

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	D9 BRIDGE DECK REPAIR 2020-2	MASSAC	10	1
		ILLINOIS	CONTRACT NO. 78796	

FOR INDEX OF SHEETS, SEE SHEET NO. 3  
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 4-5  
FOR STRUCTURAL PAVEMENT DESIGN INFORMATION, SEE SHEET NO. N/A

# PROPOSED HIGHWAY PLANS

F.A.I. ROUTE 24 (I-24)  
SECTION D9 BRIDGE DECK REPAIR 2020-2  
PROJECT NHPP-GAN7(861)  
BRIDGE DECK REPAIRS  
MASSAC COUNTY IL, McCRACKEN COUNTY KY

C-99-069-20

## TRAFFIC DATA

2019 ADT = 31,100 (TWO WAY)  
25 % TRUCKS

## TOWNSHIP

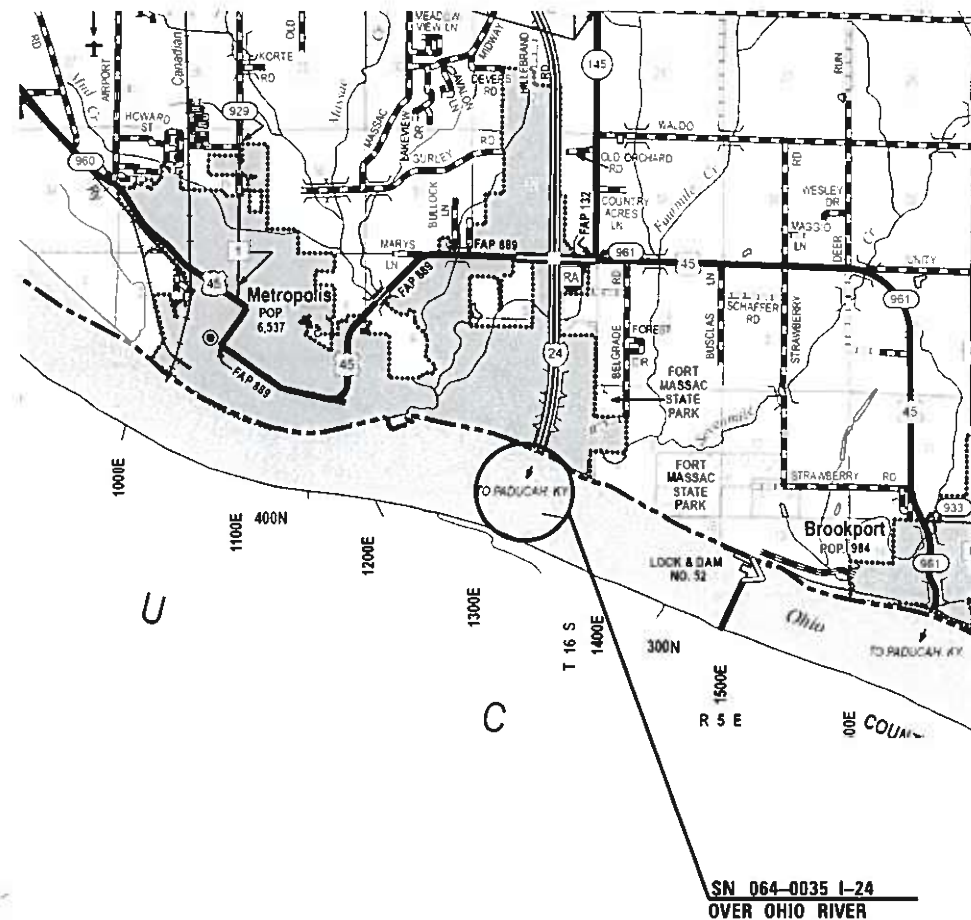
SECTION 8, TOWNSHIP 16S, RANGE 8E

DESIGN DESIGNATION : N/A  
COORDINATE SYSTEM : ILLINOIS COORDINATE SYSTEM, EAST ZONE  
POSTED SPEED : 70 MPH

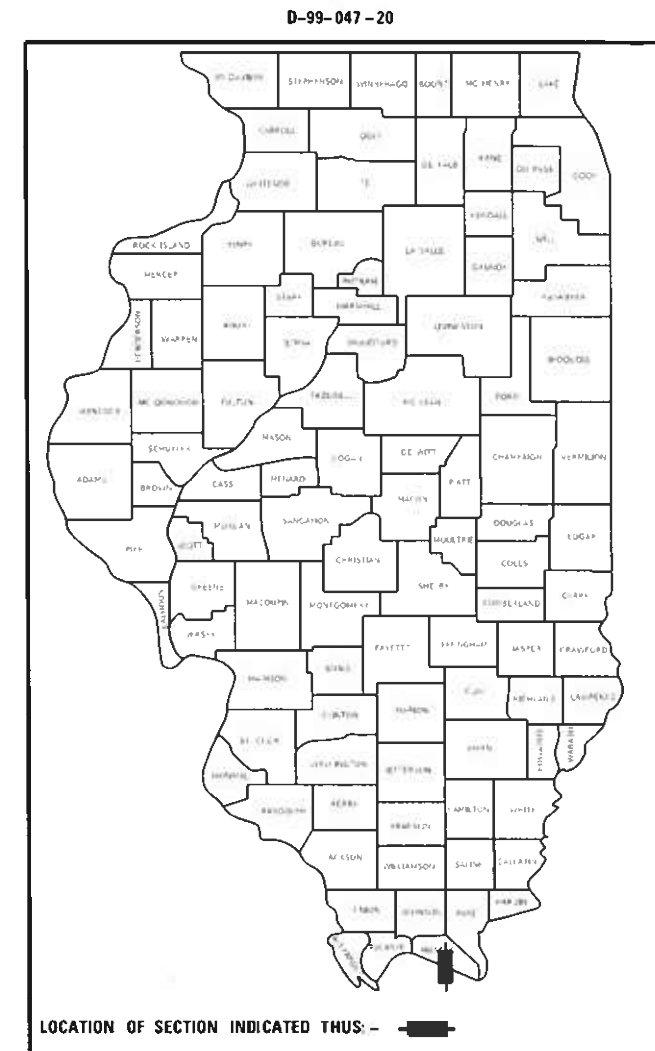
J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123  
OR 811

PROJECT ENGINEER: DAVID PICHE  
PROJECT DESIGNER: AUSTIN HENK

CONTRACT NO. 78796



GROSS LENGTH = 6085 FT. = 1.2 MILES  
NET LENGTH = 6085 FT. = 1.2 MILES



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED 06-23-2020  
KRD  
REGION FIVE ENGINEER

June 26, 2020  
[Signature]  
ENGINEER OF DESIGN AND ENVIRONMENT

June 26, 2020  
[Signature]  
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION 13

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

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Prepared By: Charles Steen  
 DISTRICT STUDIES & PLANS ENGINEER

Examined By: \_\_\_\_\_  
 DISTRICT LAND ACQUISITION ENGINEER

Examined By: Carrie Nelson  
 DISTRICT PROGRAM DEVELOPMENT ENGINEER

Examined By: Kevin Kelly  
 DISTRICT OPERATIONS ENGINEER

Examined By: K.P. Os  
 DISTRICT PROJECT IMPLEMENTATION ENGINEER

Examined By: David Merrill  
 DISTRICT CONSTRUCTION ENGINEER

Examined By: [Signature]  
 DISTRICT MATERIALS ENGINEER

USER NAME = netaas	DESIGNED - _____	REVISED - _____	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SIGNATURES</b>		F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
PLOT SCALE = 100 00/16' = 1/4"	DRAWN - _____	REVISED - _____				24	09 BRIDGE DECK REPAIR 2020-2	MASSAC	10	2	
PLOT DATE = 4/21/2020	CHECKED - _____	REVISED - _____		SCALE _____	SHEET _____ OF _____ SHEETS	STA _____	TO STA _____	ILLINOIS FED. AID PROJECT CONTRACT NO. 78796			
DATE - _____	REVISI - _____	REVISI - _____									

**INDEX OF SHEETS**

1	COVER SHEET
2	SIGNATURES
3	GENERAL NOTES, INDEX OF SHEETS, AND STANDARDS
4-5	SUMMARY OF QUANTITIES
6	GENERAL PLAN AND ELEVATION
7	STAGING DETAILS
8-9	DECK REPAIRS
10	WIDE LOAD SIGNING PLAN

**GENERAL NOTES**

FACTORS USED FOR ESTIMATING PLAN QUANTITIES ARE AS FOLLOWS AND SHALL NOT BE USED FOR THE BASIS OF FINAL QUANTITIES:  
 ALL HOT MIX ASPHALT 2.016 TONS/CU YD

RAISED REFLECTIVE PAVEMENT MARKERS LOCATED IN PROPOSED PATCHES SHALL BE REMOVED AND REINSTALLED. COST TO BE INCLUDED WITH THE HMA SURFACE REMOVAL (DECK).

COMMITMENTS: KENTUCKY TRANSPORTATION CABINET CONTACT REQUIREMENT - SEE SPECIAL PROVISIONS

**STANDARDS**

000001-07	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
701101-05	OFF-ROAD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
701400-09	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701401-12	LANE CLOSURE, FREEWAY/EXPRESSWAY
701428-01	TRAFFIC CONTROL SETUP AND REMOVAL FREEWAY/EXPRESSWAY
701901-08	TRAFFIC CONTROL DEVICES

Locations	Hot-Mix Asphalt Surface Course
Mixture Use(s):	Polymerized Stone Matrix Asphalt, Surface, Mix E, N80
AB/PG:	SBS PG76-22
ABR % (Max):	See Special Provision
Design Air Voids:	4.0 %, 80 Gyration Design
Mixture Composition: (Gradation Mixture)	IL-9.5mm SMA
Friction Aggregate:	SMA Mix E
Mixture Weight:	112 lbs/Sq Yd/in
Quality Management Program:	QCQA
Sublot Size:	NA

REV. - MS

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DRAWN - _____	REVISOR - _____	24			D9 BRIDGE DECK REPAIR 2020-2	MASSAC	10	3	
PLOT SCALE = 100.0000' / in.	CHECKED - _____	REVISIONS - _____			CONTRACT NO. 78796				
PLOT DATE = 4/28/2020	DATE - _____	REVISIONS - _____			ILLINOIS FED. AID PROJECT				
					SCALE:	SHEET	OF	SHEETS	STA. TO STA.

# SUMMARY OF QUANTITIES

COUNTY:	COUNTY:	MASSAC	McCRACKEN
ROUTE:	ROUTE:	FAI 24	FAI 24
FUNDING:	FUNDING:	90% FED / 10% STATE	100% KENTUCKY
LOCATION:	LOCATION:	RURAL	RURAL
	TOTAL QUANTITY	SN 064-0035 0013	SN 064-0035 0013

CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	MASSAC	McCRACKEN
40605024	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, 9.5, MIX "E", N80	TON	283	141.5	141.5
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	2	1	1
67100100	MOBILIZATION	L SUM	1	0.5	0.5
70100800	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	L SUM	1	0.5	0.5
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	20	10	10
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	104	52	52
70200100	NIGHTTIME WORK ZONE LIGHTING	L SUM	1	0.5	0.5
70300100	SHORT TERM PAVEMENT MARKING	FOOT	1,130	565	565
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	25,360	12,680	12,680
X0327979	PAVEMENT MARKING REMOVAL - GRINDING	SQ FT	8,460	4,230	4,230
Z0001800	APPROACH SLAB REPAIR (PARTIAL DEPTH)	SQ YD	3	1.5	1.5
Z0004556	HOT-MIX ASPHALT SURFACE REMOVAL (DECK)	SQ YD	2,470	1,235	1,235

\* SPECIALTY ITEM

REV. - MS

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PLOT DATE = 4/28/2020	CHECKED -	REVISED -		CONTRACT NO. 78796										
	DATE -	REVISED -		ILLINOIS FED. AID PROJECT										

# SUMMARY OF QUANTITIES - CONT

COUNTY:	COUNTY:	MASSAC	McCRACKEN
ROUTE:	ROUTE:	FAI 24	FAI 24
FUNDING:	FUNDING:	90% FED / 10% STATE	100% KENTUCKY
LOCATION:	LOCATION:	RURAL	RURAL

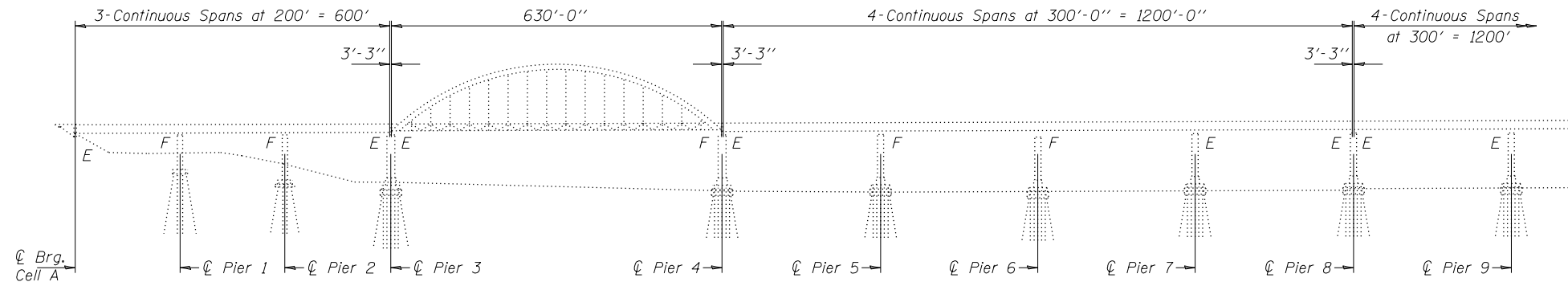
CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	SN 064-0035	SN 064-0035
				0013	0013
Z0016200	DECK SLAB REPAIR (PARTIAL)	SQ YD	47	23.5	23.5

REV. - MS

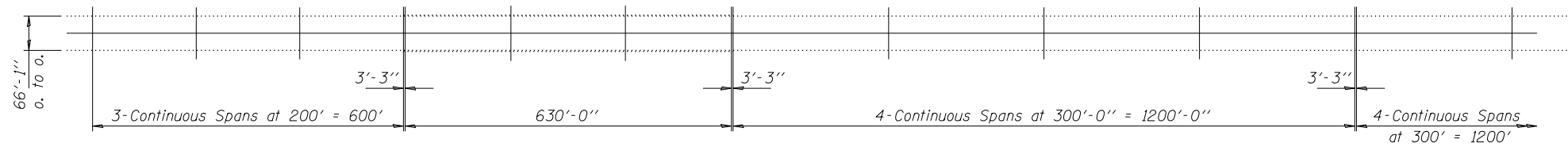
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PLOT DATE = 4/28/2020	DATE -	REVISED -		ILLINOIS FED. AID PROJECT								

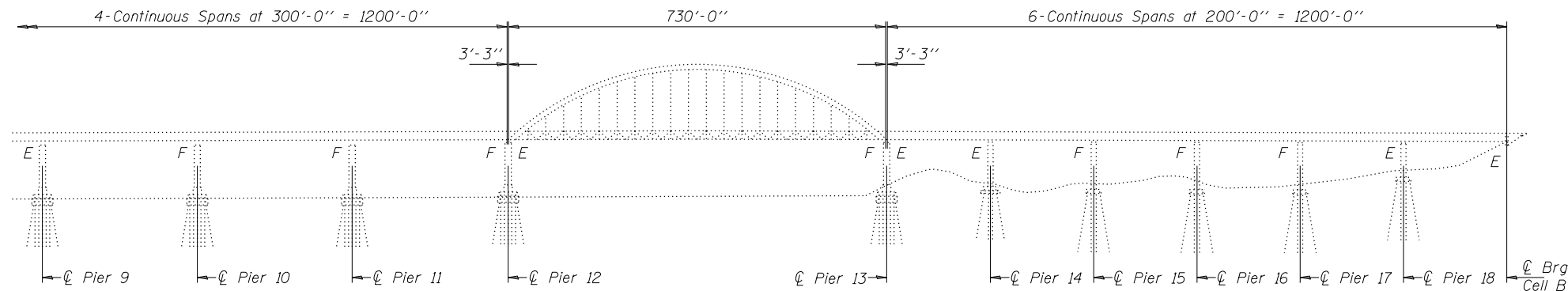
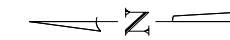
**GENERAL NOTES**



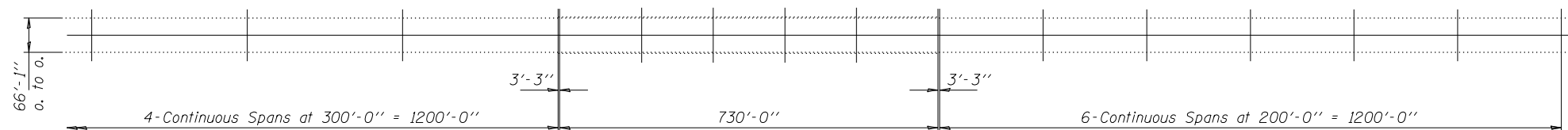
**PARTIAL ELEVATION - 1**



**PARTIAL PLAN - 1**



**PARTIAL ELEVATION - 2**



**PARTIAL PLAN - 2**



Expires 11-30-2020

*David Carl Puze*

6/25/2020

**TOTAL BILL OF MATERIAL**

Item	Unit	Total
P SC SMA 9.5 E N80	Ton	283
HMA Surface Removal (Deck)	Sq. Yd.	2470
Deck Slab Repair (Partial Depth)	Sq. Yd.	47
Short Term Pavement Marking	Foot	1130
Thermoplastic Pavement Markings - Line 4"	Foot	25360
Pavement Marking Removal - Grinding	Sq. Ft.	8460
Approach Slab Repair (Partial Depth)	Sq. Yd.	3

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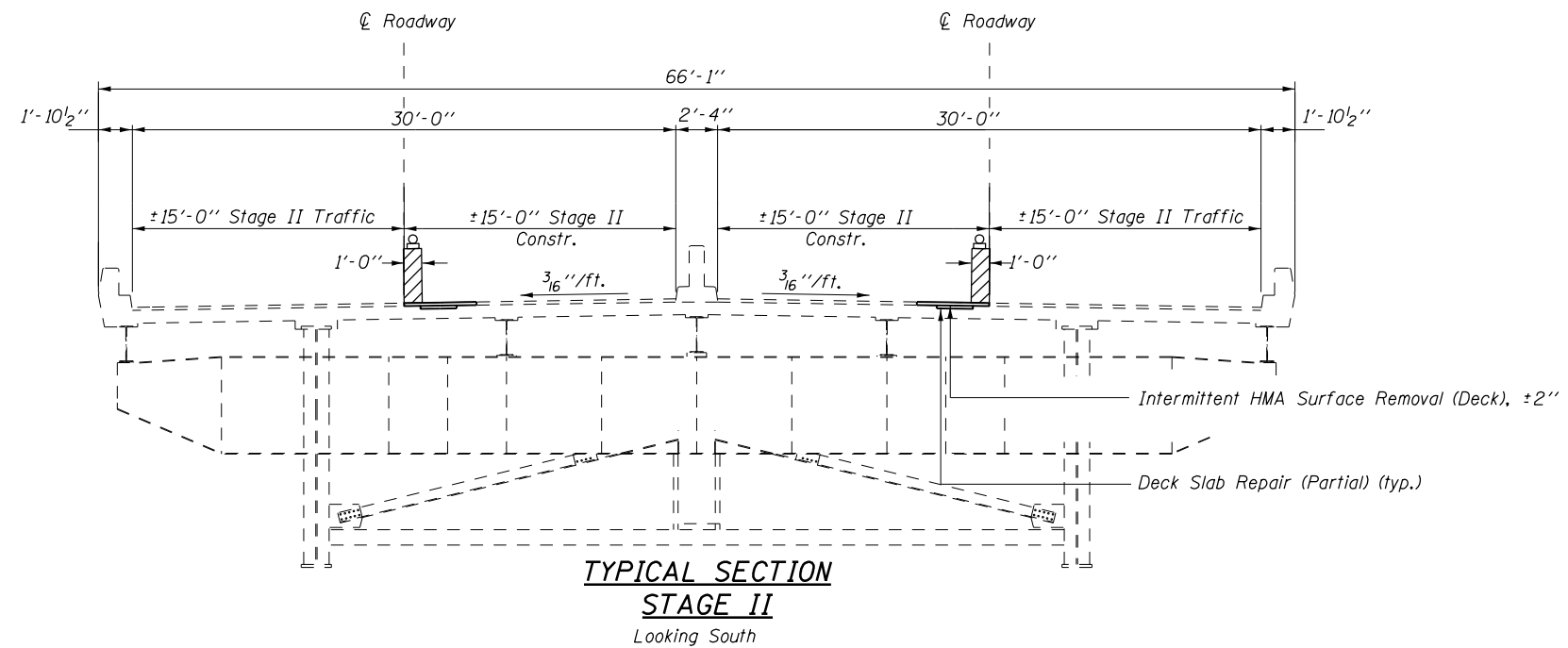
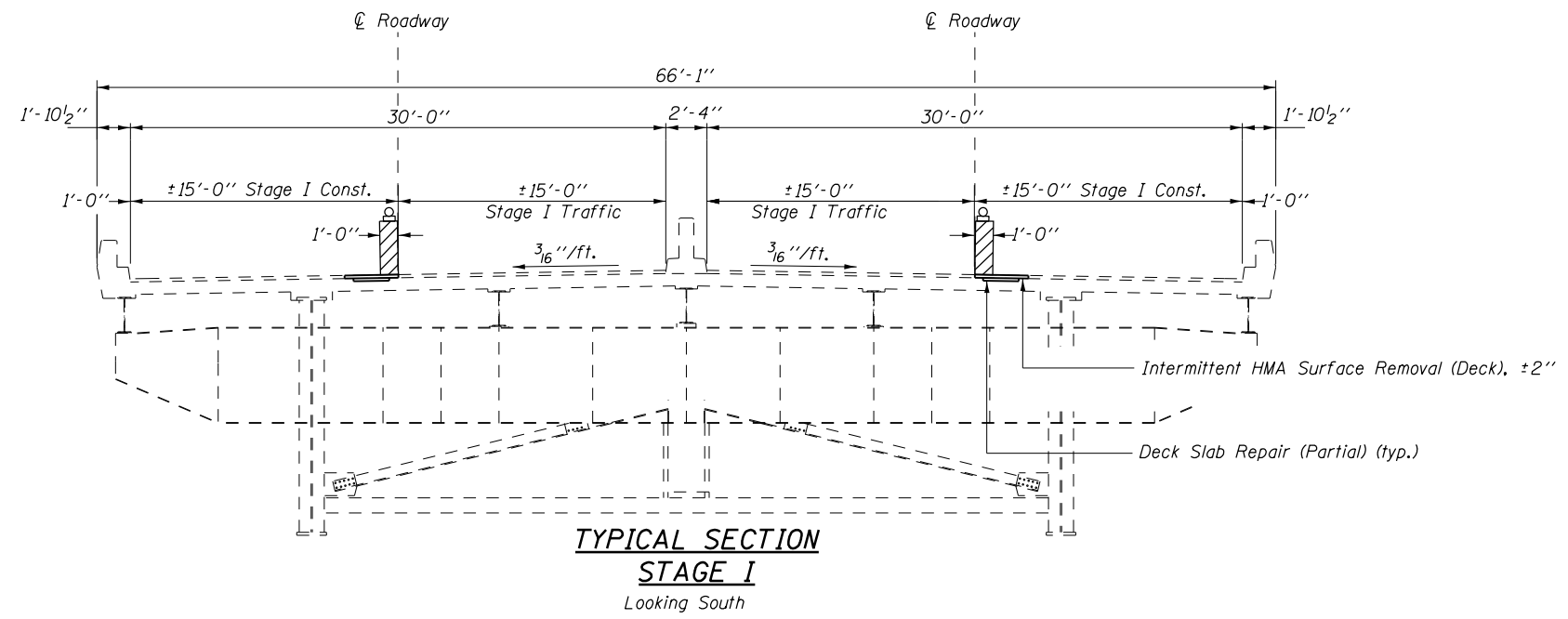
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN & ELEVATION**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	D9 BRIDGE DECK REPAIR 2020-2	MASSAC	10	6
ILLINOIS FED. AID PROJECT			CONTRACT NO. 78796	



Note: Barricades shall be moved to provide at least a 16' lane when workers and equipment are not allowed in the work zone.

STAGING DETAILS  
 BRIDGE DECK REPAIR 2020-2  
 FAI RT 24 OVER OHIO RIVER  
 MASSAC COUNTY  
 SN 064-0035

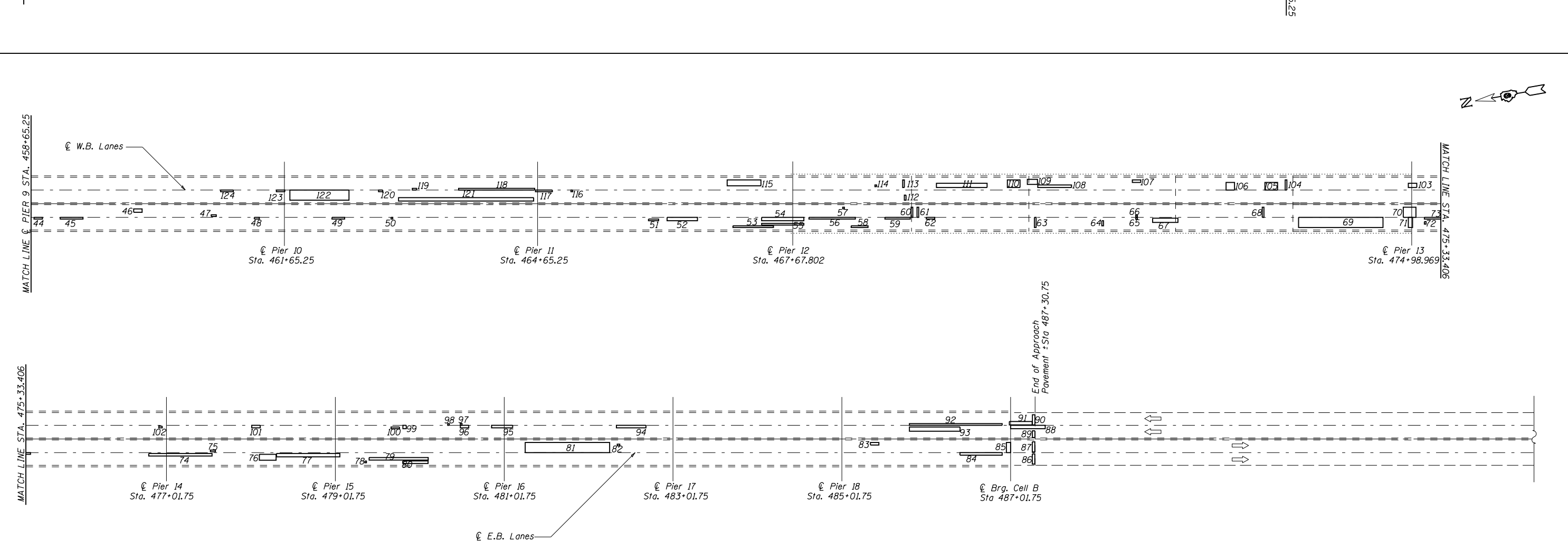
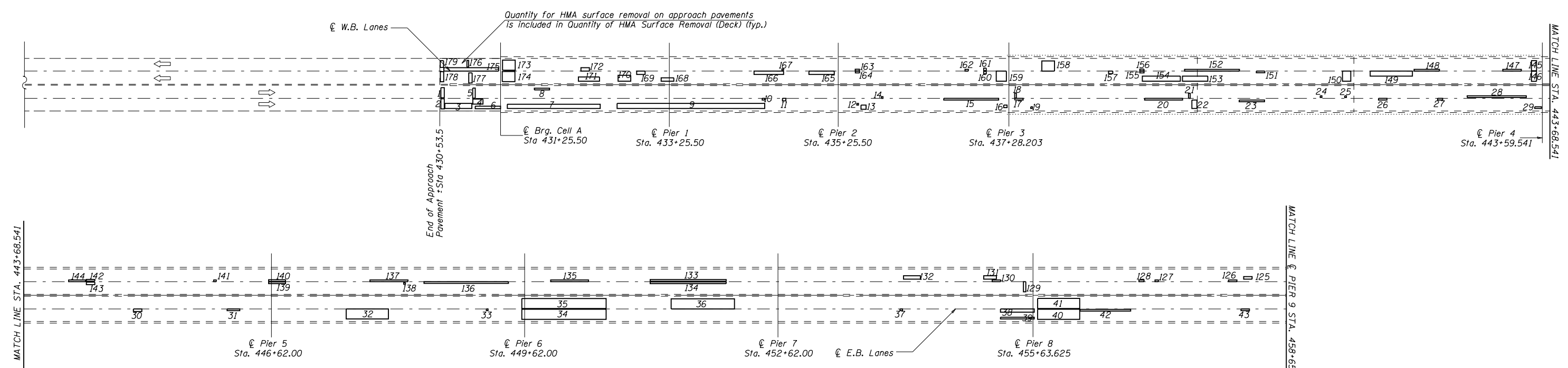
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PLOT DATE = 6/1/2020	DATE -	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SCALE:		SHEET	OF	SHEETS	STA.	TO	STA.
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	D9 BRIDGE DECK REPAIR 2020-2	MASSAC	10	7
ILLINOIS FED. AID PROJECT			CONTRACT NO. 78796	



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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DECK REPAIRS**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	D9 BRIDGE DECK REPAIR 2020-2	MASSAC	10	8
CONTRACT NO. 78796				
		ILLINOIS	FED. AID PROJECT	

SCALE: SHEET OF SHEETS STA. TO STA.



East Bound HMA Surface Removal				East Bound HMA Surface Removal Continued			
Patch Number	Length (ft)	Width (ft)	Area (sq. yd.)	Patch Number	Length (ft)	Width (ft)	Area (sq. yd.)
1	4	12	5.3	46	10	4	4.4
2	4	12	5.3	47	6	2	1.3
3	32	6	21.3	48	6	2	1.3
4	6	12	8.0	49	15	2	3.3
5	3	12	4.0	50	2	2	0.4
6	30	3	10.0	51	12	2	2.7
7	110	5	61.1	52	36	4	16.0
8	18	2	4.0	53	48	2	10.7
9	175	6	116.7	54	50	4	22.2
10	3	2	0.7	55	50	2	11.1
11	4	3	1.3	56	55	2	12.2
12	2	2	0.4	57	2	2	0.4
13	6	5	3.3	58	20	2	4.4
14	2	2	0.4	59	30	2	6.7
15	65	2	14.4	60	2	12	2.7
16	4	3	1.3	61	2	12	2.7
17	10	2	2.2	62	10	2	2.2
18	2	6	1.3	63	2	12	2.7
19	2	2	0.4	64	2	6	1.3
20	45	2	10.0	65	2	2	0.4
21	2	6	1.3	66	2	2	0.4
22	6	10	6.7	67	30	5	16.7
23	30	2	6.7	68	2	12	2.7
24	2	2	0.4	69	100	12	133.3
25	2	2	0.4	70	15	12	20.0
26	10	2	2.2	71	5	12	6.7
27	6	2	1.3	72	2	3	0.7
28	70	2	15.6	73	25	2	5.6
29	8	2	1.8	74	75	3	25.0
30	10	3	3.3	75	6	2	1.3
31	15	2	3.3	76	20	7	15.6
32	50	12	66.7	77	75	4	33.3
33	2	2	0.4	78	2	2	0.4
34	100	12	133.3	79	70	3	23.3
35	100	12	133.3	80	30	3	10.0
36	75	12	100.0	81	100	12	133.3
37	3	2	0.7	82	3	2	0.7
38	40	4	17.8	83	10	3	3.3
39	40	2	8.9	84	50	3	16.7
40	50	12	66.7	85	5	12	6.7
41	50	12	66.7	86	3	12	4.0
42	60	2	13.3	87	3	12	4.0
43	10	2	2.2	East Bound Total			1506.1
44	10	2	2.2				
45	27	2	6.0				

West Bound HMA Surface Removal				West Bound HMA Surface Removal Continued			
Patch Number	Length (ft)	Width (ft)	Area (sq. yd.)	Patch Number	Length (ft)	Width (ft)	Area (sq. yd.)
88	41	4	18.2	136	100	2	22.2
89	3	8	2.7	137	45	2	10.0
90	3	12	4.0	138	2	2	0.4
91	27	4	12.0	139	20	2	4.4
92	110	2	24.4	140	20	2	4.4
93	60	5	33.3	141	3	2	0.7
94	35	3	11.7	142	10	2	2.2
95	25	3	8.3	143	10	3	3.3
96	10	3	3.3	144	20	2	4.4
97	2	2	0.4	145	6	12	8.0
98	2	2	0.4	146	6	12	8.0
99	4	4	1.8	147	22	2	4.9
100	10	2	2.2	148	30	2	6.7
101	10	3	3.3	149	50	6	33.3
102	4	2	0.9	150	10	12	13.3
103	10	5	5.6	151	10	2	2.2
104	2	12	2.7	152	65	2	14.4
105	15	9	15.0	153	30	6	20.0
106	10	9	10.0	154	45	6	30.0
107	10	3	3.3	155	5	2	1.1
108	40	4	17.8	156	5	2	1.1
109	12	6	8.0	157	5	3	1.7
110	15	9	15.0	158	15	12	20.0
111	60	5	33.3	159	12	12	16.0
112	12	16	21.3	160	3	3	1.0
113	2	9	2.0	161	3	3	1.0
114	2	2	0.4	162	4	2	0.9
115	40	7	31.1	163	5	2	1.1
116	2	2	0.4	164	5	2	1.1
117	20	2	4.4	165	30	4	13.3
118	90	2	20.0	166	35	4	15.6
119	5	2	1.1	167	2	2	0.4
120	5	2	1.1	168	15	4	6.7
121	160	4	71.1	169	10	4	4.4
122	70	12	93.3	170	17	7	13.2
123	10	2	2.2	171	25	5	13.9
124	15	2	3.3	172	10	4	4.4
125	10	3	3.3	173	15	12	20.0
126	10	2	2.2	174	15	12	20.0
127	4	2	0.9	175	65	4	28.9
128	6	2	1.3	176	2	8	1.8
129	3	12	4.0	177	4	12	5.3
130	10	2	2.2	178	4	12	5.3
131	15	4	6.7	179	4	8	3.6
132	20	4	8.9	West Bound Total			964.3
133	90	2	20.0				
134	90	2	20.0				
135	45	2	10.0				

Note: Area of HMA Surface Removal and Deck Slab Repair (Partial) is estimated based on a visual deck survey performed on December 10, 2019.

The Resident Engineer will determine final repair locations and quantities in the field before operations begin and mark on as-built plans.

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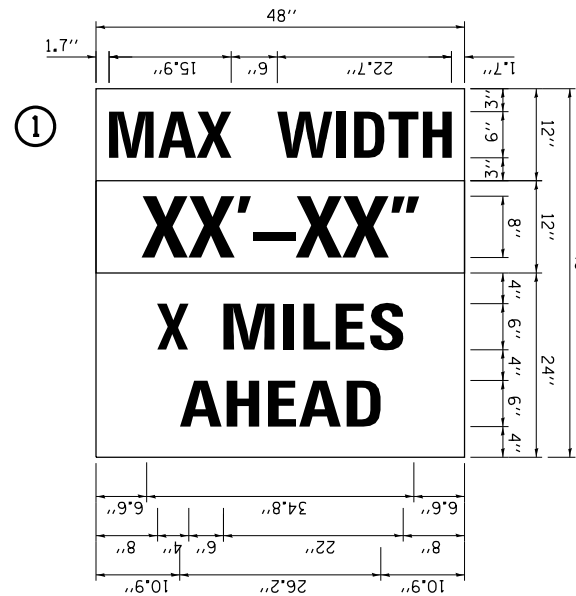
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PLOT DATE = 4/28/2020	DATE - _____	REVISED - _____

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>DECK REPAIRS</b>	
SCALE:	SHEET OF SHEETS STA. TO STA.

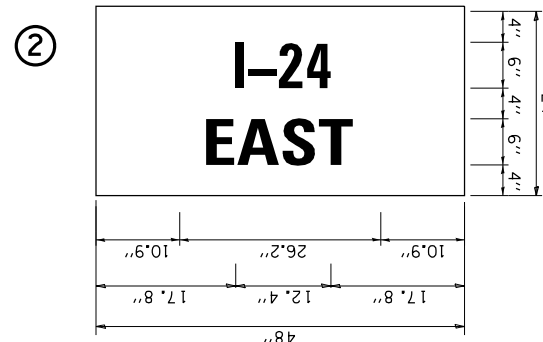
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	D9 BRIDGE DECK REPAIR 2020-2	MASSAC	10	9
CONTRACT NO. 78796				
ILLINOIS FED. AID PROJECT				

**SIGN LEGEND**

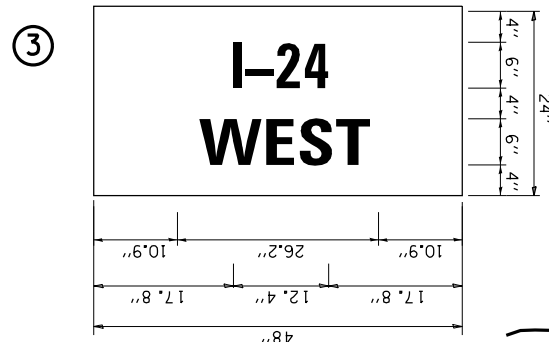


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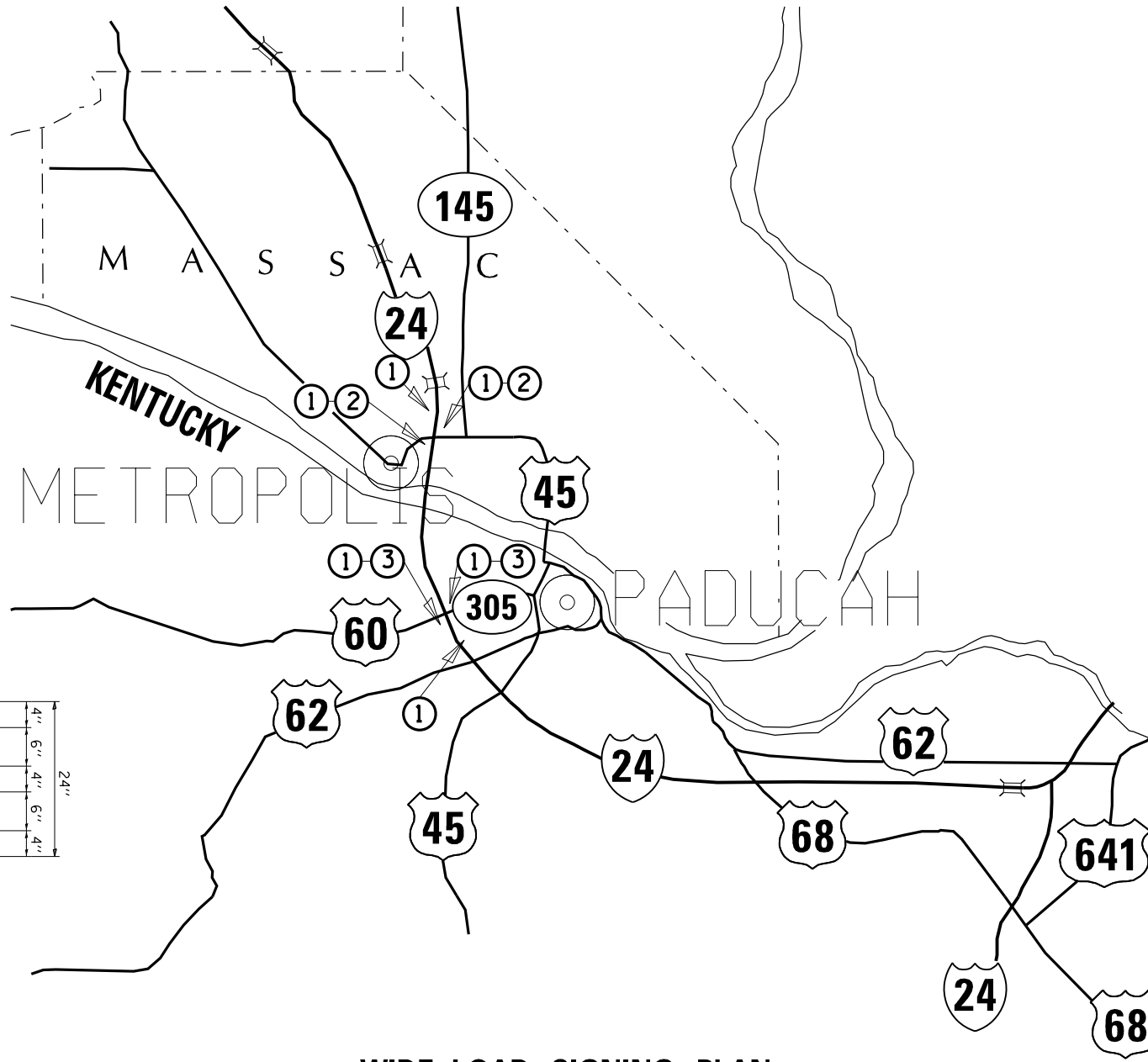
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NO BORDER, BLACK ON WHITE;  
 "I-24" D;  
 NO BORDER, BLACK ON WHITE;  
 "EAST" D



NO BORDER, BLACK ON WHITE;  
 "I-24" D;  
 NO BORDER, BLACK ON WHITE;  
 "WEST" D



**WIDE LOAD SIGNING PLAN**

**DETOUR NOTES:**

- THE CONTRACTOR SHALL FURNISH THE POSTS AND ERECT THE SIGNS AT THE LOCATIONS AS DIRECTED BY THE ENGINEER. ALL SIGNS SHALL BE POST MOUNTED.
- THE ABOVE NOTED WORK, INCLUDING SIGNS, POSTS, HARDWARE AND LABOR SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE, LUMP SUM, FOR TRAFFIC CONTROL AND PROTECTION, STANDARD 701401 AND NO OTHER COMPENSATION WILL BE ALLOWED.
- THE WIDTH SHOWN ON THE W12-1103 SIGN SHALL BE 13'-6" FOR STAGE I AND STAGE II AS DIRECTED BY THE ENGINEER. THE "X" MILES AHEAD WILL BE DETERMINED BY THE ENGINEER.

FILE NAME =	USER NAME = henkas	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>WIDE LOAD SIGNING PLAN</b>				F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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