL
(Typical - Detail "A" and "B")



ELEVATION
Aluminum Overhead Sign Truss

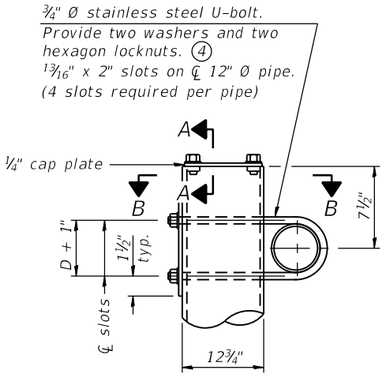
0S-A-D 2-17-2017

HBM ENGINEERING GROUP, LLC

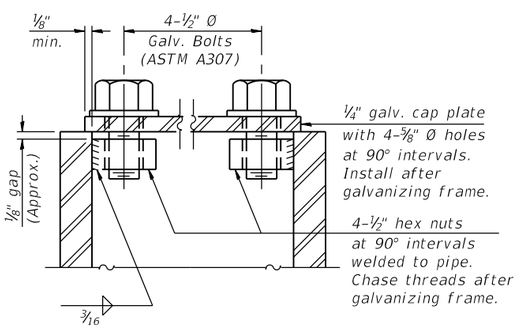
USER NAME = charles.pigozzi	DESIGNED - AMS, EBK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OVERHEAD SIGN STRUCTURE DAMPING DEVICE
	CHECKED - MAI, JJS	REVISED -		
PLOT SCALE = N.T.S	DRAWN - AMS, EBK	REVISED -		SHEET NO. SS04 OF SS129 SHEETS
PLOT DATE = 1/24/2020	CHECKED - MAI, JJS	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	954
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

FILE NAME: pw:\\AECOM-NA-AWS1.aecomonline.local:AECOM_DS02_NA\Documents\01 Americas\Transportation\60269938 Circle\Phase_II\000_CAD\008_Structural\Sign Structures\62A76 Sign Structure\62A76-Span-SS304-SignStruct.dgn
11:08:04 AM

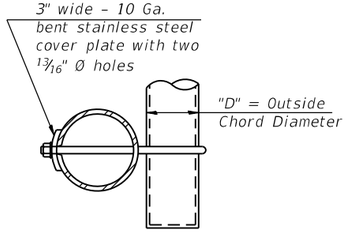


DETAIL A

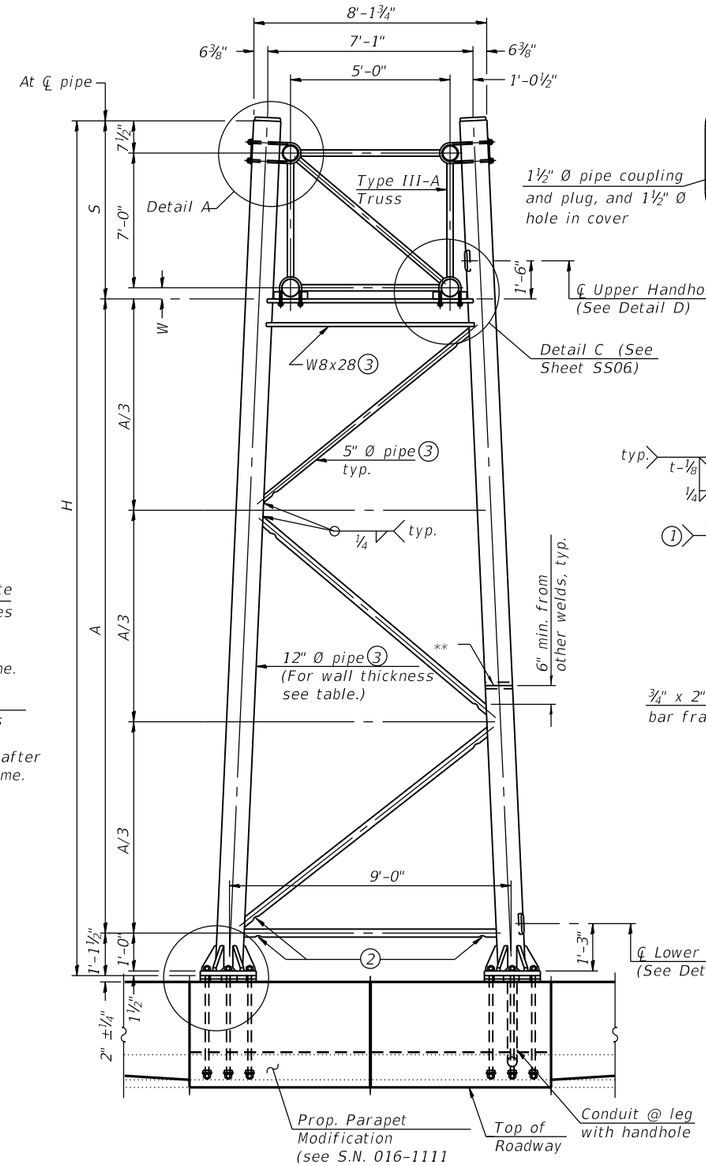


SECTION A-A

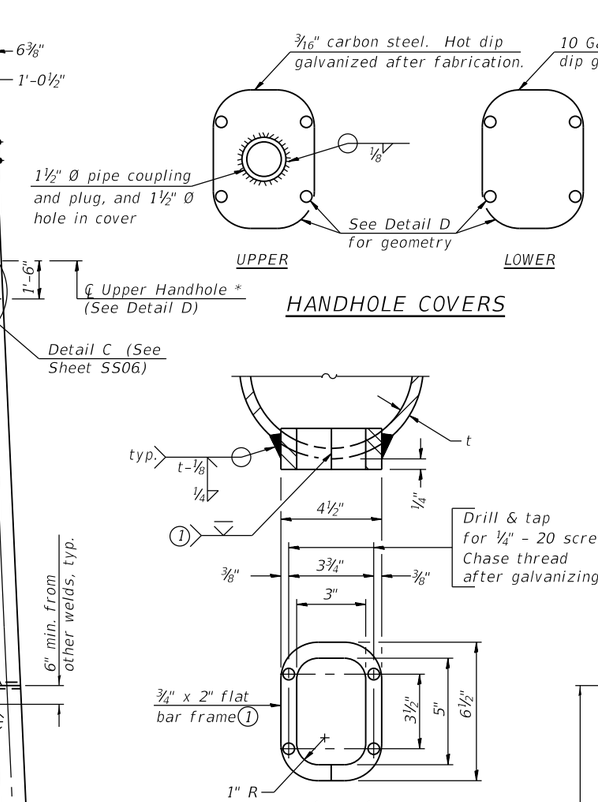
As an alternate to bolts, may use galvanized drive-fit caps installed after galvanizing frame.



SECTION B-B

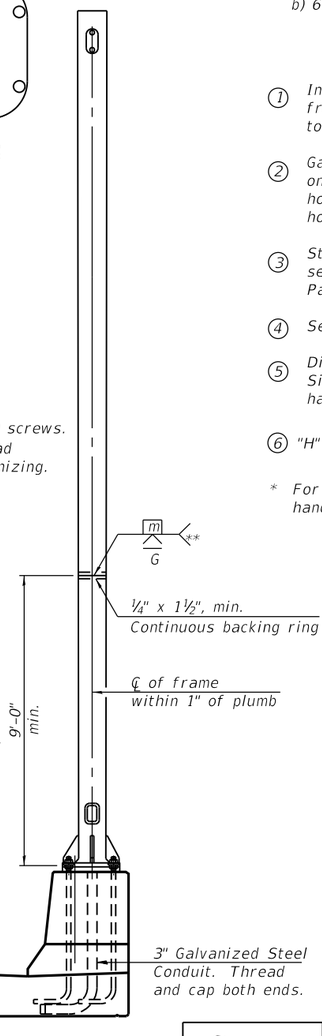


SIDE ELEVATION



HANDHOLE COVERS

DETAIL D



END ELEVATION

Support Design Loads: See Sheet SS01 for design and loading criteria.
Load combinations checked include dead load plus:
a) 100% wind normal to sign, 20% parallel to sign
b) 60% wind normal to sign, 30% parallel to sign

1. In lieu of fabricated handhole frame as shown, may cut from 2" plate (rolling direction vertical). All cut faces to be ground to ANSI Roughness of 500 µin or less.
2. Galvanizing vent holes of adequate size shall be provided on underside at each end of bracing pipes. Alternately, holes may be provided in wall of pipe column. All vent holes shall be drilled and de-burred, typ.
3. Steel pipe, plate, carbon steel handhole covers and rolled sections shall be hot dip galvanized after fabrication. Painting is not permitted. See Sheet SS01.
4. See General Notes for fasteners.
5. Dimensions shown are based on selection criteria in the Sign Structures Manual. Nonstandard applications must have dimensions verified or amended as appropriate.
6. "H" based on 15'-0" or actual sign height, whichever is greater.

* For dynamic message sign installations, provide upper and lower handholes in both legs of each support frame.

NOTES:

1. Sign structure is supported on parapet of S.N. 016-1111. For Details, see Sheets S12-01 to S12-09.

Dimensions		
Truss Chord Nominal Dia.	W	S
7"	4¾"	8'-0¼"
8½"	5½"	8'-1"
9"	5¾"	8'-1¼"

TRUSS SUPPORT DETAILS

(12" Ø Pipe - Type III-A Truss)

** One butt welded joint is allowed only on one post per support frame. If used, weld procedure must be pre-approved by Engineer and joint shall receive 100% RT or UT (tension criteria) at Contractor's expense.

Structure Number	***Station	Support		Pipe Wall Thickness	H (6)	A
		Left	Right			
1S016I094L052.9	157+44.47	X		0.5" (XS)	29'-8¾"	20'-6"
			X	0.5" (XS)	30'-0"	20'-9¼"

***Measured along Exist. ℄ NB I-90/94

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PLOT DATE = 1/29/2020		CHECKED - MAI, JJS	REVISED -	

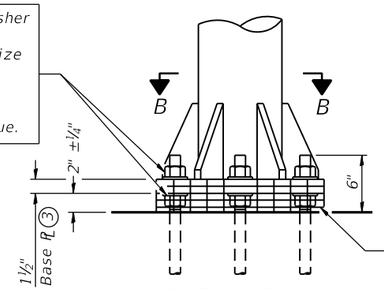
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES - SUPPORT FRAME FOR TYPE III-A ALUMINUM TRUSS

SHEET NO. SS05 OF SS129 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	955
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

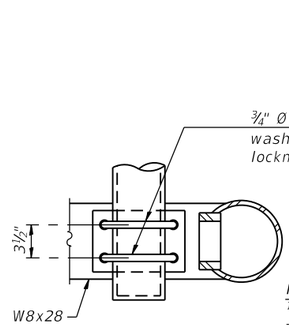
Hexagon locknut and washer (top), leveling nut and washer (bottom). Galvanize per AASHTO M232. Nuts shall each be tightened against base plate with 200 lb.-ft. minimum torque.



DETAIL B

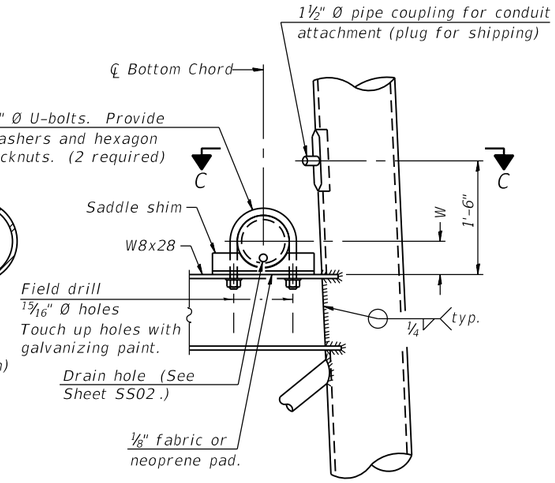
Ribs shall be cut to fit slope of pipe.

Stainless Steel Standard Grade Wire Cloth, 3" wide, ¼" maximum opening with a minimum wire diameter of AWG. No. 16 with a minimum 2" lap. Secure to base plate after erection with ¾" stainless steel banding.

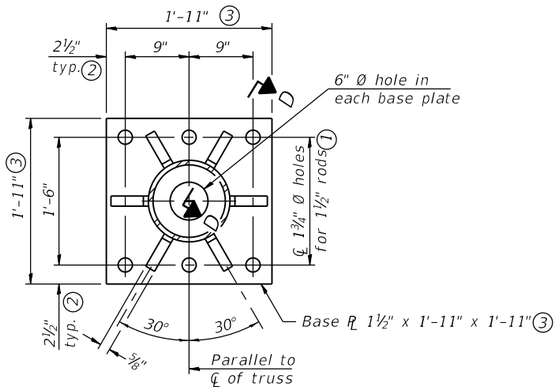


SECTION C-C

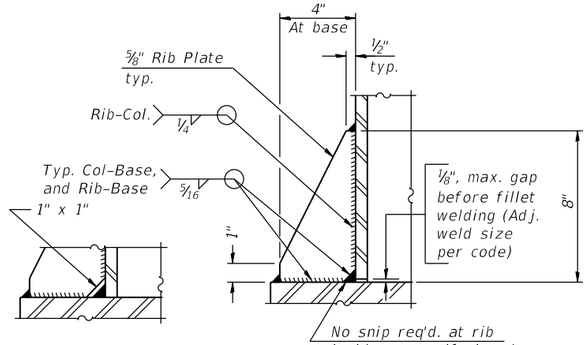
(Handhole cover not shown)



DETAIL C

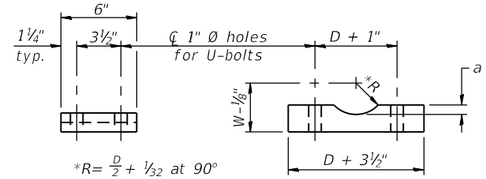


SECTION B-B



** Alternate detail if welding col. to base plate first, then snip inside corner of ribs. Terminate weld on rib ¼" from snip.

SECTION D-D



*R= $\frac{D}{2}$ + 1/32 at 90°

D = Outside Diameter of Chord.
For W, see Sheet SS05 .

Truss Chord Nominal Dia.	a
7"	1"
8½"	1¼"
9"	1⅜"

SADDLE SHIM DETAIL

ASTM B26 Alloy 356-F
or
ASTM B209 Alloy 6061-T651
(4 required per sign truss)

TYPE III-A TRUSS
12" Ø PIPE SUPPORT FRAME DETAILS

Notes:
For Type III-A Truss spans greater than 150 ft, and up to 160 ft.:

① 1¾" Ø rod, 2" Ø holes

② 2¾" edge distance

③ Base PL 1⅝" x 1'-11½" x 1'-11½"

NOTES:

1. For anchor rod and positioning plate details, see Sheet S12-08.

HBM ENGINEERING GROUP, LLC	USER NAME = marina.stoica	DESIGNED - AMS, EBK	REVISED -	
		CHECKED - MAI, JJS	REVISED -	
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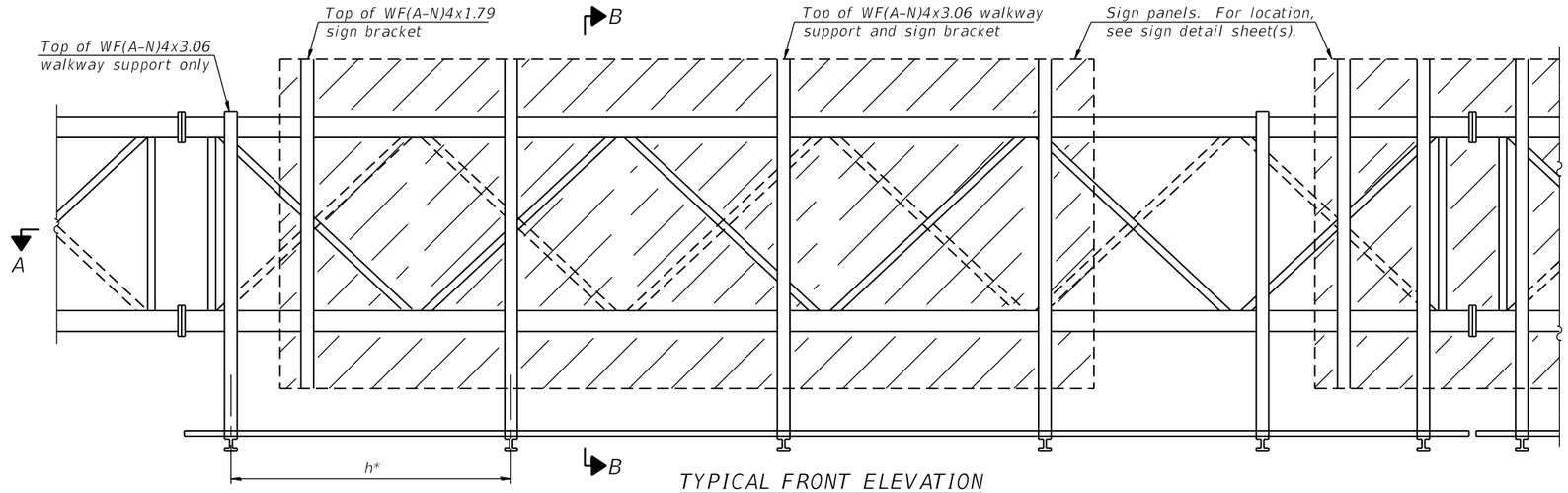
	PLOT DATE = 1/29/2020	CHECKED - MAI, JJS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

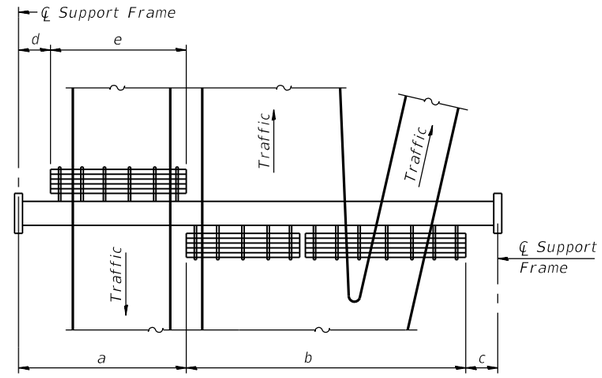
OVERHEAD SIGN STRUCTURES
SUPPORT FRAME FOR TYPE III-A ALUMINUM TRUSS
SHEET NO. SS06 OF SS129 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	956
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		



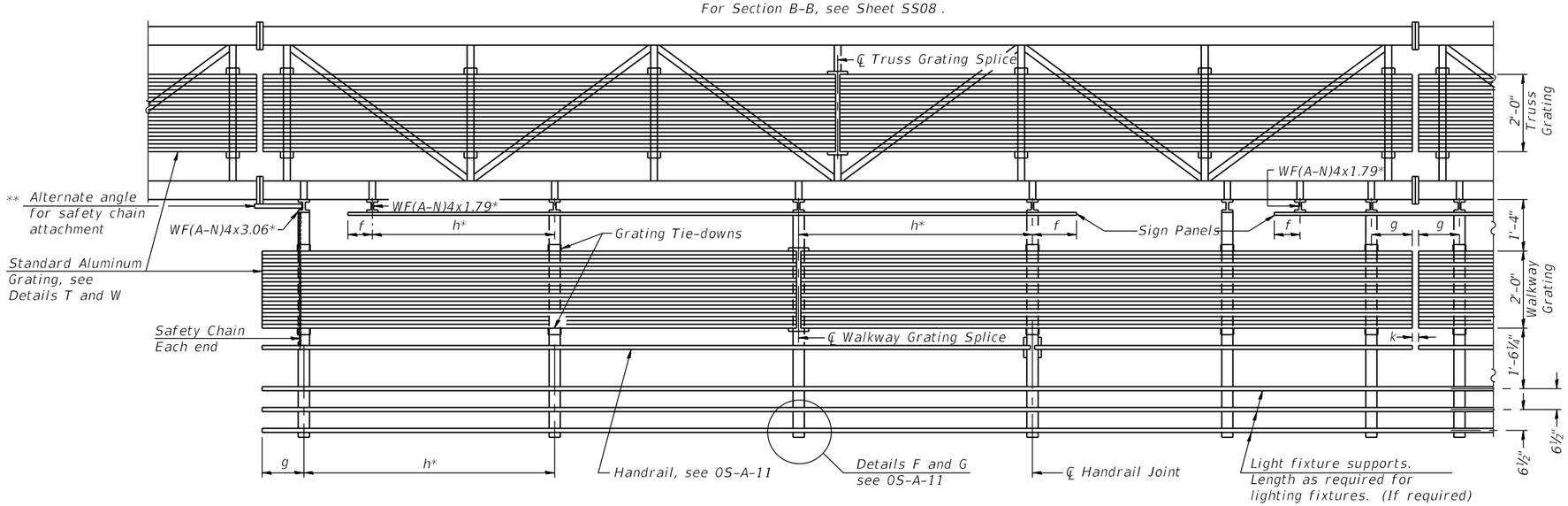
TYPICAL FRONT ELEVATION

With lights and handrail omitted for clarity.
For Section B-B, see Sheet SS08 .



PLAN
WALKWAY AND HANDRAIL SKETCH

(Road plan beneath truss varies)



SECTION A-A

Handrail and walkway shall span a minimum of three brackets between splices and/or gap joints.
Place all sign and walkway brackets as close to panel points as practical.
Handrail joints, grating, and light support splices placed as needed.

BRACKET TABLE

WF(A-N)4x1.79 or WF(A-N)4x3.06 ASTM B308, Alloy 6061-T6		
Sign Width		Number Brackets Required
Greater Than	Less Than or Equal To	
	8'-0"	2
8'-0"	14'-0"	3
14'-0"	20'-0"	4
20'-0"	26'-0"	5
26'-0"	32'-0"	6

Notes:

*Space walkway brackets WF(A-N)4x3.06 and sign brackets WF(A-N)4x1.79 for efficiency and within limits shown:

f = 12" maximum, 4" minimum (End of sign to ℄ of nearest bracket)
g = 12" maximum, 4" minimum (End of walkway grating to ℄ of nearest support bracket)
h = 6'-0" maximum (℄ to ℄ sign and/or walkway support brackets, WF(A-N)4x1.79 or WF(A-N)4x3.06)
k = 2" maximum gap between adjacent walkway grating sections and handrail ends

**If walkway bracket at safety chain location is behind sign, add angle to bracket, see Alternate Safety Chain Attachment on Base Sheet 0S-A-11.

For Details T and W, Section B-B and Grating Splice Details, see Sheet SS08 .
For Handrail Details, see Base Sheet 0S-A-11.

Structure Number	***Station	a	b	c	d	e	Walkway Grating and Handrail Lengths
1S016I094L052.9	157+44.47	-	-	-	-	-	-

Truss grating to facilitate inspection shall run full length (center to center of support frames) ±12" on overhead trusses. Cost of truss grating is included in "Overhead Sign Structure".

Walkway and Truss Grating width dimensions are nominal and may vary ±½" based on available standard widths.

***Measured along Exist. ℄ NB I-90/94

0S-A-9 2-17-2017

HBM ENGINEERING GROUP, LLC

USER NAME = charles.pigozzi	DESIGNED - AMS, EBK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OVERHEAD SIGN STRUCTURES ALUMINUM WALKWAY DETAILS
	CHECKED - MAI, JJS	REVISED -		
PLOT SCALE = N.T.S	DRAWN - AMS, EBK	REVISED -		SHEET NO. SS07 OF SS129 SHEETS
PLOT DATE = 1/24/2020	CHECKED - MAI, JJS	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	957
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

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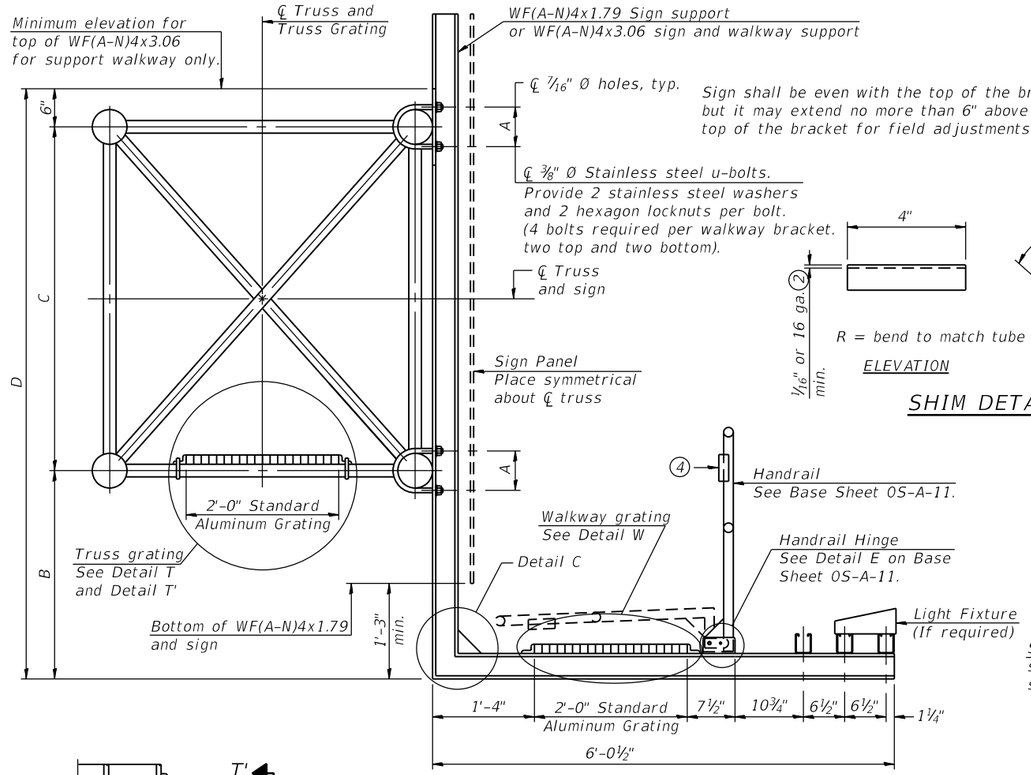
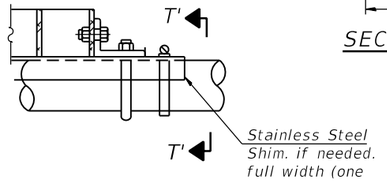


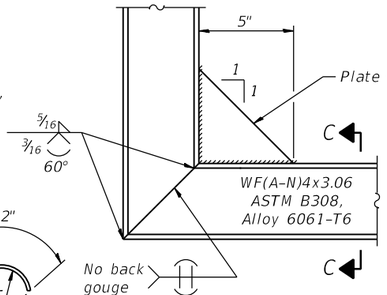
SECTION B-B



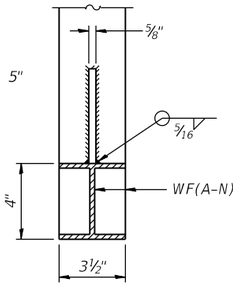
DETAIL T'

(Truss grating splice)

Details not shown same as Detail T. Alternate materials may be used subject to the Engineer's review and approval.

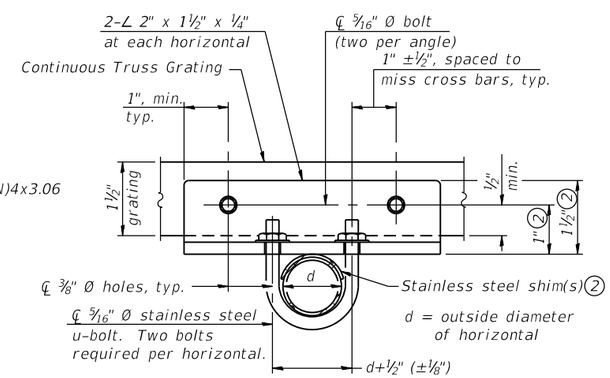


DETAIL C

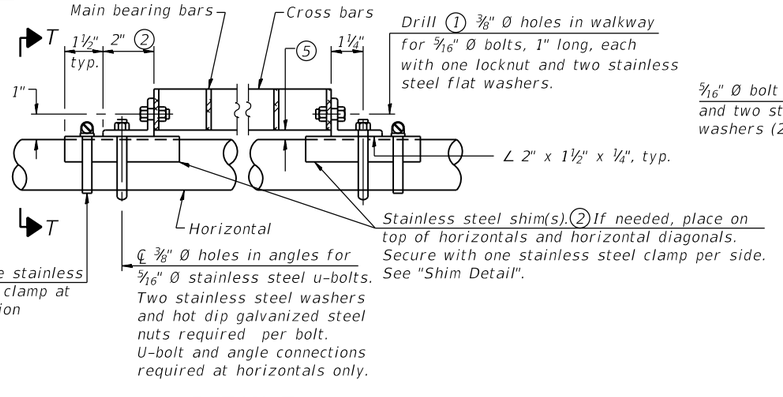


SECTION C-C

SHIM DETAIL

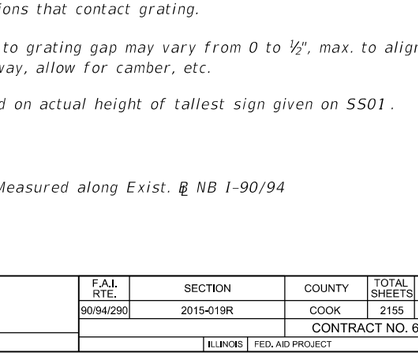


SECTION T-T

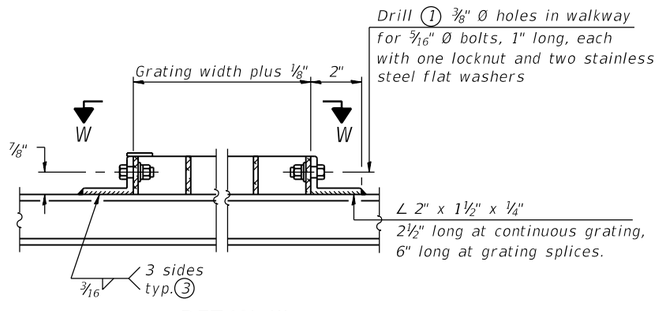


DETAIL T

(Continuous Truss grating)

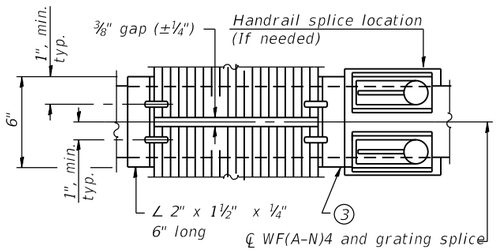


SECTION T'-T'

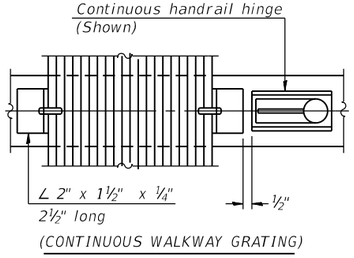


DETAIL W

(Walkway grating)



(AT WALKWAY GRATING SPLICE)



(CONTINUOUS WALKWAY GRATING)

SECTION W-W

SPECIFICATIONS FOR STANDARD ALUMINUM GRATING

Main Bearing Bars shall be 3/16" x 1½" on 1 3/16" centers and conform to ASTM B221 Alloy 6061-T6.
Cross bars shall be 3/16" x 1½" on 4" centers and conform to ASTM B221 Alloy 6063-T5 or 6061-T6.

OR

Aluminum Grating with modified "t" sections for main bearing bars shall meet the following requirements:
Main bars shall conform to ASTM B221 Alloy 6061-T6 and have a minimum section modulus equal to 0.0705 in.³ per bar, a depth of 1½", spaced on 1 3/16" centers.
Cross bars shall conform to ASTM B221 Alloy 6063-T5 or T-42 and spaced on 4" centers.

Structure Number	*Station	A	(6) B	C	(6) D
1S016I094L052.9	157+44.47	10"	8'-0"	7'-0"	15'-6"

1. Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.
2. Stainless steel shims shall be placed as shown in Detail T 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. If Handrail Joint present, weld angle to WF(A-N)4 and ¼" extension bars. (See Base Sheet 0S-A-11.)
4. PL ⅛" x ½" x 2" welded to handrail posts to protect locations that contact grating.
5. Tube to grating gap may vary from 0 to ½", max. to align walkway, allow for camber, etc.
6. Based on actual height of tallest sign given on SS01.

*Measured along Exist. ℄ NB I-90/94

0S-A-10 2-17-2017

HBM ENGINEERING GROUP, LLC

USER NAME = charles.pigozzi	DESIGNED - AMS, EBK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OVERHEAD SIGN STRUCTURES ALUMINUM WALKWAY DETAILS
	CHECKED - MAI, JJS	REVISED -		
PLOT SCALE = N.T.S	DRAWN - AMS, EBK	REVISED -		SHEET NO. SS08 OF SS129 SHEETS
PLOT DATE = 1/24/2020	CHECKED - MAI, JJS	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	958
		CONTRACT NO. 62A76		
		ILLINOIS	FED. AID PROJECT	

FILE NAME: pw:\\AECOM-NA-AWS1.aecomonline.local:AECOM_DS02_NA\Documents\01 AmericasTransportation\60269938 Circle\Phase_II\000_CAD\008_Structural\Sign Structures\62A76 Sign Structure\62A76-Span-SS308-SignStruct.dgn

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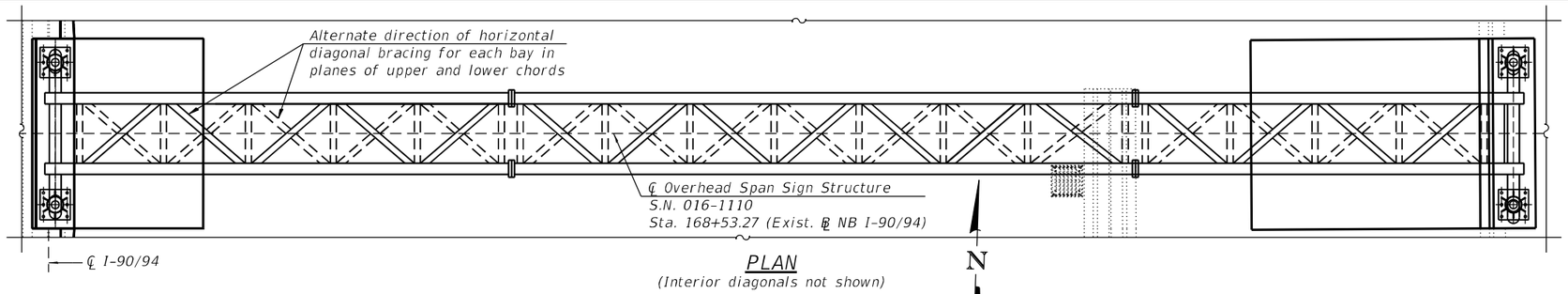
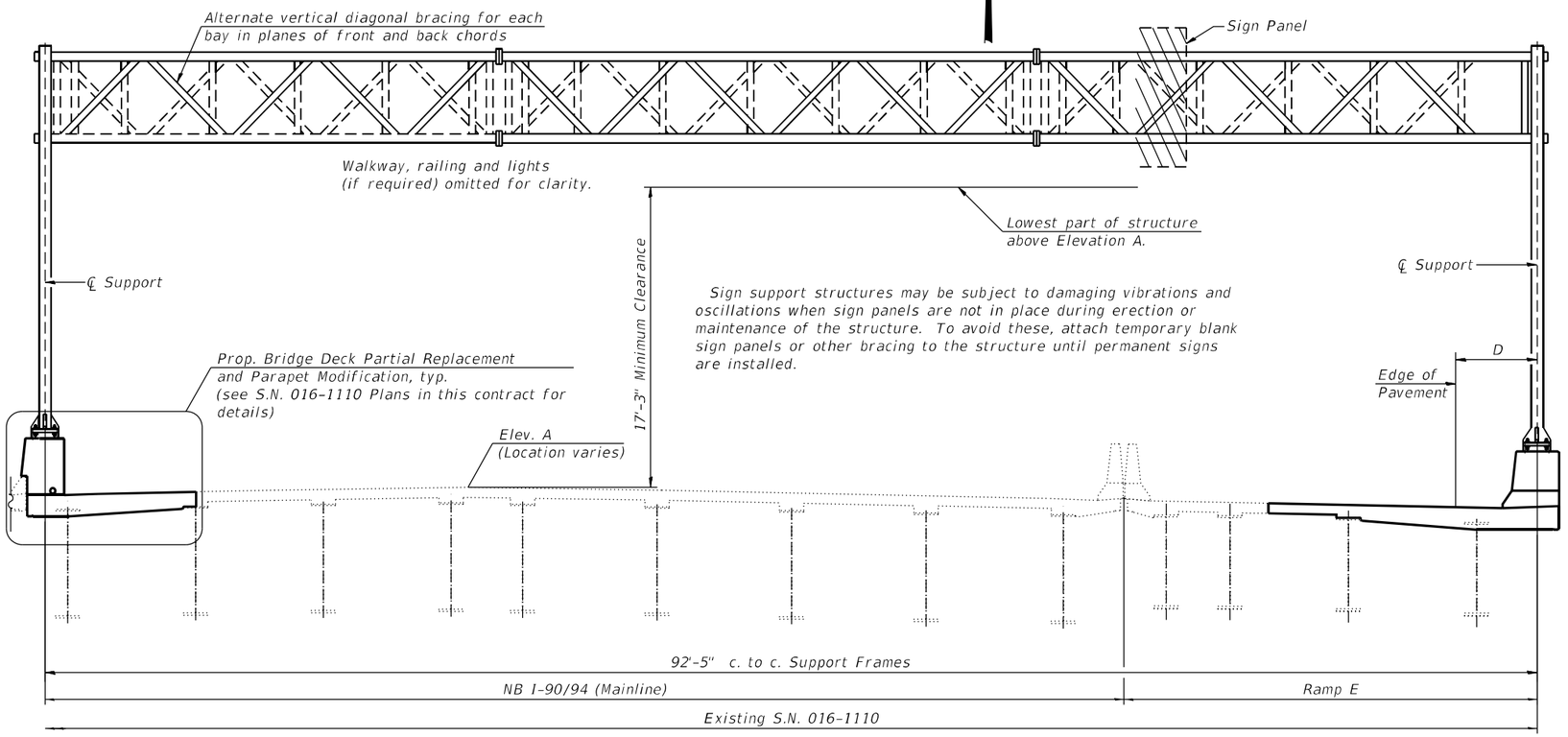


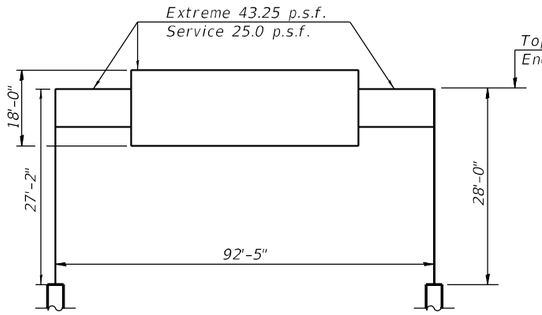
PLAN
(Interior diagonals not shown)



ELEVATION
(Looking at Face of Signs**)

Elev. A = Elevation at point of minimum clearance to sign, walkway support or truss.

Structure Number	Station	Design Truss Type	c. to c. Supports	t Elev. A	Dim. D	tt Height of Tallest Sign	Total Sign Area
1S016I094L052.7	168+53.27	Special	92'-5"	637.31	5'-10½"	20'-6"	1244.75 Sq. Ft.



DESIGN WIND LOADING DIAGRAM

Parameters shown are based on 2015 AASHTO LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 1st Edition with 2019 Interim Revisions and are applicable for this Non-Standard Sign Structure only.

*If M270 Gr. 50W (M222) steel is proposed, chemistry for plate to be used shall first be approved by the Engineer as suitable for galvanizing and welding.

**Looking upstation for structures with signs both sides.

***Measured along Exist. ℄ NB I-90/94. It should be noted that the station included in the Table is measured along the Exist. ℄ NB I-90/94 as presented in this Contract and may differ from stations shown in Existing Record Drawings.

t Verify in Field

tt Includes height of exit hat

STATE OF ILLINOIS
MOUSSA A ISSA
081-005738
CHICAGO, ILLINOIS
LICENSED STRUCTURAL ENGINEER

SIGNED Moussa A. Issa

DR. MOUSSA A. ISSA, S.E., IL. LIC. NO. 081-005738
EXPIRES 11-30-2020

DATE 01/29/2020 FOR SHEETS SS09 THRU SS16 (TOTAL OF 8 SHEETS)

GENERAL NOTES

DESIGN: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications")

CONSTRUCTION: Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Special Provisions. ("Standard Specifications")

LOADING: 90 M.P.H. WIND VELOCITY
WALKWAY LOADING: Dead load plus 500 lbs. concentrated live load.

DESIGN STRESSES:
Field Units
f'c = 4,000 p.s.i. (Concrete Superstructure)
fy = 60,000 p.s.i. (reinforcement)

WELDING: All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 and D1.2 Structural Welding Codes (Steel and Aluminum) and the Standard Specifications.

MATERIALS: Aluminum Alloys as shown throughout plans. All Structural Steel Pipe shall be ASTM A53 Grade B or A500 Grade B or C. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53. All Structural Steel Plates and Shapes shall conform to AASHTO M270 Gr. 36, Gr. 50 or Gr. 50W*. Stainless steel for shims, sleeves and handhole covers shall be ASTM A240, Type 302 or 304, or another alloy suitable for exterior exposure and acceptable to the Engineer.
The steel pipe and stiffening ribs at the base plate for the column shall have a minimum longitudinal Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F. (Zone 2) before galvanizing.

FASTENERS FOR ALUMINUM TRUSSES: All bolts noted as "high strength" must satisfy the requirements of AASHTO M164 (ASTM A325), or approved alternate, and must have matching lock nuts. Threaded studs for splices (if Members interfere) must satisfy the requirements of ASTM A449, ASTM A193, Grade B7, or approved alternate, and must have matching lock nuts. Bolts and lock nuts not required to be high strength must satisfy the requirements of ASTM A307. All bolts and lock nuts must be hot dip galvanized per AASHTO M232. The lock nuts must have nylon or steel inserts. A stainless steel flat washer conforming to ASTM A240 Type 302 or 304, is required under both head and nut or under both nuts where threaded studs are used. High strength bolt installation shall conform to Article 505.04 (f) (2)d of the IDOT Standard Specifications for Road and Bridge Construction. Rotational capacity ("ROCAP") testing of bolts will not be required.

U-BOLTS AND EYEBOLTS: U-Bolts and Eyebolts must be produced from ASTM A276 Type 304, 304L, 316 or 316L, Condition A, cold finished stainless steel, or an equivalent material acceptable to the Engineer. All nuts for U-Bolts and Eyebolts must be lock nuts equivalent to ASTM A307 with nylon or steel inserts and hot dip galvanized per AASHTO M232. A stainless steel flat washer conforming to ASTM A240, Type 302 or 304, is required under each U-Bolt and Eyebolt lock nut.

GALVANIZING: All Steel Grating, Plates, Shapes and Pipe shall be Hot Dip Galvanized after fabrication in accordance with AASHTO M111. Painting is not permitted.

ANCHOR RODS: Shall conform to ASTM F1554 Gr. 105.

REINFORCEMENT BARS: Reinforcement Bars designated (E) shall be epoxy coated in accordance with the Standard Specifications.

WALKWAY: Walkway grating, walkway brackets, handrails, lighting and associated components shown in these plans on the traffic side of the sign structure/sign panel will not be installed with Contract 62A76. The truss grating and maintenance walkway behind the sign panel will be included with Overhead Sign Structure Span (Special).

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
OVERHEAD SIGN STRUCTURE SPAN (SPECIAL)	Foot	93

HBM ENGINEERING GROUP, LLC

USER NAME = marina.stoica	DESIGNED - IL, EBK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OVERHEAD SIGN STRUCTURES (SPECIAL) – GENERAL PLAN & ELEVATION – ALUMINUM TRUSS & STEEL SUPPORTS	
	CHECKED - MAI, JJS	REVISED -			
PLOT SCALE = N.T.S	DRAWN - AMS, EBK	REVISED -			
PLOT DATE = 1/29/2020	CHECKED - MAI, JJS	REVISED -		SHEET NO. SS09 OF SS129 SHEETS	

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	959
		CONTRACT NO. 62A76		
	ILLINOIS FED. AID PROJECT			

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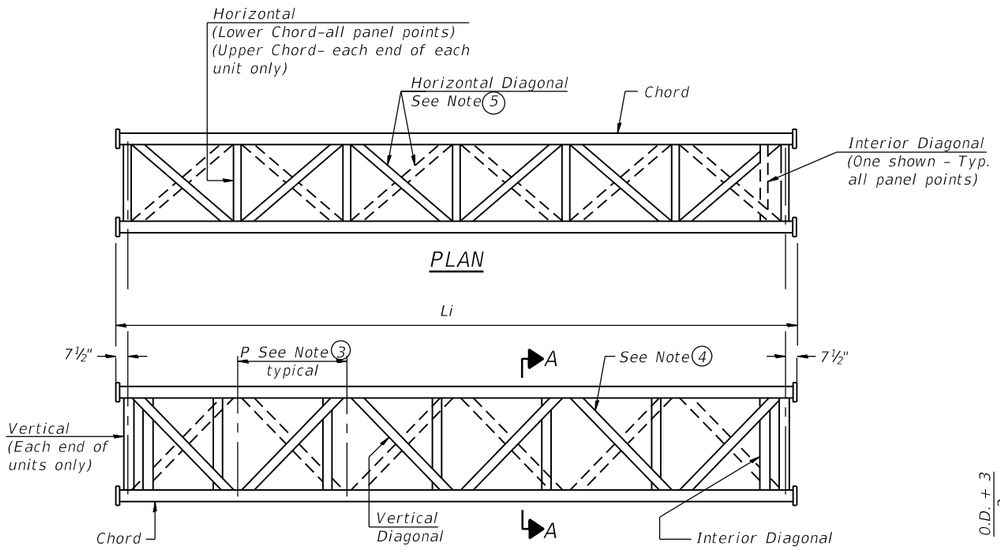
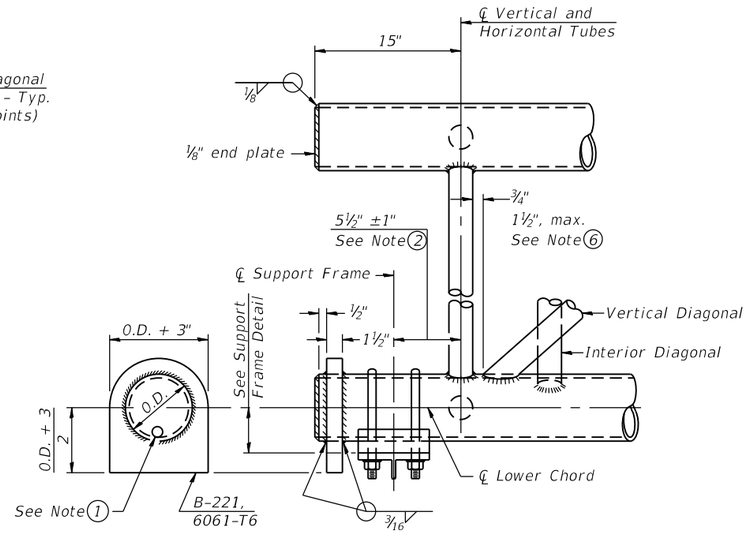
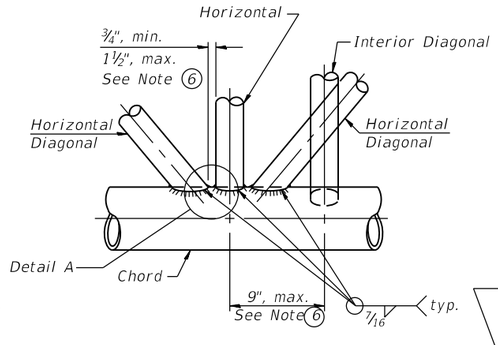
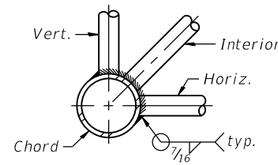


ELEVATION
TYPICAL INTERIOR UNIT
1 interior unit required

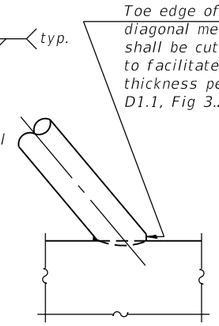


SUPPORT END DETAIL FOR EXTERIOR UNIT

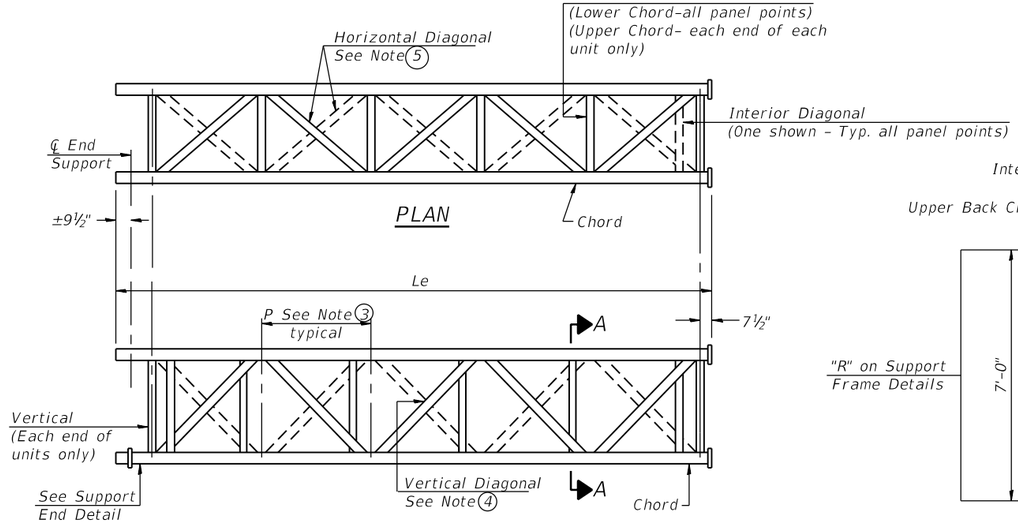




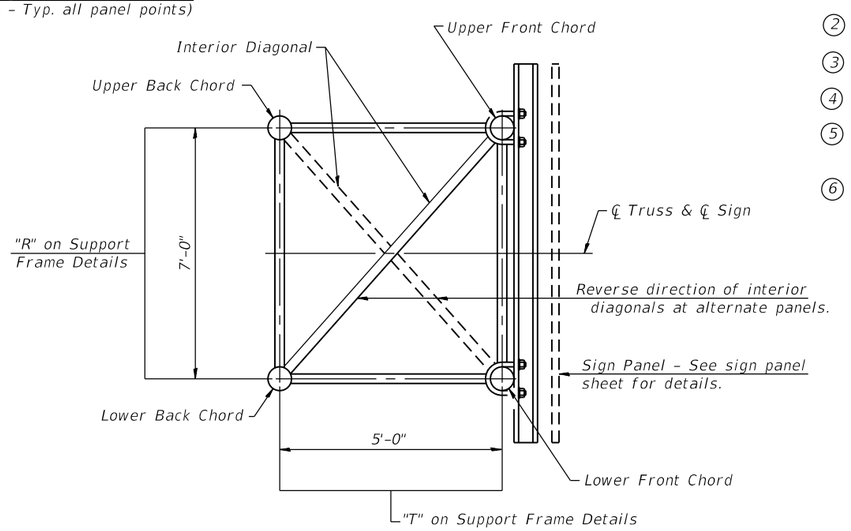
TYPICAL JOINT DETAILS



DETAIL A



ELEVATION
TYPICAL EXTERIOR UNIT
2 exterior units allowed.



SECTION A-A

1. Contractor may alternatively use standard aluminum drive-fit cap to close end. ½" Ø drain hole in end plate/drive-fit cap. (Typ. at ends of all chords)
2. 5½" end dimension may vary by ±1" to provide uniform panel spacing (P).
3. Panel spacing (P) shall be uniform for entire truss and equal 5'-6".
4. Vertical Diagonals in front and back face shall alternate.
5. Hidden lines show wind bracing alternates direction between planes of top and bottom chords.
6. All diagonals shall be detailed for minimum offset from the panel point based on the following: Offset shall be such as to provide a ¾" minimum to 1½" maximum clearance between any diagonal and any horizontal or vertical member, and to provide clearance for U-bolt connections of signs or walkway brackets.

OS-A-2-SPECIAL

HBM ENGINEERING GROUP, LLC	USER NAME = charles.pigozzi	DESIGNED - IL, EBK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		CHECKED - MAI, JJS	REVISED -	
	PLOT SCALE = N.T.S	DRAWN - AMS, EBK	REVISED -	
	PLOT DATE = 1/24/2020	CHECKED - MAI, JJS	REVISED -	

OVERHEAD SIGN STRUCTURES (SPECIAL) – ALUMINUM TRUSS
DETAILS I
SHEET NO. SS10 OF SS129 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	960
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

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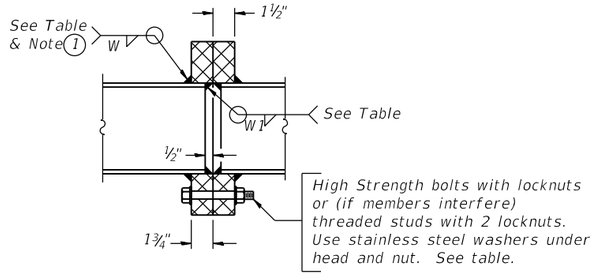
TRUSS UNIT TABLE

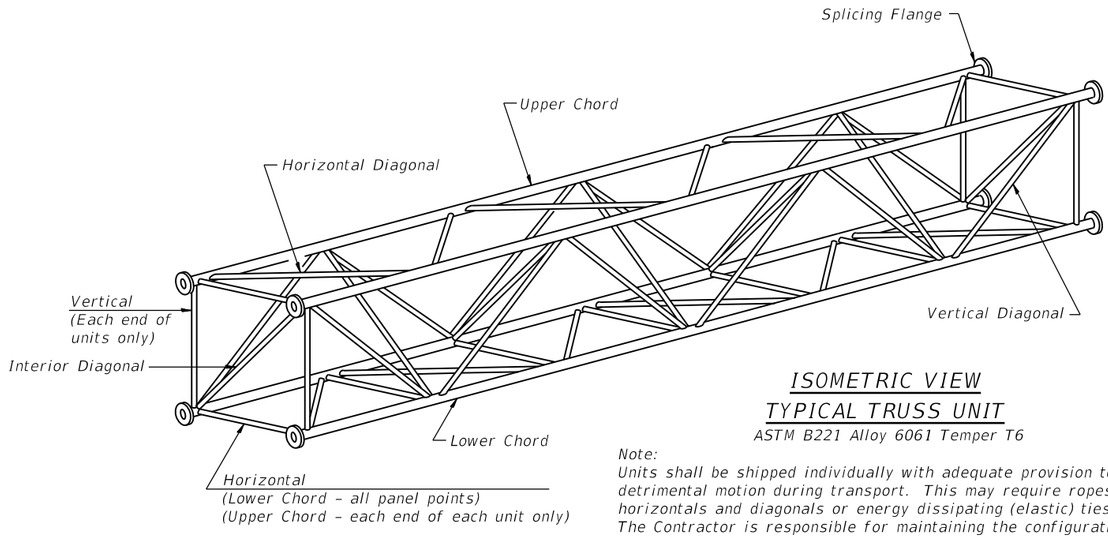
Structure Number	**Station	Design Truss Type	Exterior Units (2)			Interior Unit				Upper & Lower Chord		Verticals; Horizontals; Vertical,Horizontal, and Interior Diagonals		Camber at Midspan	Splicing Flange					
			No. Panels per Unit	Unit Lgth.(Le)	Panel Lgth.(P)	No. Req'd.	No. Panels per Unit	Unit Lgth.(Li)	Panel Lgth.(P)	O.D.	Wall	O.D.	Wall		Bolts		Weld Sizes		A	B
															No./Splice	Dia.	W	W1		
1S016I094L052.7	168+53.27	Special	5	28'-0¼"	5'-2¾"	1	7	37'-10¼"	5'-2¾"	9"	½"	4"	½"	1¾"	8	1¼"	9/16"	7/16"	13½"	17"

**Measured along Exist. ℄ NB I-90/94. It should be noted that the station included in the Table is measured along the Exist. ℄ NB I-90/94 as presented in this Contract and may differ from stations shown in Existing Record Drawings.



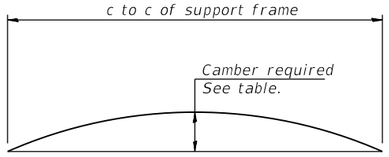
SECTION B-B

(1) Splicing Flanges shall be attached to each truss unit with the truss shop assembled to camber shown. Truss units shall be in proper alignment and flange surfaces shall be shop bolted into full contact before welding. Sufficient external welds or tacks shall be made to secure flanges until remaining welds are made after disassembly. Adjacent flanges shall be "match marked" to insure proper field assembly.



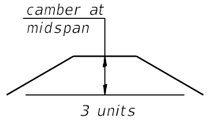
ISOMETRIC VIEW
TYPICAL TRUSS UNIT
ASTM B221 Alloy 6061 Temper T6

Note:
Units shall be shipped individually with adequate provision to prevent detrimental motion during transport. This may require ropes between horizontals and diagonals or energy dissipating (elastic) ties to the vehicle. The Contractor is responsible for maintaining the configuration and protection of the units.

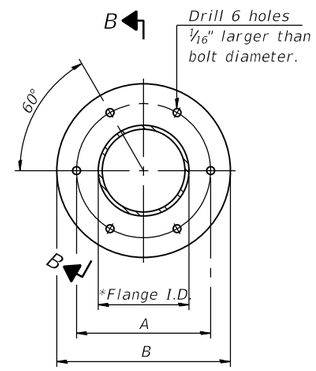


CAMBER DIAGRAM
Camber curve shown is theoretical. Actual camber attained by slope changes at splices between units.

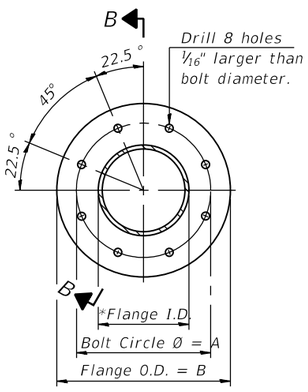
CAMBER ATTAINMENT EXAMPLES:



Camber shown is for fabrication only, measured with truss fully supported. (No-load condition)



TRUSS TYPES I-A, II-A, & III-A



TRUSS TYPES II-A & III-A

SPLICING FLANGES
ASTM B221, Alloy 6061-T6
or ASTM B209, Alloy 6061-T651
*To fit O.D. of Chord with maximum gap of 1/16".

0S4-A-2-SPECIAL

HBM ENGINEERING GROUP, LLC	USER NAME = charles.pigozzi	DESIGNED - IL, EBK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OVERHEAD SIGN STRUCTURES (SPECIAL) – ALUMINUM TRUSS DETAILS II
		CHECKED - MAI, JJS	REVISED -		
	PLOT SCALE = N.T.S	DRAWN - AMS, EBK	REVISED -		SHEET NO. SS11 OF SS129 SHEETS
	PLOT DATE = 1/24/2020	CHECKED - MAI, JJS	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	961
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

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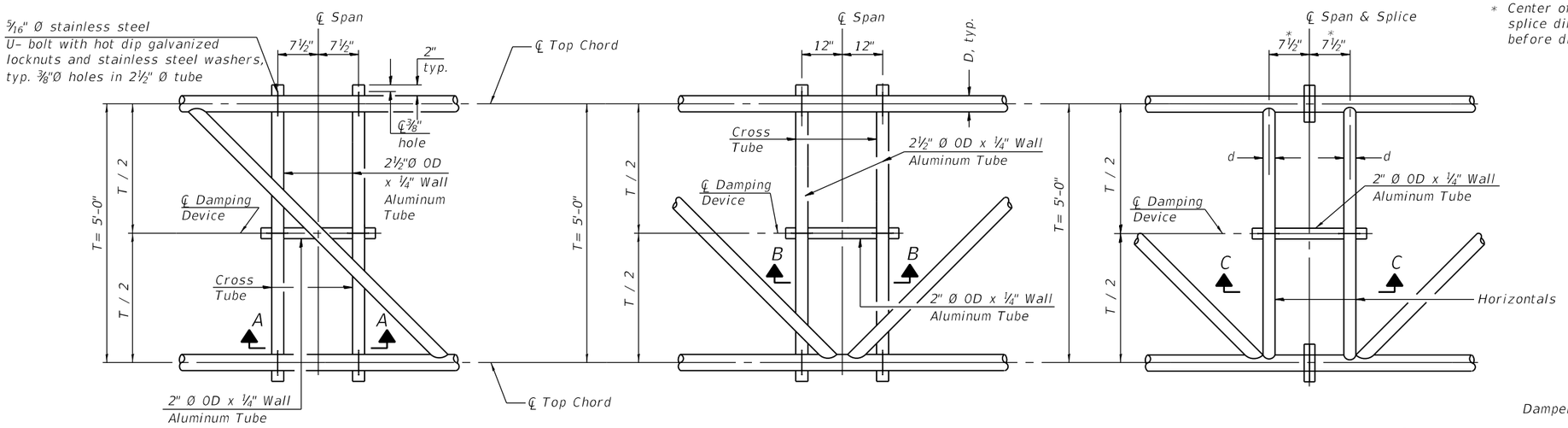
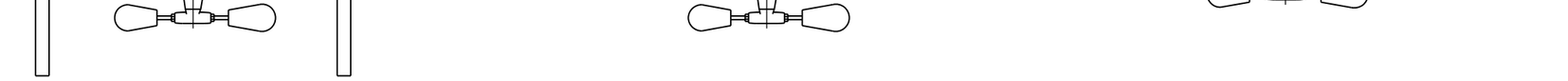


* Center of horizontal to center of splice dimension may vary. Verify before drilling holes in mounting tube.

PLAN DETAIL "A"
℄ Span between Panel Points

PLAN DETAIL "B"
℄ Span at Panel Point

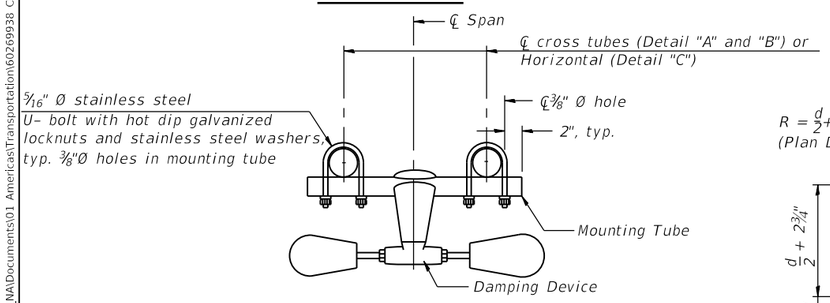
PLAN DETAIL "C"
℄ Span at ℄ Chord Splice



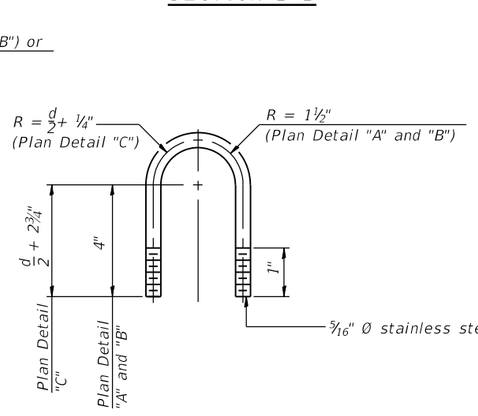
SECTION A-A

SECTION B-B

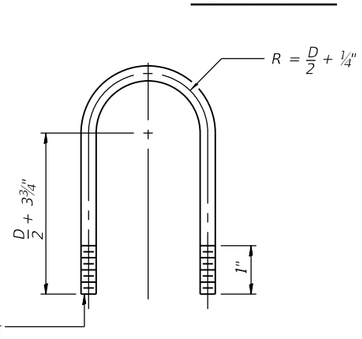
SECTION C-C



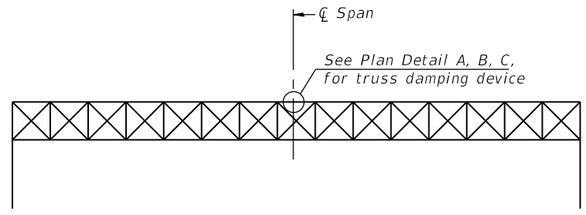
TRUSS DAMPING DEVICE CONNECTION DETAIL
(Typical)



DAMPING DEVICE MOUNTING TUBE U-BOLT DETAIL
(Typical)



TOP CHORD TO CROSS TUBE U-BOLT DETAIL
(Typical - Detail "A" and "B")



ELEVATION
Aluminum Overhead Sign Truss

NOTES

Damper: One damper per truss. (31 lbs. minimum Stockbridge-Type Aluminum - 29" minimum between ends of weights) Cost included in Overhead Sign Structure...

Materials: Materials: Aluminum tubes shall be ASTM B221 alloy 6061 temper T6. Cost included in Overhead Sign Structure...

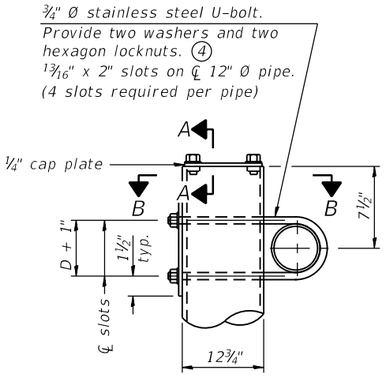
OS-A-D-SPECIAL

HBM ENGINEERING GROUP, LLC	USER NAME = charles.pigozzi	DESIGNED - IL, EBK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OVERHEAD SIGN STRUCTURE (SPECIAL) DAMPING DEVICE
		CHECKED - MAI, JJS	REVISED -		
	PLOT SCALE = N.T.S	DRAWN - AMS, EBK	REVISED -		SHEET NO. SS12 OF SS129 SHEETS
	PLOT DATE = 1/24/2020	CHECKED - MAI, JJS	REVISED -		

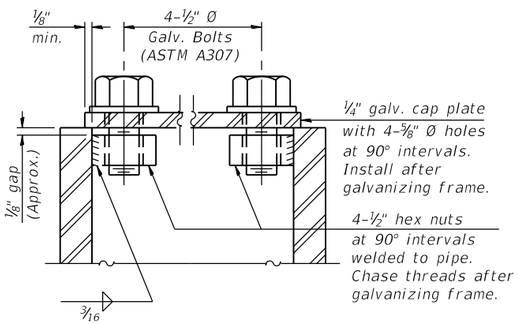
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	962
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

FILE NAME: pw:\\AECOM-NA-AWS1.aecomonline.local:AECOM_DS02_NA\Documents\01 Americas\Transportation\60269938 CirclePhase_II\000_CAD\008_Structural\Sign Structures\62A76 Sign Structure\62A76-SPAN-SS204-SignStruct.dgn

11:09:56 AM

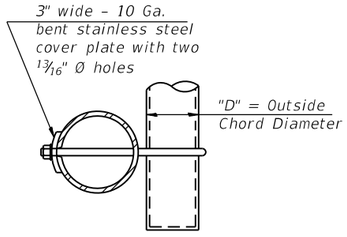


DETAIL A

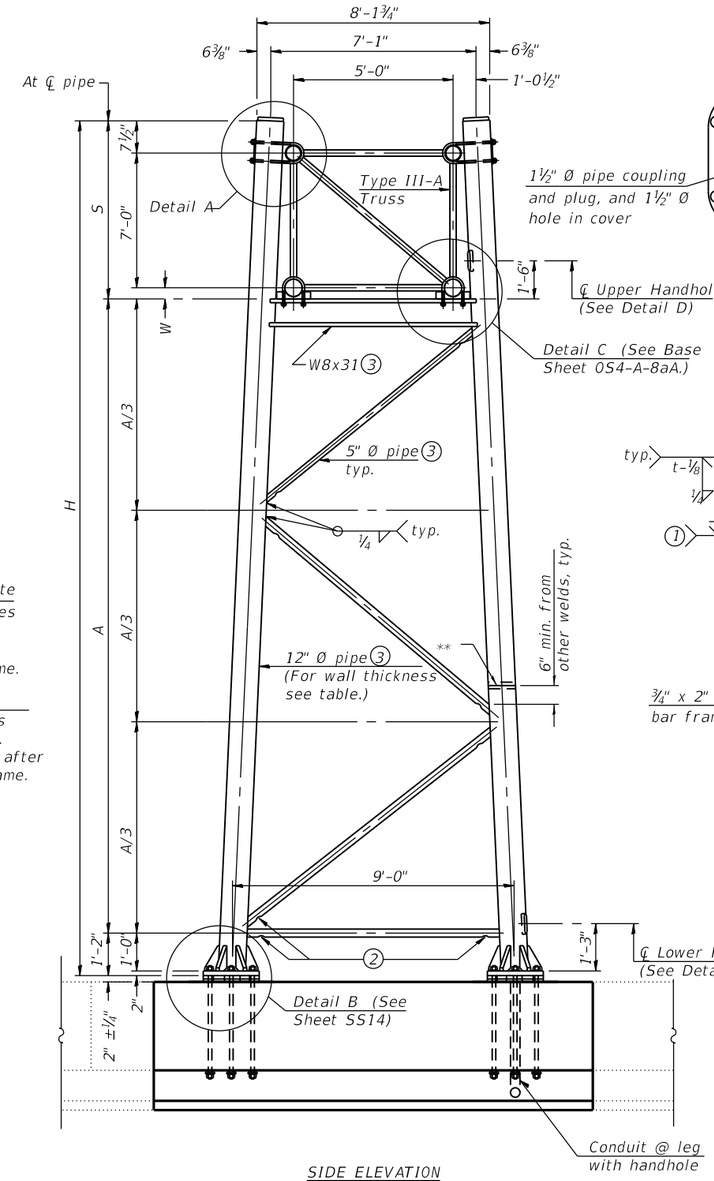


SECTION A-A

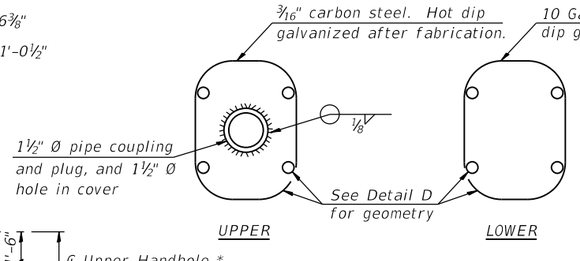
As an alternate to bolts, may use galvanized drive-fit caps installed after galvanizing frame.



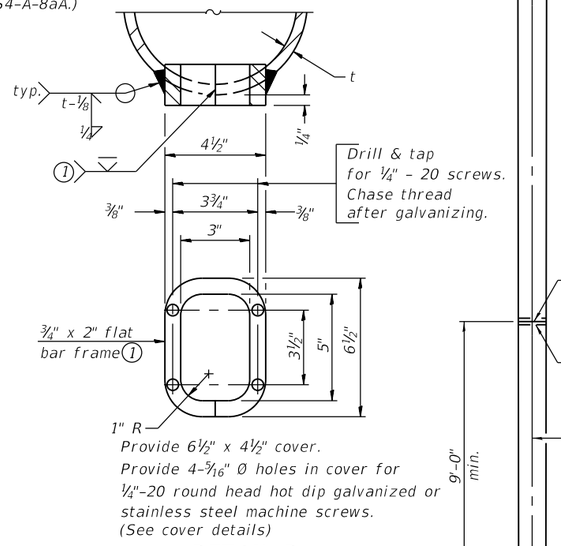
SECTION B-B



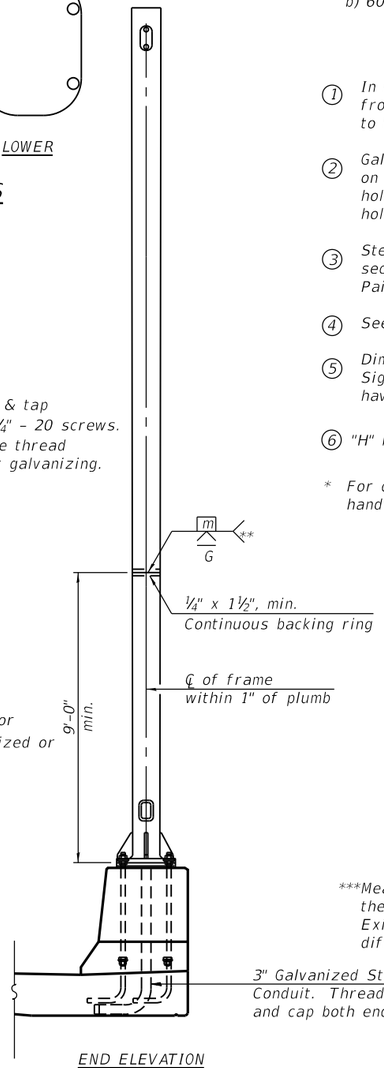
SIDE ELEVATION



HANDHOLE COVERS



DETAIL D



END ELEVATION

Support Design Loads: Base Sheet SS-201 for design and loading criteria.
Load combinations checked include deadload plus:
a) 100% wind normal to sign, 20% parallel to sign
b) 60% wind normal to sign, 30% parallel to sign

1. In lieu of fabricated handhole frame as shown, may cut from 2" plate (rolling direction vertical). All cut faces to be ground to ANSI Roughness of 500 µin or less.
2. Galvanizing vent holes of adequate size shall be provided on underside at each end of bracing pipes. Alternately, holes may be provided in wall of pipe column. All vent holes shall be drilled and de-burred, typ.
3. Steel pipe, plate, carbon steel handhole covers and rolled sections shall be hot dip galvanized after fabrication. Painting is not permitted. See Base Sheet 0S-A-1.
4. See General Notes for fasteners.
5. Dimensions shown are based on selection criteria in the Sign Structures Manual. Nonstandard applications must have dimensions verified or amended as appropriate.
6. "H" based on 15'-0" or actual sign height, whichever is greater.

* For dynamic message sign installations, provide upper and lower handholes in both legs of each support frame.

Dimensions		
Truss Chord Nominal Dia.	W	S
9"	5¾"	8'-1¼"

TRUSS SUPPORT DETAILS

(12" Ø Pipe)

** One butt welded joint is allowed only on one post per support frame. If used, weld procedure must be pre-approved by Engineer and joint shall receive 100% RT or UT (tension criteria) at Contractor's expense.

***Measured along Exist. ℄ NB I-90/94. It should be noted that the station included in the Table is measured along the Exist. ℄ NB I-90/94 as presented in this Contract and may differ from stations shown in Existing Record Drawings.

Structure Number	***Station	Support		Pipe Wall Thickness	H (6)	A
		Left	Right			
1S016I094L052.7	168+53.27	X		0.5"(XS)	27'-2"	17'-10¾"
			X	0.5"(XS)	28'-0"	18'-8¾"

0S4-A-8a-SPECIAL

HBM ENGINEERING GROUP, LLC

USER NAME = charles.pigozzi	DESIGNED - IL, EBK	REVISED -		
	CHECKED - MAI, JJS	REVISED -		
PLOT SCALE = N.T.S	DRAWN - AMS, EBK	REVISED -		
PLOT DATE = 1/24/2020	CHECKED - MAI, JJS	REVISED -		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES (SPECIAL) – SUPPORT FRAME FOR ALUMINUM TRUSS

SHEET NO. SS13 OF SS129 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	963
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

FILE NAME: pw:\\AECOM-NA-AWS1.aecomonline.local:AECOM_DS02_NA\Documents\01 Americas\Transportation\60269938 Circle\Phase_II\000_CAD\008_Structural\Sign Structures\62A76 Sign Structure\62A76-SPAN-SS205-SignStruct.dgn

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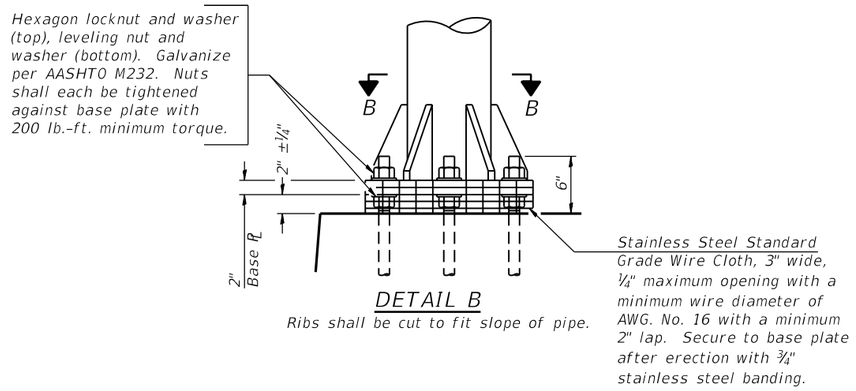
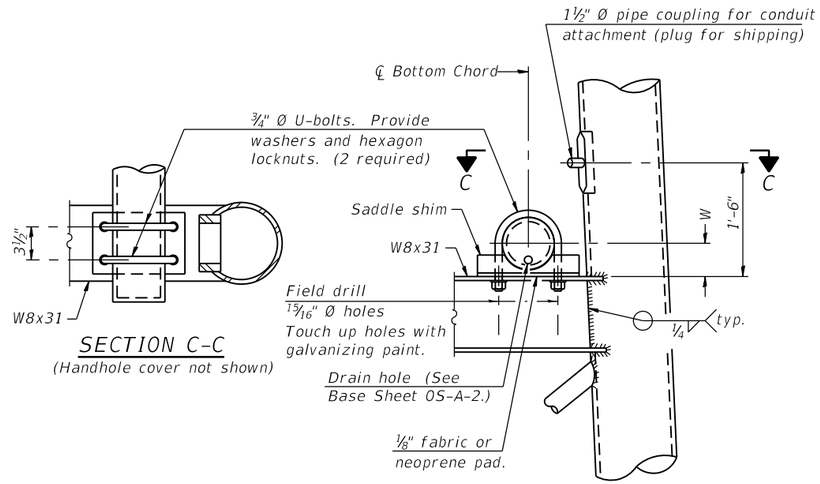


DETAIL B

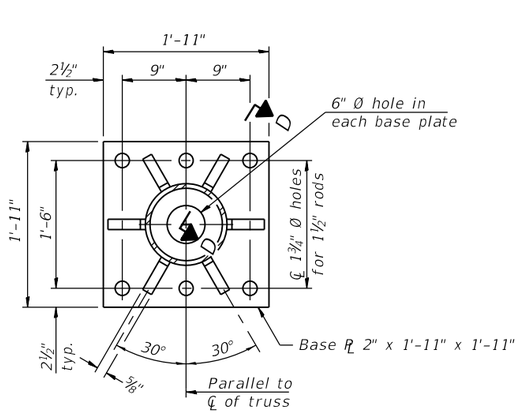
Ribs shall be cut to fit slope of pipe.



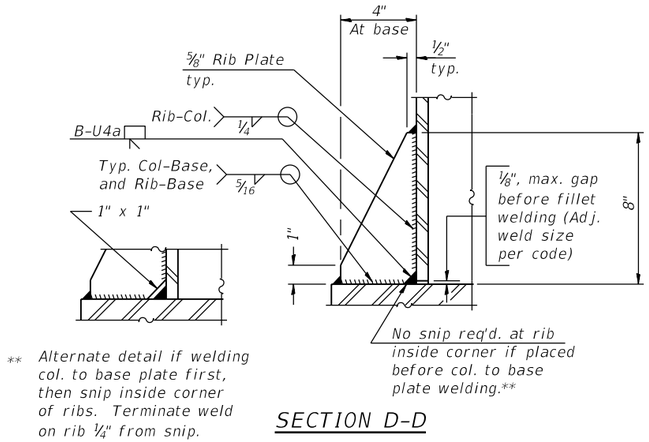
SECTION C-C

(Handhole cover not shown)

DETAIL C

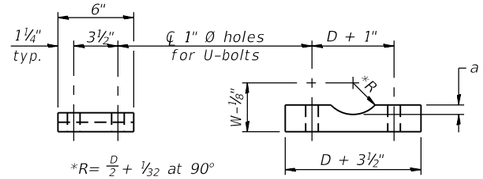


SECTION B-B



** Alternate detail if welding col. to base plate first, then snip inside corner of ribs. Terminate weld on rib ¼" from snip.

SECTION D-D



*R= $\frac{D}{2}$ + 1/32 at 90°

D = Outside Diameter of Chord.
For W, see Base Sheet OS-A-6.

Truss Chord Nominal Dia.	a
9"	1⅜"

SADDLE SHIM DETAIL

ASTM B26 Alloy 356-F
or
ASTM B209 Alloy 6061-T651
(4 required per sign truss)

NOTES:

1. For anchor rod and positioning plate details, see Sheet S13-08.

OS4-A-8aA-SPECIAL

HBM ENGINEERING GROUP, LLC

USER NAME = marina.stoica		DESIGNED - IL, EBK	REVISED -	
		CHECKED - MAI, JJS	REVISED -	
PLOT SCALE = N.T.S		DRAWN - AMS, EBK	REVISED -	
PLOT DATE = 1/29/2020		CHECKED - MAI, JJS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES (SPECIAL)
SUPPORT FRAME
SHEET NO. SS14 OF SS129 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	964
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

FILE NAME: pw:\\AECOM-NA-AWS1.aecomonline.local:AECOM_DS02_NA\Documents\01 Americas\Transportation\60269938 CirclePhase_II\000_CAD\008_StructuralElSign Structures\62A76 Sign Structure\62A76-SPAN-SS206-SignStruct.dgn
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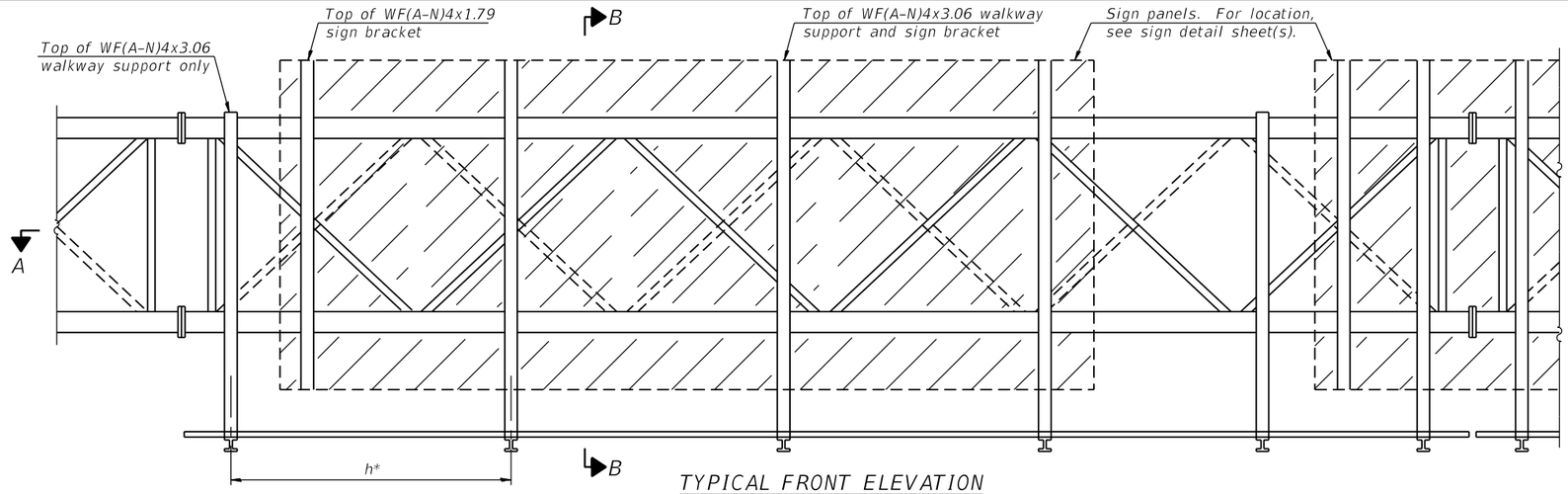
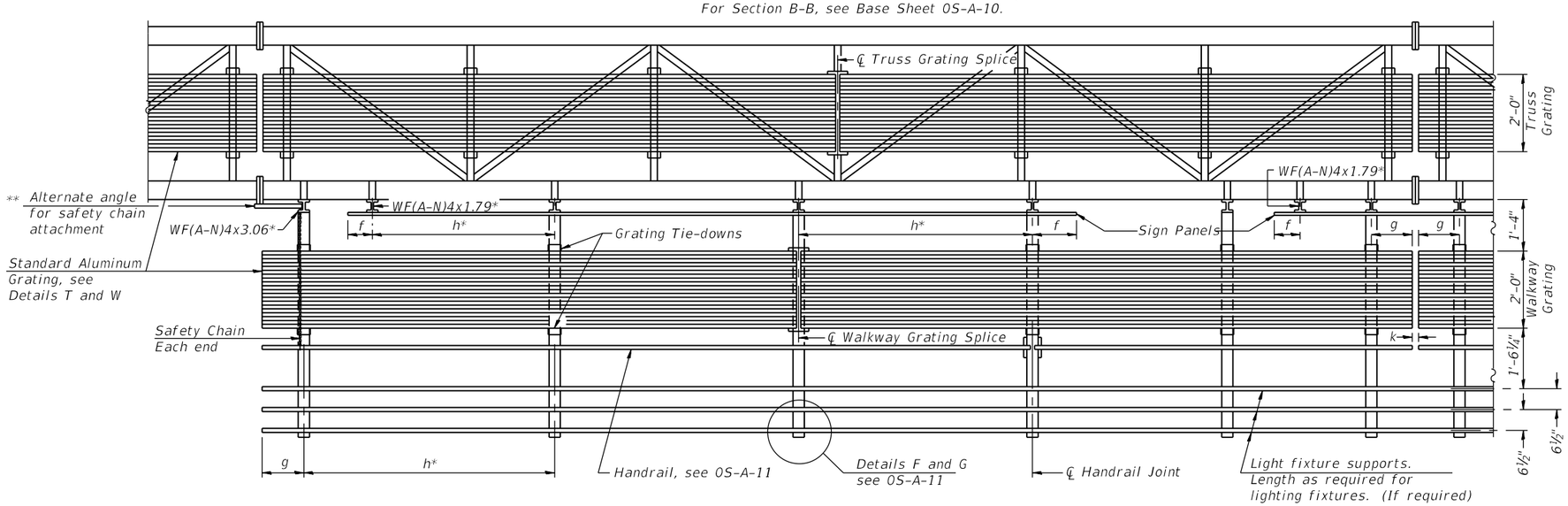


TYPICAL FRONT ELEVATION

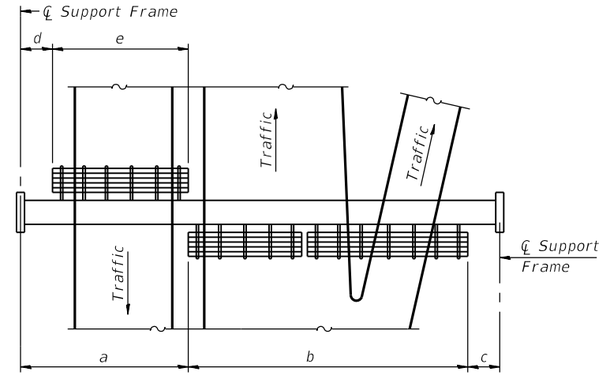
With lights and handrail omitted for clarity.
For Section B-B, see Base Sheet 0S-A-10.



SECTION A-A

Handrail and walkway shall span a minimum of three brackets between splices and/or gap joints.
Place all sign and walkway brackets as close to panel points as practical.
Handrail joints, grating, and light support splices placed as needed.

Structure Number	***Station	a	b	c	d	e	Walkway Grating and Handrail Lengths
1S016I094L052.7	168+53.27	-	-	-	-	-	-



PLAN
WALKWAY AND HANDRAIL SKETCH

(Road plan beneath truss varies)

BRACKET TABLE

WF(A-N)4x1.79 or WF(A-N)4x3.06 ASTM B308, Alloy 6061-T6		
Sign Width		Number Brackets Required
Greater Than	Less Than or Equal To	
	8'-0"	2
8'-0"	14'-0"	3
14'-0"	20'-0"	4
20'-0"	26'-0"	5
26'-0"	32'-0"	6

Notes:

* *Space walkway brackets WF(A-N)4x3.06 and sign brackets WF(A-N)4x1.79 for efficiency and within limits shown:*

f = 12" maximum, 4" minimum (End of sign to ℄ of nearest bracket)
g = 12" maximum, 4" minimum (End of walkway grating to ℄ of nearest support bracket)
h = 6'-0" maximum (℄ to ℄ sign and/or walkway support brackets, WF(A-N)4x1.79 or WF(A-N)4x3.06)
k = 2" maximum gap between adjacent walkway grating sections and handrail ends

** *If walkway bracket at safety chain location is behind sign, add angle to bracket, see Alternate Safety Chain Attachment on Base Sheet 0S-A-11.*

For Details T and W, Section B-B and Grating Splice Details see Base Sheet 0S-A-10.
For Handrail Details see Base Sheet 0S-A-11.

*** *Measured along Exist. ℄ NB I-90/94. It should be noted that the station included in the Table is measured along the Exist. ℄ NB I-90/94 as presented in this Contract and may differ from stations shown in Existing Record Drawings.*

Truss grating to facilitate inspection shall run full length (center to center of support frames) ±12" on overhead trusses.
Cost of truss grating is included in "Overhead Sign Structure (Special)".

Walkway and Truss Grating width dimensions are nominal and may vary ±½" based on available standard widths.

0S-A-9-SPECIAL

HBM ENGINEERING GROUP, LLC

USER NAME = charles.pigozzi	DESIGNED - IL, EBK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OVERHEAD SIGN STRUCTURES (SPECIAL) ALUMINUM WALKWAY DETAILS
	CHECKED - MAI, JJS	REVISED -		
PLOT SCALE = N.T.S	DRAWN - AMS, EBK	REVISED -		
PLOT DATE = 1/24/2020	CHECKED - MAI, JJS	REVISED -		SHEET NO. SS15 OF SS129 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	965
		CONTRACT NO. 62A76		
		ILLINOIS	FED. AID PROJECT	

FILE NAME: pw:\\AECOM-NA-AWS1.aecomonline.local:AECOM_DS02_NA\Documents\01 Americas\Transportation\60269938 CirclePhase_II\000_CAD\008_Structural\Sign Structures\62A76 Sign Structure\62A76-SPAN-SS207-SignStruct.dgn

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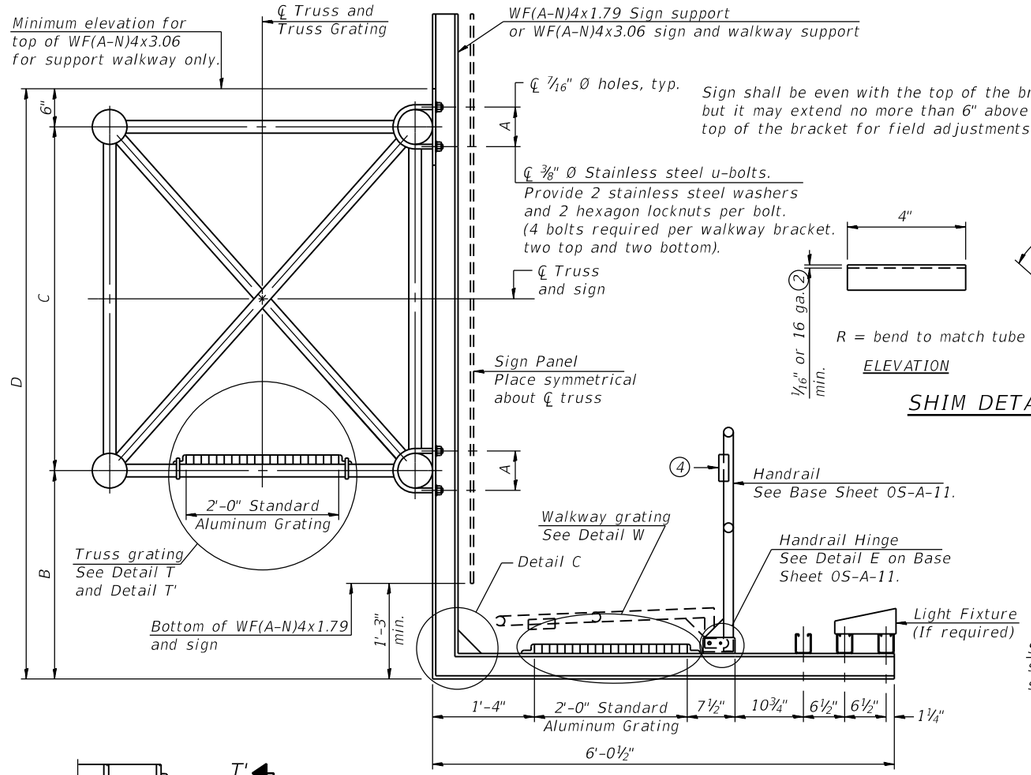
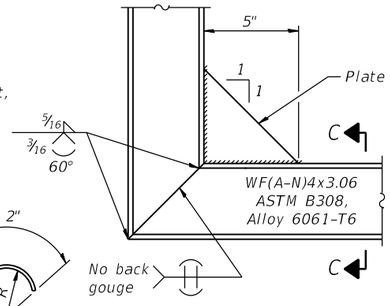
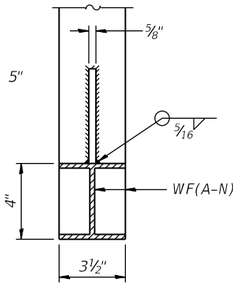


SECTION B-B

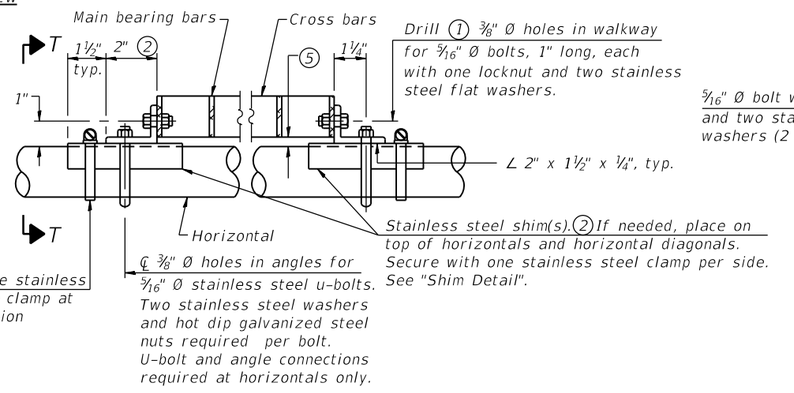


DETAIL C



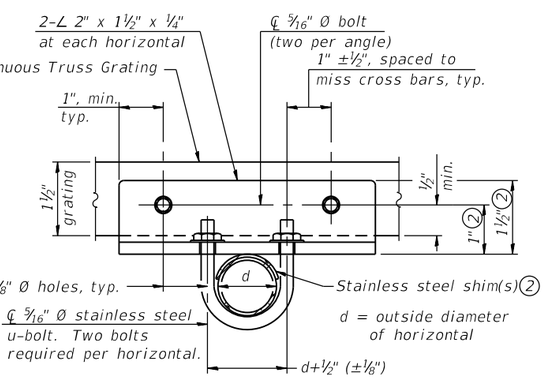
SECTION C-C

SHIM DETAIL

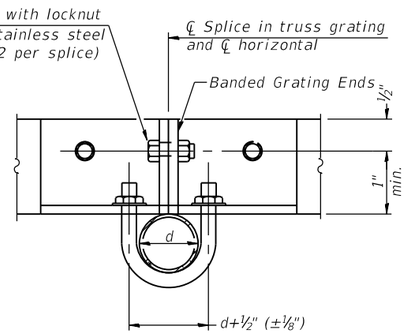


DETAIL T

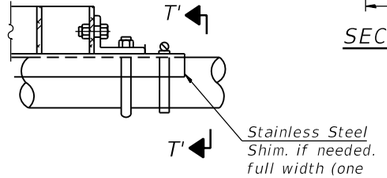
(Continuous Truss grating)



SECTION T-T



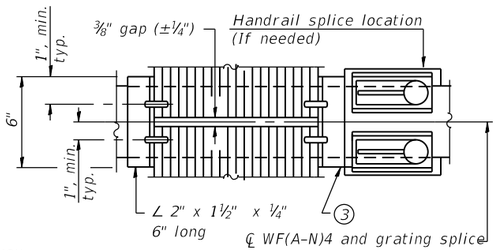
SECTION T'-T'



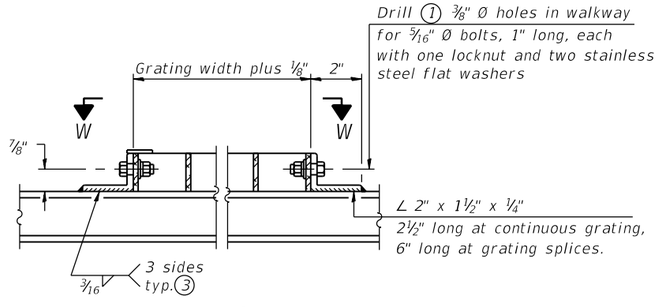
DETAIL T'

(Truss grating splice)

Details not shown same as Detail T.
Alternate materials may be used subject to the Engineer's review and approval.

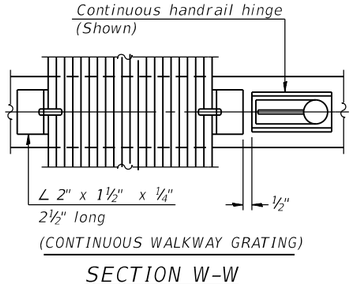


(AT WALKWAY GRATING SPLICE)



DETAIL W

(Walkway grating)



(CONTINUOUS WALKWAY GRATING)

SECTION W-W

SPECIFICATIONS FOR STANDARD ALUMINUM GRATING

Main Bearing Bars shall be 3/16" x 1½" on 1 3/16" centers and conform to ASTM B221 Alloy 6061-T6.
Cross bars shall be 3/16" x 1½" on 4" centers and conform to ASTM B221 Alloy 6063-T5 or 6061-T6.

OR

Aluminum Grating with modified "t" sections for main bearing bars shall meet the following requirements:
Main bars shall conform to ASTM B221 Alloy 6061-T6 and have a minimum section modulus equal to 0.0705 in.³ per bar, a depth of 1½", spaced on 1 3/16" centers.
Cross bars shall conform to ASTM B221 Alloy 6063-T5 or T-42 and spaced on 4" centers.

Structure Number	*Station	A	(6) B	C	(6) D
1S016I094L052.7	168+53.27	10"	8'-0"	7'-0"	15'-6"

(1) Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.

(2) Stainless steel shims shall be placed as shown in Detail T 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) If Handrail Joint present, weld angle to WF(A-N)4 and ¼" extension bars. (See Base Sheet 0S-A-11.)

(4) PL ⅛" x ½" x 2" welded to handrail posts to protect locations that contact grating.

(5) Tube to grating gap may vary from 0 to ½", max. to align walkway, allow for camber, etc.

(6) Based on actual height of tallest sign given on 0S-A-1.

* Measured along Exist. ℄ NB I-90/94. It should be noted that the station included in the Table is measured along the Exist. ℄ NB I-90/94 as presented in this Contract and may differ from stations shown in Existing Record Drawings.

0S-A-10-SPECIAL

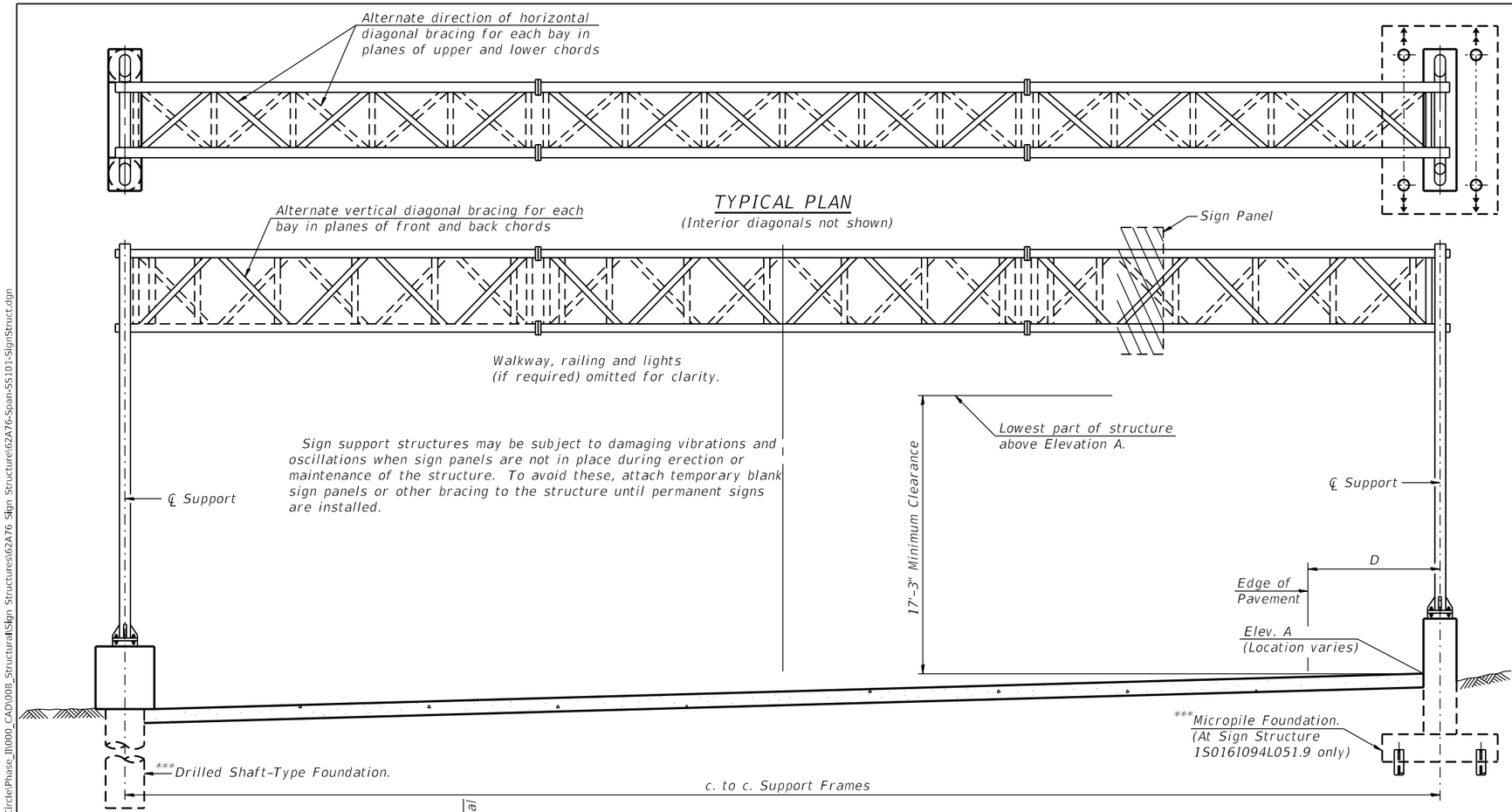
HBM ENGINEERING GROUP, LLC

USER NAME = charles.pigozzi	DESIGNED - IL, EBK	REVISED -	
	CHECKED - MAI, JJS	REVISED -	
PLOT SCALE = N.T.S	DRAWN - AMS, EBK	REVISED -	
PLOT DATE = 1/24/2020	CHECKED - MAI, JJS	REVISED -	

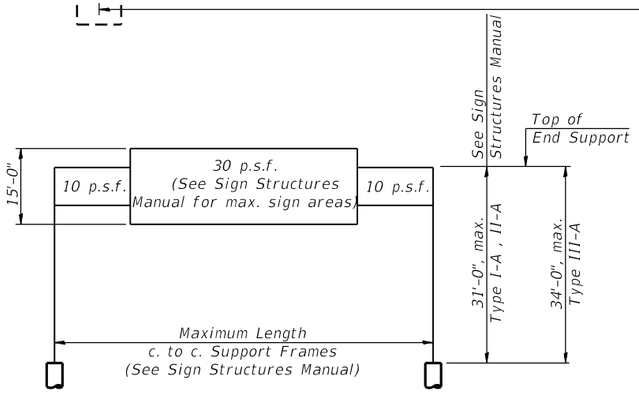
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES (SPECIAL)
ALUMINUM WALKWAY DETAILS
SHEET NO. SS16 OF SS129 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	966
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		



TYPICAL PLAN
(Interior diagonals not shown)



DESIGN WIND LOADING DIAGRAM

Parameters shown are basis for I.D.O.T. Standards and Sign Manual Tables. Installations not within dimensional limits shown require special analysis for all components.

WALKWAY: Walkway grating, walkway brackets, handrails, lighting and associated components shown in these plans on the traffic side of the sign structure/sign panel will not be installed with Contract 62A76. The truss grating and maintenance walkway behind the sign panel will be included with Overhead Sign Structure Span Type I-A and Overhead Sign Structure Span Type III-A as appropriate.

TYPICAL ELEVATION
(Looking at Face of Signs**)

Elev. A = Elevation at point of minimum clearance to sign, walkway support or truss.

Structure Number	t Station	Design Truss Type	c. to c. Supports	Elev. A	Dim. D	Height of Tallest Sign	Total Sign Area
1S016I094L051.3	6351+55.00	I-A	46'-6"	577.05	3'-11½"	11'-0"	396.50 Sq. Ft.
1S016I094L051.9	6127+75.00	III-A	81'-6¼"	584.22	3'-3"	19'-0"	1045 Sq. Ft.
1S016I094L052.0	6121+69.00	I-A	79'-11"	578.39	7'-11½"	13'-0"	475.25 Sq. Ft.

*If M270 Gr. 50W (M222) steel is proposed, chemistry for plate to be used shall first be approved by the Engineer as suitable for galvanizing and welding.

**Looking upstation for structures with signs both sides.

***See Sheets SS30 thru SS32 for actual foundation types and details.

t Sign Structure stations measured along the following Baselines:

1S016I094L051.3 - Prop. ℄ NB C-D Road
1S016I094L051.9 - Prop. ℄ NB I-90/94
1S016I094L052.0 - Prop. ℄ NB I-90/94

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
STRUCTURE EXCAVATION	CU YD	81
CONCRETE STRUCTURES	CU YD	16.7
REINFORCEMENT BARS, EPOXY COATED	POUND	1470
CONCRETE SEALER	SQ FT	154
OVERHEAD SIGN STRUCTURE - SPAN, TYPE I-A (4'-0" X 4'-6")	FOOT	127
OVERHEAD SIGN STRUCTURE - SPAN, TYPE III-A (5'-0" X 7'-0")	FOOT	82
DRILLED SHAFT CONCRETE FOUNDATIONS	CU YD	74.8
MICRO-PILES	EACH	4
MICROPILE LOAD TEST	EACH	1
MICROPILE PROOF LOAD TEST	EACH	1

GENERAL NOTES

DESIGN: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications")
2017 AASHTO LRFD Bridge Design Specifications, 8th Edition

CONSTRUCTION: Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Special Provisions. ("Standard Specifications")

LOADING: 90 M.P.H. WIND VELOCITY
WALKWAY LOADING: Dead load plus 500 lbs. concentrated live load.

DESIGN STRESSES:
Field Units
f'c = 3,500 p.s.i. fy = 60,000 p.s.i. (reinforcement)

WELDING: All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 and D1.2 Structural Welding Codes (Steel and Aluminum) and the Standard Specifications.

MATERIALS: Aluminum Alloys as shown throughout plans. All Structural Steel Pipe shall be ASTM A53 Grade B or A500 Grade B or C. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53. All Structural Steel Plates and Shapes shall conform to AASHTO M270 Gr. 36, Gr. 50 or Gr. 50W*. Stainless steel for shims, sleeves and handhole covers shall be ASTM A240, Type 302 or 304, or another alloy suitable for exterior exposure and acceptable to the Engineer. The steel pipe and stiffening ribs at the base plate for the column shall have a minimum longitudinal Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F. (Zone 2) before galvanizing.

FASTENERS FOR ALUMINUM TRUSSES: All bolts noted as "high strength" must satisfy the requirements of AASHTO M164 (ASTM A325), or approved alternate, and must have matching lock nuts. Threaded studs for splices (if Members interfere) must satisfy the requirements of ASTM A449, ASTM A193, Grade B7, or approved alternate, and must have matching lock nuts. Bolts and lock nuts not required to be high strength must satisfy the requirements of ASTM A307. All bolts and lock nuts must be hot dip galvanized per AASHTO M232. The lock nuts must have nylon or steel inserts. A stainless steel flat washer conforming to ASTM A240 Type 302 or 304, is required under both head and nut or under both nuts where threaded studs are used. High strength bolt installation shall conform to Article 505.04 (f) (2)d of the IDOT Standard Specifications for Road and Bridge Construction. Rotational capacity ("ROCAP") testing of bolts will not be required.

U-BOLTS AND EYEBOLTS: U-Bolts and Eyebolts must be produced from ASTM A276 Type 304, 304L, 316 or 316L, Condition A, cold finished stainless steel, or an equivalent material acceptable to the Engineer. All nuts for U-Bolts and Eyebolts must be lock nuts equivalent to ASTM A307 with nylon or steel inserts and hot dip galvanized per AASHTO M232. A stainless steel flat washer conforming to ASTM A240, Type 302 or 304, is required under each U-Bolt and Eyebolt lock nut.

GALVANIZING: All Steel Grating, Plates, Shapes and Pipe shall be Hot Dip Galvanized after fabrication in accordance with AASHTO M111. Painting is not permitted.

ANCHOR RODS: Shall conform to ASTM F1554 Gr. 105.

CONCRETE SURFACES: All concrete surfaces above an elevation 6" below the lowest final ground line at each foundation shall be cleaned and coated with Concrete Sealer in accordance with the Standard Specifications.

REINFORCEMENT BARS: Reinforcement Bars designated (E) shall be epoxy coated in accordance with the Standard Specifications.

FOUNDATIONS: The contract unit price for Concrete Foundations and Drilled Shaft Concrete Foundations shall include reinforcement bars complete in place. Reinforcement Bars for Micropile-type foundations shall be paid separately.

STATE OF ILLINOIS
MOUSSA A. ISSA
081-005738
CHICAGO, ILLINOIS
LICENSED STRUCTURAL ENGINEER

SIGNED Moussa A. Issa
DR. MOUSSA A. ISSA. S.E., IL. LIC. NO. 081-005738
EXPIRES 11-30-2020
DATE 03/04/2020
FOR SHEETS SS17THRU SS39
(TOTAL OF 23 SHEETS)

HBM ENGINEERING GROUP, LLC

USER NAME = marlan.agamy	DESIGNED - JJS, WM	REVISED -	
	CHECKED - MAI, JMG	REVISED -	
PLOT SCALE = N.T.S	DRAWN - JJS, WM	REVISED -	
PLOT DATE = 03/04/2020	CHECKED - MAI, JMG	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES - GENERAL PLAN & ELEVATION - ALUMINUM TRUSS & STEEL SUPPORTS
SHEET NO. SS17 OF SS129 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	967
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

FILE NAME: pw:\AECOM-NA-AWS1.aecomonline.local:AECOM_DS02_NAIDocuments\01 Americas\Transportation\60269938 Circle\Phase_II\000_CAD\008_Structural\Sign Structures\62A76 Sign Structure\62A76-Span-SS101-SignStruct.dgn
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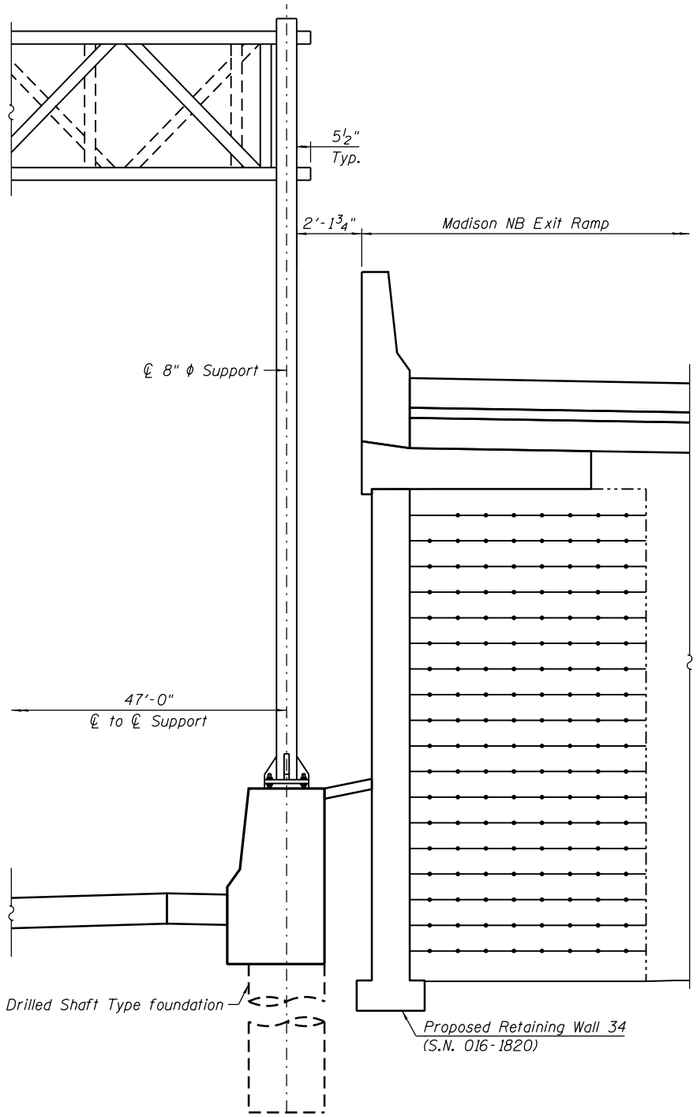
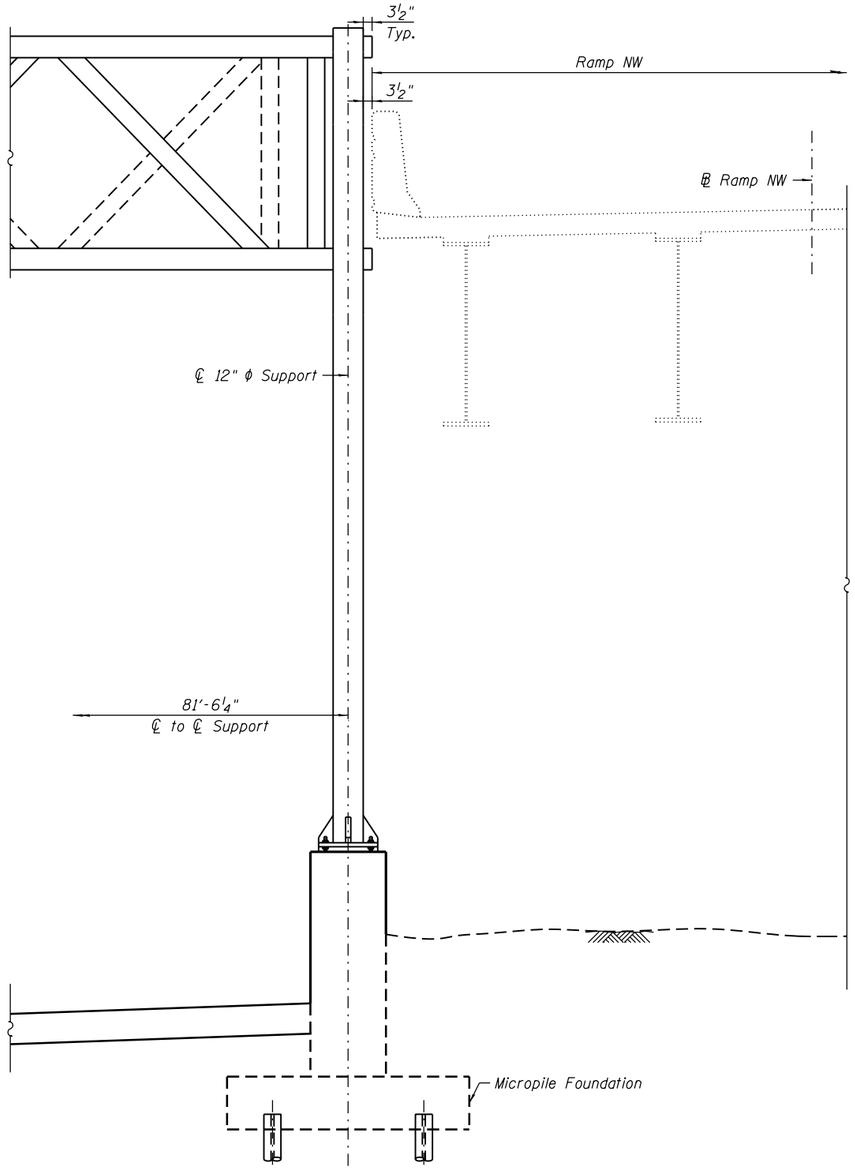


TYPICAL ELEVATION

(Structure No. 1S016I094L051.3)
(Looking at Front Face of Sign)
(Conduit not shown for clarity)



TYPICAL ELEVATION

(Structure No. 1S016I094L051.9)
(Looking at Front Face of Sign)
(Conduit not shown for clarity)

NOTE:

1. The Contractor shall take all necessary precautions during construction activities and sign structure erection to avoid damage to existing adjacent structures to remain. Any damage to existing structures caused by the Contractor in the performance of his/her work shall be repaired by the Contractor, to the satisfaction of the Engineer, at no cost to the Department.

HBM ENGINEERING GROUP, LLC

USER NAME = marian.agamy	DESIGNED - JJS, WM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OVERHEAD SIGN STRUCTURES TYPICAL ELEVATION - 1S016I094L051.3 & 1S016I094L051.9
	CHECKED - MAI, JMG	REVISED -		
PLOT SCALE = N.T.S	DRAWN - JJS, WM	REVISED -		
PLOT DATE = 03/04/2020	CHECKED - MAI, JMG	REVISED -		SHEET NO. SS18 OF SS129 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	968
		CONTRACT NO. 62A76		
	ILLINOIS FED. AID PROJECT			

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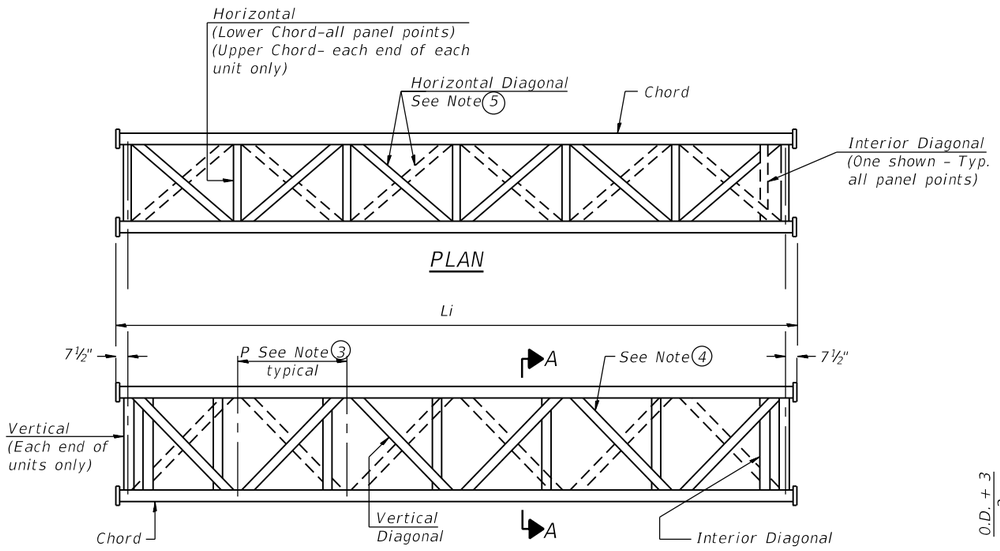
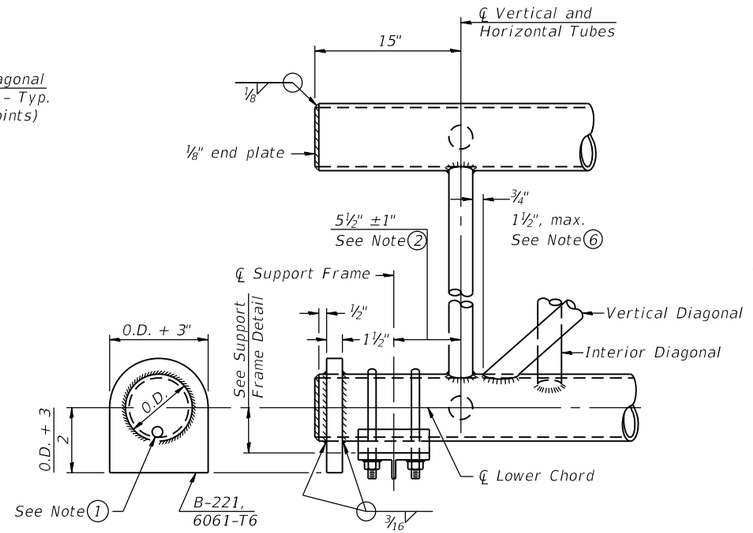


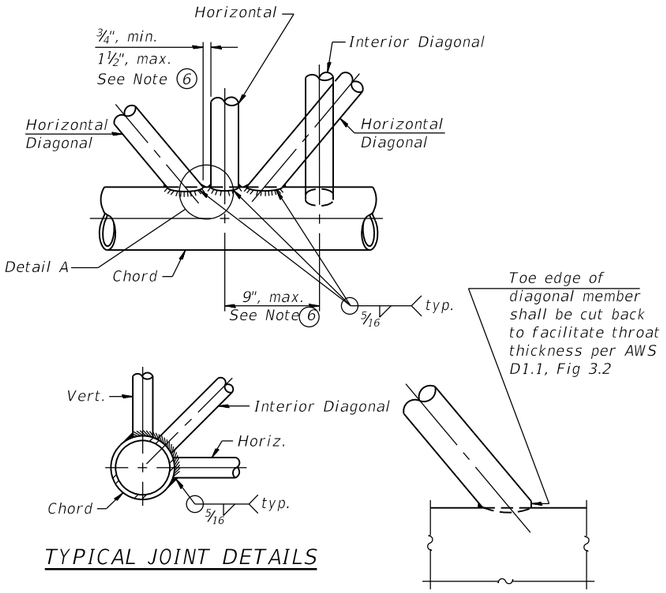
ELEVATION

TYPICAL INTERIOR UNIT

Even number of panels/interior unit required.

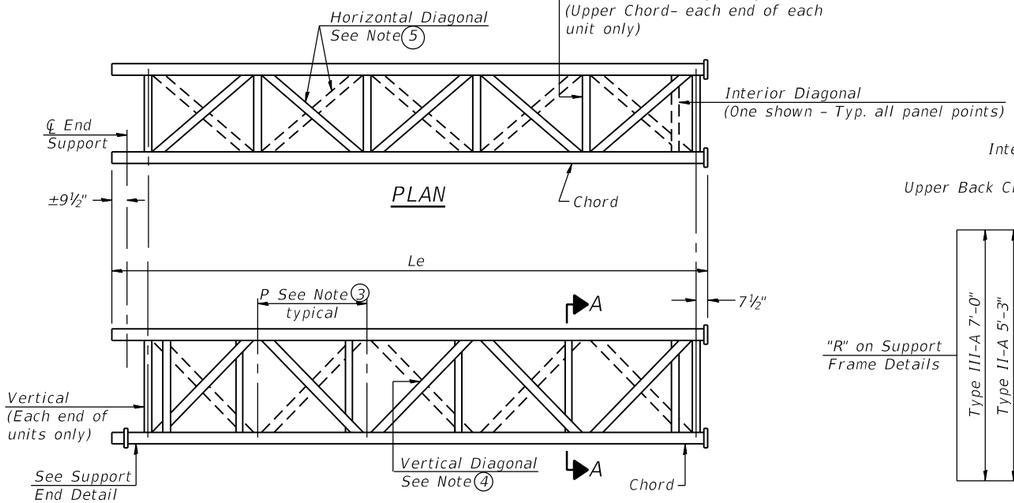


SUPPORT END DETAIL FOR EXTERIOR UNIT



TYPICAL JOINT DETAILS

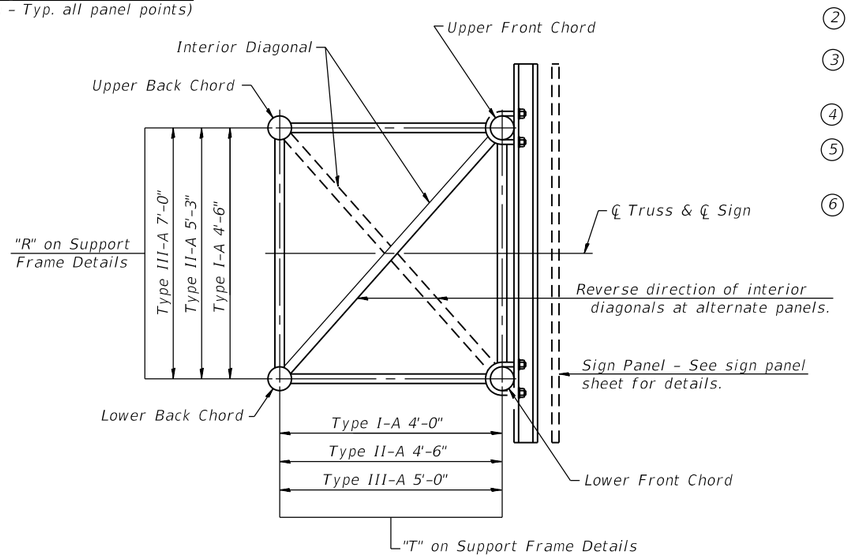
DETAIL A



ELEVATION

TYPICAL EXTERIOR UNIT

Even or odd number of panels/exterior units allowed.



SECTION A-A

1. Contractor may alternatively use standard aluminum drive-fit cap to close end. ½" Ø drain hole in end plate/drive-fit cap. (Typ. at ends of all chords)
2. 5½" end dimension may vary by ±1" to provide uniform panel spacing (P).
3. Panel spacing (P) shall be uniform for entire truss and between 4'-0" and 5'-0" for Type I-A or 4'-0" and 5'-6" for Types II-A and III-A.
4. Vertical Diagonals in front and back face shall alternate.
5. Hidden lines show wind bracing alternates direction between planes of top and bottom chords.
6. All diagonals shall be detailed for minimum offset from the panel point based on the following: Offset shall be such as to provide a ¾" minimum to 1½" maximum clearance between any diagonal and any horizontal or vertical member, and to provide clearance for U-bolt connections of signs or walkway brackets.

OS-A-2

2-17-2017

HBM ENGINEERING GROUP, LLC

USER NAME = charles.pigozzi	DESIGNED - JJS, WM	REVISED -		
	CHECKED - MAI, JMG	REVISED -		
PLOT SCALE = N.T.S	DRAWN - JJS, WM	REVISED -		
PLOT DATE = 1/24/2020	CHECKED - MAI, JMG	REVISED -		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES – ALUMINUM TRUSS
DETAILS FOR TRUSS TYPES I-A, II-A AND III-A

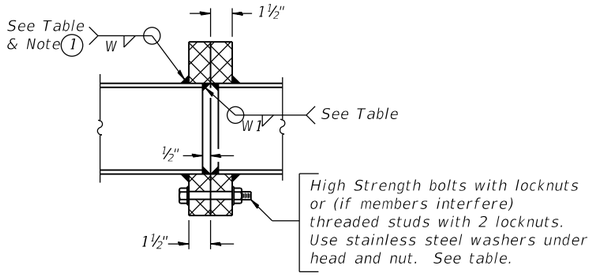
SHEET NO. SS19 OF SS129 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	969
		CONTRACT NO. 62A76		
		ILLINOIS	FED. AID PROJECT	

TRUSS UNIT TABLE

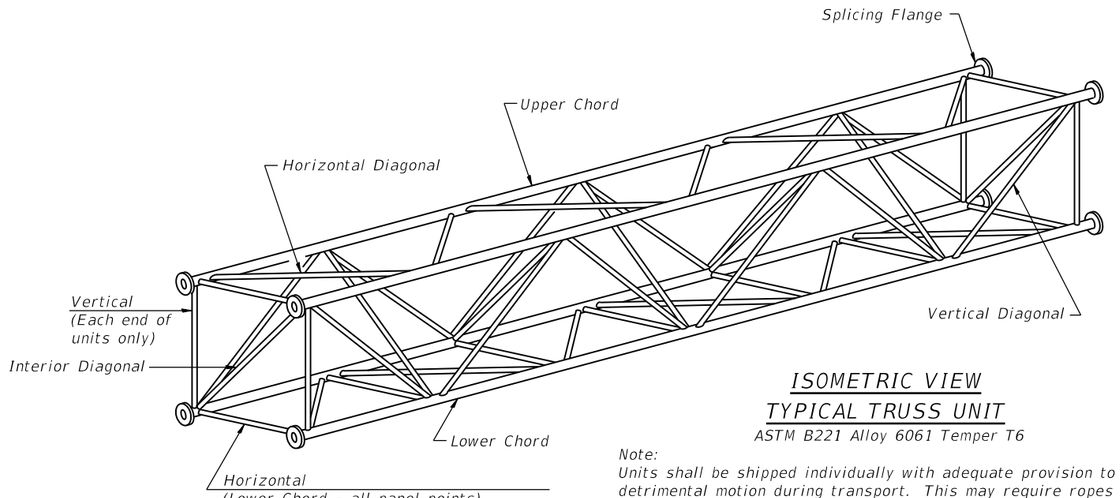
Structure Number	**Station	Design Truss Type	Exterior Units (2)			Interior Unit				Upper & Lower Chord		Verticals; Horizontals; Vertical, Horizontal, and Interior Diagonals		Camber at Midspan	Splicing Flange					
			No. Panels per Unit	Unit Lgth.(Le)	Panel Lgth.(P)	No. Req'd.	No. Panels per Unit	Unit Lgth.(Li)	Panel Lgth.(P)	O.D.	Wall	O.D.	Wall		Bolts		Weld Sizes		A	B
															No./Splice	Dia.	W	W1		
1S016I094L051.3	6351+55.00	I-A	5	24'-0¾"	4'-5¼"	–	–	–	–	5"	¼"	2½"	¼"	¾"	6	⅞"	5/16"	¼"	8¾"	11¾"
1S016I094L051.9	6127+75.00	III-A	5	26'-4¼"	4'-10¾"	1	6	30'-4½"	4'-10¼"	8½"	½"	3½"	5/16"	1"	8	1¼"	9/16"	7/16"	13"	16½"
1S016I094L052.0	6121+69.00	I-A	5	25'-10"	4'-9½"	1	6	30'-0"	4'-9½"	5"	5/16"	2½"	5/16"	2¼"	6	⅞"	5/16"	¼"	8¾"	11¾"

**Sign Structure stations measured along the following baselines:
1S016I094L051.3 – Prop. ℄ NB C-D Road
1S016I094L051.9 – Prop. ℄ NB I-90/94
1S016I094L052.0 – Prop. ℄ NB I-90/94



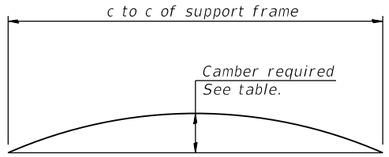
SECTION B-B

(1) Splicing Flanges shall be attached to each truss unit with the truss shop assembled to camber shown. Truss units shall be in proper alignment and flange surfaces shall be shop bolted into full contact before welding. Sufficient external welds or tacks shall be made to secure flanges until remaining welds are made after disassembly. Adjacent flanges shall be "match marked" to ensure proper field assembly.



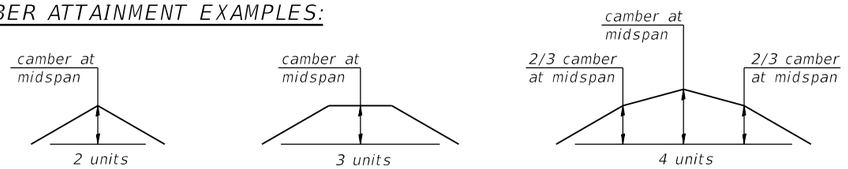
ISOMETRIC VIEW
TYPICAL TRUSS UNIT
ASTM B221 Alloy 6061 Temper T6

Note:
Units shall be shipped individually with adequate provision to prevent detrimental motion during transport. This may require ropes between horizontals and diagonals or energy dissipating (elastic) ties to the vehicle. The Contractor is responsible for maintaining the configuration and protection of the units.

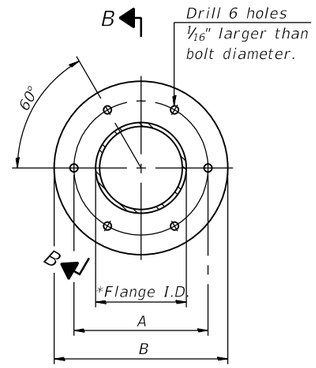


CAMBER DIAGRAM
Camber curve shown is theoretical. Actual camber attained by slope changes at splices between units.

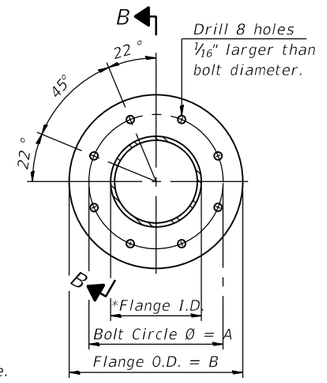
CAMBER ATTAINMENT EXAMPLES:



Camber shown is for fabrication only, measured with truss fully supported. (No-load condition)



TRUSS TYPES I-A, II-A, & III-A



TRUSS TYPES II-A & III-A

SPLICING FLANGES
ASTM B221, Alloy 6061-T6
or ASTM B209, Alloy 6061-T651
*To fit O.D. of Chord with maximum gap of 1/16".

OS4-A-2 2-17-2017

HBM ENGINEERING GROUP, LLC

USER NAME = marian.agamy	DESIGNED - JJS, WM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OVERHEAD SIGN STRUCTURES – ALUMINUM TRUSS DETAILS FOR TRUSS TYPES I-A, II-A AND III-A
	CHECKED - MAI, JMG	REVISED -		
PLOT SCALE = N.T.S	DRAWN - JJS, WM	REVISED -		SHEET NO. SS20 OF SS129 SHEETS
PLOT DATE = 03/04/2020	CHECKED - MAI, JMG	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	970
		CONTRACT NO. 62A76		
	ILLINOIS FED. AID PROJECT			

FILE NAME: pw:\\AECOM-NA-AWS1.aecomonline.local\AECOM_DS02_NA\Documents\01 Americas\Transportation\60269938 CircletPhase_II\000_CAD\008_Structural\Sign Structures\62A76 Sign Structure\62A76-Span-SS103-SignStruct.dgn
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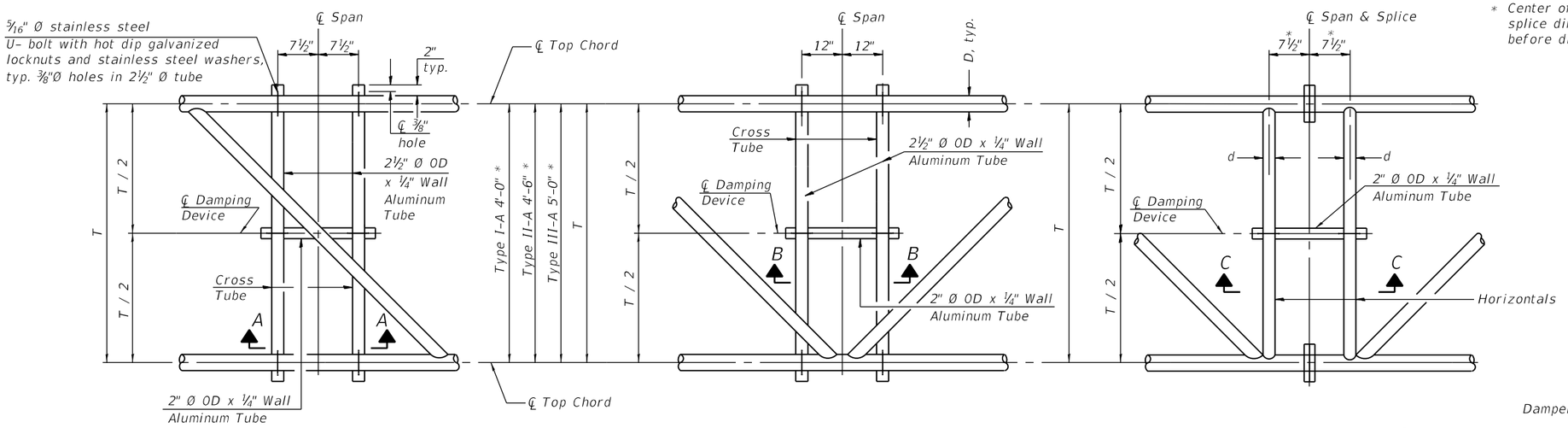
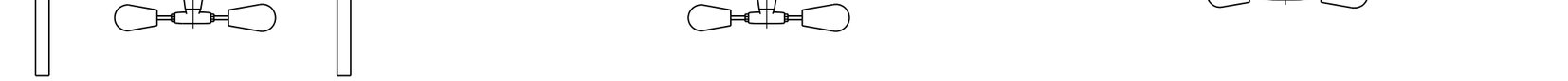


* *Center of horizontal to center of splice dimension may vary. Verify before drilling holes in mounting tube.*

PLAN DETAIL "A"
℄ *Span between Panel Points*

PLAN DETAIL "B"
℄ *Span at Panel Point*

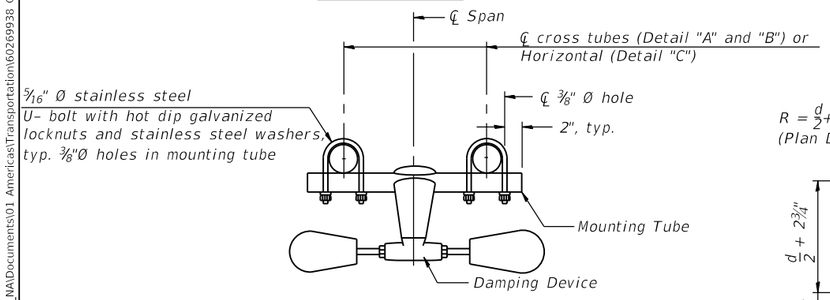
PLAN DETAIL "C"
℄ *Span at ℄ Chord Splice*



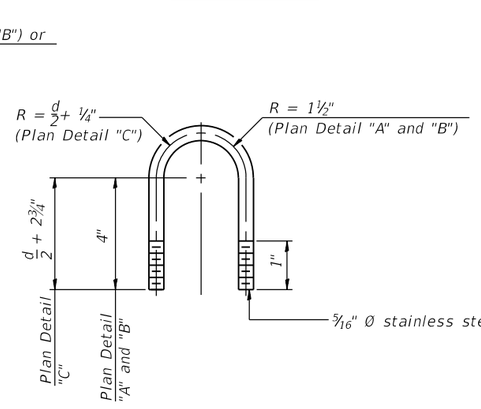
SECTION A-A

SECTION B-B

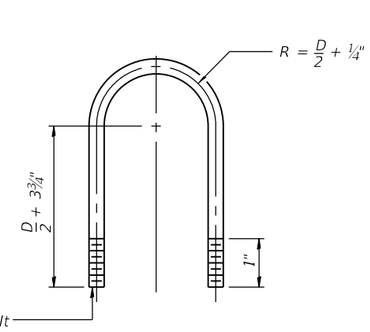
SECTION C-C



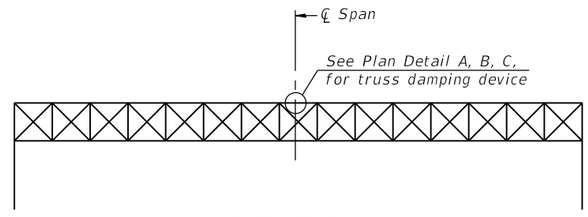
TRUSS DAMPING DEVICE CONNECTION DETAIL
(Typical)



DAMPING DEVICE MOUNTING TUBE U-BOLT DETAIL
(Typical)



TOP CHORD TO CROSS TUBE U-BOLT DETAIL
(Typical - Detail "A" and "B")



ELEVATION
Aluminum Overhead Sign Truss

NOTES

Damper: *One damper per truss. (31 lbs. minimum Stockbridge-Type Aluminum - 29" minimum between ends of weights) Cost included in Overhead Sign Structure...*

Materials: *Materials: Aluminum tubes shall be ASTM B221 alloy 6061 temper T6. Cost included in Overhead Sign Structure...*

OS-A-D 2-17-2017

HBM ENGINEERING GROUP, LLC

USER NAME = charles.pigozzi	DESIGNED - JJS, WM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OVERHEAD SIGN STRUCTURE DAMPING DEVICE
	CHECKED - MAI, JMG	REVISED -		
PLOT SCALE = N.T.S	DRAWN - JJS, WM	REVISED -		SHEET NO. SS21 OF SS129 SHEETS
PLOT DATE = 1/24/2020	CHECKED - MAI, JMG	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	971
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

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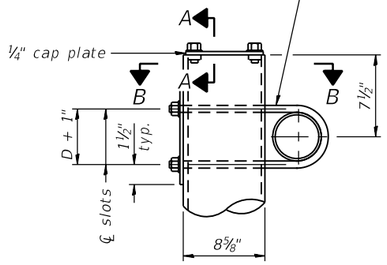
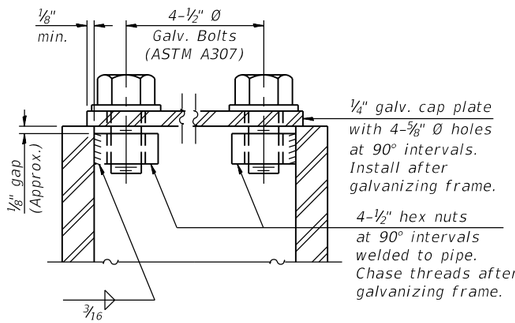
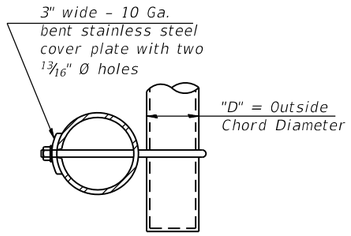


DETAIL A

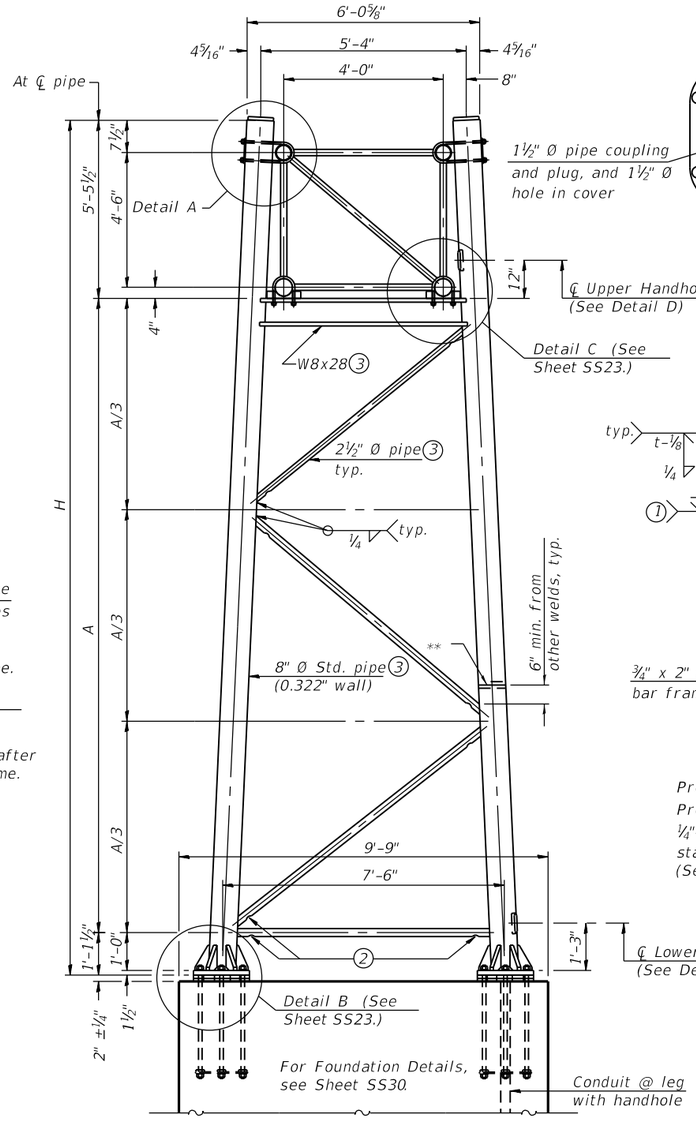


SECTION A-A

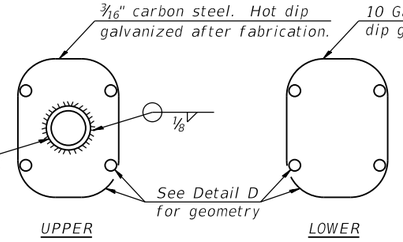
As an alternate to bolts, may use galvanized drive-fit caps installed after galvanizing frame.



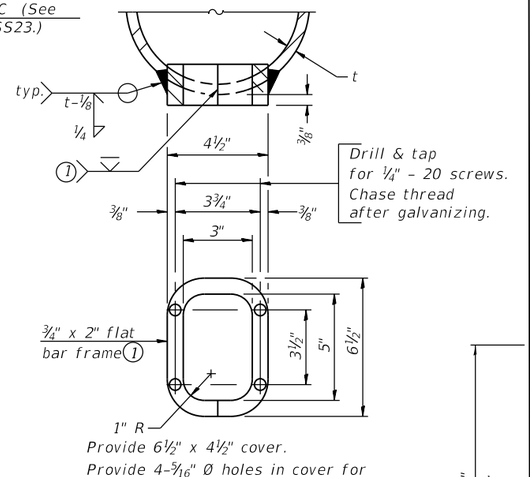
SECTION B-B



SIDE ELEVATION

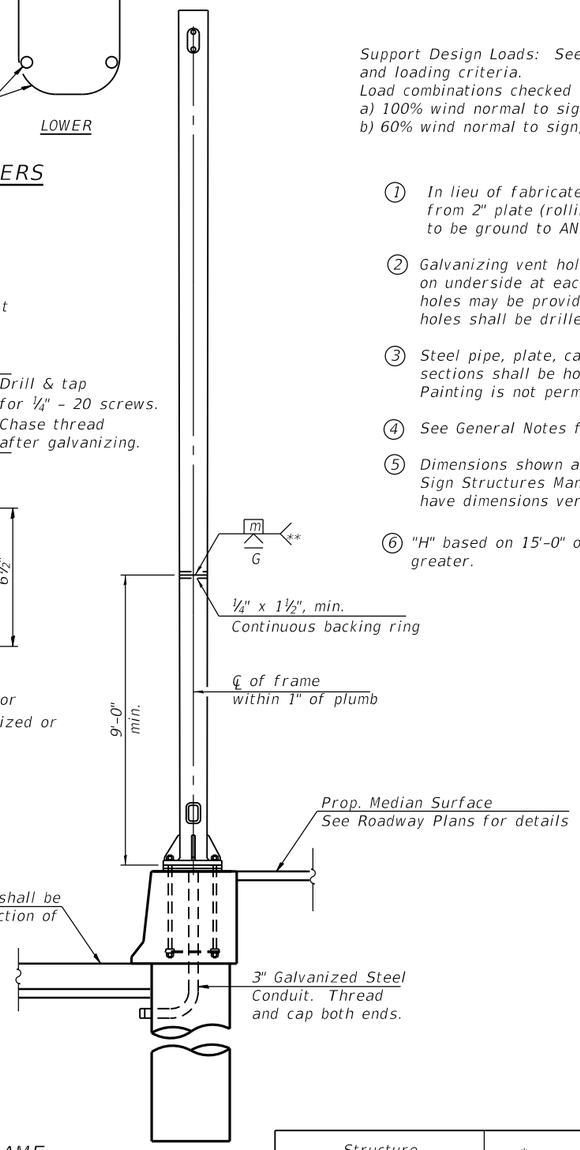


HANDHOLE COVERS



Provide 6½" x 4½" cover.
Provide 4-5/16" Ø holes in cover for ¼"-20 round head hot dip galvanized or stainless steel machine screws.
(See cover details)

DETAIL D



END ELEVATION

Support Design Loads: See Sheet SS17 for design and loading criteria.
Load combinations checked include dead load plus:
a) 100% wind normal to sign, 20% parallel to sign
b) 60% wind normal to sign, 30% parallel to sign

(1) In lieu of fabricated handhole frame as shown, may cut from 2" plate (rolling direction vertical). All cut faces to be ground to ANSI Roughness of 500μ in or less.

(2) Galvanizing vent holes of adequate size shall be provided on underside at each end of bracing pipes. Alternately, holes may be provided in wall of pipe column. All vent holes shall be drilled and de-burred, typ.

(3) Steel pipe, plate, carbon steel handhole covers and rolled sections shall be hot dip galvanized after fabrication. Painting is not permitted. See Sheet SS17.

(4) See General Notes for fasteners.

(5) Dimensions shown are based on selection criteria in the Sign Structures Manual. Nonstandard applications must have dimensions verified or amended as appropriate.

(6) "H" based on 15'-0" or actual sign height, whichever is greater.

8" Ø PIPE TRUSS SUPPORT FRAME

** One butt welded joint is allowed only on one post per support frame. If used, weld procedure must be pre-approved by Engineer and joint shall receive 100% RT or UT (tension criteria) at Contractor's expense.

Structure Number	*Station	Support Left	Support Right	H (6)	A
1S016I094L051.3	6351+55.00	X		26'-6½"	19'-11½"
			X	25'-3"	18'-8"
1S016I094L052.0	6121+69.00	X		25'-7½"	19'-0½"
			X	26'-8"	20'-1"

*Sign Structure stations measured along the following baselines:
1S016I094L051.3 - Prop. ℄ NB C-D Road
1S016I094L052.0 - Prop. ℄ NB I-90/94

FILE NAME: pw:\\AECOM-NA-AWS1.aecomonline.local:AECOM_DS02_NA\Documents\01 Americas\Transportation\60269938 CirclePhase_II\000_CAD\008_StructuralSign Structures\62A76 Sign Structure\62A76-Span-SS105-SignStruct.dgn
4:17:15 PM

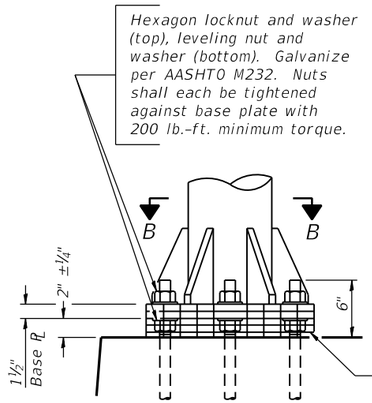
HBM ENGINEERING GROUP, LLC

USER NAME = marian.agamy		DESIGNED - JJS, WM		REVISED -	
		CHECKED - MAI, JMG		REVISED -	
PLOT SCALE = N.T.S		DRAWN - JJS, WM		REVISED -	
PLOT DATE = 03/04/2020		CHECKED - MAI, JMG		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

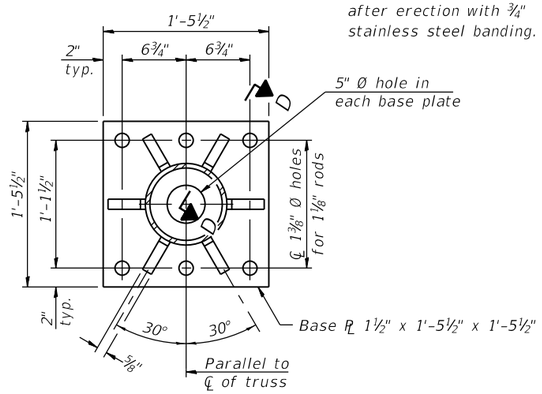
OVERHEAD SIGN STRUCTURES
SUPPORT FRAME FOR TYPE I-A ALUMINUM TRUSS
SHEET NO. SS22 OF SS129 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	972
		CONTRACT NO. 62A76		
		ILLINOIS	FED. AID PROJECT	

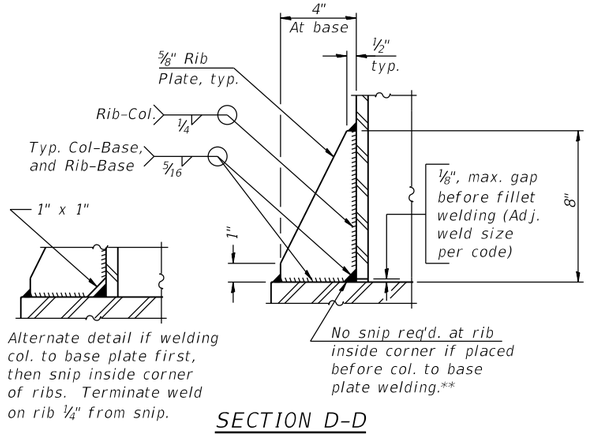


DETAIL B

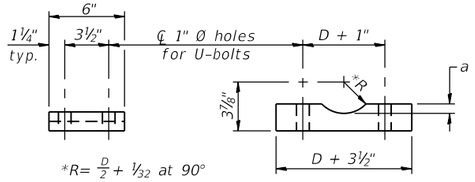
Ribs shall be cut to fit slope of pipe.



SECTION B-B



SECTION D-D



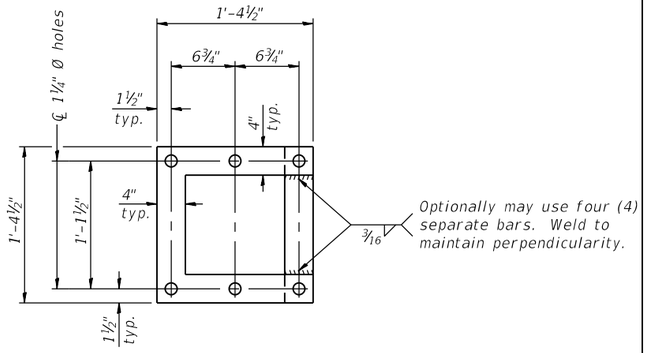
*R= $\frac{D}{2}$ + 1/32 at 90°

D = Outside Diameter of Chord.

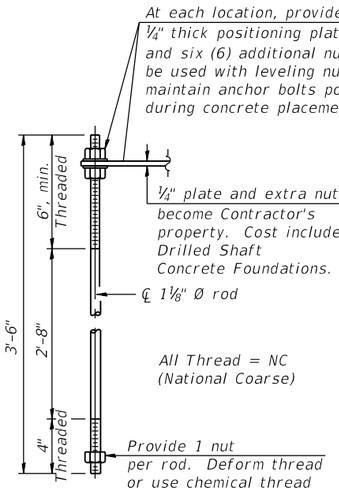
SADDLE SHIM DETAIL

ASTM B26 Alloy 356-F
or
ASTM B209 Alloy 6061-T651
(4 required per sign truss)

Truss Chord Nominal Dia.	a
5"	¾"
5½"	13/16"
6"	⅞"
6½"	15/16"

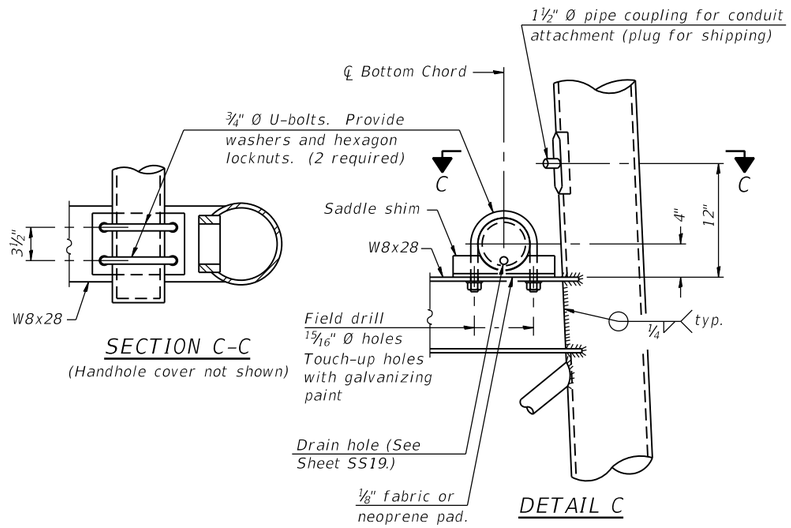


POSITIONING PLATE(S)



ANCHOR ROD DETAIL

Anchor rods shall conform to ASTM F1554 Grade 105. Galvanize upper 12" minimum per AASHTO M232. No welding shall be permitted on rods.



SECTION C-C

(Handhole cover not shown)

DETAIL C

TYPE I-A TRUSS
8" Ø PIPE SUPPORT FRAME DETAILS

HBM ENGINEERING GROUP, LLC	USER NAME = charles.pigozzi	DESIGNED - JJS, WM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OVERHEAD SIGN STRUCTURES SUPPORT FRAME DETAILS – ALUMINUM TRUSS
		CHECKED - MAI, JMG	REVISED -		
	PLOT SCALE = N.T.S	DRAWN - JJS, WM	REVISED -		
	PLOT DATE = 1/24/2020	CHECKED - MAI, JMG	REVISED -		SHEET NO. SS23 OF SS129 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	973
		CONTRACT NO. 62A76		
	ILLINOIS FED. AID PROJECT			

FILE NAME: pw:\\AECOM-NA-AWS1.aecomonline.local:AECOM_D502_NAIDocuments\01 Americas\Transportation\60269938 Circle\Phase_II\000_CAD\008_Structural\Sign Structures\62A76 Sign Structure\62A76-Span-SS105A-SignStruct.dgn
11:12:28 AM

SHEET INTENTIONALLY LEFT BLANK

HBM ENGINEERING GROUP, LLC	USER NAME = jana.issa	DESIGNED - JJS, WM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OVERHEAD SIGN STRUCTURES SUPPORT FRAME FOR ALUMINUM TRUSS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - MAI, JMG	REVISED -			90/94/290	2015-019R	COOK	2155	974
	PLOT SCALE = N.T.S	DRAWN - JJS, WM	REVISED -						CONTRACT NO. 62A76	
	PLOT DATE = 03/04/2020	CHECKED - MAI, JMG	REVISED -		SHEET NO. SS24 OF SS129 SHEETS			ILLINOIS	FED. AID PROJECT	

FILE NAME: pw:\\AECOM-NA-AWS1.aecomonline.local:AECOM_DS02_NA\Documents\01 Americas\Transportation\60269938 Circle\Phase_II\000_CAD\008_StructuralSign Structures\62A76 Sign Structure\62A76-Span-SS106-SignStruct.dgn

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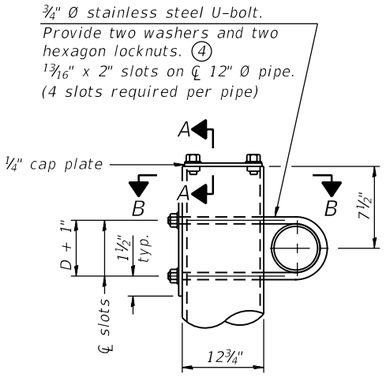
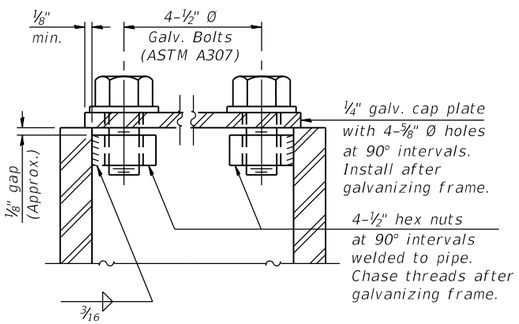
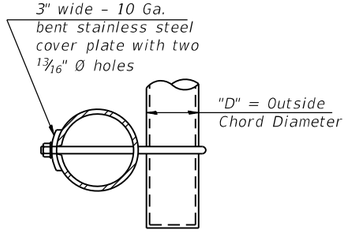


DETAIL A

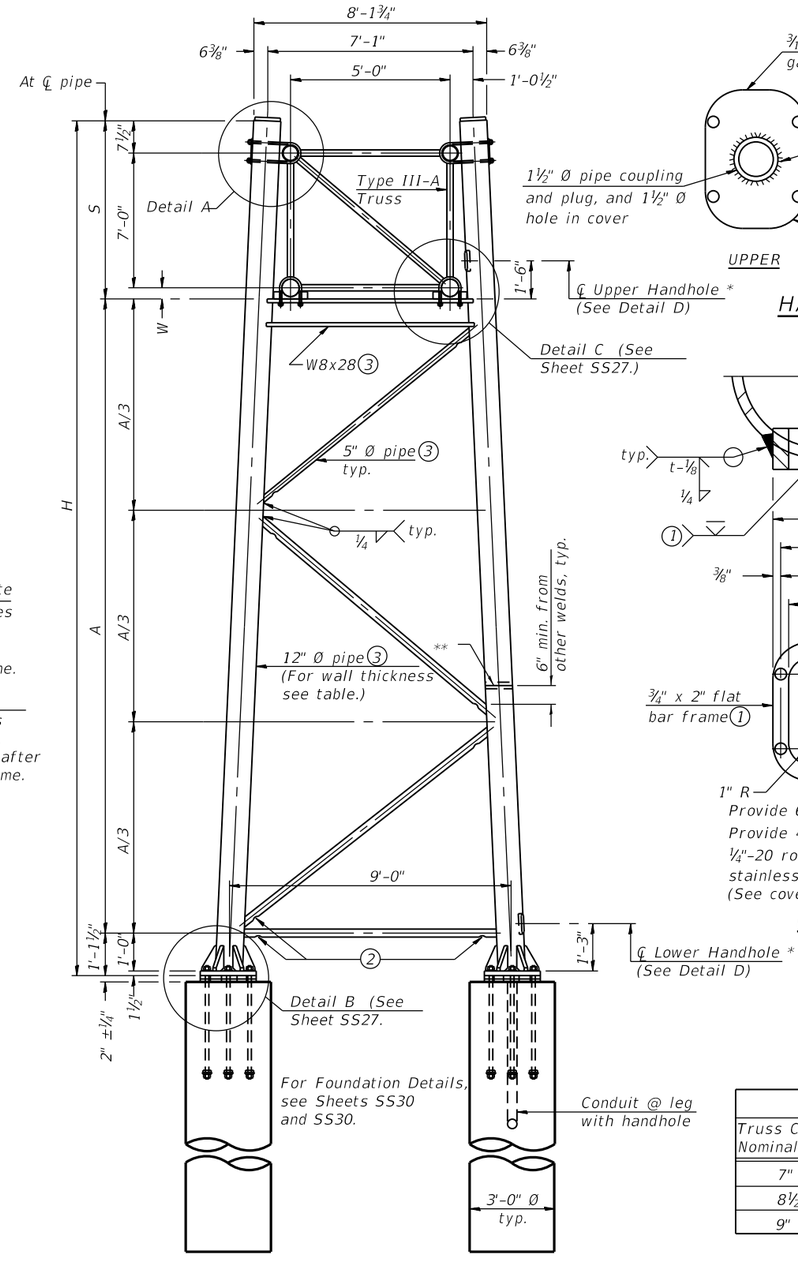


SECTION A-A

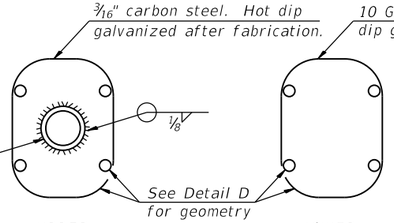
As an alternate to bolts, may use galvanized drive-fit caps installed after galvanizing frame.



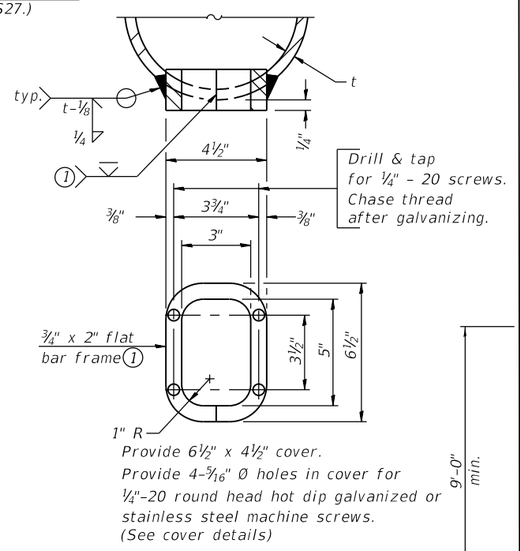
SECTION B-B



SIDE ELEVATION

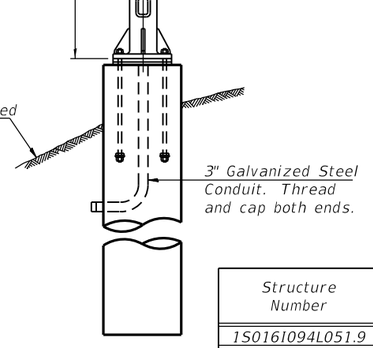


HANDHOLE COVERS



DETAIL D

Dimensions		
Truss Chord Nominal Dia.	W	S
7"	4¾"	8'-0¼"
8½"	5½"	8'-1"
9"	5¾"	8'-1¼"



END ELEVATION

Support Design Loads: See Sheet SS17 for design and loading criteria.
Load combinations checked include dead load plus:
a) 100% wind normal to sign, 20% parallel to sign
b) 60% wind normal to sign, 30% parallel to sign

(1) In lieu of fabricated handhole frame as shown, may cut from 2" plate (rolling direction vertical). All cut faces to be ground to ANSI Roughness of 500 µin or less.

(2) Galvanizing vent holes of adequate size shall be provided on underside at each end of bracing pipes. Alternately, holes may be provided in wall of pipe column. All vent holes shall be drilled and de-burred, typ.

(3) Steel pipe, plate, carbon steel handhole covers and rolled sections shall be hot dip galvanized after fabrication. Painting is not permitted. See Sheet SS17.

(4) See General Notes for fasteners.

(5) Dimensions shown are based on selection criteria in the Sign Structures Manual. Nonstandard applications must have dimensions verified or amended as appropriate.

(6) "H" based on 15'-0" or actual sign height, whichever is greater.

* For dynamic message sign installations, provide upper and lower handholes in both legs of each support frame.

TRUSS SUPPORT DETAILS

(12" Ø Pipe-Type III-A Truss)

** One butt welded joint is allowed only on one post per support frame. If used, weld procedure must be pre-approved by Engineer and joint shall receive 100% RT or UT (tension criteria) at Contractor's expense.

Structure Number	*** Station	Support		Pipe Wall Thickness	H (6)	A
		Left	Right			
1S016I094L051.9	6127+75.00	X		0.500"(XS)	31'-4½"	22'-2"
			X	0.500"(XS)	27'-0½"	17'-10"

*** Measured along Prop. ℄ NB I-90/94

0S4-A-8a 2-17-2017

HBM ENGINEERING GROUP, LLC

USER NAME = charles.pigozzi		DESIGNED - JJS, WM		REVISED -
		CHECKED - MAI, JMG		REVISED -
PLOT SCALE = N.T.S		DRAWN - JJS, WM		REVISED -
PLOT DATE = 1/24/2020		CHECKED - MAI, JMG		REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES - SUPPORT FRAME FOR TYPE III-A ALUMINUM TRUSS

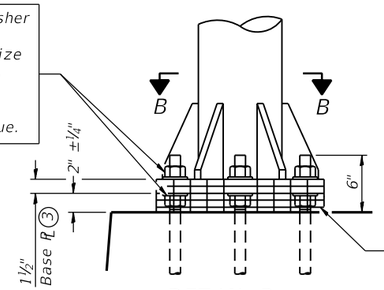
SHEET NO. SS26 OF SS129 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	976
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

FILE NAME: pw:\\AECOM-NA-AWS1.aecomonline.local:AECOM_DS02_NA\Documents\01 Americas\Transportation\60269938 Circle\Phase_II\000_CAD\008_Structural\Sign Structures\62A76 Sign Structure\62A76-Span-SS107-SignStruct.dgn

11:13:07 AM

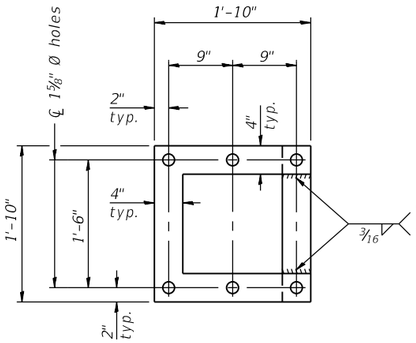
Hexagon locknut and washer (top), leveling nut and washer (bottom). Galvanize per AASHTO M232. Nuts shall each be tightened against base plate with 200 lb.-ft. minimum torque.



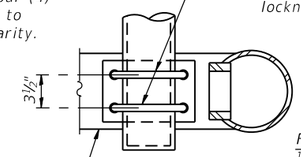
DETAIL B

Ribs shall be cut to fit slope of pipe.

Stainless Steel Standard Grade Wire Cloth, 3" wide, ¼" maximum opening with a minimum wire diameter of AWG. No. 16 with a minimum 2" lap. Secure to base plate after erection with ¾" stainless steel banding.

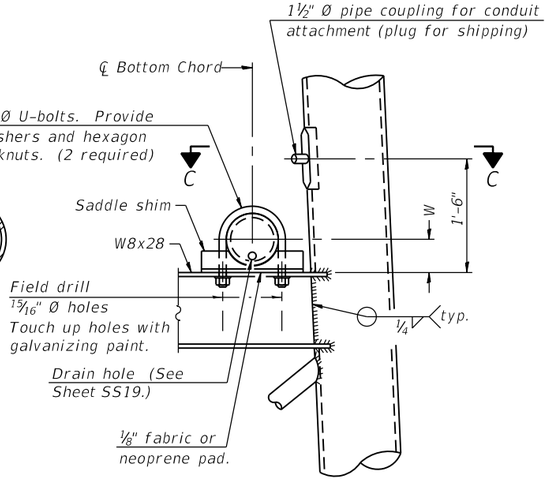


POSITIONING PLATE(S)

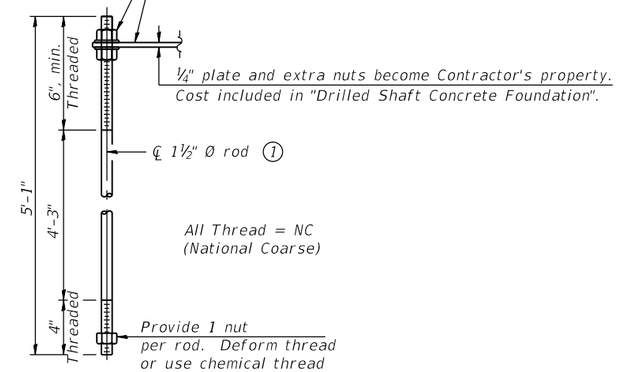


SECTION C-C

(Handhole cover not shown)

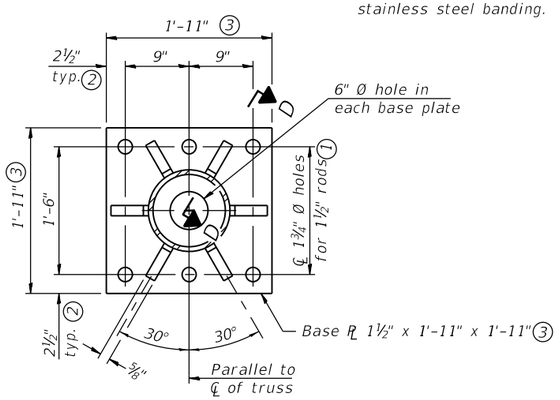


DETAIL C

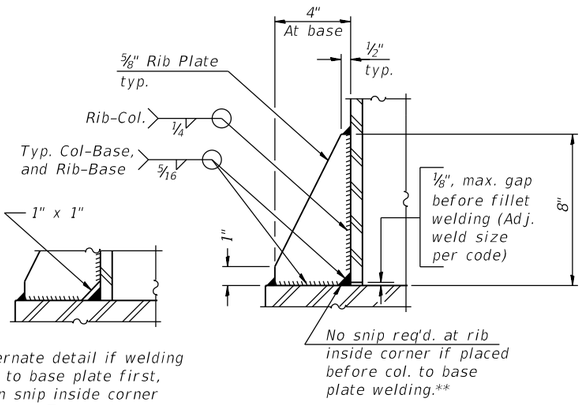


ANCHOR ROD DETAIL

Anchor rods shall conform to ASTM F1554 Grade 105 Galvanize upper 12" minimum per AASHTO M232. No welding shall be permitted on rods.

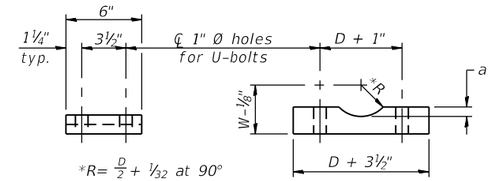


SECTION B-B



** Alternate detail if welding col. to base plate first, then snip inside corner of ribs. Terminate weld on rib ¼" from snip.

SECTION D-D



*R= $\frac{D}{2}$ + 1/32 at 90°

D = Outside Diameter of Chord.
For W, see Sheet SS24 .

Truss Chord Nominal Dia.	a
7"	1"
8½"	1¼"
9"	1⅜"

SADDLE SHIM DETAIL

ASTM B26 Alloy 356-F
or
ASTM B209 Alloy 6061-T651
(4 required per sign truss)

TYPE III-A TRUSS
12" Ø PIPE SUPPORT FRAME DETAILS

Notes:
For Type III-A Truss spans greater than 150 ft, and up to 160 ft.:

① 1¾" Ø rod, 2" Ø holes

② 2¾" edge distance

③ Base PL 1⅝" x 1'-11½" x 1'-11½"

0S4-A-8aA 2-17-2017

HBM ENGINEERING GROUP, LLC

USER NAME = charles.pigozzi		DESIGNED - JJS, WM	REVISED -		
		CHECKED - MAI, JMG	REVISED -		
PLOT SCALE = N.T.S		DRAWN - JJS, WM	REVISED -		
PLOT DATE = 1/24/2020		CHECKED - MAI, JMG	REVISED -		

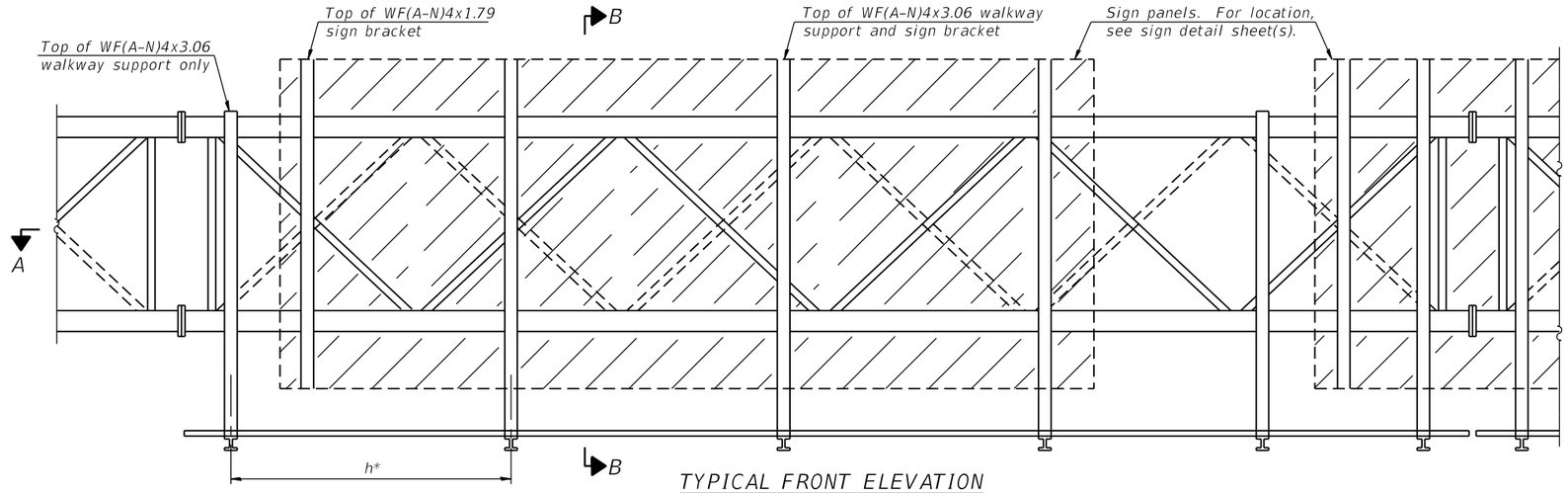
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SUPPORT FRAME FOR TYPE III-A ALUMINUM TRUSS
SHEET NO. SS27 OF SS129 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	977
		CONTRACT NO. 62A76		
		ILLINOIS	FED. AID PROJECT	

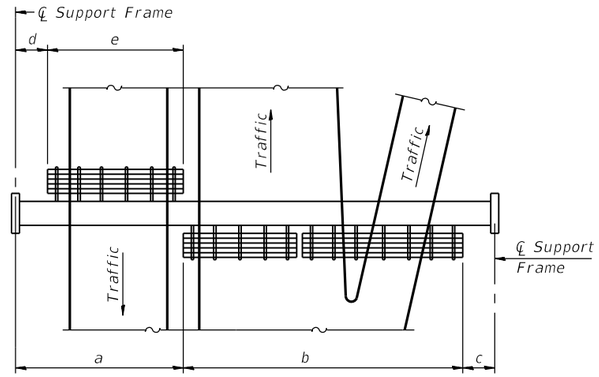
FILE NAME: pw:\\AECOM-NA-AWS1.aecomonline.local:AECOM_DS02_NA\Documents\01 Americas\Transportation\60269938 CirclePhase_II\000_CAD\008_StructuralSign Structures\62A76 Sign Structure\62A76-Span-SS108-SignStruct.dgn

11:13:21 AM



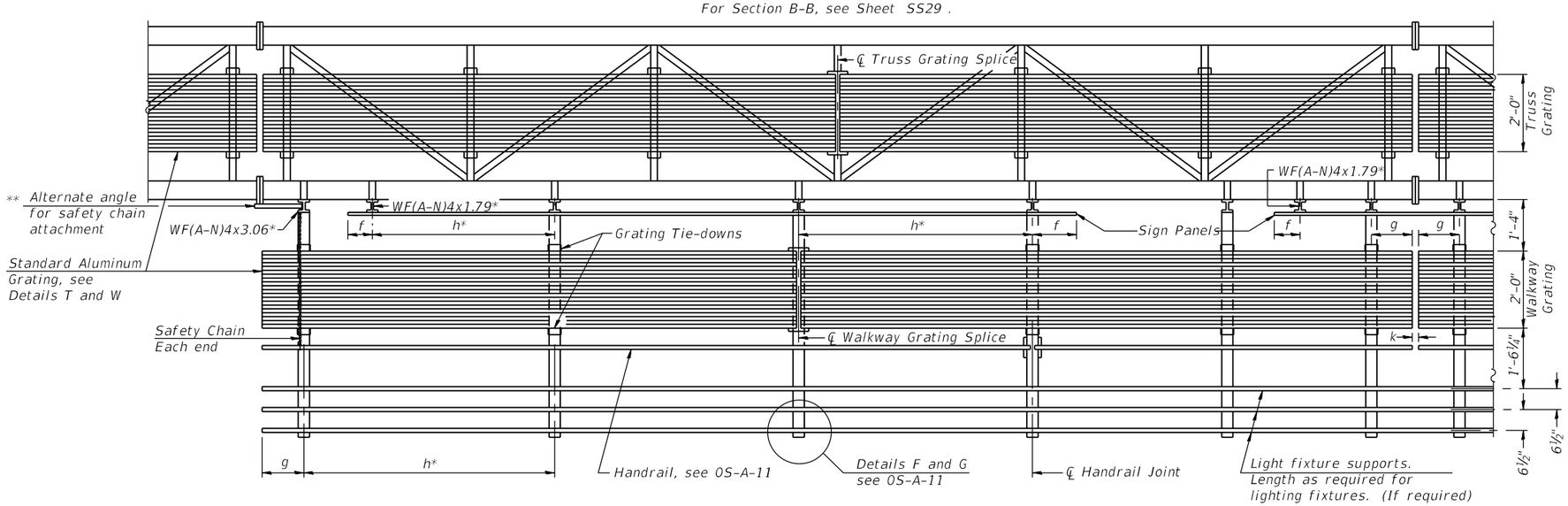
TYPICAL FRONT ELEVATION

With lights and handrail omitted for clarity.
For Section B-B, see Sheet SS29 .



PLAN
WALKWAY AND HANDRAIL SKETCH

(Road plan beneath truss varies)



SECTION A-A

Handrail and walkway shall span a minimum of three brackets between splices and/or gap joints.
Place all sign and walkway brackets as close to panel points as practical.
Handrail joints, grating, and light support splices placed as needed.

BRACKET TABLE

WF(A-N)4x1.79 or WF(A-N)4x3.06 ASTM B308, Alloy 6061-T6		
Sign Width		Number Brackets Required
Greater Than	Less Than or Equal To	
	8'-0"	2
8'-0"	14'-0"	3
14'-0"	20'-0"	4
20'-0"	26'-0"	5
26'-0"	32'-0"	6

Notes:

* Space walkway brackets WF(A-N)4x3.06 and sign brackets WF(A-N)4x1.79 for efficiency and within limits shown:

f = 12" maximum, 4" minimum (End of sign to ℄ of nearest bracket)
g = 12" maximum, 4" minimum (End of walkway grating to ℄ of nearest support bracket)
h = 6'-0" maximum (℄ to ℄ sign and/or walkway support brackets, WF(A-N)4x1.79 or WF(A-N)4x3.06)
k = 2" maximum gap between adjacent walkway grating sections and handrail ends

** If walkway bracket at safety chain location is behind sign, add angle to bracket, see Alternate Safety Chain Attachment on Base Sheet 0S-A-11.

For Details T and W, Section B-B and Grating Splice Details, see Sheet SS29 .
For Handrail Details, see Base Sheet 0S-A-11.

*** Sign Structure stations measured along the following baselines:
1S016I094L051.3 - Prop. ℄ NB C-D Road
1S016I094L051.9 - Prop. ℄ NB I-90/94
1S016I094L052.0 - Prop. ℄ NB I-90/94

Structure Number	***Station	a	b	c	d	e	Walkway Grating and Handrail Lengths
1S016I094L051.3	6351+55.00	-	-	-	-	-	-
1S016I094L051.9	6127+75.00	-	-	-	-	-	-
1S016I094L052.0	6121+69.00	-	-	-	-	-	-

Truss grating to facilitate inspection shall run full length (center to center of support frames) ±12" on overhead trusses. Cost of truss grating is included in "Overhead Sign Structure".

Walkway and Truss Grating width dimensions are nominal and may vary ±½" based on available standard widths.

0S-A-9 2-17-2017

HBM ENGINEERING GROUP, LLC

USER NAME = charles.pigozzi	DESIGNED - JJS, WM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OVERHEAD SIGN STRUCTURES ALUMINUM WALKWAY DETAILS	
	CHECKED - MAI, JMG	REVISED -			
PLOT SCALE = N.T.S	DRAWN - JJS, WM	REVISED -		SHEET NO. SS28 OF SS129 SHEETS	
PLOT DATE = 1/24/2020	CHECKED - MAI, JMG	REVISED -			

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	978
		CONTRACT NO. 62A76		
		ILLINOIS	FED. AID PROJECT	

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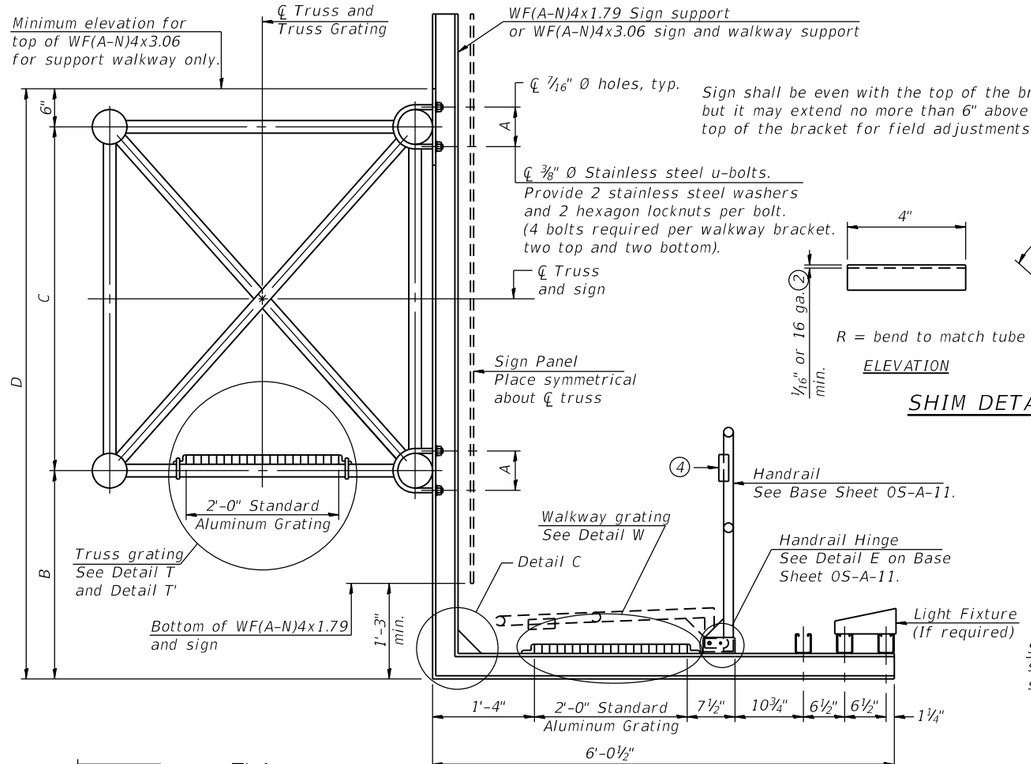
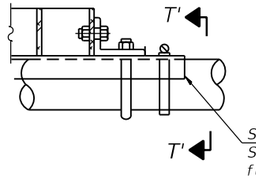


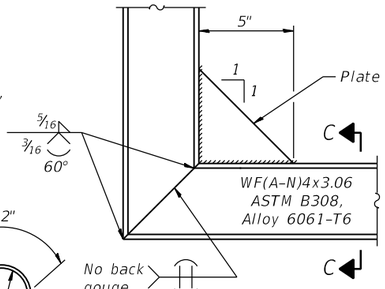
SECTION B-B



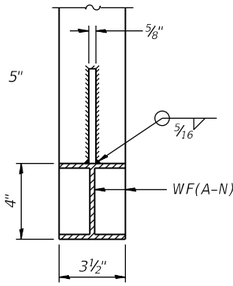
DETAIL T'

(Truss grating splice)

Details not shown same as Detail T.
Alternate materials may be used subject to the Engineer's review and approval.

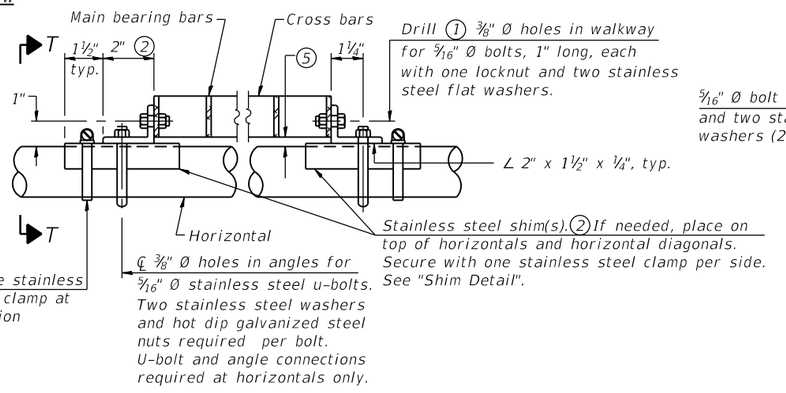


DETAIL C



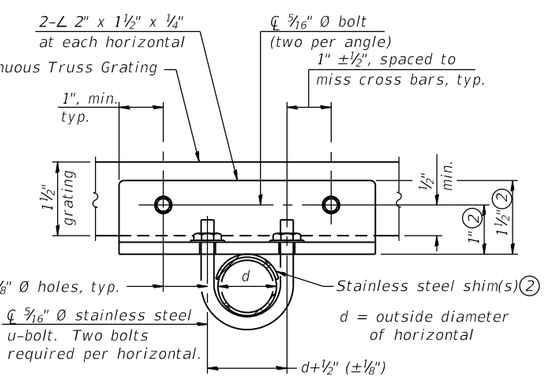
SECTION C-C

SHIM DETAIL

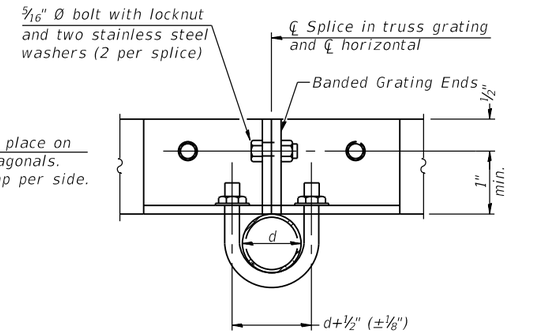


DETAIL T

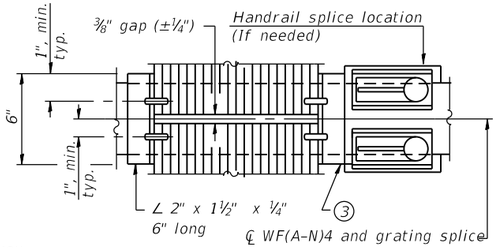
(Continuous Truss grating)



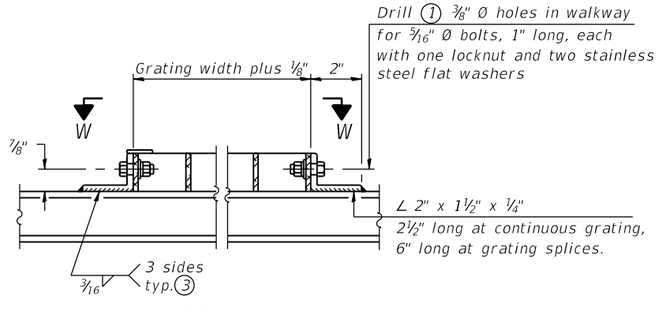
SECTION T-T



SECTION T'-T'

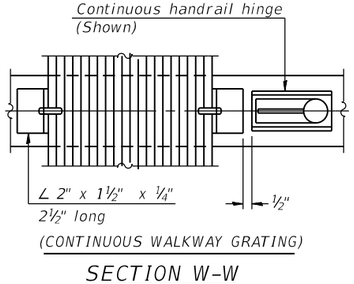


(AT WALKWAY GRATING SPLICE)



DETAIL W

(Walkway grating)



(CONTINUOUS WALKWAY GRATING)

SECTION W-W

SPECIFICATIONS FOR STANDARD ALUMINUM GRATING

Main Bearing Bars shall be 3/16" x 1½" on 1 3/16" centers and conform to ASTM B221 Alloy 6061-T6.
Cross bars shall be 3/16" x 1½" on 4" centers and conform to ASTM B221 Alloy 6063-T5 or 6061-T6.

OR

Aluminum Grating with modified "t" sections for main bearing bars shall meet the following requirements:
Main bars shall conform to ASTM B221 Alloy 6061-T6 and have a minimum section modulus equal to 0.0705 in.³ per bar, a depth of 1½", spaced on 1 3/16" centers.
Cross bars shall conform to ASTM B221 Alloy 6063-T5 or T-42 and spaced on 4" centers.

Structure Number	*Station	A	(6) B	C	(6) D
1S016I094L051.3	6351+55.00	6"	4'-6"	4'-6"	9'-6"
1S016I094L051.9	6127+75.00	9½"	7'-3"	7'-0"	14'-9"
1S016I094L052.0	6121+69.00	6"	5'-6"	4'-6"	10'-6"

(1) Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.

(2) Stainless steel shims shall be placed as shown in Detail T 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) If Handrail Joint present, weld angle to WF(A-N)4 and ¼" extension bars. (See Base Sheet 0S-A-11.)

(4) PL ⅛" x ½" x 2" welded to handrail posts to protect locations that contact grating.

(5) Tube to grating gap may vary from 0 to ½", max. to align walkway, allow for camber, etc.

(6) Based on actual height of tallest sign given on SS17.

*Sign Structure stations measured along the following baselines:
1S016I094L051.3 - Prop. ℄ C-D Road
1S016I094L051.9 - ℄ NB I-90/94
1S016I094L052.0 - ℄ NB I-90/94

0S-A-10 2-17-2017

FILE NAME: pw:\\AECOM-NA-AWS1.aecomonline.local:AECOM_DS02_NA\Documents\01 AmericasTransportation\60269938 Circle\Phase_II\000_CAD\008_Structural\Sign Structures\62A76 Sign Structure\62A76-Span-SS110-SignStruct.dgn
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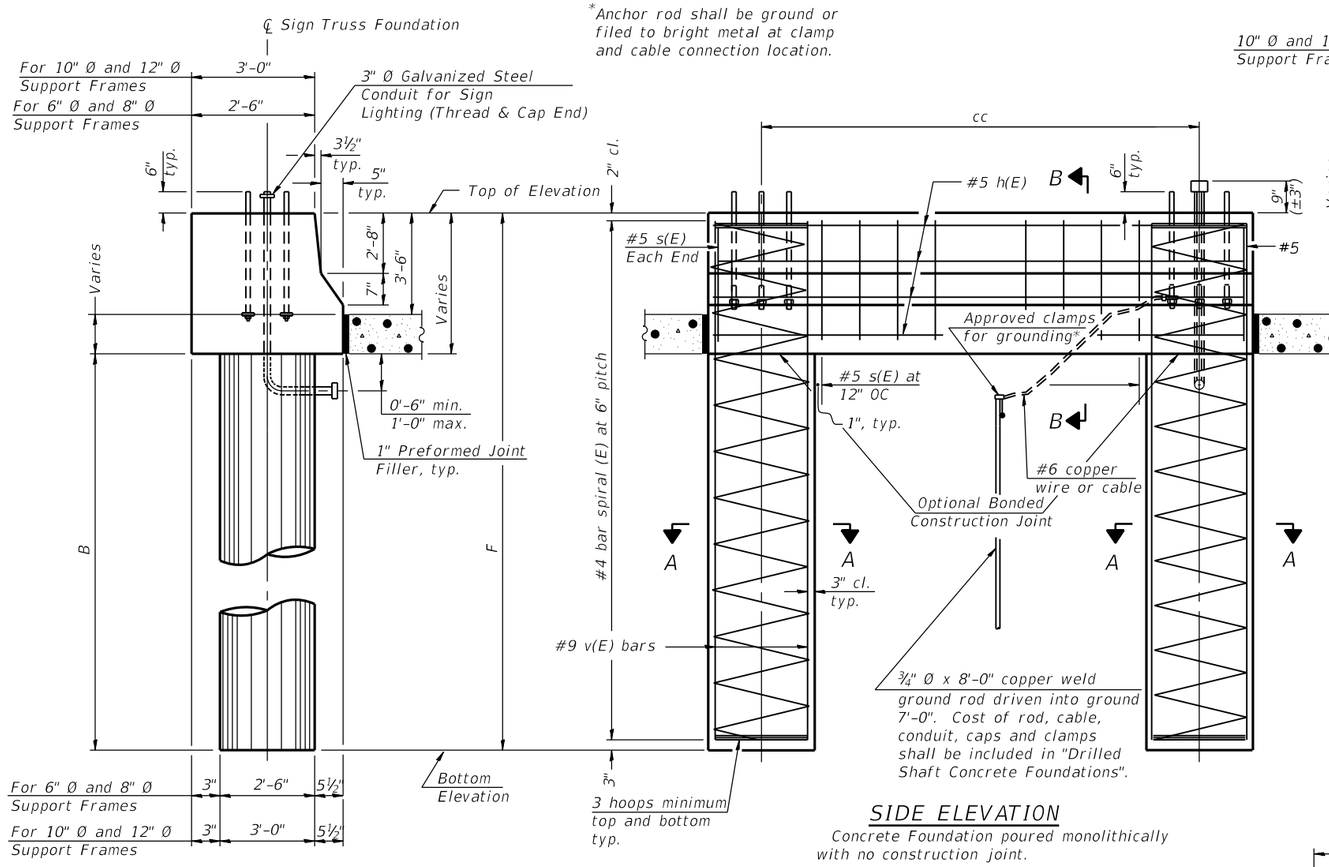
HBM ENGINEERING GROUP, LLC

USER NAME = charles.pigozzi	DESIGNED - JJS, WM	REVISED -		
	CHECKED - MAI, JMG	REVISED -		
PLOT SCALE = N.T.S	DRAWN - JJS, WM	REVISED -		
PLOT DATE = 1/24/2020	CHECKED - MAI, JMG	REVISED -		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
ALUMINUM WALKWAY DETAILS
SHEET NO. SS29 OF SS129 SHEETS

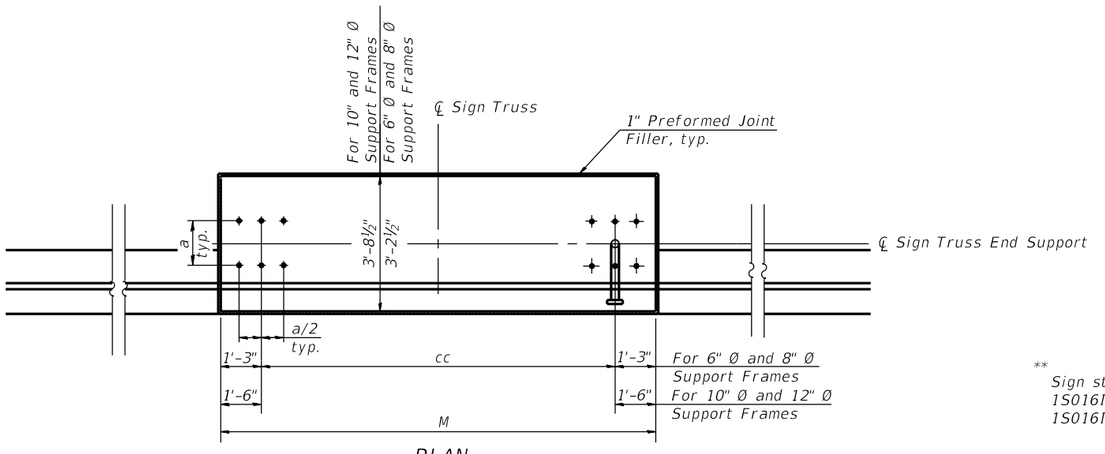
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	979
		CONTRACT NO. 62A76		
		ILLINOIS	FED. AID PROJECT	



END VIEW

SIDE ELEVATION

Concrete Foundation poured monolithically with no construction joint.



PLAN

(1S016I094L051.3 right foundation is shown
1S016I094L052.0 left foundation opposite hand)

NOTES:

The foundation dimensions shown are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Qu) of at least 1.25 tsf, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown will be the result of site specific designs.

If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference.

No sonotubes or decomposable forms shall be used below the lower conduit entrance.

Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.

Concrete shall be placed monolithically, without construction joints.

Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.

A normal surface finish followed by a Concrete Sealer application will be required on concrete surfaces above the lowest elevation 6" below finished ground line. Cost included in Drilled Shaft Concrete Foundation.

Structure Number	Median Support	
	Left	Right
1S016I094L051.3	2'-9⅜"	2'-6"

Pipe Support Frames	cc	M	a	a/2
6"Ø	7'-0"	9'-6"	0'-11"	5½"
8"Ø	7'-6"	10'-0"	1'-1½"	6¾"
10"Ø	8'-3"	11'-3"	1'-3"	7½"
12"Ø	9'-0"	12'-0"	1'-6"	9"

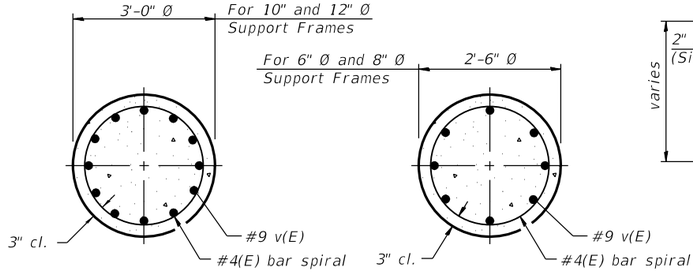
All dimensions in parenthesis are for 42" high barrier.

BAR LIST - EACH FOUNDATION

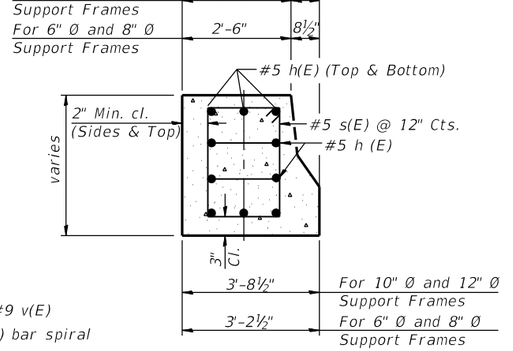
Bar	Number	Size	Length	Shape
h(E)	10	#5	M less 4"	——
s(E)	Varies	#5	Varies	□
v(E)	16	#9	F less 0'-5"	——
v(E)	24	#9	F less 0'-5"	——
#4(E) bar spiral _ see Side Elevation				

6" Ø and 8" Ø Support Frame

10" Ø and 12" Ø Support Frame



SECTION A-A



SECTION B-B

** Sign structure stations measured along the following baselines:
1S016I094L051.3 - Prop ℄ C-D Road
1S016I094L052.0 - Prop ℄ NB I-90/94

Structure Number	**Station	Left Foundation				Right Foundation				Class DS Concrete (Cu. Yds.)
		Elevation Top	Elevation Bottom	B	F	Elevation Top	Elevation Bottom	B	F	
1S016I094L051.3	6351+55.00	-	-	-	-	580.51	552.84	22'-7"	27'-8"	14.1
1S016I094L052.0	6121+69.00	581.49	557.91	18'-6"	23'-7"	-	-	-	-	15.2

HBM ENGINEERING GROUP, LLC

USER NAME = Stoyanka,Kotorokova	DESIGNED - JJS, WM	REVISED -
	CHECKED - MAI, JMG	REVISED -
PLOT SCALE = N.T.S	DRAWN - JJS, WM	REVISED -
PLOT DATE = 03/04/2020	CHECKED - MAI, JMG	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
MEDIAN SUPPORT FOUNDATION DETAILS
SHEET NO. SS30 OF SS129 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	980
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

FILE NAME: pw:\\AECOM-NA-AWS1.aecomonline.local:AECOM_DS02_NA\Documents\01 AmericasTransportation\60269938 CirclePhase_II\000_CAD\008_Structural\Sign Structures\62A76 Sign Structure\62A76-Span-SS111-SignStruct.dgn
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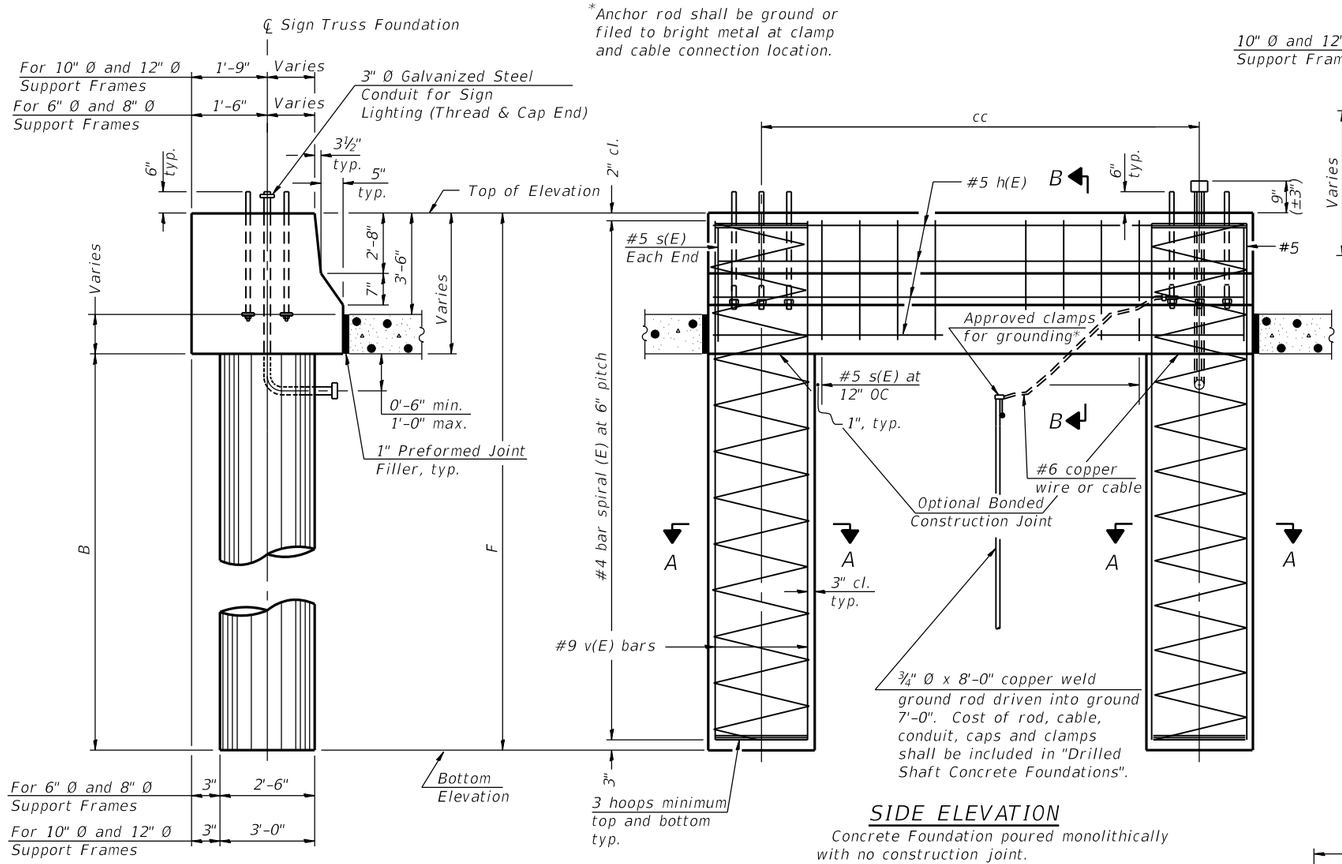
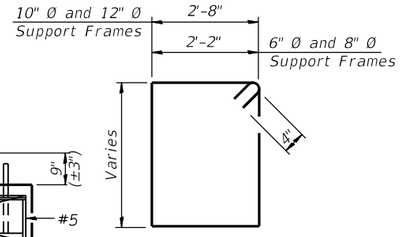


END VIEW

*Anchor rod shall be ground or filed to bright metal at clamp and cable connection location.

SIDE ELEVATION

Concrete Foundation poured monolithically with no construction joint.



BAR s(E)

NOTES:

The foundation dimensions shown are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Qu) of at least 1.25 tsf, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown will be the result of site specific designs.

If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference.

No sonotubes or decomposable forms shall be used below the lower conduit entrance.

Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.

Concrete shall be placed monolithically, without construction joints.

Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.

A normal surface finish followed by a Concrete Sealer application will be required on concrete surfaces above the lowest elevation 6" below finished ground line. Cost included in Drilled Shaft Concrete Foundation.

Structure Number	Median Support	
	Left	Right
1S016I094L051.3	2'-9⅜"	2'-6"

Pipe Support Frames	cc	M	a	a/2
6"Ø	7'-0"	9'-6"	0'-11"	5½"
8"Ø	7'-6"	10'-0"	1'-1½"	6¾"
10"Ø	8'-3"	11'-3"	1'-3"	7½"
12"Ø	9'-0"	12'-0"	1'-6"	9"

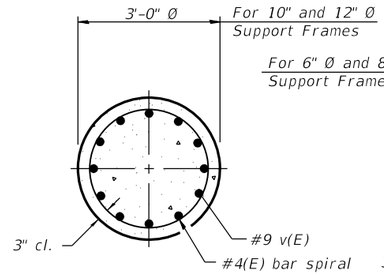
BAR LIST - EACH FOUNDATION

Bar	Number	Size	Length	Shape
h(E)	10	#5	M less 4"	——
s(E)	Varies	#5	Varies	□
v(E)	16	#9	F less 0'-5"	——
v(E)	24	#9	F less 0'-5"	——
#4(E) bar spiral _ see Side Elevation				

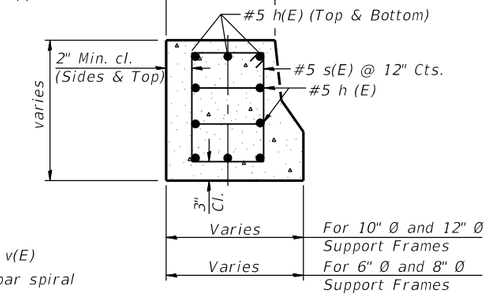
6" Ø and 8" Ø Support Frame

10" Ø and 12" Ø Support Frame

All dimensions in parenthesis are for 42" high barrier.

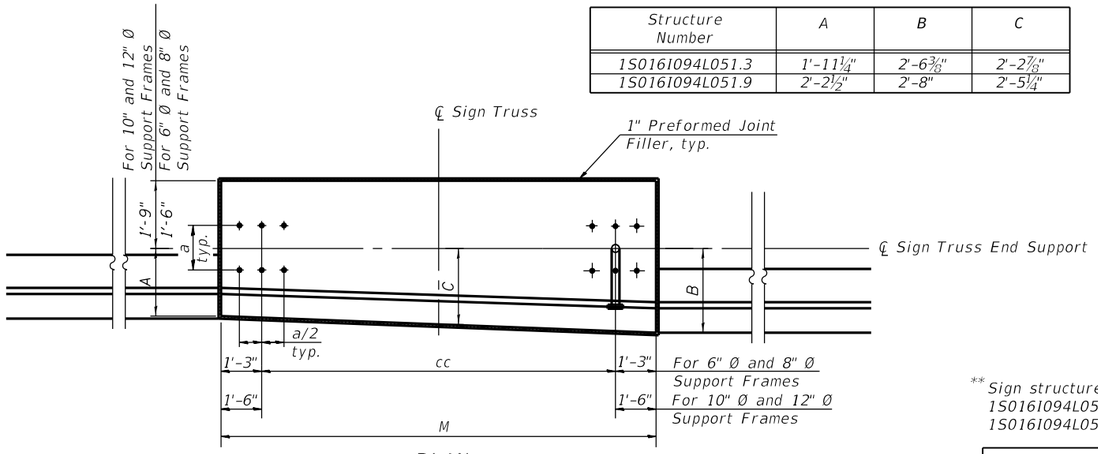


SECTION A-A



SECTION B-B

Structure Number	A	B	C
1S016I094L051.3	1'-11¼"	2'-6⅜"	2'-2⅞"
1S016I094L051.9	2'-2½"	2'-8"	2'-5¼"



PLAN

(1S016I094L051.3 foundation is shown 1S016I094L051.9 foundation opposite hand)

** Sign structure stations measured along the following baselines:
1S016I094L051.3 - Prop ℄ C-D Road
1S016I094L051.9 - Prop ℄ NB I-90/94

Structure Number	**Station	Left Foundation				Right Foundation				Class DS Concrete (Cu. Yds.)
		Elevation Top	Elevation Bottom	B	F	Elevation Top	Elevation Bottom	B	F	
1S016I094L051.3	6351+55.00	579.25	552.25	22'-3"	27'-0"	-	-	-	-	14.4
1S016I094L051.9	6127+75.00	584.83	559.00	20'-9"	25'-10"	-	-	-	-	19.7

HBM ENGINEERING GROUP, LLC

USER NAME = Stoyanka,Kotorokova		DESIGNED - JJS, WM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OVERHEAD SIGN STRUCTURES MEDIAN SUPPORT FOUNDATION DETAILS
		CHECKED - MAI, JMG	REVISED -		
PLOT SCALE = N.T.S		DRAWN - JJS, WM	REVISED -		SHEET NO. SS30A OF SS129 SHEETS
PLOT DATE = 03/04/2020		CHECKED - MAI, JMG	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	980A
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

FILE NAME: pw:\\AECOM-NA-AWS1.aecomonline.local:AECOM_DS02_NA\Documents\01 AmericasTransportation\60269938 Circle\Phase_II\000_CAD\008_Structural\Sign Structures\62A76 Sign Structure\62A76-Span-SS111AA-SignStruct.dgn

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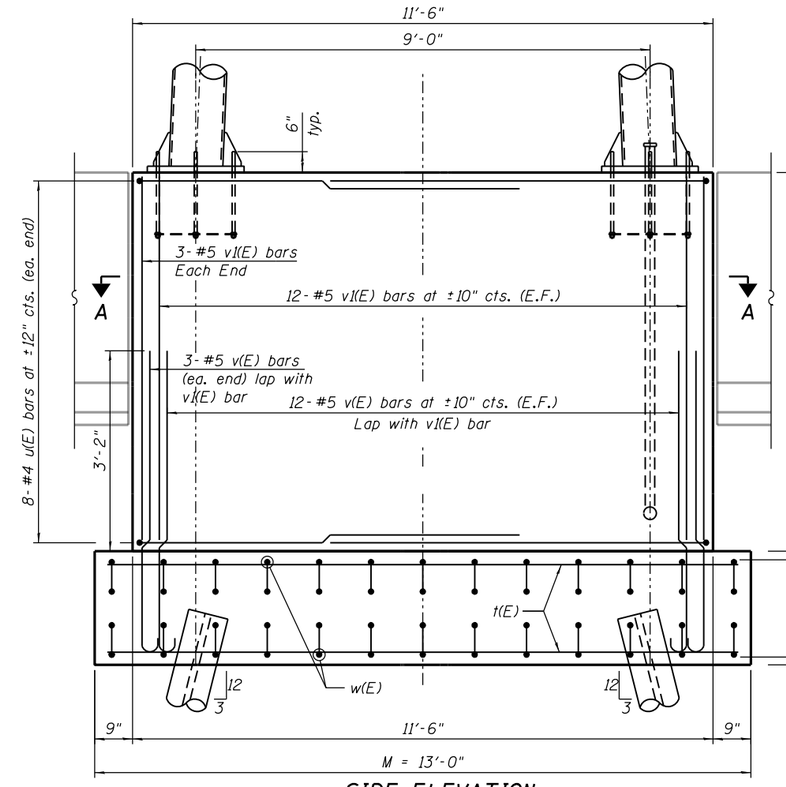
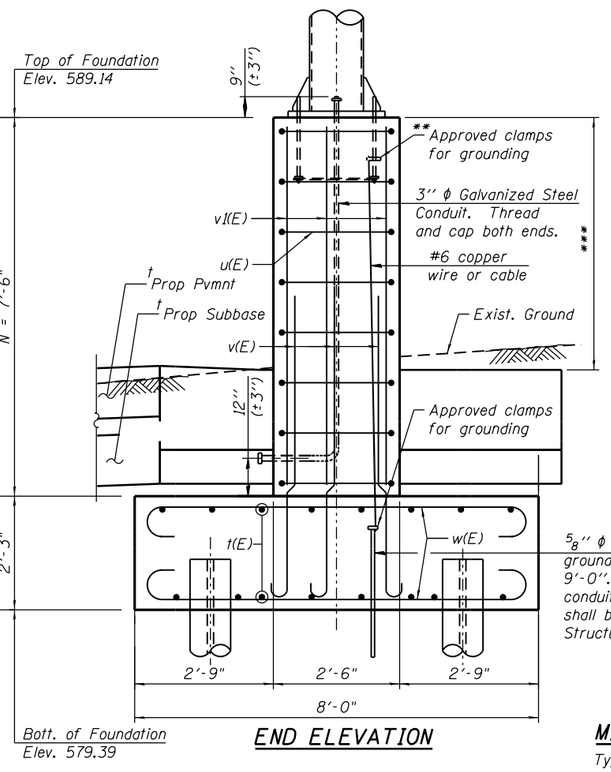


SIDE ELEVATION



END ELEVATION

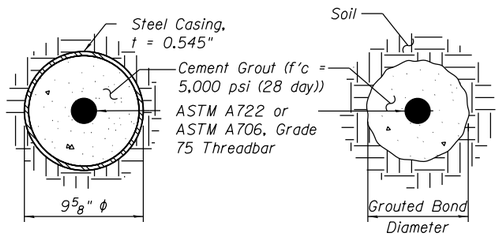
BILL OF MATERIAL

Bar	Number	Size	Length	Shape
t(E)	16	#7	12'-6"	
u(E)	16	#4	15'-6"	
v(E)	30	#5	5'-9"	
v_1(E)	30	#5	7'-3"	
w(E)	26	#7	9'-2"	
Structure Excavation			Cu. Yd.	81
Concrete Structures			Cu. Yd.	16.7
Reinforcement Bars, Epoxy Coated			Pound	1,470
Concrete Sealer			Sq. Ft.	154
Micropiles			Each	4
Micropiles Load Test			Each	1
Micropile Proof Load Test			Each	1

t Backfill shall be placed prior to erection of support frame, per Article 502 of the Standard Specifications.

$^{5}/_{8}$" ϕ x 10'-0" copper weld ground rod driven into ground 9'-0". Cost of rod, cable, conduit, caps and clamps shall be included in Concrete Structures.

SECTION A-A



SECTION B-B

SECTION C-C

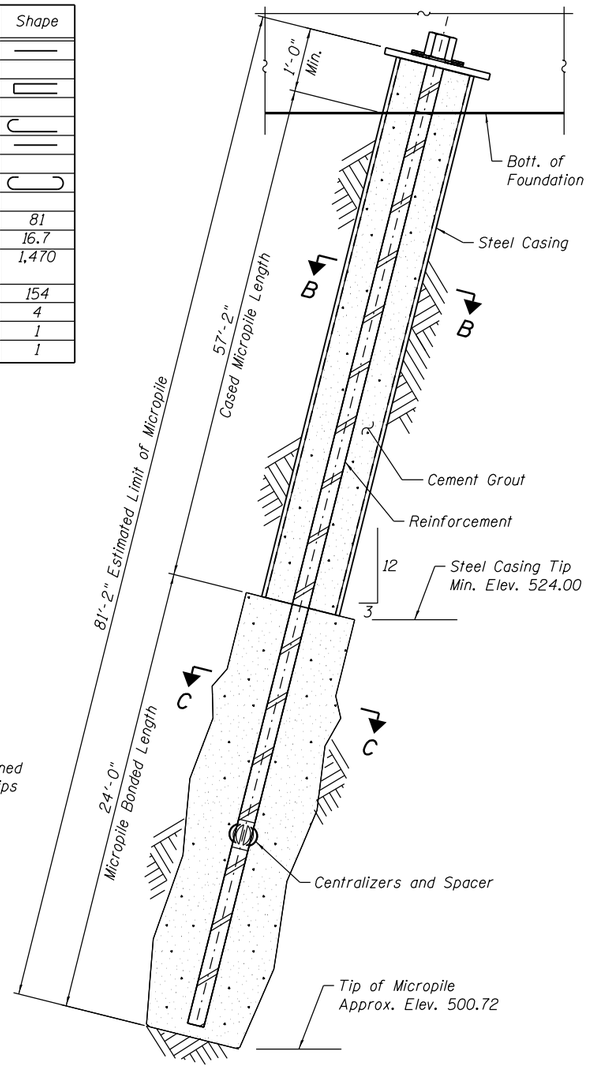
MICROPILE DATA

Type and Size: Micropile, Contractor Designed
Maximum Service Compression Load : 99 kips
Maximum Service Tensile Load : 59 kips
Estimated Length: 81'-2"
Number Required: 4

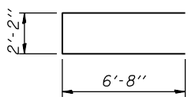
For anchor rod size and placement, see Support Frame Detail Sheet.

** Anchor rod shall be ground or filed to bright metal at clamp and cable connection location.

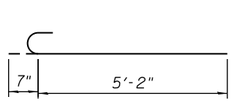
*** A normal surface finish followed by a Concrete Sealer application will be required on concrete surfaces above the lowest elevation 6" below finished ground line.



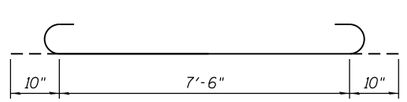
MICROPILE DETAIL



BAR u(E)



BAR v(E)



BAR w(E)

Structure Number	*Station	Right Foundation			
		Elevation Top	Elevation Bottom	N	M
IS0161094L051.9	6127+75.00	589.14	579.39	7'-6"	13'-0"

Indicates 3:12 Battered Micropile

NOTES:

1. Contractor to verify micropile design.
2. Micropile types refer to FHWA NHI-05-039: Micropile Design and Construction Reference Manual.
3. Steel casing shall not be spliced within 10 feet of top of the pile. Splices shall be capable of developing the full moment capacity of the Steel Casing.
4. Micropile design has been based off Load Group II loads as provided in the IDOT Sign Structures Manual (2012) based on AASHTO Specifications. A Factor of Safety (F.S = 2.5) is considered in Ultimate Geotechnical Capacity calculations.
5. Tensile resistance of bonded zone is considered 50% of the computed compressive resistance.
6. For test pile and proof test requirements, see Special Provision.

FILE NAME: pw:\\AECOM-NA-AWS1.aecomonline.local:AECOM_DS02_NAIDocuments\01 Americas\Transportation\60269938 CirclePhase_III\000_CAD\008_StructuralS\Sign Structures\62A76 Sign Structure\62A76-Span-SS111A-SignStruct.dgn
1:32:39 PM

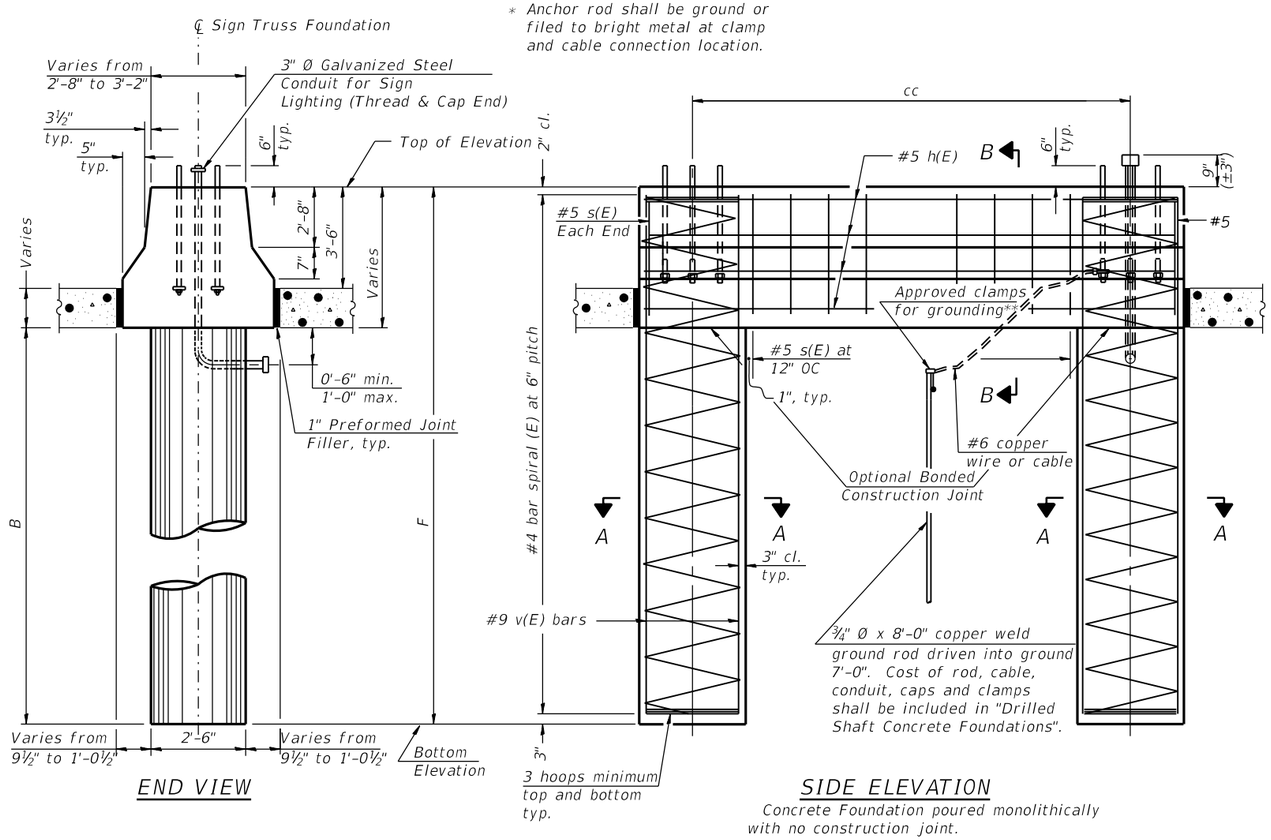
HBM ENGINEERING GROUP, LLC

USER NAME = jana.issa	DESIGNED - JJS, WM	REVISED -
	CHECKED - MAI, JMG	REVISED -
PLOT SCALE = N.T.S	DRAWN - JJS, WM	REVISED -
PLOT DATE = 03/04/2020	CHECKED - MAI, JMG	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
MICROPILE FOUNDATION DETAILS
SHEET NO. SS31 OF SS129 SHEETS

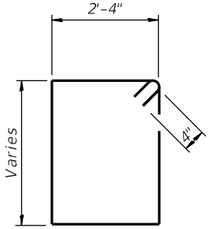
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	981
		CONTRACT NO. 62A76		
	ILLINOIS FED. AID PROJECT			



END VIEW

SIDE ELEVATION

Concrete Foundation poured monolithically with no construction joint.



BAR s(E)

NOTES:

The foundation dimensions shown are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Qu) of at least 1.25 tsf, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown will be the result of site specific designs.

If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference.

No sonotubes or decomposable forms shall be used below the lower conduit entrance.

Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.

Concrete shall be placed monolithically, without construction joints.

Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.

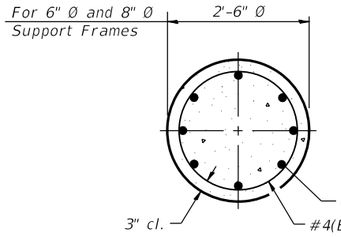
A normal surface finish followed by a Concrete Sealer application will be required on concrete surfaces above the lowest elevation 6" below finished ground line. Cost included in Drilled Shaft Concrete Foundation.

BAR LIST - EACH FOUNDATION

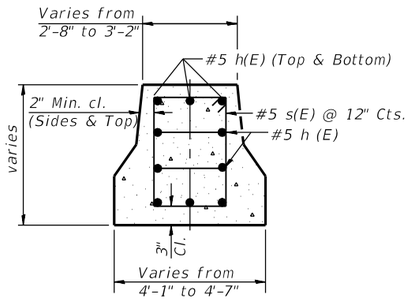
Bar	Number	Size	Length	Shape
h(E)	10	#5	M less 4"	——
s(E)	Varies	#5	Varies	□
v(E)	16	#9	F less 0'-5"	——
#4(E) bar spiral _ see Side Elevation				

Pipe Support Frames	cc	M	a	a/2
8"Ø	7'-6"	10'-0"	1'-1½"	6¾"

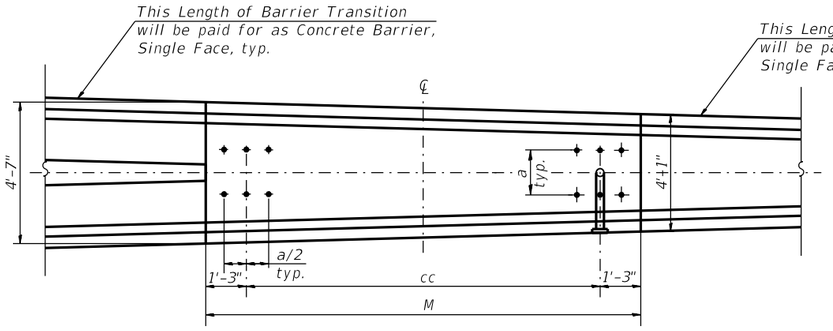
All dimensions in parenthesis are for 42" high barrier.



SECTION A-A



SECTION B-B



PLAN

Structure Number	Station	Left Foundation				Right Foundation				Class DS Concrete (Cu. Yds.)
		Elevation Top	Elevation Bottom	B	F	Elevation Top	Elevation Bottom	B	F	
1S016I094L052.0	6121+69.00	-	-	-	-	580.44	557.44	18'-3"	23'-0"	11.9

FILE NAME: pw:\AECOM-NA-AWS1.aecomonline.local:AECOM_DS02_NADocuments\01 Americas\Transportation\60269938 Circle\Phase_II\000_CAD\008_Structural\Sign Structures\62A76 Sign Structure\62A76-Span-SS111B-SignStruct.dgn
2:39:46 PM

HBM ENGINEERING GROUP, LLC

USER NAME = jana.issa		DESIGNED - JJS, WM		REVISED -	
		CHECKED - MAI, JMG		REVISED -	
PLOT SCALE = N.T.S		DRAWN - JJS, WM		REVISED -	
PLOT DATE = 03/04/2020		CHECKED - MAI, JMG		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
MEDIAN SUPPORT FOUNDATION DETAILS

SHEET NO. SS32 OF SS129 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	982
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

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1145 N Main Street
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Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG NB-13

WEI Job No.: 1100-04-01

Client: AECOM
Project: Jane Byrne Interchange
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 576.50 ft
North: 1896264.94 ft
East: 1171770.55 ft
Station: 6119+42.12
Offset: 8.18 LT

Depth (ft)	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		15-inch CONCRETE --PAVEMENT--					
	575.2						
	574.9	3-inch ASPHALT --PAVEMENT--					
		Medium dense, gray SANDY			20		
	573.5	GRAVEL; damp --RDR 2--		1	16	NP	3
					12		
		Hard, gray SILTY CLAY; damp --RDR 2--			5		
5				2	5	4.02 B	17
					5		
	571.0						
		Soft to very soft, gray CLAY to SILTY CLAY, trace gravel; damp to moist			1		
				3	2	0.16 B	26
					1		
10				4	0	0.41 B	25
					1		
	566.0						
		Loose, gray GRAVEL --RDR 2--			1		
				5	2	NP B	20
					2		
	563.5						
		Very soft to soft, gray CLAY to SILTY CLAY, trace to some gravel; moist --RDR 2--			1		
				6	2	0.16 B	23
15					2		
					1		
				7	1	0.08 B	25
					2		
					0		
20				8	1	0.16 B	27
					2		
					0		
				9	1	0.08 B	20
					1		
25					0		
				10	1	0.08 B	26
					3		
					2		
				11	2	0.25 B	23
					3		
	545.0						
		Stiff to very stiff, gray SILTY CLAY LOAM to SILTY CLAY; damp --RDR 2--			3		
30				12	3	0.33 B	24
					3		
					6		
35				13	6	3.28 B	16
					8		
					15		
40				14	16	3.69 B	17
					23		

GENERAL NOTES

Begin Drilling: 08-25-2019 Complete Drilling: 08-25-2019
Drilling Contractor: Wang Testing Services Drill Rig:
Driller: K&A Logger: I. Nenn Checked by: C. Marin
Drilling Method: 2.25" HSA to 10', mud rotary thereafter, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: DRY
At Completion of Drilling: mud in the borehole
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

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BORING LOG NB-13

WEI Job No.: 1100-04-01
Client: AECOM
Project: Jane Byrne Interchange
Location: Section 17, T39N, R14E of 3rd PM
Datum: NAVD 88
Elevation: 576.50 ft
North: 1896264.94 ft
East: 1171770.55 ft
Station: 6119+42.12
Offset: 8.18 LT

Depth (ft)	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	531.5						
45		Boring terminated at 45.00 ft		15	13 19 21	1.48 B	20
50							
55							
60							

GENERAL NOTES

Begin Drilling: 08-25-2019 Complete Drilling: 08-25-2019
Drilling Contractor: Wang Testing Services Drill Rig:
Driller: K&A Logger: I. Nenn Checked by: C. Marin
Drilling Method: 2.25" HSA to 10', mud rotary thereafter, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: DRY
At Completion of Drilling: mud in the borehole
Time After Drilling: NA
Depth to Water: NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

HBM ENGINEERING GROUP, LLC

USER NAME = charles.pigozzi		DESIGNED - JJS, WM		REVISED -	
		CHECKED - MAI, JMG		REVISED -	
PLOT SCALE = N.T.S		DRAWN - JJS, WM		REVISED -	
PLOT DATE = 1/24/2020		CHECKED - MAI, JMG		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS I

SHEET NO. SS33 OF SS129 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	983
		CONTRACT NO. 62A76		
	ILLINOIS FED. AID PROJECT			

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BORING LOG VST-07

WEI Job No.: 1100-04-01

Client: AECOM
Project: Jane Byrne Interchange
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 593.11 ft
North: 1895740.00 ft
East: 1171636.91 ft
Station: 6247+22.16
Offset: 105.461 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		6-inch thick ASPHALT over 9-inch thick CONCRETE --PAVEMENT--						
	591.9	Medium dense, brown SAND --FILL--						
			5		1	6 6 6	NP	9
	584.1	Medium stiff to stiff, brown and gray SILTY CLAY	10		2	2 2 2	1.75 P	26
			15		3	1 1 2	0.82 B	27
	577.6							
		--In-Situ Vane Shear, 16.5 feet-- --$S_{u\ undis}$ = 764.5 psf-- --$S_{u\ remold}$ = 305.8 psf-- --Sensitivity = 2.5--			1	VS		
		--In-Situ Vane Shear, 19.0 feet-- --$S_{u\ undis}$ = 1157.6 psf--	20		2	VS		
		--$S_{u\ remold}$ = 633.4 psf-- --Sensitivity = 1.8--						
		--In-Situ Vane Shear, 21.5 feet-- --$S_{u\ undis}$ = 1245.0 psf-- --$S_{u\ remold}$ = 808.1 psf-- --Sensitivity = 1.5--			3	VS		
		--In-Situ Vane Shear, 24.0 feet-- --$S_{u\ undis}$ = 808.1 psf-- --$S_{u\ remold}$ = 546.0 psf-- --Sensitivity = 1.5--	25		4	VS		
		--In-Situ Vane Shear, 26.5 feet-- --$S_{u\ undis}$ = 666.2 psf-- --$S_{u\ remold}$ = 371.3 psf-- --Sensitivity = 1.8--			5	VS		
		--In-Situ Vane Shear, 29.0 feet-- --$S_{u\ undis}$ = 600.6 psf-- --$S_{u\ remold}$ = 327.6 psf-- --Sensitivity = 1.8--	30		6	VS		
		--In-Situ Vane Shear, 31.5 feet-- --$S_{u\ undis}$ = 524.2 psf-- --$S_{u\ remold}$ = 316.7 psf-- --Sensitivity = 1.7--			7	VS		
		--In-Situ Vane Shear, 34.0 feet-- --$S_{u\ undis}$ = 611.6 psf-- --$S_{u\ remold}$ = 338.5 psf-- --Sensitivity = 1.8--	35		8	VS		
		--In-Situ Vane Shear, 36.5 feet-- --$S_{u\ undis}$ = 830.0 psf-- --$S_{u\ remold}$ = 535.1 psf-- --Sensitivity = 1.6--			9	VS		
		--In-Situ Vane Shear, 39.0 feet-- --$S_{u\ undis}$ = 633.4 psf--	40		10	VS		

GENERAL NOTES

Begin Drilling: 12-10-2015 Complete Drilling: 12-10-2015
Drilling Contractor: Wang Testing Services Drill Rig:
Driller: R&N Logger: F. Bozga Checked by: A. Kurnia
Drilling Method: 2.25" HSA to 10', mud rotary thereafter, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: ☑ groundwater not observed
At Completion of Drilling: ▼ mud in the borehole
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

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BORING LOG VST-07

WEI Job No.: 1100-04-01
Client: AECOM
Project: Jane Byrne Interchange
Location: Section 17, T39N, R14E of 3rd PM
Datum: NAVD 88
Elevation: 593.11 ft
North: 1895740.00 ft
East: 1171636.91 ft
Station: 6247+22.16
Offset: 105.461 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		--$S_{u\ remold}$ = 393.1 psf-- --Sensitivity = 1.6--						
		--In-Situ Vane Shear, 41.5 feet-- --$S_{u\ undis}$ = 895.5 psf-- --$S_{u\ remold}$ = 655.2 psf-- --Sensitivity = 1.4--			11	VS		
	548.6	--In-Situ Vane Shear, 44.0 feet-- --$S_{u\ undis}$ = 1026.6 psf-- --$S_{u\ remold}$ = 698.9 psf-- --Sensitivity = 1.5--	45		12	VS		
		Boring terminated at 44.50 ft	50					
			55					
			60					

GENERAL NOTES

Begin Drilling: 12-10-2015 Complete Drilling: 12-10-2015
Drilling Contractor: Wang Testing Services Drill Rig:
Driller: R&N Logger: F. Bozga Checked by: A. Kurnia
Drilling Method: 2.25" HSA to 10', mud rotary thereafter, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: ☑ groundwater not observed
At Completion of Drilling: ▼ mud in the borehole
Time After Drilling: NA
Depth to Water: ▼ NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

HBM ENGINEERING GROUP, LLC

USER NAME = charles.pigozzi		DESIGNED - JJS, WM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORINGS II
		CHECKED - MAI, JMG	REVISED -		
PLOT SCALE = N.T.S		DRAWN - JJS, WM	REVISED -		SHEET NO. SS34 OF SS129 SHEETS
PLOT DATE = 1/24/2020		CHECKED - MAI, JMG	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	984
		CONTRACT NO. 62A76		
	ILLINOIS FED. AID PROJECT			

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WANGENGINC 11000401.GPJ WANGENG.GDT 9/12/19

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BORING LOG NB-15

WEI Job No.: 1100-04-01

Client: AECOM
Project: Jane Byrne Interchange
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 582.07 ft
North: 1897156.09 ft
East: 1171740.80 ft
Station: 6128+34.63
Offset: 31.64 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	581.0	13.5-inch CONCRETE --PAVEMENT--						
	580.7	4-inch ASPHALT --PAVEMENT--						
		Loose, gray SANDY GRAVEL; moist --RDR 2--			1	6 5 4	NP	11
	578.3	Stiff to very stiff, gray SILTY CLAY, trace gravel; damp to moist --RDR 2--	5		2	8 3 3	2.05 B	22
					3	2 3 4	1.00 P	21
	574.1	Soft, gray CLAY to SILTY CLAY, trace gravel; moist	10		4	2 2 2	0.57 B	21
					5	1 2 2	0.33 B	24
			15		6	1 2 1	0.25 B	23
					7	1 2 3	0.25 B	25
		--sand seam--	20		8	3 2 3	0.41 B	21
	550.3	Soft to medium stiff, gray SILTY CLAY, trace gravel; moist --RDR 2--	25		9	1 1 2	0.33 B	25
					10	1 2 2	0.33 B	25
			30		11	1 3 2	0.41 B	25
					12	1 2 2	0.33 B	25
		--cobble--	35		13	2 3 3	0.90 B	22
			40		14	2 2 3	0.41 B	26

GENERAL NOTES

Begin Drilling: 08-26-2019 Complete Drilling: 08-26-2019
Drilling Contractor: Wang Testing Services Drill Rig:
Driller: K&A Logger: I. Nenn Checked by: C. Marin
Drilling Method: 2.25" HSA to 10', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA

While Drilling: DRY
At Completion of Drilling: mud in the borehole
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

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BORING LOG NB-15

WEI Job No.: 1100-04-01
Client: AECOM
Project: Jane Byrne Interchange
Location: Section 17, T39N, R14E of 3rd PM
Datum: NAVD 88
Elevation: 582.07 ft
North: 1897156.09 ft
East: 1171740.80 ft
Station: 6128+34.63
Offset: 31.64 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	540.6	Dense, gray SILTY LOAM, trace gravel; damp --RDR 2--	45		15	18 21 20	NP	19
	533.1	Very stiff, gray SILTY CLAY LOAM, little gravel; damp --RDR 2--	50		16	20 29 20	2.87 B	22
	532.1	Boring terminated at 50.00 ft	55					
			60					

GENERAL NOTES
Begin Drilling: 08-26-2019 Complete Drilling: 08-26-2019
Drilling Contractor: Wang Testing Services Drill Rig:
Driller: K&A Logger: I. Nenn Checked by: C. Marin
Drilling Method: 2.25" HSA to 10', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA
While Drilling: DRY
At Completion of Drilling: mud in the borehole
Time After Drilling: NA
Depth to Water: NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

HBM ENGINEERING GROUP, LLC

USER NAME = charles.pigozzi	DESIGNED - JJS, WM	REVISED -	
	CHECKED - MAI, JMG	REVISED -	
PLOT SCALE = N.T.S	DRAWN - JJS, WM	REVISED -	
PLOT DATE = 1/24/2020	CHECKED - MAI, JMG	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS III

SHEET NO. SS35 OF SS129 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	985
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

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Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG VST-01

WEI Job No.: 1100-04-01

Client: AECOM
Project: Jane Byrne Interchange
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 593.55 ft
North: 1897108.36 ft
East: 1171435.63 ft
Station: 7313+90.47
Offset: 2.00 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		Very stiff, brown SILTY CLAY LOAM, trace gravel --FILL--			1	3 5 7	2.75 P	14
	590.5	Medium dense, fine SAND	5		2	5 5 6	NP	7
	586.8	Medium stiff to stiff, gray SILTY CLAY	10		3	2 2 3	1.31 B	26
			15		4	2 2 3	0.98 B	28
	578.0	Soft, gray SILTY CLAY			5	1 2 2	0.25 P	29
	575.3	--In-Situ Vane Shear, 19.5 feet--	20		1			
		--$S_{u\ undis}$ = 786.3 psf-- --$S_{u\ remold}$ = 371.3 psf-- --Sensitivity = 2.1--			VS			
		--In-Situ Vane Shear, 22.0 feet-- --$S_{u\ undis}$ = 742.6 psf-- --$S_{u\ remold}$ = 305.8 psf-- --Sensitivity = 2.4--			2	VS		
		--In-Situ Vane Shear, 24.5 feet-- --$S_{u\ undis}$ = 578.8 psf-- --$S_{u\ remold}$ = 382.2 psf-- --Sensitivity = 1.5--	25		3	VS		
		--In-Situ Vane Shear, 27.0 feet-- --$S_{u\ undis}$ = 742.6 psf-- --$S_{u\ remold}$ = 415.0 psf-- --Sensitivity = 1.8--			4	VS		
		--In-Situ Vane Shear, 29.5 feet-- --$S_{u\ undis}$ = 589.7 psf-- --$S_{u\ remold}$ = 283.9 psf-- --Sensitivity = 2.1--	30		5	VS		
		--In-Situ Vane Shear, 32.0 feet-- --$S_{u\ undis}$ = 1026.6 psf-- --$S_{u\ remold}$ = 447.8 psf-- --Sensitivity = 2.3--			6	VS		
		--In-Situ Vane Shear, 34.5 feet-- --$S_{u\ undis}$ = 764.5 psf-- --$S_{u\ remold}$ = 480.5 psf-- --Sensitivity = 1.6--	35		7	VS		
		--In-Situ Vane Shear, 37.0 feet-- --$S_{u\ undis}$ = 1026.6 psf-- --$S_{u\ remold}$ = 589.7 psf-- --Sensitivity = 1.7--			8	VS		
			40					

GENERAL NOTES

Begin Drilling: 12-01-2015 Complete Drilling: 12-01-2015
Drilling Contractor: Wang Testing Services Drill Rig:
Driller: R&N Logger: F. Bozga Checked by: A. Kurnia
Drilling Method: 2.25" HSA to 10', mud rotary thereafter, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ groundwater not observed
At Completion of Drilling: ▼ mud in the borehole
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

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Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG VST-01

WEI Job No.: 1100-04-01
Client: AECOM
Project: Jane Byrne Interchange
Location: Section 17, T39N, R14E of 3rd PM
Datum: NAVD 88
Elevation: 593.55 ft
North: 1897108.36 ft
East: 1171435.63 ft
Station: 7313+90.47
Offset: 2.00 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		--Equipment Slipped--	45		9	VS		
		--In-Situ Vane Shear, 46.5 feet-- --$S_{u\ undis}$ = 1070.2 psf-- --$S_{u\ remold}$ = 633.4 psf-- --Sensitivity = 1.7--			10	VS		
	544.0	--In-Situ Vane Shear, 49.0 feet-- --$S_{u\ undis}$ = 1157.6 psf-- --$S_{u\ remold}$ = 611.6 psf-- --Sensitivity = 2.3-- Boring terminated at 49.50 ft	50		11	VS		
			55					
			60					

GENERAL NOTES

Begin Drilling: 12-01-2015 Complete Drilling: 12-01-2015
Drilling Contractor: Wang Testing Services Drill Rig:
Driller: R&N Logger: F. Bozga Checked by: A. Kurnia
Drilling Method: 2.25" HSA to 10', mud rotary thereafter, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ groundwater not observed
At Completion of Drilling: ▼ mud in the borehole
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

HBM ENGINEERING GROUP, LLC	USER NAME = charles.pigozzi	DESIGNED - JJS, WM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORINGS IV
		CHECKED - MAI, JMG	REVISED -		
	PLOT SCALE = N.T.S	DRAWN - JJS, WM	REVISED -		SHEET NO. SS36 OF SS129 SHEETS
	PLOT DATE = 1/24/2020	CHECKED - MAI, JMG	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	986
		CONTRACT NO. 62A76		
	ILLINOIS FED. AID PROJECT			

Wang Engineering
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1145 North Main Street
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Telephone: 630-953-9928
Fax: 630-953-9938

BORING LOG 1705-B-02

WEI Job No.: 1100-04-01

Client: AECOM
Project: Jane Byrne Interchange
Location: Section 16, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 583.14 ft
North: 1897114.28 ft
East: 1171830.86 ft
Station: 1820+84.67
Offset: 1.9068 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (bwr/6 in)	Qu (tsf)	Moisture Content (%)
		13-inch thick CONCRETE --PAVEMENT--						
	582.0							
		Medium dense, gray CRUSHED STONE --FILL--			1	14 11 6	NP	4
	580.1							
		Very stiff, gray SILTY CLAY, trace gravel	5		2	2 4 5	2.62 B	27
	577.6							
		Medium stiff, gray CLAY to SILTY CLAY, trace gravel			3	1 3 5	0.98 B	25
			10		4	1 2 2	0.66 B	21
	572.6							
		Soft, gray SILTY LOAM, trace gravel			5	1 1 2	0.49 B	21
	570.1							
		Very soft to medium stiff, gray CLAY to SILTY CLAY, trace gravel	15		6	0 0 1	0.41 B	26
					7	0 0 1	0.33 B	20
			20		8	0 0 0	0.41 B	27
					9	0 1 2	< 0.25 P	22
			25		10	0 0 0	0.41 B	26
					11	0 0 0	0.33 B	27
			30		12	0 0 2	0.41 B	25
					13	1 3 3	0.90 B	26
			40		14	1 2 1	0.41 B	29

--L_L(%)=38, P_I(%)=16--
--%Gravel=1.9--
--%Sand=10.7--
--%Silt=49.3--
--%Clay=38.0--
--A-6 (19)--

GENERAL NOTES

Begin Drilling: 06-20-2013 Complete Drilling: 06-21-2013
Drilling Contractor: Wang Testing Services Drill Rig: CME-55 TMR [85%]
Driller: P&N Logger: A. Happel Checked by: C. Marin
Drilling Method: 2.25" SSA to 10', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA

While Drilling: groundwater not observed
At Completion of Drilling: ▼ mud in the borehole
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 1100040.GPJ WANGENG.GDT 10/31/19

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Fax: 630-953-9938

BORING LOG 1705-B-02

WEI Job No.: 1100-04-01

Client: AECOM
Project: Jane Byrne Interchange
Location: Section 16, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 583.14 ft
North: 1897114.28 ft
East: 1171830.86 ft
Station: 1820+84.67
Offset: 1.9068 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (bwr/6 in)	Qu (tsf)	Moisture Content (%)
	541.4							
		Hard, gray SILTY CLAY LOAM, trace gravel	45		15	10 14 20	5.74 B	15
			50		16	10 15 21	4.10 B	21
			55		17	12 18 27	10.09 B	15
	524.1							
		Dense, gray GRAVELLY SANDY LOAM	60		18	11 14 18	NP	14
			65		19	19 23 23	NP	16
	516.4							
		Dense, gray GRAVEL	70		20	16 26 31	NP	14
			75		21	5 20 34	NP	5
	506.4							
		Dense, gray, medium to coarse SAND, trace gravel	80		22	16 15 18	NP	14

--%Gravel=28.5--
--%Sand=49.5--
--%Silt=19.2--
--%Clay=2.9--
--A-1-b (0)--

--%Gravel=14.4--
--%Sand=68.5--
--%Silt=14.9--

GENERAL NOTES

Begin Drilling: 06-20-2013 Complete Drilling: 06-21-2013
Drilling Contractor: Wang Testing Services Drill Rig: CME-55 TMR [85%]
Driller: P&N Logger: A. Happel Checked by: C. Marin
Drilling Method: 2.25" SSA to 10', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA

While Drilling: groundwater not observed
At Completion of Drilling: ▼ mud in the borehole
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 1100040.GPJ WANGENG.GDT 10/31/19

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BORING LOG 1705-B-02

WEI Job No.: 1100-04-01

Client: AECOM
Project: Jane Byrne Interchange
Location: Section 16, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 583.14 ft
North: 1897114.28 ft
East: 1171830.86 ft
Station: 1820+84.67
Offset: 1.9068 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (bwr/6 in)	Qu (tsf)	Moisture Content (%)
		--%Clay=2.2-- --A-1-b (0)--						
	501.4							
		Very dense, gray GRAVEL	85		23	50/5"	NP	21
	497.1							
		Strong, excellent rock quality, light gray, fresh, joint breaks with little to no infill, slightly vuggy DOLOSTONE --Run 1 - RECOVERY =100%-- --RQD=95%--	90	CORE	1			
	487.1							
		Boring terminated at 96.00 ft	95					
			100					

GENERAL NOTES

Begin Drilling: 06-20-2013 Complete Drilling: 06-21-2013
Drilling Contractor: Wang Testing Services Drill Rig: CME-55 TMR [85%]
Driller: P&N Logger: A. Happel Checked by: C. Marin
Drilling Method: 2.25" SSA to 10', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA

While Drilling: groundwater not observed
At Completion of Drilling: ▼ mud in the borehole
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 1100040.GPJ WANGENG.GDT 10/31/19

HBM ENGINEERING GROUP, LLC

USER NAME = elizabath.kurian	DESIGNED - JJS, WM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORINGS V
	CHECKED - MAI, JMG	REVISED -		
PLOT SCALE = N.T.S	DRAWN - JJS, WM	REVISED -		
PLOT DATE = 1/24/2020	CHECKED - MAI, JMG	REVISED -		SHEET NO. SS37 OF SS129 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	987
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

Wang Engineering
wangeng@wangeng.com
1145 N Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG NB-22

WEI Job No.: 1100-04-01

Client: AECOM
Project: Jane Byrne Interchange
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 575.93 ft
North: 1900177.31 ft
East: 1171607.02 ft
Station: 6158+76.69
Offset: 74.07 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	575.6	4-inch thick, ASPHALT --PAVEMENT--						
		Medium dense, brown to gray CRUSHED STONE --AGGREGATE BASE-- --FILL--			1	9 7 6	NP	2
	572.9	Loose, brown and gray, damp SANDY GRAVEL --FILL-- --RDR 2 to 3--	5	▽	2	5 3 3	NP	4
	570.4	Medium stiff to very stiff, gray SILTY CLAY LOAM, little gravel; damp to moist --RDR 2--			3	2 3 4	2.30 B	15
			10		4	3 4 4	0.98 B	13
	565.4	Soft to medium stiff, gray CLAY to SILTY CLAY, trace gravel; damp to moist --RDR 2--			5	1 1 2	0.41 B	23
			15		6	1 1 1	0.25 B	27
					7	1 1 1	0.33 B	26
			20		8	1 1 1	NR	
			25		9	1 1 2	0.33 B	25
					10	1 1 1	0.41 B	26
			30		11	1 2 3	0.90 B	25
					12	1 2 2	0.49 B	28
	544.2	Stiff, gray SILTY CLAY, trace gravel; damp --RDR 2--	35		13	3 4 6	1.31 B	22
			40		14	3 4 5	1.64 B	20

GENERAL NOTES

Begin Drilling: 07-10-2019 Complete Drilling: 07-10-2019
Drilling Contractor: Wang Testing Services Drill Rig:
Driller: N&A Logger: M. Sadowski Checked by: C. Marin
Drilling Method: 3.25" HSA to 10', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA

While Drilling ▽ 5.00 ft
At Completion of Drilling ▼ mud in the borehole
Time After Drilling: NA
Depth to Water ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

Wang Engineering
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Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG NB-22

WEI Job No.: 1100-04-01

Client: AECOM
Project: Jane Byrne Interchange
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 575.93 ft
North: 1900177.31 ft
East: 1171607.02 ft
Station: 6158+76.69
Offset: 74.07 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	530.9	Boring terminated at 45.00 ft	45		15	3 4 5	1.56 B	25
			50					
			55					
			60					

GENERAL NOTES

Begin Drilling: 07-10-2019 Complete Drilling: 07-10-2019
Drilling Contractor: Wang Testing Services Drill Rig:
Driller: N&A Logger: M. Sadowski Checked by: C. Marin
Drilling Method: 3.25" HSA to 10', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA

While Drilling ▽ 5.00 ft
At Completion of Drilling ▼ mud in the borehole
Time After Drilling: NA
Depth to Water ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 11000401.GPJ WANGENG.GDT 9/12/19

HBM ENGINEERING GROUP, LLC

USER NAME = charles.pigozzi		DESIGNED - JJS, WM		REVISED -	
		CHECKED - MAI, JMG		REVISED -	
PLOT SCALE = N.T.S		DRAWN - JJS, WM		REVISED -	
PLOT DATE = 1/24/2020		CHECKED - MAI, JMG		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS VI

SHEET NO. SS38 OF SS129 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	988
		CONTRACT NO. 62A76		
	ILLINOIS FED. AID PROJECT			

FILE NAME: pw:\\AECOM-NA-AWS1.aecomonline.local\AECOM_DS02_NA\Documents\01 Americas\Transportation\60269938 Circle\Phase_II\000_CAD\008_Structural\Sign Structures\62A76 Sign Structure\62A76-Span-SS116-SignStruct.dgn
12:38:35 PM

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Lombard, IL 60148
Telephone: 630 953-9928
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BORING LOG VST-03

WEI Job No.: 1100-04-01

Client: AECOM
Project: Jane Byrne Interchange
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 593.21 ft
North: 1899985.05 ft
East: 1171693.33 ft
Station: 8415+53.90
Offset: 182.276 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	592.9	ASPHALT						
		--PAVEMENT--						
		Medium dense, brown gravelly coarse SAND						
		--FILL--						
			5		1	5 7 7	NP	6
	586.5							
		Medium stiff, brown and gray SILTY CLAY LOAM, trace gravel						
			10		2	3 2 2	0.75 P	26
	579.0							
		Soft, gray CLAY to SILTY CLAY, trace gravel	15		3	3 2 2	NR	
					4	1 1 1	0.25 P	23
	575.0							
		--In-Situ Vane Shear, 19.5 feet--	20		1			
		--$S_{u\ undis}$ = 425.9 psf-- --$S_{u\ remold}$ = 371.3 psf-- --Sensitivity = 1.1--				VS		
		--In-Situ Vane Shear, 22.0 feet-- --$S_{u\ undis}$ = 371.3 psf-- --$S_{u\ remold}$ = 305.8 psf-- --Sensitivity = 1.2--			2	VS		
		--In-Situ Vane Shear, 24.5 feet-- --$S_{u\ undis}$ = 382.2 psf-- --$S_{u\ remold}$ = 316.7 psf-- --Sensitivity = 1.2--	25		3	VS		
		--In-Situ Vane Shear, 27.0 feet-- --$S_{u\ undis}$ = 393.1 psf-- --$S_{u\ remold}$ = 338.5 psf-- --Sensitivity = 1.2--			4	VS		
		--In-Situ Vane Shear, 29.5 feet-- --$S_{u\ undis}$ = 622.5 psf-- --$S_{u\ remold}$ = 371.3 psf-- --Sensitivity = 1.7--	30		5	VS		
		--In-Situ Vane Shear, 32.0 feet-- --$S_{u\ undis}$ = 535.1 psf-- --$S_{u\ remold}$ = 327.6 psf-- --Sensitivity = 1.6--			6	VS		
		--In-Situ Vane Shear, 34.5 feet-- --$S_{u\ undis}$ = 535.1 psf-- --$S_{u\ remold}$ = 393.1 psf-- --Sensitivity = 1.4--	35		7	VS		
		--In-Situ Vane Shear, 37.0 feet-- --$S_{u\ undis}$ = 655.2 psf-- --$S_{u\ remold}$ = 404.1 psf-- --Sensitivity = 1.6--			8	VS		
		--In-Situ Vane Shear, 39.5 feet--	40		9			

GENERAL NOTES

Begin Drilling: 12-02-2015 Complete Drilling: 12-02-2015
Drilling Contractor: Wang Testing Services Drill Rig:
Driller: R&N Logger: F. Bozga Checked by: A. Kurnia
Drilling Method: 2.25" HSA to 10', mud rotary thereafter, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: groundwater not observed
At Completion of Drilling: mud in the borehole
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

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1145 N Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG VST-03

WEI Job No.: 1100-04-01
Client: AECOM
Project: Jane Byrne Interchange
Location: Section 17, T39N, R14E of 3rd PM
Datum: NAVD 88
Elevation: 593.21 ft
North: 1899985.05 ft
East: 1171693.33 ft
Station: 8415+53.90
Offset: 182.276 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		--$S_{u\ undis}$ = 622.5 psf-- --$S_{u\ remold}$ = 382.2 psf-- --Sensitivity = 1.6--				VS		
		--In-Situ Vane Shear, 42.0 feet-- --$S_{u\ undis}$ = 851.8 psf-- --$S_{u\ remold}$ = 458.7 psf-- --Sensitivity = 1.9--			10	VS		
		--In-Situ Vane Shear, 44.5 feet-- --$S_{u\ undis}$ = 928.3 psf-- --$S_{u\ remold}$ = 600.6 psf-- --Sensitivity = 1.5--	45		11	VS		
		--In-Situ Vane Shear, 47.0 feet-- --$S_{u\ undis}$ = 1266.8 psf-- --$S_{u\ remold}$ = 633.4 psf-- --Sensitivity = 2.0--			12	VS		
			50					
	541.7	--In-Situ Vane Shear, 51.0 feet-- --$S_{u\ undis}$ = 1681.8 psf-- --$S_{u\ remold}$ = 1266.8 psf-- --Sensitivity = 1.3--			13	VS		
		Boring terminated at 51.50 ft						
			55					
			60					

GENERAL NOTES

Begin Drilling: 12-02-2015 Complete Drilling: 12-02-2015
Drilling Contractor: Wang Testing Services Drill Rig:
Driller: R&N Logger: F. Bozga Checked by: A. Kurnia
Drilling Method: 2.25" HSA to 10', mud rotary thereafter, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: groundwater not observed
At Completion of Drilling: mud in the borehole
Time After Drilling: NA
Depth to Water: NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

HBM ENGINEERING GROUP, LLC

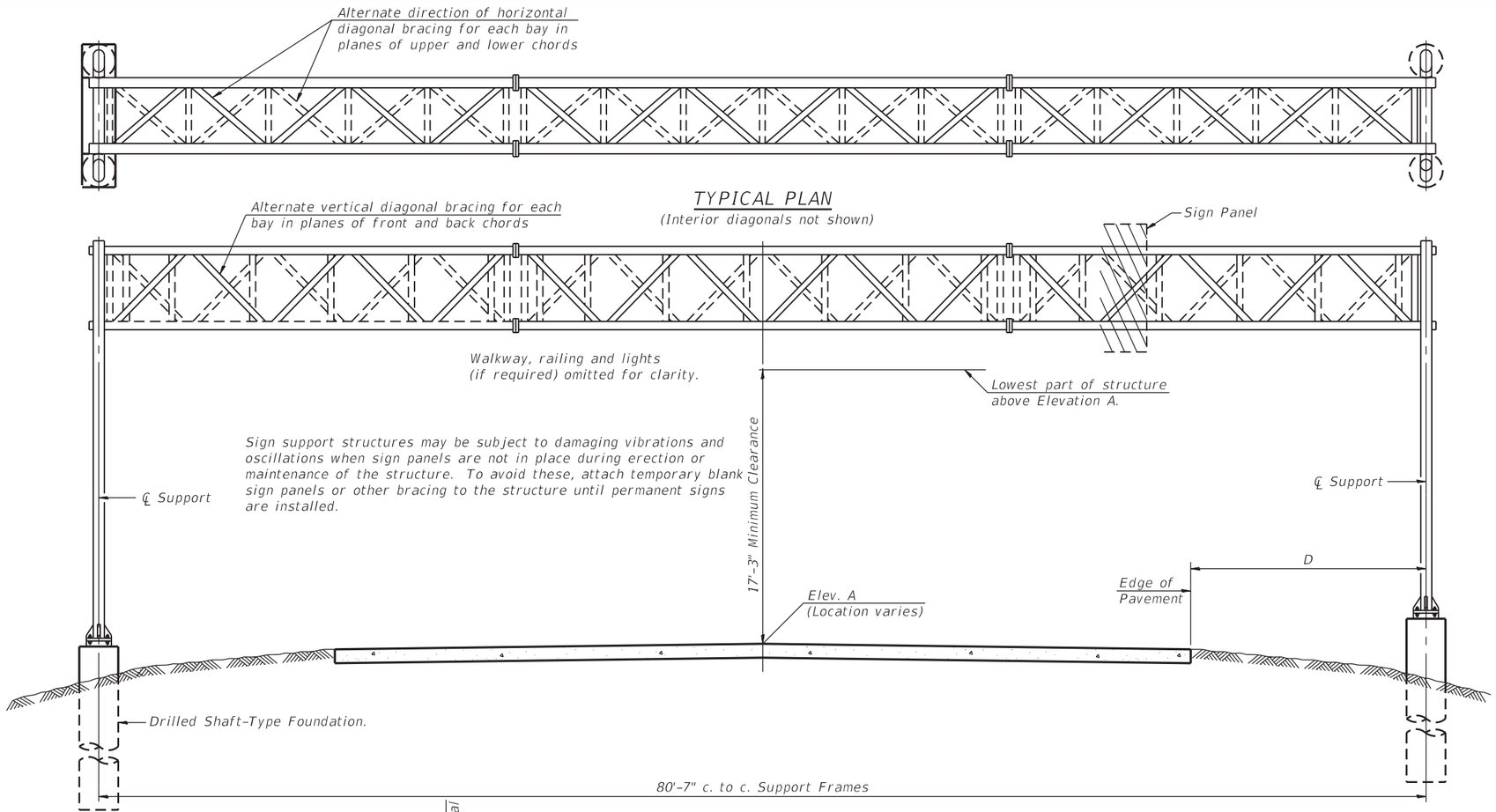
USER NAME = charles.pigozzi	DESIGNED - JJS, WM	REVISED -	
	CHECKED - MAI, JMG	REVISED -	
PLOT SCALE = N.T.S	DRAWN - JJS, WM	REVISED -	
PLOT DATE = 1/24/2020	CHECKED - MAI, JMG	REVISED -	

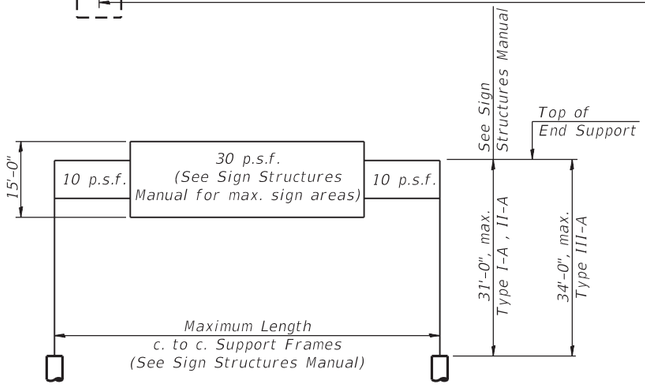
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS VII

SHEET NO. SS39 OF SS129 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	989
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		





DESIGN WIND LOADING DIAGRAM

Parameters shown are basis for I.D.O.T. Standards and Sign Manual Tables. Installations not within dimensional limits shown require special analysis for all components.

TYPICAL ELEVATION

(Looking at Face of Signs**)

Elev. A = Elevation at point of minimum clearance to sign, walkway support or truss.

Structure Number	***Station	Design Truss Type	c. to c. Supports	Elev. A	Dim. D	Height of Tallest Sign	Total Sign Area
1S016I094L052.3	6101+17.00	III-A	80'-7"	592.64	17'-1"	8'-0"	240 Sq. Ft.

*If M270 Gr. 50W (M222) steel is proposed, chemistry for plate to be used shall first be approved by the Engineer as suitable for galvanizing and welding.

**Looking upstation for structures with signs both sides.

***Measured along Prop. ℄ NB I-90/94

STATE OF ILLINOIS
MOUSSA A ISSA
081-005738
CHICAGO, ILLINOIS
LICENSED STRUCTURAL ENGINEER

SIGNED Moussa A. Issa

DR. MOUSSA A. ISSA. S.E., IL. LIC. NO. 081-005738
EXPIRES 11-30-2020

DATE 1/29/2020 FOR SHEETS SS40THRU SS50 (TOTAL OF 11 SHEETS)

GENERAL NOTES

DESIGN: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications")

CONSTRUCTION: Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Special Provisions. ("Standard Specifications")

LOADING: 90 M.P.H. WIND VELOCITY

WALKWAY LOADING: Dead load plus 500 lbs. concentrated live load.

DESIGN STRESSES:
Field Units
f'c = 3,500 p.s.i.
fy = 60,000 p.s.i. (reinforcement)

WELDING: All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 and D1.2 Structural Welding Codes (Steel and Aluminum) and the Standard Specifications.

MATERIALS: Aluminum Alloys as shown throughout plans. All Structural Steel Pipe shall be ASTM A53 Grade B or A500 Grade B or C. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53. All Structural Steel Plates and Shapes shall conform to AASHTO M270 Gr. 36, Gr. 50 or Gr. 50W*. Stainless steel for shims, sleeves and handhole covers shall be ASTM A240, Type 302 or 304, or another alloy suitable for exterior exposure and acceptable to the Engineer.
The steel pipe and stiffening ribs at the base plate for the column shall have a minimum longitudinal Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F. (Zone 2) before galvanizing.

FASTENERS FOR ALUMINUM TRUSSES: All bolts noted as "high strength" must satisfy the requirements of AASHTO M164 (ASTM A325), or approved alternate, and must have matching lock nuts. Threaded studs for splices (if Members interfere) must satisfy the requirements of ASTM A449, ASTM A193, Grade B7, or approved alternate, and must have matching lock nuts. Bolts and lock nuts not required to be high strength must satisfy the requirements of ASTM A307. All bolts and lock nuts must be hot dip galvanized per AASHTO M232. The lock nuts must have nylon or steel inserts. A stainless steel flat washer conforming to ASTM A240 Type 302 or 304, is required under both head and nut or under both nuts where threaded studs are used. High strength bolt installation shall conform to Article 505.04 (f) (2)d of the IDOT Standard Specifications for Road and Bridge Construction. Rotational capacity ("ROCAP") testing of bolts will not be required.

U-BOLTS AND EYEBOLTS: U-Bolts and Eyebolts must be produced from ASTM A276 Type 304, 304L, 316 or 316L, Condition A, cold finished stainless steel, or an equivalent material acceptable to the Engineer. All nuts for U-Bolts and Eyebolts must be lock nuts equivalent to ASTM A307 with nylon or steel inserts and hot dip galvanized per AASHTO M232. A stainless steel flat washer conforming to ASTM A240, Type 302 or 304, is required under each U-Bolt and Eyebolt lock nut.

GALVANIZING: All Steel Grating, Plates, Shapes and Pipe shall be Hot Dip Galvanized after fabrication in accordance with AASHTO M111. Painting is not permitted.

ANCHOR RODS: Shall conform to ASTM F1554 Gr. 105.

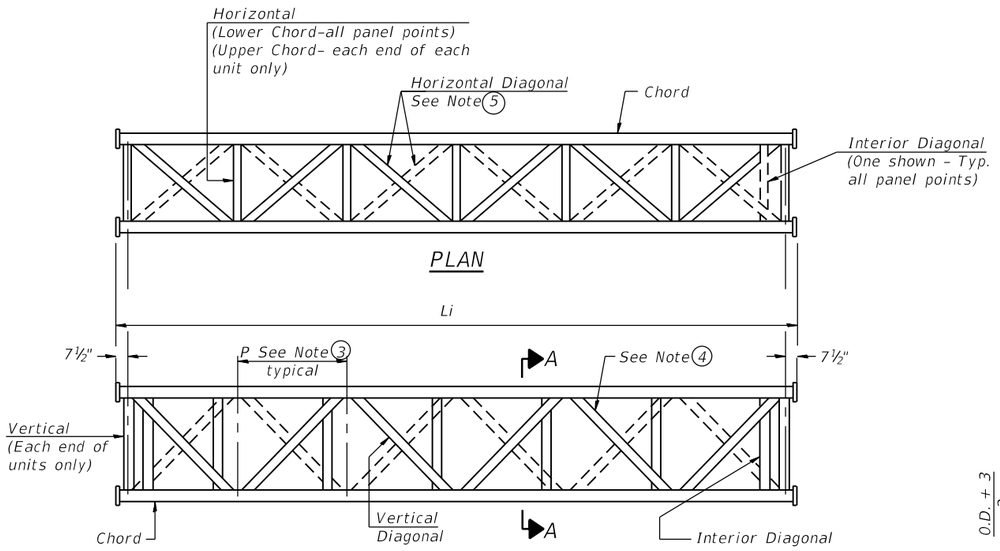
CONCRETE SURFACES: All concrete surfaces above an elevation 6" below the lowest final ground line at each foundation shall be cleaned and coated with Concrete Sealer in accordance with the Standard Specifications.

REINFORCEMENT BARS: Reinforcement Bars designated (E) shall be epoxy coated in accordance with the Standard Specifications.

FOUNDATIONS: The contract unit price for Concrete Foundations and Drilled Shaft Concrete Foundations shall include reinforcement bars complete in place.

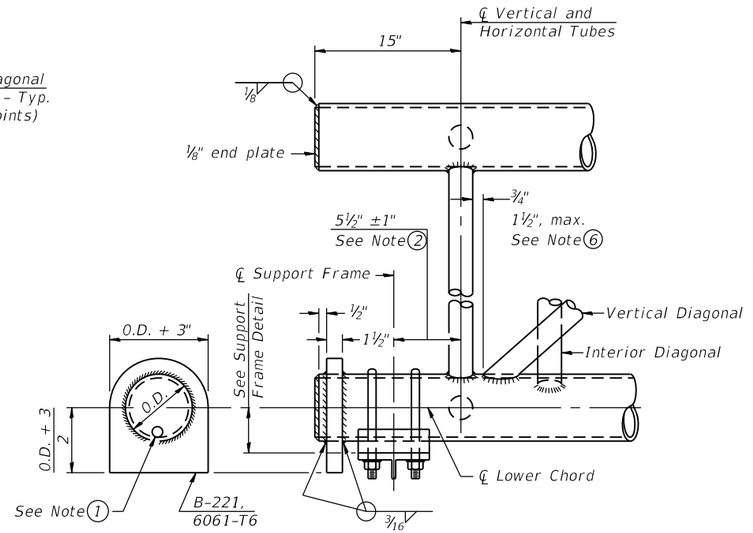
TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
OVERHEAD SIGN STRUCTURE SPAN TYPE III-A	Foot	81
OVERHEAD SIGN STRUCTURE WALKWAY TYPE A	Foot	49
DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	37.4

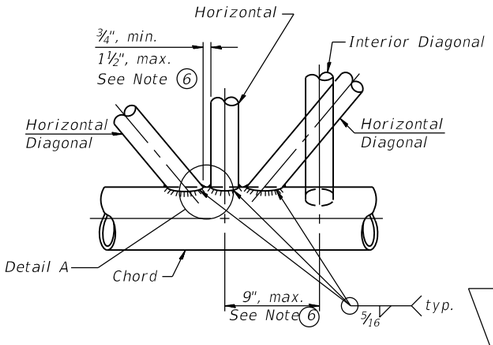


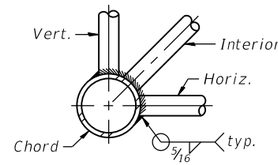
ELEVATION
TYPICAL INTERIOR UNIT

Even number of panels/interior unit required.

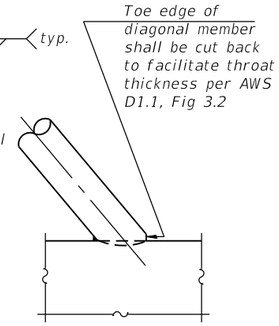


SUPPORT END DETAIL FOR EXTERIOR UNIT

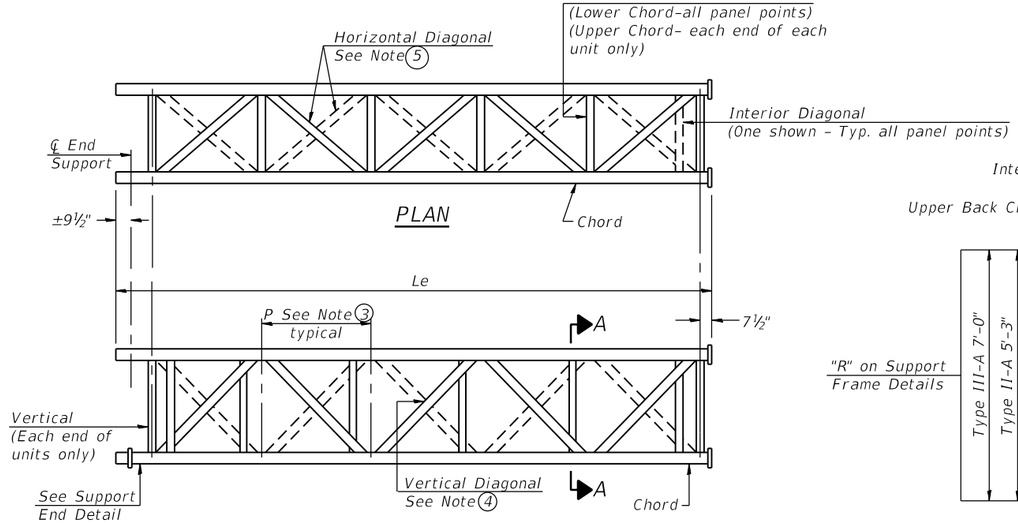




TYPICAL JOINT DETAILS

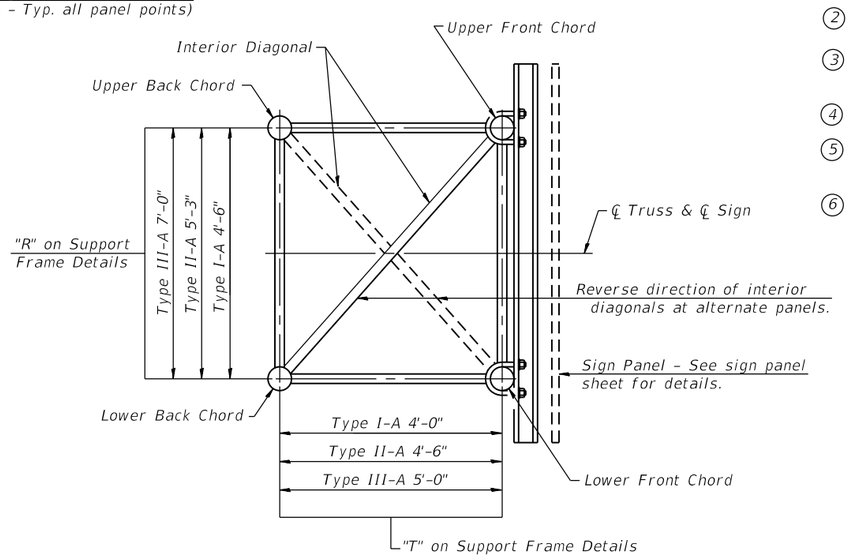


DETAIL A



ELEVATION
TYPICAL EXTERIOR UNIT

Even or odd number of panels/exterior units allowed.



SECTION A-A

1. Contractor may alternatively use standard aluminum drive-fit cap to close end. ½" Ø drain hole in end plate/drive-fit cap. (Typ. at ends of all chords)
2. 5½" end dimension may vary by ±1" to provide uniform panel spacing (P).
3. Panel spacing (P) shall be uniform for entire truss and between 4'-0" and 5'-0" for Type I-A or 4'-0" and 5'-6" for Types II-A and III-A.
4. Vertical Diagonals in front and back face shall alternate.
5. Hidden lines show wind bracing alternates direction between planes of top and bottom chords.
6. All diagonals shall be detailed for minimum offset from the panel point based on the following: Offset shall be such as to provide a ¾" minimum to 1½" maximum clearance between any diagonal and any horizontal or vertical member, and to provide clearance for U-bolt connections of signs or walkway brackets.

OS-A-2 2-17-2017

HBM ENGINEERING GROUP, LLC

USER NAME = charles.pigozzi	DESIGNED - JJS, MAA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OVERHEAD SIGN STRUCTURES – ALUMINUM TRUSS DETAILS FOR TRUSS TYPES I-A, II-A AND III-A
	CHECKED - MAI, JMG	REVISED -		
PLOT SCALE = N.T.S	DRAWN - JJS, MAA	REVISED -		
PLOT DATE = 1/24/2020	CHECKED - MAI, JMG	REVISED -		SHEET NO. SS41 OF SS129 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	991
		CONTRACT NO. 62A76		
		ILLINOIS	FED. AID PROJECT	

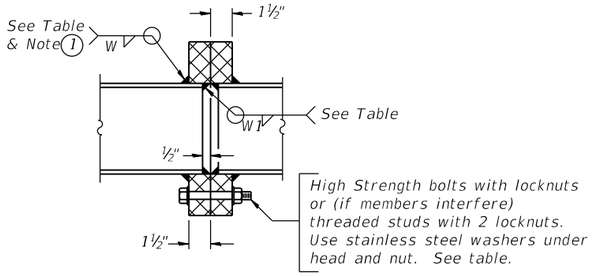
FILE NAME: pw:\\AECOM-NA-AWS1.aecomonline.local:AECOM_DS02_NAIDocuments\01 Americas\Transportation\60269938 Circle\Phase_II\000_CAD\008_Structural\Sign Structures\62A76 Sign Structure\62A76-Span-SSDMS102-SignStruct.dgn

11:16:52 AM

TRUSS UNIT TABLE

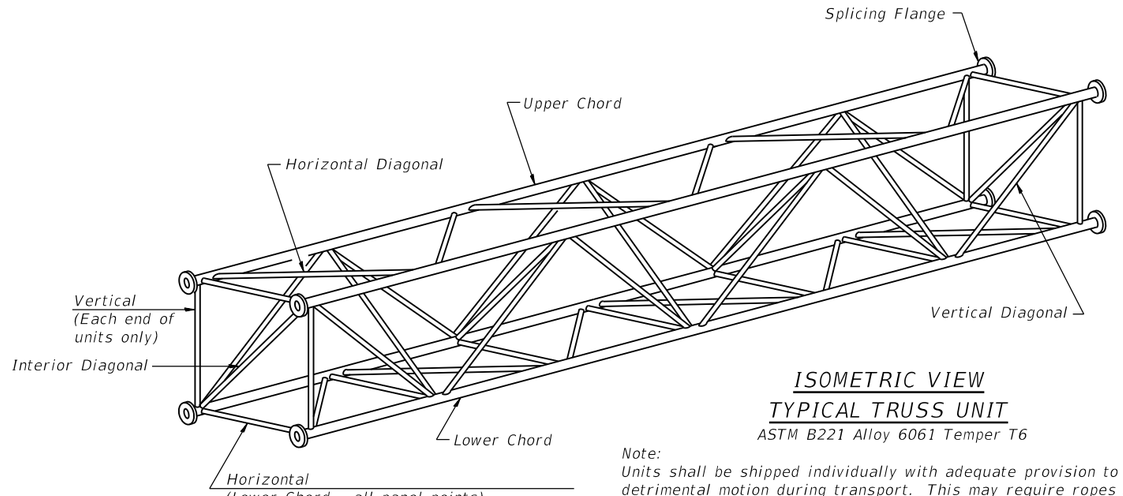
Structure Number	**Station	Design Truss Type	Exterior Units (2)			Interior Unit				Upper & Lower Chord		Verticals; Horizontals; Vertical,Horizontal, and Interior Diagonals		Camber at Midspan	Splicing Flange					
			No. Panels per Unit	Unit Lgth.(Le)	Panel Lgth.(P)	No. Req'd.	No. Panels per Unit	Unit Lgth.(Li)	Panel Lgth.(P)	O.D.	Wall	O.D.	Wall		Bolts		Weld Sizes		A	B
															No./Splice	Dia.	W	W1		
1S016I094L052.3	6101+17.00	III-A	5	25'-11¼"	4'-9¾"	1	6	30'-1½"	4'-9¾"	7"	5/16"	3¼"	5/16"	1⅛"	6	1"	7/16"	5/16"	11½"	15"

** Measured along Prop. ℄ NB I-90/94.



SECTION B-B

(1) Splicing Flanges shall be attached to each truss unit with the truss shop assembled to camber shown. Truss units shall be in proper alignment and flange surfaces shall be shop bolted into full contact before welding. Sufficient external welds or tacks shall be made to secure flanges until remaining welds are made after disassembly. Adjacent flanges shall be "match marked" to ensure proper field assembly.

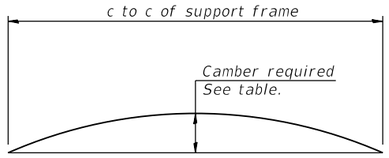


ISOMETRIC VIEW

TYPICAL TRUSS UNIT

ASTM B221 Alloy 6061 Temper T6

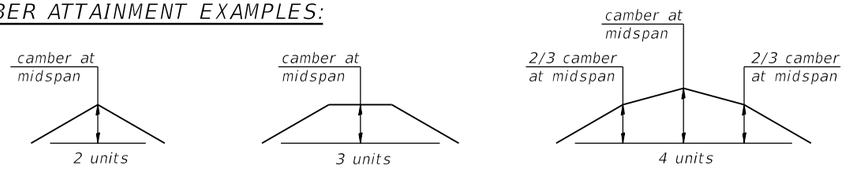
Note:
Units shall be shipped individually with adequate provision to prevent detrimental motion during transport. This may require ropes between horizontals and diagonals or energy dissipating (elastic) ties to the vehicle. The Contractor is responsible for maintaining the configuration and protection of the units.



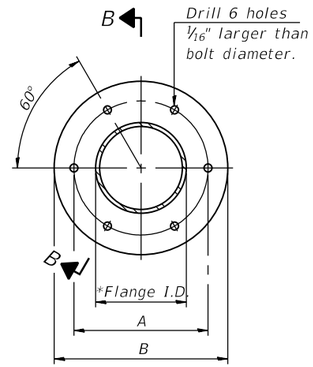
CAMBER DIAGRAM

Camber curve shown is theoretical. Actual camber attained by slope changes at splices between units.

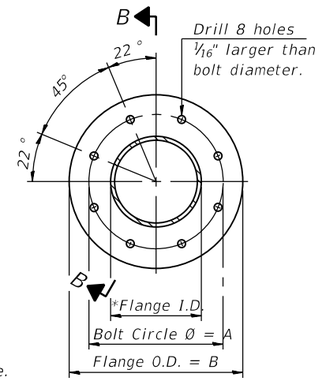
CAMBER ATTAINMENT EXAMPLES:



Camber shown is for fabrication only, measured with truss fully supported. (No-load condition)



TRUSS TYPES I-A, II-A, & III-A



TRUSS TYPES II-A & III-A

SPLICING FLANGES

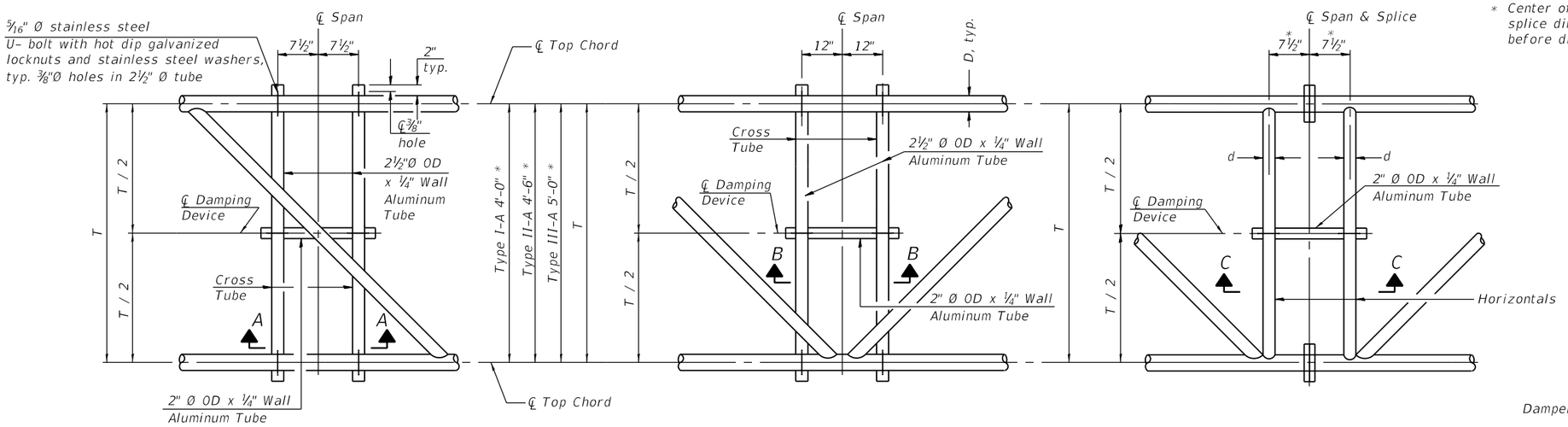
ASTM B221, Alloy 6061-T6
or ASTM B209, Alloy 6061-T651
*To fit O.D. of Chord with maximum gap of 1/16".

OS4-A-2 2-17-2017

HBM ENGINEERING GROUP, LLC

USER NAME = charles.pigozzi	DESIGNED - JJS, MAA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OVERHEAD SIGN STRUCTURES – ALUMINUM TRUSS DETAILS FOR TRUSS TYPES I-A, II-A AND III-A
	CHECKED - MAI, JMG	REVISED -		
PLOT SCALE = N.T.S	DRAWN - JJS, MAA	REVISED -		SHEET NO. SS42 OF SS129 SHEETS
PLOT DATE = 1/24/2020	CHECKED - MAI, JMG	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	992
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

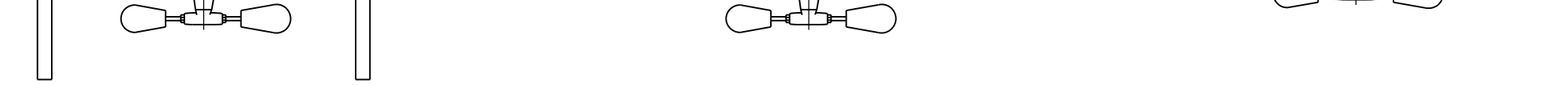


* Center of horizontal to center of splice dimension may vary. Verify before drilling holes in mounting tube.

PLAN DETAIL "A"
℄ Span between Panel Points

PLAN DETAIL "B"
℄ Span at Panel Point

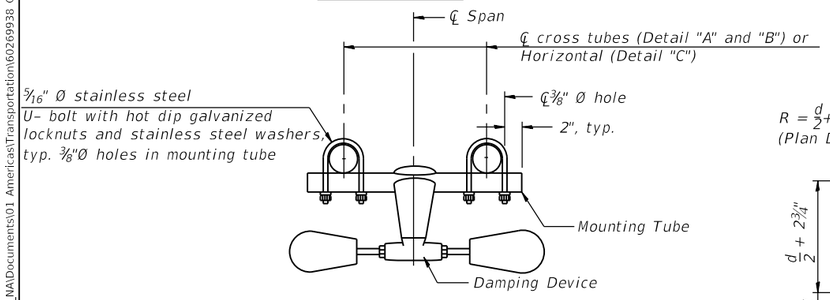
PLAN DETAIL "C"
℄ Span at ℄ Chord Splice



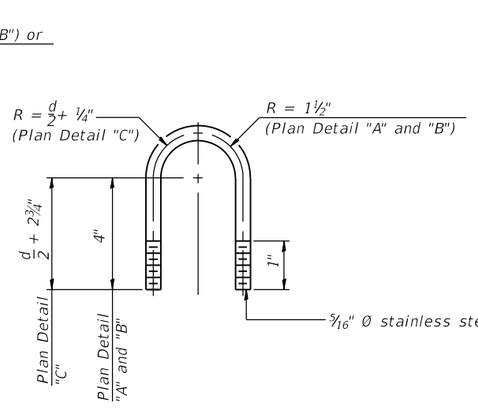
SECTION A-A

SECTION B-B

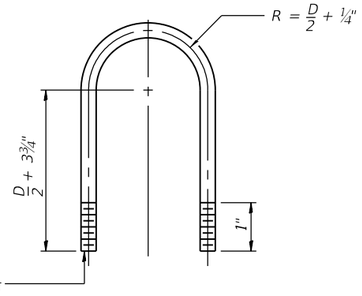
SECTION C-C



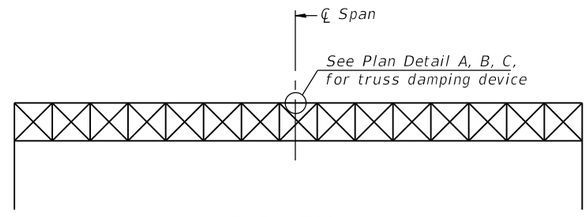
TRUSS DAMPING DEVICE CONNECTION DETAIL
(Typical)



DAMPING DEVICE MOUNTING TUBE U-BOLT DETAIL
(Typical)



TOP CHORD TO CROSS TUBE U-BOLT DETAIL
(Typical - Detail "A" and "B")



ELEVATION
Aluminum Overhead Sign Truss

NOTES

Damper: One damper per truss. (31 lbs. minimum Stockbridge-Type Aluminum - 29" minimum between ends of weights) Cost included in Overhead Sign Structure...

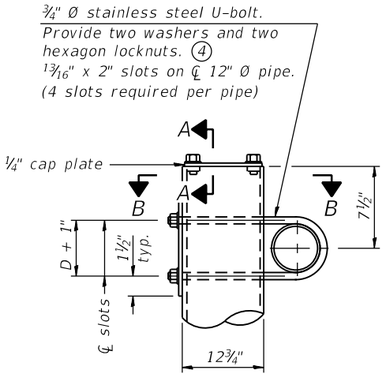
Materials: Materials: Aluminum tubes shall be ASTM B221 alloy 6061 temper T6. Cost included in Overhead Sign Structure...

OS-A-D 2-17-2017

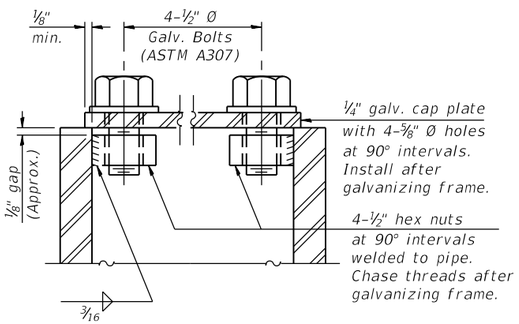
HBM ENGINEERING GROUP, LLC

USER NAME = charles.pigozzi	DESIGNED - JJS, MAA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OVERHEAD SIGN STRUCTURE DAMPING DEVICE
	CHECKED - MAI, JMG	REVISED -		
PLOT SCALE = N.T.S	DRAWN - JJS, MAA	REVISED -		SHEET NO. SS43 OF SS129 SHEETS
PLOT DATE = 1/24/2020	CHECKED - MAI, JMG	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	993
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

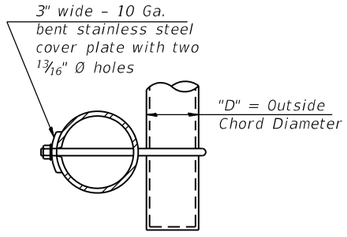


DETAIL A

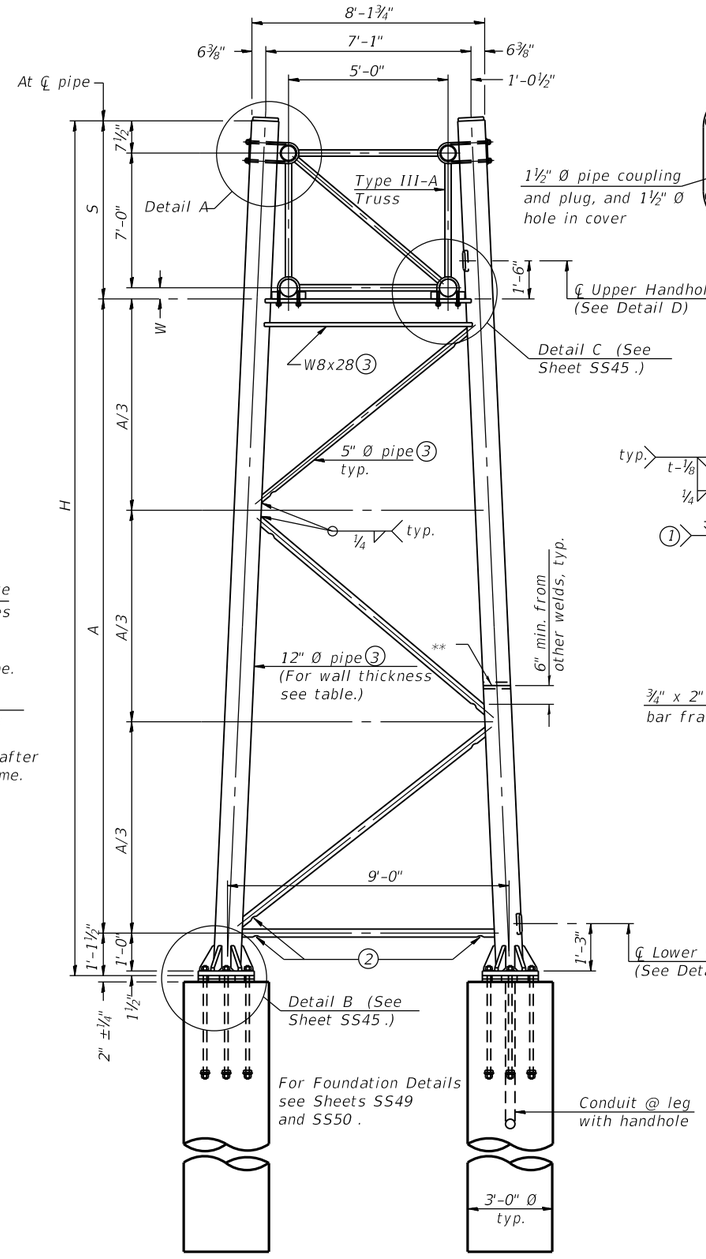


SECTION A-A

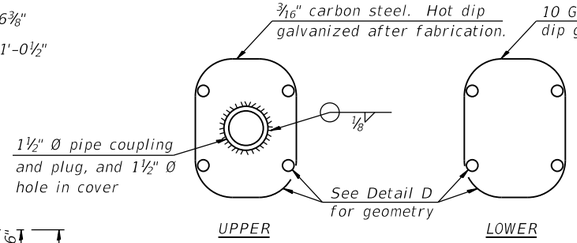
As an alternate to bolts, may use galvanized drive-fit caps installed after galvanizing frame.



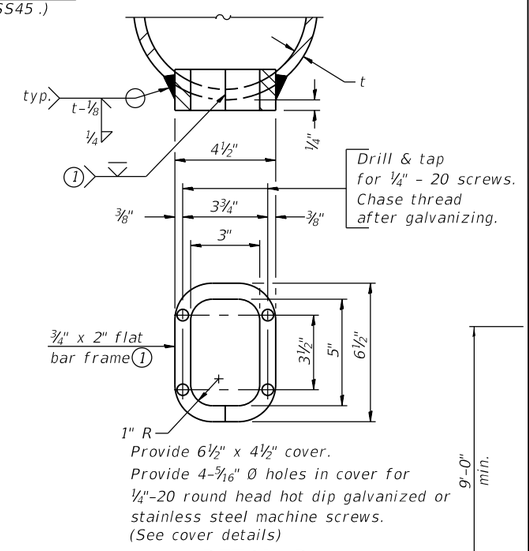
SECTION B-B



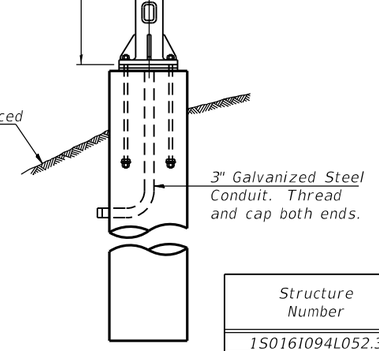
SIDE ELEVATION



HANDHOLE COVERS



DETAIL D



Dimensions		
Truss Chord Nominal Dia.	W	S
7"	4¾"	8'-0¼"
8½"	5½"	8'-1"
9"	5¾"	8'-1¼"

END ELEVATION

Support Design Loads: See Sheet SS40 for design and loading criteria.
Load combinations checked include dead load plus:
a) 100% wind normal to sign, 20% parallel to sign
b) 60% wind normal to sign, 30% parallel to sign

1. In lieu of fabricated handhole frame as shown, may cut from 2" plate (rolling direction vertical). All cut faces to be ground to ANSI Roughness of 500 µin or less.
2. Galvanizing vent holes of adequate size shall be provided on underside at each end of bracing pipes. Alternately, holes may be provided in wall of pipe column. All vent holes shall be drilled and de-burred, typ.
3. Steel pipe, plate, carbon steel handhole covers and rolled sections shall be hot dip galvanized after fabrication. Painting is not permitted. See Sheet SS40 .
4. See General Notes for fasteners.
5. Dimensions shown are based on selection criteria in the Sign Structures Manual. Nonstandard applications must have dimensions verified or amended as appropriate.
6. "H" based on 15'-0" or actual sign height, whichever is greater.

* For dynamic message sign installations, provide upper and lower handholes in both legs of each support frame.

Structure Number	***Station	Support		Pipe Wall Thickness	H (6)	A
		Left	Right			
1S016I094L052.3	6101+17.00	X		0.33"	26'-4½"	17'-2¾"
			X	0.33"	27'-0¼"	17'-10½"

***Measured along Prop. ℄ NB I-90/94

TRUSS SUPPORT DETAILS

(12" Ø Pipe-Type III-A Truss)

** One butt welded joint is allowed only on one post per support frame. If used, weld procedure must be pre-approved by Engineer and joint shall receive 100% RT or UT (tension criteria) at Contractor's expense.

0S4-A-8a 2-17-2017

HBM ENGINEERING GROUP, LLC

USER NAME = marina.stoica		DESIGNED - JJS, MAA		REVISED -
		CHECKED - MAI, JMG		REVISED -
PLOT SCALE = N.T.S		DRAWN - JJS, MAA		REVISED -
PLOT DATE = 1/29/2020		CHECKED - MAI, JMG		REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

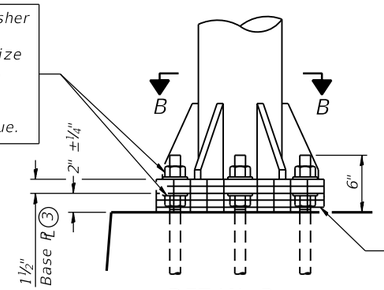
OVERHEAD SIGN STRUCTURES - SUPPORT FRAME FOR TYPE III-A ALUMINUM TRUSS

SHEET NO. SS44 OF SS129 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	994
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

FILE NAME: pw:\\AECOM-NA-AWS1.aecomonline.local:AECOM_DS02_NA\Documents\01 Americas\Transportation\60269938 Circle\Phase_II\000_CAD\008_StructuralSign Structures\62A76 Sign Structure\62A76-Span-SSDMS105-SignStruct.dgn
4:14:20 PM

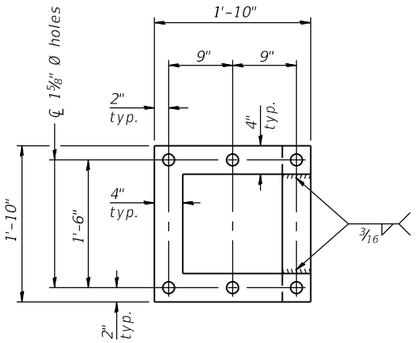
Hexagon locknut and washer (top), leveling nut and washer (bottom). Galvanize per AASHTO M232. Nuts shall each be tightened against base plate with 200 lb.-ft. minimum torque.



DETAIL B

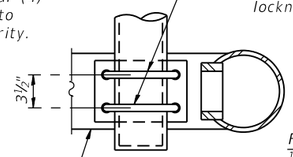
Ribs shall be cut to fit slope of pipe.

Stainless Steel Standard Grade Wire Cloth, 3" wide, ¼" maximum opening with a minimum wire diameter of AWG. No. 16 with a minimum 2" lap. Secure to base plate after erection with ¾" stainless steel banding.



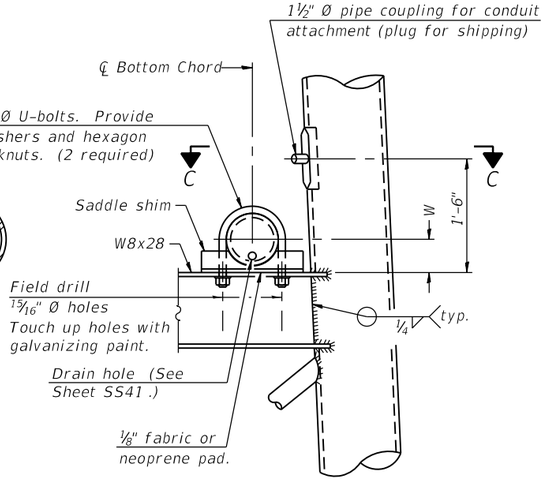
Optionally may use four (4) separate bars. Weld to maintain perpendicularity.

POSITIONING PLATE(S)

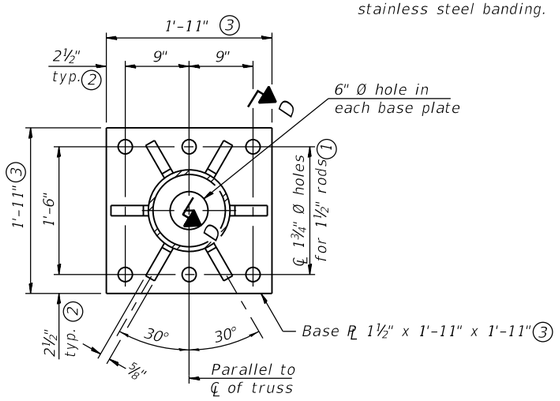


SECTION C-C

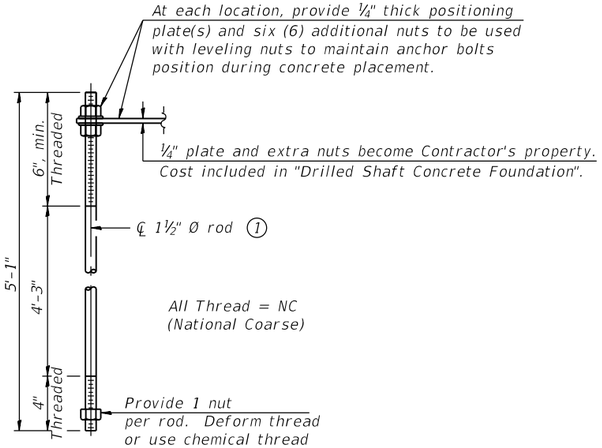
(Handhole cover not shown)

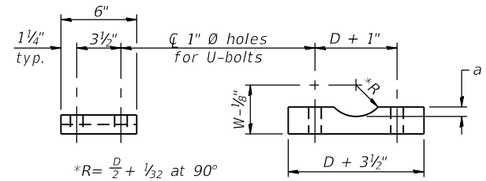


DETAIL C



SECTION B-B





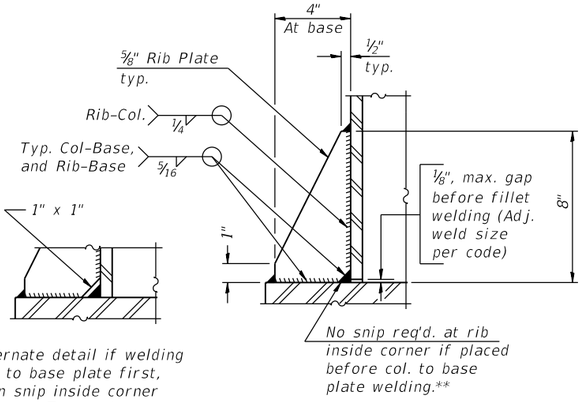
*R= $\frac{D}{2}$ + 1⁄32 at 90°

D = Outside Diameter of Chord.
For W, see Sheet SS44.

Truss Chord Nominal Dia.	a
7"	1"
8½"	1¼"
9"	1⅜"

SADDLE SHIM DETAIL

ASTM B26 Alloy 356-F
or
ASTM B209 Alloy 6061-T651
(4 required per sign truss)



** Alternate detail if welding col. to base plate first, then snip inside corner of ribs. Terminate weld on rib ¼" from snip.

SECTION D-D

ANCHOR ROD DETAIL

Anchor rods shall conform to ASTM F1554 Grade 105 Galvanize upper 12" minimum per AASHTO M232. No welding shall be permitted on rods.

TYPE III-A TRUSS
12" Ø PIPE SUPPORT FRAME DETAILS

Notes:
For Type III-A Truss spans greater than 150 ft, and up to 160 ft.:

① 1¾" Ø rod, 2" Ø holes

② 2¾" edge distance

③ Base PL 1⅝" x 1'-11½" x 1'-11½"

0S4-A-8aA 2-17-2017

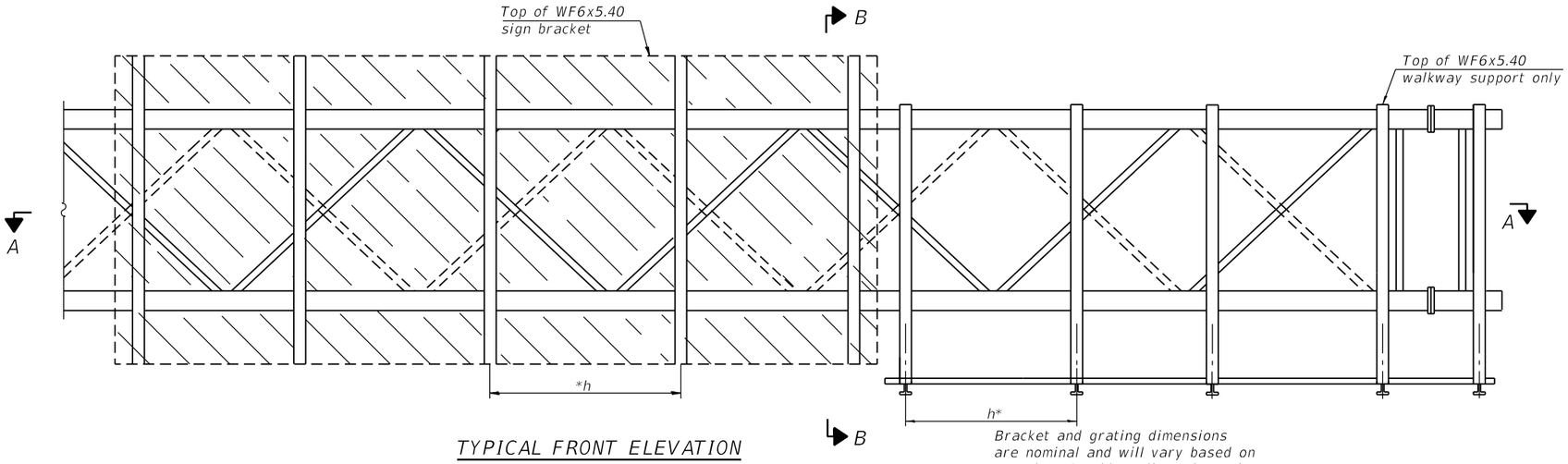
HBM ENGINEERING GROUP, LLC

USER NAME = charles.pigozzi		DESIGNED - JJS, MAA		REVISED -	
		CHECKED - MAI, JMG		REVISED -	
PLOT SCALE = N.T.S		DRAWN - JJS, MAA		REVISED -	
PLOT DATE = 1/24/2020		CHECKED - MAI, JMG		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SUPPORT FRAME FOR TYPE III-A ALUMINUM TRUSS
SHEET NO. SS45 OF SS129 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	995
		CONTRACT NO. 62A76		
		ILLINOIS	FED. AID PROJECT	

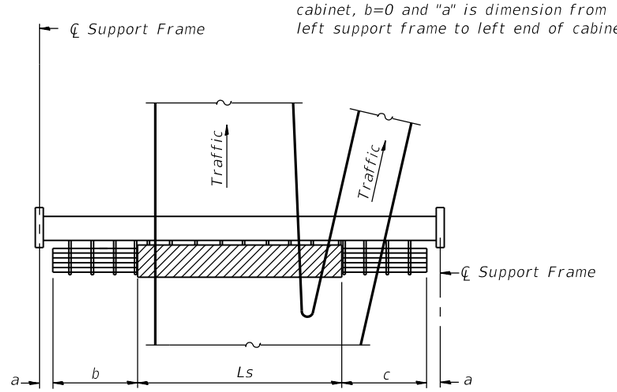


TYPICAL FRONT ELEVATION

With handrail omitted for clarity.

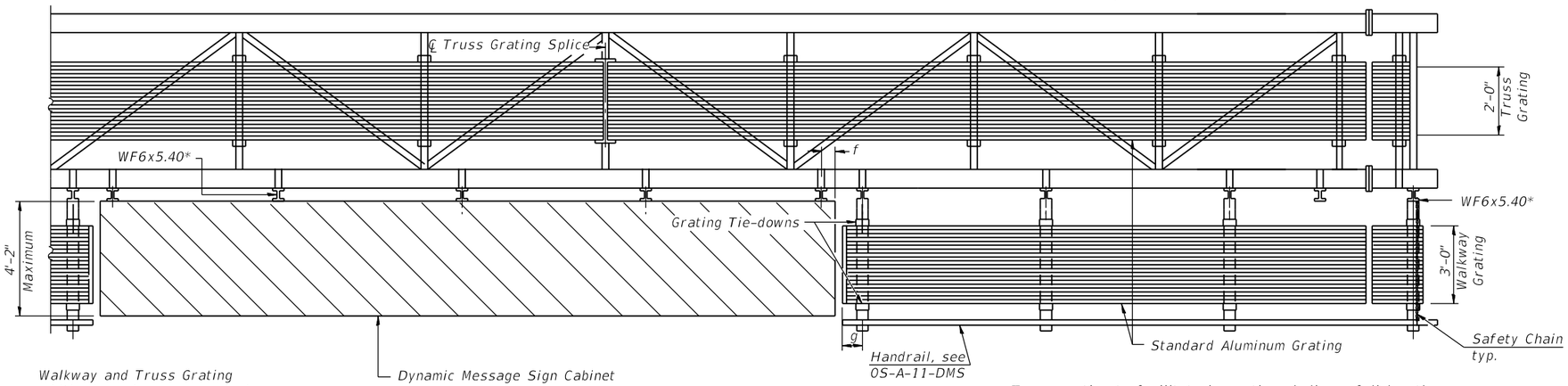
Bracket and grating dimensions are nominal and will vary based on actual DMS cabinet dimensions plus manufacturer's mounting devices.

① If walkway is required left of the DMS cabinet, a=1'-6" and b=walkway lengths. If walkway is not required left of the DMS cabinet, b=0 and "a" is dimension from left support frame to left end of cabinet.



PLAN
WALKWAY AND HANDRAIL SKETCH

(Road plan beneath truss varies)



Walkway and Truss Grating width dimensions are nominal and may vary ±½" based on available standard widths.

Truss grating to facilitate inspection shall run full length (center to center of support frames) ±12" on overhead trusses. Cost of truss grating is included in "Overhead Sign Structure".

SECTION A-A

Handrail and walkway shall span a minimum of three brackets between splices and/or gap joints.
Place all sign and walkway brackets as close to panel points as practical.
Grating and handrail splices placed as needed.

BRACKET TABLE

WF6x5.40 ASTM B308, Alloy 6061-T6		
Sign Width		Number Brackets Required
Greater Than	Less Than or Equal To	
	8'-0"	2
8'-0"	14'-0"	3
14'-0"	20'-0"	4
20'-0"	26'-0"	5
26'-0"	32'-0"	6

Structure Number	**Station	a	b	c	Ls	Walkway Grating and Handrail Lengths
1S016I094L052.3	6101+17.00	1'-6"	17'-5½"	31'-0½"	29'-1"	48'-6"

**Measured along Prop. ℄ NB I-90/94

Notes:
* Space walkway brackets WF6x5.40 for efficiency and within limits shown:

f = 12" maximum, 4" minimum (End of sign to ℄ of nearest bracket)
g = 12" maximum, 4" minimum (End of walkway grating to ℄ of nearest support bracket)
h = 6'-0" maximum (℄ to ℄ sign and/or walkway support brackets, WF6x5.40)

Maximum DMS weight = 5000 lbs. 4'-2" maximum cabinet depth includes depth of cabinet plus connection to WF6x5.40.
For Section B-B and Grating Splice Details, see Sheet SS47 .
For Handrail Splice Details, see Sheet SS48 .

OS-A-9-DMS 2-17-2017

HBM ENGINEERING GROUP, LLC

USER NAME = charles.pigozzi	DESIGNED - JJS, MAA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OVERHEAD SIGN STRUCTURES ALTERNATE ALUMINUM WALKWAY DETAILS FOR DMS
	CHECKED - MAI, JMG	REVISED -		
PLOT SCALE = N.T.S	DRAWN - JJS, MAA	REVISED -		SHEET NO. SS46 OF SS129 SHEETS
PLOT DATE = 1/24/2020	CHECKED - MAI, JMG	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	996
		CONTRACT NO. 62A76		
	ILLINOIS FED. AID PROJECT			

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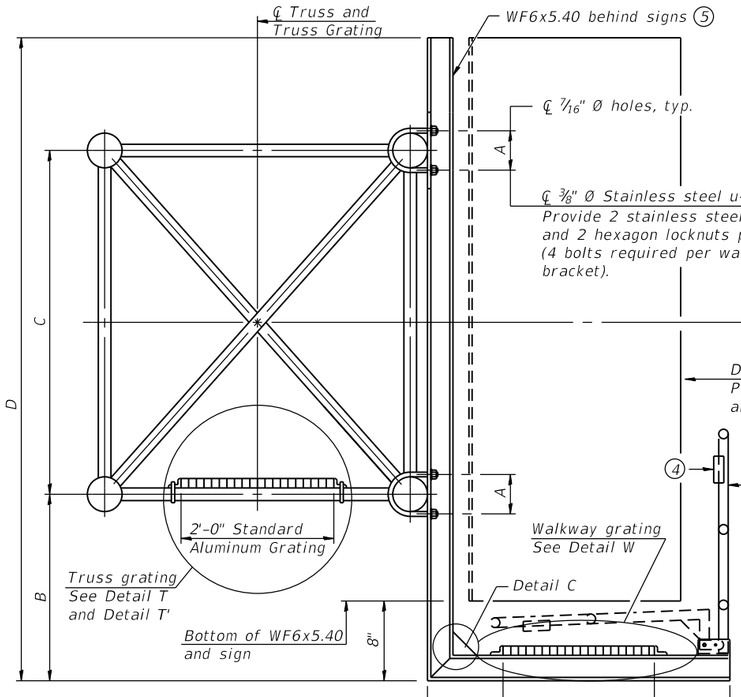
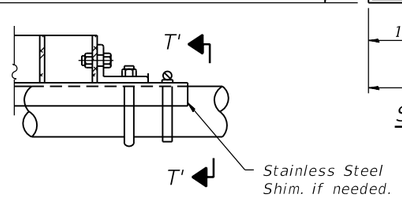
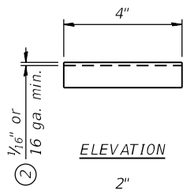


SECTION B-B

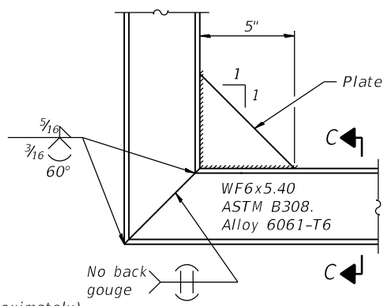


DETAIL T'

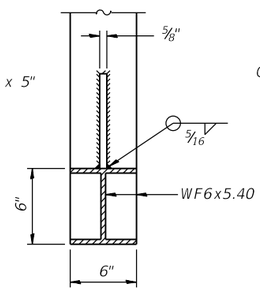
(Truss grating splice)
Details not shown same as Detail T.
Alternate materials may be used subject to the Engineer's review and approval.



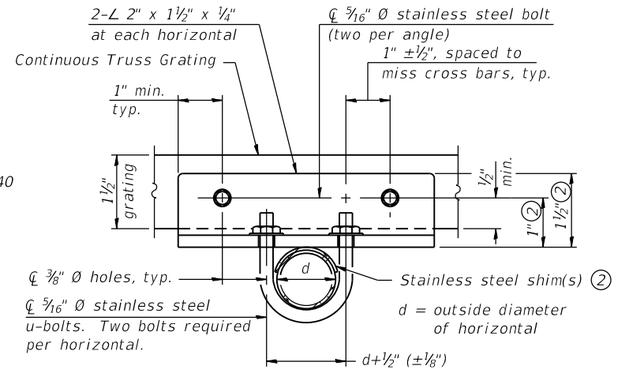
SHIM DETAIL



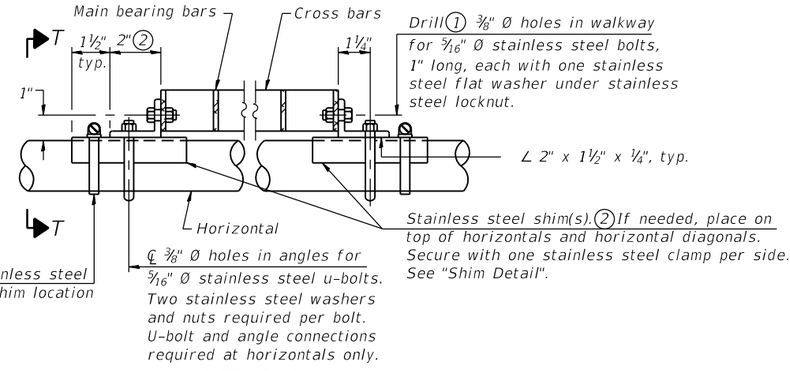
DETAIL C



SECTION C-C

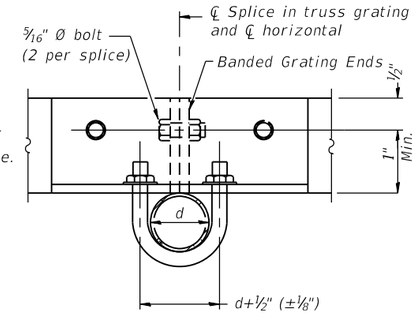


SECTION T-T



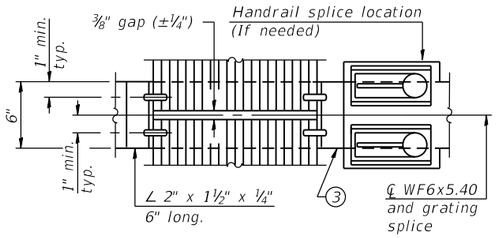
DETAIL T

(Continuous Truss grating)

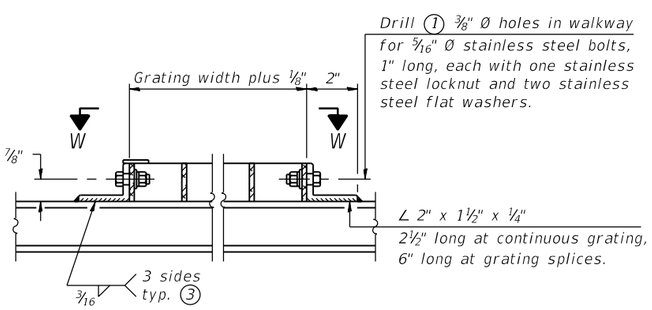


SECTION T'-T'

* Bracket and grating dimensions are nominal and will vary based on actual DMS cabinet dimensions plus manufacturer's mounting devices.

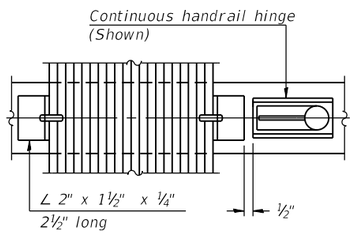


(AT WALKWAY GRATING SPLICE)



DETAIL W

(Walkway grating)



(CONTINUOUS WALKWAY GRATING)

SECTION W-W

SPECIFICATIONS FOR STANDARD ALUMINUM GRATING

Main Bearing Bars shall be 3/16" x 1½" on 1 3/16" centers and conform to ASTM B211 Alloy 6061-T6.
Cross bars shall be 3/16" x 1½" on 4" centers and conform to ASTM B221 Alloy 6063-T5 or 6061-T6.

OR

Aluminum Grating with modified "t" sections for main bearing bars shall meet the following requirements:

Main bars shall conform to ASTM B221 Alloy 6061-T6 and have a minimum section modulus equal to 0.0705 $in.^3$ per bar, a depth of 1½", spaced on 1 3/16" centers.
Cross bars shall conform to ASTM B221 Alloy 6063-T5 or T-42 and spaced on 4" centers.

Structure Number	**Station	A	(6) B	C	(6) D
1S016I094L052.3	6101+17.00	8"	1'-2"	7'-0"	8'-7"

**Measured along Prop. ℄ NB I-90/94

1. Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.
2. Stainless steel shims shall be placed as shown in Detail T 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. If Handrail Joint present, weld angle to WF(A-N)4 and ¼" extension bars. (See Base Sheet 0S-A-11.)
4. PL ⅛" x ½" x 2" welded to handrail posts to protect locations that contact grating.
5. Cabinet manufacturer must design and supply hardware for connection of cabinet to WF6's. Bolts must be stainless steel or hot dip galvanized high strength per IDOT specifications.
6. Based on actual height of tallest sign given on Sheet SS40.

0S-A-10-DMS 2-17-2017

FILE NAME: pw:\\AECOM-NA-AWS1.aecomonline.local:AECOM_DS02_NA\Documents\01 Americas\Transportation\60269938 CirclePhase_II\000_CAD\008_Structural\Sign Structures\62A76 Sign Structure\62A76-Span-SSDMS108-SignStruct.dgn
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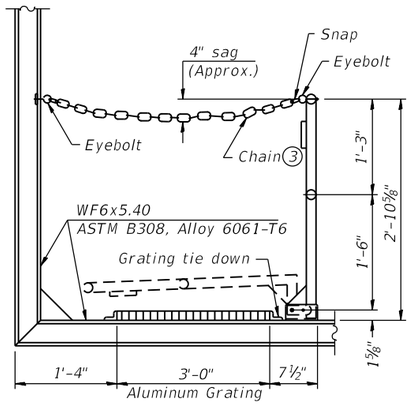
HBM ENGINEERING GROUP, LLC

USER NAME = charles.pigozzi		DESIGNED - JJS, MAA		REVISED -	
		CHECKED - MAI, JMG		REVISED -	
PLOT SCALE = N.T.S		DRAWN - JJS, MAA		REVISED -	
PLOT DATE = 1/24/2020		CHECKED - MAI, JMG		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

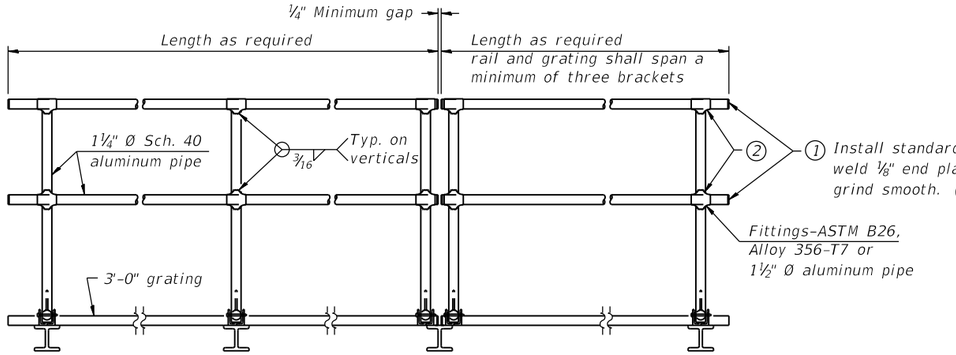
OVERHEAD SIGN STRUCTURES
ALTERNATE ALUMINUM WALKWAY DETAILS FOR DMS
SHEET NO. SS47 OF SS129 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	997
		CONTRACT NO. 62A76		
	ILLINOIS FED. AID PROJECT			

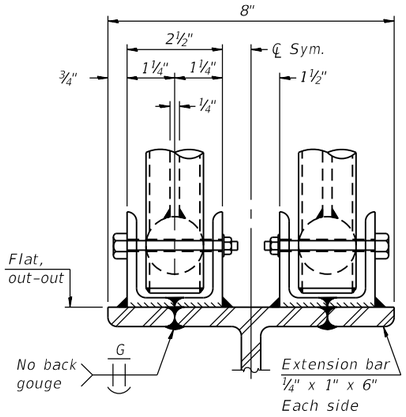


SIDE ELEVATION

(Showing safety chain w/o sign)



FRONT ELEVATION



ELEVATION AT HANDRAIL JOINT (4)

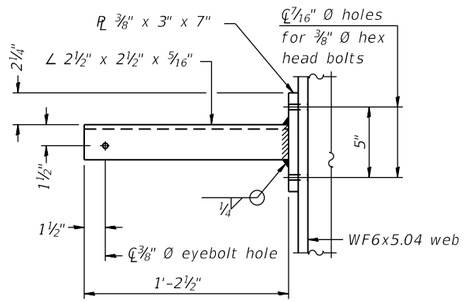
HANDRAIL DETAILS

Handrail pipe shall be ASTM B241, Alloy 6063-T6 or Alloy 6061-T6.

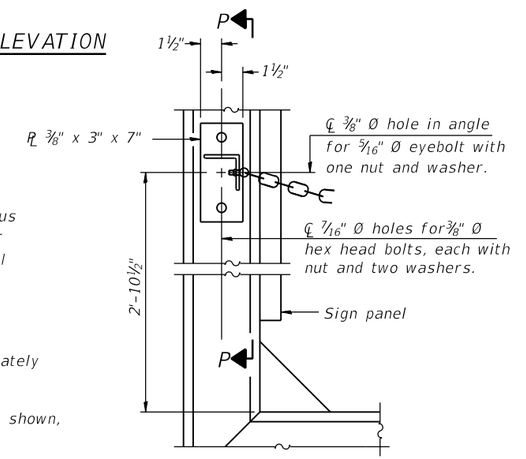
(2) Horizontal handrail member shall be continuous thru fitting. Provide 7/16" Ø hole in fitting for ⅜" Ø bolt. Field drill 7/16" Ø hole in horizontal rail member. Provide washer and locknut for bolt. (Use ⅝" eyebolts in 7/16" Ø holes on top rail at ends only.)

(3) ⅜" type 304L stainless steel chain, approximately 12 links per foot.

(4) Extrusions may be used in lieu of the details shown, with approval of the Engineer.

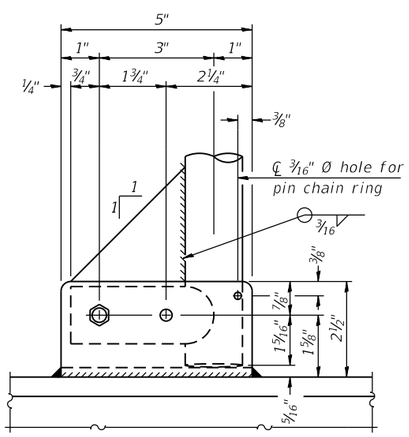


SECTION P-P

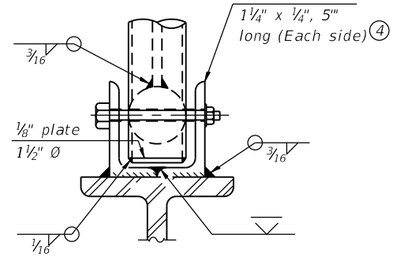


ALTERNATE SAFETY CHAIN ATTACHMENT

(With Sign Present)
Items not shown same as "Side Elevation" of "Handrail Details"

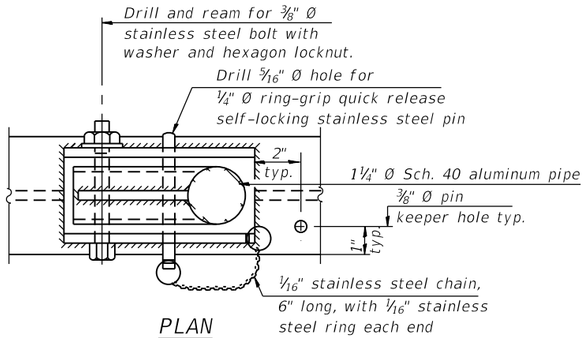


SIDE ELEVATION



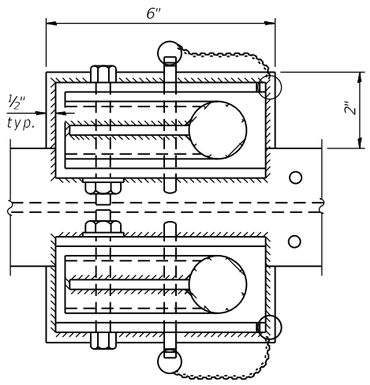
FRONT ELEVATION

See "ELEVATION" at right for dimensions.



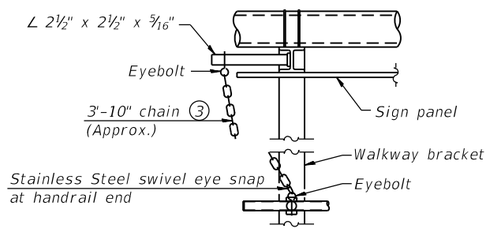
PLAN

DETAIL E HANDRAIL HINGE



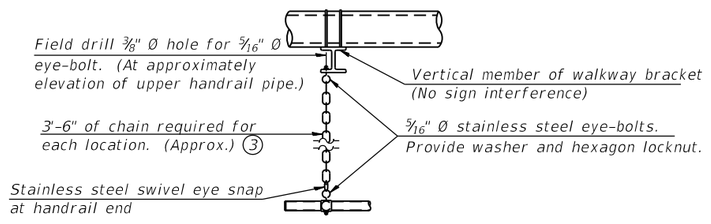
PLAN AT HANDRAIL JOINT

Details not shown same as "PLAN"



ALTERNATE SAFETY CHAIN ATTACHMENT

Details not shown similar to "Safety Chain" Details
(Walkway omitted for clarity)



SAFETY CHAIN

One required for each end of each walkway.

OS-A-11-DMS 2-17-2017

HBM ENGINEERING GROUP, LLC

USER NAME = charles.pigozzi		DESIGNED - JJS, MAA		REVISED -	
		CHECKED - MAI, JMG		REVISED -	
PLOT SCALE = N.T.S		DRAWN - JJS, MAA		REVISED -	
PLOT DATE = 1/24/2020		CHECKED - MAI, JMG		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
ALTERNATE ALUMINUM HANDRAIL DETAILS FOR DMS

SHEET NO. SS48 OF SS129 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	998
		CONTRACT NO. 62A76		
	ILLINOIS	FED. AID PROJECT		

FILE NAME: pw:\\AECOM-NA-AWS1.aecomonline.local:AECOM_DS02_NA\Documents\01 AmericasTransportation\60269938 CirclePhase_II\000_CAD\008_StructuralSign Structures\62A76 Sign Structure\62A76-Span-SSDMS108A-SignStruct.dgn

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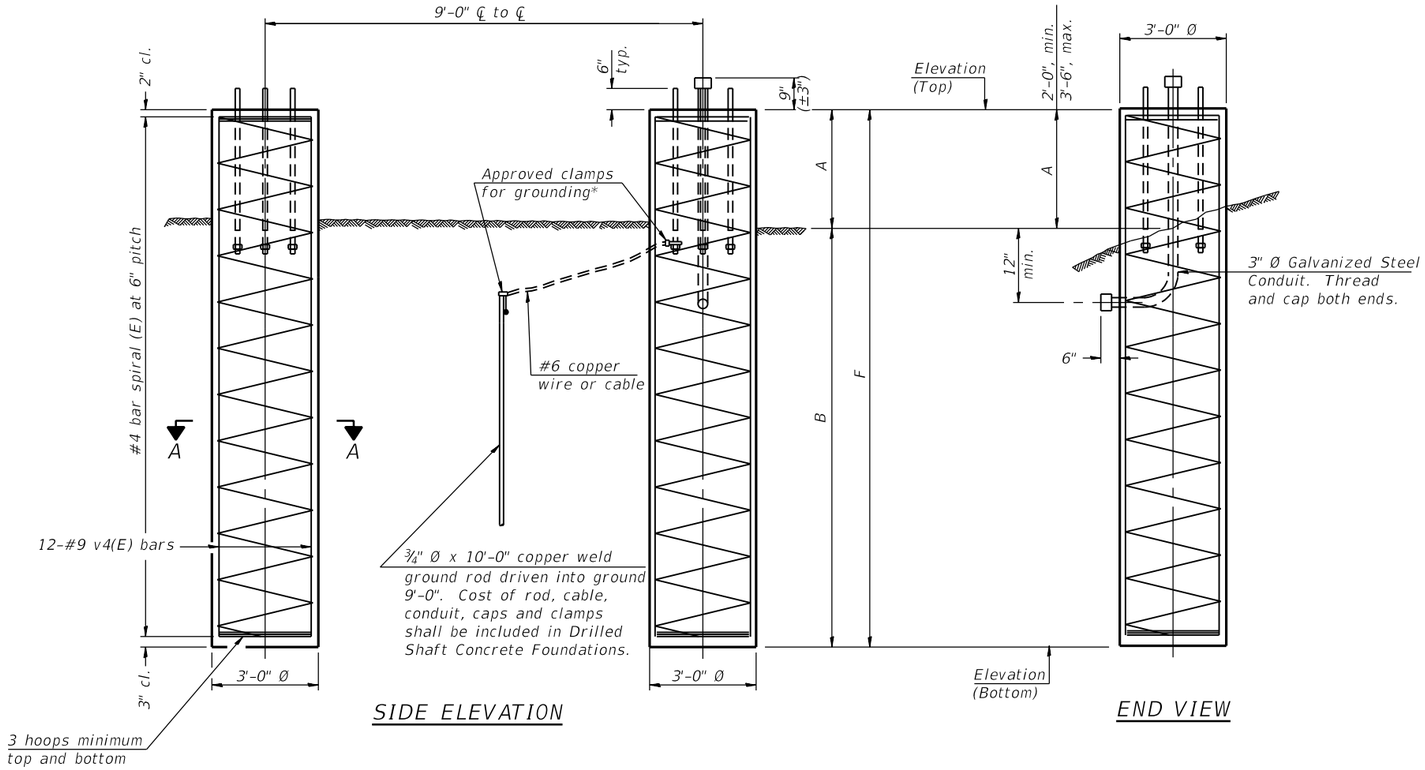
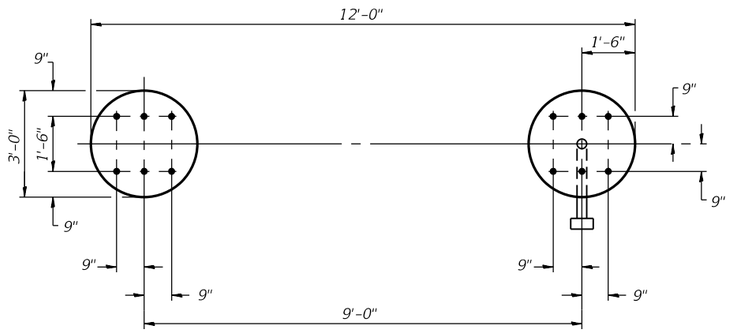


SIDE ELEVATION

END VIEW



PLAN

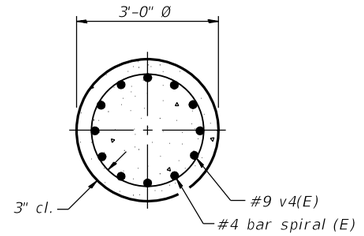
For anchor rod size and placement, see Support Frame Detail Sheet.

* Anchor rod shall be ground or filed to bright metal at clamp and cable connection location.

BAR LIST - EACH FOUNDATION

Bar	Number	Size	Length	Shape
v4(E)	24	#9	F less 5"	——
#4 bar spiral (E) - see Side Elevation				

NOTES:
The foundation dimensions shown are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Qu) of at least 1.25 tsf, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown will be the result of site specific designs.
If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference.
No sonotubes or decomposable forms shall be used below the lower conduit entrance.
Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.
Concrete shall be placed monolithically, without construction joints.
Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.
A normal surface finish followed by a Concrete Sealer application will be required on concrete surfaces above the lowest elevation 6" below finished ground line. Cost included in Drilled Shaft Concrete Foundation.



SECTION A-A

DETAILS FOR 12" Ø SUPPORT FRAME TYPE III-A TRUSS

Structure Number	**Station	Left Foundation					Right Foundation					Class DS Concrete (Cu. Yds.)
		Elevation Top	Elevation Bottom	A	B	F	Elevation Top	Elevation Bottom	A	B	F	
1S016I094L052.3	6101+17.00	-	-	-	-	-	595.00	564.50	2'-6"	28'-0"	30'-6"	16.0

**Measured along Prop. ℄ NB I-90/94

OS4-F4 2-17-2017

HBM ENGINEERING GROUP, LLC

USER NAME = charles.pigozzi		DESIGNED - JJS, MAA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OVERHEAD SIGN STRUCTURES DRILLED SHAFT DETAILS
		CHECKED - MAI, JMG	REVISED -		
PLOT SCALE = N.T.S		DRAWN - JJS, MAA	REVISED -		SHEET NO. SS49 OF SS129 SHEETS
PLOT DATE = 1/24/2020		CHECKED - MAI, JMG	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	999
		CONTRACT NO. 62A76		
	ILLINOIS FED. AID PROJECT			

FILE NAME: pw:\AECOM-NA-AWS1.aecomonline.local:AECOM_DS02_NAIDocuments\01 Americas\Transportation\60269938 Circle\Phase_II\000_CAD\008_Structural\Sign Structures\62A76 Sign Structure\62A76-Span-SSDMS1088-SignStruct.dgn
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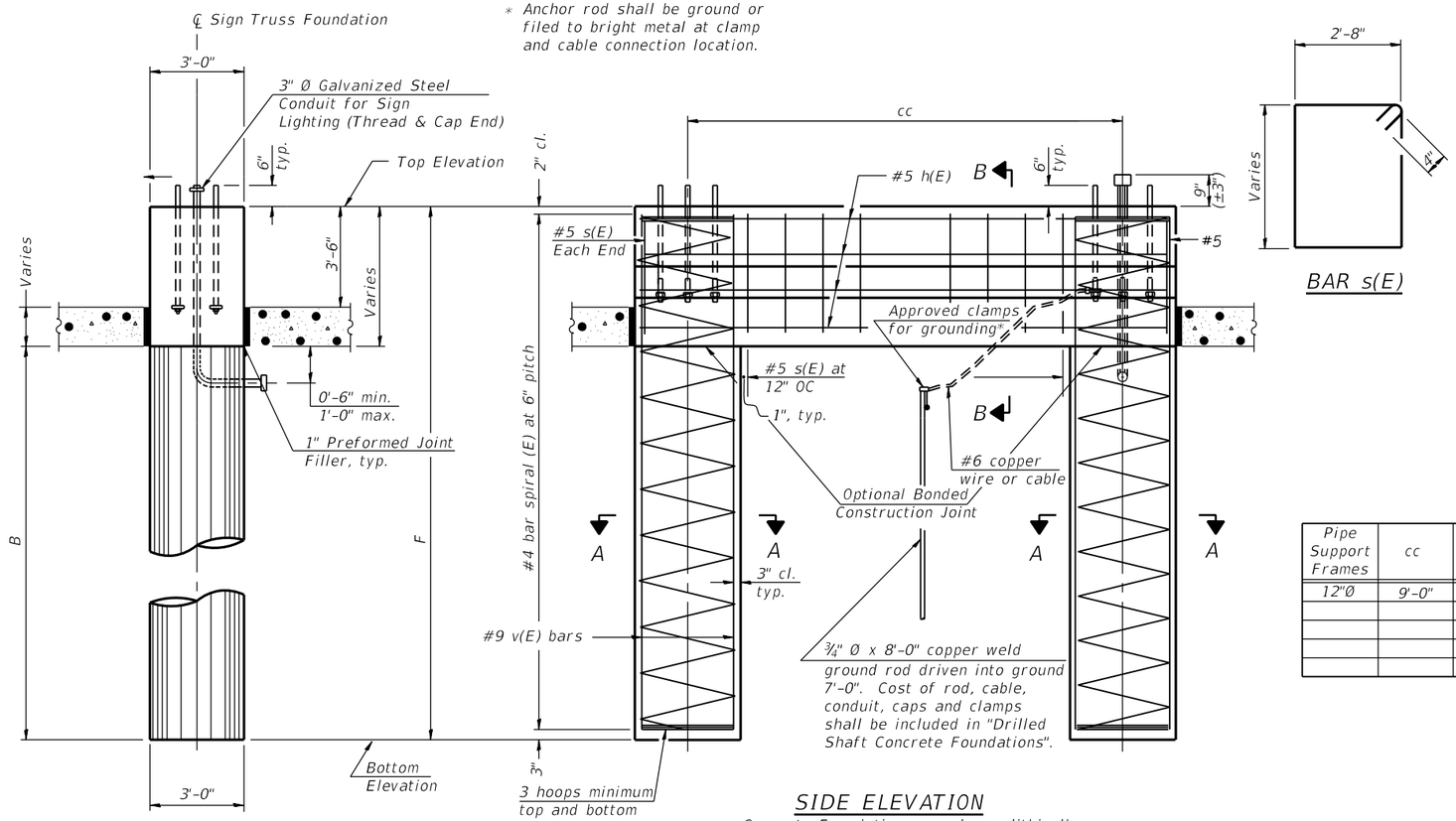


* Anchor rod shall be ground or filed to bright metal at clamp and cable connection location.

END VIEW

SIDE ELEVATION

Concrete Foundation poured monolithically with no construction joint.

BAR s(E)

NOTES:

The foundation dimensions shown are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Qu) of at least 1.25 tsf, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown will be the result of site specific designs.

If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference.

No sonotubes or decomposable forms shall be used below the lower conduit entrance. Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.

Concrete shall be placed monolithically, without construction joints.

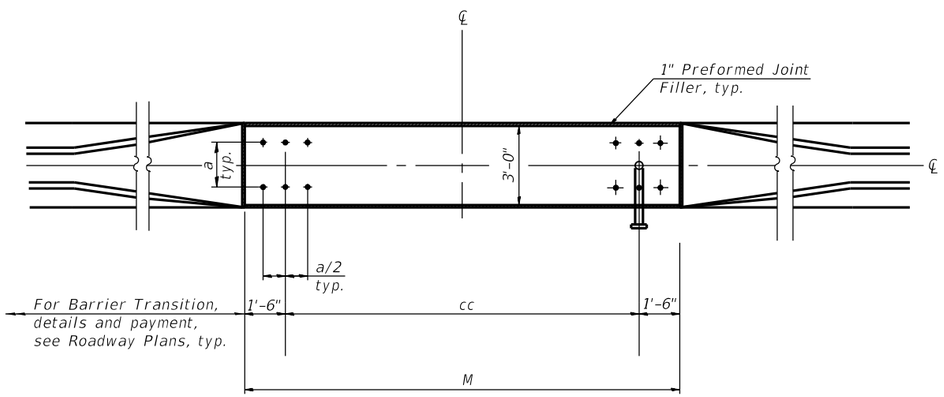
Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.

A normal surface finish followed by a Concrete Sealer application will be required on concrete surfaces above the lowest elevation 6" below finished ground line. Cost included in Drilled Shaft Concrete Foundation.

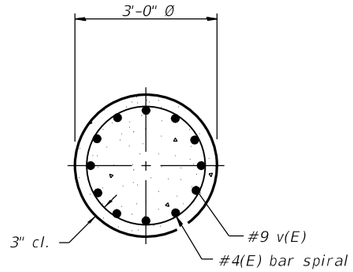
Pipe Support Frames	cc	M	a	a/2
12"Ø	9'-0"	12'-0"	1'-6"	9"

BAR LIST - EACH FOUNDATION

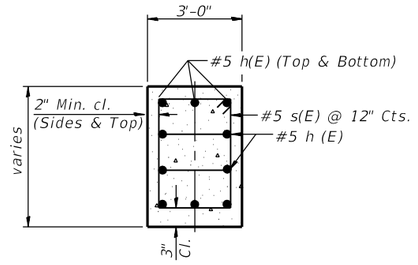
Bar	Number	Size	Length	Shape
h(E)	10	#5	M less 4"	——
s(E)	Varies	#5	Varies	□
v(E)	24	#9	F less 0'-5"	——
#4(E) bar spiral _ see Side Elevation				



PLAN



SECTION A-A



SECTION B-B

Structure Number	**Station	Left Foundation				Right Foundation				Class DS Concrete (Cu. Yds.)
		Elevation Top	Elevation Bottom	B	F	Elevation Top	Elevation Bottom	B	F	
1S016I094L052.3	6101+17.00	595.64	562.64	28"-0"	33'-0"	-	-	-	-	21.4

**Measured along Prop. ℄ NB I-90/94

FILE NAME: pw:\\AECOM-NA-AWS1.aecomonline.local:AECOM_DS02_NAIDocuments\01 AmericasTransportation\60269938 CirclePhase_IIt000_CADD\008_StructuralSign Structures\62A76 Sign Structure\62A76-Span-SSDMS109-SignStruct.dgn
11:18:35 AM

HBM ENGINEERING GROUP, LLC

USER NAME = charles.pigozzi	DESIGNED - JJS, MAA	REVISED -
	CHECKED - MAI, JMG	REVISED -
PLOT SCALE = N.T.S	DRAWN - JJS, MAA	REVISED -
PLOT DATE = 1/24/2020	CHECKED - MAI, JMG	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
MEDIAN SUPPORT FOUNDATION DETAILS
SHEET NO. SS50 OF SS129 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2015-019R	COOK	2155	1000
		CONTRACT NO. 62A76		
	ILLINOIS FED. AID PROJECT			