EFFECTIVE 12-01-2017

SIGNS (902 SIGNAL SIGNS TABULATED ON D-37A SHEET)						PIPE POST ✳					STRUCTURAL STEEL – POSTS ✳						BACKING BARS 2" X 3/8" BARS @ 2.55 LBS PER LIN FT				TOTAL	U CHANNEL POST	PERFORATED SQUARE STEEL TUBE POST – 2 IN							2.5 IN						BREAK-AWAY ASSEMBLY	FOOTINGS		REMARKS AND OTHER REQUIRED ITEMS.
SIGN NO.	SIGN SIZE	STATION	HORZ CLEAR IF NOT STD	LOCATION	SIGN DTL. SHT. NO.	PIPE SIZE	POST NO.1	POST NO.2	LBS PER FT	TOTAL ITEM NO. 9031220	POST DES NO.	POST NO.1	POST NO.2	POST NO.3	LBS PER FT	TOTAL	NO. EACH	LGTH IN.	TOTAL LF	TOTAL LBS	ITEM NO. 9031210 LBS	ITEM NO. 9031250 LF	POST NO.1 LF	POST NO.2 LF	TOTAL ITEM NO. 9031270A LF	ANCHOR 7 GA. ITEM NO. 9031273 LF	OMNI 7 GA. ITEM NO. 9031279 LF	ANCHOR 12 GA. ITEM NO. 9031271 LF	OMNI 12 GA. ITEM NO. 9031278 LF	POST NO.1 LF	POST NO.2 LF	TOTAL ITEM NO. 9031280 LF	2.25" INSERT ITEM NO. 9031272 LF	ANCHOR 7 GA. ITEM NO. 9031281 LF	OMNI 7 GA. ITEM NO. 9031282 LF	ITEM NO. 9031241 EACH	EMBD ITEM NO. 9031010 CU YDS	BOLT DOWN ITEM NO. 9031020 CU YDS	
						IN.	LF	LF		LBS		LF	LF	LF		LBS		IN.	LF	LBS	LBS	LF	LF	LF																
14	ASSEMBLY	0.436		CST WINNER RD	EB	4	22		10.79	237							6	50	25.0	63.8	63.8																	0.36		
15	ASSEMBLY	209.134		US-24 WB																											13.5		13.5		3			0.09		
16	ASSEMBLY	209.209		US-24 WB		4	22		10.79	237							6	50	25.0	63.8	63.8																	0.36		
17	ASSEMBLY	209.270		US-24 WB																											19.5		19.5		3			0.09		
18	ASSEMBLY	3.841		CST 12TH ST	EB												8	50	33.3	85.0	85.0																			ADD BACKING BARS
19	ASSEMBLY	3.992		CST 12TH ST	EB	4	22	24	10.79	496							6	82	41.0	104.6	104.6																	0.72		
21	9 X 8	11.630		CST TRUMAN RD	WB3												~~3~~	~~36~~	~~9.0~~	~~23.0~~	~~23.0~~	1	DELETED													1	REVISED			→ 3" ALUMINUM I-BEAM ✳✳
22	ASSEMBLY	11.640		CST TRUMAN RD	WB												6	50	25.0	63.8	63.8																			ADD BACKING BARS
24	ASSEMBLY	4.798		CST TRUMAN RD	EB	4	22		10.79	237							12	50	50.0	127.5	127.5																	0.36		
25	ASSEMBLY	4.825		CST TRUMAN RD	EB												6	50	25.0	63.8	63.8																			ADD BACKING BARS
26	ASSEMBLY	11.583		CST TRUMAN RD	WB												6	50	25.0	63.8	63.8																			ADD BACKING BARS
27	ASSEMBLY	11.554		CST TRUMAN RD	WB	4	22		10.79	237							12	50	50.0	127.5	127.5																	0.36		
29	ASSEMBLY	11.502		CST TRUMAN RD	WB	4	22		10.79	237							12	50	50.0	127.5	127.5																	0.36		
31	9 X 8	4.867		CST TRUMAN RD	EB3												~~3~~	~~36~~	~~9.0~~	~~23.0~~	~~23.0~~																			→ 3" ALUMINUM I-BEAM ✳✳
34	9 X 8	6.424		CST 23RD ST	WB14												~~3~~	~~36~~	~~9.0~~	~~23.0~~	~~23.0~~	1	DELETED													1	REVISED			→ 3" ALUMINUM I-BEAM ✳✳
35	ASSEMBLY	6.436		CST 23RD ST	WB												6	50	25.0	63.8	63.8																			ADD BACKING BARS
36	ASSEMBLY	3.276		CST 23RD ST	EB	4	22		10.79	237							12	50	50.0	127.5	127.5																	0.36		
38	ASSEMBLY	6.387		CST 23RD ST	WB												6	50	25.0	63.8	63.8																			ADD BACKING BARS
40	ASSEMBLY	6.335		CST 23RD ST	WB	4	22		10.79	237							12	50	50.0	127.5	127.5																	0.36		
41	ASSEMBLY	3.352		CST 23RD ST	EB												6	50	25.0	63.8	63.8																			ADD BACKING BARS
42	9 X 8	3.341		CST 23RD ST	EB14												~~3~~	~~36~~	~~9.0~~	~~23.0~~	~~23.0~~	1	DELETED													1	REVISED			→ 3" ALUMINUM I-BEAM ✳✳
44	ASSEMBLY	8.603		US-40 EB																											19.5		19.5		3			0.09		
45	ASSEMBLY	8.668		US-40 EB																											19.5		19.5		3			0.09		
46	ASSEMBLY	247.145		US-40 WB													6	50	25.0	63.8	63.8																			ADD BACKING BARS
47	ASSEMBLY	247.040		US-40 WB																											19.5		19.5		3			0.09		
48	ASSEMBLY	246.958		US-40 WB													6	50	25.0	63.8	63.8																			ADD BACKING BARS
53	ASSEMBLY	6.790		I-70 EB													4	50	16.7	42.5	42.5										13.5		13.5		3			0.09		
57	ASSEMBLY	243.232		I-70 WB																											15.5		15.5		3			0.09		
63	10 X 11	248.448		US-40 WB	19						2	23.25	25.25		15	728					727.5																	1.08		
64	ASSEMBLY	248.495		US-40 WB		4	19		10.79	205							8	50	33.3	85.0	85.0																	0.36		
65	9 X 8	7.363		US-40 EB	19												~~3~~	~~36~~	~~9.0~~	~~23.0~~	~~23.0~~																			→ 3" ALUMINUM I-BEAM ✳✳
66	8 X 8	0.001		CST US 40 HWY	WB9												~~3~~	~~36~~	~~9.0~~	~~23.0~~	~~23.0~~	1	DELETED													1	REVISED			→ 3" ALUMINUM I-BEAM ✳✳
67	ASSEMBLY	0.418		CST US 40 HWY	EB												6	50	25.0	63.8	63.8																			ADD BACKING BARS
68	10 X 11	0.385		CST US 40 HWY	EB9						2	23.25	25.25		15	728					727.5																	1.08		
69	ASSEMBLY	0.122		CST MANCHESTER AVE	NB																										16.5		16.5		3			0.09		
70	ASSEMBLY	8.002		US-40 EB													6	50	25.0	63.8	63.8																			ADD BACKING BARS
71	ASSEMBLY	247.849		US-40 WB		4	22		10.79	237							12	50	50.0	127.5	127.5																	0.36		
72	ASSEMBLY	0.104		CST MANCHESTER AVE	SB												6	50	25.0	63.8	63.8																			ADD BACKING BARS
73	ASSEMBLY	1.706		CST MANCHESTER TRFY	SB																										18		18		3			0.09		
74	ASSEMBLY	1.713		CST MANCHESTER TRFY	SB												6	50	25.0	63.8	63.8																			ADD BACKING BARS
75	ASSEMBLY	1.828		CST MANCHESTER TRFY	SB	4	22		10.79	237							12	50	50.0	127.5	127.5																	0.36		
76	ASSEMBLY	0.504		CST MANCHESTER TRFY	NB												6	50	25.0	63.8	63.8										14.5		14.5		3			0.09		
77	ASSEMBLY	0.384		CST MANCHESTER TRFY	NB												6	50	25.0	63.8	63.8										14.5		14.5		3			0.09		
78	ASSEMBLY	0.363		CST MANCHESTER TRFY	NB												6	50	25.0	63.8	63.8																			ADD BACKING BARS
79	ASSEMBLY	1.969		CST MANCHESTER TRFY	SB												6	50	25.0	63.8	63.8																			ADD BACKING BARS
80	ASSEMBLY	0.244		CST MYRTLE AVE	NB																										14.5		14.5		3			0.09		
81	ASSEMBLY	1.375		CST E 27TH ST	WB																										14.5		14.5		3			0.09		
87	ASSEMBLY	0.104		CST 29TH TER	EB																										14.5		14.5		3			0.09		
98	ASSEMBLY	9.102		CST E 23RD ST	WB												6	50	25.0	63.8	63.8										14.5		14.5		3			0.09		
108	ASSEMBLY	2.314		CST E 18TH ST	EB												4	38	12.7	32.3	32.3																			ADD BACKING BARS
109	ASSEMBLY	0.016		RP ASKEW AVE TO I-70W	WB																										13.5		13.5		3			0.09		
110	ASSEMBLY	0.052		CST 14TH ST	WB																										14.5		14.5		3			0.09		
111	ASSEMBLY	0.016		RP PROSPECT AVE TO I-70W	WB																										14.5		14.5		3			0.09		
112	ASSEMBLY	8.101		CST PROSPECT AVE	NB												4	38	12.7	32.3	32.3																			ADD BACKING BARS
115	ASSEMBLY	0.235		CST 14TH ST	EB												6	50	25.0	63.8	63.8																			ADD BACKING BARS
117	ASSEMBLY	1.157		CST BENTON BLVD	SB																										14.5		14.5		3			0.09		
125	ASSEMBLY	1.175		CST THE PASEO	SB	4	18.5		10.79	200							10	50	41.7	106.3	106.3																	0.36		
127	ASSEMBLY	1.235		CST THE PASEO	SB												2	38	6.3	16.2	16.2																			ADD BACKING BARS
130	ASSEMBLY	5.835		CST THE PASEO	NB																										14.5		14.5		3			0.09		
SUBTOTAL 1							3040									1455				2809.3		0		0	0	0	0	0			313.5	0	60	0	0	8.64	0	

✳ BREAKAWAY ASSEMBLY IS INCIDENTAL FOR PIPE AND STRUCTURAL STEEL POSTS
✳✳ NO DIRECT PAY, SEE STANDARD PLAN 903.03

1 REVISED

2671.3

1 REVISED

ROUND PIPE POST AND FOOTING DATA TABLE

NOM. SIZE (IN.)	WEIGHT LBS/FT	WEIGHT LBS/IN	STUB LENGTH	FOOTING DIA.	FOOTING DEPTH	CONCRETE C.Y.
2½	5.79	0.48	4'- 3½"	12"	4'-6"	0.13
3	7.58	0.63	4'- 3½"	12"	4'-6"	0.13
4	10.79	0.90	5'- 3½"	18"	5'-6"	0.36

POST AND FOOTING DATA TABLE

POST DES. NO.	NOM. SIZE	POST WEIGHT LBS/FT	POST WEIGHT LBS/IN	STUB LENGTH	FOOTING DIA.	LEVEL GROUND DEPTH	LEVEL GROUND C.Y.	6:1 GRADE DEPTH	6:1 GRADE C.Y.	4:1 GRADE DEPTH	4:1 GRADE C.Y.	3:1 OR 2:1 GRADE DEPTH	3:1 OR 2:1 GRADE C.Y.
1	W6	9.0	0.75	3'-0"	15"	3'-0"	0.14	3'-2"	0.15	3'-3"	0.16	3'-6"	0.17
2	W6	15.0	1.25	4'-0"	24"	4'-0"	0.47	4'-2"	0.50	4'-3"	0.51	4'-6"	0.54
3	W8	18.0	1.50	4'-6"	28"	4'-6"	0.71	4'-8"	0.73	4'-9"	0.74	5'-0"	0.78
4	W10	22.0	1.83	5'-0"	36"	5'-0"	1.31	5'-2"	1.36	5'-3"	1.39	5'-6"	1.45
5	W10	26.0	2.17	5'-0"	36"	5'-0"	1.31	5'-3"	1.37	5'-5"	1.43	5'-9"	1.52
6	W12	35.0	2.92	5'-6"	36"	5'-6"	1.44	5'-9"	1.52	5'-11"	1.56	6'-3"	1.65

1 SHEET REVISED 10/9/2020

SIGNING SHEET
SHEET 1 OF 36

D-29

STATE OF MISSOURI
ALLAN JEFFREY LUDIKER
NUMBER PE-2002003198
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 10/9/2020
ROUTE VAR | STATE MO
DISTRICT KC | SHEET NO. 87
COUNTY JACKSON
JOB NO. J4I3233
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION
DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

EFFECTIVE 12-01-2017

SIGNS						PIPE POST ✳					STRUCTURAL STEEL											U CHANNEL POST	PERFORATED SQUARE STEEL TUBE POST															FOOTINGS		REMARKS AND OTHER REQUIRED ITEMS.
902 SIGNAL SIGNS TABULATED ON D-37A SHEET											POSTS ✳						BACKING BARS 2" X 3/8" BARS @ 2.55 LBS PER LIN FT				TOTAL		2 IN							2.5 IN						BREAK-AWAY ASSEMBLY	EMBD	BOLT DOWN	
SIGN NO.	SIGN SIZE	STATION	HORZ CLEAR IF NOT STD	LOCATION	SIGN DTL. SHT. NO.	PIPE SIZE	POST NO.1	POST NO.2	LBS PER FT	TOTAL ITEM NO. 9031220	POST DES NO.	POST NO.1	POST NO.2	POST NO.3	LBS PER FT	TOTAL	NO. EACH	LGTH	TOTAL	TOTAL	ITEM NO. 9031210	ITEM NO. 9031250	POST NO.1	POST NO.2	TOTAL ITEM NO. 9031270A	ANCHOR 7 GA. ITEM NO. 9031273	OMNI 7 GA. ITEM NO. 9031279	ANCHOR 12 GA. ITEM NO. 9031271	OMNI 12 GA. ITEM NO. 9031278	POST NO.1	POST NO.2	TOTAL ITEM NO. 9031280	2.25" INSERT ITEM NO. 9031272	ANCHOR 7 GA. ITEM NO. 9031281	OMNI 7 GA. ITEM NO. 9031282	ASSEMBLY ITEM NO. 9031241	ITEM NO. 9031010	ITEM NO. 9031020	
						IN.	LF	LF		LBS		LF	LF	LF		LBS	EACH	IN.	LF	LBS	LBS	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	EACH	CU YDS	CU YDS	
133	ASSEMBLY	0.141	CST	INDEPENDENCE AVE	EB												8	50	33.3	85.0	85.0																			ADD BACKING BARS
134	ASSEMBLY	0.232	CST	INDEPENDENCE AVE	EB												8	50	33.3	85.0	85.0																			ADD BACKING BARS
143	ASSEMBLY	0.464	CST	11TH ST	WB												8	50	33.3	85.0	85.0																			ADD BACKING BARS
164	ASSEMBLY	14.166		MO-9	SB												6	50	25.0	63.8	63.8									14.5		14.5		3			0.09		
166	ASSEMBLY	0.029	CST	ADMIRAL BLVD	EB																									14.5		14.5		3			0.09		
173	ASSEMBLY	0.903	CST	BEARDSLEY RD	NB												6	50	25.0	63.8	63.8									15.5		15.5		3			0.09		
174	ASSEMBLY	0.879	CST	BEARDSLEY RD	NB																									14.5		14.5		3			0.09		
175	ASSEMBLY	0.784	CST	BEARDSLEY RD	NB												6	50	25.0	63.8	63.8									14.5		14.5		3			0.09		
214	ASSEMBLY	0.273		CST 6TH ST	EB																									19.5		19.5		3			0.09		
219	ASSEMBLY	0.889	CST	ADMIRAL BLVD	WB																									18		18		3			0.09		
220	9 X 8.5	1.990		I-70	EB	34					1	19.75	21.75		9	374					373.5																0.34		
221	ASSEMBLY	1.667	CST	JACKSON AVE	SB												6	50	25.0	63.8	63.8									14.5		14.5		3			0.09		
222	ASSEMBLY	1.925	CST	VAN BRUNT BLVD	SB												6	50	25.0	63.8	63.8									14.5		14.5		3			0.09		
223	ASSEMBLY	0.651	CST	PROSPECT AVE	SB																									14.5		14.5		3			0.09		
224	ASSEMBLY	0.276	CST	BENTON BLVD	NB																									14.5		14.5		3			0.09		
225	ASSEMBLY	1.881	CST	TRUMAN RD	EB																									14.5		14.5		3			0.09		
226	ASSEMBLY	1.029	CST	BROOKLYN AVE	SB																									14.5		14.5		3			0.09		
227	ASSEMBLY	0.680	CST	TRUMAN RD	EB																									14.5		14.5		3			0.09		
228	4 X 3	0.125RP	I-70W TO INDEPENDENCE AVE		EB																									13	15	28		3		2	0.18		
230	ASSEMBLY	0.229	RP I-435S TO US-24W		WB																									14.5		14.5		3			0.09		
SUBTOTAL 2						0										374				573.8		0		0	0	0	0	0		255	0	48	0	2		1.87	0		
SUBTOTAL 1						3040										1455				2809.[illegible]		0		0	0	0	0	0		313.5	0	60	0	0		8.64	0		
TOTAL						3040															5210	0		0	0	0	0	0		571	0	108	0	2		10.5	0		

✳ BREAKAWAY ASSEMBLY IS INCIDENTAL FOR PIPE AND STRUCTURAL STEEL POSTS

2671.3

5070

1 REVISED

1 SHEET REVISED 10/9/2020

SIGNING SHEET
SHEET 2 OF 36

D-29

STATE OF MISSOURI
ALLAN JEFFREY LUDIKER
NUMBER PE-2002003198
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 10/9/2020

ROUTE VAR | STATE MO

DISTRICT KC | SHEET NO. 88

COUNTY JACKSON

JOB NO. J4I3233

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.